

Phactum

“When the people find they can vote themselves money, that will herald the end of the republic.”

~ Benjamin Franklin,
(1706 - 1790)

The Newsletter and Propaganda Organ of the
Philadelphia Association for Critical Thinking
October 2012

editor: Ray Haupt email: phactpublicity@aol.com
Webmaster: Wes Powers <http://phact.org/>

PhACT Meeting - Saturday, October 20, 2012

at Community College of Philadelphia in Lecture Room C2-28 in the Center for Business and Industry
at the corner of 18th and Callowhill Streets. At 2:00 PM.

Parking is available from 12:30 to 6:00 PM in the surface parking lot on 17th Street.
All are Welcome. This event is Free and Open to the Public. Handicapped accessible.

Dr. David Cattell, Chairman of the Physics Department of Philadelphia Community College, will host Michael D. Gordin, a Professor in the History Department and Director, Program in Russian and Eurasian Studies at Princeton University



Immanuel Velikovsky
(1895 - 1979)

Professor Gordin will speak on his book

The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe

Immanuel Velikovsky was once a household name; now, he is almost completely forgotten. In April 1950, this obscure émigré psychiatrist published a book under the sensational title *Worlds in Collision*, which set out to revolutionize humanity's understanding of both science and ancient history. Velikovsky undertook this task by using the literary heritage of humanity — myths, legends, ancient artifacts — to argue that Earth was subject to repeated near collisions with comets and neighboring planets, and that the catastrophes recorded in Exodus, the Hindu Vedas, and Scandinavian lore were in fact real, attested to by the eyewitnesses of the past and dressed up in figurative language. The book sold like wildfire, certain scientists (especially astronomers) objected to what they perceived as rank pseudoscience, and the book sold even better than before, becoming the publishing sensation of the 1950s. This talk follows the career

(Continued on page 2)

“I worry that, especially as the Millennium edges nearer, pseudo-science and superstition will seem year by year more tempting, the siren song of unreason more sonorous and attractive. Where have we heard it before? Whenever our ethnic or national prejudices are aroused, in times of scarcity, during challenges to national self-esteem or nerve, when we agonize about our diminished cosmic place and purpose, or when fanaticism is bubbling up around us-then, habits of thought familiar from ages past reach for the controls. The candle flame gutters. Its little pool of light trembles. Darkness gathers. The demons begin to stir.”

~ Carl Sagan (1934 - 1996)

of Velikovsky from his surprising entry into public discourse through his tumultuous career as one of the grand old men of the American scientific fringe, interacting with almost every outcast doctrine from UFOlogy to creationism, adored by the 1970s counterculture and vilified by icons like Carl Sagan. What can the history of such vitriolic episodes about the boundary between science and pseudoscience can tell us about the place of science in American culture, both then and now?

Michael Gordin specializes in the history of the modern physical sciences and Russian history, and currently serves as the director of the Fung Global Fellows Program. He came to Princeton in 2003 after earning his A.B. (1996) and his Ph.D. (2001) from Harvard University, and serving a term at the Harvard Society of Fellows. He has published articles on a variety of topics, such as the introduction of science into Russia in the early 18th century, the history of biological warfare in the late Soviet period, the relations between Russian literature and science, as well as a series of studies on the life and chemistry of Dmitrii I. Mendeleev, formulator of the periodic system of chemical elements. His first book is a cultural history of Mendeleev in the context of Imperial St. Petersburg, *A Well-Ordered Thing: Dmitrii Mendeleev and the Shadow of the Periodic Table* (Basic Books, 2004). He has also worked extensively in the early history of nuclear weapons, and is the author of *Five Days in August: How World War II Became a Nuclear War* (Princeton, 2007), a history of the atomic bombings of Japan during World War II, an international history of nuclear intelligence, *Red Cloud at Dawn: Truman, Stalin, and the End of the Atomic Monopoly* (FSG, 2009), and a history of the controversies surrounding the boundary between science and

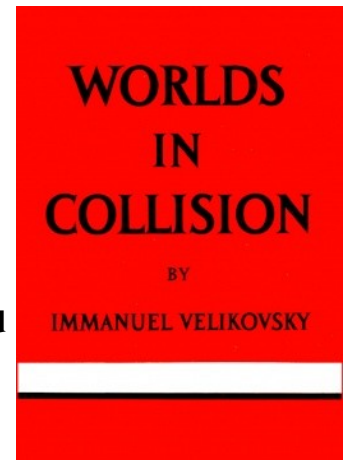
pseudoscience focusing on the career of Immanuel Velikovsky, *The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe* (University of Chicago Press, forthcoming 2012). He has also co-edited the four-volume *Routledge History of the Modern Physical Sciences* (2001), with Peter Galison and David Kaiser, *Intelligentsia Science: The Russian Century, 1860-1960* (2008), with Karl Hall and Alexei Kojevnikov, and *Utopia/Dystopia: Conditions of Historical Possibility* (Princeton, 2010), with Helen Tilley and Gyan Prakash. In 2011 he was awarded a National Endowment for the Humanities Fellowship, and was named a Guggenheim Fellow.

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Worlds in Collision By Immanuel Velikovsky

Published by Macmillan
April 3, 1950 ISBN n/a

Published by Doubleday and
Company May 3, 1950
ISBN 0385-04541-7



Worlds in Collision was the first book written by Immanuel Velikovsky. It was published on April 3, 1950, by Macmillan Publishers. The book was a New York Times bestseller and was in the top ten twenty-seven straight weeks. Despite popularity with the general public the scientific community was strenuously critical and Macmillan transferred it to Doubleday in less than two months.

In the preface to *Worlds in Collision*, Velikovsky states:
"Worlds in Collision is a book of wars in the celestial sphere that took place in historical times. In these wars the planet earth participated too. [...] The historical-cosmological story of this book is based in the evidence of historical texts of many people around the globe, on classical literature, on epics of the northern races, on sacred books of the peoples of the Orient and Occident, on traditions and folklore of primitive peoples, on old astronomical inscriptions and charts, on archaeological finds, and also on geological and paleontological material."

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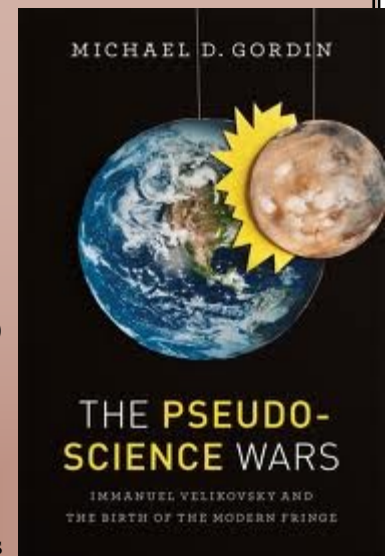
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The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe

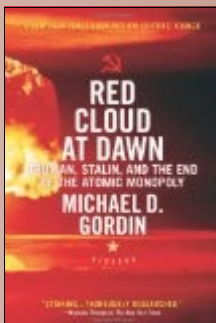
By Michael D. Gordin

Hardcover: 304 pages University Of Chicago Press (September 26, 2012)
ISBN-10: 0226304426 ISBN-13: 978-0226304427

Properly analyzed, the collective mythological and religious writings of humanity reveal that around 1500 BC, a comet swept perilously close to Earth, triggering widespread natural disasters and threatening the destruction of all life before settling into solar orbit as Venus, our nearest planetary neighbor. Sound implausible? Well, from 1950 until the late 1970s, a huge number of people begged to differ, as they devoured Immanuel Velikovsky's major best-seller, *Worlds in Collision*, insisting that perhaps this polymathic thinker held the key to a new science and a new history. Scientists, on the other hand, assaulted Velikovsky's book, his followers, and his press mercilessly from the get-go. In *The Pseudoscience Wars*, Michael D. Gordin resurrects the largely forgotten figure of Velikovsky and uses his strange career and surprisingly influential writings to explore the changing definitions of the line that separates legitimate scientific inquiry from what is deemed bunk, and to show how vital this question remains to us today. Drawing on a wealth of previously unpublished material from Velikovsky's personal archives, Gordin presents a behind-the-scenes history of the writer's career, from his initial burst of success through his growing influence on the counterculture, heated public battles with such luminaries as Carl Sagan, and eventual eclipse. Along the way, he offers fascinating glimpses into the histories and effects of other fringe doctrines, including creationism, Lysenkoism, parapsychology, and more—all of which have surprising connections to Velikovsky's theories. Science today is hardly universally secure, and scientists seem themselves beset by critics, denialists, and those they label "pseudoscientists"—as seen all too clearly in battles over evolution and climate change. *The Pseudoscience Wars* simultaneously reveals the surprising Cold War roots of our contemporary dilemma and points readers to a different approach to drawing the line between knowledge and nonsense.



Other books by Michael Gordin



Red Cloud at Dawn: Truman, Stalin, and the End of the Atomic Monopoly



A Well-ordered Thing: Dmitrii Mendeleev And The Shadow Of The Periodic Table



Five Days in August: How World War II Became a Nuclear War



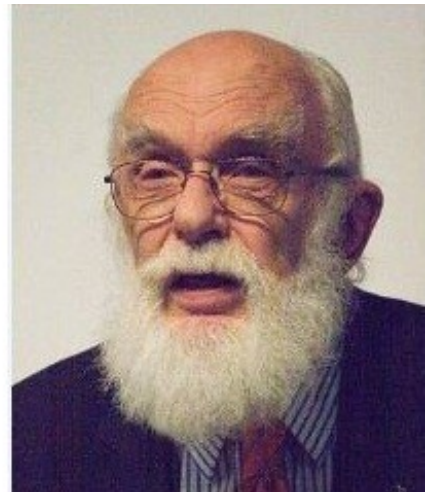
Utopia/Dystopia: Conditions of Historical Possibility



has big plans for the



James
"The Amazing"
Randi



Our plan is to have him speak at the 2013 Philadelphia Science Festival. We have a goal of \$7000.00 to meet all expenses and we are over halfway there. We need pledges and donations by our cut off date which is the November 17 PhACT meeting. We will announce it then whether we made it or not. Date and location for the Randi lecture are pending.

Please contact us as soon as possible if you can help us meet our goal. Phone us at 215-885-2089 or contact Bob Glickman at r.glickman99@comcast.net

Dreary Organizational Business Details Small Organizations Must at Times Endure ~ By-Laws Changes

The PhACT Council has proposed amendments to our By-laws in order to streamline the management of the organization. These will be voted upon at the November 17 meeting at 1:30 pm.

They are as follows:

Article I: Membership

Section 2. Removed "Life membership option" and the sentence: "Dues for Life members shall be paid in not more than two installments over not more than one year."

Section 3. Removed entire section: "Each member shall have the right to cast one vote at the annual meeting and at any regular or special meeting of members on any motion that may be properly brought before such meeting, including the election of Council. Family membership shall afford two votes to family members providing that the two people are both present to vote."

Section 4. renamed "Section 3"

Article II: Meetings

Section 4. Removed sentence: "Such notice is given when deposited with an established mail carrier, with postage

thereon prepaid, and directed to the member at his or her address as it appears on the record of members."

Section 5. "Not less than 5 paid-up members shall constitute a quorum at any annual, monthly, or special meeting of the membership of the Association." The word "monthly" is removed.

Article III: The Council

Section 4. Removed entire section: "The last previous President of the Association shall be a member of the Council for a term of one year."

Section 5. "One-third of the total Council membership including at least one officer shall constitute a quorum for the transaction of all Council business at all regular or special Council meetings. All members of the Council shall have one equal vote." The phrase, "including at least one officer," was added.

Section 7. "There shall be at least two regular meetings of the Council in each administrative year. The dates for the regular meetings shall be determined by the Council."

Removed last phrase: "at its first regular meeting following the annual meeting of members."

Section 5 renamed Section 4.

Section 6 renamed Section 5.

Section 7 renamed Section 6.

Article IV: Officers

Section 2. "The Officers of the Association shall be a President, Vice President, Secretary and a Treasurer and such other Officers as may be determined by the Council. The administrative year shall be from June 1 to May 31." Vice President was added to Officers.

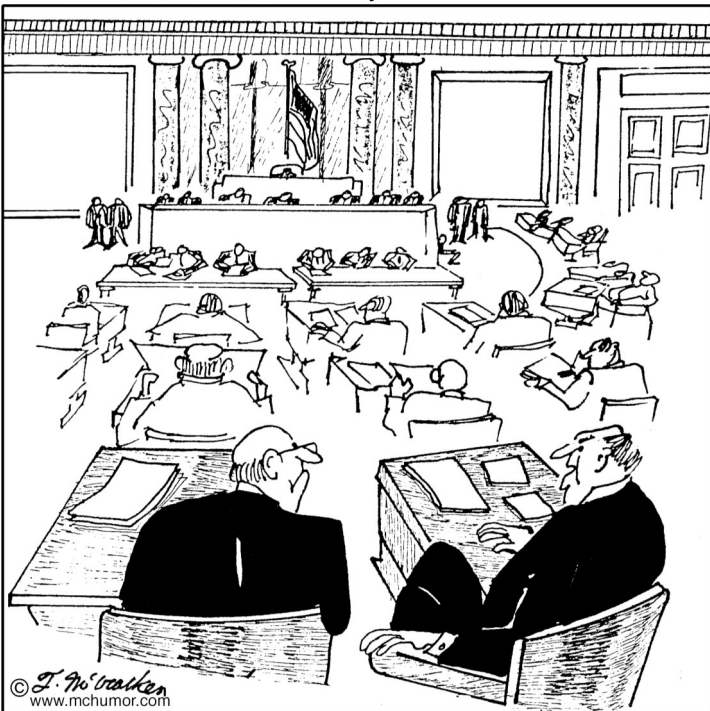
Section 3. "The Officers shall serve for one year terms, or until their successors are elected" was changed to "The Officers shall serve until their successors are elected."

Section 4. "The Officers shall be elected for their respective terms by a plurality of the voting members of the Council present or casting absentee ballots at the meeting." The phrase, "for their respective terms," was removed.

Section 5. "In the case of a vacancy occurring among the Officers before the end of the term, the office shall be filled by election by the Council for the balance of the term by simple majority" was changed to "In the case of a vacancy occurring among the Officers, the office shall be filled by election by the Council."

Section 6. The sentence, "When the President cannot be present the Secretary or Treasurer may call the meeting to order so Council can choose someone to preside over the meeting" as changed to "When neither the President nor the Vice President can be present the Secretary or Treasurer may

MCHUMOR.com by T. McCracken



"Now that we've agreed on the loopholes, should we start drafting the amendment?"

call the meeting to order.”

Section 7. The new Section 7 reads: “The Vice President shall preside at all annual, regular and special meetings of the Association and the Council in the absence of the president.”

The old Section 7 is now Section 8.

Section 8 was changed to Section 9.

Article V: Nominating Committee

Section 1. “The Council shall annually appoint a Nominating Committee, to consist of three members, all in good standing, of PhACT. The names of the Nominating Committee shall be made known to the members through the Association's newsletter” was changed to “The Council shall periodically appoint a Nominating Committee, to consist of at least three members, all in good standing, of PhACT.”

Article VI: Committees

Section 1. (a) “The President, with the approval of the Council, shall annually appoint people to Chair the Committees. Terms of office shall be for one year. Appointments

made during the year will conclude at the end of the President's term” was changed to “The President, with the approval of the Council, shall appoint people to Chair the Committees which would be comprised of members in good standing and appointed by the committee chair.”

Section 1. (c) The sentence, “For example, a committee planning a major event may want to take responsibility for publicity rather than leave it to the Publicity Committee,” was removed.

Article VIII: Discontinuance

“Committee for the Scientific Investigation of Claims of the Paranormal” was changed to “Committee for Skeptical Inquiry.”

Here endeth Dreary Organizational Business Details

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Upcoming PhACT Meeting November 17, 2012

Science vs. Politics: A Post-Election Look at the Political Climate for Science

Recent years have seen growing concerns and accusations about “anti-science” tendencies in U.S. politics. Books and articles criticize political parties and ideological factions for hostility or ignorance regarding scientific evidence and institutions. Tensions between science and the right are evident over climate change, evolution and embryonic stem cell research, among other issues. Charges that Republicans and conservatives are broadly anti-science have brought countercharges that Democrats and the left are antithetical to science on issues including genetically modified foods, vaccines and nuclear energy.

Kenneth Silber, a political writer and columnist, will provide an opinionated analysis focused on such questions as: (1) Is one political side more anti-science? (2) How has the political climate for science evolved over time? (3) What's the outlook?

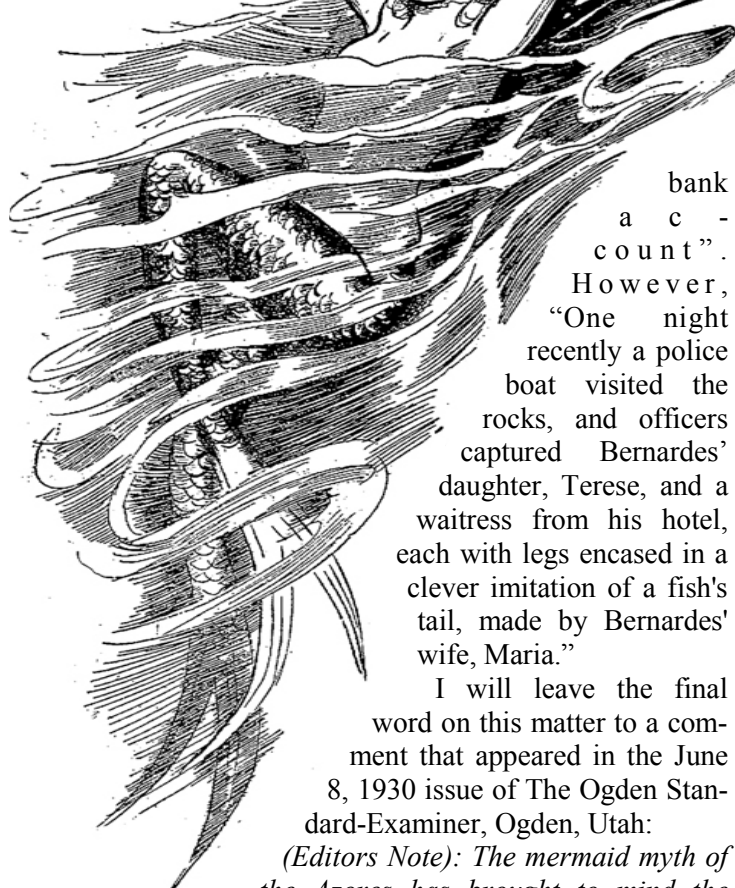
Silber is senior editor of *Research*, a magazine for financial advisors, where he writes a political column. His writing, often on science-related issues, has appeared in publications including *Skeptical Inquirer*, *Scientific American Mind*, *Mental Floss*, *Reason*, *Commentary*, the *Weekly Standard*, *ScientificAmerican.com*, *Space.com*, *DailyBeast.com* and *FrumForum.com*. Silber's blog is at quicksilber.blogspot.com

“In science it often happens that scientists say ‘you know, that’s a really good argument, my position is mistaken’ and then they would actually change their minds and you never hear the old view from them again. They really do it. It doesn’t happen as often as it should, because scientists are human and change is sometimes painful. But it happens. I cannot recall the last time something like that happened in politics or religion.”

~ Carl Sagan, 1987 CSICOP keynote address.

Letters to the Editor

Editor: In the August/September 2012 issue of Phactum, Ray Haupt noted in his Various Ruminations column that NOAA has declared that "No evidence of aquatic humanoids has ever been found". However, evidence that there are not mermaids was discovered in 1930. From an October 24, 1930 article in The Daily Northwestern, Oshkosh, Wisconsin, entitled Azores' Sea Beauty Caught we learn that "Papa" Bernardes, the owner of a tiny hotel in an obscure "seaside village" in the Azores, "reported seeing a mermaid on the rocks in the Atlantic not far from shore" five years ago and that later "there were two." Due to frequent appearances "tourists, including the rich and the scientific" came and the owner "had to enlarge his hotel and his



bank
a c -
count".

However, "One night recently a police boat visited the rocks, and officers captured Bernardes' daughter, Terese, and a waitress from his hotel, each with legs encased in a clever imitation of a fish's tail, made by Bernardes' wife, Maria."

I will leave the final word on this matter to a comment that appeared in the June 8, 1930 issue of The Ogden Standard-Examiner, Ogden, Utah:

(Editors Note): The mermaid myth of the Azores has brought to mind the similar hoaxes which from time to time

have been perpetrated by the hotel-keepers of various seaside resorts in this country. A few years ago it was not at all unusual to read or hear the report of a sea serpent seen off the coast of Long Island or New Jersey.

The following Sunday trains and roads would be filled with

curious people intent on seeing the sea serpent. Many of them would go to the hotels for their Sunday dinner and others would even stay overnight. But none of them ever saw a sea serpent. There was no sea serpent -- there never had been one. One thing, at least, can be said in



Suspicious of the Mermaid Story, the New Police Commissioner and One of His Lieutenants Went Out in a Motor Boat and Captured the Two Beautiful Creatures. They Were the Hotel Proprietor's Daughter and One of His Servants Garbed in Ingenious Mermaid Tails.

favor of Joao Bernardes. He may have perpetrated a preposterous hoax for five years but the people who visited his little hotel at least saw something, and if they were not mermaids, they were two of the world's best swimmers!

Don Nigroni
Glenolden, PA

Editor: I read about that goofy mermaid docu-farce in your Ruminations column, Aug./Sept. '12 issue. NOAA, the government organization which released a formal statement disclaiming supposed evidence of "aquatic humanoids," was sort of on the spot in the first place, because the TV show in question allegedly shows former NOAA employees spilling the beans on this fantastical cover-up story. "Mermaids: The Body Found" is truly one of the worst pseudoscience/conspiracy shows ever produced for TV (yes, I sat through it once).

Following the official NOAA statement declaring the "evidence" false, the producers once again ran the show on TV. In the ads leading up to the showing, the producers are now saying, "See the evidence the Government claims doesn't exist," and then they display the quote you printed. Hah! Let's feed the conspiracy theory frenzy with a little MORE jabber implying a further cover-up attempt!

You all really should watch this show at least ONCE, and I hope some of you record it for detailed debunking. The producers of such claptrap have actually gotten quite sophisticated at their art, and they've learned just how to imitate documentaries (here, for some reason, they give it all away by using a melodramatic musical soundtrack behind the

whole thing, feeding the mystery mood just as obviously as it gives away the falseness of the whole production). They make it all sound perfectly plausible, if you're willing to suspend disbelief in the face of glaring silliness; as we know, there are plenty true believers willing to swallow just this sort of thing. I don't think many producers could do better at deliberately SPOOFING the conspiracy ranting, the fantasy credulity, and the gee whiz factor. Also, watch for the scary zinger, near the end! Woo - Woo!

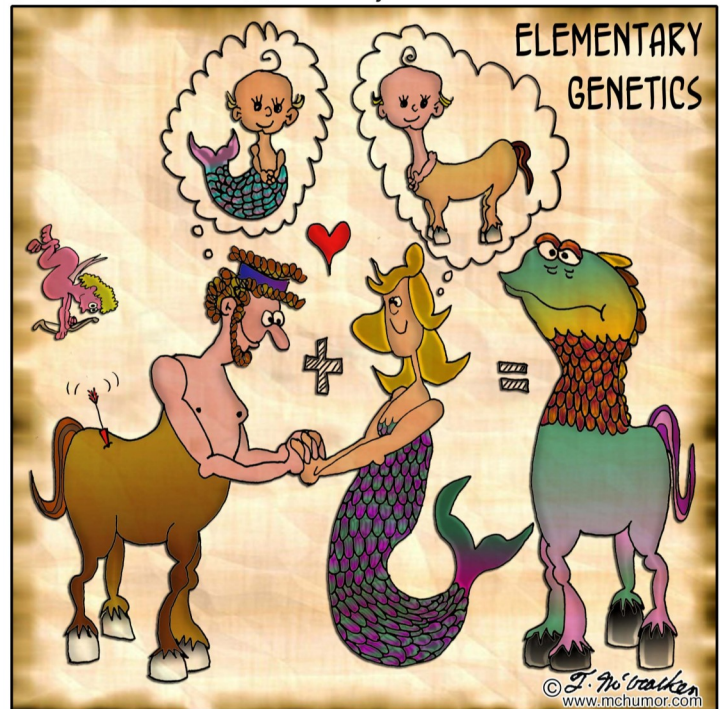
This show should be studied by skeptics on beer night, just for the debunking practice. Don't worry, - you'll surely have many chances to catch it.

Also, I wanted very much to praise you for locating the new website, quackometer.net. Clever approach, turning the site back to analyze itself. I feel a little better about we contributors being accused of "probably doesn't know the meaning of any of the terms" when they say the very same thing about themselves!

Paul Schlueter III
Dallas, PA

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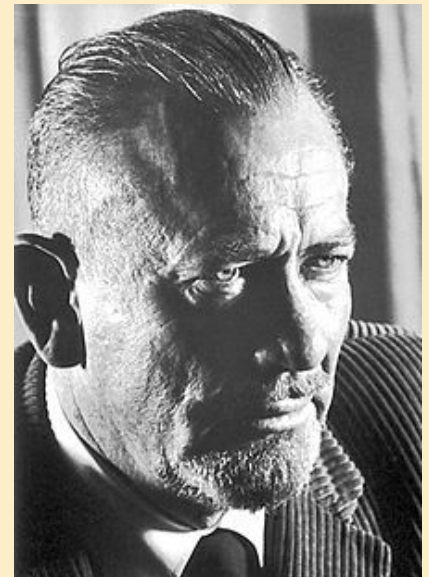
"Ideas are like rabbits. You get a couple and learn how to handle them, and pretty soon you have a dozen." ~ John Steinbeck

Readers of this journal are bright and no doubt have plenty of ideas about an endless smorgasbord of topics. You are invited to write down those ideas and submit an article to be printed in Phactum. We strongly suggest that John Steinbeck is right in that a deftly handled idea will regenerate like rabbits. Articles can explore topics of science and pseudo-science, of society as it is and as it should be. Topics like male-female relations, exploration of outer space, and defense of Flat Earth Theory are welcome but we do draw the line on matters of Partisan Politics and reprehensory complaint about harmless aspects of religious belief.

True Believers and Skeptics are equally welcome to submit well reasoned papers. We would very much like participation from Naturopaths, Hollow Earth Enthusiasts, Creationists, and others often scorned by Skeptics. Student letters and essays are as welcome as communications from established professionals. It could be a great mental and writing exercise to entertain some thoughts that you do not accept. Poetry is encouraged.

Please do not send a biography of Snooki. It will be rejected.

Send submissions to the Phactum Editor at phactpublicity@aol.com



John Steinbeck (1902 - 1968)

American novelist and recipient of the Nobel Prize for Literature in 1962.

Various Ruminations

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

The Holy Bible in Pig Latin

It may seem hard to believe but someone has taken the time to translate the King James Version of the Holy Bible into Pig Latin. Here is a very small sample from the Ook-bay of ay Enesis-gay. **Oy Vay!!**

1:1 In-ay e-thay eginning-bay Od-gay eated-cray e-thay eaven-hay and-ay e-thay earth-ay.

1:2 And-ay e-thay earth-ay as-way ithout-way orm-fay, and-ay oid-vay; and-ay arkness-day as-way upon-ay e-thay ace-fay of-ay e-thay eep-day. And-ay e-thay Irit-spay of-ay Od-gay oved-may upon-ay e-thay ace-fay of-ay e-thay aters-way.

1:3 And-ay Od-gay aid-say, Et-lay ere-thay e-bay ight-lay: and-ay ere-thay as-way ight-lay.

1:4 And-ay Od-gay aw-say e-thay ight-lay, at-thay it-ay as-way ood-gay: and-ay Od-gay iveded-day e-thay ight-lay om-fray e-thay arkness-day.

1:5 And-ay Od-gay alled-cay e-thay ight-lay Ay-day, and-ay e-thay arkness-day e-hay alled-cay Ight-nay. And-ay e-thay evening-ay and-ay e-thay orning-may ere-way e-thay irst-fay ay-day.

Masochists among us might wish to check out this website:
<http://www.museumofconceptualart.com/ible-bay.html>

Waiter, I will have Paella. Hold the Arsenic, please!

The editor of this newsletter has had a recent mania for arsenic which has now been joined by none other than Consumer's Union, the publisher of *Consumer Reports* magazine. They have determined that a major percentage of human exposure to various forms of arsenic comes about from eating various rice products, in particular those grown in south central states that had at one time been a major cotton producing area. Arsenic based pesticides had been used to control the boll weevil beetle, the residue lingering in the soil of fields now flooded for rice production.



Arsenic is a human carcinogen that has been linked to lung, skin, and bladder cancer and care should certainly be taken to avoid excessive exposure. Low level exposure to arsenic may cause effects of the H1N1 virus (swine flu) to be more severe and there is some evidence linking it to diabetes. Many baby food products contain rice as do many gluten-free wheat flour substitutes. Drinking water in some areas has arsenic levels greater than the 10 parts per billion recommendations set by the Environmental Protection Agency.

Antiques and Collectibles Forum

PhACT member Christine Mifsud has organized an antiques forum that is part of the Abington Township Adult School, the classes meeting at Abington Senior High School, 900 Highland Ave, Abington, PA 19001

All the course info. can be accessed at: abingtonadulthoodschool.org 215-884-4967

The classes run for 6 weeks for \$70. or \$24. for one session.

Here's the line-up starting mid-October 2012:

10/15 - **An Insider's Guide To Antique Silver** by Daniel Worden, BBA, MA - guide to makers, styles, and values with tips for cleaning and caring for items inc. coins.

10/22 - **Pennsylvania Design In Today's Market** by Carolyn Nagy, BA, MA Ass't Vice President Sotheby's - treasures created by Pennsylvania craftsmen, designers and sculptors from 18th - 20th century.

10/29 - **Medical Instruments As Collectible Antiques** by Robert Hicks, PhD, Director of the Mutter Museum and Historical Medical Library of the College of Physicians of Philadelphia - medical tools from the museum's collection reveal fascinating insights.

11/5 - **One Hundred Years of Postcards** by Betty Davis, Founding Member of the Washington Crossing Card Collectors Club - covering rarity and value.

Antiques and Collectibles Forum is underway at the Abington Township Adult School, but those who might wish to make a presentation during Fall 2013 may contact Christine at: drmifsud@comcast.net



It appears that brown rice considered by many to be a healthy alternative to more processed white rice has a higher level of arsenic. Seeking expensive "organic" rice products is not a useful protection against arsenic ingestion. This dismal revelation must be intensely annoying to vegetarians and other health food enthusiasts since rice as a dietary mainstay might now be interpreted as an unwholesome ingredient.

Hopefully as this story unfolds it will raise awareness but not cause panic as similar claims have in the past. In the 1980's there was a major food scare centering around a substance called Alar (daminozide), a pesticide that was used on apples. Daminozide has been proven to be a carcinogen but not until very large quantities of the stuff has been consumed. Laboratory tests that prompted the scare required that rats consume an amount of Alar equal to that which might be found in 5,000 gallons of apple juice per day. Daminozide has been discontinued as a pesticide but considerable damage had been done to the apple growing industry with little if any improved safety.

Meanwhile, rice producers protest and claim that evidence does not fairly allow indictment of their products.

See the November 2012 Consumer Reports magazine for the full report, or this website:

<http://www.consumerreports.org/cro/arsenicinfood.htm>

Rumpology - a Human Divination System

PhACT's webmaster, Wes Powers, has discovered the ancient art of Rumpology at an internet site owned by Jacqueline Stallone (Rocky's Momma). Mrs. Stallone, formerly of Philadelphia and now in Santa Monica, California is an internationally esteemed expert in psychic and astrologic matters who has now delved into the mysterious science of Rumpology.



Mrs. Stallone has many years of rump reading experience and has examined henna dye/papyrus rump prints from antiquity. She has determined that the left buttock represents the right hemisphere of the brain, the

right buttock to the left.

Of the gluteal cleft Mrs Stallone says:

"I have been asked many times about the gluteal cleft. It is more than an advertising sign for plumbers, teens, and non-conformists. IT HAS REAL SIGNIFICANCE.

It is a natural part of the human body and of vital importance. It represents the division between the ying/yang, good/bad, light/darkness, between your past-- the left cheek and your future -- the right cheek."

We refrain to make judgment in Phactum and prefer to let readers draw their own reasoned conclusions.

See the website:

<http://www.jacquelinestallone.com/rumps.html>

Royal Astronomer Discusses UFO's

In a Huffington Post article, Lord Martin Rees, the official U.K. astronomer royal commented on reports of UFO and Extra-terrestrial sightings. *"No serious astronomer gives any credence to any of these stories,"* said Lord Rees. (http://www.huffingtonpost.com/2012/09/19/lord-martin-rees-aliens-ufos_n_1892005.html)

Good. Astronomers as a group seem to have their act together on this aspect of pseudo-science and I expect that most laymen are skeptical as well. Aliens have long been spoofed in movies. As far back as 1924 aliens have been part of films as is evidenced by the silent Soviet production *Aelita: Queen of Mars*.



An even earlier movie, *Le Voyage dans la lune*, is a 1902 French black-and-white silent science fiction film based loosely on two popular novels of the time: Jules Verne's *From the Earth to the Moon* and H. G. Wells' *The First Men in the Moon*.

Fortunately UFOology is a generally harmless pursuit, more fun than serious, and wildly popular in fiction. Compare UFOology to Homeopathy. That second one is well understood by doctors to be as balmy as Martian Landing Sightings but not as benign. Unfortunately, to the best of my knowledge, there are no major cinematic productions that feature homeopathy and its attendant babble. I suspect that Homeopaths have created documentaries defending and propelling their philosophy of non-science. A popular Hollywood star or director could do some significant social good to produce a science based drama centering on Big Homeo. A great theme might be a homeopathic malaria vaccine administered by a cheerleading team to desperate equatorial villagers at a tropical locale. It would have a high body count and thus would be a box-office mega-success!

Quantum quackery criticized.

This little item is from Dr. Stephen Barrett's Consumer Health Digest of October 7, 2012.

Physicist Lawrence Krauss has warned that health-related claims that invoke quantum mechanics should be regarded as pseudoscientific. In a recent interview, he stated:

"Many things in quantum mechanics sound like magic, but sounding like magic and being magical are two different things."

"When you hear about quantum mechanics and devices, you can say, "OK, that sounds reasonable." But when you hear about quantum mechanics and consciousness, you should assume the author is a crackpot unless proven otherwise. Moreover, assume that they want your money."

Source: Boyle A. How to spot quantum quackery.

Cosmic Log, Sept 20, 2012.

http://cosmiclog.nbcnews.com/_news/2010/09/20/5144889-how-to-spot-quantum-quackery?lite

We agree with Professor Krauss and have personally encountered quantum quackery in the form of enthusiastic New Age friends and many magazine articles. An internet search using key words “**quantum mechanics wellness**” yields an unfortunate abundance of websites that self describe exactly what Professor Krauss is talking about. A good example, awarded 10 Canards by the Quackometer, is this website:

<http://www.quantumenergywellness.com/index-7.htm>

The website discusses SCIO and we learn:

SCIO stands for Scientific Consciousness Interface Operation system. Scio is derived from the Latin = I know.

The SCIO is a sophisticated and profound energetic medicine system, derived from the SCIO [Quantum Xrroid Consciousness Interface]. It incorporates electro-dermal screening, stress testing and biofeedback.

It is a computerized system that both tests and balances the body at the subtle energy level.

It integrates the sciences of mathematics, quantum physics, fractal dynamics, subspace theory, electronics, and computer programming. The therapies include the following modalities: naturopathy, homeopathy, acupuncture, chiropractic, energetic medicine, psychology, aromatherapy, reflexology, colour therapy, Neuro- Linguistic Programming, biofeedback and Rife Resonator. It also incorporates knowledge of metaphysical subjects to bring a unique synergistic perspective to natural healing.

Notice that in the extensive listing of health therapies science based medicine is not included. What a surprise!! We are shocked!!

“Nothing more strikingly betrays the credulity of mankind than medicine. Quackery is a thing universal, and universally successful. In this case it becomes literally true that no imposition is too great for the credulity of men.”
~ Henry David Thoreau

Trituration and Dream Proving of Hedgehog

Get a load of this item revealed by quackometer.net!

It seems that a young woman in Wales was suffering from an ovarian cyst, endometriosis, body aches, pounding heart, and many other distressing symptoms. So she consulted a Welsh Homeopath named Chloe Foss who prescribed Thuja, a homeopathic remedy derived from *Thuja*

occidentalis, an evergreen coniferous tree in the cypress family.

Apparently the Thuja treatment was working but did finally plateau and then waned as a useful remedy. So what in this situation is a Homeopath to do? Why, prescribe a 40C compound of Hedgehog of course!!

This story can be found at:

<http://hpathy.com/clinical-cases/a-case-of-hedgehog/>

But, you ask, hedgehog? Yes. Hedgehog. As a 4th year student at the Welsh School of Homeopathy Ms. Foss devised and proved the remedy Hedgehog described in considerable detail at this website:

<http://www.welshschoolofhomeopathy.org.uk/provings/Hedgehog.pdf>

Space in this column does not facilitate detailed discussion of Hedgehog Proving and Phactum’s editor does not understand it anyway, but we can provide a very short, possibly muddled, summary. Hedgehogs and many other mammals have long been known to suffer from a post-natal syndrome causing them to eat their young when under stress. It seems logical then to grind hedgehog spines and lactose to a powder, first to the physical C1 level and eventually through three energy shifts to the spiritual C4 level. It is good to know that in the C4 trituration process Withold Ehrler’s Cosmology is observed requiring dilution and succussion to be performed in powers of six.

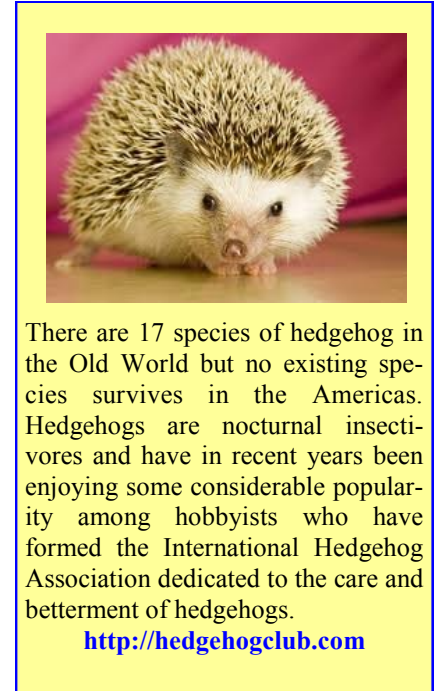
And so a new homeopathic remedy is born. If any Phactum reader wishes to explore homeopathic proving we would be delighted to print the description and conclusions.

Gay Conversion Therapy

Becky Strickland, a psychologist and member of PhACT’s Council reports:

On September 29th, California governor Jerry Brown signed into law a bill banning 'gay conversion' therapy. The first of it's kind in the US, the new law prohibits mental-health providers from engaging in sexual orientation change therapy with anyone under 18. "These practices have no basis in science or medicine, and they will now be relegated to the dustbin of quackery" stated Brown. Let's hope other states follow Brown's lead!

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Meeting Report - September 2012

The Golden Age of Cosmology by Akim Adams

Akim Adams is a physics student of Dr. David Cattell at Community College of Philadelphia

It wasn't that long ago that Richard Feynman, one of the most well known physicists since Einstein, argued in his famous 1964 *Lectures on Physics* that the most important scientific knowledge that should be passed on to the next generation is the simple hypothesis that "all things are made of atoms" (*Six Easy Pieces*, p.4). If only Feynman was alive today to see how much progress the current generation achieved in disproving such a hypothesis. Today, cosmologists know that atoms only comprise about 5% of the universe; the rest is occupied by the mysterious Dark Matter (23%) and Dark Energy (72%). Such was the discussion at the recent PhACT meeting, presented by Dr. Paul Halpern who gave a talk on his book, *Edge of the Universe: A Voyage to the Cosmic Horizon and Beyond*.

It's remarkable how little we knew about the universe a hundred years ago. "It turns out, [where cosmology is right now] is very different from the state of cosmology in 1912. It turns out it's very different from the state of cosmology even in the 1990s" Halpern says, "First of all, cosmology is more precise and secondly cosmology is more unsure of itself... We can think of cosmology as being in the Golden Age in terms of precision." In his book, Halpern tries to present a chronicle of 21st century, state of the art cosmology. Cosmologists know with certainty that the universe was once very hot and can be traced back to a single point. Unlike most textbooks 15 years ago, we can now estimate the age of the universe with extremely high precision of exactly 13.75 billion years by studying the radiation from the cosmic microwave background, which is often nicknamed as the "fingerprint of the Big Bang."

There is, however, a major difference between what we call the "observable universe" and the "actual universe." In the observable universe the center is the location of the observer and the radius of the universe is the distance of current positions of the furthest light sources for particle sources, such as neutrinos. In 1998, cosmologists discovered a shocking fact that the expansion of the universe was not slowing, as once believed, but that it's actually accelerating. This acceleration is the result of Dark Energy, or what is often described as "negative pressure" or "anti-gravity." If

the universe wasn't expanding or accelerating, the radius of the universe would be 13.75 billion light years, but with the presence of Dark Energy that radius can now be stretched to over 46 billion light years. The actual universe is flat in geometry, which implies that it could be infinite in all directions, and since it can be traced back to a single point, there cannot be an actual center. "Where did the Big Bang happen?" Halpern asks, "Well, the Big Bang happened everywhere!" The presence of Dark Matter and Dark Energy leaves us with some uncomfortable implications. If the acceleration continues indefinitely, this could lead to a catastrophic event called the "Big Rip." If this hypothesis is correct, then in about 16.7 billion years phantom energy

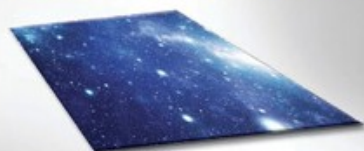


will rip everything apart, from solar systems, to stars, to planets, and even atoms themselves. The alternative possibility is that the universe will go through a slow process called the "Big Stretch", where local galaxies will become stranded and everything in sight will stretch out until there is absolutely nothing left. In the next few years, these ideas will be tested by observing the cosmic microwave background with the help of ESA's Planck satellite.

We live in a glorious but perplexing age for cosmology. The conventional knowledge that we were taught for over a hundred years, that all things are made out of atoms, turns out to be fundamentally wrong. Over 95% of the universe remains unknown. What is Dark Energy? Where does Dark Matter originate? What is the source of Cosmic Rays and 70% of gamma rays? Where are galaxies clusters headed to and what *will* be our ultimate fate? These are the questions that the next generation of cosmologists will need to wrestle with, but as of today, the observable universe is open to debate.

Paul Halpern is author of 13 books, mostly about physics and the universe. Dr. Halpern's research interests include complex and higher-dimensional solutions in general relativity, structurally dynamic cellular automata and genetic algorithms, the history of modern physics, and the relationship between science and culture.

EDGE of the UNIVERSE



A VOYAGE TO THE
COSMIC HORIZON AND BEYOND

PAUL HALPERN

Edge of the Universe A Voyage to the Cosmic Horizon and Beyond

By Paul Halpern

Publisher: Wiley; 1 edition (September 25, 2012) Hardcover: 240 pages
ISBN-10: 0470636246 ISBN-13: 978-0470636244

Cosmology, the science of the universe, is undergoing a startling revolution! Colossal flows of galaxies, large empty regions called voids, and other unexplained phenomena offer clues that our own "bubble universe" could be part of a greater realm called the multiverse.

How big is the observable universe? What it is made of? What lies beyond it? Was there a time before the Big Bang? Could space have unseen dimensions? What exactly is the "axis of evil?" And what are the mysterious cosmic dragons that lurk in the gamma ray fog?

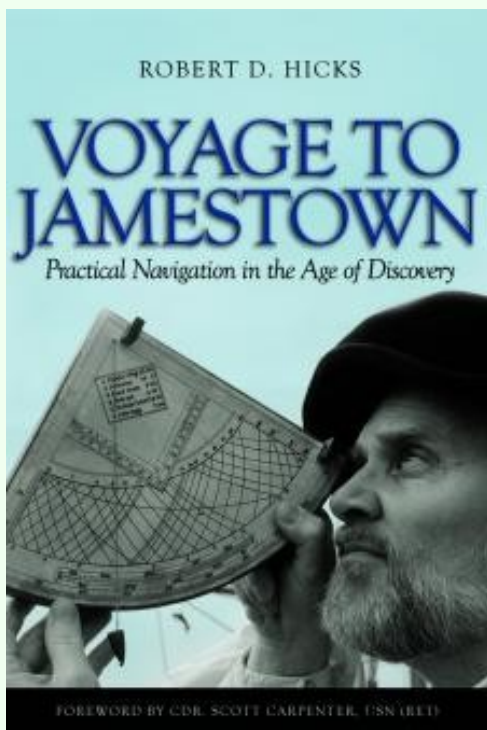
Edge of the Universe investigates these fascinating questions and more, offering the background behind humanity's search for the frontiers of the universe!

VOYAGE TO JAMESTOWN

Practical Navigation in the Age of Discovery

By Robert D. Hicks, Foreword by CDR Scott Carpenter, USN (Ret.)

ISBN/SKU: 9781591143765 Hardcover 256 pages
Published: October 2011



ROBERT D. HICKS

VOYAGE TO JAMESTOWN

Practical Navigation in the Age of Discovery

FOREWORD BY CDR. SCOTT CARPENTER, USN (RET.)

Voyage to Jamestown explores how sea navigation was accomplished during the era of discovery. Navigational methods and tools are presented within the setting of their use during a sea voyage of the period. While this voyage features a fictional crew and ship, it is carefully reconstructed from actual events, circumstances, narratives, and historical figures, which demonstrates the challenges of marine navigation within the cultural experience of people who actually traveled the oceans centuries ago. The fictional voyage follows the merchant galleon Guyft from Bristol, England, to Virginia in 1611, captained by Tristram Hame. With this narrative technique, the reader can absorb seafaring and navigation as practiced in the seventeenth century as if they were on board the ship. Navigational theory, methods, and instrumentation of the era are all engagingly presented within economic, political, scientific, and religious contexts to portray how the early navigator experienced his world.

Robert D. Hicks is currently Director, Mütter Museum/Historical Medical Library in Philadelphia, PA. He was PhACT's speaker October 2011.

How Stem Cell Research Might Cure Menopause

by Paul Schlueter III

Now, here's a topic that might capture the attention of my contemporaries; those of us somewhere around age 50 know (and perhaps love) someone who is passing through the "change of life" which occurs when a woman loses her fertility, and her body dramatically reduces its production of various hormones important to physical and/or social health. We've all grown up believing that menopause was as inevitable as puberty, provided a woman lives long enough to reach it. Now, it turns out that there might be a cure for this condition after all, and it comes from the arena of stem cell research (the whipping child of a certain political point of view).

As with many of my articles, the source is Science News, this time an article by Tina Hesman Saey in the April 7, 2012, issue called "Adult women might replenish eggs."

My generation was taught that women are born with all the eggs they'll ever have. Yet, women have something in the region of 1-2 MILLION egg precursor cells, for the purpose of producing only 500 or so menstrual cycles during their reproductive years.

Johnathan Tilly, a reproductive biologist at Massachusetts General Hospital, Boston, led a team that published its report in the February 26 Nature Medicine. They began by studying egg cells in female mice, where

they discovered that stem cells in mouse ovaries created new mouse eggs faster than existing egg cells died off. The discovery that stem cells were performing such a function in mammalian ovaries at all shocked much of the scientific community. It was widely believed to be a special case, probably not applicable to human biology. That was in 2004.

Now, Tilly's group has discovered, about 1.7% of the cells in human ovaries turn out to be stem cells capable of making the cells which are precursors to actual eggs! That's a remarkably large percentage to have gone undetected for so long, where such a crucial aspect of human biology is involved.

In yet another twist that will jangle the sensitivities of a certain moralistic mindset, it turns out that the proof was discovered in an unusual fashion. Six women had sex reassignment surgery in Japan which involved removal of their ovaries, and those ovaries were studied (no ethical restraint against studying healthy ovaries which were removed for reasons other than this study!)

Though Tilly's group has shown human ovarian stem cells to be capable of making egg precursors, nobody has yet shown that those precursor cells can successfully become viable eggs, let alone fertilizing any of them. However, eggs grown from mouse ovarian stem cells have successfully been fertilized, and healthy

James Thomson, first scientist to isolate and culture embryonic stem cells

June 2005, in response to a question on how he feels about the moral implications of using components of human life for future embryonic stem cell research, in an interview with MSNBC's Alan Boyle:

"[T]he bottom line is that there are 400,000 frozen embryos in the United States, and a large percentage of those are going to be thrown out. Regardless of what you think the moral status of those embryos is, it makes sense to me that it's a better moral decision to use them to help people than just to throw them out. It's a very complex issue, but to me it boils down to that one thing."

Blood Cancer Fund Raising Walk

PhACT member Eric Hamell reports that Philadelphia area freethinkers are taking part in the Light the Night walk against blood cancer as Hitchens' Hikers. The walk will be on October 27, 2012 starting at The Philadelphia Museum of Art at Eakin's Oval This effort benefits LLS, the Leukemia & Lymphoma Society. You can read more about it and sign up or donate here: <http://pages.lightthenight.org/epa/Phi12/HitchensHikersFBB>

baby mice were born. Kutluk Oktay, a reproductive biologist at New York Medical College, Valhalla, says that this suggests a possibility that "we can not only replace the number [of eggs a woman produces late in life], but also bring egg quality back to where a woman was in her 20s." And that's only the reproductive side of the matter; what if stem cell research also turns out to provide a way to restore a woman's youthful hormonal production? The drop-off in estrogen production is thought to be largely responsible for osteoporosis in older women (the loss of calcium in their bones causing them to weaken), but perhaps some future treatment for ovarian stem cells can coax them to go on producing youthful levels of this critical hormone, vastly improving a woman's quality of life through her older years. Who can even predict what other estrogen-related issues a better knowledge of these cells might affect?

Cell mitochondria (the energy-producing organelles within all of our cells which we inherit solely from our mothers) generally become less efficient as we age, regardless of gender. In gonad cells, weakened mitochondria may have a role in the diminished production of both sperm and egg cells. Tilly's team has already stopped the progression of the mouse's version

of menopause, and they are working on ways to translate that laboratory success into useful human medical treatments. Whether the solution lies in revitalizing the mitochondria of our cells, or in some yet undescribed technique for applying the nascent technology of stem cell manipulation to ovaries and testicles, science is setting its sights on this interesting new bit of information.

As we learn that the things we've always believed may not truly be so after all, we begin to find ways to light the darkness, ways to husband the resources of nature for our own benefit, ways to build machines capable of feats our ancestors would have considered miraculous, and now perhaps even ways to "cure" an affliction as old as original sin itself, possibly restoring fertility to women who feared it lost forever. Who SAYS science isn't still discovering important things each and every day?

Paul Schlueter III is serving Life in Prison in NE Pennsylvania. His supporters have created a website about him. www.jaylbird.org

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Laurie Zoloth, Ph.D., professor of medical humanities & bioethics and religion, director of Center for Bioethics, Northwestern University

Sept. 29, 2004, in a congressional testimony to the Senate Subcommittee on Science, Technology and Space:

"While I respect that this is a difference in theology [regarding the moral status of a human child], and while I understand the passion and the conviction of those for whom the blastocyst is a person from the moment of fertilization, I do not believe this, and it is [a] matter of faith for me as well. My passion and my conviction are toward the suffering of the one I see in need, ill or wounded."

"The Higgs Boson, at Last"

by Paul Schlueter III



When I took High School Physics in the mid-'70s, most of the focus was on first year Newtonian stuff, like "equal and opposite reactions" and "opposite charges attract." When it came to particle physics, we didn't dig much deeper than the good of neutron, proton, and electron. The three "elementary particles" were then already viewed in the same sort of light as the classical "elements" (air, earth, fire, water) of the pre-Enlightenment period - they were real, they had handy functions, but they were FAR from state-of-the-art essences.

Atoms were once regarded as "elementary particles" (constituents of matter which are themselves indivisible). Early in the 20th century, scientists realized that different sorts of atoms were made up of different combinations of neutrons, protons, and electrons, and until the early 1930s the latter were considered "elementary particles." High-energy particle collisions finally revealed that the first tier of sub-atomic particles are also divisible; in 1937, the broad class of sub-sub-atomic particles began to be described and named. Now tallying some 300 distinct particles, the new "elementary particles" tend to exist only in terms of microseconds (for the most stable), and even 10^{-23} seconds (1/10th, with 22 more zeroes added to the denominator) for the least stable. Almost all particles (excepting the photon, the electron, and a few others) are made up of quarks (of which there are several types), tightly bound by what we now call "fundamental forces." Among the forces are the the strong force, the weak force, and the electromagnetic force. Weakest among them is apparently the "gravitational force," which is quite surprising to anyone who has to climb any quantity of stairs in the morning! Forces are carried or propagated (in Physics, the term is "mediated") by specific particles; thus, electromagnetism is mediated by photons, the field particles of the strong force are called gluons, the gravitational force is mediated by gravitons, and the weak force is mediated by bosons (the W and Z bosons, specifically).

A boson, according to my dictionary (itself a bit out of date) is found immediately below "bosom," which partially explains the zest with which certain scientists have examined them. Ahem... The definition of boson: A particle having zero or integral spin, and obeying statistical rules that permit any number of identical particles to occupy the same quantum state. Now that THAT'S clear, let's skip to the next part.

Recent tweaks to the field theory have led to the idea that the electromagnetic and weak forces are different expressions of a single force, now called the "electroweak" force. According to the Standard Model of Physics (and, well, EVERYTHING, when you get right down to it), it turns out that the photon has no mass (the characteristic which is responsible for inertia, which resists changes in an object's state of motion), yet the W and Z boson DO have mass. This discrepancy is called "symmetry breaking," because particles act differently depending on whether they happen to be in high-energy or low-energy states. According to my 2003 college Physics textbook (you didn't think I knew all this from the top of my head, did you?), "a hypothetical particle called the Higgs boson has been proposed that provides a mechanism for breaking the electroweak symmetry and bestowing different particle masses on different particles." The Large Hadron Collider (Hadrons are a class of sub-atomic particles which includes particles made of bosons) at CERN (near Geneva, Switzerland) was built, in part, to provide the unfathomably high impact energies necessary to blast particles into their constituent bits so minutely that scientists can find evidence of the actual existence of the Higgs boson. The smaller colliders just weren't quite up to the task.

Well, the LHC folks at CERN finally pulled off the big caper. Story One in the July 28, 2012 issue of Science News reported the success as "Higgs boson fills last gap in list of basic particles." Quite a headline, considering that Peter Higgs first proposed the particle nearly 50 years ago. He was around to celebrate the accomplishment, too. The announcement from the

LHC came on the 4th of July, which perhaps implies more to us than they intended.

In 1964, Higgs, Carl Hagen, and other physicists were trying to explain particles with zero mass, and they came up with the Higgs field (SN calls it "like a puddle of molasses"), an energy field that would have come into existence just after the Big Bang cooled off a bit. "Subatomic particles acquire differing amounts of mass depending on how strongly they interact with the [Higgs] field," according to SN's Contributing Editor, Alexandra Witze, who wrote their article.

"Out of a trillion proton-proton collisions, perhaps one will create a Higgs particle, which then decays almost instantaneously into other particles." Such is the "basic science" purpose of the \$10 Billion LHC. As it turns out, the Higgs can decay into two photons, or into two Z particles, as well as other theoretical possibilities. The LHC's sensors track the debris from particle collisions to record the brief life of such particles, before they decay into other particles. For the Higgs, the long study of its properties has only just begun.

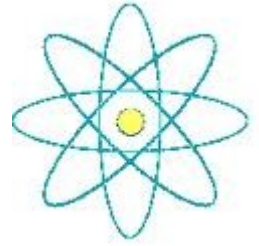
One property has finally been identified; the mass of the Higgs boson is now known to be around 125.3 billion electron volts, plus or minus 0.6 beV. The ATLAS accelerator (also at CERN) found a new particle with a mass of 126.5 beV, also thought to be a Higgs. Statistically, both results have a better than 1-in-3.5-million chance of NOT being "flukes." The LHC's current string of tests have been extended a few months past their plan, in part to gather as much data as they can before the collider is shut down for a two-year upgrade to enable 14 trillion electron Volt collisions (it currently peaks out at 8 teV, divided between two opposing beams circling in colliding directions.)

"Supersymmetry" is an extension theory of the Standard Model, proposing that all particles have a "supersymmetric" partner which hasn't yet been found. Some versions of the theory predict that at least five versions of the Higgs boson could exist, only the lightest of which is within the LHC's capabilities. "Other supersymmetric particles may account for dark matter," which is WAY beyond the scope of this article.

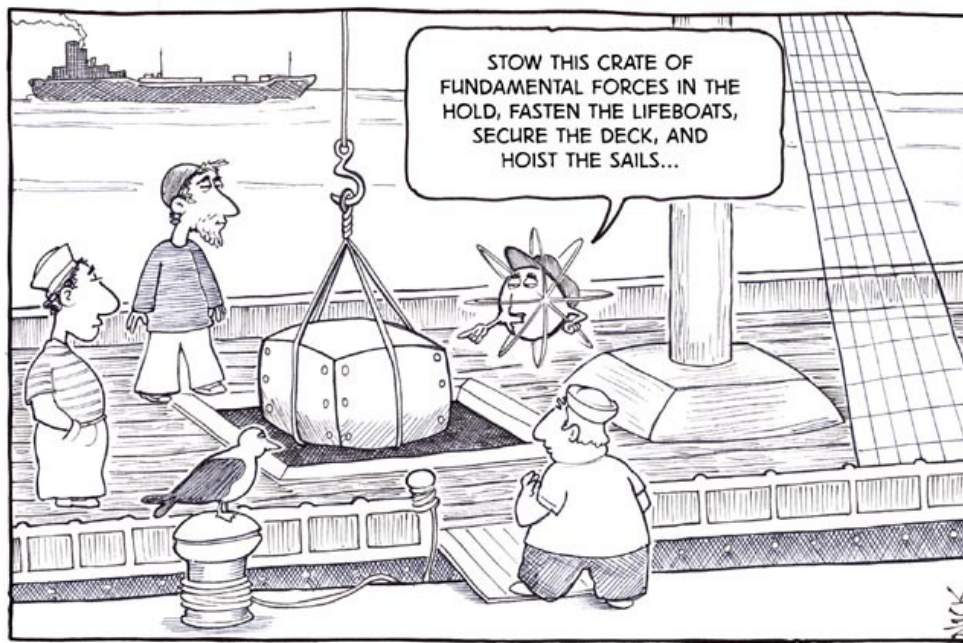
For now, it's comforting to know that the people who actually understand all this particle physics and quantum weirdness are making progress. They've found the Higgs boson at last, and none of us got sucked into any micro-black holes in the process. Somebody MUST be on the right track, after all.

Paul Schlueter III is serving Life in Prison in NE Pennsylvania. His supporters have created a website about him.

www.jaylbird.org



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A Higgs Bosun

Cartoon by Nick D. Kim, <http://www.lab-initio.com>
Used by permission.

PHACT CALENDAR

PhACT Events

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., Parking is easily available and costs \$4.00 for all day. Enter the college parking lot on 17th Street which is one way south bound. This meeting site is handicap accessible. **PhACT Meetings are Free and open to the public unless otherwise noted.**



Saturday, October 20, 2012 - Princeton Professor Michael Gordin will be our speaker and will discuss his book: **The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe.** See page 1 for details.

Saturday, November 17, 2012 - Writer Ken Silber will speak on "**Politics vs Science**". See page 6 for more details.

Please visit his web site at <http://www.advisorone.com/author/kenneth-silber>

Saturday, January 19, 2013 - TBA

Saturday, February 16, 2013 - John Ruscio will talk on fallacies and new technology related to lie detector tests.

Saturday, September 21, 2013 - **AIDS Denialism.**

Nicoli Natrass of South Africa will talk on AIDS denialism. Hundreds of thousands of people are thought to have died based on misinformation concerning AIDS and treatments. Learn about how science is reducing the deaths and spread of the disease even though irrationalism has been doing the opposite.

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. Phactum does not accept paid advertising.



The Philadelphia Area Center for the History of Science (PACHS) maintains a calendar of events about the history of science, technology and medicine that may contain some interesting events not listed in the Phactum Calendar. Check out their website at:

<http://www.pachs.net/events>

Monday, October 8, 2012 at 6:00 PM at National Mechanics, 22 S. Third Street, Philadelphia

“The Science of Vampires”

Kathy Haas, Assistant Curator at the Rosenbach Museum & Library

Everybody knows about Dracula, but did you know that his creator, Bram Stoker, had a degree in mathematics and that several of his brothers were doctors? Science, technology, and medicine permeate the novel and Kathy Haas, assistant curator at the Rosenbach Museum & Library, will explore the tension between science and superstition in this classic tale of terror. The talk will include a look at images of Stoker's working notes for Dracula (owned by the Rosenbach) including material from his brother, William Thornley Stoker, a noted surgeon. Anna Dhody, curator of the Mütter Museum, will also offer a look at medical conditions that may have inspired tales of vampirism.

Kathy Haas is the assistant curator at the Rosenbach Museum & Library, which preserves Bram Stoker's working notes for Dracula. She has curated several exhibitions on Dracula for the Rosenbach.

This month's Science on Tap is presented by the Mütter Museum of the College of Physicians of Philadelphia.

Tuesday, October 9, 2012 at 6:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Spirits and Spiritualists of Laurel Hill Cemetery

In the 19th century, thousands of Philadelphians believed that they could communicate with the dead. All that it took was a darkened room, a circle of believers, and a sensitive medium. Other Philadelphians mocked the table-rappers and tried to expose their tricks. Both believers and skeptics are well represented in historic Laurel Hill Cemetery. Along this tour, we will stop at the resting place of Catherine Drinkhouse Smith, whose monument proclaims her as “one of the best mediums of her time,” and at the grave of Adam Seybert, whose last will and testament allocated a large sum to the University of Pennsylvania for a study of the truths of spiritualism. We will also visit the grave of Horace H. Furness, the Shakespeare scholar who led an official inquiry into the claims of spiritualists, and at the hillside tomb of Elisha Kent Kane, the famed Arctic explorer who scoffed at spiritualism but who fell in love with America's most beautiful young medium. This walking tour will be led by Dr. Michael Brooks, author of John Ruskin and Victorian Architecture and Subway City. It will conclude with wine, beer and refreshments, and is not recommended for ages under 21 years. Bring your own flashlights.

\$20/person general admission

Advance registration is requested. Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

SOCRATES CAFE is moderated by: Lewis Mifsud, Ph.D., P.E., a member of PhACT and of The American Academy of Forensic Sciences. At 7:00 PM every Monday evening except holidays (on Tuesdays after a Monday holiday) at the Springfield Township Public Library (215-836-5300) at 1600 Papermill Mill Road, Wyndmoor, PA. 19038. This philosophical discussions group is free and open to the public. Join us and share your critical thinking, questions and opinions.



Tuesday, October 9, 2012 | 6:30PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

Reading the Body

Reading the Body features “readings” by five fiction writers whose work is published by FC2 Publishing. FC2 is a premier literary press that for the past 35 years has been devoted to publishing the most adventurous work in contemporary American fiction. This event, conceived especially for the Mütter Museum, features FC2 authors whose imaginative work vividly engages the emotional, conceptual and visceral excitements and incitements of inhabiting the human body. The featured novelists are: Samuel R. Delany, Noy Holland, Michael Martone, Lance Olsen and Alan Singer. The reading will be followed with a brief question and answer session.

Sponsored by the Mütter Museum of The College of Physicians of Philadelphia.

Wednesday, October 10, 2012 | 6:30PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

Anatomical Cartography: Mapping the Internal Landscape of the Human Body

Like maps used by famous explorers, Anatomical Atlases have helped physicians find their way around the human body. Drawing on sources that include cadaveric dissection, post mortem pathology, and modern imaging modalities, Susan Standring, current editor of Gray's Anatomy, will take us on an exploration detailing the evolution of these special collections of maps. Using examples including similarities between maps of the London Underground and neuronal connectivity, the lecture will explore how Anatomical Atlases have evolved next to their more familiar cousin, the land map.

Speaker: Speaker: Susan Standring, PhD, DSc, Head, Division of Anatomy, Cell and Human Biology, King's College London, and current editor of Gray's Anatomy

Wednesday, October 10, 2012 at 7:00 PM at Frankford Hall on Frankford Avenue just north of Girard Avenue.

Philadelphia Nerd Nite

For more information see the website at

<http://philadelphia.nerdnite.com/updates/>

Admission is \$5.00, all are welcome. Great food and beer is available in addition to the company of fellow Nerds.

Be there and be square!



Wednesday, October 10, 2012 at 7:15 PM. Rittenhouse Astronomical Society at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway.

<http://www.rittenhouseastronomicalsociety.org/>

Simon Martin, Associate Curator of the American Section, University of Pennsylvania Museum of Archaeology and Anthropology. joins us to discover Maya culture and calendar. Check out a movie clip that includes an introduction with Simon Martin at <http://www.penn.museum/sites/2012/>

Open to the Public, Free no admittance fee.

Wednesday, October 10, 2012 7:00 pm (doors open 6:00 pm) at American Philosophical Society Museum, Philosophical Hall, 104 South Fifth Street, Philadelphia, 215-440-3442

IT'S ABOUT TIME: SHORT FILMS FROM THE SECRET CINEMA ARCHIVE

The Secret Cinema presents two screenings of "timely" films at American Philosophical Society Museum

JUST IMAGINE (1930, Dir: David Butler)

Time travel and the world of the future have long been staples of science

fiction, both on paper and on film. But putting them into a 1930 musical comedy is quite another, and stranger, proposition. JUST IMAGINE is a product of that long-ago time when films were finding their voice, musicals were still trying to figure out what form they could take, and anything went. So why not a look at the faraway future of 1980, inspired by Fritz Lang's METROPOLIS and fitted out with songs and dances? And, for good measure, add a top-of-the-line million-dollar budget and spectacular, Oscar-nominated designs. The plot takes its cue from Rip Van Winkle and SLEEPER: a boob from 1930 (Swedish-dialect comedian El Brendel) passes out and wakes up fifty years in the future, after which he hitches a ride on the first spaceship to Mars and runs afoul of a STAR TREK-like race of evil twins. Also on hand: a pre-Tarzan Maureen O'Sullivan as the leading lady, an avant-garde Martian ballet, and wisecracks about gay men, birth control, and Henry Ford's anti-Semitism. Truly, this is a film like none other, and you may find yourself leaving the screening singing the bouncy "Never Swat a Fly"!

Admission: FREE

Thursday, October 11, 2012 - 7:00PM-8:00PM at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway.

<http://www.fi.edu>

Theology of the Dead Sea Scrolls

The Dead Sea Scrolls have been described as the greatest archeological discovery of the 20th Century. Join a discussion of how the scrolls have changed our understanding of ancient Judaism and the Bible, and the significance of the scrolls to the Jewish and Christian faiths. Dr. Schiffman, of Yeshiva University, who worked on the full publication of the scrolls, and Dr. Collins, of Yale Divinity School, who specializes in Second Temple Judaism, will lead the talk.

Speaker: Dr. Lawrence Schiffman, Vice Provost for Undergraduate Education and Professor of Judaic Studies at Yeshiva University

Speaker: Dr. John Collins, Holmes Professor of Old Testament, Yale Divinity School

Ticket Price: \$5.00 per person. Call 215.448.1200 for tickets

Saturday, October 13, 2012 at 1:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Protecting the High Seas: The Naval Personnel of Laurel Hill

From the early days of the Revolutionary War, to the front lines of the War against Terror, the members of the United States Navy have always been on call to protect and serve on the high seas, both close to our shores and far from them. Learn about the lives of some of these honored veterans of the past who dedicated their service to our country.

To mark the anniversary of the founding of the Navy, exactly 237 years to the day of October 13, 1775, all active and retired Naval personnel receive FREE admission with ID.

\$12/person; \$10/seniors + students; \$9/members

Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Saturday, October 13, 2012 at 6:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Ghosts Among Our Graves:

Paranormal Investigation of Laurel Hill Cemetery

Is there anything on the other side? Professional ghost hunters, Free Spirit Paranormal Investigators, have conducted numerous investigations of historic Laurel Hill Cemetery in search of the site's haunted history. Join FSPI for this unique workshop, as they reveal the findings of their investigations, and discuss some of the basics in the field of ghost hunting, including types of hauntings; equipment and debunking; EMFs (electromagnetic fields); EVPs (electronic voice phenomena); space weather; and psychic protection. Participants will then have the opportunity to experiment firsthand with ghost hunting equipment, while joining FSPI team leaders on group investigations of some of the cemetery's most reportedly active sections. For more information about Free Spirit Paranormal Investigators, visit www.freespiritpi.com.

\$30/person; \$25/seniors, students; \$22/members

Advance registration is requested. Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Saturday, 13 October 13, 2012 beginning at 10:00 AM at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

<http://www.penn.museum/events-calendar>

Center for Ancient Studies Symposium, Rainey Auditorium

The End of Time

Whether or not the end of the time is predicted in the Maya calendar, many of the ancient world civilizations hosted a belief in a universal cataclysm—the Eschaton, the coming of the Antichrist, the Last Judgment, the Kali Yuga, the Götterdämmerung. In conjunction with the Penn Museum exhibit “Maya: Lords of Time,” the 2012 Center for Ancient Studies Annual Symposium explores comparative perspectives on the end of time.

Tentative Schedule

10:00am, Welcome - Annette Yoshiko Reed (Penn) and Robert Ousterhout (Penn)

10:15am, Simon Martin (Penn Museum), "Maya Cataclysm: The World Flood in Ancient Maya Religion and Calendrics"

11:00am, David Carrasco (Harvard University), “When the Sun Fell Into the Fire: Aztec Creation Myths of the End of Time”

11:45am, Jalh Dulanto (Pontificia Universidad Católica del Perú), "Inca! Let's draw a line across this world: Central Andean Notions of the End of Time"

12:30pm, Lunch break

1:30pm, Keynote lecture - Elaine Pagels (Princeton University), "The Book of Revelation in Art, Music, and Politics"

2:30pm, Coffee break

3:00pm, Richard Emmerson (Manhattan College), "Personalizing the Apocalypse: The Medieval Antichrist."

3:45pm, Benjamin Fleming (Penn), "The Kali Yuga and End Times in Hinduism: Cosmos and History in Crisis"

4:15pm, Concluding remarks - Peter Struck (Penn), "The End of Time and Time without End"

5:00pm, Reception in Mosaic Gallery

The event is organized by Bob Ousterhout and Annette Yoshiko Reed; for more information, please contact this year's CAS graduate assistant, Rose Muravchick (<roseee@sas.upenn.edu>).

Center for Ancient Studies- Symposia



Sunday, October 14, 2012 at 1:00-3:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Fall Family Day

Spend an autumn afternoon exploring the many wonders and mysteries of Laurel Hill Cemetery while celebrating Halloween! Fall Fun for the Family at Laurel Hill will thrill and chill both the young and old! The cemetery's primary location overlooking the Schuylkill River will offer visitors majestic views of the colorful fall foliage and vibrant landscape along Kelly Drive. Activities will include pumpkin painting, apple bobbing, scavenger hunts, arts and crafts, and Halloween games. Feast on an assortment of hotdogs, cookies, popcorn, hot apple cider and other spooky treats. Attendees are advised to wear comfortable clothes and shoes, and children are encouraged to show off their Halloween costumes! This program is recommended for families with children ages 4-12. Activities will commence promptly at 1:00pm, and will conclude at 3:00pm. Please arrive on time.

\$5/general admission

Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Sunday, October 14, 2012 at 2:00 pm at Colonial Theatre, 227 Bridge Street, Phoenixville, PA, 610-917-0223



The Secret Cinema will present SCOPITONE PARTY, a unique collection of music films from the early and mid 1960s. They were originally made for a French film jukebox called Scopitone, which entertained patrons in bars, cafes and bus stations in both Europe and America. The film clips, which feature performers both famous and obscure -- and are

considered to be among the more important of the many predecessors to the modern rock video -- are today quite scarce, and difficult to see in their original form.

Shown will be a large assortment of the precious prints (most of which were discovered by a film collector, in pristine, never-used condition, in the long-warehoused inventory of a retired Virginia jukebox dealer). Adding interest to the SCOPITONE PARTY program will be a special talk about the history of film jukeboxes (which date back to the 1940s), illustrated with color slides of rare photos and original advertising materials.

There will be one complete show at 2:00 pm.

Admission: \$8.00, \$6.00 students and seniors, \$5.00 members

Monday, October 15, 2012 | 6:30PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

Authentic Voices in the Exam Room: The Use of Poetic Imagery in Medicine

The storytelling that occurs in the exam room setting often holds the kernel that invites healing. In this presentation, we explore, through the poetry and art of physician and patient, the shadows and muses that are present in clinical encounters, that emerge from conversation, dreamtending, and laying-on of hands. We visit the power of poetry to speak to the many ways that the human body and psyche reflect the distinctive features of the particular geo-sociopolitical environment they find themselves in (lack of health care, illness, grief, war, birth, joy).

Speaker: Gabriella Miotto, MD, MPH

Sponsored by the College's Section on Medicine & the Arts.

Tuesday, October 16, 2012 at 12:00 to 1:00 p.m at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106
Tel: 215-925-2222 • <http://www.chemheritage.org>

Psychopharmaceuticals, 1953–2013: Evolution, Questions, and Controversies"

A talk by Mat Savelli

Since the commercial launch of chlorpromazine (Thorazine, Largactil) in 1953, pharmaceuticals have come to play an increasing role in the treatment of mental illness. This period has also witnessed a growing international homogenization in how mental illness is defined. Although scholars have suggested that these two processes may be linked, more research is needed to identify the connection between the rise of psychopharmaceuticals and the globalization of psychiatric disorders. This discussion will focus on how advertisements contained within medical journals and the popular press can contribute to our understanding of this dual process. In particular, it examines key themes and tropes in the history of psychopharmaceutical advertisements.

Mat Savelli (University of Oxford, 2011) is a historian of medicine with particular interests in postwar psychiatry and pharmaceuticals. His Ph.D. dissertation traced the history of psychiatry in Communist Yugoslavia (1945–1991), and he is presently editing a volume on psychiatry under Communism. His current research examines the international evolution of psychopharmaceutical advertising from 1953 to the present day. His other research projects include cigarette-packaging policy and the history of gambling in Communist Europe.

Free.

Tuesday, October 16, 2012 at 6:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Specters of the Silent City after Sunset: Stories for the Spirited Soul

Laurel Hill seems to acquire an unexplained aura of magic and mystery after the sun goes down... Its enchantment heightens more so in the long, dark and chilly nights of Autumn. Learn more about the surreal and eerie stories that echo within the occupied tombs and empty shadows of Laurel Hill Cemetery. This walking tour will be led by artist, teacher and tour guide, Terri Greenberg. It will conclude with wine, beer and refreshments, and is not recommended for ages under 21 years. Bring your own flashlights.



\$20/person general admission

Advance registration is requested. Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Wednesday, October 17, 2012 | 12:00n – 1:00PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

Food & Thought: "Just Add Water: A Guide to Water-Drinking Myths"

The Internet is filled with commentary on requirements for water drinking, hydration, fluid intake and all such matters. In this talk, we will review how water is handled by the body and discuss four specific claims for incremental water intake:

1. It clears the body of toxins;
2. It leads to weight loss by suppressing appetite;
3. It enhances the appearance of facial skin;
4. It ameliorates headaches.

Speaker: Stanley Goldfarb, MD, FCPP, nephrologist and Professor of Medicine and Associate Dean for Curriculum, the Perelman School of Medicine, the University of Pennsylvania, President of the College of Physicians of Philadelphia



Wednesday, October 17, 2012 at 6:00PM at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

<http://www.penn.museum/events-calendar>

Temples that Speak: Art and Architecture at Copan, Honduras

Honduran archaeologist Ricardo Agurcia Fasquelle, Executive Director of the Copan Association, offers a richly illustrated exploration of the extensive research carried out over the past twenty years on the Acropolis of the ancient Maya site of Copan. Mr. Agurcia speaks about his own discoveries of two extraordinarily well-preserved buildings that represent the only complete examples of Early Classic architecture and monumental art at the site. He gave them the field names "Rosalila" and "Oropendola." Within these two buildings were found magnificent royal tombs whose contents are well represented in the Museum's current exhibition, MAYA 2012: Lords of Time. Admission: \$5; free for Penn Museum members. For more information, call 215.898.2680.

Thursday October 18, 2012 / 6:00 PM-8:30 PM at The Academy of Natural Sciences of Drexel University, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103

<http://www.ansp.org>

Is Sustainable Agriculture Bad for the Planet?

Come to this Urban Sustainability Forum for a panel discussion examining commonly asked questions about sustainable agriculture.

Does eating local really make you a better citizen? Does eating grass fed livestock raise your emissions? Is it worth it to pay extra for organic products? Join contrarian sustainable food author James E. McWilliams and a panel of sustainable food experts as they discuss how we should eat to help the planet.

Members Free; nonmembers \$5;

Register at: <http://octoberusf.eventbrite.com>

The Delaware Valley Amateur Astronomers

is a group of enthusiastic hobbyists who live in and around Philadelphia. The DVAA's monthly meetings are free and the public is invited to attend. Meetings always feature a short talk on "what's up" in the sky currently, as well as a talk by a professional astronomer or members of the DVAA or a neighboring club.

Unless otherwise announced, monthly meetings will be held on the third Friday of each month at the Freedom Hall, in the Upper Merion Township Building, 175 W. Valley Forge Road, King of Prussia, PA 19406

Meetings start at 7:00 with time for informal socializing. Announcements and the main talk begin at 7:30 sharp. Refreshments are provided. Upcoming club events are listed on the DVAA website: <http://dvaa.org>

Thursday, October 18, 2012 at 7:30PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>

Camille Paglia | Glittering Images: A Journey through Art from Egypt to Star Wars

Champion of unbridled conversation, Camille Paglia acquired the nickname "Hurricane Camille" after publishing the 700-page tome on sex, art, and literature titled *Sexual Personae: Art and Decadence from Nefertiti to Emily Dickinson* in 1990. She is one of the most celebrated and castigated scholars of the late 20th century, an "antifeminist feminist, antigay lesbian, and antiliberal liberal" (*Playboy*). A professor of humanities and media studies at the University of the Arts, Paglia is also the author of *Break, Blow, Burn, Vamps & Tramps*, and *The Birds*, a study of Alfred Hitchcock. *Glittering Images* is a passionate tour of art and images that define our visual world.

Free.

Friday, October 19, 2012 at 7:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>
8th Annual Gravediggers' Ball

The Friends of Laurel Hill Cemetery's 8th annual fundraiser is certain to be another enchanting evening of dinner, dancing, entertainment and lasting memories. This year, we will be returning to the historic and hallowed halls of the Union League of Philadelphia. For additional details, including sponsorship opportunities, advertising options and tickets, visit our Event page.



PhACT Event

Saturday, October 20, 2012 - at 2:00 PM

Princeton Professor Michael Gordin will speak on his book: *The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe.*

See Page 1 for more information.

Saturday, October 20, 2012 at 6 - 9 pm at PhillyCAM, 699 Ranstead Street, Philadelphia, PA, 19106

Philadelphia Film Archivists Collective & PhillyCAM present **HOME MOVIE DAY**, celebrating amateur films and filmmakers.

Where can you rediscover the ecstasy of Christmas morning and the giddiness of a summer down the shore? Where can your family members prance across a screen like the movie stars they think they are? Where do film archivists inspect and project those mysterious film reels that have been entertaining the dust in your grandmother's attic? At HOME MOVIE DAY!

The Philadelphia Film Archivists Collective, in association with this year's host PhillyCAM, presents HOME MOVIE DAY, a celebration of amateur film and filmmaking.

Anyone may submit their 16mm, 8mm, or super8 home movies for screening at this free event. They will be inspected and projected by film archivists between 6 and 9pm on Saturday, October 20 at PhillyCAM's community media center in downtown Philadelphia. Advanced drop off of films is preferred but films can of course be brought to PhillyCAM on the day of the event!

Contact lexshmex@gmail.com for more information about advanced drop off and the advanced submission forms.

For more information visit: <http://www.homemovieday.com/>

Admission: **FREE**

Sunday, October 21, 2012 at 2:00 PM at the Tredyffrin-Easttown Historical Society at the Easttown Library, Berwyn, PA. Historian Clarissa Dillon, PhD will challenge your imagination in a talk entitled: **How the Civil War Influenced the American Revolution** (yes, that's the title!). A different approach to traditional history.

Sunday, October 21, 2012 at 1:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Sinners, Scandals and Suicides

Laurel Hill has its brave military heroes like George Gordon Meade, its uplifting reformers like Sarah Josepha Hale, and selfless philanthropists like Robert Carson. But what about the less than pure spirits?... The South Philly gangster who got whacked when he tried to infiltrate the Schuylkill County numbers racket? The Civil War hero who made his fortune from white lightning and who, because of his many illicit affairs, was referred to by the local press as "a slayer of innocence and a robber of chastity"? The chemical heiress who lost her money in an infamous Broadway bomb starring the producer's talentless girlfriend? The noted artist who committed suicide during the Depression when his priceless book and art collections were sold at auction for a few thousand dollars? The final resting places of these troubled souls will be among the many stops on our walking tour of Laurel Hill's scandalous, sinful and sordid side. This walking tour will be led by Tom Keels (www.thomaskiels.com), noted author of such books as *Philadelphia Graveyards and Cemeteries*, *Forgotten Philadelphia: Lost Architecture of the Quaker City*, and *Wicked Philadelphia*. It will conclude with cookies and refreshments.

\$12/person; \$10/seniors + students; \$9/members

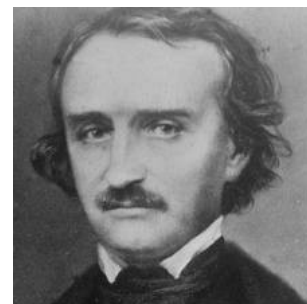
Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Tuesday, October 23, 2012 at 6:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Edgar Allan Poe: Deep into that Darkness Peering

From 1838-1844, Edgar Allan Poe found his home in Philadelphia. During those six years, he produced some of his best-known and most haunting works, including "The Tell-Tale Heart," "The Pit and the Pendulum," "The Fall of the House of Usher," and "The Masque of the Red Death." While no written proof of such has yet been uncovered, some



have speculated that some of Poe's tales may have been inspired amidst the graves and gardens of Laurel Hill Cemetery. Newly opened when Poe took up residence in the city, the famed necropolis could draw more than 40,000 visitors in one season alone... Surely, Poe could well have been among those curious souls. This after-hours tour of Laurel Hill will focus on what history has revealed to us of Poe's time in Philadelphia – on the literature he produced, and the friends, associates and enemies whom traveled within his circles, many of whom now lie at Laurel Hill. With October marking the month of Poe's passing and Halloween on the horizon, this is a fitting time to summon the stories of the Master of the Macabre. This walking tour will be co-presented by board president and board member of the Friends of Laurel Hill Cemetery, respectively, Carol Yaster and Dr. Dave Horwitz. It will conclude with wine, beer and refreshments, and is not recommended for ages under 21 years. Bring your own flashlights.

\$20/person general admission

Advance registration is requested. Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Tuesday, October 23, 2012 | 11:00AM – 1:00PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

The State of Public Health in Philadelphia

The Deputy Mayor for Health and Opportunity and Health Commissioner, Donald F. Schwarz, MD, MPH, FCPP, will discuss the current status of public health in Philadelphia and highlight his objectives for the coming year.

Speaker: Donald F. Schwarz, MD, MPH, FCPP, Health Commissioner and Deputy Mayor for Health and Opportunity

Sponsored by the College and its Section on Public Health and Preventive Medicine.

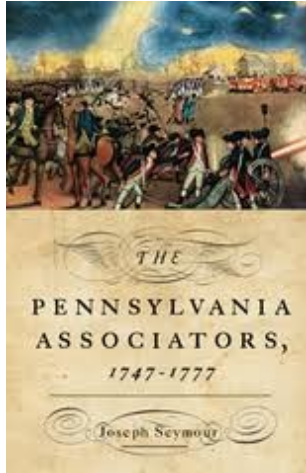
Tuesday, October 23, 2012 at 12:00 to 1:00 p.m. at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

Tel: 215-925-2222 • <http://www.chemheritage.org>

“Engineers’ Class Struggle and the Question of ‘Technology’ in German and American High Industrialism”

A talk by Heidi Voskuhl

Heidi Voskuhl's talk is concerned with the earliest sustained debates about the “consequences” of technology in society, carried out among and between engineers in Germany and the United States in the period around World War I. Engineers raised questions about the relationship between industrialism and the state, technocracy and democracy, and global technological and diplomatic rivalries—but also about their own social status and ethical obligations as a novel expert group in the fast-growing industrial world. Working through a range of social and technical challenges, German and American engineers turned to each other and



traded ideas, artifacts, skills, and financial and ideological support across the Atlantic. Their discussions represent the earliest moments of engineers' active political participation, and they are a prototype of later debates about the abstract and often hazy idea of the “impact” of modern technology on social orders.

Heidi Voskuhl is an associate professor in the Department of the History of Science at Harvard University, where she teaches and researches the history of technology from the early modern to the modern period. She received her Ph.D. in science and technology studies from Cornell University. Her other interests include the philosophy of technology, intellectual history, and theories of literature and culture. At Harvard she also serves on the Degree Committee on Women's, Gender, and Sexuality Studies.

Free.

Wednesday, October 24, 2012 at 7:15 PM at Brittingham's Irish Pub and Restaurant, 640 East Germantown Pike, Lafayette Hill, Pennsylvania. (610)828-7351.

American Revolution Round Table of Philadelphia,

<http://arrtop.com/>

Joseph Seymour will speak on his new book **Pennsylvania Associators, 1747-1777**

Free.

Thursday, October 25, 2012 at 7:00 p.m. at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Religion and Science hosted by Chestnut Hill College

<http://www.irands.org>

Christ and Ecology: Deep Incarnation

Celia E. Deane-Drummond, Ph.D.

How are deep incarnation and Divine immanence related?

Deane-Drummond aims to clarify this relationship and to argue for a grounded understanding of Christology that takes its cues from an expansive interpretation of theodrama, where the central act is the life, death and resurrection of Christ. In her view, other creatures are not simply the stage for human dramatic action, but join in the drama from the beginning of the creation of the world, thus offering a theological basis for valuation of other creaturely kinds.

Celia E. Deane-Drummond is currently a full Professor in Theology at the University of Notre Dame where she is also a Fellow of the Eck Institute for Global Health. Deane-Drummond graduated in Natural Sciences from Cambridge University and obtained a doctorate in plant physiology at Reading University. During her scientific career, she lectured both nationally and internationally and published over thirty scientific articles.

Free.

Thursday Oct 25, 2012 at 6:30 PM-10:00 PM at The Academy of Natural Sciences of Drexel University, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103

<http://www.ansp.org>

Mega-Bad Movie Night - You Call It

Purchase your ticket and vote for which movie we watch! Will it be Bigfoot, 2012: Ice Age, or 2010: Moby Dick?

Join us at the Academy after hours to watch this “awesomely awful” movie! The Academy's own experts will be on stage to comment on the many scientific absurdities—think Mystery Science Theater 3000!

Go to mbmnyoucallit.eventbrite.com/ to cast your vote.

Reception: 6:30–8pm Grab some snacks and a beer, and then check out the many cool things on display at the Academy. We'll have some amazing



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 at the Franklin Institute. 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/

specimens from our collections, exhibits open, and much more!

Movie: 8–10 pm

Must be 18+ years of age to attend event and 21+ to drink.

Beer sponsored by DrinkPhilly.

Watch the Trailers

•**Bigfoot:** youtube/aBobThWI9_o

•**2012: Ice Age** youtube/zxbiNWSNPTk

•**2010: Moby Dick** youtube/-u9pBzV-0Dg

Friday, October 26, 2012 at 10:00am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

Laurel Hill: The Hot Spots and Storied Plots

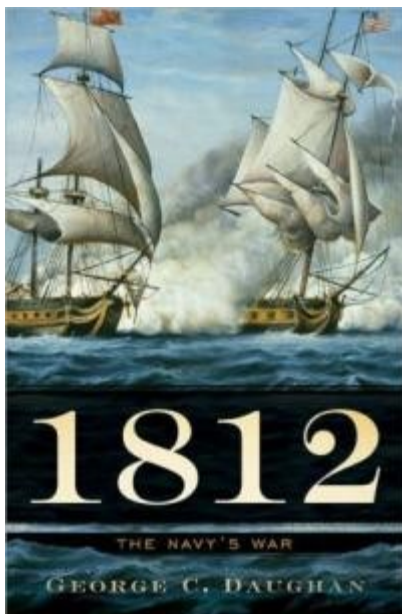
Join us for this informative overview of Laurel Hill's long and colorful history, which will include many of the marble masterpieces, stunning views and legendary stories that afford the cemetery its WOW factor. This is the ultimate tour for first-time visitors to Laurel Hill, and anyone else who likes beautiful art, stimulating history, and just enjoying life...even amongst the dead. This walking tour will be led by Friends of Laurel Hill Cemetery board president, Carol Yaster. NEW Hot Spots and Storied Plots will be presented monthly as part of Laurel Hill Cemetery's Fourth Friday tour series, which take place on the fourth Friday of every month at 10:00am.

\$8/general admission; \$5/members

Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200.

Friday, October 26, 2012 Reception 5:30 p.m. Presentation 6:00 p.m. at the American Philosophical Society, Benjamin Franklin Hall, 427 Chestnut Street, Philadelphia. <http://www.amphilsoc.org>

1812: The Navy's War



George Daughan holds a Ph.D. in American History and Government from Harvard University and is a recipient of the 2008 Samuel Eliot Morison Award for his previous book, *If By Sea: The Forging of the American Navy—From the Revolution to the War of 1812*. At the outbreak of the War of 1812, America's prospects looked dismal. It was clear that the ocean would be the war's primary battlefield—but America's war fleet, only twenty ships strong, faced a practiced British navy of more than a thousand men-of-war. Still, through a combination of nautical deftness and sheer bravado, the American navy managed to take the fight to the British, turning the tide of

the war: on the Great Lakes, in the Atlantic, and even in the eastern Pacific.

In 1812: *The Navy's War*, prizewinning historian George Daughan tells the thrilling story of how a handful of heroic captains and their stalwart crews overcame spectacular odds to lead the country to victory against the world's greatest imperial power. A stunning contribution to military and national history, *1812: The Navy's War* is the first complete account in more than a century of how the U.S. Navy rescued the fledgling nation and secured America's future.

Free but please RSVP at <http://www.amphilsoc.org/node/3788>

Saturday, October 27, 2012 at 9:30 AM to 2:30 PM at the 1696 Thomas Massey House, Broomall, PA. **Hands-on Workshop: A Fall Meal.** A meal will be prepared in the 18th century manner with seasonal foods. For more information and to register, call (610) 642-4269
Cost: \$35.00 per person; registration limited

Saturday, October 27, 2012 | 10:00AM – 5:00PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

The Mütter Museum's Annual Day of the Dead Festival

Come celebrate this traditional Mexican holiday with an all-day event at the Mütter Museum! Decorate sugar skulls, enjoy traditional food and drink, and visit the Museum!

Sponsored by the Mütter Museum of The College of Physicians of Philadelphia.

Tuesday, October 30, 6:00-8:30pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

Halloween Flashlight Tours at Laurel Hill Cemetery

Laurel Hill Cemetery's annual Halloween tours have become a mainstay of the season, but always have something new to offer. Guides will lead you along winding, dimly-lit pathways and through forests of gravestones and sculptures, as you learn about the history of this enchanting site. Along the way, you'll meet some of Laurel Hill's most restless spirits, as portrayed by talented local actors, the Not Ready for Afterlife Players, under the direction of theater veteran, Larry Arrigale. After your tour, feast aside fire pits on cookies, hot apple cider and other spooky treats. Halloweeners will have a chance to memorialize their visit to Laurel Hill within our "Phantom Photo Booth." These tours are not recommended for children ages 12 and under. Bring your own flashlights.

Multiple tours will depart each night, so tour-takers can arrive at any time during the 2.5 hour nightly schedule.

\$20/person general admission

Advance registration is requested for groups of 10 or more. Tickets can be purchased at the door, or in advance online, or by calling 215.228.8200. In the case of inclement weather or predicted rain, all tickets will be transferable between nights.

Tuesday, October 30, 2012 at 12:00 to 1:00 p.m. at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

Tel: 195-925-2222 • <http://www.chemheritage.org>

"Representations of Chemical Entities in the Late 19th Century"

A talk by Ari Gross

How do you represent that which cannot be seen? How do general stylistic conventions, limitations of one's media, and technical considerations come into play when depicting objects that escape the eye? Specifically, how did late 19th-century chemists depict the objects of their inquiry, and how did their depictions in turn affect their work? This talk will introduce Ari Gross's research into the history and philosophy of late 19th-century structural chemical diagrams and models. Gross will review his earlier work on the representations used by Kekule and Crum Brown in the 1860s and introduce his latest research on the diagrams and models employed by early stereochemists from the 1870s onward.

Ari Gross is a Ph.D. candidate at the Institute for the History and Philosophy of Science and Technology at the University of Toronto. He holds a B.Sc. in physics (Mt. Allison University) and an M.Sc. in history and philosophy of science (Utrecht University). His primary research is on the history and philosophy of diagrams of "invisible" objects, although he also holds a strong interest in anatomical representations. He is also co-curator of the University of Toronto Scientific Instrument Collection (www.utsic.org) and coeditor of the journal *Spontaneous Generations: A Journal for the History and Philosophy of Science*.

Free.

Tuesday, October 30, 2012 | 6:30PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

The Annual Robert L. Sadoff, MD, FCPP Lecture: "The Goodness of the Physician: Hippocrates to High Tech"

Since the time of the ancient Hippocratic authors, the physician's personal goodness and morality have been thought to play a significant role in healing. This concept faded in the 18th and 19th century as scientifically-based methods entered increasingly into diagnostic and therapeutic use. It gradually returned in the late 19th and early 20th century, only to be engulfed by the advent of biotechnology in the 1960s. Objectified medicine-at-a-distance has increasingly become the standard of care. The speaker plans to trace the history of the 2500 year notion of the physician's goodness as it has evolved into its present troubled and neglected state. He suggests new approaches to mitigating the associated loss of the personal bond between doctor and patient.

Speaker: Sherwin B. Nuland, MD, Clinical Professor of Surgery (retired) at Yale University

Sponsored by the College and its Section on Medicine, Ethics, and the Law.

Monday, November 5, 2012 at 7:30PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>

Mark Bowden | The Finish: The Killing of Osama Bin Laden

An award-winning national correspondent for the Atlantic, Mark Bowden is the author of numerous books of investigative journalism, including the New York Times bestselling classic of war reporting, *Black Hawk Down*. Floodlighting modern war with first-person accounts of the courage and brutality of battle, the book was a finalist for the National Book Award and was adapted into a major film. Bowden's other books include *Killing Pablo*, winner of the Overseas Press Club's Cornelius Ryan Award for book of the year, and *Guests of the Ayatollah*, listed by Newsweek as one of "The 50 Books for Our Times." His new book, *The Finish* is a blow-by-blow account of the hunt for Bin Laden from the war room to Abbottabad, where the special forces eliminated the terrorist mastermind.

Free.

Tuesday, November 6, 2012 at 12:00 to 1:00 p.m. at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

Tel: 215-925-2222 • <http://www.chemheritage.org>

'Quality Tobacco': The Making of the Concept and the Crop

A talk by Sarah Milov

What does "quality" mean for an addictive, cancer-causing product? As the cigarette faced medical scrutiny in the United States in the late 1950s and early 1960s, farmers, domestic cigarette manufacturers, and USDA officials argued over this very question. To define quality, each group invoked its own notions of expertise. Cigarette companies cited the results of "taste panels" conducted by "expert smokers"; agriculture officials pointed to chemical analyses performed at land grant colleges; and farmers defended the quality of their crop by pointing to their historical reputation as skilled producers and impugning the motives of their detractors. Ultimately, debates over quality were scuttled by the need for the entire tobacco trade to maintain a unified front against antismoking activists. Sarah Milov's talk will highlight the constructed, chimerical notion of "quality," suggesting that taste cannot be divorced from the political and institutional context of the cigarette's descent from a luxury good into an economic bad.

Sarah Milov is a doctoral candidate in the history department at Princeton University. Her dissertation is entitled "Little Tobacco: The Business and Bureaucracy of Tobacco Farming in North Carolina, 1920–1980." In it, she places farmers at the center of the history of the cigarette, arguing that farmers produced not only tobacco but also new systems of marketing, interest-group organizations, and discourse. At Princeton her work has been supported by the Program in American Studies and the Society of Woodrow Wilson Scholars. She will defend in 2013.

Free.

Wednesday, November 7, 2012 at 6:00 PM at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

<http://www.penn.museum/events-calendar>

"Great Battles" Evening Lecture

The First Crusade: Three Battles for Latin Christendom

From 1096 to 1101, over 100,000 people from all over Western Europe set off towards Jerusalem. These men and women, these warriors and pilgrims, priests and nuns, lords and laborers, didn't have a name for what they were doing—no one would use the word Crusade to describe an armed pilgrimage, or holy military expedition, until more than another century had passed. Yet the battle that preceded their march, a battle along the way to Jerusalem, and still another after that city was conquered by a tiny remnant of the original force, combined to permanently reshape the nature (both spiritual and physical) of Catholic Europe. Dr. Jessica Goldberg, Assistant Professor, Medieval History, University of Pennsylvania, speaks at this "Great Battles: Moments in Time that Changed History" series lecture program. Admission with advance



registration: \$5, general public; \$2, Penn Museum members; \$10 at the door based on availability. To register, visit www.penn.museum/greatbattles. For more information, call 215.898.2680.

Wednesday, November 7, 2012 at 7:00 PM at Frankford Hall on Frankford Avenue just north of Girard Avenue.

Philadelphia Nerd Nite

For more information see the website at

<http://philadelphia.nerdnite.com/updates/>

Admission is \$5.00, all are welcome. Great food and beer is available in addition to the company of fellow Nerds.

Be there and be square.



Wednesday, November 7, 2012 | 6:30PM

at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia,

PA 19103, (215) 563-3737 x304

http://www.collphyphil.org/prog_calendar.htm

The Kate Hurd-Mead Lecture: The History of Cystic Fibrosis, and the Future of Genetic Medicine: Treatment, Diagnosis, Screening, Marketing . . . and Transformation

In only three years, between 1957 and 1960, the Cleveland Comprehensive Treatment Program for Cystic Fibrosis reduced annual mortality from 10 percent to 2 percent in CF patients being treated there. Early reports of its effects were so incredible that they were considered implausible by others treating CF. After an investigation sponsored by the U.S. Cystic Fibrosis Foundation in 1961 the protocol was introduced in the then 31 Cystic Fibrosis Foundation Centers nationwide and annual mortality began to fall nationally. In modified form, the program developed in Cleveland in the late 1950s is still used in the 117 CF Centers in the United States today and in other CF clinics around the world. In this talk, I explore the long term implications of this transformation of CF, from a disease almost always fatal in infancy to one with a living cohort now in their 50s and 60s. CF was transformed by clinical and diagnostic interventions, and can now be recognized in the carrier state, in utero, and in the newborn (where screening is common in the industrialized world). I propose that the story of CF provides compelling insights into the rise of genetic medicine, and both the promises and the difficulties of our increasing access to genetic information at every life stage.

Speaker: Susan Lindee, PhD, History and Sociology of Science, the University of Pennsylvania

Sponsored by the College's Section on Medical History and the Drexel University College of Medicine.

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I support the aims of PhACT and would like to join/rejoin for the next year. The annual membership is \$15 and \$10 for students which includes e-mail delivery of Phactum.

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The Philadelphia Association for Critical Thinking is grateful for the hospitality extended by Community College of Philadelphia and especially Dr. David Cattell, Chair of the Physics Department, for hosting PhACT and giving us access to such excellent facilities. Part of CCP's mission is to serve Philadelphia as a premiere learning institution and PhACT is pleased to support this goal by having talks on wide ranging, engaging, and educational topics.

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Prizes awarded in 2010	= \$ 300.00
Prizes awarded in 2011	= \$ 500.00
Prizes awarded in 2012	= \$ 150.00
Total 2013 Prize Fund	= \$ 163.00

Please donate. Small contributions are preferred and donations in excess of the 2013 goal will be applied to the 2014 Prize Fund or some other youth science education project not yet determined.

ALL money collected for this project will be used for student prizes. PhACT members and others are invited to participate as judges. Contact Eric Krieg for more information: erickrieg@verizon.net

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

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