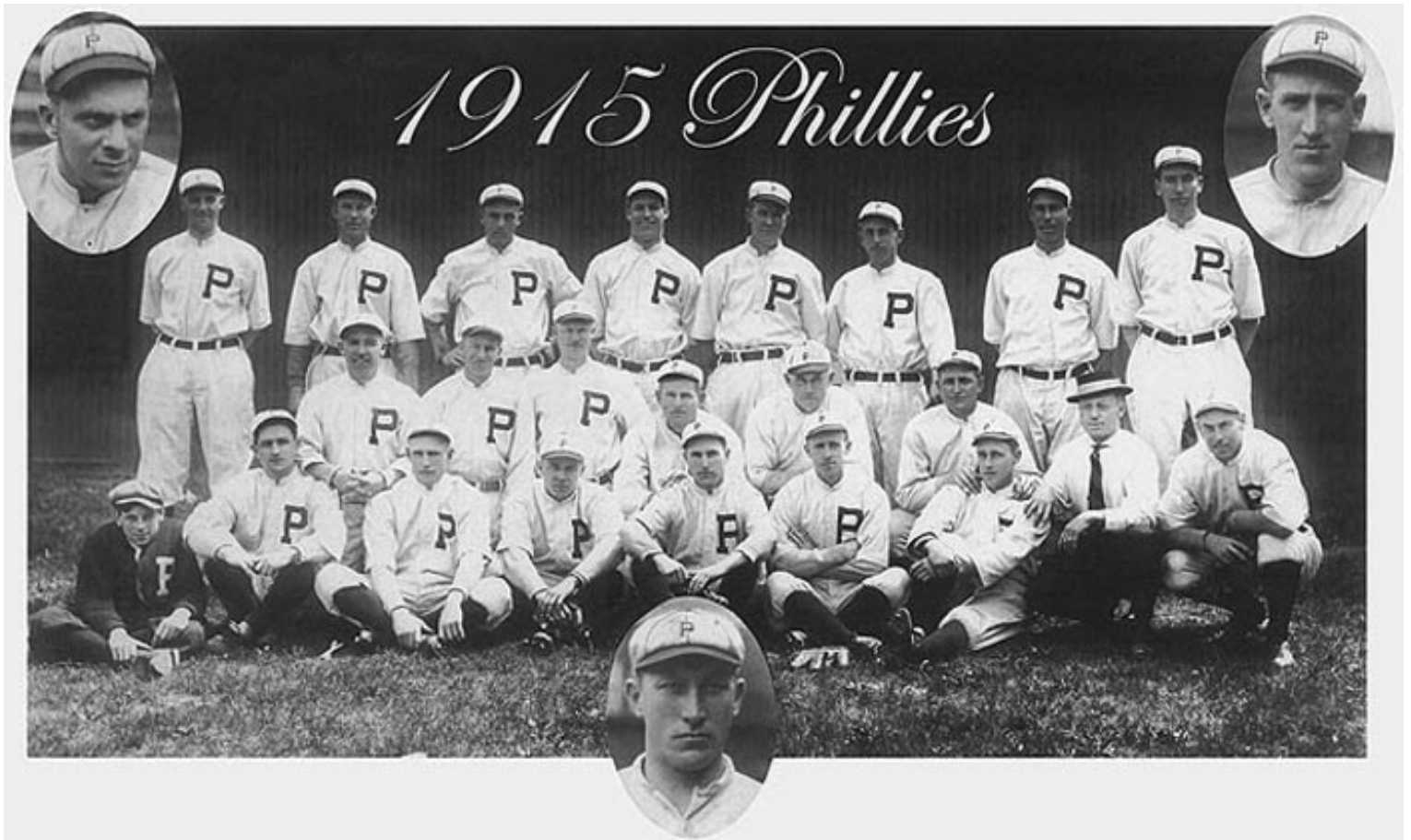


Phactum

The Newsletter and Anti Woo Woo Organ of the
Philadelphia Association for Critical Thinking
July/August/September 2015

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

The 1915 National League Pennant Winners



Philadelphia Phillies vs Boston Red Sox 1915 World Series

On September 29, 1915 the Philadelphia Phillies with the great Grover Cleveland Alexander pitching, defeated the Boston Braves and won the National League Pennant for the first time since their admission to the league in 1882. This victory gave them the right to play against American League pennant winners, the Boston Red Sox in the World Series.

The first game of the World Series, played at Baker Bowl in Philadelphia with Alexander pitching, resulted in a 3-1 victory for the Philadelphia team. In that game Alexander struck out a young player named Babe Ruth in the 9th inning. Alas, the Phillies did not fare well in the next 4 games, losing each by a single run. The loss of the fifth game, at home in Baker Bowl, extinguished their hopes of a World Series victory for that year and indeed until 1950. Oddly enough, the Philadelphia Athletics were the American League Pennant winners in 1914 but they lost in the World Series in four games against the Boston Braves, the final game being at Fenway Park in Boston.

Pictured above, at the second game in Philadelphia, President Woodrow Wilson throws the ceremonial pitch and was the first United States President to attend a World Series game. Wilson was an avid baseball fan having played while attending Davidson College. He declined to use his Presidential Pass when attending baseball games, insisting on paying for his tickets. In the picture above Wilson's fiancée, Edith Bolling Galt, is seated to his right. They were wed December 16, 1915.



Phactum Table Of Contents

Upcoming PhACT Events	p.	3
Letters to the Editor	p.	9
Various Ruminations	p.	10
Apr/May/June Meeting Reports	p.	12
Off the Beaten Path	p.	16
The Flight of Kings by Kim A. Sheridan		
Poetry and Parkinson's by Minter Krotzer	p.	19
Skeptics Categorized by a Skeptic by Paul Schlueter III	p.	20
Book Review - The Hot Zone by Paul Schlueter III	p.	21
Heverdahl Vindicated - Somewhat By Paul Schlueter	p.	22
Homeopathy at Thomas Jefferson University by Gary Shugar, M.D.	p.	24
PhACT Calendar	p.	26

Phactum's Roster of I.R.E. (Infamous Rational Errors)

Phactum contributor Paul Schlueter III has accumulated over time a vocabulary listing of many of the egregious flaws of thinking, devious tactics of argument, and some pretty cool Latin phrases that might sound impressive used at a social gathering. This listing is nowhere near complete, but has been made into a pamphlet that is available free and only at PhACT Meetings. It is a handy little reference booklet that writers of philosophic and political nature might profitably keep by their typewriter. Meeting attendees are invited to take one and are invited to participate in expanding the listing in the next edition as it is intended to be a collaborative project.

Definitions and examples should be short and to the point and may be submitted to the *Phactum* editor at:

phactpublicity@aol.com

New entry: **STALKING HORSE**, n. - 1. Something used to cover one's true purpose; a decoy. 2. In politics a sham candidate put forward to conceal the candidacy of another or to divide the opposition.

UPCOMING 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 garage on 17th Street which is one way south bound. It opens at 1:00 PM and closes at 6:00 PM. This meeting site is handicap accessible. **PhACT Meetings are Free and open to the public unless otherwise noted.**



Lectures are generally 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, unless otherwise noted.

Saturday, September 19, 2015 at 2:00 PM - Lecture
In Lecture Room W2-48 in the West Building at the corner of 17th and Spring Garden Streets. This is NOT our usual location.

Professor Paul Halpern will discuss his new book *Einstein's Dice and Schrödinger's Cat: How Two Great Minds Battled Quantum Randomness to Create a Unified Theory of Physics*

Is there a Grand Unified Theory in your future. Come to this meeting to get some insights on this matter.

Dr. Halpern is the author of many widely acclaimed popular science books, including *Countdown to Apocalypse*, *The Quest for Alien Planets*, *The Cyclical Serpent*, *The Structure of the Universe*, *Cosmic Wormholes* and *Time Journeys*. He has received accolades and praise from numerous publications, including *Publishers Weekly*, the *San Francisco Chronicle*, *Nature*, *Scientific American*, *Sky & Telescope* and *New Scientist*. The *Cyclical Serpent* was chosen as one of the best Sci-Tech books of 1995 by *Library Journal*, and *Cosmic Wormholes* was chosen as a main selection of the Astronomy and Natural Science Book Club. He has appeared on many television and radio shows, including the PBS series "Future Quest" and the National Public Radio show "Radio Times."

Dr. Halpern was the recipient of a prestigious 2002 John Simon Guggenheim Memorial Foundation Fellowship Award. He was among 184 artists, scholars and scientists nationally selected to receive a fellowship from more than 2,800 applicants for awards totaling \$6,750,000. Guggenheim Fellows are appointed on the basis of distinguished achievement in the past and exceptional promise for future accomplishment. He will use the fellowship award to examine the history of the notion of higher dimensions in science, as well as the impact of this idea upon popular culture. His research, "The Concept of Dimensionality in Science," will cover the period from the mid-19th century, when the idea of the fourth dimension was first introduced, until the late 20th century, when scientists developed 10 and 11 dimensional models of the universe.

A recipient of the Athenaeum Society Literary Award, he has published numerous research articles in the fields of general relativity, cosmology, chaos theory and complexity. In 1996, he was a Fulbright Scholar to Humboldt University in Berlin, Germany, where he studied evolutionary algorithms.

Einstein's Dice and Schrödinger's Cat: How Two Great Minds Battled Quantum Random- ness to Create a Unified Theory of Physics

By Paul Halpern

Publisher: Basic Books 4/14/2015

Hardcover \$27.99 / \$31.00 CAN

ISBN 13: 978-0-465-07571-3 ISBN 10: 0465075711

The story of the doomed competition between two of physics' greatest to create a grand unified theory

Albert Einstein and Erwin Schrödinger were friends and comrades-in-arms against what they considered the most preposterous aspects of quantum physics: its indeterminacy. Einstein famously quipped that God does not play dice with the universe, and Schrödinger is equally well known for his thought experiment about the cat in the box who ends up "spread out" in a probabilistic state, neither wholly alive nor wholly dead. Both of these famous images arose from these two men's dissatisfaction with quantum weirdness and with their assertion that underneath it all, there must be some essentially deterministic world. Even though it was Einstein's own theories that made quantum mechanics possible, both he and Schrödinger could not bear the idea that the universe was, at its most fundamental level, random.

As the Second World War raged, both men struggled to produce a theory that would describe in full the universe's ultimate design, first as collaborators, then as competitors. They both ultimately failed in their search for a Theory of Everything—not only because quantum mechanics is true, but because Einstein and Schrödinger were also missing a key component: of the four forces we recognize today (gravity, electromagnetism, the weak force, and the strong force), only gravity and electromagnetism were known at the time.

Despite their failures, though, much of modern physics remains focused on the search for a Theory of Everything. As Halpern explains, the recent discovery of the Higgs Boson makes the Standard Model—the closest thing we have to a unified theory—nearly complete. And while Einstein and Schrödinger tried and failed to explain everything in the cosmos through pure geometry, the development of string theory has, in its own quantum way, brought this idea back into vogue. As in so many things, even when he was wrong, Einstein couldn't help but be right.

Paul Halpern is a professor of physics at the University of the Sciences in Philadelphia, and the author of thirteen popular science books, most recently *Edge of the Universe*. He is the recipient of a Guggenheim Fellowship, a Fulbright Scholarship, and an Athenaeum Literary Award. Halpern has appeared on numerous radio and television shows including "Future Quest," "Radio Times," several shows on the History Channel, and "The Simpsons 20th Anniversary Special." He has contributed opinion pieces for the *Philadelphia Inquirer*, and is also a regular contributor to NOVA's "The Nature of Reality" physics blog.

Einstein's
Dice and
Schrödinger's
Cat



HOW TWO GREAT MINDS BATTLED
QUANTUM RANDOMNESS TO CREATE
A UNIFIED THEORY OF PHYSICS

PAUL HALPERN

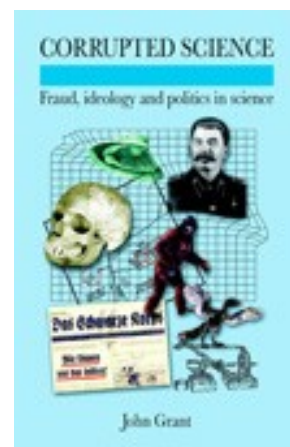
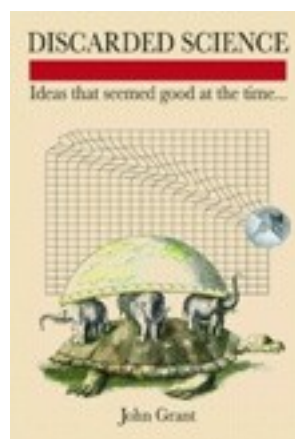
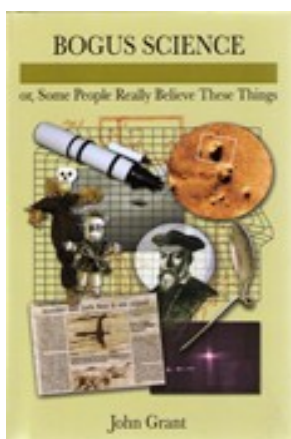
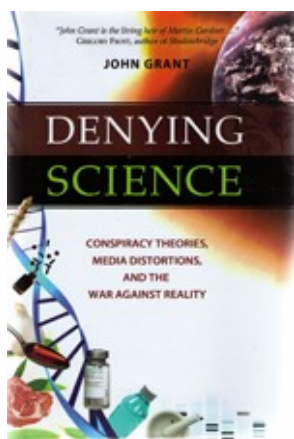
**Saturday, October 17, 2015 at 2:00 PM - Lecture
In Lecture Room C2-28 in the Center for Business and Industry at the corner of
18th and Callowhill Streets.**

John Grant will discuss his latest book, *Debunk It! How to Stay Sane in a World of Misinformation*.

Spooky Science

John Grant, author of a string of books about pseudoscience and the falsehoods purveyed at the fringes of science (*Discarded Science*, *Corrupted Science*, *Denying Science*, *Debunk It*, etc.), returns to PhACT to report on the subject of his latest investigation: the attempts to apply science to the supernatural. He'll be focusing on such exciting topics as the physics of the soul (does the soul have weight? can it be photographed? can the trail of migrant souls leave traces in a bubble chamber? can the soul be improved by appropriately woven underwear?) and, since he's addicted to puns, he'll be looking also at the deductive trail that led psychic researchers to the conclusion that S.G. Soal -- the British equivalent of J.B. Rhine -- fudged his results. En route he'll glance at the secrets of some of the "most successful" psychic detectives, the eagerness of eminent elderly male Victorian scientists to accept the veracity of pretty young female spirit mediums, the gullibility of Sir Arthur Conan Doyle and the wonderfully refreshing skepticism of Harry Houdini, and more . . .

John Grant is author of seventy books, twenty five of which are fiction, the remainder being diverse topics many that would appeal to science minded skeptics.



For more information about John Grant view: www.johngrantpaulbarnett.com

Some books out now include:

Debunk It! (YA nonfiction from Zest): <http://zestbooks.net/debunk-it/>

Out now:

Tell No Lies (new story collection from Alchemy Press): <http://tinyurl.com/nha7efg> (US) and <http://tinyurl.com/pft3z57> (UK)

Out now:

A Comprehensive Encyclopedia of Film Noir: <http://tinyurl.com/lfr25o2>

Follow *Noirish* at <http://noirencyclopedia.wordpress.com/>

No matter how the bologna is sliced, it's still...



In *Debunk It!*, author John Grant uses modern, ripped-from-the-headlines examples to explain clearly how to identify bad evidence and dismantle poor arguments. He provides a roundup of the rhetorical tricks people use when attempting to pull the wool over our eyes, and even offers advice about how to take these unscrupulous pundits down. So, if you're tired of hearing blowhards spouting off about climate change, history, evolution, medicine, and more, this is the book for you. *Debunk It!* is the ultimate guide for readers seeking a firmer footing in this very slippery world.

"This can't-miss title is great recreational reading for budding skeptics as well as an outstanding addition to units on science, current events, or debate. A must-have." – School Library Journal (Starred Review)

Zest Books // 978-1-936976-68-3 // \$12.99

Saturday, November 21, 2015 at 2:00 PM - Lecture In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets.

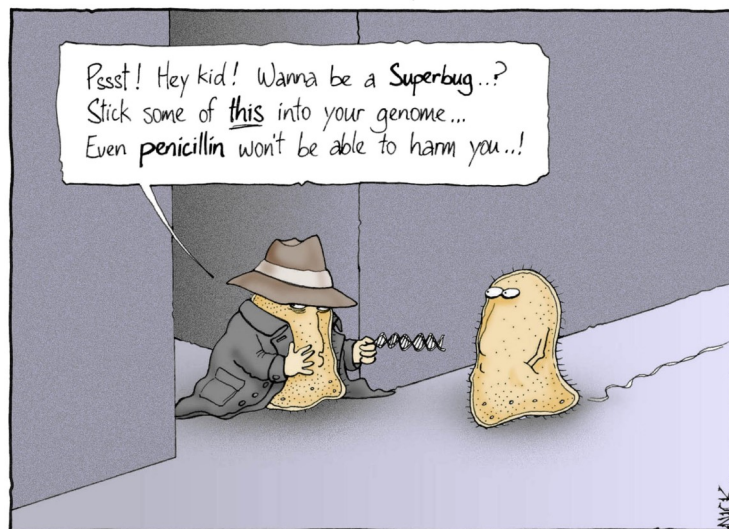
Dr. Robert Baldassano will discuss: **The Ecosystem Within You, How is it Affecting You?**

The ecosystem within you, how is it affecting you? Did you know your body has over 10 times as many bacterial cells as your own cells? One of the hottest areas of human biology is new revelations on how this previously ignored complex symbiotic relationship really works. New research shows the ecosystem within you can have a big affect on auto-immune diseases, weight problems and even your emotional state. Our speaker recently got a large grant to set up a research group to study the DNA of the bacteria that live in your intestinal tract. Come learn about what the new local research on this can mean for all of us.

Robert N. Baldassano earned his Doctor of Medicine degree at the State University of New York Health Science Center at Brooklyn, College of Medicine. Dr. Baldassano completed his Pediatric Residency and Pediatric Gastroenterology and Nutrition Fellowship at The Children's Hospital of Philadelphia (CHOP). He is the recipient of the Pediatric Housestaff Humanitarian Award, the Crohn's and Colitis Foundation of America Research Fellowship Award, the Golden Apple Award for Excellence in Pediatric Resident Teaching at Geisinger Medical Center, the Education Award for Excellence in Inflammatory Bowel Disease Teaching, Research and Clinical Care, the David Cornfeld Bedside Teaching Award, Blockley Osler Teaching Award and has been named as a "Top Doctors in Philadelphia" for the past eighteen years. He is currently the Colman Distinguished Professor of Pediatrics at the Perelman School of Medicine at the University of Pennsylvania, Director of the Center for Pediatric Inflammatory Bowel Disease and Director of the Microbiome Center at CHOP.

Dr. Baldassano has been instrumental in developing an international consortium for the study of the gene responsible for causing pediatric inflammatory bowel disease (IBD). He has chaired multiple national and international programs including the Pediatric Affairs Committee for the Crohn's and Colitis Foundation of America (CCFA), the Pediatric Abstract Review Committee Pediatric for the American Gastroenterological Association (AGA), the Inflammatory Bowel Disease Committee for the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN), and the IBD Consortium. He has been a member of the IBD Classification Committee, IBD Guidelines Committee, Pediatric Affairs Committee (Patient Education, Clinical Trials), and the Pediatric Challenges in IBD Research Committee (Steering Committee, Genetics Focus Group, Clinical Trials Focus Group, Quality Improvement/Adverse Event Tracking Focus Group) for NASPGHAN and CCFA. Dr. Baldassano has served on the Board of Trustees for the CCFA at both the local and national levels. He also participates as the Co-Chair for the Children's Digestive Health and Nutrition Foundation (CDHNF) IBD Committee.

Dr. Baldassano is on the editorial advisory board for five journals. He has published greater than 150 papers on pediatric IBD and is editor of 2 pediatric IBD textbooks.



It was on a short-cut through the hospital kitchens that Albert was first approached by a member of the Antibiotic Resistance.

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

Saturday, May 21, 2016 - PhACT Expedition to Haycock Mountain

In the 19th and early 20th centuries there were countless peculiar articles about American wild men, reportedly hairy, man-like beings, in newspapers across the country. It was once believed that civilized people who went into the wilderness to live might revert to an animalistic state and grow a coat of fur all over their bodies. And, in the early 20th century, one of these feral men was thought to be haunting 980 foot high Haycock Mountain in Upper Bucks County.

Our guide, Don Nigrone, will relate the legend of the **Wild Man of Haycock Mountain**. Robb Kerr and Jeff Cooney will be providing zoological and botanical information about this Piedmont site, which overlooks scenic 1,450-acre Lake Nockamixon, and professional photographer Ned Levi will be photo-documenting the day's activities. We will meet at the Nockamixon State Park boat rental concession (<http://www.dcnr.state.pa.us/stateparks/findapark/nockamixon/>) at 10:00 AM. Then we will caravan to nearby Haycock Mountain where one search party will ascend the hill, a steep and difficult climb requiring some bouldering, while a second search party will proceed along an old logging road at its base, a flat and easy walk. After a noon lunch at the picnic tables by the boat rental concession, participants can take a short drive caravanning past the nearby mysterious Rosicrucian pyramids, stop at the historic Levi Sheard Mill, a grist mill dating back to at least 1798, and drive over the 130 foot long picturesque Sheard's Mill Covered Bridge (1873). Also, the Nockamixon State Park boat rental concession (<http://www.nockamixonboatrental.com/>) provides kayaks and pontoon boats with a five person capacity for those interested in boating on the lake.

Although we may not find the Wild Man of Haycock Mountain, we will learn about his legend and inspect his wild habitat. Bring insect repellent, sturdy shoes, lunch, and a camera. The event is free and open to the public. Feel free to join us for any or all of these activities.



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Letters to the Editor

Letters to the Editor are encouraged.
Send to PhACTPublicity@aol.com

Editor: One way to judge woo woo is how far it is from real Science. The following is an example of Woo that tries to build a bridge between Hinduism and Science.

Everything in matter can exist in consciousness.

The unconscious is not always in consciousness but it can be in consciousness. Similarly, your blood circulation, digestion and immune response are not always in consciousness but they can be. However, in principle, free will can never be in matter. To know matter, an instrument of knowing must exist separate from the known object. To measure length, a meter must be separate from the object being measured, to know temperature a thermometer must exist. There is never a scenario in which an object can know itself. Hence, there can never be self-awareness in matter. Note, however, that sensation, thought, intention, qualia, etc. all exist in matter, although they are different kinds of matter. Only self-awareness is non-material.

As someone with a fairly good feel for real physics, I see how this is merely stringing a bunch of Physics lessor understood physics terms together to try to build justification for

supernatural spirit. It is really just gibberish - but reminds me of the efforts by creationists to appear "Sciency."

Eric Krieg
Maple Glen, Pennsylvania

Editor: In a letter I wrote to Phactum (April/May/June 2015 p. 8) I defined a sidereal year as the time it takes for the earth to go around the sun as seen from Tralfamadore and other distant planets and stars. Shortly after publication, I realized that's not entirely correct, because Billy Pilgrim taught in Slaughterhouse-Five that "Earth can't be detected from Tralfamadore, as far as that goes. They're both very small. They're very far apart."

Organic Syntheses (books and www.orgsyn.org) is the most reliable source for the synthesis of organic (carbon-containing) compounds: the reactions have all been independently checked. Organic Syntheses Collective Volume 1 has a preparation for Hydrogen Cyanide (Anhydrous) on pages 314 to 316. On page 315, under "Notes", it says "1. Gattermann recommends that the operator smoke during the preparation, for he found that a trace of hydrogen cyanide is sufficient to give the tobacco smoke a highly characteristic flavor. This preliminary warning is useful in case of leaky apparatus or a faulty hood." I've known about this passage for years, but only recently did it occur to me that it was an interesting anecdote worthy of publication in Phactum.

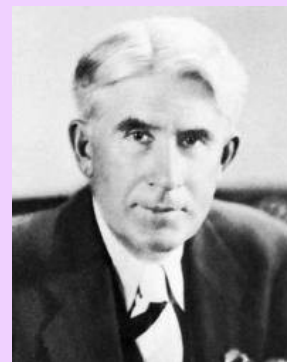
But just now, I realized there's a connection between the two above paragraphs, which were originally intended to be

Reader Participation Desired for Phactum

"I can write best in the silence and solitude of the night, when everyone has retired." -- Zane Grey

You need not be a night owl novelist like Zane Grey to participate in Phactum. We are not currently seeking cowboy novels or somnambulist testimonials, but constructive letters to the editor and articles on almost any topic are desired. Consider investigating a topic that interests or bugs you, write it up, and send it in. Suggested improvements to Phactum, letters of opinion, announcement of events, and original poetry are desired. Zane Grey's greatest novel "Riders of the Purple Sage" suggests a topic ... *Salvia dorrii*, also called Ute tobacco sage and Dorr's sage has showy purple flowers. It is a mild hallucinogen when smoked, and is used in Native American ceremonies and Native American herbal medicine. It is native to the western United States, including Utah, and has been identified as the plant Grey had in mind. We do not suggest Purple Sage as a creativity booster.

Zane Grey, by the way, played baseball on a scholarship at University of Pennsylvania where he graduated in 1896 having studied dentistry. An article about famous or infamous dentists from Philadelphia might be an good topic. Gunslinger Doc Holliday was also a Penn graduate.



Pearl Zane Grey
(1872 - 1939)
American novelist

separate letters to the editor: The atmosphere on Tral-famadore is cyanide. As my coincidences go, I give this about a 3 out of 10.

Howard J. Wilk
Philadelphia

Editor: I have previously reviewed (separately) two books by Bryan Sykes, a British geneticist who has written to popularize DNA testing to identify the genetic heritage of living subjects. The first review was of "Saxons, Vikings, and Celts," and the second was of "DNA USA."

It seems that Sykes has more recently become somewhat controversial, regarding his analysis of the DNA found in submitted samples which were suggested to come from cryptids. While Sykes's analysis did not claim to find Yeti DNA, he was reported (in the *Skeptical Inquirer*) as having suggested that certain hairs he tested were from an "unknown bear" in the Himalayas, and stating that he intended to travel there for further research.

In the latest SI (July/August '15), a Special Report announces that Sykes was somewhat offbase. Presumably, the hairs tested were from a "brown bear," and one that is closely related to polar bears. Sykes's research was critiqued rather thoroughly, and some of his earlier findings were called into question as well. Sykes earlier analyzed DNA from an ancient specimen in Britain which he called "the Cheddar Man," a Floridian found (later discredited) to be descended from Genghis Khan, and presumably a living woman called "Zana" who is speculatively identified as a potential "ape-person."

Of the three refuted findings, I'm only marginally familiar with the first, and I haven't sufficient expertise to address the issues of any.

I have previously stated that Sykes is an accomplished story-teller, and I admire him for his ability to interweave history, archaeology, genealogy, and legend with his writing in the books I reviewed. The SI article proposes that Sykes may have become less-than scientific of late, perhaps in the interest of capitalizing upon a newfound interest in cryptozoology. The article's authors make a strong case, which I'll let you read for yourself. There is also the possibility that we are here witnessing an example of "The Sagan Effect," where a scientist's acquisition of fame tends to diminish his professional credibility; the effect can occur whether the scientist "sells out his integrity" or is simply the target of jealous criticism.

I continue to admire Sykes's work in the books identified above, but good skeptical integrity demands that I point out this new challenge to Sykes's credibility, at least looking forward. I hope readers will share anything further, as it becomes available.

Paul Schlueter III
Dallas, PA

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Various Ruminations of Woo Woo and Real Science and some Gossip

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

Is this the Last Phactum and last PhACT Meeting??

It seems that way if one believes this website predicting the End of the World.

<http://worldtruth.tv/combined-disasters-warning-the-illuminati-know-what-is-coming-september-22-28-2015/>

It might make sense to attend the PhACT Meeting on September 17 to hear thoughts about the Cosmos from Cosmologist Paul Halpern. If he is alarmed then maybe it is time to panic.

Farmers' Almanac predicts another nasty winter for the Northeast

The Almanac has been predicting weather for 199 years using a method devised in 1818 that is basically unchanged today. The Almanac predicted a bad winter last year in New England and was on target for that region. Predictions for the west were not so accurate.

But you have now been warned. Stock up on comfort food for the snowbound, unless of course, the world has ended.

Homeopathy 1 - Extend the Life of Your Homeopathic Remedy

Get a load of this item from *Homeopathy Plus*, an Australian based publication dedicated to the propagation of homeopathic medicine.

Q. If I am running out of a liquid remedy, is there some way to extend it until I can purchase a new bottle?

A: Yes. It is possible to "stretch" an almost depleted liquid remedy while you waiting for a replacement.

Just add a teaspoon or two of water to the almost empty bottle and give it 5 – 10 succussions (firm strikes of it's base against the palm of your hand) and you are good to go – just use it as normal.

That which can be asserted without evidence can be dismissed without evidence.

~ Christopher Hitchens

The energetic imprint of the old remedy quickly transfers to the new liquid, without any noticeable change in its effectiveness. You can now continue with your reconstituted remedy until you get a new bottle. Simple!

Just use it as normal they say? Then why get a new bottle if the reconstituted remedy has been diluted thus enhancing potency?

See: <http://homeopathyplus.com.au/q-if-i-am-running-out-of-a-liquid-remedy-is-there-some-way-to-extend-it-until-i-can-get-a-new-bottle/>

Homeopathy 2 - The Wrong Medicine

Also from *Homeopathy Plus*:

Q. What will happen if I take the wrong homeopathic medicine?

A. In most instances, nothing.

Unlike chemical-based medicines, homeopathy can't poison or produce toxic or dangerous side-effects.

This is because homeopathy is an 'energy medicine' that works on the subtle energy of the human body to stimulate healing.

Click the link below to read the full answer.

<http://homeopathyplus.com.au/q-what-will-happen-if-i-take-the-wrong-homeopathic-medicine/>

Dr. Stephen Barrett reports in Consumer Health Digest.

►► More tips for activists posted (May 17, 2015)

Quackwatch has posted tips for scientific activists who wish to combat misinformation on the Internet. [Romanowski P. Scientific activism for cosmetic chemists (and others), Quackwatch, May 17, 2011] The strategies include: learning what's true, knowing your competition, maintaining a blog, linking to good information, participating in social media, correcting Wikipedia, using rebut to rebut bad information, staying informed, and knowing when not to waste your time and energy. The article was written primarily for cosmetic chemists but includes strategies that anyone can use. It also links to a Rachel Ray episode in which the author speaks frankly about shampoos and related products. Romanowski also maintains a consumer Web site called The Beauty Brains.

<http://www.quackwatch.org/02ConsumerProtection/activism.html>

►► Zyto marketers get FDA warning (May 24, 2015)

The FDA has ordered ZYTO Technologies of Lindon, Utah, to stop claiming that its ZYTO devices are useful for diagnosis or for measuring the body's "preferences" for nutritional products. [Mitchell LM. Warning letter to Vaughn R. Cook, May 8, 2015] The ZYTO Hand Cradle has 510(k) clearance for measuring galvanic skin response (GSR), which is the skin's resistance to passage of an electric current. GSR has no value in the diagnosis or treatment of disease, but software sold with the ZYTO Hand Cradle device is programmed to diagnose supposed organ weaknesses and recommend supposedly corrective products. [Barrett S. ZYTO Scanning: Another test to avoid. Device Watch,

May 24, 2015]

<http://www.devicewatch.org/reports/zyto/overview.shtml>

The Zyto is one of many GSR devices being used by thousands of chiropractors, acupuncturists, dentists, "holistic" physicians, veterinarians, self-styled "nutritionists," and various unlicensed individuals. The most common use is for prescribing homeopathic products. They are also used to determine "allergies," detect "nutrient deficiencies," and locate alleged problems in teeth that contain amalgam fillings. The FDA has banned importation of some GSR devices into the United States and warned or prosecuted several marketers. Foreign and state regulatory agencies have taken many actions. However, no systematic effort has been made to drive these devices from the marketplace. [Barrett S. Regulatory actions related to EAV devices. Quackwatch, May 24, 2015] It will be interesting to see whether the FDA's current interest in ZYTO has any practical effect..

*** Editor's note: This device sounds disturbingly like the e_meter of Scientology and to the Land Mine Dowsing devices that have been sold even to governments in that they are "high technology" devices devoid of real science.

►► FTC announces workshop on homeopathic regulation

The Federal Trade Commission plans to host a public workshop on Monday, September 21, 2015 in Washington, DC, to examine advertising for over-the-counter (OTC) homeopathic products. The agency has invited the public to submit research, recommendations for topics of discussion, and requests to participate as panelists, and public comments can be submitted electronically until November 20th. In April, the FDA hosted a hearing to discuss its homeopathic regulatory framework. Both agencies may be trying to figure out how to cope with the multitude of irrational products that lack proven value but may have sufficient public support to generate a political backlash if tightly regulated.

<https://www.ftc.gov/news-events/press-releases/2015/06/ftc-host-september-workshop-washington-dc-examine-advertising>

*** Editor's note: Is this a sign that the noose may be tightening on the Homeopathy Industry? Let's hope so.



Dr. Barrett's newsletter, Consumer Health Digest, is free and available to all who wish to subscribe. To subscribe send a blank email to send a blank message to

chd-subscribe@lists.quackwatch.org

Dr. Barrett's main website is www.quackwatch.org

Meeting Reports - April 2015

Reported by: Sophia Mayne-DeLuca and Vince Spalletta
who are Physics students of
Dr. David Cattell at Community College of Philadelphia.

Perceptions and Misperceptions of the Modern World and Science Lectures by Dr. Dave Cragin, toxicologist, and Faye Flam, science writer and journalist Saturday, April 18, 2015

Reported by Sophia Mayne-DeLuca

April's PhACT lecture was a double-speaker event featuring science journalist Faye Flam and toxicologist Dr. Dave Cragin. Although they both spoke about educating people about science in order to clear misconceptions, their topics were quite different. Flam spoke about being a science columnist at the Philadelphia Inquirer and covering controversial issues such as evolution and the possibility of supernatural powers. Dr. Dave Cragin's lecture was dedicated to presenting information on organic food, pesticides, and genetically modified organisms (GMOs), particularly genetically modified fruits and vegetables.

Faye Flam's lecture began with the question, "Should we trust experts?" followed up by the humorous answer "Experts disagree." She then presented the results of some polls that reported that at least as many Americans believe in creationism or intelligent design as believe in naturalistic evolution. The third large group was people who believe in theistic evolution. Theistic evolution does not dispute the scientific findings of evolution, it just holds to the belief that evolution has been led by a higher power. One common argument or question against evolution that Flam brought up was, "If we evolved from monkeys, then why are there still monkeys around?" In an effort to clarify how scientists who study evolution view it, Flam presented two different charts. One was the classic chart that showed man evolving from a knuckle-dragging ape and becoming upright. The second was a complex tree diagram that showed different branches of life and how they evolved from common ancestors. The second diagram is the more accurate description of how evolution works. It does not lead to the misconception about evolution being a linear forward march. Aside from the evolution piece, Flam spoke about common errors in journalists using scientific research in their articles to back up their points. She showed at least one case in which closer look at the actual re-

MCHUMOR.com by T. McCracken



"So, Jack, did you use
compost or chemical fertilizers?"

Cartoon by T. McCracken
<http://www.mchumor.com/>
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search study contradicted the point that a journalist was trying to assert. Her lecture was another example of how almost all the PhACT lecture speakers have worked to try to bring scientific truth to the world.

Dr. Dave Cragin's lecture tackled the issue of farming and food in America. He began and ended with clips from the Jimmy Kimmel show that were humorous demonstrations of how suggestible and gullible people can be without ever being presented any factual information. Overall, he made a compelling argument against organic food and in favor of GMO fruits and vegetables as a solution to farmer's problems. One interesting point he made in favor of insecticides was showing how DDT was ultimately more beneficial to the human world than harmful. It reduced the deaths by malaria by millions and the western world has not had a great issue with malaria since. He also presented information on chikungunya disease and how insecticides are crucial in preventing its spread. It was engrossing to hear his argument in favor of so many things that are portrayed as the boogey man so often in our modern world.

With the conclusion of these two speakers, the 2014-2015 season of the PhACT lectures was wrapped up for the summer. They were compelling enough to have us looking forward to next Fall.



Reported by Vince Spalletta

The world in which we live is constantly changing and advancing thanks to technological advancements. This is especially true in the field of molecular genetics. Everyday scientists are discovering and implementing new ways to overcome genetic boundaries and improve health. Dr Dave Cragin highlighted several of these achievements in the field of agriculture thanks to molecular genetics. Food is an essential entity in our lives and is abundant as well as relatively easy to obtain in first world countries. Many people in developing countries do not have this luxury due to food scarcity. This problem can be alleviated by turning to the production of genetically modified organisms (GMOs).

Genetically altering organisms such as crops can reduce the use of pesticides and increase yields. One can also produce crops that are resistant to floods or droughts. Molecular genetics also enables scientists to produce foods which contain vitamins that they would not normally occur in nature. An example of this is golden rice which is grown in the Philippines. This genetically modified rice contains vitamin A. Golden rice took 12 years to develop and in that time roughly eight million children worldwide died from vitamin A deficiency.

Some may make the argument that GMOs are not the best solution to malnourishment. Many believe that GMOs will lead to consequences after being consumed. In fact these fears are based on hysteria and ignorance. GMOs are beneficial to all occupants of the world. GMOs will not only provide resistance to pests and harsh environmental conditions but also increase crop yield and nutrition throughout our planet. The discoveries and advancements being made in science today are allowing GMOs to be developed safely for all people and should not be looked upon as something that will destroy mankind. GMOs will save many and provide a better life for those who are less fortunate.

PhACT Expedition to the Mullica River Saturday, May 16, 2015

On Saturday, May 16 a band of about PhACT members embarked on an expedition to the Mullica River located at Batsto Village in the New Jersey Pine Barrens. The purpose of the venture was to view the terrain, to observe wildlife, and botanical features of this region, and of course to find and capture the Jersey Devil if he dared appear.

Alas, we were foiled again in the Jersey Devil apprehension aspect of the expedition, but the other activities were successful and the weather mainly good with the exception of a brief shower.

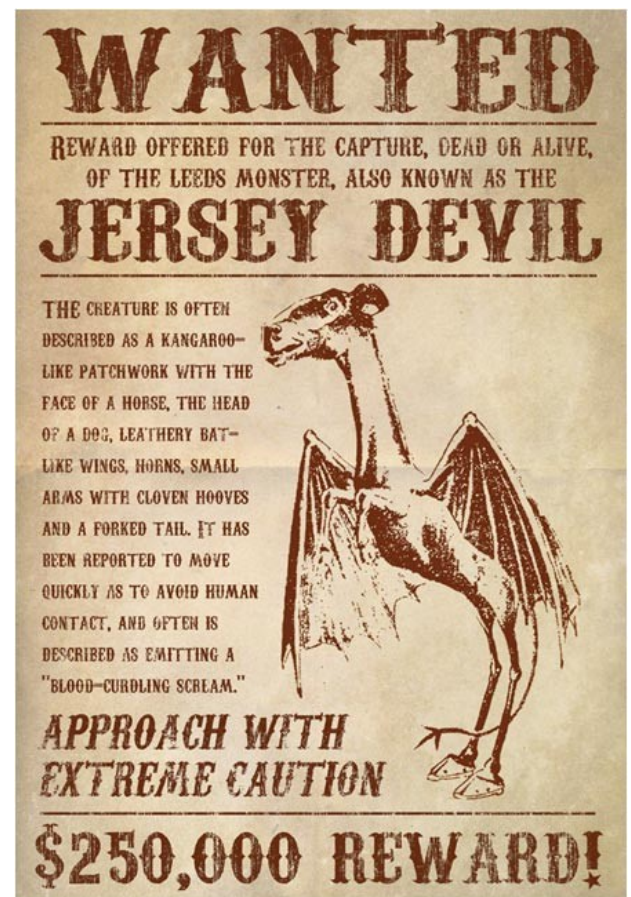
PhACT Expedition to the Mullica River NOTES (May 16, 2015)

Stories that are passed by word of mouth are subject to conflation and confabulation leading to various versions and variants. Hence, when such stories eventually surface in print, we get different accounts. For the legend of the Jersey Devil, the trail is convoluted, beginning with the first known version to appear in print in a May 1859 *Atlantic Monthly* magazine article by W. F. Mayer entitled *In the Pines*.

The Jersey Devil Legend has two main traditions, namely, the witch tradition, where the monster was the offspring of a witch and the Devil, and the curse tradition, in which the creature was the result of a mother's curse. And, over the years, the two traditions have been conflated.

An 1859 magazine article told the tale of a Mother Leeds who lived in the township of Burlington, NJ and was thought to be an amateur witch. She had relations with the Prince of Darkness and in 1735 gave birth to the Leeds's devil who, upon being born, "assumed the form of a fiend, with a horse's head, wings of bat, and a serpent's tail." An 1887 newspaper article related a story concerning a young man named Leeds who lived in Evasham (Evesham), NJ. This fellow married a fun-loving girl who, presumably fearing children would interfere with her lifestyle, cursed her first unborn child. In 1787, she gave birth to the Leeds devil who reportedly flew out of the chimney and into the Evasham woods. According to the description, her offspring resembled a barn owl. James F. McCloy and Ray Miller, Jr. in a 1998 book wrote about a different, but very similar, 1887 newspaper account which told a story where the girl in question was reportedly Ann Archer and her husband was said to be Robert Leeds, a schoolteacher. From an 1899 newspaper article we learn of the story of a Mother Leeds who lived in Burlington, on the Delaware, and was accused of being an amateur witch. In 1735 she gave birth to the Leeds' devil. The father was none other than Satan himself. Though normal at first, the child changed into a dusky brown creature with "an elongated, serpentlike body, cloven hoofs, the head of a horse, the wings of a bat and the forked tail of a dragon."

A 1905 newspaper article told the tale of a woman in Bordentown, NJ. People associated her with otherworldly beings. She was a Tarlton who married a Captain Leeds. This woman, already possessing a daughter, in 1808 cursed her next child and a year or so later gave birth to a creature that resembled a traditional devil who became known as the Leeds's devil. Newspaper accounts in 1909 referred to the Leeds devil, Leeds Devil, Leeds Satan, Point Leeds Devil or Jersey Devil, variously described, who was thought to have been responsible for strange tracks found in the snow around the Delaware Valley. Newspaper accounts varied but one article related the tale that the Leeds devil was the offspring of a Mrs. Leeds of Estelville (Estellville), NJ who had wished that her unborn child would be a devil. A normal baby was born but was replaced by a devil. A 1926 book by Alfred M. Heston told two versions of the tale. First, a Mrs. Leeds, who lived in Estellville, NJ, cursed her unborn child in 1855 and gave issue to a normal child that was replaced by or changed into a devil who became known as the Leeds devil. Second, a young woman in about 1850 refused food to a gypsy and for that she was cursed by the gypsy and her first born was a devil. The creature, who



had escaped into the Pine Barrens, was then spotted near Leeds Point and was thus named the Leeds devil. Also, a 1930 newspaper article related the story that the Jersey Devil was the child of the wife of a South Jersey fisherman who, already having twelve children, “fervently hoped that if a thirteenth came he might ‘go to the devil.’” Her next offspring “was transformed into a fearsome monster”. This creature had been described as possessing “not only cloven hoofs and tail, but feathers and claws and a hoot like an owl”.

And a 1945 Henry Charlton Beck book told various versions of the legend. One of the tales was basically the same as the 1899 story. Another was about a Mrs. Shourds in Leeds Point, NJ who did not want to be burdened with any more children. She cursed her next child who was born a “poor dwarfed misshapen being” that became known as the Jersey Devil. Yet a third version was that the Leeds’s Devil was born in Lower Bank, NJ, the son of Jane Leeds who had married Jake Johnson. She was the daughter of Moses Leeds. Already having many children, she cursed her next child who was a monster that was described in all kinds of ways, “none as a natural human being.”

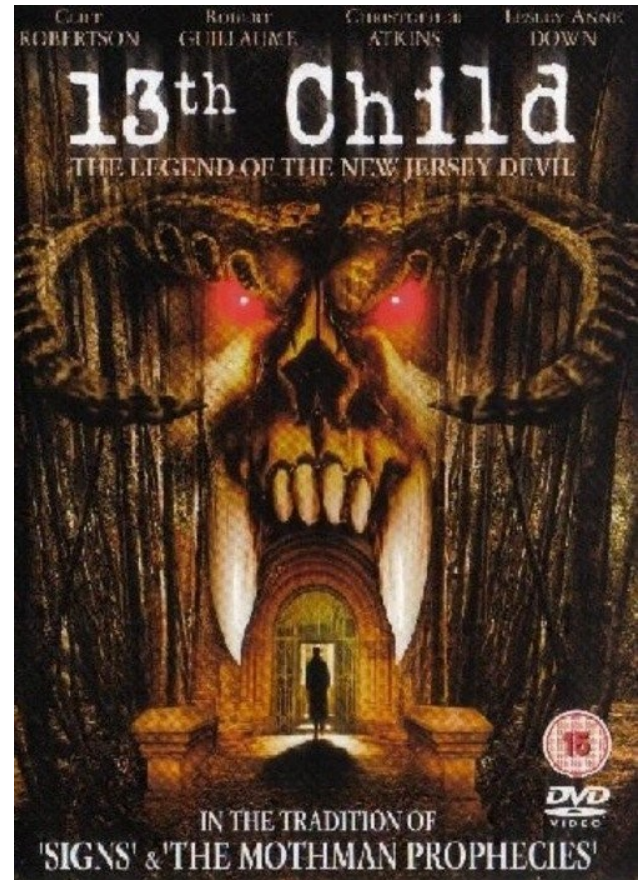
Nonetheless, today we might hear about a Mother Leeds, supposedly a witch, in Leeds Point who already had twelve children. In 1735 she cursed her unborn child and gave birth to a normal baby that changed into a monster that might be depicted as looking like a devil or a horned horse-headed creature with bat wings, a long tail, possibly pointed, forked or ridged, and having various other bodily parts. Hence, the Jersey Devil would have been Mother Leeds’s 13th child!

13TH CHILD: LEGEND OF THE JERSEY DEVIL (2002)

For 250 years, a towering man-beast with wings and razor-talons has been snacking on humans in the forests of New Jersey's Pine Barrens, where investigator Christine Tatum (Michelle Maryk) is sent by the District Attorney ([Lesley-Anne Down](#)) to get to the bottom of a recent rash of mutilations. Once there, Tatum meets eccentric recluse Shroud ([Cliff Robertson](#)).

A lot of the film was shot in Wharton State Forest at Batsto Village. Batsto Mansion in the movie is the home of the Jersey Devil. Accompanying our expedition was Robb Kerr and Jeff Cooney, who provided zoological and botanical information about the Pine Barrens, and professional photographer Ned Levi, who photo-documented the day's activities.

McCloy and Miller in *Phantom of the Pines* (1998) wrote that in 1928 not far from Batsto “William Bozarth encounters the Jersey Devil along the Mullica River”. And in 1936 at Batsto he “sees the Jersey Devil again.” Henry Charlton Beck in *Jersey Geneses: The Story of the Mullica River* (1945) had noted that the obituary for Fire Warden Bozarth stated that he “was the last man known to have seen The Jersey Devil.”



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Thoughts On Superstition:

“Science is the great antidote to the poison of enthusiasm and superstition.”

~ Adam Smith, *The Wealth of Nations*

**“If a black cat crosses your path, it signifies that
the animal is going somewhere.”**

~ Groucho Marx

Off the Beaten Path

By Kim A. Sheridan



The Flight of Kings

Royalty is coming to Cape May County! each September, millions of regal nomads flock to the Cape. For them, the area is but a short rest stop on an amazing yearly journey. These visitors are monarch butterflies, and this is the flight of kings.

The orange and black monarch butterfly (*Danaus plexippus*) has a four inch wingspan and weighs fractions of an ounce. Yet it still manages to fly

2,500 miles in the fall migration to wintering grounds in the mountains of central Mexico. What may be even more amazing is that the butterflies that fly south have never been to Mexico. Neither have their parents, grandparents or great-grandparents. It's been four generations since their great-great-grandparents left Mexico the previous February. These ancestors make it as far as Texas



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A monarch butterfly seeks nectar from a flower.
Stone Harbor, September 2013.



**Monarchs like the beach too.
Ocean City, September 2013.**

or Oklahoma before laying the eggs that would become the first generation of the year.

That first generation goes through the typical butterfly life cycle of egg, caterpillar and chrysalis before becoming adults that will continue the journey north during their six week life. The second generation is born in May or June; the third generation in July or August.

The fourth and final generation of the year, born in September or October, is the generation of Monarchs that migrate south. They don't immediately start a new reproductive cycle as their parents did. Instead they enter a non-reproductive phase known as diapause, which can last six to eight months. During that time, they fly to Mexico, spend the winter, and then return north to start the next year's cycle.

Cape May County in New Jersey is a hot spot for migrating Monarch butterflies, which stop to rest and feed before they continue their journey south.



**Tagging a Monarch for research.
Cape May Point State Park, September 2014**

The butterflies in turn attract butterfly researchers. Since 1990, the Cape May Bird Observatory's Monarch Monitoring Project has taken an annual census of Monarchs. A count is made three times a day for the months of September and October. The project also tags thousands of monarchs to better track their movements. Recapture of tagged insects has provided scientists with essential data about migration speed and route.

Why all this fuss over a butterfly? Beyond their beauty and captivating life history, they are important indicators of environmental quality. Healthy habitat for Monarchs is beneficial for plants and animals, especially important pollinator insects. Unfortunately, the Monarch is facing multiple threats. Several studies indicate the population has decreased by up to 90% in the last twenty years.

Habitat loss is the primary culprit. Deforestation at wintering grounds in Mexico is one concern. Conversion of prairie to cropland and urban sprawl in the U.S. is another. But it's the widespread loss



**A tagged Monarch is released.
Cape May Point State Park, September, 2014.**

of milkweed that is hurting the Monarch the most.

Monarch caterpillars are finicky. They only eat certain plants in the milkweed (*Asclepias*) family. This host plant is critical for the survival of the species. However, milkweed habitat is disappearing at an alarming rate, a victim of the herbicides widely used on GMO crops engineered to withstand the weed-killing chemicals. Milkweed eradication has been devastating to the Monarch population.

Across the country, a concerted push is taking place to protect the Monarch butterfly. In February, 2015 the U.S. Fish and Wildlife Service joined the National Wildlife Federation and numerous other collaborators to announce a sweeping new initiative to educate the public, preserve habitat and promote

the planting of milkweed for Monarchs. The fate of this regal insect depends on the effort's success.

It just wouldn't be September at the shore without these tiny Kings of the Air.

IF YOU GO: Monarch butterflies can be found in many places at the Jersey Shore. Any open sunny meadow or garden filled with native flowers and plants will attract them. Two good locations to look are the Nature Conservancy's South Cape May Meadows preserve and Cape May Point State Park.

The latter hosts the Cape May Bird Observatory's public monarch-tagging events on Fridays, Saturdays, and Sundays in September and October at the Hawk Watch platform. These popular events offer the staff a chance to educate the public about the butterflies. They demonstrate how they collect information about each monarch and then apply a coded adhesive tag to a wing before releasing it to continue on its amazing journey.

Cape May Point State Park

Lighthouse Ave.

Cape May Point, NJ 08212

609-884-2159

Open daily dawn to dusk

<http://www.state.nj.us/dep/parksandforests/parks/capemay.html>

South Cape May Meadows

Sunset Boulevard

Cape May, NJ

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/newjersey/placesweprotect/south-cape-may-meadows.xml#thingsToDo>

Monarch Monitoring Program (Cape May Bird Observatory)

<http://www.njaudubon.org/SectionCapeMayBirdObservatory/MigrationMonitoringProjects/MonarchMonitoringProject.aspx>

<http://capemaymonarchs.blogspot.com/>

USFWS

<http://www.fws.gov/savethemonarch/>

<http://monarchjointventure.org/>



Kim Sheridan is an ardent amateur naturalist and wildlife observer based in Havertown, Pennsylvania.. She may often be found in forest or marsh with camera in hand. Her blog site is dedicated mainly to nature photography at:

<http://thewildededge.net/>

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MALE

MALES have visible scent glands on their hindwings and they are usually smaller in size than the females.



FEMALE

FEMALES have thicker veins on their wings and they are usually bigger in size than the males.

Poetry and Parkinson's

by Minter Krotzer

The month of April is both National Poetry Month and Parkinson's Awareness Month - a fact of particular significance in our household since I am married to a poet who has Parkinson's.

Hal has been a poet for most of his adult life, with five books to his name and once being named poet laureate of Queens, N.Y. Being a poet is Hal's identity and his love.

The Parkinson's has become a not-so-welcome part of his life, one that he struggles with every day, every moment. Hal has had Parkinson's for almost 20 years; he struggles to walk, swallow, and speak. But he doesn't let the illness stop the making of poetry; it's too important. In fact, the Parkinson's motivates him to work even harder, writing against the movement of time, not knowing how much longer he will be able to do it. He writes even though his handwriting has become indiscernibly small - "micrographia" (the smallest letters you've ever seen) - and even though he loses steam.

Since having Parkinson's, Hal has written three books and traveled to Israel, Finland, and Iceland to perform. The American Embassy gave a party for him in Reykjavik, where two of his books were published and where he performed on National Icelandic television right before the "adopt-a-cat" show.

Hal writes about Parkinson's now, too, poems that he has performed all over the East Coast. We've taken to the road so he can read his Parkinson's poems to support groups, hospitals, and conferences. The poems encourage others struggling with this illness, helping them to find some humor in their unfortunate circumstances.

Being married to Hal, I've seen the power of poetry, or the written word, to transform. Through poetry, he has been able to forge a way through the illness and make art from the experience. To me, this is what writing is all about, going beyond the constraints of our lives, or the pain and limitations of a disease, and sharing one's experiences with the world. In doing so, Hal encourages, inspires, and lifts up. Keeping on with the writing of poetry is a way of saying "so there" to the Parkinson's - I'm still at it.

Minter Krotzer is a Philadelphia writer who blogs at www.minterkrotzer.com

This article appeared on the Editorial Page of the Philadelphia Inquirer, Sunday, April 26, 2015 and is reprinted here with permission of the author.

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A Parkinson's Poem by Hal Sirowitz:

Learning New Words

*My Parkinson's medicine makes
my arms shake. The medical
term is dyskinesia. That's one of the benefits of
the disease-
you learn new words. You
also learn new meanings for
old words. When I say my
windows are wide open,
I'm not referring to the computer
or those in a house. It means
my medication is working.
A half closed window means
the medicine is wearing down.
A closed window means everything
I do will now become a struggle.
I just pray the window won't get stuck.*

Skeptics, Categorized by a Skeptic

by Paul Schlueter III

In a recent issue of Free Inquiry (Feb./March 2015), an Editorial by Tom Flynn, Ronald A. Lindsay, and Nicholas J. Little took the time to draw up definitions of three different categories of humanists. They are:

Religious Humanism (capital H) - The branch which views Humanism as a Religion, including specific rituals, beliefs, and/or doctrine/dogma.

Congregational humanism (lower case h) - The group who eschew any form of religious faith in their humanist views, but who enjoy ceremonies/rituals which resemble religious rites.

Secular humanism (lower case h) - Explicitly non-religious, rejecting all supernaturalism or spirituality, and uninterested in "practices borrowed from religious life."

These three categories are useful as far as they go, but they only really describe two aspects of character - the person's degree of religiosity, and their interest in ritualism. I find myself to fall into none of them precisely; I lean toward secular humanism philosophically, but I still occasionally enjoy the solemnity and formality of a (secular!) ritual or organized activity among fellows.

Many humanists are also skeptics (and vice versa), but I wondered how I might categorize skeptics. First, I came up with a general and sweeping distinction, which follows:

Debunking Skeptic - One who seeks/collects evidence and proven facts to analyze the veracity of a claim.

Debating Skeptic - One who primarily relies upon logical/rational argument to challenge a claim's veracity.

Having separated skeptics into those two broad categories, it still seems that there are numerous distinctions within each of those groups, so I have tried to list several of them below, along with proposed definitions:

MYTHOLOGICAL S. - One whose primary skeptical interest falls within the field of religion/mythology, incl. demons, angels, miracles, ghosts, haunting, possession, and Spiritualism.

PARTISANAL S. - One whose skepticism lies primarily within challenging the claims of some "opposing party or group," either in politics, law, philosophy, business, etc. These may tend to also overlook/ignore flaws within their own party's claims.

ZOOSKEPTIC - One whose skepticism focuses primarily upon claims of cryptozoology, such as Bigfoot, Nessie, chupacabras, mermaids, etc. I imply a bias in favor of terrestrial life forms.

ASTROSKEPTIC - One whose skeptical interest is primarily related to claims related to the extraterrestrial, such as flying saucers from other worlds, alien abductions, alien visitations, and ancient alien interventions in earthly affairs.

CONSPIRACY SKEPTIC - One whose skeptical interests lie primarily within the field of conspiracy theories and governmental cover-ups.

MEDICAL S. - One whose interest lies primarily within inquiries into the claims of alternative medicine, complementary treatments, and other matters outside evidence-based medicine.

ADDICTION S. - One interested in addressing the various addictive behaviors, incl. drug abuse and gambling, and the irrational self-delusions which support such behaviors.

OMNISKEPTIC - One who is skeptical of just about anything. May include those whose skepticism goes a bit beyond the strictly rational topics, becoming generally oppositional.

SOCIAL S. - One whose skepticism is focused primarily upon issues of social subject matter. Distinct from Partisanal S. by not considering traditional party divisions. May use pro- or anti-social criteria for defining one's own claims vs. others'. Still, may tend to overlook flaws within one's own arguments.

ALPHA S. - One who uses skepticism as a means of establishing dominance, challenging others for competitive purposes, and sport. (Think "alpha dog.")

PSEUDO S. - One who uses skeptical-sounding arguments and pseudoscience in order to appear reasoned, intellectual, or fair. Often goes hand-in-hand with a lack of understanding of skeptical principles or methodology.

SCIENTIFIC S. - One who has the knowledge to use specific scientific approaches and facts in pursuit of skeptical inquiry.

ACADEMIC S. - One who is highly-educated/certified in a particular field of knowledge, and who guides his own skeptical inquiry with that background knowledge (by implication, more philosophical than scientific in training).

AUTODIDACTIC S. - One who bases his skeptical inquiries upon his own (perhaps imperfect) self-educated knowledge of the topics/subjects involved. (NOTE: Autodidacts may have an approach distinct from Scientific/Academic S. - the former tends to invent his own approach, often from unique perspectives, but sometimes lacking in expert examination, while the latter tend to stick to well-examined, formal approaches.)

ARROGANT/PERSONABLE S. - Self-explanatory descriptive categories.

I suspect that, among ourselves, skeptics probably tend to self-segregate with others of a similar bent. We may show a bit less patience for presentations of the results from inquiries in fields other than our own favorites. We may also tend to devalue others who don't belong to our own (self-defined) cliques within the overall scope of skepticism. Perhaps by taking the time to identify our own categories, we can learn to be more aware of biases in our own points of view. Wouldn't that help us to become "better" skeptics?

Other descriptions of skeptic categories probably exist; if you would care to add to the list, please feel free to write Phactum and make your point(s). Also, it would be interesting to review your arguments in favor of/opposition to adding these categorical definitions to Phactum's Roster of I.R.E., simply to make them readily available for future review (clearly they don't fall under "Infamous Rational Errors," but lacking an organizational handbook or similar tome, where else might we list these?)

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

Book Review of:

The Hot Zone: The Terrifying True Story of the Origins of the Ebola Virus

by **Richard Preston**

Mass Market Paperback: 448 pages

Publisher: Anchor; Reprint edition (July 20, 1995)

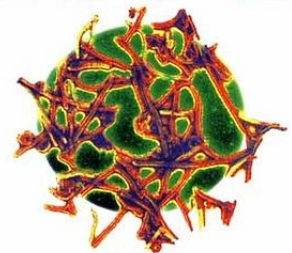
ISBN-10: 0385479565 ISBN-13: 978-0385479561

With the recent Ebola outbreak in West Africa, a lot of new attention is being given to the disease. However, Ebola itself has been around for a couple decades (that we know about), and it has actually struck a lot closer to home than most people realize. This book, copyrighted in 1994, relates the first known cases of Ebola in Africa, and traces the outbreak to its remote natural source location (but not clearly to its animal host). It also offers many descriptions of the cousin virus, HIV, which both appeared and spread from the same region. Later, Preston describes how Ebola actually hitch-hiked into the U.S. East Coast, and broke free of the quarantine meant to protect us from such diseases. You'll be astonished how narrowly we missed a medical catastrophe, and it was scarcely discussed in the Press!

This non-fiction book should be read by anyone who thinks we have much real protection from contagious viral strains. With recent lessons learned the hard way in Africa, maybe Preston will release a second, updated edition soon. Please...

Reviewed by Paul Schlueter III

THE HOT ZONE



A TERRIFYING TRUE STORY

RICHARD PRESTON



Heyerdahl Vindicated - Somewhat

by Paul Schlueter III

In one of the great adventure stories of the last century, explorer Thor Heyerdahl attempted to prove that South American natives populated the Polynesian islands, sailing to



The crew of the Kon Tiki in 1947.
Thor Heyerdahl is in the center.

them on balsa log rafts. To prove the plausibility of his hypothesis, Heyerdahl actually built a raft (complete with cabin and mast), using ancient technology, and he and several pals sailed the thing successfully to a coral atoll, where he was met with a hero's welcome. He wrote a book (with many photos of the trip), and there was a semi-documentary film made of the story as well. You probably read/saw KON TIKI at some point.

Shortly after his proof-of-concept adventure, Heyerdahl's critics convincingly pointed out that the anthropological and archaeological evidence proved that the Polynesian islands had been populated by Southeast Asians and other islanders of that region, not South Americans. As magnificent as his trip had been, it was chalked up as pseudoscience, and it served to minimize everything else he tried to accomplish in subsequent years. It had not been a deliberate fraud, but his adventurism got Heyerdahl relegated to the Indiana Jones category - thrill seekers who lack true scientific credibility.

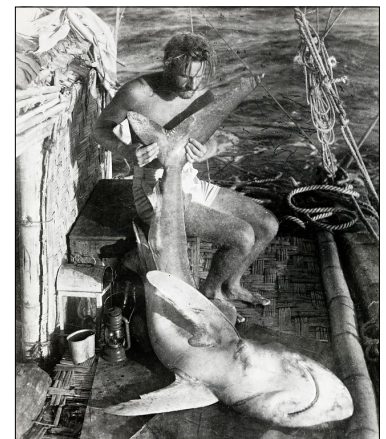
In its November 29, 2014, issue Science News printed an article by Bruce Bower titled "Easter Islanders sailed to America." It seems that the makers of those massive Moai sculptures on the island the natives call Rapa Nui made the Heyerdahl trip, except in the opposite direction! Anna-Sapfo

Malaspinas, a geneticist at the Natural History museum of Denmark, Copenhagen, claims to have DNA evidence that members of the Rapa Nui culture mated with Native Americans between around 1280 and 1495. Earlier evidence shows that the island was populated in around 1200, and Europeans did not find the island until 1722. Yet, ancient DNA links indicate that Easter Islanders have around 8% Native American DNA today (as well as around 16% European DNA, from more-recent encounters).

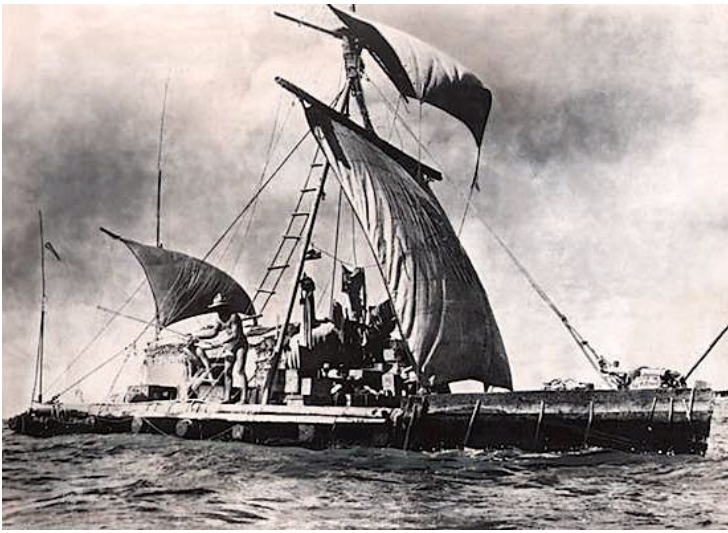
In modern DNA samples, regional (cultural/racial) markers are identifiable as patches of DNA which match distant populations. Over the generations, such patches are broken up and dissipated, as well as showing the occasional mutation. By analyzing the relative fragmentation of these sections of "foreign" DNA, a geneticist can estimate the number of generations which have carried the fragmented DNA, and thus determine how long ago the original intermating took place. In populations which are well-isolated, and having distinctive regional markers to begin with, it is possible to pin down such dates fairly well.

Malaspinas and her colleagues compared more than 650,000 DNA markers within the genomes of 27 present-day Rapa Nui residents, 17 Native Americans [country of origin not indicated], 58 Europeans, and 114 Asians and Pacific Islanders. The Rapa Nui have an average of 76% Polynesian DNA, indicating their "root stock" was definitely from the islands west and north of their own. Since Rapa Nui is only 163 sq. Km [if it were circular, roughly 14 Km in diameter], and is relatively isolated (along with Sala y Gomez Island) in the South Pacific nearly 3,000 miles from the coast of Chile, it is mathematically unlikely that any Native American seafarer found the island; it is far more probable that islanders found the enormous South American coastline instead, and then somehow returned home (already knowing its approximate direction and location).

Quite remarkably, the



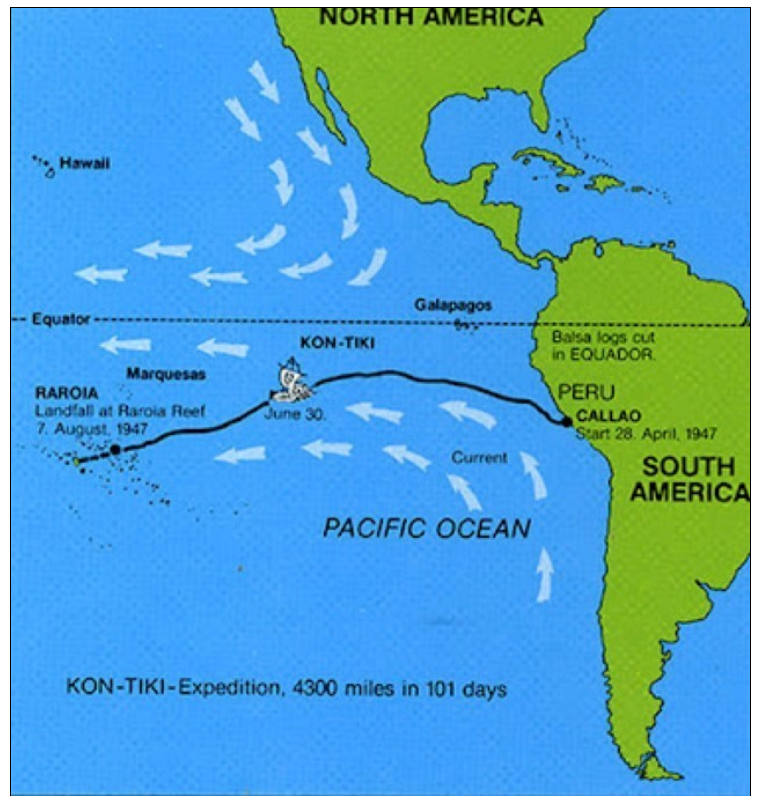
Heyerdahl on Kon Tiki.
Shark for dinner ... again.



Heyerdahl's Kon Tiki, a balsa raft of Polynesian design built in 1947.

same article in SN cites another Malaspinas analysis (found in Current Biology's Nov. 3, 2014 issue, where the previous study is also published), in which two ancient skulls from South America's Botocudo people "have entirely Polynesian ancestry." Radiocarbon dating indicates that the Botocudo individuals died before 1760, not entirely ruling out the possibility that Polynesians rode to South America with European explorers or traders, but the find is still quite suggestive of Polynesians having reached (and settled in) South America. Other New World finds over the centuries have claimed a Polynesian source for ancient artifacts, but then again, the Northwestern American coastline was inundated by debris from Japan soon after the big tsunami flooded much of their land (and incapacitated a nuclear power plant) just a few years ago.

The Bower article quotes California State University (Long Beach) archaeologist Carl Lipo as commenting,



"These are provocative findings that point to the need for studies of ancient DNA collected from skeletons of Easter Islanders, other Polynesians and Native Americans." Some U.S. Native American tribes are uncomfortable with genetic studies which might contradict their cultural origin beliefs; the article doesn't mention how South American Natives feel about such issues, which could further complicate additional studies.

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Legendary explorer Thor Heyerdal's epic 4,300-mile crossing of the Pacific on a balsawood raft in 1947, in an effort to prove that it was possible for South Americans to settle in Polynesia in pre-Columbian times. The story was made into a movie released in 2012. It is rated PG-13 and is 118 minutes in length.

Directors:

Joachim Rønning, Espen Sandberg

Writers:

Petter Skavlan, Allan Scott (script consultant)

Stars:

Pål Sverre Hagen, Anders Baasmo Christiansen, Gustaf Skarsgård

Homeopathy at Thomas Jefferson University

By Gary Shugar, M.D.

I attended the *Reason for Change* conference presented by the Center for Inquiry in June of this year. I went to a lecture presented by the Committee for Skeptical Inquiry entitled “Bad Medicine: How Alternative Medicine Has Infiltrated U.S. Medical Schools.” The lecture was given by Steven Salzberg, Ph.D., a professor of biomedical engineering, computer science and biostatistics in the Institute of Genetic Medicine at Johns Hopkins University. His talk stimulated me to examine my alma mater, Jefferson Medical College (now Kimmel Medical College). I chose homeopathy to research because the basic premises are unbelievably ridiculous to a scientist. When I typed “Jefferson Homeopathy” into Google, I immediately got several hits from Thomas Jefferson University. I hoped they would contain educational comments about the lack of efficacy of homeopathy. Instead, to my great dismay, they proudly presented the homeopathic doctors on their faculty in the Center for Integrative Medicine. <http://hospitals.jefferson.edu/tests-and-treatments/homeopathic-medicine/our-doctors/>

Under the topic of homeopathy the site has a list of 40 diseases and conditions. Thirty of these diseases were malignant neoplasms. Presumably these are the diseases in which homeopathic medicine is useful. (<http://hospitals.jefferson.edu/tests-and-treatments/homeopathic-medicine/diseases-and-conditions/>)

When I was a medical student at Jefferson Medical College, I would have been severely criticized if I thought that: 1. like cures like and 2. the fewer molecules of a medicine that are present, the stronger the effect. I would also have been the subject of ridicule by my fellow medical students. An interesting historical note is that In October of 1893, Jefferson students, along with students from the University of Pennsylvania, Medico-Chirurgical College and the College of Pharmacy, refused to participate in a medical day parade with the Hahnemann homeopaths. The homeopaths were jeered from the sidelines with “Sugar pill, sugar pill/ Never cured and never will.”

Thomas Jefferson University has:

1. Established a center of Integrative Medicine http://hospitals.jefferson.edu/departments-and-services/myrna-brind-center-of-integrative-medicine/?vsrefdom=integmed_search&gclid=CKKa6pfkwsYCFcWPHwodauIdQ
2. Hired a past president of the American Institute of Homeopathy, Dr. Merizalde. http://www.selfgrowth.com/experts/bernardo_merizalde.html
3. Established a medical school elective in integrative medicine <http://www.jefferson.edu/content/dam/tju/jmc/files/Catalog2012.pdf> (page 110 of the 2012 – 2014 Catalog, EMGR 495, 6 credits, Integrative Medicine)
4. Had a Grand Rounds presentation entitled “Homeopathy: A New Scientific Perspective” and offered AMA category 1 credit. <http://library.jefferson.edu/librarynews/?p=4265>

4 of 7 Homeopathy doctors in the Philadelphia area on <http://www.docspot.com/d/PA/philadelphia/specialty-interest/homeopathy.html> are affiliated with Jefferson.

These tell the general public that Jefferson endorses homeopathic medicine and they may conclude that perhaps it is a good idea to try the remedies at the local store or visit a local homeopath for treatment.

I had considered writing to Jefferson to express my opinion, but the Jefferson-Myrna Brind Center of Integrative Medicine has existed since 1998 and Jefferson is expanding their integrative medicine offerings as can be seen in the following announcement.

“Opening Fall 2015!

Marcus Integrative Health at the Myrna Brind Center-Villanova will open its integrative medicine clinical practice in Fall 2015. The Villanova satellite location of the Myrna Brind Center of Integrative Medicine at Jefferson will also offer innovative PET/MRI imaging technology, the only one of its kind in the Philadelphia area. Imaging services will be available in early 2016.

Our professional staff includes board-certified physicians with expertise in using diet and nutritional supplements and herbal and homeopathic medicines. Our physicians treat adults and children and are able to address either common health problems or complex medical conditions. They are available to work with you directly or in close consultation with your primary care provider or specialist.

The Center staff also includes acupuncturists, nurses, psychologists, massage and movement therapists. And we have practitioners who can teach you to access the healing potential of your mind and spirit. We all work closely together in order to collaborate on treatment strategies and coordinate your care.”

<http://hospitals.jefferson.edu/departments-and-services/myrna-brind-center-of-integrative-medicine/>

Obviously Thomas Jefferson University supports this program.

It is sad to see this trend in medicine.

Gary Shugar, M.D. is certified as a Pathologist and Anatomic Pathologist. He is affiliated with Ephrata Community Hospital in Ephrata, PA. Dr. Shugar graduated from Thomas Jefferson University in Philadelphia.

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MCHUMOR.com by T. McCracken



“They’re not testing any drugs on me.
Instead they’re providing spiritual advisers.”

Cartoon by T. McCracken
<http://www.mchumor.com/>
Used by Permission

PHACT CALENDAR

Upcoming 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 on the free parking garage on 17th street on the left hand side before Callowhill Street. It opens at 1:00 PM and closes at 6:00 PM. 17th Street is one way south bound. This meeting site is handicap accessible. **PhACT Meetings are Free and open to the public unless otherwise noted.**



September 19, 2015 at 2:00 PM - Lecture

Professor Paul Halpern will discuss his new book *Einstein's Dice and Schrödinger's Cat: How Two Great Minds Battled Quantum Randomness to Create a Unified Theory of Physics*
See Page 3 for details.

Saturday, October 17, 2015 at 2:00 PM - Lecture

John Grant, HUGO Award winning author will discuss his latest book, *Debunk It! How to Stay Sane in a World of Misinformation*
See Page 5 for details.

Saturday, November 21, 2015 at 2:00 PM - Lecture

Dr. Robert Baldassano will discuss: *The Ecosystem Within You, How is it Affecting You?*
See Page 7 for more details

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 an extensive 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>

Tuesday, September 1, 2015 at 6:00 PM at World Cafe Live, 3025 Walnut Street, Philadelphia

<http://www.upenn.edu/pennnews/science>
PENN SCIENCE CAFE

Eric J. Schelter, assistant professor in the Department of Chemistry in Penn's School of Arts & Sciences

"Recycling Rare-earth Magnets"

Despite their ubiquity in consumer electronics, rare-earth metals are, as their name suggests, hard to come by. Mining and purifying them is an expensive, labor-intensive and ecologically devastating process. Schelter and his colleagues have devised a new, simple method for separating the two rare-earth metals that are commonly found in things like wind turbine generators and power tool motors, enabling them to be recycled into new products.

Free and Open to the Public.

Wednesday, September 2, 7:00-9:00 PM - at the Wagner Free Institute of Science, 1700 West Montgomery Avenue, Philadelphia, PA 19121

www.wagnerfreeinstitute.org ph 215-763-6529

Special Musical Performance

Prelude to a Memory

Free and Open to the Public

See website for details.

Wednesday, September 3, 2015 at 7:00 PM at Frankford Hall on Frankford Avenue just north of Girard Avenue.

Philadelphia Nerd Nite ... be there and be square, yo.

Science discussions, good food, good company, and plenty of beer!

For more information see the website at

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

Open to the Public. Admission \$5.00

Email us at: nerdnitephilly@gmail.com

Tuesday, September 8, 2015 at 6:30 PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103, (215) 563-3737 x304

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

[prog_calendar.htm](#)

Dr. Mütter's Marvels Paperback Book Launch & Lecture

Join Cristin O'Keefe Aptowicz, author of *Dr. Mütter's Marvels: A True Tale of Intrigue and Innovation at the Dawn of Modern Medicine*, for the paperback release of her critically-acclaimed book, with a lecture about the man behind the museum.

Book signing and light refreshment reception to follow.

Pre-registration for all programs and events is strongly urged. For further information regarding events and registration, please e-mail info@collegeofphysicians.org or call 215-399-2341.

Wednesday, September 9, 2015 at 7:00PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>
Geekadelphia Presents: The Future of Philly Sci-Fi and Fantasy @ The Free Library
Parkway Central Library | Skyline Room - 4th Floor

Led by notable science thriller author Jon McGoran, local authors will discuss the history of science fiction and fantasy in Philadelphia.

Numerous authors have made their homes in Philadelphia and produced some of the best works speculative fiction has to offer. The first Hugo Award was given out here. Isaac Asimov lived here. But where is Philadelphia Sci-Fi and Fantasy heading?

Meet and Greet and book signing to follow.

Michael Swanwick has won five Hugo Awards and one Nebula Award in his long career of science fiction. He is the author of *Dancing with Bears* and the short story collection *The Dog Said Bow-Wow*. He has also made contributions science fiction field with critical essays as well as a biography of Hope Mirrlees.

Gregory Frost is the author of novels including the *Shadowbridge* series (Del Rey) and *Fitcher's Brides* (Tor). His short stories have appeared most recently in *Asimov's*, *Supernatural Noir* (Ellen Datlow, ed.) and *Apex Magazine*. He's director of the fiction writing workshop at Swarthmore College.

Stephanie Feldman grew up in Philadelphia and studied writing at the University of Pennsylvania and then Barnard College. Her debut novel, *The Angel of Losses*, is winner of the Crawford Fantasy Award, a Barnes & Noble Discover Great New Writers Selection, and a finalist for the Mythopoeic Fantasy Award. It was included in best-of-the-year lists from the Washington Post, Book Riot, and Locus Magazine.

Fran Wilde is an author and technology consultant. Her first novel, *Updraft*, is forthcoming from Tor/Macmillan in 2015. Her short stories have appeared in publications including *Asimov's*, *Nature*, *Tor.com*, and *Beneath Ceaseless Skies*. Her interview series *Cooking the Books*—about the intersection between food and fiction—has appeared at *Strange Horizons*, *Tor.com*, and on her website, franwilde.wordpress.com.

Siobhan Carroll is an Assistant Professor at University of Delaware who specializes in British literature from 1750-1850 – the turbulent historical period called the "Romantic Century" – and in modern science fiction and fantasy. She is interested in the ways that literature has shaped our understanding of empire, community, and the natural world.

Jon McGoran is the author of the biotech thrillers *Drift* and *Deadout*, from Forge Books. Writing as D. H. Dublin, he is the author of the forensic crime thrillers *Freezer Burn*, *Blood Poison*, and *Body Trace*, from Penguin Books. His short fiction, nonfiction and satire have appeared in a variety of publications and anthologies. He is a founding member of the Philadelphia Liars Club, a group of published authors dedicated to promotion, networking, and service work.

Cost: FREE

No tickets required. For Info: 215-567-4341.

Wednesday, September 9, 2015 at 7:15 PM at the Fels Planetarium, The Franklin Institute, 222 North 20th Street, Philadelphia, PA 19103

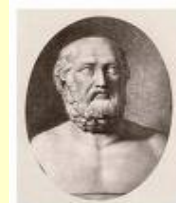
The Rittenhouse Astronomical Society

Astronomy lecture open to the General Public.

See website for more details: <http://www.rittenhouseastronomicalsociety.org/>

SOCRATES CAFE is nationwide network of philosophical discussion groups. Free and open to the Public. All are welcome.

- 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.
- At 2 PM on the first Thursday of each month and at 7 PM on the third Thursday of each month at Glenside Free Library, 215 S. Keswick Avenue, Glenside, PA.
- At 10:30 AM to Noon on the second Wednesday of each month at Abington Free Library, 1030 Old York Road, Abington, PA.



Thursday, September 10, 2015 at 7:30PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>
Ray Kelly | Vigilance: My Life Serving America and Protecting Its Empire City

Ray Kelly is one of the world's most respected law enforcement leaders. His 43-year service with the NYPD culminated in his appointment to Police Commissioner in 1992. During his two tenures as New York's top cop, he spearheaded the city's historic drop in crime, its response to the 1993 World Trade Center bombing, and the NYPD's transformation into a counterterrorism force in the wake of the 9/11 attacks. A combat veteran of the Vietnam War and a three-decade Marine Corps Reservist, he has also served as Commissioner of the U.S. Customs Service, Vice President of the Americas for Interpol, and Senior Director for Corporate Security at investment firm Bear Sterns. Vigilance is this remarkable crime fighter's revelatory memoir. 215-686-5322

Cost: \$15 General Admission, \$7 Students
Tickets on sale Thursday, September 3 at 10:00 AM!

Friday, September 11 and Saturday, September 12, 2015 at 8:00 PM at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>
**LAUREL HILL CEMETERY and REV THEATRE COMPANY PRESENT
THEY ONLY COME OUT AT NIGHT: A GRAVEYARD CABARET**

The show that Philadelphia City Paper calls "pretty damn ideal" and "A TOTAL BLAST" is back (from the dead) by popular demand. After rave reviews from audiences and critics alike and selling out multiple shows, New York-based REV Theatre Company will return to Laurel Hill Cemetery to again delight the crowd. Re-conceived and re-created by REV's Co-Artistic Director, Rudy Caporaso and directed by Co-Artistic Director, Rosey Hay; They Only Come Out At Night features Felicia Anderton, Denise Shubin and Rudy Caporaso as three witty and mysterious souls departing for their journey between this world and the next. Join us for a haunting evening: sip free cocktails as darkness

Tapping Our Watershed—The Academy of Natural Sciences

The Academy's environmental programs focus on a variety of critical topics, including watershed science, environmental policy, and sustainability.

Join the Academy of Natural Sciences of Drexel University for Tapping our Watershed, a monthly science café in Philadelphia that brings lovers of water science together for conversations with top experts in the field. Formerly known as the Delaware River Watershed Initiative Seminar Series, these talks are sophisticated enough for the experienced scientist but formatted for the casual guest who is interested in tapping into watershed issues on a deeper level. You can expect to hear engaging talks ranging from water policy and management to indicator species and pollutants, with a stimulating Q&A to follow each presentation.

Tapping our Watershed is held the **third Monday of the month at National Mechanics at 6 p.m.** The talks are intended for individuals 21 or older, but those under 21 can come with a chaperone who is at least 25. Tapping our Watershed is sponsored by the William Penn Foundation.

<http://www.ansp.org/get-involved/cep/tapping-our-watershed/>



falls and wait for the (singing) souls to appear through the mists of Laurel Hill Cemetery for a toe-tapping, spine-tingling good time. This program will be presented as part of the 2015 Philly Fringe Festival. Bring your own blankets or beach chairs, picnics, and/or beverages.

Four performances of They Only Come Out At Night are scheduled at Laurel Hill Cemetery: Friday September 11, Saturday September 12, Friday September 18 and Saturday September 19 (with prescheduled rain dates of Sunday, September 13 or Sunday, September 20.) All performances begin at 8:00pm, and will kick off with cocktails at 7:45pm. Ticket holders can check in at Laurel Hill Cemetery's Gatehouse entrance, 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot directly across the street from the Gatehouse.

The cost for the program is \$25/person general admission. Advance reservations are requested. Tickets can be purchased at the door, or through the Fringe Festival Box Office

Friday, September 11, 2015 at the Wagner Free Institute of Science, 1700 West Montgomery Avenue, Philadelphia, PA 19121
www.wagnerfreeinstitute.org ph 215-763-6529

Philadelphia Honey Festival

3:00-5:00 PM - Pollinator Power!

5:00-7:00 PM - Honey Happy Hour

Free and Open to the Public

See website for details.

Saturday, September 12, 2015 at 10:00am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

Yoga in the Cemetery

Find inner tranquility and balance during a one-hour yoga session in the peaceful backdrop of Laurel Hill Cemetery, overlooking the Schuylkill River. Sessions will be led by experienced yoga instructor, Emily Golomb. Emily teaches an all-levels Hatha class that enhances alignment, strength and balance. Students are encouraged to form a deeper connection with their minds and bodies throughout the meditative practice. Emily has been practicing yoga for over ten years, is a Yoga Alliance certified 200 hour RYT, and currently teaches at Studio 1831 in Fairmount. Yoga in the Cemetery will conclude with light refreshments. Please bring your own mat. All levels of experience are welcome. Yoga in the Cemetery sessions will occur twice a month, May through September.

The event will take place on Saturday, September 12 at 10:00am, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$20/person. Purchasing advance tickets is suggested. Tickets can be purchased at the door, by phone (215) 228-8200, or online.

Instructor: Emily Golomb

Saturday, September 12, 2015 at 11:00am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

Laurel Hill: The Hot Spots and Storied Plots

In life and in death, we all have stories to tell

at Eastern State Penitentiary, 2027 Fairmount Avenue Philadelphia, PA 19130

Phone: (215) 236-3300



The Searchlight Series: Conversations About Crime, Justice, and the American Prison System

Eastern State Penitentiary Historic Site partners with nationally recognized penologists and educators to present an ongoing discussion series about crime, justice, and the American prison system. The Searchlight Series discussions take place the first Tuesday of every month, free and open to the public. No reservations required. See website at:

<http://www.easternstate.org/searchlight-series>

and what better place to hear tales of wonder than Philadelphia's most famous home of the dead? Join Laurel Hill Cemetery for an 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 perfect tour for first-time visitors to Laurel Hill, and anyone else who enjoys beautiful art, scenic nature and fascinating history. "The Hot Spots and Storied Plots" will be presented on fourth Fridays, January through November; and second Saturdays, May through October.

The walking tour will take place on Saturday, September 12 at 11:00am, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$8/person general admission. Tickets can be purchased at the door, in advance by phone (215) 228-8200 or online.

Guide: Nancy Wright

Monday, September 14, 2015 at 6:00 PM at National Mechanics, 22 S. Third Street, Philadelphia, PA 19106
Science on Tap

A monthly gathering that features a brief, informal presentation by a scientist or other expert followed by lively conversation. Good food and beer.

This month's Science of Tap is brought to you by the Mutter Museum at Philadelphia College of Physicians.

Must be 21 or accompanied by parent. Free and open to the Public.

<http://scienceontaphilly.com/>

Tuesday, September 15, 2015 at 6:00 PM at World Cafe Live, 3025 Walnut Street, Philadelphia

<http://www.upenn.edu/pennnews/science>
PENN LIGHTBULB CAFÉ

Dorothy Roberts, Penn Integrates Knowledge Professor in the Law School and departments of Africana studies and sociology

"Fatal Invention: Re-creating Race in the Genomic Era"

After the human genome was mapped, there was an unexpected resurgence of scientific interest in genetic differences between races. Some scientists are defining race as a biological category written in our genes, while the biotechnology and pharmaceutical industries convert the new race science into race-based products, such as race-specific medicines and ancestry tests. Roberts argues that the genetic interpretation of race is not only mistaken but also masks the continuing impact of racism in a supposedly post-racial society. Instead, she calls for affirming our common humanity by working to end social inequities supported by the political system of race.

at World Cafe Live, 3025 Walnut Street, Philadelphia

Tuesday, September 15, 2015 at 7:30PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>
Dale Russakoff | The Prize: Who's in Charge of America's Schools?

Over a 28-year career at the Washington Post, veteran reporter Dale Russakoff has covered a multitude of foundational American topics, including the economy, education, and presidential campaigns. In *The Prize*, she tells the true story of the aftermath of Mark Zuckerberg's \$100 million pledge to Newark's notoriously dysfunctional school system, detailing corruption, thwarted good intentions, a cast of celebrities and notable politicians, institutional failings, and the seemingly insurmountable obstacles facing some of America's poorest students. Author James McBride calls it "one of the most disturbing and powerful books I've read in years."

Cost: FREE

No tickets required. For Info: 215-567-4341.

Tuesday, September 15, 2015 at noon at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

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

Brown Bag Lecture: a talk by Juan Andres Leon

Free and Open to the Public

Tuesday, September 15, 2015 at 7 PM at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion
"Following the 'Road of Fire': The Emergence of Teilhard de Chardin's Panchristic Mysticism during the First World War,"

Ursula King, PhD, Professor Emerita of Theology and Religious Studies, University of Bristol

Free and Open to the Public. A free will donation is requested.

Tuesday, September 15, 2015 at 6:30 PM 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 Shroud of Turin

To celebrate the visit of Pope Francis to Philadelphia, Salvatore Mangione, MD, will examine the medical and scientific evidence behind the famous burial cloth, and what the linen can tell us about the death of Jesus Christ.

The Shroud of Turin is the alleged burial cloth of Christ, and since its first historical appearance at the end of the 14th century it has baffled scientists, irritated skeptics, and awed believers. Carbon dating from 1988 dated the linen to 1260-1390, and yet recent evidence suggested that measurements were actually carried out on a medieval re-weave.

Dr. Mangione is Associate Professor of

Medicine and Associate Program Director for the Internal Medicine residency at Jefferson Medical College. He has a long interest in Physical Diagnosis, Medical History and community service, and is also the author of the book *Secrets in Physical Diagnosis*. In this special program he will explore the physical and chemical evidence surrounding the famous linen, and what that means for our understanding of its historical context.

Pre-registration for all programs and events is strongly urged. For further information regarding events and registration, please e-mail info@collegeofphysicians.org or call 215-399-2341.

Wednesday, September 16, 2015 at 6:30 PM 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

Louis Pasteur and the Pleasures of Art

On Wednesday, September 16, discover Louis Pasteur's forgotten history, from his drawing lessons in childhood to his close relationships with leading artists. The famous chemist, who had seemed devoted strictly to work and family, took enormous pleasure in the fine arts and even used them to advance his career.

During his career Pasteur became the Professor of Geology, Physics and Chemistry in their application to the fine arts at the École des Beaux-Arts in Paris. He befriended elite members of the Paris art world, including William Bouguereau, Paul Dubois, Jean-Jacques Henner, and Albert Edelfelt.

In this exciting and colorful presentation by Professor Bert Hansen, explore the artistic threads running from Pasteur's childhood through his landmark scientific and medical discoveries.

Bert Hansen is Professor of History of Science and Medicine at Baruch College of CUNY, following appointments at Binghamton University, NYU, and the University of Toronto. His works include *Picturing Medical Progress* from Pasteur to Polio, and recent articles about Louis Pasteur's close friendships with painters and sculptures, published in the *Bulletin of the History of Medicine*, *Distillations Magazine*, and the *Journal of Medical Biography*.

This lecture is presented by the Section on Medical History and the Section on Medicine & the Arts.

Pre-registration for all programs and events is strongly urged. For further information regarding events and registration, please e-mail info@collegeofphysicians.org or call 215-399-2341.

Thursday, September 17, 2015 at 12:30 pm at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

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

Brown Bag Lecture

Babylon to Baku: Contested Cultural Heritage in the Middle East and Caucasus

Join Dr. Lauren Ristvet, Dyson Associate

Curator of the Near East Section, in a discussion of some of the challenges and opportunities of community archaeology and cultural heritage in the Middle East. Using case studies taken from Iraq, Syria, and Azerbaijan, she reflects on the intersection of archaeology with nationalism, local history, and conflict. Attendees are encouraged to bring a lunch. Presented by the Penn Cultural Heritage Center. Free admission.

Thursday, September 17, 2015 at 6:00 pm - 7:00 pm at the American Philosophical Society, Benjamin Franklin Hall, 427 Chestnut Street, Philadelphia

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

The Invention of Nature: Alexander von Humboldt's New World

Join us as **Andrea Wulf**, New York Times best selling author, speaks about her latest book, *The Invention of Nature: Alexander von Humboldt's New World*.

Alexander von Humboldt, elected to the APS in 1804, was an intrepid explorer and one of the most famous scientists of his time. Though almost forgotten today, his name lingers in such references as the Humboldt Current and the Humboldt penguin. His life was packed with adventure and discovery, whether climbing the highest volcanoes in the world, paddling down the Orinoco River or racing through anthrax-infected Siberia. Perceiving nature as an interconnected global force, Humboldt discovered similarities between climate zones across the world and predicted human-induced climate change. Among Humboldt's most revolutionary ideas was a radical vision of nature, that it is a complex and interconnected global force that does not exist for the use of humankind alone. With this well researched and compellingly written book, Andrea Wulf reveals the fundamental ways in which Humboldt created our understanding of the natural world, and she champions a renewed interest in this vital and lost player in environmental history and science. Andrea Wulf was born in India and moved to Germany as a child. She trained as a design historian at the Royal College of Art and is the author of *Founding Gardeners*, *The Brother Gardeners* and *Chasing Venus*, as well as the coauthor (with Emma Gieben-Gamal) of *This Other Eden: Seven Great Gardens and 300 Years of English History*. She has written for *The Sunday Times*, *Financial Times*, *The Wall Street Journal*, and the *Los Angeles Times*, and she regularly reviews for several newspapers, including *The New York Times*, *The Guardian*, and *The Times Literary Supplement*. This event is free and open to the public.

Thursday, September 17, 2015 at 7:00 to 10:00 PM at **The Academy of Natural Sciences**

www.ansp.org 215-299-1108

Mega-Bad Movie Night: On Tour - The Lost World

Join the Academy after hours for a special edition of Mega-Bad Movie Night held at the Bryn Mawr Film Institute. Witty experts will be onstage to offer their quips and sidesplitting

comments on the many scientific absurdities—think *Mystery Science Theater 3000!* It's the same live commentary you love about Mega-Bad Movie Night in the fantastic theater at BMFI!

Arrive at 7 p.m. to meet live birds (living dinosaurs!), see fossils, and learn the real facts behind the dinosaurs in the film. Enjoy free popcorn courtesy of BMFI.



This event is not at the Museum. It is at Bryn Mawr Film Institute 824 W Lancaster Ave Bryn Mawr, PA 19010

Friday, September 18 and Saturday, September 19, 2015 at 8:00 PM at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

LAUREL HILL CEMETERY and REV THEATRE COMPANY PRESENT THEY ONLY COME OUT AT NIGHT: A GRAVEYARD CABARET

The show that Philadelphia City Paper calls “pretty damn ideal” and “A TOTAL BLAST” is back (from the dead) by popular demand. After rave reviews from audiences and critics alike and selling out multiple shows, New York-based REV Theatre Company will return to Laurel Hill Cemetery to again delight the crowd. Re-conceived and re-created by REV's Co-Artistic Director, Rudy Caporaso and directed by Co-Artistic Director, Rosey Hay; *They Only Come Out At Night* features Felicia Anderton, Denise Shubin and Rudy Caporaso as three witty and mysterious souls departing for their journey between this world and the next. Join us for a haunting evening: sip free cocktails as darkness falls and wait for the (singing) souls to appear through the mists of Laurel Hill Cemetery for a toe-tapping, spine-tingling good time. This program will be presented as part of the 2015 Philly Fringe Festival. Bring your own blankets or beach chairs, picnics, and/or beverages.

Four performances of *They Only Come Out At Night* are scheduled at Laurel Hill Cemetery: Friday September 11, Saturday September 12, Friday September 18 and Saturday September 19 (with prescheduled rain dates of Sunday, September 13 or Sunday, September 20.) All performances begin at 8:00pm, and will kick off with cocktails at 7:45pm. Ticket holders can check in at Laurel Hill Cemetery's Gatehouse entrance, 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot directly across the street from the Gatehouse.

The cost for the program is \$25/person general admission. Advance reservations are requested. Tickets can be purchased at the door, or through the Fringe Festival Box Office

PhACT Lecture

**Saturday, September 19, 2015
at 2:00 PM**

Professor Paul Halpern will discuss his new book *Einstein's Dice and Schrödinger's Cat: How Two Great Minds Battled Quantum Randomness to Create a Unified Theory of Physics*

See Page 3

Sunday, September 20, 2015 at 1:00pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

THE WORLDS OF THOMAS JEFFERSON at LAUREL HILL CEMETERY

Adopted sons, signers of the Declaration, painters, sculptors, men of science, ladies of belle letters, famous physicians, pariahs of free press, purveyors of fine wine and, of course, political provokers both friend and foe: all recognized by Thomas Jefferson as luminaries in our nation's early “Constellation of Worthies.” They now rest peacefully at Laurel Hill; but their stories refuse to conform to those tenets, boldly demanding to be told. This walking tour will be led by foremost Jefferson scholar and acclaimed portrait of America's third President, William David Barker (www.thethomasjefferson.com), who will be visiting Laurel Hill from his home in Williamsburg, Virginia.

The tour will take place on Sunday, September 20 at 1:00pm, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$12/person; or \$10/students and seniors. Tickets can be purchased at the door, in advance by phone (215) 228-8200, or online.

Guide: Bill Barker

Monday, September 21, 2015 at 6:30 PM-8:00 PM at **The Academy of Natural Sciences**, 1900 Benjamin Franklin Parkway, Philadelphia 19103 www.ansp.org 215-299-1108

Climate Change: A New Dialogue

Join the Academy of Natural Sciences on Monday, September 21, as we mark Pope Francis' upcoming visit to Philadelphia with a special forum, *Climate Change: A New Dialogue*.

In response to Pope Francis' call for a “new dialogue about how we are shaping the future of



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/

our planet," the Academy of Natural Sciences of Drexel University will host a special public forum bringing together environmental advocates, scientists, and community members for a critical conversation about climate change and the future.

See website to register.

Free. Open to the Public.

Tuesday, September 22, 2015 at Noon at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

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

Brown Bag Lecture: Marcin Krasnodebski, "Can Science Feed on Crisis? The Case of the French Resin Chemistry (1900–1970)"

Free and Open to the Public

Friday, September 25, 2015 at 10:00am at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

Laurel Hill: The Hot Spots and Storied Plots

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead? Join Laurel Hill Cemetery for an 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 perfect tour for first-time visitors to Laurel Hill, and anyone else who enjoys beautiful art, scenic nature and fascinating history. "The Hot Spots and Storied Plots" will be presented on fourth Fridays, January through November; and second Saturdays, May through October.

The walking tour will take place on Friday, September 25 at 10:00am, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822



Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$8/person general admission. Tickets can be purchased at the door, in advance by phone (215) 228-8200 or online.

Guide: Patty Stringer

Saturday, September 26 at 6:00pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

MUSIC for the HEARING EYE: CONCERT ATOP the CRYPTS. THE DIVINE HAND ENSEMBLE performs

With the rustling of copper colored leaves and crisp fall air comes an opportunity to enjoy the enrapturing melodies of the Divine Hand Ensemble. In the fall of 2012, their performance comprised the first time in 250 years that a program of funerary music was performed publicly and the first time ever in America. This fall, the Ensemble will be returning to Laurel Hill to enchant and delight with music unlike any other now being performed. Witness Mano Divina, leader of the Ensemble, harness electricity with his fingertips and draw music out of the air as master of the Theremin, an early electronic musical instrument controlled without discernible physical contact from the player. In addition to this rare instrument, the Ensemble includes a string quartet, classical guitar, two harps, a glockenspiel, a soprano and a tenor, together rendering an unforgettable listening experience. Bring your own blankets or beach chairs, picnics, and/or beverages.

The Divine Hand Ensemble's music has been described as hypnotic, breathtaking and mesmerizing, an "amalgamation of magic, science and music." The International Review Board notes them as "a must-see experience that will leave a remarkable impression for a lifetime." There are thus few more appropriately ethereal settings to take in the power of this performance than historic Laurel Hill Cemetery, where the Ensemble will be performing a selection of contemporary and classical compositions for the twenty-first century audience.

This sunset concert will take place on Saturday, September 26 at 6:00pm, (with a prescheduled rain date of Sunday, September 27 at 6:00pm.) Gates open at 5:00pm. Ticket holders can check in at Laurel Hill Cemetery's Gatehouse entrance, 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located

in the lot directly across the street from the Gatehouse.

The cost is \$20/person general admission. Advance reservations are requested. Tickets can be purchased at the door, or in advance by phone (215) 228-8200 or online.

Sunday, September 27, 2015 at 1:00pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

SPIRITS and SPIRITUALISTS

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.

The tour will take place on Sunday, September 27 at 1:00pm, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$12/person; or \$10/students and seniors. Reservations are suggested. Tickets can be purchased at the door, or in advance by phone (215) 228-8200 or online.

Guide: Michael Brooks

Monday, September 28, 2015 at 7:00 PM at **MaGerks Pub and Grill**, 582 South Bethlehem Pike, Fort Washington, Pennsylvania 19034.

American Revolution Round Table of

Philadelphia, <http://arrtop.com/>

Thomas Fleming on his new book "The Great Divide" between Washington and Jefferson. Mr. Fleming had to be rescheduled due to the Amtrak train accident which prevented his travel from New York City to Philadelphia.

Free and open to the Public.

Monday, September 28, 6:15 pm at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

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

Stone Age Seafaring in the Mediterranean: New Evidence for Very Early Mariners

Discover how new evidence from fieldwork conducted in southwest Crete proves that seafaring in the Mediterranean was far more precocious than previously thought, according to Thomas Strasser, Professor of Art History, Providence College, the evening's speaker for this Archaeological Institute of America lecture. Seafaring and island colonization were long thought to have occurred after the advent of farming around 7000 BCE. This research, however, demonstrates that not only were humans present on Mediterranean islands before this, but that even our pre-Homo sapiens ancestors were mariners. With this new discovery, and new evidence emerging on other Mediterranean islands, the field of Stone Age island archaeology is now in dramatic transition. Free admission.

Tuesday, September 29, 2015:at Noon at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

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

Brown Bag Lecture: Andreas Weber, "Making Money Circulate: Chemistry and 'Governance' in the Career of Coins in the Early 19th-Century Dutch Empire"

Free and Open to the Public

Wednesday, September 30, 6:00-7:30 PM at the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121

www.wagnerfreeinstitute.org ph 215-763-6529

Weeknights at the Wagner

The Mineralogy of Mars

with Selby Cull-Hearth, Bryn Mawr College

Free and Open to the Public

See website for details.

Friday, October 2 and Saturday, October 3, 2015 at 7:00pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

OVER MY DEAD BODY: MURDER MYSTERY in the CEMETERY (Presented by The Mechanical Theatre)

DETAILS FORTHCOMING...

Two performances are scheduled at Laurel Hill Cemetery: Friday, October 2 and Saturday, October 3 at 7:00pm (with a prescheduled rain date of Sunday, October 4 at 7:00pm). The cost

for the show is \$35/person general admission and includes wine, beer and refreshments. Advanced Reservations are requested and seating is limited. Tickets can be purchased online or by phone, (215) 228-8200.

Upon arrival, check in at Laurel Hill Cemetery's Gatehouse entrance, 3822 Ridge Avenue, Philadelphia PA, 19132. Free parking is located in the lot directly across the street from the Gatehouse.

Sunday, October 4, 2015 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.

The tour will take place on Sunday, October 4 at 1:00pm, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$12/person; or \$10/students and seniors. Reservations are suggested. Tickets can be purchased at the door, in advance by phone (215) 228-8200 or online.

Guide: Tom Keels

Monday, October 5, 2015 at 7:30PM at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Jay Winik | 1944: FDR and the Year That Changed History

Counting the last three Presidents among his fans, Jay Winik is best known for the internationally bestselling April 1865: The Month That Saved America. Already a classic among historical narratives, it later became an award-winning and widely watched History Channel documentary. He is also the author of popular and critically lauded The Great Upheaval: America and the Birth of the Modern World, as well as a raft of articles, essays, and history reviews. 1944 offers a measured study of how the ailing but determined President faced impossible moral choices and shaped a pivotal year of war and uncertainty.

Meelya Gordon Memorial Lecture

Cost: FREE

No tickets required. For Info: 215-567-4341.

Tuesday, October 6, 2015 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

While Edgar Allan Poe is a beloved son claimed by at least five other US cities, it cannot be denied that he flourished in Philadelphia. From 1838 through 1844, he produced some of his best known and most haunting works including "The Tell-Tale Heart," "The Pit and the Pendulum," and "The Fall of the House of Usher." While no written proof of such has yet been uncovered, many have speculated that 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 150,000 visitors in one season alone... Surely, Poe could well have been among those curious souls. This walking 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 of the friends, associates and enemies who traveled within his circles, many of whom now reside permanently at Laurel Hill.

With the stirring of fall and Halloween on the horizon, this is a fitting time to summon the stories of the Master of the Macabre. Bring your own flashlights. The tour will conclude with wine and beer.

The tour will take place on Tuesday, October 6 at 6:00pm, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$20/person; or \$18/students and seniors. Reservations are suggested. Tickets can be purchased at the door, in advance by phone (215) 228-8200, or online.

Guides: Carol Yaster and Dave Horowitz

Tuesday, October 6, 2015 at 7:00 PM at Washington Memorial Chapel, on Route 23 in Valley Forge.

Friends of Valley Forge Park

The Pennsylvania Flute Choir: The Fords of

the Brandywine and Music of a Proud Heritage

With Commentary by Dr. Debra Torok

Join The Pennsylvania Flute Choir as it features a program of music representing our heritage in Pennsylvania and around the nation with commentary by Dr. Debra Torok. The highlight of the program will be the premiere of The Fords of the Brandywine, September 11, 1777, a composition depicting select events from the first shots heard to the aftermath of the Battle of the Brandywine.

<http://www.friendsofvalleyforge.org/speaker-series.shtml>

Free and Open to the Public.

Tuesday, October 6, 2015 at 6:00 PM at World Cafe Live, 3025 Walnut Street, Philadelphia

<http://www.upenn.edu/pennnews/science>

PENN SCIENCE CAFÉ

(Details to come)

Free and Open to the Public

Wednesday, October 7, 2015 at 7:00 PM at Frankford Hall on Frankford Avenue just north of Girard Avenue.

Philadelphia Nerd Nite ... be there and be square, yo.

Science discussions, good food, good company, and plenty of beer!

For more information see the website at

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

Open to the Public. Admission \$5.00

Email us at: nerdnitephilly@gmail.com

Thursday, October 8, 2015 at 6:30 PM 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

Comics in Medicine

On Thursday, October 8, explore how comics work in medicine in this interactive presentation! The past decade has witnessed a meteoric rise in comics as a legitimate form of literature. Prominent in bookstores, film and television, comics are no longer considered primarily kids' reading. In fact, increasingly they engage serious-minded adults interested in myriad weighty issues ranging from philosophy to political revolutions. It comes as no surprise, then, that comics have entered the domain of medicine as well. Here comics play an important role in medical education, patient care, and the social critique of the medical profession itself.

Since 2010, cartoonists, scholars, patients and healthcare practitioners have convened at six international conferences on graphic medicine, and Penn State University Press has launched a new book series on comics and medicine with an inaugural volume entitled *Graphic Medicine Manifesto*.

Speaker: **Kimberly R. Myers, M.A., Ph.D.**, is Associate Professor in the Department of Humanities at Penn State College of Medicine, where she also serves as Director of Competency-Based Assessment & Reflective Learning and

Co-Director of Medical Humanities.

Presented by the Section on Medicine & the Arts. Become a Section Member to help bring lectures and events to the College. Pre-registration for all programs and events is strongly urged. For further information regarding events and registration, please e-mail info@collegeofphysicians.org or call 215-399-2341.

Saturday, October 10, 2015 at 11:00am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

LAUREL HILL: THE HOT SPOTS and STORIED PLOTS

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead? Join Laurel Hill Cemetery for an 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 perfect tour for first-time visitors to Laurel Hill, and anyone else who enjoys beautiful art, scenic nature and fascinating history. "The Hot Spots and Storied Plots" will be presented on fourth Fridays, January through November; and second Saturdays, May through October.

The walking tour will take place on Saturday, October 10 at 11:00am, departing from Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$8/person general admission. Tickets can be purchased at the door, in advance by phone (215) 228-8200 or online.

Guide: Nancy Wright

Saturday, October 10, 2015. Registration opens at 4:00 p.m. / Run starts at 5:00 p.m. at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurehillcemetery.org>

7th ANNUAL REST IN PEACE 5K RUN

Trick or treat...move your feet! Kick off your Halloween season in the right way. Organized by East Falls Fitness and the Friends of Laurel Hill Cemetery with the help of Presenting Sponsor, East River Bank, the Rest in Peace 5K Run is the only Halloween costume run and after-party in a Cemetery at night in the region. Proceeds benefit the Friends of Laurel Hill Cemetery, a 501c3 nonprofit that works to preserve and promote the historical character of Laurel Hill Cemetery through educational programs and public outreach. Unique and challenging, the run winds through the headstones in Laurel Hill Cemetery, a beautiful National Historic Landmark, located in the East Falls neighborhood. Participants and spectators alike are encouraged to attend in Halloween attire. Runners can register as individuals or as teams.

Following the run, join us for our after-party hosted by Wired 96.5 at Laurel Hill Cemetery

featuring free beer, spooky treats, and great music! Prizes will be given out for best costumes and to the winners of the run. Don't forget your wallets! Buy tickets to participate in our 50/50 raffle. Proceeds will support our charitable cause.

This year's race is scheduled for Saturday, October 10. Registration opens at 4:00 p.m. / Run starts at 5:00 p.m. / After-party starts at 6:00 p.m. The race takes place at Laurel Hill Cemetery, located at 3822 Ridge Avenue, Philadelphia, PA 19132. Runners can register at www.rip5k.org. Registration is a flat, non-refundable fee of \$35 for Adults 20+, \$20 for Teens ages 13 -19 and \$15 for Kids ages 8-12. Teams receive an additional discount. Registration includes gift bag and t-shirt.

Walk-ups welcome! Day-of registration includes a gift bag and t-shirt, however, t-shirt sizes are issued on a first-come, first-served basis. The Day-of Registration cost for Adults 20+ is \$40.

The Rest in Peace 5K is currently seeking sponsors and general donations. In addition to actual participation in the run, there are easy ways to support our fundraising efforts. To find out more about our sponsorship opportunities and benefits, visit www.rip5k.org.

Monday, October 12, 2015 at 6:00 PM at National Mechanics, 22 S. Third Street, Philadelphia, PA 19106

Science on Tap

A monthly gathering that features a brief, informal presentation by a scientist or other expert followed by lively conversation. Good food and beer.

This month's Science of Tap is brought to you by the American Philosophical Society. Must be 21 or accompanied by parent. Free and open to the Public.

<http://scienceontaphilly.com/>

Tuesday, October 13, 2015 at Noon at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

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

Brown Bag Lecture: A talk by Justin Rivest.

Free and Open to the Public

Tuesday, October 13, 2015 at 6:30 PM 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

Drug Pricing

Tuesday, October 13, find out everything you wanted to know about Drug Pricing, but were afraid to ask.

The pricing of pharmaceuticals is probably one of the most confusing and contentious issues facing patients, providers and payers in today's healthcare environment.

How does the pharmaceutical industry set the price for a new drug and how much profit do they really make?

How does the pharmacist dispensing the drug set the charge for the drug and how do insurance

companies set the reimbursement level for a given drug?

Why are some drugs “paid for” by some insurance companies but not by others? And, what role does the government play in all of this?

These are just some of the questions that will be addressed during this examination of how commonly used drugs are priced in today’s market. The focus will be on the how each of the major stakeholders in the drug supply chain price their products and how the market place, government requirements and other forces influence pricing decisions.

Speaker: **Andrew Peterson PharmD, PhD**, is the John Wyeth Dean of the Mayes College and Professor of Clinical Pharmacy and Health Policy at University of the Sciences in Philadelphia. He was formerly Chair of the Department of Pharmacy Practice/Pharmacy Administration.

Pre-registration for all programs and events is strongly urged. For further information regarding events and registration, please e-mail info@collegeofphysicians.org or call 215-399-2341.

Wednesday, October 14, 2015 at 7:15 PM at the Fels Planetarium, The Franklin Institute, 222 North 20th Street, Philadelphia, PA 19103

The Rittenhouse Astronomical Society

Astronomy lecture open to the General Public. See website for more details: <http://www.rittenhouseastronomicalsociety.org/>

Wednesday, October 14, 6:00-8:00 PM at the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121

www.wagnerfreeinstitute.org ph 215-763-6529

Archives Month Philly

- Philadelphia Lantern Slide Salon

Free and Open to the Public

See website for details.

PhACT Lecture

**Saturday, October 17, 2015
at 2:00 PM**

John Grant, HUGO Award winning author will discuss his latest book, *Debunk It! How to Stay Sane in a World of Misinformation*

See Page 5 for more details.

Monday, October 19, 2015 at 7 PM at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion

“Understanding Climate Change,”

Michael E. Mann, PhD, Distinguished Professor of Meteorology; Director, Earth System Science Center

Free and Open to the Public. A free will donation is requested.

Tuesday, October 20, 2015 at 6:00 PM at **World Cafe Live, 3025 Walnut Street, Philadelphia**

<http://www.upenn.edu/pennnews/science>

PENN LIGHTBULB CAFÉ

Adrian Raine, Penn Integrates Knowledge Professor in the departments of criminology and psychiatry and psychology

“The Anatomy of Violence: Dissecting the Biological Roots of Crime”

The very rapid developments taking place in the neuroscience of crime are creating an uncomfortable tension between our concepts of responsibility and retribution on the one hand and understanding and mercy on the other. Raine will provide a brief overview of this new body of knowledge and its implications for our future conceptualization of moral responsibility, free will and punishment. If the neural circuitry underlying morality is compromised in offenders, how moral is it of us to punish prisoners as much as we do? Should we use biology to better predict who amongst us are predisposed to future violence? And how can we improve the brain to reduce violence?

Free and Open to the Public.

Friday, October 23, 2015 at 10:00am at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

LAUREL HILL: THE HOT SPOTS and STORIED PLOTS

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia’s most famous home of the dead? Join Laurel Hill Cemetery for an 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 perfect tour for first-time visitors to Laurel Hill, and anyone else who enjoys beautiful art, scenic nature and fascinating history. “The Hot Spots and Storied Plots” will be presented on fourth Fridays, January through November; and second Saturdays, May through October.

The walking tour will take place on Friday, October 23 at 10:00am, departing from Laurel Hill Cemetery’s Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$8/person general admission. Tickets can be purchased at the door, in advance by phone (215) 228-8200 or online.

Guide: Rich Wilhelm

Friday, October 23 and Saturday, October 24, 2015 at 7:00pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

SOUL CRAWL: HAUNTED HISTORY HALLOWEEN TOURS

Behold the return of Laurel Hill Cemetery’s annual Halloween flashlight tours of yore. No longer featuring the actors, the program will return to its roots as extended nighttime walking tours of the cemetery, focusing on its rich history, and covering its enchanting art and landscape. Tours will last approximately two hours, and will be followed by complimentary cookies and cider aside blazing fire pits. Bring your own flashlights.

Two evenings of the Soul Crawl: Haunted History Halloween Tours are scheduled at Laurel Hill:

Friday, October 23 and Saturday, October 24 at 7:00pm.

The cost for Soul Crawl is \$20/person general admission. Purchasing tickets in advance is suggested. Tickets can be purchased at the door, by phone (215)228-8200 or online.

Upon arrival, register at Laurel Hill Cemetery’s Gatehouse entrance, 3822 Ridge Avenue, Philadelphia PA, 19132. Free parking is located in the lot directly across the street from the Gatehouse.

Monday, October 26, 2015 at 7:00 PM at **MaGerks Pub and Grill, 582 South Bethlehem Pike, Fort Washington, Pennsylvania 19034.**

American Revolution Round Table of Philadelphia, <http://arrtop.com/>

Kenneth J. Miller on his book “Dangerous Guests: Enemy Captives and Revolutionary Communities during the War for Independence.”

Free and open to the Public.

Tuesday, October 27, 2015 at Noon at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106

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

Brown Bag Lecture: Hanna Vikstrom, “Scarcity or Abundance? Illuminating the Role of Scarce Metals”

Free and Open to the Public

Thursday, October 30, 2015 at 7:00pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

TRUE TALES FROM THE TOMBS: MISCHIEF NIGHT by FIRELIGHT

This Mischief Night, performers will regale you with true tales from Laurel Hill Cemetery’s historic tombs. From the desecrated grave of a prestigious doctor; to the woman who is buried in two places, True Tales from the Tombs will feature stories of the Cemetery’s most provocative and memorable permanent residents, as they return from the dead to tell their stories.

Featuring The Not Ready for After-Life Players as storytellers of these otherworldly tales, the candlelit tours will depart every half hour through the stones and mausoleums of Laurel Hill.

Afterwards, slow your slow heart rate with hot cider and cookies. Bring your own flashlights.

One evening of True Tales from the Tombs is scheduled at Laurel Hill: Thursday, October 30 at 7:00pm. Tours will last approximately one hour and depart every half-hour, with the final tour departing at 9:30pm.

The cost is \$20/person general admission. Advance reservations are requested for groups. Tickets can be purchased at the door, by phone (215) 228-8200, or online at www.thelaurelhillemetery.org.

Upon arrival, register at Laurel Hill Cemetery's Gatehouse entrance, 3822 Ridge Avenue, Philadelphia, PA, 19132. Free parking is located in the lot directly across the street from the Gatehouse.

Saturday, October 31, 2015 from 1-3pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia, PA19132. 215-228-8200

<http://www.thelaurelhillemetery.org>

FALL FAMILY DAY: HALLOWEEN PICNIC and PARADE

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 arts and crafts, a pumpkin patch, Halloween games and goodies, and festive readings by The Storybook Fairy.

Feast on treats by SpOt Burger, a local Philadelphia food truck, or bring your own picnic. 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.

The event will take place on Saturday, October 31 from 1-3pm at Laurel Hill Cemetery's Gatehouse entrance at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse.

The cost is \$5/person general admission. Tickets can be

Wednesday, November 4, 2015 at 7:00 PM at Frankford Hall on Frankford Avenue just north of Girard Avenue.

Philadelphia Nerd Nite ... be there and be square, yo.

Science discussions, good food, good company, and plenty of beer!

For more information see the website at <http://philadelphia.nerdnite.com/updates/>

Open to the Public. Admission \$5.00
Email us at: nerdnitephilly@gmail.com

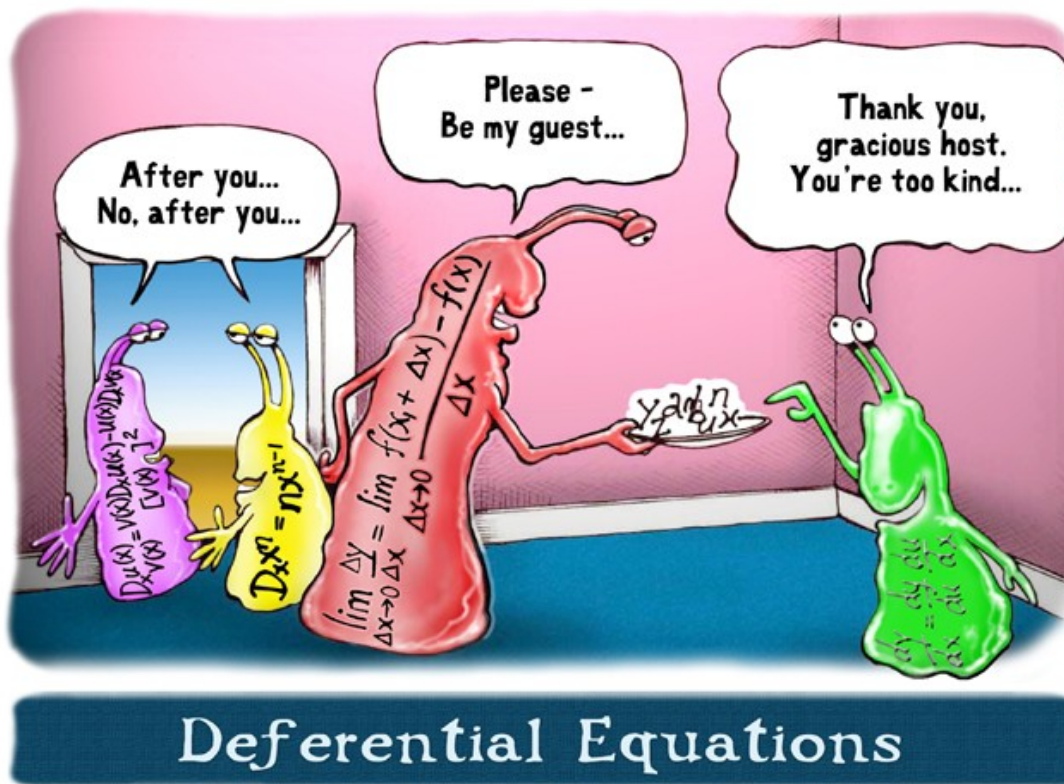
PhACT Lecture

**Saturday, November 21, 2015
at 2:00 PM**

Dr. Robert Baldassano will discuss: *The Ecosystem Within You, How is it Affecting You?*

See Page 7 for more details

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

If you wish **US Mail delivery annual membership is \$25.** Checks should be payable to **PhACT**.

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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 **premier** learning institution and PhACT is pleased to support this goal by having talks on wide ranging, engaging, and educational topics. Students and faculty are invited to be active participants in our activities.

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Phactum is distributed 4 times a year beginning January 2014 and is the main propaganda organ for the Philadelphia Association for Critical Thinking.

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

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Phactum Editor, Ray Haupt
phactpublicity@aol.com



'Nothing is too wonderful to be true, if it be consistent with the laws of nature.'

~ Michael Faraday (1791-1867), British scientist