

“Everyone is in favor of free speech. Hardly a day passes without its being extolled, but some people's idea of it is that they are free to say what they like, but if anyone else says anything back, that is an outrage.”

~ Winston Churchill

Phactum

The Newsletter and Propaganda Organ
of the Philadelphia Association for
Critical Thinking
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Editor: Ray Haupt email: phactpublicity@aol.com

Webmaster: Wes Powers <http://phact.org/>

UNKNOWN AMERICAN HEROINES OF THE GREAT WAR (1917-1918)

Contributed by Laurel Hill Cemetery tour guide, Pattye Stringer

Laurel Hill has many war heroes, but none quite like Dr. Maude Kelly.



When The United States entered World War I, Dr. Kelly and her fellow surgeon and business partner Alice Weld Tallant went to a local Army recruiting station to volunteer. They were firmly, if politely, turned down. The American Army had a strict policy forbidding women physicians from practicing overseas.

As it happened, Dr. Tallant did her undergraduate work at Smith College, and several graduates of that women's college were putting together an effort to bring assistance to the devastated towns of rural France.

Though Dr. Kelly herself never studied at Smith, the unit was happy to have her. She and her fellow relief workers set up and provided a variety of services to

devastated town in the French countryside. France was more than pleased to get whatever help was available.

That group, which came to be called the **Smith College Relief Unit**, eventually consisted of 19 women, all of whom had what a newspaper account called “useful skills,” everything from shoe repair to surgery. Every member was at least 25, physically fit, and able to both speak French and “drive motors.”

The unit endured some of the worst conditions of modern warfare, but miraculously, all 19 survived. Drs. Tallant and Kelly rose to the rank of honorary majors in the French Medical corps, and were awarded two of that nation’s highest military honors: the Service de Sante and the Croix de Guerre.

After the war, Drs. Kelly and Tallant returned to the surgical practice they put on hold during the war. Keep in mind that while they were in France dodging bullets and bombs while performing surgery in improvised operating rooms, women in the United States had not yet won the right to vote.

And, for the record, Dr. Kelly is buried in her French army uniform.



Croix de Guerre

Drs. Kelly and Tallant were awarded medals like this by the French government in gratitude for their services.

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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.

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: ARGUMENT FOR EVANGELISM, THE - The idea that people's beliefs and behaviors are subject to their being convinced through dialogue. Specifically tends to offer some authority (religious, political, or social) as the sole reliable source of information. Since the evangelist believes in the authoritative source, everyone else should adopt the same position too (often includes argument that "having contrary views" subjects one to exclusion/punishment).



Dr. Alice Weld Tallant (1875–1958). Tallant received her AB from Smith and her MD from Johns Hopkins University. A faculty member of the Women's Medical College of Pennsylvania, she served with the Smith College Relief Unit in France from July 1917 to February 1918. "Les américaines dans la Somme" (*Le Gaulois*, 2 Sept. 1917) mentions her leading the unit with the assistance of Dr. Maud Kelly and the unit's work in 10 French villages. She received the Croix de Guerre for her service. In March 1918, she described the difficult conditions faced by civilians: "These poor, brave village people were just recovering from the oppression of the German army . . . and now this present drive is again bringing them all the horrors of the enemy."



Smith College Relief Unit

Maude Kelly is on the far right in the front row.

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. **Please try to arrive a few minutes early as the College now requires that meeting attendees sign in for security reasons. ID must be shown.**

Saturday, October 20, 2018 - PhACT Lecture.

Our speaker will be PhACT member and Skeptic About town, Eric Krieg. His topic will be: *The Evolution of Creationism*

Come learn the survival of the fittest competing deistic creation models. This story will go from ancient tribal and polytheistic myths to more highly adapted successful Abrahamic creationist explanations. We'll examine their collision with real Science, politics and even the legal system.

Speaker: **Eric Krieg** is a founding member of PhACT and long term supporter of the skeptical movement. His investigation of fringe claims has landed him on some TV shows including Dateline. He is a father of 3 and an electrical engineer using real Science to develop products in the Philadelphia area.

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(See Genesis 1:1-2:3)

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(Continued on page 5)

Saturday, November 17, 2018 - PhACT Lecture.

Our speaker will be **Linda Zimmermann**. Her topic will be her book:
***Bad Science: A Brief History of Bizarre Misconceptions,
 Totally Wrong Conclusions, and Incredibly Stupid Theories***

Bad Science examines the strange history of quack devices, alchemy, bloodletting, the worship of meteorites, faked data, secret testing, and the various trials and tribulations scientists have endured. The book was the winner of the Silver Medal for humor in the 2011 Independent Publisher Awards.

Linda's first career was as a Research Chemist for a medical diagnostics company. While working in the lab, she also went back to school for her Master's in English and began writing as a hobby. That hobby turned into a fulltime career, and she is currently the author of over 30 books on history, science, science fiction, and the paranormal. She has lectured across the country, including at the Smithsonian Institution, Mensa Conventions, and West Point. Linda has also been featured on several television shows in the U.S. and Canada, and on numerous radio programs.

Her lifelong love of science and her unique sense of humor culminated in her book "Bad Science: A Brief History of Bizarre Misconceptions, Totally Wrong Conclusions, and Incredibly Stupid Theories." The book won the 2011 Silver Medal for Humor in the Independent Publishers Awards, which drew 4,000 entries from around the world. Bad Science has also been translated into Polish. Linda lives in Orange County, New York, and she enjoys kayaking, cycling, hiking, geocaching, and cross country skiing.

Saturday, January 19, 2019 - PhACT Lecture.

Topic to be Determined.

Saturday, February 16, 2019 - PhACT Lecture.

Topic to be Determined

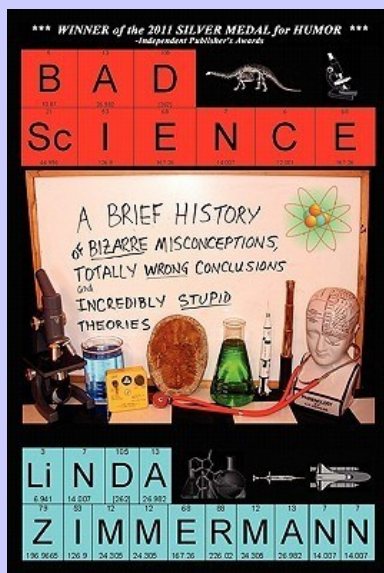
Bad Science by Linda Zimmermann

Paperback: 224 pages

Publisher: Linda Zimmermann (January 25, 2011)

ISBN-10: 0979900247 ISBN-13: 978-0979900242

2011 Silver Medal Winner for Humor, from the Independent Publisher's Awards. Bad Science: A Brief History of Bizarre Misconceptions, Totally Wrong Conclusions, and Incredibly Stupid Theories takes a humorous look at bloodletting, alchemy, quack devices, the worship of meteorites, faked data, secret testing on people, and all kinds of really ridiculous ideas. From the ancient Greeks to the present, the history of science has been fraught with persecution, fraud, and ignorance on a massive scale--but that doesn't mean we can't laugh about it!



**Saturday, March 16, 2019 - PhACT Lecture.
Topic to be Determined**

**Saturday, April 20, 2019 - PhACT Lecture.
Topic to be determined**

Saturday, May 18, 2019 - PhACT Expedition to Indian Rock

At Tyler Arboretum in Delaware County by the picturesque Rocky Run sits a peculiar artifact known, at least since 1907, as Indian Rock. Our guide, Don Nigrone, will relate the theories as to what Indian Rock might really be and we will discuss the local history of the Lenape and a strange document, the Walum Olum, ascribed to them. Robb Kerr will be providing botanical information about this scenic Piedmont site and Kim Sheridan will be photo-documenting the day's activities. We will meet at the Visitor Center by the parking lot at 10:00 AM. Then we will hike from the Visitor Center along the Blue Trail for one mile each way to inspect this mysterious stone.

For directions to Tyler Arboretum at 515 Painter Road, Media, PA 19063 go to <https://www.tylerarboretum.org/>. Although we may not figure out what Indian Rock really is, we will learn about the history and natural history of this Piedmont site. Bring insect repellent, sturdy shoes, lunch, and a camera. The event is free and open to the public.



American Chestnut nursery at Tyler Arboretum.

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A true conservationist is a man who knows that the world is not given by his fathers, but borrowed from his children.

~ **John James Audubon (1785-1851)**



Letters to the Editor

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

Unfortunately, there were no Letters to the Editor for this edition. We really do like them. Please write and denounce the Editor or suggest some improvement for Phactum or opine on some matter. Please write. Do not be shy.



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Various Ruminations of Woo Woo and Real Science and some Gossip

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

How Biology Drives Religious Belief

One large group of people who are religious say “How can anyone not be religious?” Another large group who are religious skeptics but are otherwise similar to the religious group say “How can anyone believe that stuff?”

While there are numerous factors pressing individuals toward one view or the other, the primary factor seems to be physiological differences in the functioning of the human brain. When clearly identified, these physiological bases will become the Holy Grail for explaining religious orientation.

Apparently the brains of some individuals are especially receptive to the message of religions, whereas others are not. This is analogous to a radio being receptive to signals on certain wave lengths, but not others. Many “receptive” people can be so extremely convinced of the truth of such religious messages, that they will ignore its inconsistencies, contradictions and absurdities.

Without any convincing empirical evidence, it would seem that religions, especially their supreme beings, are artificial constructs developed by humans and driven by biological, psychological and sociological factors. They are not reflections of reality. Yes, while there may be an

unknown higher power responsible for the universe and (indirectly) human existence, there is no scientific basis supporting the belief that it is the supreme being(s) of religion. Author Mathew Alper comments “Spiritual concepts such as God or gods, soul or afterlife only exist as manifestations of the particular manner that our species has been ‘hardwired’ to perceive reality. Consequently, humankind can no longer be viewed as a product of God but rather God must be viewed as a product of human cognition.”

It must be admitted that religious beliefs can confer significant benefits to those who accept them, despite their apparent lack of veracity. Studies show that people who regularly attend religious services live longer, are healthier and more able to face adversity. It appears that the placebo effect of believing something, even when that something is questionable or demonstratively false, is at work here producing strong psychological effects (“mind over matter”).

Norm Vadner's article on page 19, largely based on published secondary sources, brings together empirical work with existing and new theories in attempt to explain why religious belief is so widely and deeply embraced, despite the lack of scientific support for such belief.

Norm is interested in feedback on this matter and may be contacted at normvadner@yahoo.com.

Gambling Notes

Beginning of rant.

Reader's of this newsletter may have noticed that most editions have some relatively recent news items about gambling, mostly casino gambling and various state lottery schemes. Sports betting is relatively new other than horse and dog racing as a legal gambling activity. Many of the news items are about compulsive gambling behavior encouraged by casinos and and bystate lottery commissions.

I find it interesting and a bit depressing that gambling, to the best of my knowledge, is an aspect of society that has been largely ignored by the skeptical community despite being an activity that can often be harmful to individuals and communities, is propelled by cynical financial interests including states and municipalities, and is heavily steeped in woo and fatuous thinking.

If you were to Google “Skeptical Inquirer” and keywords “bigfoot”, “psychic”, “orgone energy”, and “homeopathy” you will likely find some article in Skeptical Inquirer. Do the same thing using “gambling”, “blackjack”, “casino” and “lottery” and results will be very thin. I was hoping that there might be a Gambling Addiction Watch facility as part of the wonderful Quackwatch website, but alas, it does not seem to exist.

As a disclaimer, my remarks above are not in criticism of Skeptical Inquirer and Quackwatch. They both are immensely useful and in reality they can not be active commentators for every social ill. I just happened to observe that they do not seem to address gambling and its associated problems.

Gambling addiction is a disease, at times a very ruinous disease leading to bankruptcy, failed marriages, crimes such as embezzlement, substance abuse, and suicide. Gambling addiction is a very difficult disease to treat in that there is no



physical addictive substance such as alcohol or cocaine at hand. It is treatable by highly skilled psychologists but is very difficult and requires considerable time and patience. It is maddening to me that the states, who happen to be the regulators of legalized gambling, are also arch villains in that it is they

who are the major beneficiaries of lottery revenue and casino taxes.

The states eagerly advertise the glamour of winning state lotteries but fail to stress that the odds are severely stacked against the gambler. The states require casinos to

contribute funds to secure treatment for addicted gamblers, but the funds allow for only a few sessions with an addiction counselor and that opportunity reaches only a small minority of addicted gamblers. No matter how excellent an addiction counselor may be, none can render cures in only a few counselling sessions as the funding allows. State culpability in this matter is an outrage.

End of Rant.

Here are some recent news items concerning gambling.

♣♦♥♠ **USA- Pennsylvania - More gambling craziness - Casinos sue the lottery - Editorial**

This is rich. A group of Pennsylvania casinos has sued to stop the state lottery from offering online games, which the casinos allege are illegal. The state regulates the casinos. But now, the casinos are the ones claiming that what the state lottery is doing is illegal. The legal flap between Pennsylvania's two major gambling syndicates echoes a line from The Godfather Part II, when Hyman Roth explains why he didn't question the killing of his friend and casino mogul Moe Green: "This is the business we've chosen." No one is taking a bullet in the eye, like Green did, but watching the

Reader Participation Wanted

Writer's Block can seem insurmountable but is rarely as desperate as pictured here. We invite all Phactum readers to participate by sending Letters to the Editor and Articles for Phactum and let your imagination run wild to express your thoughts on some matter that other skeptics might find interesting. Everyone has something to contribute if one can overcome stubborn writer's block or fear of self-expression. Phactum is a friendly forum (mostly) to express ideas and opinions.

We invite articles and letters on almost any matter except partisan politics and unduly harsh criticism of religion. Great topics include human evolution, free energy, alternative medicine and all sorts of mystical quackery. The End of the World is a great topic as is the flatness of the Earth, and one can hardly have too many first hand sighting tales of Nessie and Bigfoot. Original poetry is invited and please send in a great recipe for Lasagna. Suggestions to improve Phactum are very desired.

We do appreciate participation by readers and at this time in history we especially seek help in revealing news of quackery in the realm of alternative medicine potions, cures, and misinformation such as exists in the world of anti-vaccine activists. Diseases prevention is certainly an issue where critical thinking and encouragement of science are of great importance and perhaps small organizations like PhACT can help raise awareness, even if only on a small scale.



Please send submissions to the editor by email at: phactpublicity@aol.com

casinos and the lottery fight over the newest gambling front is just as disturbing. It's no surprise the casino industry is at odds with the lottery. After all, Harrisburg has never had a coherent gambling policy beyond expanding games of chance to every corner of the commonwealth...read on

Read Article: <http://www2.philly.com/philly/opinion/editorials/casino-lottery-gambling-pennsylvania-lawsuit-20180827.html>

♣♦♥♠ **USA Pennsylvania - Gambling addiction isn't casual**

The state government relentlessly has expanded gambling with scant consideration of its social impact. Casino advertising typically attempts to portray gambling as a glamorous diversion, akin to James Bond passing the shoe at Casino Royale. But the arrest last week of a legal secretary paints a much grimmer picture and should remind gambling-happy Pennsylvania legislators that their relentless expansion of gambling carries a heavy social cost to which they do not allocate enough resources. Lackawanna County detectives charged Kelly Mattern of Clarks Summit with forgery and theft for allegedly stealing more than \$175,000 from office accounts primarily to cover casino gambling debts. Mattern's case is just one of dozens in the region in which people with access to their employers' or volunteer organizations' cash have been arrested for using stolen funds to cover gambling debts...

Read Article:

<https://www.thetimes-tribune.com/opinion/gambling-addiction-isn-t-casual-1.2367358>

♣♦♥♠ **USA West Virginia - With sports betting coming, officials are preparing for problem gamblers**

Casinos across West Virginia are preparing for sports betting come fall. Officials with the 1-800-GAMBLER program say they have started hiring more workers and introducing new training for their therapists. The program says they help about 13,000 people each year in West Virginia. Officials say it's a problem that affects the entire family. "It's not unusual to get a call from a spouse that their husband/wife has them thousands in debt," Moran said. "They're facing bankruptcy because their loved one gambled all their money away." She says her group is afraid the problem could get worse with this new legislation.

Read article: <https://wtov9.com/news/local/with-sports-betting-coming-officials-are-preparing-for-problem-gamblers>

♣♦♥♠ **USA - How gambling distorts reality and hooks your brain**

"As an addiction researcher for the past 15 years, I look to the brain to understand the hooks that make gambling so compelling. I've found that many are intentionally hidden in how the games are designed. And these hooks work on casual casino-goers just as well as they do on problem gamblers". One of the hallmarks of gambling is its

uncertainty - whether it's the size of a jackpot or the probability of winning at all. And reward uncertainty plays a crucial role in gambling's attraction. Dopamine, the neurotransmitter the brain releases during enjoyable activities such as eating, sex and drugs, is also released



during situations where the reward is uncertain. In fact dopamine release increases particularly during the moments leading up to a potential reward. This anticipation effect might explain why dopamine release parallels an individual's levels of gambling "high" and the severity of his or her gambling addiction. It likely also plays a role in reinforcing the risk-taking behavior seen in gambling....

Read article: <https://medicalxpress.com/news/2018-08-gambling-distorts-reality-brain.html>

♣♦♥♠ **USA - Washington - Tribe offers gambling addiction services**

Before ilani even opened in April 2017, the Cowlitz Tribe promised it would fund therapy for compulsive gamblers. That service became a reality this summer. Anyone struggling with a gambling addiction can seek help from three certified counselors who work for the Cowlitz Tribe. Kara Fox-LaRose, ilani president and general manager, said the counseling will operate autonomously from casino influence.

"The tribe has been involved in health and human services for many years," said Fox-LaRose. "In anticipation of the (casino) opening, the tribe made a formal commitment to the state of Washington by way of their compact to dedicate a portion of gaming revenue to programs and services in support of its dedication to fostering healthy communities. ... This is a new service available to those seeking assistance with compulsive gambling."

Read Article: <https://www.columbian.com/news/2018/aug/20/tribe-offers-gambling-addiction-services/>

♣♦♥♠ **USA - Pennsylvania - Police - Man made \$7 million from illegal gambling machines in western Pa**

A man accused of earning more than \$7 million from illegal gambling machines is headed to trial. Anthony Zenner faced a Washington County judge Wednesday. Investigators say Zenner was making more than \$14,000 a week from the illegal machines in bars and restaurants across western Pennsylvania.

Read article: <https://www.wpxi.com/news/top-stories/police-man-made-7-million-from-illegal-gambling-machines-in-western-pa/823169791>

♣♦♥♠ **USA - California - Regret is a gambler's curse, neuroscientists say**

It's not just the anticipation of a big payoff, or doubts about the wisdom of her bet. It's also regret about previous bets, both won and lost, according to University of California, Berkeley, neuroscientists.

"Right after making a choice and right before finding out about the outcome, the brain is replaying and revisiting nearly every feature of what happened during the previous decision," said senior author Ming Hsu, an associate professor in the Haas School of Business and Helen Wills Neuroscience Institute at UC Berkeley. "Instead of 'I just gambled but maybe I shouldn't have,' it is, 'Last round I gambled and that was a really good choice.' Or, 'I played it safe last time but should have gone for it.'"

Read article: <http://news.berkeley.edu/2018/09/13/regret-is-a-gamblers-curse-neuroscientists-say/>

♣♦♥♠ **USA - US State and Local Governments Rake in \$40.8 Billion in Gambling Taxes**

US governments on all levels, federal, state and local, received \$40.8 billion in tax revenues from the rapidly growing gambling industry in 2017. The sector contributed \$261 billion to the United States economy and employed more than 1.8 million people, a new study by Oxford Economics reveals. The research, published this week by the American Gaming Association, uncovers the key role of the gambling industry in the nation's economy. The latest data shows the striking impact of casinos on other sectors such as hospitality, finance, insurance, and real estate.

Read Article

<http://www.casinonewsdaily.com/2018/09/20/us-state-and-local-governments-rake-in-40-8-billion-in-gambling-taxes/>

Gustav Weisskopf - Aviation Pioneer

At the Discovery Museum, a Franklin Institute style institution but smaller, in Bridgeport, Connecticut there is a small plaque commemorating the alleged first heavier than air powered flight by Gustav Weisskopf in 1901.

Weisskopf was born in Leutershausen, Bavaria in 1874. As a youngster he was interested in flight and

experimented with kites. He became a mechanic and went to sea for several years and in 1893 arrived in the United States. Shortly thereafter he anglicized his name to Gustave Whitehead.

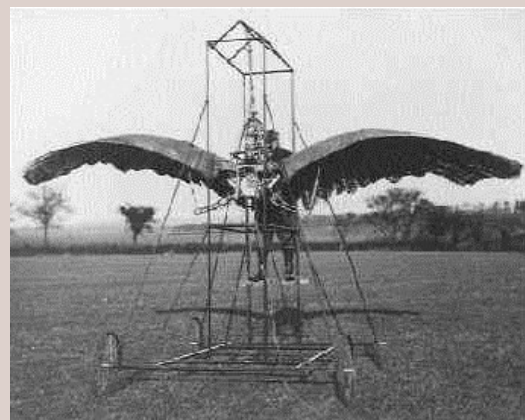
Whitehead found employment with a New York firm building kites and model gliders and a few years thereafter was hired by the Boston Aeronautical Society where he and an associate built various gliders, an ornithopter, and a Lilienthal style glider. Whitehead's gliders had limited success but the ornithopter never flew.

On August 14, 1901 Whitehead and others claimed that he successfully flew a distance of a half mile at an altitude of 50 feet. There are no pictures or other evidence of this aviation feat. Whitehead continued to devise powered flying

Aviation pioneer Otto Lilienthal (1846-1896) made about 2,000 flights in gliders such as this one but in 1896 suffered a fatal broken neck as he had lost control falling about 15 meters.



An ornithopter is an aircraft that achieves flight by flapping wings. Leonardo di Vinci had designed one in 1485. An English inventor, E.P. Frost, had been building steam powered ornithopters beginning in the 1870's, none of which had much success. The ornithopter pictured here was built and tested in

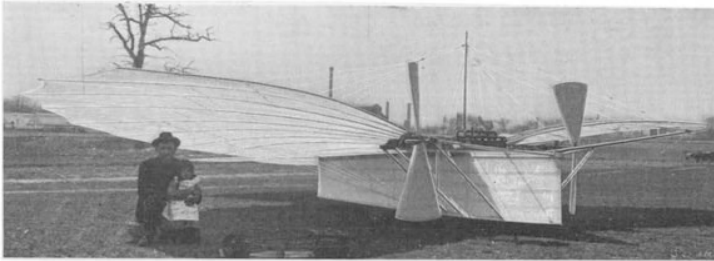


1902 was equipped with an internal combustion engine and did not fly. How odd.

A modern ornithopter flight (2006)

<https://www.youtube.com/watch?v=s8k1W1UakvU>

machines for a few more years but none ever got off the ground.



WHITEHEAD'S FLYING MACHINE, SHOWING ENGINE AND PROPELLERS.

Gustave Whitehead with his Flying Machine #21

Dr. Stephen Barrett Reports in Consumer Health Digest

Dr. Barrett's weekly newsletter, *Consumer Health Digest*, is free and available to all who wish to subscribe. To subscribe send a blank email to:
chd-subscribe@lists.quackwatch.org

▶▶▶ Evidence mounting against fish-oil supplementation (August 12, 2018)

For many years it has been suggested that omega-3 polyunsaturated fatty acids from oily fish, including eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), as well as alpha-linolenic acid (ALA) from plants benefit cardiovascular health. Last year an American Heart Association science advisory suggested that omega-3 fatty acid supplementation was reasonable for patients with coronary heart disease. However, two recent reviews express doubts about supplementation. One encompassed 79 randomized controlled trials that followed a total of 112,059 patients—some healthy and some with existing illnesses—for 1-6 years. [Omega-3 fatty acids for the primary and secondary prevention of cardiovascular disease. Cochrane Database of Systematic Reviews, July 18, 2018] The other meta-analyzed ten large trials that followed a total of 77,917 high-risk participants for at least a year. (The average was 4.4 years.) [Aung T and others. Associations of omega-3 fatty acid supplement use with cardiovascular disease risks. *JAMA Cardiology* 3:225-234, 2018] Taken together, the reviews concluded:

1. EPA and DHA slightly reduce serum triglycerides and raise HDL. However, increasing their intake has little or no effect on all-cause deaths and cardiovascular events and probably makes little or no difference in the rates of illnesses or deaths due to

coronary artery disease, stroke, or heart irregularities.

2. Eating more ALA (for example, by increasing walnuts or enriched margarine) probably makes little or no difference to all-cause or cardiovascular deaths or coronary artery disease but probably slightly reduces cardiovascular events, coronary mortality, and heart irregularities. The effects of ALA on stroke are unclear as the evidence was of very low quality.
3. While oily fish is a healthy food, it is unclear from the small number of trials whether eating more oily fish is cardioprotective.

A news article published in *JAMA* notes that four more large randomized trials are under way.

[Abbasi J. Another nail in the coffin for fish oil supplements. *JAMA* 319:1851-1852, 2018

<https://jamanetwork.com/journals/jama/article-abstract/2679051>]

▶▶ Aroma Therapy Scrutinized (August 12, 2018)

Professor William London's latest column is an overview of aromatherapy that focuses on the lack of well-controlled clinical trials supporting claims that it is effective in treating human diseases. [London WM. Essential considerations about aromatherapy. *Skeptical Inquirer*. Aug. 9, 2018

https://www.csicop.org/specialarticles/show/essential_considerations_about_ aromatherapy]

MCHUMOR.com by T. McCracken



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

▶▶▶ Hydrogen peroxide hucksterism exposed. (August 26, 2018)

According to a new investigative report:

- ◆ "35% food-grade hydrogen peroxide" is widely available in health food stores and promoted with numerous testimonials on Web sites to treat Lyme disease, skin problems, leukemia, brain tumors, and other ailments.
- ◆ Health benefits are often promised from drinking a few drops of hydrogen peroxide diluted in a glass of water.
- ◆ According to the U.S. Food and Drug Administration (FDA), there is no official definition for "food-grade."
- ◆ Following reports of injuries and death, FDA issued warnings about internal use of hydrogen peroxide in 1989 and 2006.
- ◆ No scientific evidence supports the use of hydrogen peroxide as a remedy.
- ◆ Two individuals ended up at Detroit Receiving Hospital with gas blockages in the bloodstream caused by hydrogen peroxide and would have died or likely been permanently disabled without emergency intervention with hyperbaric oxygen therapy.
- ◆ Nearly 300 cases of poisoning caused by the ingestion of high-concentration hydrogen peroxide were reported to the National Poison Data System between 2001 and 2011. Among them were 41 life-threatening gas blockages in the bloodstream.
- ◆ Hydrogen peroxide poisoning may be confused with other medical problems and not get reported.
- ◆ Serious health problems have resulted from accidental ingestion of hydrogen peroxide.
- ◆ The Illinois Poison Center advises consumers regarding solutions of greater than 12% hydrogen peroxide: "Don't buy it! Don't try it! Don't bring it in your house! End of

discussion."

- ◆ Concentrated (at least 35%) hydrogen peroxide is considered a "chemical of interest" by the Department of Homeland Security, a high-priority precursor chemical that can be used to build improvised explosive devices.
- ◆ The thwarted bomber in a 2016 New York City terror plot was found to have ordered 40 pounds of concentrated hydrogen peroxide.
- ◆ The U.S. Postal Service considers hydrogen peroxide a hazardous material and doesn't accept shipments of hydrogen peroxide at greater than 20% concentrations.
- ◆ The sale of anything greater than 12% hydrogen peroxide is banned in the U.K. to individuals without a license.
- ◆ The Texas State Board of Pharmacy and the Texas Department of State Health Services both received copies of an FDA warning letter in November 2006 to hydrogen peroxide marketer Mark Ovard, then of Wolfe, Texas, but neither state agency appears to have taken any action after Ovard failed to make changes FDA requested. Ovard now works out of Crystal River, Florida and is associated with a network of companies that promote hydrogen peroxide. [Savage K. How peddlers of 'food-grade' hydrogen peroxide exploit the sick and the desperate. Undark. August 20, 2018]

Dr. Barrett, who commented in the article on the overall failure of regulatory agencies to stop the marketing of such products, pointed out that no regulation or policy will be effective until their sale is no longer profitable.

<https://undark.org/article/food-grade-hydrogen-peroxide-cancer/>

End Times Watch

Once again the Phactum Staff Powers of Prediction have been embarrassingly thwarted. The predicted **End of Times** has not occurred on September 23, 2018 as scheduled.

<https://www.thesun.co.uk/tech/4474635/end-of-the-world-september-23-planet-x-nibiru-david-meade-armageddon/>

Robert Weinland, an evangelist, had predicted **World End** in 2011, 2012, and 2013. He has now predicted that Jesus would return on June 9, 2019.

Jean Dixon (1904-1997), a well known American psychic, had predicted that the world would end on February 4, 1962 and subsequently recalculated predicting **Armageddon** sometime during 2020.

But do not despair. Keep reading Phactum for authoritative reportage that **World End** has occurred.



▶▶▶ Crowdfunding campaigns for dubious cancer treatments investigated (September 16, 2018)

A year-long investigation by the Good Thinking Society, a charity that promotes scientific thinking, has revealed that since 2012:

- ◆ Cancer patients in the UK have raised at least £8 million through 540 appeals on the crowdfunding sites GoFundMe and JustGiving to pursue costly unproven and disproven cancer treatments, mostly offered at overseas clinics in Germany, Mexico, and the U.S.
- ◆ 223 of the appeals received positive coverage in the local or national media.
- ◆ More than 140 of the patients who made appeals have subsequently died. [Marsh. BMJ publishes Good Thinking's cancer fundraising investigation. Good Thinking. Sept 12, 2018]

Clinics that attract crowdfunded patients have been criticized for their lack of transparency and communication about costs, courses of treatments, and expected treatment outcomes. Newspaper and television reports about people with cancer seeking crowdfunding rarely reveal that (a) donations support dubious treatments and (b) many publicized success stories have a tragic ending. [Newman M. Is cancer fundraising fueling quackery? BMJ 362:k3829,

Sept 2 12 2018

<https://www.bmj.com/content/362/bmj.k3829>]

▶▶▶ Position statements attack facilitated communication and the rapid prompting method (August 12, 2018)

The American Speech-Language-Hearing Association has issued position statements discouraging the use facilitated communication and rapid prompting techniques because they lack scientific validity and do not foster independent communication by people with autism and other disabilities. [ASHA discourages use of facilitated communication, rapid prompting method. ASHA press release, Aug 8, 2018] Stuart Vyse has described the battle to discourage their use in a recent article. [Vyse S. Autism wars: Science strikes back. Skeptical Inquirer, Aug. 7, 2018 https://www.csicop.org/specialarticles/show/autism_wars_science_strikes_back]

▶▶▶ Vaccine scaremonger "Dr. Bob" Sears placed on probation (July 1, 2018)

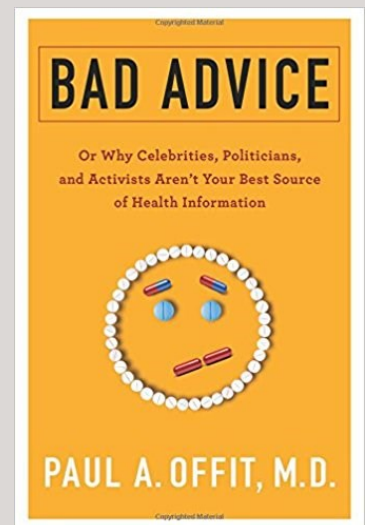
Robert William Sears, M.D., who practices pediatrics in Capistrano Beach, California, has signed a stipulated order of the Medical Board of California under which he was placed on probation for 35 months for his unprofessional conduct

Bad Advice: Or Why Celebrities, Politicians, and Activists Aren't Your Best Source of Health Information by Paul Offit, M.D.

**Hardcover: 272 pages Publisher: Columbia University Press (June 19, 2018)
ISBN-10: 0231186983 ISBN-13: 978-0231186988**

Science doesn't speak for itself. Neck-deep in work that can be messy and confounding and naïve in the ways of public communication, scientists are often unable to package their insights into the neat narratives that the public requires. Enter celebrities, advocates, lobbyists, and the funders behind them, who take advantage of scientists' reluctance to provide easy answers, flooding the media with misleading or incorrect claims about health risks. Amid this onslaught of spurious information, Americans are more confused than ever about what's good for them and what isn't.

In *Bad Advice*, Paul A. Offit shares hard-earned wisdom on the dos and don'ts of battling misinformation. For the past twenty years, Offit has been on the front lines in the fight for sound science and public health. Stepping into the media spotlight as few scientists have done—such as being one of the first to speak out against conspiracy theories linking vaccines to autism—he found himself in the crosshairs of powerful groups intent on promoting pseudoscience. *Bad Advice* discusses science and its adversaries: not just the manias stoked by slick charlatans and their miracle cures but also corrosive, dangerous ideologies such as Holocaust and climate-change denial. Written with wit and passion, Offit's often humorous guide to taking on quack experts and self-appointed activists is a must-read for any American disturbed by the uptick in politicized attacks on science.



related to his management of a 2-year-old patient. The Board accused him of violating the standard of care by:

- ◆ Writing a letter to excuse the boy from "all future vaccinations"
- ◆ Failing to obtain the basic information necessary to make such a decision
- ◆ Failing to retain a copy of the letter in the boy's chart
- ◆ Failing to include neurological testing when evaluating the boy for headaches following a blow to head with a hammer.

The stipulated order requires Sears to take at least 40 hours per year of continuing education courses "aimed at correcting any areas of deficient practice or knowledge" plus an additional ethics course. He is also required to have his practice monitored by a physician approved by the board. He recently reported on his Facebook page that the board is investigating four more of his cases. The Los Angeles Times reported that he intended to fight until there are no more mandatory vaccination laws. [Karlman S. California doctor critical of vaccines is punished for exempting 2-year-old boy from all childhood immunizations. Los Angeles Times, June 29, 2018 <http://www.latimes.com/local/california/la-me-ln-sears-license-20180629-story.html>]

Beginning with the 2016 school year, California law barred religious and other personal-belief exemptions for

school immunization requirements for children. Public health advocates have been concerned that some doctors, including Sears, have been writing improper medical exemptions that can result in lower community immunity to preventable diseases. Although the statewide kindergarten vaccination rate increased from 90% in 2013-14 to 96% in 2016-17, medical exemptions increased from 991 to 2,850 and some schools have had more than 20% of kindergartners with medical exemptions.

Sears wrote *The Vaccine Book: Making the Right Decision for Your Child* (first published in 2007 and revised in 2011), in which he advocated spacing out vaccine administration to children more than in the approved schedule. Critics have noted that his "alternate" vaccination schedule poses risks to children and is based on unwarranted safety concerns and unsound evaluation of evidence:

- ◆ Offit P, Moser CA. The problem with Dr Bob's alternative vaccine schedule. *Pediatrics*, Jan 2009
- ◆ Snyder J. Cashing in on fear: The danger of Dr. Sears. *Science-Based Medicine Blog*, July 30, 2009
- ◆ Parikh RK. Face-off with the bestselling vaccine guru. *Salon*, Oct 13, 2010

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THE GREAT PAIN CURE.





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Since the discovery of the liniment **NEURALGINE** some six months ago by the celebrated physician, Dr. Walter Hendricks, of Montana, over **FORTY MILLION BOTTLES** have been sold to sufferers from Neuralgia, Sick Headache, Nervous Headache, Toothache, Rheumatism, and Sore Throat. Over **TWO THOUSAND** men and women are constantly engaged in the manufacture of **NEURALGINE**, and as the above statement can be vouched for by two thousand people, it is not necessary to speak of the merits of this wonderful liniment.

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Meeting Reports - September 2018

Reported by Peter Li and John Lam, Physics students of Dr. David Cattell at Community College of Philadelphia.

Rob Palmer, a Wikipedia expert discussed “An Introduction to the Guerrilla Skepticism on Wikipedia (GSoW) Project” Saturday, September 15, 2018

Submitted by John Lam

In the PhACT meeting titled “Guerrilla Skepticism on Wikipedia,” presented by Rob Palmer, a man with many hard-hitting credentials such as being an aerospace and software engineer, who discusses his involvement and what this online editing team does. Essentially in its purest form, Guerrilla Skepticism on Wikipedia (GSoW) is a team that has been established, with the goal of editing and improving articles on Wikipedia. According to Palmer, Wikipedia is one of the top four most used sites in the English-speaking world. The reason GSoW exists is to, of course, improve the quality and reliability of Wikipedia articles because according to Palmer, information on Wikipedia is then mirrored by many other sources and even used by journalists and media. Unfortunately, sometimes the information procured from unmonitored Wikipedia articles are completely wrong, biased with few critical arguments from or against an opposing view point, or a lack of credible sources. That is where the Guerrilla Skeptics come in on their pursuit of skepticism and factual sources, though they specifically work to improve articles that require a dose of skepticism such as many pseudo sciences, supernatural, or down right conspiracy theories. Because of work done by this group and others, today Wikipedia articles compare favorably with articles written by more prestigious encyclopedias such as the Encyclopedia Britannica and tends to be more up to date.

According to Palmer, though there exists a Wikipedia guideline for sources, proper second party research, regarding science and pseudo sciences and many other topics. The Wikipedia’s administration team is not large enough to monitor every article ever produced in its entirety. That’s why Guerrilla Skeptics formed this project. They rework some existing articles and inject skepticism as well as factual counter information contrary to topics they deem need such skepticism, specifically into topics and articles that are related to pseudo sciences and what they call “woo” works. These works include things like conspiracies, urban legends, the idea of mediums who can talk to the dead which Guerrilla Skeptics leader Susan Gerbic calls “grief vampires,” implying that they prey on the grief of others, and many other works that may not necessarily have solid factual foundations or may need additional counter arguments, and more realistic and neutral opinions, sources, and proof. One such article mentioned by Palmer was for something called the Blue Whale Challenge which was believed to be a game that recruits children to play via social media and assigns them tasks that lead to self-harm and eventually pushing them to suicide. Through the editing of this article, the GSoW have reworked the article to reflect that this game’s connection to actual suicides is merely urban legend and that the game itself may be an urban legend as well.

Besides their work on essential debunking and moderating “woo” works, they also create and edit articles involuntarily or through working with actual scientists for said scientist or for more respectable and concrete subjects. For example, they sometimes use the information they obtained from interviews for the magazine *Skeptical Inquirer* which Rob Palmer is an editor. According to Rob Palmer their smaller works besides reworking, editing, and creating whole articles, involves around adding links, criticism, and counter articles. They also add things like leads, wiki links to other articles related to a topic, and banners which is essentially a tag or label to help classify a topic. They also add the phrase “citation needed” to certain areas of an arti-



cle or topic that they believe to be well written but lack proper citation. Palmer states that they also remove content and/or references that they deem as invalid. Palmer further explains that Wikipedia has a feature where all edits made to an article can be viewed as well as community talk pages for each topic presented in an article.

Palmer iterates that Guerrilla Skeptics do not control Wikipedia articles as they are not associated directly with the Wikipedia creators and administrators. They are merely a third party editing team. When asked, Palmer says that there is no concrete reason as to why the GSoW project has not become an official Administration group despite their goals being very much aligned with Wikipedia administrators. This point is quite interesting as according to Palmer, administrators do not always see eye to eye with the GSoW and have, on occasion, overridden some of the GSoW edits and various works.

Palmer ended the meeting with a brief recap of what the GSoW project is: It's founder is Susan Gerbic and the project has gained over 100 members worldwide with a current full page edit count of 670 articles. That is not including small article edits and additions according to Palmer.

Submitted by Peter Li

The Philadelphia Association of Critical Thinking (PhACT) hosted a meeting to discuss information on Wikipedia and what goes on in the background of how information is obtained, set in place, and changed. To set the tone, a brief summary is given about Wikipedia, the Skeptical Inquirer and how the Skepticism Movement came to be.

Wikipedia is named as one of the top five most trafficked websites on the internet, just below Baidu, the Chinese Google, as shown through statistics displayed on the PowerPoint during the meeting. Wikipedia's information is often mirrored and found quickly in search engines when looking up information; therefore, it is pertinent that information be accurate to a degree. Journalists utilize this information as well.

One example of a mishap dealing with Wikipedia involves Aardvarks and how information about them stayed incorrect for six years. A site visited and used so often should not be spreading false information. So, many groups and people have taken it upon themselves to correct such issues. Susan Marie Gerbic is introduced as the founder of the Guerrilla Skepticism on Wikipedia (GSoW) project in 2010.

The GSoW is explained as an international group of well-trained volunteers who assist Wikipedia in the creation, correction, and removal of Wikipedia content. Furthermore, they assist in the translation of Wikipedia pages to other languages without feeding misinformation. Rob Palmer, a mechanical aerospace engineer turned software engineer, found himself involved with this community and project. He details how he discovered the GSoW project and how he first published his article on their magazine.

Palmer joined the GSoW project because he felt it was his true calling. His job involves using his scientific skepticism to create new articles or edit existing ones with false information. When asked why he edits articles, he quotes "Extraordinary claims require extraordinary evidence." Moreover, he provides examples of why he is doing this. One example includes the company Goop, a lifestyle branded private company. Millions of people read this Wikipedia page. Yet, most people do not know about the criticism given to it company and advertised products. It would be wrong to ignore these facts written in articles. So, Palmer takes it upon himself to edit Wikipages to denote a banner or label to show if a page is part of alternative medicine, paranormal, or unscientific.

Palmer goes on to discuss that they edit pages that are well trafficked by people and by lists that Wikipedia assists with. Sometimes, things do not work out in the adding and editing process. One example is Palmer's creation of a page for Kenny Biddle, which ended up being deleted due to lack of importance. Editors come together to decide whether changes or additions should be allowed.

Wikipedia has evolved through the years with bots and scripts to make sure implementation of false information can be reversed quickly and automatically. This allows for a flag option to ensure your changes receive a fair chance at approval. Through this deletion of Kenny Biddle, Palmer details how the process can sometimes be difficult, but it is fairly done through votes. Even through these rough moments, Palmer feels his work has meaning. The impact of his work can even be felt while he sleeps, as hundreds or maybe thousands of people visit the Wikipage he has edited or created.

Palmer urges other people join the effort as it produces significant contributions, reduced frustration when seeing misinformation, and a sense of accomplishment. Furthermore, he notes that one should not try to change it themselves, but rather join a group because Wikipedia is filled with bureaucracy in that the rules and guidelines, the methods of editing, and conflict with others could hinder your goals. All in all, the meeting was insightful and opened my eyes to the process of changes in Wikipedia. If I ever go about trying to create or edit something on Wikipedia, I would consider joining a group or getting assistance from someone. Lastly, it was interesting to see how such an organization such as GSoW operates.



At the Wagner Free Institute of Science

1700 W. Montgomery Ave., Philadelphia, PA 19121 215-763-6529 Tuesday-Friday 9am-4pm

<http://www.wagnerfreeinstitute.org>

Lectures and Other Events at the Wagner

Saturday, October 6th, 12 - 4 PM

Wagner on the Weekend - Community Science Day: Harvest Festival

Enjoy science education activities for all ages with Wagner staff and partners in the Wagner's museum and yard! Learn about this special time of year when the leaves change color and the crops are ready to be harvested.

Wednesday, October 17th, 6 - 8 PM in the Wagner's historic lecture hall

Archives Month Philly - Annual Lantern Slide Salon

Thursday, October 25, 5:30 - 7:30 PM

Evening with an Expert - Reptiles and Amphibians: Both Dead and Alive with Scott McRobert, Saint Joseph's University

Tickets required: \$30 for non-members, \$25 for members. Registration available soon.

Thursday, November 1st, 6 - 7:30 PM

Weeknights at the Wagner - Planted Bodies: Science and Pseudoscience in Philadelphia's Rural Cemeteries with Aaron Wunsch, University of Pennsylvania

Monday, November 12th, 6 - 7 PM at National Mechanics bar

Science on Tap - Blowing Up Glaciers (Just a Bit!) with Wagner guest speaker Atsuhiko Muto of Temple University's Earth and Environmental Science department

Adult Education

Current Course Schedule - 2018 Fall

Entomological Musings: The Wondrous World of Insects Professor Greg Cowper

6 Mondays, September 24 to November 5, 2018 (no class on October 8 -- Columbus Day), 6:15 - 7:45 PM. Fishtown Community Branch of the Free Library, 1217 E. Montgomery Ave (just north of Girard Ave.)

This new course will introduce Entomology, the study of insects, and discuss specific Insect Orders, ranging from Lepidoptera (butterflies and moths) to Siphonaptera (fleas). Students will learn about the evolution of insect groups across,

geologic time, classification, morphology, diversity and behavior.

No pre-registration necessary. Register by completing a registration form at the class.

A History of Cartography: From Antiquity to Longitude Professor Darin Hayton

6 Wednesdays, September 26 - November 7, 2018, 6:15 - 7:45 PM. Independence Branch of the Free Library, 18th S. 7th St. (between Market and Chestnut)

The class will look at some of the narrative, political and religious aspects of maps. It will also work through the often sophisticated mathematics and geographic knowledge that undergirded cartographic projects from antiquity through the 18th century, when people finally solved the longitude problem.

No pre-registration necessary. Register by completing a registration form at the class.

Wild City Plants - Field Course

Professor Alfred E. Schuyler

First class: Tuesday, October 2, 2018, 6:30 - 7:45 PM at Pennsylvania Horticultural Society, 100 N. 20th St. Philadelphia

Five field classes, October 6 - November 3, 10 AM - 1 PM in various locations around Philadelphia, all accessible via public transportation

This field class will take five Saturday walks to different sites in Philadelphia. The primary focus will be on the remarkable diversity of plants that grow wild in urban habitats such as vacant lots, sidewalk cracks, railroad corridors, yards, and parks. We will use field guides to identify the plants and discuss their ecological importance.

This course requires pre-registration and is limited to 25 students. Pre-registration opens Monday, September 17. Pre-register online or by calling 215-763-6529 x23.

Past Courses

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Wagner lectures and courses are FREE and open to the general public.

Contributions are gratefully received.

Courses are taught at introductory college level.



Moonwort and Horseshoes

By Don Nigroni

In *Plant Lore, Legends, and Lyrics* (1884) by Richard Folkard, Jun. we read about a curious fern known as moonwort: The Fern *Botrychium Lunaria* has derived its name of Moonwort from the crescent shape of the segments of its frond. Perhaps it is this lunar form which has caused it to be so highly esteemed for its supposed magical properties.



Culpeper* tell us that the Moonwort was a herb which, in his days, was popularly believed to open locks and unshoe horses that trod on it. "This," he adds, "some laugh to scorn, and those no small fools neither, but country people that I know call it Unshoe-the- Horse. Besides, I have heard commanders say that on White Down, in Devonshire, near Tiverton, there were found thirty horseshoes, pulled off from the Earl of Essex's horses, being there drawn

up in a body, many of them being newly shod, and no reason known, which caused much admiration; and the herb described usually grows upon the heaths."

And from *Devon: Its Moorlands, Streams, & Coasts* (1908) by Lady Rosalind Northcote we learn that this incident occurred in 1644:

Culpeper, the herbalist, to illustrate the powers of the plant moonwort, tells of a wonderful incident that occurred to Lord Essex's horse, presumably when his army was here in 1644. Moonwort has (or perhaps *had*) a miraculous effect on iron, with power to open locks or unshoe horses.

So what can we make of this bizarre claim that a small fern could supernaturally cause horses to be lose their horseshoes. The alleged ability of moonworts to unshoe horses was a common folkloric belief yet how could such a strange idea have ever originated. Perhaps you have already solved this mystery but I shall proceed anyway. First, the fact that moonwort (*Botrychium lunaria*) has pinnae that resemble crescent moons would have given this fern a weird mystique.

Second, we know that some horses had been newly shod and that some horses lost their horseshoes in a field where moonworts grew in 1644. Hence, we might conclude that the horses lost their horseshoes due to the moonworts. However, I suspect the key to this enigma is that some horses were "newly shod". I suspect that *all* of the horses that lost their horseshoes had been newly shod. Thus, I think that the horseshoes were lost not due to the moonworts but because of shoddy shodding!

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Don Nigroni received a BS in economics in 1971 from Saint Joseph's University and a MA in philosophy from Notre Dame in 1973. He retired in 2007 after working for 32 years as an economist with the US Bureau of Labor Statistics. He now spends his time cutting invasive plants as a volunteer Weed Warrior, hiking, kayaking, bird watching and metal detecting for buried treasure.

Editor's Note: Nicholas Culpeper's medical philosophy in his "Herbal" is interwoven with Graeco-Arabic medical concepts as well as astrological principles. With this in mind, it is easy to comprehend his guide as to the correct treatment of a disease:

"First of all, decide which planet is responsible for the disease.

Secondly ascertain which part or parts of the body are afflicted by the disease, referring particularly to the flesh, the blood, the bones or the heart.

Thirdly treat the disease by means of medicines that have qualities to them that are in antipathy to the qualities of the disease and any afflicted organ or part of the body.

Fourthly, do remember to treat any organ or part of the body that has become weakened with medicines that have an affinity to the qualities of the weakened organ or part."

It does not seem unlikely that the founder of Homeopathy, Samuel Hahnemann (1755-1843) was heavily influenced by the work of Nicholas Culpeper (1616-1654).

How Biology Drives Religious Belief ©

By Norman Vadner

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1. Introduction

A large portion of the population is religious, despite the lack of a scientific basis for such belief. This paper identifies biology as a factor that can drive scientifically unsupported belief in a supernatural power. Yes, while there may be an unknown higher power responsible for the universe and (indirectly) human existence, there is no scientific basis supporting the belief that it is the supreme being(s) of religion.

Humans are drawn by an insatiable urge to understand both the source and destiny of their existence. The human need for the transcendental can be so powerful that it can lead to the suspension of critical thinking in order to accept beliefs that satisfy those underlying transcendental needs. For example, a tsunami in 2004 led to the deaths of an estimated 230,000 people living on the coasts of Asian countries. This would seem to clash with the concept of a loving, all-powerful god, but does not cause most religious adherents to doubt their faith.

On the surface there appear to be no apparent differences between believers and non-believers. The differences may lie in differing underlying physiologies — more specifically an area of the brain or gene/brain combination or their functioning that drives religious belief.

2. Religious Beliefs Lack Scientific Support

With the alleged benefits of unconditional love, answering of prayers, forgiveness of sins, and eternal life, it is understandable why so many are attracted to religion. This is despite the complete absence, however, of any proof of the existence of the supreme being(s) of religion. Indoctrination from an early age and association with those of similar views contribute to such belief.

While the factors cited above press many individuals strongly toward acceptance of religious belief, another factor also enters — the selective suspension of rational judgment when considering religious beliefs. A unique and fascinating aspect of religious belief is “compartmentalization.” Somewhat surprisingly, this strong attraction to religion and the suspension of rational judgment in its acceptance does not extend to other areas of thought. Thus, religious adherents appear no different in other cognitive areas. They are apparently just as capable as non-religious folks in other areas of life, and can function just as rationally and competently in a non-religious context. With widespread peer acceptance of what appears to non-religious folks to be a delusion (religious belief), it is difficult if not impossible to convince religious adherents of the lack of soundness of their views.

For whatever unknown higher power that may actually exist, the evidence is slim, and the difficulty of interpreting such slim

evidence is extraordinarily high. This leaves humans in the situation of having to live under extreme uncertainty — an uncertainty, for some, relieved by accepting a set or sets of beliefs about a possible higher power. To paraphrase Norman Hammond, professor of archaeology at Boston University,¹ “Irrational certainty” is often more attractive to people than the “rational uncertainty of science.”

Psychologist Michael Shermer² has written that, “Instead of shaping belief around painstakingly gathered, soberly judged evidence, people most often decide upon their beliefs first, and then use an impressive range of cognitive tricks to bend whatever evidence they do discover into support for those pre-decided acts of faith.”

3. Biology Plays a Part in Driving Religious Beliefs

A fascinating aspect of religious beliefs, referred to previously, is one of “compartmentalization.” The religious appear to be no different in every other way from their non-religious peers. Early age indoctrination, wishful thinking, the desire for life after death, peer pressure, etc. together are not enough to explain the departure from reality that constitutes most religious belief. What remains after these stated explanations and justifications is biology. There are almost certainly some chemical and/or biological aspects of the human brain that drive otherwise intelligent, educated individuals to abandon facts and reason in the acceptance of scientifically unsupported religious beliefs. It appears that religious belief is largely a product of brain physiology. It appears that some of us are just wired this way.

It has been theorized that humans are “hard-wired” to believe in God. If this is true, then it must have been a virtue and provided some survival benefit — else the phenomenon would not have evolved. This, however, does not mean a proclivity for religious thought continues to be presently useful.

Two possible bases for natural selection favoring the survival of religiously-oriented individuals are:

- (1) Sociological — Religious individuals are attracted to other similarly-minded individuals. Membership in a group increases the individual’s chance for survival (as well as the survival of the individual’s genes).
- (2) Biological — The tendency towards religious belief may be correlated with other valuable traits (such as intelligence, self-confidence, or aggression) which in turn increase the chances for survival. Whether sociological or biological (or both), religious tendency can be seen as an ingrained trait which could be passed on to subsequent generations.

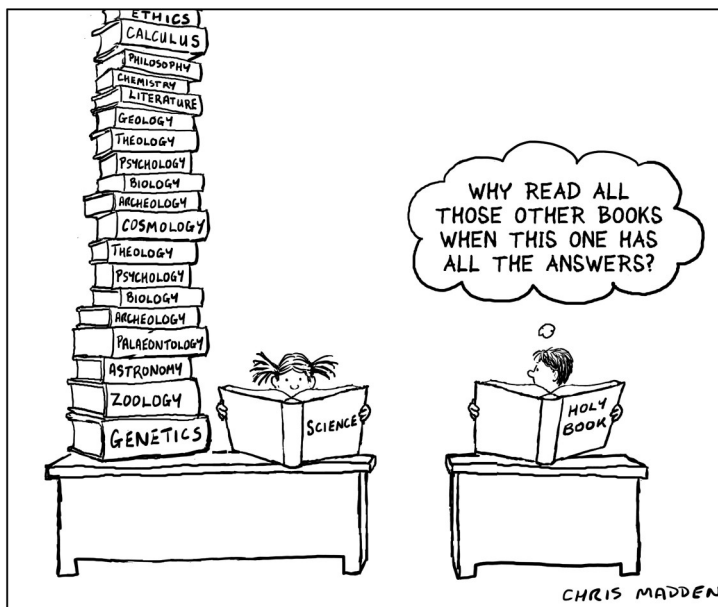
For those whose brains seem to be hard-wired on a “feeling” or emotional basis to accept belief in a higher power, this belief apparently can come with no obvious external stimuli. While for others, religious belief can come or be enhanced by, external stimuli such as prayer, drugs, meditation, or sleep deprivation.

The placebo effect on human physiology has been well documented. Science writer Erik Vance notes “Studies suggest that regular religious services may improve the immune system, decrease blood pressure, add years to our lives.” Such benefits to a believer can be enhanced when religious beliefs are presented by a recognized authority (such as a clergy) in an appropriate setting (such as a church). Such benefits, while substantial, neither prove nor disprove the existence of a deity.

4. Religious Beliefs Explained As Mental Phenomena

Research by Andrew Newberg, Michael Persinger and others show that religious beliefs can often be explained solely as mental phenomena.

Neuroscientist Andrew Newberg⁴ of the University of Pennsylvania School of Medicine has used several types of imaging systems to watch the brains of subjects as they meditate or pray. By measuring blood flow, he determines which regions are responsible for the feelings the volunteers experience. The deeper that people descend into meditation or prayer, Newberg found,



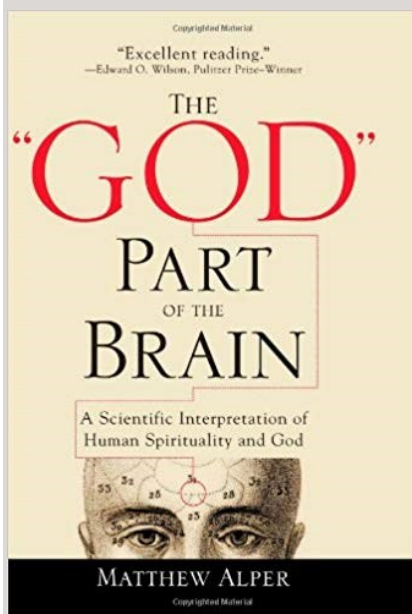
CartoonStock.com

the more active the frontal lobe and the limbic system become. The frontal lobe is the seat of concentration and attention; the limbic system is where powerful feelings, including rapture, are processed. More revealing is the fact that at the same time these regions flash to life, another important region — the parietal lobe at the back of the brain — goes dim. It's this lobe that orients the individual in time and space. Take it off-line, and the boundaries of the self fall away, creating the feeling of being at one with the universe. Combine that with what's going on in the other two lobes, and one can put together a profound religious experience.

A theory developed by Michael Persinger⁵, professor of neuroscience at Laurentian University in Sudbury, Ontario, and his colleagues purports to explain why some people are more prone to religious experiences than others. Their individual proclivities are directly related to how susceptible their temporal lobes are to external or internal influence. External influences could include everything from large magnetic fields occurring naturally on Earth to a malfunctioning clock radio, to list but two examples. Internal influences include, among other things, disorders such as temporal lobe epilepsy. Numerous experiments have suggested that these physical, not metaphysical, influences on the temporal lobes can cause perceptions similar to those reported in religious experiences, and that certain people are greatly susceptible to these influences while others are apparently immune. The implication is that many people who report mystical, other-worldly experiences might have actually been affected by more mundane, worldly phenomena.

A partial summary of *Where God and Science meet*⁶, edited by Patrick McNamara of Boston University's School of Medicine, states studies show Buddhist priests and Franciscan nuns at the peak of their religious feelings show a functional change in the lobes of their brain. Similar processes have been found in people with epilepsy. New research is showing that not only does a person's brain activity change in particular areas while that person is experiencing religious epiphany, but such events can be created for some people, even self-professed atheists, by stimulating various parts of the brain.

In his book *The "God" Part of the Brain*⁷ author Matthew Alper states "offering physical evidence to support this notion that humans can suffer from spiritual/religious aphasias." Alper also notes the Canadian psychologist Michael Persinger found that "one of the main differences between the 19 percent of high school students who had religious experiences before their teens,



The "God" Part of the Brain: A Scientific Interpretation of Human Spirituality and God by Matthew Alper

Paperback: 288 pages

Publisher: Sourcebooks (September 1, 2008)

ISBN-10: 9781402214523 ISBN-13: 978-1402214523

Is Man the product of a God...or is "God" the product of human evolution?

From the dawn of our species, every human culture—no matter how isolated—has believed in some form of a spiritual realm. According to author Matthew Alper, this is no mere coincidence but rather due to the fact that humans, as a species, are genetically predisposed to believe in the universal concepts of a god, a soul and an afterlife. This

instinct to believe is the result of an evolutionary adaptation—a coping mechanism—that emerged in our species to help us survive our unique and otherwise debilitating awareness of death.

Spiritual seekers and atheists alike will be compelled and transformed by Matthew Alper's classic study of science and religion. *The 'God' Part of the Brain* has gained critical acclaim from some of the world's leading scientists, secular humanists, and theologians, and is as a must read for anyone who has pondered the question of God's existence, as well as the meaning of our own.

and the rest, was the presence of a head injury or blackout at least once during childhood.”

“To further support Persinger’s findings,” writes Alper, “Dr. Arnold Sadwin, chief of neuropsychiatry at University of Pennsylvania’s graduate hospital, came across people who had incurred religiously oriented personality disorders after incurring a blow to the head (what is known as an organic psycho-syndrome). In his research, Sadwin discovered individuals who, after suffering a head injury, showed distinct changes in their religious attitudes and behaviors. In some cases, he found individuals who, though they were extremely religious prior to their accidents, afterwards were indifferent to religious concerns. On the other hand, Dr. Sadwin also came across individuals, who, though they were previously areligious, after experiencing a head injury, suddenly became hyper religious, obsessively praying to God and expressing intense religious feelings and urges.”

Stav Dimitropoulos⁸, scientist turned journalist, writes “Mystical experiences also happen beyond the walls of temples and cathedrals. Psychoactive drugs will do the trick. A team led by University of Zurich psychiatrist Michael Kometer looked at RSMs (religious, spiritual and mystical experiences) triggered by drugs to learn more about the phenomenon.

“Kometer and his team gave 50 people a moderate dose of psilocybin, the hallucinogen found in magic mushrooms that’s known to induce spiritual experiences. Then, the experts took brain scans of the volunteers. The results, published in 2015, showed that the drug-induced religious mindset was due to a change in activity in the default mode network — a region associated with how we relate information about the world to ourselves. So while the volunteers were tripping, they felt a sense of unity with their environment.”

5. Studies of Twins

In the now-famous 1979 study of twins at the University of Minnesota, researchers tracked down 53 pairs of identical twins and 31 pairs of fraternal twins who had been separated at birth and raised in different settings. Among the many areas where identical twins showed strong overlap was spirituality—they were twice as likely as fraternal twins to share as much or as little faith as their long lost sibling.

Tim Spector⁹, Professor of Genetic Epistemology at King’s College London, has said “Twin studies conducted around the world in the United States, the Netherlands and Australia as well as ours in Britain shows a 40 to 50 percent genetic component to belief in God. . . . What is striking is that these findings of a genetic basis for belief are consistent across countries like the United States and Britain, with their huge differences in beliefs and church attendance.”

6. Believers Search for Scientific Bases to Support Their Views

Certain of the validity of their beliefs, but without scientifically-based evidence to back up those beliefs, and unwilling to let go of their convictions, religious adherents look for support elsewhere to substantiate their belief systems. This endeavor carries them into “suggestive” areas such as intelligent design, near-death experiences, visions often incurred from drugs, intense prayer and/or sleep, food, and light deprivation. None of these “suggestive” areas, however, provide any scientifically demonstrative links to the existence of a supreme being.

Despite the lack of scientific support for their beliefs, many religious adherents are quick to dismiss the well-supported record of biological evolution. They ignore mounds of hard science derived from painstaking research, arguing instead over a missing link across a fossil record chain spanning millions of years. Others accept evolution but turn to arguments such as God created our world and the universe in a basic form — and then casually and inexplicably stepped aside to allow natural forces, such as evolution, to take over.

7. Conclusion

With alleged benefits of unconditional love, answering of prayers, forgiveness of sins, and eternal life after death, it is understandable why so many are attracted to religion. This is despite the complete absence of proof, of any sort, of the existence of the supreme being(s) of religion. Early age indoctrination, association with those of similar views, the suspension of rational judgment, and the bias of the human brain all contribute toward the unsubstantiated acceptance of religious belief — without the presence of any corroborating evidence.

Such an outlook can be compartmentalized, that is, limited to religion. This type of religious thought process is analogous to how most men are attracted to women with curvy figures — it’s largely biology! But while most men would certainly tend to realize, and admit, to the role biology plays in their attraction to curvy women, religious folk seem totally unaware of the way in which biology drives their perception of religion . . . and if informed of this causality would vigorously deny it. This sug-

gests that people with a strong biological religious bias may be challenged to hold forth, in an intelligent and unbiased manner, on theological matters.

Should research show that a specific gene largely directs religious belief or lack thereof and that such belief is determined by the presence or absence of mutation (s) on the gene, then the way toward manipulation of religious belief may be opened up via the gene editing technology Crispr. This opens the possibility for a “1984” scenario . . . one in which manipulation presses humans toward belief in God — or, just the opposite, toward the absence of belief in God. If God is nothing more than a neurochemical flash in the human brain, then this could lead to God (or, more accurately *the belief* in God) largely ceasing to exist.

Michael Persinger of Laurentian University in Sudbury, Ontario has said his research shows that “religion is a property of the brain, only the brain, and little to do with what’s out there.”

Andrew Newberg of the University of Pennsylvania has said “The brain is set up in such a way as to have spiritual experiences and religious experiences...Unless there is a fundamental change in the brain, religion and spirituality will be here for a very long time. The brain is predisposed to having those experiences, and that is why so many people believe in God.”

Author Matthew Alper says that the evidence suggests “that God doesn’t exist as something ‘out there’, beyond and independent of us, but rather as the product of an inherited perception...Spiritual concepts such as God or gods, soul or afterlife only exist as manifestations of the particular manner that our species has been ‘hardwired’ to perceive reality. Consequently, humankind can no longer be viewed as a product of God but rather God must be viewed as a product of human cognition.”

Footnotes:

1. *Henderson Home News (NV)*, October 14, 2000
2. *The Believing Brain: From Ghosts and Gods to Politics and Conspiracies – How We Construct Beliefs and Reinforce them as Truths* (by Michael Shermer)
3. *National Geographic*, December 2016
4. *Time Magazine*, October 25, 2004
5. Allen James – *Neurotheology and the Scientific Investigation into Spirituality*, May 31, 2012
6. *Where God and Science Meet – How Brain and Evolutionary Studies Alter Our Understanding of Religion* (edited by Patrick McNamara), October, 2006
7. Originally published in 2006
8. *Discover Magazine*, September, 2017
9. *Identically Different; Why We Can Change Our Genes* by Tim Spector
10. *The Philadelphia Inquirer*, July 2, 2001

Norman Vadner holds degrees in management from the Massachusetts Institute of Technology and Columbia University. He can be reached at NormVadner@yahoo.com.

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WHEN ALL THINK ALIKE,
THEN NO ONE IS THINKING

-WALTER LIPPMAN-



“The Savage interrupted him. "But isn't it natural to feel there's a God?"

"You might as well ask if it's natural to do up one's trousers with zippers," said the Controller sarcastically. "You remind me of another of those old fellows called Bradley. He defined philosophy as the finding of bad reason for what one believes by instinct. As if one believed anything by instinct! One believes things because one has been conditioned to believe them. Finding bad reasons for what one believes for other bad reasons—that's philosophy. People believe in God because they've been conditioned to."

~ **Aldous Huxley, *Brave New World***

Teeth: “...to be cleaned; but with great precaution...”¹

Dentistry in the Days of William Penn By Clarissa F. Dillon, Ph.D.



Today, TV viewers are bombarded with ads about teeth. We are encouraged to use various preparations to achieve a dazzling whiteness and to prevent decay. Irregular teeth can be straightened with braces (a comfortable payment schedule can be arranged) and if extractions are necessary, implants can provide a perfect smile.

But what about teeth in colonial days . . . ? There were various powders and liquids designed to whiten and preserve teeth for those able to afford them and willing to use them. In Philadelphia, people could purchase items for their teeth. In the 19 May 1768 issue of the Pennsylvania Gazette, Robert Bass, Apothecary offered “...tooth powder, with proper brushes...” Some cleansers were simple, inexpensive, and could be made at home.

For teeth that are yellow.

*Take sage and salt, of each alike, and stamp them well together, then bake it till it be hard, and make a fine powder thereof, then therewith rub the teeth evening and morning and it will take away all yellowness.*²

A self-help medical manual directed people to rub their teeth “...with Ashes of burnt Bread.”³ Often, the preparation was supposed to preserve the teeth as well.

To preserve and whiten the Teeth.

*TAKE a quarter of a pound of honey, and boil it with a little roch-alum; skim it well, and then put in a little ginger finely beaten, let it boil while longer, then take it off; and before it is cold, put to it as much dragon’s blood [an Asian resin] as will make it of a good colour; mix it well together and keep it in a gally pot for use; take a little on a rag and rub the teeth; you may use it often.*⁴

Some dentifrices contained abrasive substances, like powdered pumice and/or cuttle bone; these, if used too often or too vigorously, could destroy the tooth enamel, creating problems. Another treatment sounds alarming!

*..once a fortnight, not oftener, dip your skewer brush into a few grains of gun powder,...and this will remove every spot and blemish, and give your Teeth an inconceivable whiteness...the mouth must be well washed after this operation...*⁵



A complete set of Washington dentures was made from animal and human teeth, ivory, and lead.

When over-enthusiastic care or other unfortunate things occurred, the tooth/teeth might develop holes, crack, or break. When this happened, pain from toothache developed. That self-help book had 18 “cures” for toothache--among them, putting

turnip peelings behind the ear, or boiled nettles on the cheek, or a garlic clove on the tooth; it did include a treatment still used by some today: "...a Drop or two of Oil of Cloves on Cotton..."⁶ A traveller in Pennsylvania described another treatment.

*When the pains come from the hollowness of the tooth, the following remedy is said to have had a good effect: A little cotton is put in the bottom of a tobacco-pipe, the tobacco is put in upon it, and lighted; and you smoke until it is almost burnt up. By smoking, the oil of the tobacco gets into the cotton, which is then taken out, and applied to the tooth as hot as it can be suffered.*⁷

If there were too much decay, more drastic steps had to be taken: "Teeth much decayed, or useless, should be drawn, if the operation can be performed with safety."⁸

People who pulled teeth were sometimes blacksmith, barbers, or others not necessarily skilled or sympathetic. I have found one reference to a woman performing the operation: "...went to Rachel Seals, had my tooth pulled out..."⁹ To pull molars, a tooth-key could be used; it was a metal shaft with a T-handle at the top and a movable semi-circular piece at the bottom. This latter could be fitted around a back tooth; a vigorous twist-and-pull would extract the tooth. Front teeth could have been pulled with pliers or pincers; a cord around the tooth and a strong pull could also have been used effectively.

The modern practice of implantation was evidently sometimes a part of 18th-century dentistry. A diarist recorded:

[25 Feb. 1750] ...had one Tooth drawn in the Morning, and another attempted, suffer'd much thereby.

[1 Mar. 1759] ...pulled out a Tooth in the Evening, which the Tooth-drawer had drawn before and replaced.

By the final quarter of the century, people of the middling sort were using "dentists" to care for their teeth.



An 18th Century Tooth Hook, also known as an English Hook.



[8 Aug. 1788] ...Doctor Spence dentist cleaned my teeth, fixed one in that had dropped out, cost £1 "10..."¹¹

[11 July 1796] ...Js Gardette Dentist was here forenoon cleaning Williams teeth--they were not foul, he extracted one, and scraped the others, then rub'd them with dentifrice, for which he was paid 5 Dollars--if what he does will tend to preserve the teeth, 'tis a trifle well laid out.¹²

People of the lower sort did not take advantage of such services. We can find the effects of this lack of care and preventive practices in ads for runaway servants and slaves.

[14 Apr. 1771] ...two his fore Teeth a little decayed...

[19 June 1773] ...has lost most of her single teeth...

[18 Aug. 1780] ...her upper fore teeth much decayed, and some of them out...¹³

A final comment: in the 16 May 1734 issue of the Pennsylvania Gazette, there was a mortality table for London; in it, a total of 29,333 deaths were recorded and of these, 1,623 were for "teeth."

Footnotes:

1. *The Toilet of Flora...* (Printed for W. Nichols...n.d.; Xerox from The British Library, London), p. 30.
2. Gervase Markham, *The English Housewife* [orig. pub. 1615], ed. by Michael R. Best. (Kingston and Montreal: McGill-Queen's University Press, 1986), p. 20.
3. John Wesley, *Primitive Physick...* 14th ed. (Bristol: Printed by William Pine...1770), p. 132.
4. E. Smith, *The Compleat Housewife:...* 15th ed. (London: Printed for R. Ware...1753; facsimile reprint by Literary Services and Production Limited, London, 1968), p. 351.
5. *Toilet*, op. cit., p. pp. 30-31.
6. Wesley, op. cit., pp. 133-134.
7. Peter Kalm, *Travels Into North America* [abridged 1-vol. ed.], trans. by John Reinhold Forster. (Barre, MA: The Imprint Society, 1972), p. 218. Cf. *Toilet*, op. cit., p. 17.
8. *Toilet*, op. cit., p. 33.
9. "The Diary of Benjamin Hawley Chester County, PA 1769-1782" (Unpublished manuscript/typescript in The Chester County Historical Society, West Chester, PA), p. 131. Rachel Seal was the daughter of a doctor and performed other medical treatments in the community.
10. *The Diary of Elizabeth Drinker*, ed. by Elaine Forman Crane. (Boston: Northeastern University Press, 1991), p. 12; p. 13.
11. *The Diary of Hannah Callender Sansom:...* ed. by Susan E. Klepp & Karin Wulf. (Ithaca and London: Cornell University Press, 2010), p. 301.
12. *Drinker*, op. cit., p. 871.
13. Don N. Hagist, *Wives, Slaves, and Servant Girls:...* (Yardley, PA: Westholme, 2007 & 2016), p. 54; p. 100; p. 145.

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Markham, Gervase. *The English Housewife* [orig. pub. 1615]. ed. by Michael R. Best. Kingston and Montreal: McGill-Queen's University Press, 1986.

Smith, C. *The Compleat Housewife*... 15th ed. London: Printed for R. Ware...1753; facsimile reprint by Literary Services and Production Limited, London, 1968.

The Toilet of Flora... London: Printed for W. Nichols...n.d.; Xerox from The British Library, London.

Clarissa F. Dillon received her doctorate in History from Bryn Mawr College and has been involved in "living history" since 1973. She has long tried to dispel the myth about tomatoes being considered poisonous. She designed and interpreted a display, "They did too eat Tomatoes" for the John Bartram Association at the Pennsylvania Horticultural Society's Harvest Show in September 1990. She had an article, "Exploding a Historical Myth About Tomatoes," published in *Living History*, Vol. 1, No. 2, Summer 1991. Its original title was "They Did Too Eat Tomatoes" but the editor insisted that it be changed. She also wrote an article, "Tomatoes, also called Love Apples, " for a column entitled "Mythbustherth" in *PAST Masters' News*, Vol. 8, No. 3, Summer 2005. She was delighted to receive a documentation for tomatoes as food from Joel Fry at Bartram's; that meant she could include tomatoes in the revised dissertation she makes available to historic gardeners and cooks.

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Under "Common Law," Pennsylvania is "Christian"

by Paul Schlueter III

While recently browsing the Law (one of my pass times) I reviewed some sections of what is known as "common law." Basically, common law is that holdover of old British law that applied in these colonies before the US became its own country. For convenience and simplicity, the US chose to carry on the common law to which white culture was already adapted and comfortable. It is important to note that the courts may abolish common laws which are determined to be in conflict with American or state law written since 1776, and the legislatures of both the nation and the state may change any part of the common law by simply enacting a formal new statute (law). Common law is basically the "core ideas" behind today's laws, carried from our British heritage.

Interestingly enough (particularly in this time when many Americans are fond of claiming that the USA is "a Christian nation"), I ran across the following paragraph:

"The laws and institutions of Pennsylvania are built on the foundation of reverence for Christianity¹⁷, and Christianity has been held to be part of the common law of our Commonwealth¹⁸. The Christianity referred to is not Christianity founded on sectarian tenets, but Christianity with liberty of conscience to all persons¹⁹. The decisions of the ecclesiastical tribunals in cases on doctrine, order, and discipline, have been held to be conclusive in the

LEGAL SYSTEMS

COMMON LAW

- Based on precedent, custom and interpretation
- Judge can interpret laws
- Ownership established by use
- Innocent until proven guilty
- Contracts tend to be longer, more detailed
- Contract performance except for Acts of God
- More adversarial/more lawsuits

CIVIL LAW

- Based on written codes and detailed laws.
- Judge can apply laws
- Ownership established by registration
- Guilty until proven innocent
- Contracts tend to be shorter
- Contract performance has "Acts of God" which include unforeseeable acts
- Less adversarial/less lawsuits

common-law courts²⁰.”

The statement made above is published in Shepard's *Pennsylvania Citations; Evidence: Common Law and Federal Rules of Evidence*, 4th Ed., under "The Theory and Craft of American Law," Section 3.

For anyone interested in further review, the formal legal precedents are cited as footnotes, below. Such actual court opinion is very important in trying to understand the logic of the courts, but in law books it is relatively common for publishers to simply list a paragraph full of brief quotes, laying out a statement in pieces.

This information is most important to any party who might not actually be a Christian, and who wishes to carry out some activity or action which might not conform to the Christian common law expectations of other Pennsylvanians. For greater detail and explanation, please show this short article to your own private attorney, and discuss with him/her your intentions and concerns. Remember that the federal and state legislatures have been writing new statutes (laws) for over 240 years, and there's a very good chance that one or more of those statutes protect whatever it is that you intend to do. If not, it might be good to have a lawyer close at hand to protect your liberty!

17. *Zeisweiss v. James*, 63 Pa. 465 (1870).

18. *Commonwealth ex rel. Woodruff v. American Baseball Club*, 290 Pa. 136, 138 A. 497 (1927). see also: *Two Guys from Harrison-Allentown, Inc. v. McGinley*, 366 U.S. 582, 81 S. Ct. 1135, 6 L. Ed. 2d 551 (1961).

19. *Hysong v. School Dist.*, 164 Pa. 629, 30 A. 482 (1894).

20. *First Church of Brethren v. Snider*, 367 Pa. 78, 79 A.2d 422 (1951).

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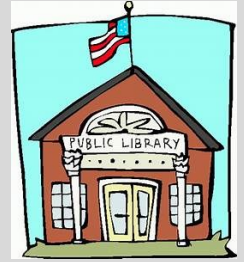
Paul Schlueter III is serving Life in Prison in NE Pennsylvania. His supporters have created a website about him.
www.jaybird.org



“After living together for 10 years, we now realize that the only thing we have in common, is common law.”

Evaluating Information Resources

by Paul Schlueter III



Not long ago, I read an article in *Skeptical Inquirer* titled "Critical Thinking and Parenting," by Amy Frushour Kelly (Nov./Dec.'17, pp. 44 - 46). In her article, Ms. Kelly reprinted (part of?) a brochure published by the National Cancer Institute in 2015, titled "Using Trusted Resources." The purpose of that brochure was to help laypersons figure out how to evaluate whose advice is reliable in medical situations, especially when there might be pseudoscientific quack-treatment to avoid. I thought that much of the advice there was applicable to just about ANY questionable claim, so here's my revised and paraphrased version:

1: Who manages this information?

Managing information is the sort of thing done by archivists and editors. Taking all the information available on any given subject (narrow or broad), information managers collect, select, and process whatever appeals to their own purpose. For some information managers, simply refusing to include "inconvenient facts" might be an acceptable way of controlling the information upon which an entire organization relies. We observe information management at work when a school board votes to select Biology books that include evolution science, or ones that omit it. Culturally, white History teachers have often ignored Native American or African American oral histories in writing about America's past.

Not every piece of information is valuable. "Teaching the controversy" is sometimes just another way of wasting classroom time on repetition of nonsense intended to supplant legitimate knowledge. Still, in other classroom situations, examples of pseudoscience are necessary to demonstrate the methods and tactics of unscrupulous scam artists.

If you let the quacks manage the information, they'll only present their own voices. If you only let one political party express itself on the evening news broadcast, the opposing party's views will be horribly distorted, if presented at all. It is important to consider who is in charge of deciding what information will be presented, and what will be ignored.

2: Who's paying for the resource, and what is their purpose?

As we all know, "Follow the money" is a good rule of thumb in evaluating any claim. The party who pays for research and/or writing has a powerful influence over the outcome, because money itself is powerful. Future deals may hinge on satisfying the financier in any current project. Sometimes, the financier includes a contractual clause giving them editorial control over content and conclusions. Due diligence requires knowing whose financial interests are involved in any publication.

3: What's the original source of the information being offered?

All reviews have a source. All sources have some reason for taking the time to make their statements and publishing them. Ask yourself if the source is a generally-reliable party. Ask yourself if the source has specialty knowledge about the topic of discussion, or are they trying to argue against information they may not fully comprehend? Does the source have an established motivational purpose for addressing the subject involved, or for holding the opinion(s) they are expressing? Remember that publishing one's own brochure is the most certain way to control the cherry-picking and interpretation of evidence to fit pre-existing biases and interests.

Sources such as L. Ron Hubbard, Joseph Smith, and Moses have their appeal to some, but none of them are qualified in sciences. Documents referring to them as the original source should be evaluated accordingly.

Give half a dozen writers a report and ask them to summarize it. Chances are good that you'll get half a dozen DIFFERENT interpretations of what the original source report said, and there's no guarantee that ANY of those reports will correctly understand the report, correctly summarize its groundwork and conclusions, or fairly represent its positions. DOES the publication offer its (presumed) original source information? The only way you can reliably analyze the information is to review the original sources themselves. Failing to include original sources (i.e., presenting footnotes or other reference information) indicates either lazy reporting, or perhaps deliberate misrepresentation requiring active concealment of the original source(s). In

either case, reliability is directly related to the availability of the original source(s). Reliability is also related to the reliability of the original source itself!

4: How is information reviewed before it gets posted or publicized?

This question clearly refers to the concept of "peer review," used by science journals to evaluate submitted papers by having them read by others with special knowledge of the topic field of study (go ahead - review the "peer review process" in Wikipedia.)

If a report is reviewed by a religious organization's publication committee, how fairly do you think they'll review a brochure on the topic of evolution? How fairly will an oil conglomerate's review panel review an article on the cost effectiveness of wind and/or solar energy technologies? How fairly will a Complementary/Alternative Medicine (CAM) group review a University lab's scientific study of a new chemical medicine?

5: How current is the information?

Science advances every year, every month, every day. Other parties stubbornly cling to ideas disproven and abandoned by skeptical thinkers and rational review tens, hundreds, even thousands of years ago. The "wisdom" of sources based on the Torah/Bible/Koran is based on Bronze Age understanding that predates heliocentricity, iron-smelting, and even the magnetic compass; its worldview was limited to a geographical understanding that only had accurate information about the area we now call "the Middle East." Learning was accomplished by fasting in the desert until one experienced visions.

People who loudly proclaim that their entire lives are guided by such ancient wisdom still try to dominate politics, education, and commerce by appealing to religious tribal loyalty, and refuse to update their views to accept modern scientific knowledge. A frightening number of such people would rather blow themselves up (and you, with them) than even entertain different thoughts.

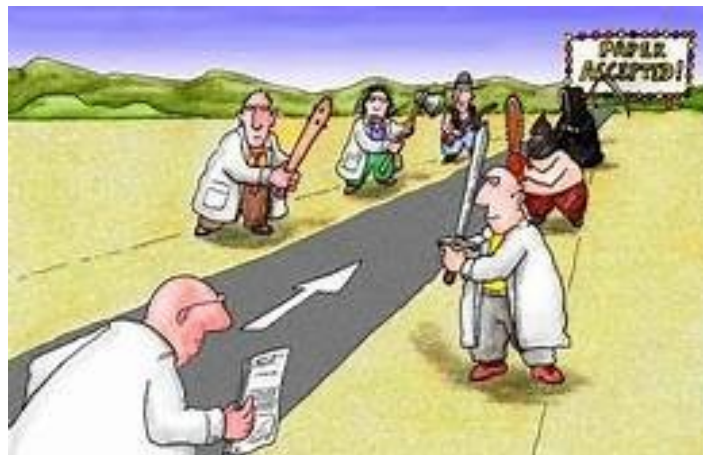
Does the brochure you're currently considering include the latest understanding, or that of some nostalgic yesteryear 25, 50, 100, or 250 years ago? Remember that only 100 years ago, cars and airplanes seldom had enclosed carriages, and most people still used horses to get around. Internal combustion engines had only just begun to burn the standard gasoline or diesel fuels, and the electrical power grid was still essentially limited to major urban areas. In 1918, WWI was being fought! How reliable would scientific knowledge even that recent seem to you? What do we now know about the great industrialists, philosophers, and politicians of that recent era, and how willing would we be to trust them today?

Modern Jehovah's Witnesses promote refusal of blood transfusions during medical procedures. Part of the rationale taught along with this unique doctrinal position is the argument that, before blood types were fully understood, people often got the wrong type of blood during a transfusion, with adverse effect. Another matter argued is the mid-'80s situation of the blood supply possibly being contaminated by donors with HIV (which causes AIDS).

Both of these concerns have since been effectively addressed by scientific advances in testing donated blood supplies, but JW's ignore those developments, and continue to discourage transfusions (their "ultimate source" is an Old Testament prohibition against taking and consuming - drinking - blood left at the altar as a sacrifice to Jehovah, hardly a scientific issue).

Another profound example of outdated information is the antivaccine movement. People with no knowledge of biology, science, or medicine will argue themselves "blue in the face" repeating a fully-disproven, doctrinaire claim that immunizations are more harmful than beneficial. They have adopted an erroneous finding from a discredited scientist, and refused to accept the more recent proof that his findings were wrong. At some point, anyone who wishes to be recognized as a rational person MUST accept rational evidence changing earlier mistaken evidence.

"Live and learn" is a maxim useful ONLY if you actually use the latter part to improve your life.



Cartoon by Nick D. Kim, <http://www.lab-initio.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. Please try to arrive a few minutes early as the College now requires that meeting attendees sign in for security reasons. ID must be shown.**

Saturday, October 20, 2018 at 2:00 PM. PhACT Lecture. Eric Krieg will discuss the *Evolution of Creationism*. See page 4 for more details.

Saturday, November 17, 2018 at 2:00 PM PhACT Lecture Linda Zimmerman will discuss her book, *Bad Science: A Brief History of Bizarre Misconceptions, Totally Wrong Conclusions, and Incredibly Stupid Theories*. See page 5 for more details.

Saturday, January 19, 2019 at 2:00 PM PhACT Lecture. Topic TBA

Saturday, February 16, 2019 at 2:00 PM PhACT Lecture. Topic TBA

Saturday, March 16, 2019 at 2:00 PM PhACT Lecture. Topic TBA

Saturday, April 20, 2019 at 2:00 PM PhACT Lecture. Topic TBA

Saturday, May 18, 2019 at 2:00 PM PhACT Expedition to Indian Rock , See page 6 for more details.

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>

Lectures and Other Events of Interest for Skeptics Around Philadelphia

Thursday, October 11, 2018 at 6:30 PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103

<https://collegeofphysicians.org/events>

Pre-registration for all programs and events is strongly urged

Shopping for Health: Medicine and Markets in America

Why do we refer to patients as "consumers" in the United States?

Is today's opioid crisis the result of medical consumerism run amok—of pills hawked like soap to gullible shoppers? Is picking a doctor really like choosing a new car? Join us to discuss when and why patients started to be called "consumers," and to examine the positive and negative aspects of 20th c. medical "consumerism." We will explore a century of efforts to deliver pharmaceutical relief through properly calibrated markets, and evaluate the risks (and often-misunderstood benefits) of governing addictive drugs as consumer goods.

Friday, October 12 at 7pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

True Tales From the Tombs

On a mid-October evening, performers will regale you with true tales from Laurel Hill Cemetery's historic tombs. Complete with scandal,



mystery and murder, 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 tormented tales, the candlelit tours will depart every half-hour through the stones and mausoleums of Laurel Hill. Afterward, slow your heart rate with seasonal refreshments and cocktails aside blazing fire pits.

One evening of True Tales from the Tombs is scheduled at Laurel Hill: Friday, October 12 at 7:00 pm (with a pre-scheduled rain date of Saturday, October 13 at 7:00 pm). Tours will last approximately one hour and depart every half-hour, with the final tour departing at 9:00pm. Attendees are advised to wear comfortable clothes and shoes, and to bring a flashlight.

The cost is \$25/person general admission. Advance reservations are strongly suggested. Tickets can be purchased at the door 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.

Saturday, October 13, 2018 at 1:00 p.m.–3:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.sciencehistory.org

WikiSalon

A casual gathering of Wikipedia enthusiasts and those interested in learning more. Participants can edit articles of their own choice and suggest articles needing improvement to the group.

Free and Open to the Public.

Novices are encouraged to attend.

Saturday, October 13, 2018 2:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Ray Didinger | The Eagles Encyclopedia: Champions Edition with Mark Leibovich | Big Game: The NFL in Dangerous Times Parkway Central Library

Fly Eagles fly! Five-time Pennsylvania Sports-writer of the Year Ray Didinger updated his and late co-writer Robert S. Lyons's bestselling The Eagles Encyclopedia—"the definitive book for any Eagles fan" (Philadelphia Daily News)—to reflect the quintessential underdog season that led to the Birds' Super Bowl LII victory. Didinger covered the NFL for The Philadelphia Bulletin and the Philadelphia Daily News for more than 25 years, has authored or coauthored ten books about sports and writing, and currently appears on Comcast SportsNet Philadelphia.

Cost: FREE

Sunday, October 14 at 1pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

The Worlds of Thomas Jefferson at Laurel Hill

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 portrayer 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, October 14 at 1:00pm, departing from Laurel Hill Ceme-

tery'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 \$15/person, \$13/students and seniors, or \$12/members. Tickets can be purchased at the door or online.

Monday, October 15, 2018 at 7:00 PM at the Ludington Library located at 5 South Bryn Mawr Avenue, Bryn Mawr, Pennsylvania.

The Freethought Society www.ftsf.org

FS is very pleased to host **Dr. Paul Offit**.

Dr. Offit's topic will be: **"How to Communicate Science to the Public—Or Die Trying."**

Using a series of personal experiences, Dr. Offit will discuss the challenges that scientists face in trying to communicate science to the public. Dr. Offit is the Director of the Vaccine Education Center at the Children's Hospital of Philadelphia as well as the Maurice R. Hilleman Professor of Vaccinology and a Professor of Pediatrics at the Perelman School of Medicine at the University of Pennsylvania. He is a recipient of many awards including the J. Edmund Bradley Prize for Excellence in Pediatrics from the University of Maryland Medical School, the Young Investigator Award in Vaccine Development from the Infectious Disease Society of America, and a Research Career Development Award from the National Institutes of Health.

This event is Free and Open to the General Public.

Tuesday, October 16, 2018 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:

www.rittenhouseastronomicalsociety.org/

Tuesday, October 16, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Joseph Ellis | American Dialogue: The Founders and Us

In conversation with Jason Freeman, author events producer and editor

A "sure-handed and entertaining guide through the thickets of argument, personality and ideology out of which the American nation emerged" (The Economist), historian Joseph Ellis won the Pulitzer Prize for *Founding Brothers*, a thoughtful exploration of the gifted but flawed men who conjured America; and the National Book Award for *American Sphinx*, a portrait of Thomas Jefferson. His body of work also includes *His Excellency: George Washington*, *First Fami-*

ly: Abigail and John Adams, and Revolutionary Summer: The Birth of American Independence. His new book examines the profoundly relevant views of the Founding Fathers as they pertain to the current American landscape of turmoil and division.

Pine Tree Foundation Endowed Lecture

Cost: \$15 Buy Tickets Online | Ticket and Subscription Packages

Wednesday, October 17, 2018 at 6:00 PM at the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121

www.wagnerfreeinstitute.org

The Philadelphia Lantern Slide Salon,

Free and Open to the Public

Thursday, October 18, 2018 @ 7:00 pm - 9:00 pm at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion

<http://www.irands.org>

How to Pursue Truth – Camille Carlisle, M.S.

What does a successful approach to the intersection of religion and science look like? Using questions posed by her readers and others interested in the topic, Ms. Carlisle will explore where well-meaning enthusiasts go astray. These anecdotes will serve as a counterpoint to examples from a scientific approach to seeking truth in astronomy and physics—an approach that is just as important in theology as it is in science. Her goal is to equip audience members with a fruitful way of approaching these questions.

Camille Carlisle, a Catholic science journalist and staff editor at Sky & Telescope magazine, graduated from Villanova University with a BS in Astronomy and Astrophysics and from MIT with an MS in Science Writing. Previously, Camille worked at Science News magazine in Washington, DC as the publication's fact checker. Her articles have appeared in Sky & Telescope, Science News, Technology Review, and MIT's webzine Scope. As Staff Editor at Sky & Telescope, Camille handles commissions and edits freelance articles about developments in our understanding of the universe. She also writes news and feature articles (usually about black holes) and blogs intermittently in her online column, "The Black Hole Files."

Come join us at 7pm on October 18th! Free Will Donations are accepted and very much appreciated. Light refreshments will be offered.

Thursday, October 18, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Ben Macintyre | The Spy and the Traitor: The Greatest Espionage Story of the Cold War

Praised for his "elegant, jaunty, and very British high style" (New York Times), Ben Macintyre is the bestselling author of *A Spy Among Friends*, *Agent Zigzag*, *Operation Mincemeat*, and *Double Cross*, among other books. He has adapted several of these stories into popular documentaries for the BBC. Writer-at-large for The

Times of London, Macintyre has twice been nominated for the Edgar Award in "Best Fact Crime."

The Spy and the Traitor tells the tale of real-life Russian double agent Oleg Gordievsky, the Soviet Union's top man in London for more than a decade whose disgust with his nation's communist system led him to covertly work with Britain's MI6 to turn the tables on the KGB.

Meelya Gordon Memorial Lecture

Cost: FREE

Thursday, October 18, 2018 at 6:00 PM-9:00 PM at Academy of Natural Sciences of Drexel University, 1900 Benj. Franklin Parkway, Phila.

www.ansp.org

Door 19: Skeletons in our Closet

Knock 3.14159 times on Door 19 for admission to an oddly charming evening that will forever change how you think about science. Curated for the curious, Door 19 is quirky science meets themed soiree, set against a backdrop of live performances, music, potent libations, and dinosaurs. For only four nights this year, you will have the chance to go beyond the galleries and into specimen collections off-limits to visitors, alongside experts who will bring our coolest specimens out to play. Our rogue scientists will go a little bit off script to share their most incredible knowledge—from prohibition-era mixology to dinosaur foreplay. You'll be reminded that no, in fact, you haven't seen it all—far from it.

Door 19: Skeletons in our Closet is presented in partnership with Eight Oaks Craft Distillers and 12th St Catering

Friday, October 19th & Saturday, October 20th at 7 pm at **Laurel Hill Cemetery**, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurelhillemetery.org>

Soul Crawl: Haunted Halloween History Tours

Laurel Hill Cemetery's classic Halloween flashlight tours have become a mainstay of the season. Experience the enchanting art and landscape after dark, as an experienced tour guide leads you along winding, dimly-lit pathways. The extended nighttime walking tours will focus on the cemetery's rich history, and of course, some of the liveliest spirits buried within. Tours will last approximately two hours, and will be followed by seasonal refreshments and cocktails

aside blazing fire pits.

Two evenings of the Soul Crawl: Haunted History Halloween Tours are scheduled at Laurel Hill: Friday, October 19 and Saturday, October 20 at 7:00pm, sharp. Attendees are advised to dress warmly, wear comfortable walking shoes, and to bring a flashlight.

The cost for Soul Crawl is \$25/person general admission. Purchasing tickets in advance is recommended. Tickets can be purchased at the door 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.

Friday, October 19, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Barbara Kingsolver | Unsheltered

With a "special gift for the vivid evocation of landscape and of her characters' state of mind" (New York Times Book Review), Barbara Kingsolver is the author of *The Poisonwood Bible*, a finalist for both the Pulitzer and the Orange prizes. Her other novels include *The Bean Trees*, *The Lacuna*, and *Flight Behavior*. She is founder of the PEN/Bellwether Prize, winner of the National Humanities Medal, and recipient of the James Beard Award. *Unsheltered* tells the story of a woman who, amid familial strife and sea change, researches the history of her rural New Jersey home and discovers a kindred spirit in its harried 19th century occupant.

Cost: \$15 Buy Tickets Online

Saturday, October 20, 2018 at 2:00 PM.

PhACT Lecture.
Eric Krieg will discuss
The Evolution of Creationism

See page 4

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>



Saturday, October 20, 2018 at 3:30PM - 4:30PM at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

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

ANCIENT EGYPTIAN FURNITURE: FROM THE EARLIEST EXAMPLES TO THOSE "WONDERFUL THINGS" OF THE NEW KINGDOM

Examples of ancient Egyptian furniture exist from the earliest periods of its history to the end of the Pharaonic Period, and beyond. This talk explores how the ancient Egyptian woodworker honed his craft over time to produce some of the most beautiful furniture ever created—from the tomb of Tutankhamun. Dr. Geoffrey Killen, Independent Scholar of Ancient Egyptian Wood Technology and Furniture, speaks in this lecture, presented by the American Research Center in Egypt Philadelphia Chapter (ARCE-PA).

Admission: \$10, general public, \$7, Penn Museum members and Penn faculty and staff, \$5, students with ID, and FREE for ARCE-PA members and children under 12..

Monday, October 22, 2018 at 6:30 PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103

<https://collegeofphysicians.org/events>

Pre-registration for all programs and events is strongly urged

US Book Launch: The Ravenmaster: My Life with the Ravens at the Tower of London with author Christopher Skaife

"If the ravens leave the Tower, the kingdom of Britain will fall..."

In, *The Ravenmaster*, Skaife blends a behind-the-scenes account of working with these remarkable, misunderstood animals with the history, inner workings, folklore, and ghost stories of the Tower of London. Legend has it, going back to Charles II, that if a raven should ever leave the Tower of London, the city would fall, the Tower itself would crumble, and the monarchy would disappear. It is Skaife's job to make sure the ravens are happy, healthy, fed their daily ration of biscuits soaked in blood, and ready to captivate the millions of tourists who flock every year to the world's eeriest monument.

Books will be available for purchase to be signed by the author. Light reception to follow the program.

This event includes a special pop-up exhibit of Mütter Museum collection items. The Mütter Museum will not be open during this event.

Monday, October 22, 2018 12:00 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Julián Castro | An Unlikely Journey: Waking Up From My American Dream

In conversation with award-winning broadcaster and journalist Tracey Matisak

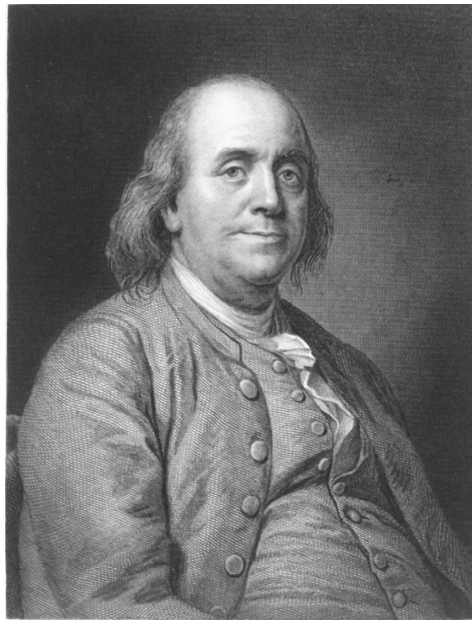
Former San Antonio mayor and Secretary of Housing and Urban Development during President Obama's second term, Julián Castro burst onto the national political stage as the keynote speaker at the 2012 Democratic National Convention.

Castro's activist mother helped guide him and his twin brother, Joaquin, to Stanford and then Harvard Law School. From there he returned to his native San Antonio, which he helped transform into one of America's leading economies. In *An Unlikely Journey*, Castro echoes the transcendence and aspirational spirit of Obama's *Dreams from My Father*, affirming just what it means to be an American during an era of political cynicism and cultural divisiveness.

Cost: \$15 Buy Tickets Online

Tuesday, October 23, at 7:00 pm to 10:00pm at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway.

<http://www.fi.edu>



SCIENCE AFTER HOURS

Wizard School

Enter the pixelated landscapes that once inhabited the cabinets of your local arcade. Explore the worlds of your favorite video games and discover how current games are bridging the gap between science and education.

This event is 21+.

Due to the popularity of this event, we strongly recommend that you purchase tickets in advance as capacity is limited and may sell out.

Thursday, October 25, 2018 at 12:30PM - 1:30PM at University of Pennsylvania Museum, 3260 South Street, Philadelphia, PA 19104

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

Brown Bag Lunchtime Lecture

NEW RESEARCH IN MEXICO: HERITAGE WORK OF TWO GRADUATE STUDENTS

Hear firsthand accounts of recent research in Mexico at this lunchtime lecture—including "Members Only? Common Assumptions, Recognition, and Defining Communities in Engaged Heritage Practice" by Tiffany C. Cain, and "Defense, Resilience, and Refuge on the Frontier of a Classic Period Maya Kingdom" by Whitaker Schroder, both Ph.D. Candidates in Anthropology

at the University of Pennsylvania. The talks are presented by the Penn Cultural Heritage Center. Brown bag lunches are welcome at this free event.

Free and open to the public.

Thursday, October 25, 2018 at 5:30 PM at the American Philosophical Society, Benjamin Franklin Hall, 427 Chestnut Street, Philadelphia

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

The Landmark Julius Caesar

In honor of the American Philosophical Society's 275th anniversary, the Society's 2018 lecture series will feature talks inspired by the APS's history and the work of its Members. Robert Strassler, series editor of the *Landmark Ancient Histories*, was elected to the APS in 2012.

The *Landmark Julius Caesar* is the definitive edition of the five works that chronicle the military campaigns of Julius Caesar. Together, these five narratives present a comprehensive picture of military and political developments leading to the collapse of the Roman republic and the advent of the Roman Empire.

Free and open to the public. See website to register.

Thursday, October 25, 2018 7:30 p.m.

at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Nathaniel Philbrick | In the Hurricane's Eye: The Genius of George Washington and the Victory at Yorktown

Parkway Central Library

"One of America's foremost practitioners of narrative nonfiction" (*The Wall Street Journal*), Nathaniel Philbrick is the author of the National Book Award-winning *In the Heart of the Sea*, an account of the nearly mythic 19th-century maritime disaster that inspired Herman Melville's *Moby-Dick*. His many other books include *Mayflower*, a Pulitzer Prize finalist; *The Last Stand*, a chronicle of the clash at Little Bighorn; *Bunker Hill*, a fresh take on the first major battle of the Revolutionary War; and *Valiant Ambition*, an account of the tragic relationship between George Washington and Benedict Arnold. In his latest book, Philbrick narrates the epic year leading to Washington's decisive land and naval victory over Lord Cornwallis's forces in Yorktown.

Ellis Wachs Endowed Lecture

Cost: \$15 Buy Tickets Online

Friday, October 26, 2018 at 7:30 PM at 1600 Woodland Rd | Abington, PA 19001

[Penn State University - Abington](http://pennstate.edu)

<http://abington.psu.edu/cultural-community-events>

Friday Night Film: Mostly Martha

Moderator: Dr. Moylan C. Mills, professor emeritus of integrative arts

Universally praised for its narrative drive and carefully sculpted performances, this film combines drama, humor, and poignancy for an unusually satisfying cinematic experience. A highly acclaimed female chef learns that she must have not only a recipe for creating a delicious meal, but also a recipe for creating a successful personal

life. Martina Gedeck and Sergio Castillito star.
Admission: \$10. (Free for Penn State students, faculty, and staff. Must show ID.)
7:30 p.m., 112 Woodland Building

Friday, October 26 at 7pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia
<http://www.thelaurehillcemetery.org>
14th Annual Gravediggers' Ball

The Friends of Laurel Hill Cemetery eagerly announce the date for their 14th Annual fundraising gala, **the Gravediggers' Ball**, as Friday, October 26, 2018 from 7:00pm-12:00am at the Masonic Temple in Center City, Philadelphia.

Over the past decade, the Gravediggers' Ball has raised nearly half a million dollars towards the preservation, maintenance, accessibility and educational interpretation of Laurel Hill Cemetery, the first cemetery in the United States to receive the designation of National Historic Landmark. The growth of the charity event in recent years has generated crucial funding that has helped to develop the cemetery from a little-known historic site to a recognized leader in public programming for burial grounds around the world.

[Visit Gravediggersball.org](http://www.Gravediggersball.org) for more info and updates.

Sunday, October 28 from 1-3pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia
<http://www.thelaurehillcemetery.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 a pumpkin patch, readings from the Storybook Fairy, crafts and – new this year - hay rides throughout the grounds.

Feast on festive snacks, or bring your own picnic. Attendees are advised to wear comfortable clothes and shoes, and children are encouraged to show off their best Halloween costumes! This program is recommended for families with children ages 4-12.

Fall Family Day takes place on Sunday, October 28, beginning promptly at 1:00pm and concluding at 3:00pm. Visitors may enter via 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 purchased at the door or online.

Monday, October 29, 2018 at 7:00 PM at Scoogi's Italian Kitchen & Bar
738 Bethlehem Pike Flourtown, PA 19031

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

See website for program details.
Free and Open to the Public.

Tuesday, October 30th at 6:00 pm at Laurel

Hill Cemetery, 3822 Ridge Avenue, Philadelphia
<http://www.thelaurehillcemetery.org>

Oddly Departed: Mischief Night Mysteries

What do a lost cat, Bavarian cream custard, a trip to New Jersey and a whiskey highball have in common? Believe it or not, they all played a role in some of Laurel Hill's most unusual deaths. Embrace the Halloween season while listening to tales of the cemetery's most eccentric personalities and the ways in which they departed this earth. Following the tour will be sampling of autumnal treats and cocktails in the Gatehouse. Bring your own flashlight or purchase one in the gift shop upon arrival.

This walking tour will take place on Tuesday, October 30 at 6:00pm. Enter 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 and within the cemetery.

The cost is \$20/person; \$18/students and seniors or \$17/members. Tickets are limited and advanced registration is suggested. Tickets can be purchased online or at the door.

Tuesday, October 30, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103
<http://libwww.freelibrary.org/authorevents/>
Lynsey Addario | Of Love & War

Often focusing on armed conflict, human rights issues, and women's roles in traditional societies, Pulitzer Prize-winning photojournalist Lynsey Addario's work regularly appears in The New York Times, National Geographic, and Time. She is also the author of *It's What I Do*, "an unflinching memoir" (The Washington Post) illustrated with her photography about the uncompromising pursuit of truth and her fight to be taken as seriously as her male colleagues amid every major theater of war of the early 21st century, including Afghanistan, the Congo, and Libya. *Of Love & War* is a collection of more than 200 photos from far-flung and under-publicized corners of the Middle East, South Asia, and Africa.
Cost: \$15 Buy Tickets Online

Thursday, November 1, 2018 at 6:00 PM at the **Wagner Free Institute of Science**, 1700 West Montgomery Avenue, Philadelphia, PA 19121
www.wagnerfreeinstitute.org

A cemetery-themed Weeknights at the Wagner with Aaron Wunsch from the University of Pennsylvania, 6 - 7:30 p.m.
Free and Open to the Public

Sunday, November 4, 2018 at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Phila.
<http://www.thelaurehillcemetery.org>

Mesmerizing Monuments: A Tribute to the Non-Traditional

Any visitor to Laurel Hill will immediately notice that this is no ordinary cemetery. From soaring obelisks, to imposing mausoleums, to lifelike sculpture, there are hundreds of permanent cemetery residents who chose to immortalize themselves in non-traditional ways. A far cry from neat rows of identical headstones, Laurel Hill Cemetery was always imagined as a rural sculpture garden, and Philadelphians of the past gladly

Calling All Astronomers! Rittenhouse Astronomical Society

Monthly Meetings! Bring all of your out-of this-world questions! Join

The Rittenhouse Astronomical Society the third Tuesday 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/

rose to meet that expectation.

This tour will highlight some of our most interesting and arresting gravesites, and the people who now rest there eternally. Learn the stories behind the stones, and get some insight as to why these individuals chose the monuments they did. The cost is \$15/person; \$13/students and seniors; or \$12/members. Reservations are suggested.

Tuesday, November 6, 2018 - 6:00pm - 7:00pm at Eastern State Penitentiary, 2027 Fairmount Avenue, Philadelphia
<http://www.easternstate.org/home>

The Searchlight Series: Discussion Topic TBA.
A reception follows the lecture.
Free and open to the General Public.

Wednesday, November 7, 2018 @ 7:00 pm - 9:00 pm at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion
<http://www.irands.org>

Teilhard, Francoeur, and the Religion-Science Debates of the Early 1960
Susan Sack, PhD

Interest in the works of Teilhard de Chardin soared in 1959 following their initial publication. One of the first in the US to grasp the possibilities of his thought was Robert Francoeur. This presentation explores the efforts of Francoeur and several other influential scientists and theologians who used the work of Teilhard to bridge the supposed gaps between religion, science, and daily life.

Susan Kassman Sack received her PhD in Theology in 2014 from the University of Dayton after a career as professor of Math and Computer

Science and as Systems Analyst. Her book, *America's Teilhard*, which deals with the rise and fall of Teilhard's popularity in the 1960s will be published by The Catholic University of America Press in spring, 2019. Sue presently serves as chaplain at Miami Valley North hospital in Dayton, Ohio and is pursuing certification as a spiritual director. Sue and her husband have been operating a small farm in southwestern Ohio for some three dozen years.

Come join us at 7pm on November 7th! Free Will Donations are accepted and very much appreciated. Light refreshments will be offered.

Thursday, November 8, 2018 at 6:30 PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103

<https://collegeofphysicians.org/events>

Pre-registration for all programs and events is strongly urged

This is a book launch for *RUSH: Revolution, Madness, and the Visionary Doctor Who Became a Founding Father* by Stephen Fried. Benjamin Rush, a signer of the Declaration of Independence and colonial Philadelphia doctor and civic leader, helped found The College of Physicians of Philadelphia in 1787.

Light refreshments provided after the lecture.

The Mütter Museum will not be open during this event.

ABOUT THE BOOK

RUSH: Revolution, Madness, and the Visionary Doctor Who Became a Founding Father by New York Times bestselling author and journalist Stephen Fried. Rush is one of America's greatest stories that has been hiding in plain sight for more than two centuries. Thanks to a trove of letters, images, and personal writings, many previously unpublished, Fried reveals the truth in what John Adams once wrote about his closest friend: "I know of no Character living or dead who has done more real good in America." As a thirty-year-old doctor, Rush was one of the fifty-six signers of the Declaration and one of the first Sons of Liberty in Philadelphia. His anonymous writings helped inspire the Boston Tea Party. He encouraged Thomas Paine, a bookstore acquaintance, to write *Common Sense*, and edited the entire pamphlet. He was also personal confidant and medical adviser to Benjamin Franklin, George Washington, Thomas Jefferson, and Adams, becoming uniquely close to the Revolution's leading men.

As a doctor, Rush became known as the "American Hippocrates" for transforming medical training and institutions, as well as for revolutionizing our understanding and treatment of mental illness and addiction. From improbable beginnings as the son of a Philadelphia blacksmith, Rush grew into an internationally renowned writer and reformer, a fierce progressive agitator who championed public education and opposed prejudice by race, religion or gender, even as his convictions threatened his name and career, time and again.

Dr. Benjamin Rush was one of our nation's most provocative, broadly influential, and shockingly overlooked Founding Fathers. The true depth of his contributions has remained buried in archives and private collections—until now. With *RUSH*, Fried resurrects the most significant Founding

Father we've never heard of, installing Dr. Benjamin Rush in the pantheon of great American leaders.

Saturday, November 10th at 10:00 am at Laurel Hill Cemetery, 3822 Ridge Avenue, Phila.

<http://www.thelaurehillcemetery.org>

Marine Corps Anniversary Service

Join active and retired members of the United States Marine Corps at Laurel Hill Cemetery as they commemorate the 243rd anniversary of the founding of the Marine Corps. Tradition holds that the very first men to enlist in the Corps did so right here in Philadelphia on November 10, 1775 at the Tun Tavern.

A service will take place at the gravesite of Brigadier General Jacob A. Zeilin, the first United States Marine non-brevet general, who served as the seventh Commandant of the Corps from 1864 to 1876. He is also credited with approving the Eagle, Globe, and Anchor, the Marine Corps emblem which is still proudly in use to this day.

The service will take place on Saturday, November 10 at 10:00 am, 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.

Free and open to the public.

Saturday, November 10, 2018 at 1:00 p.m.–3:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

WikiSalon

A casual gathering of Wikipedia enthusiasts and those interested in learning more. Participants can edit articles of their own choice and suggest articles needing improvement to the group.

Free and Open to the Public.

Novices are encouraged to attend

Saturday, November 10, 2018 11:00 a.m.–12:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

How Does DNA Testing Work, and What Secrets Does It Expose?

DNA testing has become ever present, from its role in the recent apprehension of the Golden State Killer to the soaring popularity of genetic-testing kits. In fact DNA-testing services are so readily available that a mouth swab and a few dollars can tell you all about yourself. However, once your genetic information is given out, you can't take it back. How does DNA testing work exactly, and what secrets have been exposed by its widespread use? Join Lara Goudsouzian for a discussion about the impact that DNA testing is having on our society and everyday lives.

About the Speaker

Lara Goudsouzian is an assistant professor of biology at DeSales University in Center Valley, Pennsylvania. She received her PhD from Princeton University and researches chromosomal stability in the model organism *Saccharomyces cerevisiae*.

Admission to our Saturday Speaker Series is free, and no reservations are necessary.

Saturday, November 10, 2018 at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Phila.

<http://www.thelaurehillcemetery.org>

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 monthly as part of Laurel Hill Cemetery's Fourth Friday and Second Saturday tour series.

The cost is \$12/person; \$10/students and seniors; or \$9/members.

Sunday, November 11, 2018 at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

War to End All Wars: Laurel Hill's WWI Veterans

On April 6, 1917, America formally declared war on Germany, thus ending its position of neutrality in World War I. This conflict ultimately claimed the lives of over 9 million combatants and 7 million civilians, making it one of the deadliest wars in history. The use of new firearm technology, chemical weapons, and trench warfare combined to be costlier than many had ever imagined – both in terms of national budgets, and human life.

Though The Great War concluded just over a year after America became involved, it had a lasting impact on the Philadelphia region. This walking tour will highlight the battle experiences, lives and deaths of the many World War I Veterans who now rest peacefully at Laurel Hill.

The walking tour will take place on Sunday, November 11 at 1:00 pm, 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 \$15/person; \$13/students and seniors; or \$12/members.

Monday, November 12, 2018 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.

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

<http://scienceontapphilly.com/>

Tuesday, November 13, 2018 at 6:00 PM at Wilma Theater, 265 South Broad St., Philadelphia

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

PENN LIGHTBULB CAFÉ

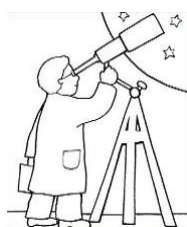
Dawn Teele, Janice and Julian Bers Assistant Professor of Political Science, School of Arts and Sciences, with a joint appointment in Gender, Sexuality & Women's Studies
"Nudging Women to Run"

Dawn Teele studies the economic and psychological factors that drive women to seek political office. In a new research project, "Nudging Women to Run," Teele, along with scholars at Rutgers University, Yale University and the University of California, Berkeley, surveyed alumnae of women's campaign-training programs and is in the process of designing experimental innovations to encourage women to launch political campaigns. A leading authority on women and politics, Teele's research examines the causes and consequences of voting-rights reform, forms of bias in politics and social-science methodology. Free and Open to the General Public.

Tuesday, November 13, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>
H.W. Brands | Heirs of the Founders: The Epic Rivalry of Henry Clay, John Calhoun and Daniel Webster, the Second Generation of American Giants

"Master storyteller" (Christian Science Monitor) H. W. Brands was a finalist for the Pulitzer Prize for his bestselling biographies of Benjamin Franklin (The First American) and Franklin Roosevelt (Traitor to His Class). Exploring such diverse subjects as Aaron Burr, Ronald Reagan, the California gold rush, Andrew Jackson, the Vietnam War, and Bill Gates, his more than two dozen books "weave together keen political history with anecdote and marvelous sense of place" (The Boston Globe). Brands returns with the story of the



early 19th-century political giants who took up the daunting challenge of completing the constitutional work begun by the Founding Fathers.

Cost: \$15 Buy Tickets Online

Tuesday, November 13, 2018 -7:00 pm to 10:00pm at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway.

<http://www.fi.edu>

NIGHT SKIES AT THE JOEL M. BLOOM OBSERVATORY

Join us for an evening of 'out of this world' astronomy activities hosted by Franklin Institute Chief Astronomer Derrick Pitts. 'Night Skies at the Observatory' is a monthly stargazing event connecting you to celestial objects in the night sky including stars, planets, and nebulae using telescopes in Bloom Observatory and at 'Ben's Starlight Lounge' on our 5th floor rooftop observation deck, featuring a cash bar. Build your own experience from any combination of planetarium shows, a live science talk on astronomy or space science, hands-on astronomy activities and continuous telescopic observing all evening (weather permitting). The program is staffed with knowledgeable

observers and free star maps are provided. See website to purchase tickets.

Wednesday, November 14, 2018 6:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street
<http://libwww.freelibrary.org/authorevents/>
Business Resource & Innovation Center's 2nd Annual Book Signing Event: Charles E. Hires and the Drink that Wowed a Nation!
Business Resource and Innovation Center at Parkway Central Library
Skyline Room 4th Floor
We are very excited to share the story of Philadelphia's own fizzy pop!

Introduced at the 1876 Centennial Exposition and powered by an historic advertising campaign, Hires Root Beer—launched 10 years before Coca-Cola—blazed the trail for development of the American soft drink industry. Its inventor, Philadelphian Charles Elmer Hires, has been described as "a tycoon with the soul of a chemist." Charles E. Hires and the Drink that Wowed a Nation chronicles the humble origin and meteoric business success of this extraordinary entrepreneur. Author Bill Double has written a biography that fizzles with entrepreneurial spirit.

This event is being co-sponsored by Temple University Press.

This event is free, but please register at bric.ticketleap.com/charles-e-hires/

Wednesday, November 14, 2018 at 6:30 PM-8:00 PM at Academy of Natural Sciences of Drexel University, 1900 Benjamin Franklin Parkway, Phila.

www.ansp.org

Academy Town Square: Presidential Hair: A Close Shave With History
Academy Curator of Art and Artifacts and Senior Fellow Robert Peck will discuss his new book, Specimens of Hair, at an Academy Town Square.

In the early 1800s Peter A. Browne, a Philadelphia lawyer and member of the Academy of Natural Sciences, assembled an extraordinary collection of wool, fur and hair. He hoped, in a pre-Darwinian world, to discover how animals were related to each other and what practical purposes their hair might serve. The remarkable collection, now housed at the Academy, also includes hair from well-known artists, writers, scientists, signers of the Declaration of Independence, and 13 of the first 14 U.S. presidents. Academy Curator of Art and Artifacts and Senior Fellow Robert McCracken Peck has written a new book, Specimens of Hair, on this fascinating subject and will give an illustrated talk at the Academy Town Square. Join us for this free event and get your book signed by the author.

Friday, November 16, 2018 6:00 p.m.–8:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

Jennifer Doudna will deliver the 2018 Ulyot Public Affairs Lecture, "CRISPR Biology and Biotechnology: The Future of Genome Editing."

This annual award and lecture, endowed in 1990 by chemist Glenn Edgar Ulyot, seeks to

illustrate how chemistry, biology, and the sciences in general contribute to the public welfare.

As an internationally renowned professor of chemistry and molecular and cell biology at the University of California, Berkeley, Jennifer Doudna and her colleagues rocked the research world in 2012 by describing a simple way of editing the DNA of any organism using an RNA-guided protein found in bacteria. This technology, called CRISPR-Cas9, has opened the floodgates of possibility for human and nonhuman applications of gene editing, including assisting researchers in the fight against HIV, sickle-cell disease, and muscular dystrophy. Doudna is an investigator with the Howard Hughes Medical Institute and a member of the National Academy of Sciences, the National Academy of Medicine, the National Academy of Inventors, and the American Academy of Arts and Sciences. She is also a foreign member of the Royal Society and has received many other honors, including the Breakthrough Prize in Life Sciences, the Heineken Prize, the BBVA Foundation Frontiers of Knowledge Award, and the Japan Prize. She is the coauthor with Sam Sternberg of A Crack in Creation, a personal account of her research and the societal and ethical implications of gene editing.

Event Schedule

6:00 p.m. Lecture: 7:00 p.m. Reception

This program is presented in partnership with the Philadelphia and Delaware Sections of the American Chemical Society, the Department of Chemistry at the University of Pennsylvania, and the Department of Chemistry and Biochemistry at the University of the Sciences in Philadelphia.

Friday, November 16, 2018 at 7:30 PM at 1600 Woodland Rd | Abington, PA 19001

Penn State University – Abington

<http://abington.psu.edu/cultural-community-events>

Friday Night Film: A Late Quartet

Moderator: Dr. Moylan C. Mills, professor emeritus of integrative arts

Members of an extremely successful string ensemble are at the peak of their long careers when it becomes clear that physical and emotional problems are forcing them to re-evaluate their relationships with their audiences, their music, and each other. This film is a thoughtful examination of the meaning of art and the power of music. Philip Seymour Hoffman, Christopher Walken, and Catharine Keener have never been better as they bring these musicians to life.

Admission: \$10. (Free for Penn State students, faculty, and staff. Must show ID.)

7:30 p.m., 112 Woodland Building

**Saturday, November 17, 2018
at 2:00 PM.**

**PhACT Lecture.
Luinda Zimmerman will discuss her
book, *Bad Science***

See page 5

Saturday, November 17th at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia <http://www.thelaurelhillemetery.org>
Having the Last Word: Epitaphs and Grave Writings

When Theodore Jaeckel lost his young wife in 1926, he wrote an epitaph befitting of their undying love. “Lovely, loving and beloved, life to her was a wondrous adventure” it began. “Life is Eternal. Death is merely a Change of Condition.” proclaims the monument of famed spiritualists, Levi Franklin and Catherine Drinkhouse Smith. The well-known poem on the headstone of cherished Phillis announcer, Harry Kalas; begins with “Baseball is about going home, and how hard it is to get there and how driven is our need.” Words move us as much in death as they do in life; defining us, telling our stories, and breathing movement into our experiences. Epitaphs are a final opportunity to make a statement and be they biographical, humorous, sentimental or religious; they give us great insight into the person resting below. Join us for a walking tour of Laurel Hill Cemetery that explores the power of these words carved in stone and the interesting lives of the people who chose them. The cost is \$15/person; \$13/students and seniors; or \$12/members.

Sunday, November 18, 2018 at 1:00 PM at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia <http://www.thelaurelhillemetery.org>
Buried in the Land of Strangers: Confederates of Laurel Hill

“Tinker, tailor, soldier, sailor, rich man, poor man, beggar man, thief.” One group of veterans returning from the Civil War, attracted by our city’s industries, transportation networks, universities, and medical schools, made Philadelphia one of their top ten destinations. But these veterans were not welcomed. They learned how to succeed or fail, live and die, incognito among their former enemies. Hear the untold story of war and peace, reunion and reconciliation from a different perspective: those now buried in the land of strangers, the Confederates of Laurel Hill. Fate denied them victory, but gave them immortality. Learn the curious history of Philadelphians who joined the Confederacy: who they were, why they fought, and how they ended up so very far from the place they considered home. The cost is \$15/person; \$13/students and seniors; or \$12/members.

Monday, November 19, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103 <http://libwww.freelibrary.org/authorevents/>
David W. Blight | Frederick Douglass: Prophet of Freedom

David W. Blight’s many books of history include American Oracle: The Civil War in the Civil Rights Era, Race and Reunion: The Civil War in American Memory, and two annotated editions of Frederick Douglass’s first two autobiographies. Blight is a professor of American History and Director of the Gilder Lehrman Center

for the Study of Slavery, Resistance, and Abolition at Yale University. He received the Bancroft Prize and the Abraham Lincoln Prize, and is a former president of the Society of American Historians. Drawing on newly discovered archival information, Blight’s new book is a definitive portrait of the most important African American orator and politician of the 19th century. Cost: FREE

Tuesday, November 20, 2018 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/>

Friday, November 23, 2018 at 10:00 am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia <http://www.thelaurelhillemetery.org>

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 monthly as part of Laurel Hill Cemetery’s Fourth Friday and Second Saturday tour series. The cost is \$12/person; \$10/students and seniors; or \$9/members.



Monday, November 26, 2018 at 7:00 PM at Scoogi’s Italian Kitchen & Bar, 738 Bethlehem Pike Flourtown, PA 19031
American Revolution Round Table of Philadelphia, <http://arrtop.org/>
 See website for program details. Free and Open to the Public.

Monday, November 26, 2018 - 6:00pm to 7:30pm at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway. <http://www.fi.edu>
COMING TO OUR SENSES

How Our Ancient Brains Face Our Modern Diet

Obesity is a global epidemic with roots that lie in our early senses of taste and smell. Yet both the biology of the human body and complex social factors make this a challenging problem to solve. How do our senses drive our food habits, what are some strategies to help us make better decisions, and what are the innovative programs that are improving health in Philadelphia?

Join the lively conversation led by Franklin Institute Chief Bioscientist Dr. Jayatri Das with special experts Dr. Shiriki Kumanyika from the University of Pennsylvania Perelman School of Medicine and Dr. Nancy Rawson from the Monell Chemical Senses Center.

Moderator: Dr. Jayatri Das, Chief Bioscientist, The Franklin Institute
 Featured Guests:

Shiriki Kumanyika, Ph.D., M.P.H. | Professor of Epidemiology, University of Pennsylvania
 Nancy Rawson, Ph.D. | Associate Director, Monell Chemical Senses Center

The speaker series is free and open to the public, with advance registration required.

Tuesday, November 27, 2018 7:30 p.m. at the Free Library of Philadelphia, 1901 Vine Street, 19103

<http://libwww.freelibrary.org/authorevents/>
Andrew Delbanco | The War Before the War: Fugitive Slaves and the Struggle for America’s Soul from the Revolution to the Civil War
 “America’s best social critic” (Time), Andrew Delbanco is the author of numerous books that explore American history, character, and ideals, including The Real American Dream: A Meditation on Hope, The Puritan Ordeal, and Required Reading: Why Our American Classics Matter. His essays on history and culture are frequently featured in The New York Review of Books. President Obama awarded him the National Humanities Medal in 2012. The War Before the War tells the antebellum story of how two Americas—one enslaved and the other free—created an inexorable path toward the Civil War. Cost: FREE

Tuesday, November 27, 2018 at 7:00 pm to 10:00pm at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin Franklin Parkway.

<http://www.fi.edu>
SCIENCE AFTER HOURS
Friendsgiving

Enter the pixelated landscapes that once inhabited the cabinets of your local arcade. Explore the worlds of your favorite video games and discover how current games are bridging the gap between science and education. This event is 21+.

Due to the popularity of this event, we strongly recommend that you purchase tickets in advance as capacity is limited and may sell out.

Wednesday, November 28, 2018 at 5:30 PM at College of Physicians of Philadelphia, 19 South Twenty-Second Street, Philadelphia, PA 19103

<https://collegeofphysicians.org/events>

Pre-registration for all programs and events is strongly urged

Philadelphia Public Health Grand Rounds: STDS and HIV in Philadelphia: At-Risk Populations and Prevention

Topic: STDS and HIV in Philadelphia: At-Risk Populations and Prevention

Syphilis infections have increased in Philadelphia over the past several years, largely among men who have sex with men (MSM). While the number of individuals newly diagnosed with HIV in Philadelphia has steadily declined since the mid-2000s, the rate of new cases is also highest among MSM. In addition, rates of new HIV diagnosis are highest among Hispanic and non-Hispanic Black individuals, and a majority of new HIV infections in Philadelphia occur among non-Hispanic Blacks. This session will explore these trends and other changes in STD/HIV infection in Philadelphia, including the use of pre-exposure prophylaxis (PrEP) for HIV prevention and social/cultural challenges in reaching high-risk communities.

Saturday, December 1st, at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia
<http://www.thelaurehillcemetery.org>

Footprints of Angels at Laurel Hill Cemetery

Famed poet, Henry Wadsworth Longfellow once noted that “He spake well who said that graves are the footprints of angels.” Laurel Hill Cemetery is filled not only with the symbolic footprints of these heavenly beings, but with their images as well. This winter walking tour will feature some of the cemetery’s most beautiful depictions of angels, sculpted in various materials throughout Laurel Hill’s Central section, including Millionaire’s Row.

The cost is \$15/person; \$13/students and seniors; or \$12 for members.

Tuesday, December 4, 2018 at 12:00 p.m.–1:00 p.m. at 1:00 p.m.–3:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

Brown Bag Lecture: Using Oral History and Podcasting in a Project-Based Public History Class

Join us for a Brown Bag Lecture by Roger Turner, Research Fellow at the Science History Institute.

How can we use oral history to engage students in the practices of public history? What can we do as curators to make oral history more useful for teaching and for sharing with various publics? This semester I’m teaching a class at the University of Pennsylvania on the history of climate change. My assignments aim to build students’ skills in doing public history. The course is structured around a semester-long project where we collaboratively produce a podcast about the history of atmospheric science. Each student is researching, writing, and producing an episode. I’m making an episode as well, while drawing on the skills of Science History Institute staff in several departments. Our source material is a corpus of oral histories produced by the American Meteorological Society and the National Center for Atmospheric Research (in Boulder, Colorado) since the late 1980s. This presentation will reflect on the challenges and rewards of the process. I hope to stimulate a discussion about how to make audio research collections accessible to wider audiences, from undergraduates to dishwashing listeners. Free.

logical Society and the National Center for Atmospheric Research (in Boulder, Colorado) since the late 1980s. This presentation will reflect on the challenges and rewards of the process. I hope to stimulate a discussion about how to make audio research collections accessible to wider audiences, from undergraduates to dishwashing listeners. Free.

Tuesday, December 4, 2018 - 6:00pm - 7:00pm at Eastern State Penitentiary, 2027 Fairmount Avenue, Philadelphia
<http://www.easternstate.org/home>

The Searchlight Series: Discussion Topic TBA. Free and open to the General Public. A reception follows the lecture.

Tuesday, December 4, 2018 at 6:00 PM at Suzanne Roberts Theatre, 480 South Broad St., Philadelphia

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

PENN SCIENCE CAFÉ

[Doug Durian, Professor of physics, School of Arts and Sciences](#)

“The Physics of Foam”

It’s easy to foam up soapy water, but not to understand the surprising properties of foam. How can it be white and solid, when it’s made mostly of gas and a little liquid — neither of which are white or solid? Professor Durian will explain how foams change over time, and some of the excitement they pose as a modern research topic in fundamental physics and mathematics.

Free and Open to the General Public.

Tuesday, December 4, 2018 at 7:00 PM at Washington Memorial Chapel, on Route 23 in Valley Forge.

Friends of Valley Forge Park

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

An Unrecognizable America: Life Without the Antiquities Act of 1906

Jonathan Parker will speak.

Free and Open to the Public.

Wednesday, December 5, 2018 6:00 p.m.–8:00 p.m. at 1:00 p.m.–3:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia



www.Sciencehistory.org

An Electric Education: How to Teach Science on Television

The Fall 2018 Fellow in Focus lecture will be presented by Ingrid Ockert, our 2018–2020 Haas Fellow.

Details on this lecture see website.

Event Schedule

6:00 p.m. Lecture

7:00 p.m. Reception

About the Speaker

Ingrid Ockert is a historian of science and

media in the 20th century. She holds a PhD from the History of Science Program at Princeton University. Previously, she ran a lecture series for Princeton’s Council on Science. She has collaborated with Oregon Public Broadcasting, WGBH, WHYY, and WPRB. Ingrid’s work has been supported with grants from the Smithsonian’s Lemelson Center, NASA, and AmeriCorps. She also serves as a cochair for the American Archive of Public Broadcasting’s Scholarly Advisory Committee.

Free. Register to Attend

Saturday, December 8, 2018 at 10:00 am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

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 monthly as part of Laurel Hill Cemetery’s Fourth Friday and Second Saturday tour series.

The cost is \$12/person; \$10/students and seniors; or \$9/members.

Saturday, December 8, 2018 11:00 a.m.–12:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

Zebrafish, a Model Organism

The zebrafish recently emerged as a powerful new model organism for biomedical research. Since young zebrafish are transparent, scientists can now see some of the most crucial life processes as they happen. Many biomedical breakthroughs owe their discovery to advances in the tools and methods scientists use, especially model organisms. Studying most questions in humans is neither practical nor feasible, which is why using such model organisms as the zebrafish is vital to discovery—and has been for hundreds of years.

Francesca Tuazon will discuss the history of model organisms and the technological advances afforded by using zebrafish. This talk will also delve into one of life’s biggest mysteries and science’s oldest questions: how do we become what we are?

Admission to our Saturday Speaker Series is free, and no reservations are necessary.

Saturday, December 8, 2018 at 1:00 p.m.–3:00 p.m. at Science History Institute, 315 Chestnut Street, Philadelphia

www.Sciencehistory.org

WikiSalon

A casual gathering of Wikipedia enthusiasts and those interested in learning more. Participants can edit articles of their own choice and suggest articles needing improvement to the group.

Free and Open to the Public.

Novices are encouraged to attend.

Saturday, December 8, 2018 at 10:30 am, and 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

**Victorian Hair Wreath Workshop
Step Back into the Victorian Era and Create your Own Hair Flower...**

This one-hour workshop will teach participants how to construct a customary Victorian hair flower, used to commemorate the dead. Supplies will be provided to complete a simple flower. If you elect to bring your own swatch of hair, it must be at least 10 inches in length, the diameter of a pencil and placed in a zip lock bag. You may opt to make your hair flower into a pin, or display it in a glass paper weight or wooden box (available for purchase). Start your family heirloom today!

About the instructor: The workshop will be led by Civil War reenactor, Lucy Cadwallader. While researching her hobby, Lucy became interested in Victorian hair art and mourning customs. For thirteen years Lucy has been perfecting the art of hair jewelry; human hair intricately woven into bracelets, earrings, rings and necklaces. Hair flowers were created into wreaths and proudly displayed in Victorian parlors. Lucy has made and repaired hair wreaths, she also owns a vast collection of original Civil War jewelry artifacts.

The workshop will take place on Saturday, December 8 at 10:30 am, with a second session at 1:00 pm. Please convene 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 \$35/person. Advanced registration is requested

Monday, December 10, 2018 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.

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

<http://scienceontaphilly.com/>

Thursday, December 13, 2018 at 6:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

Potions and Poisons: A Witchy Craft Night (A Young Friends Event)

The Antemortem Society invites you to an exclusive evening of making, mixing, and mingling with your fellow taphophiles. Come after work to enjoy some adult beverages (poisons, if you will), snacks, and the crafting of spooky natural products that will keep you staying young and beautiful forever... Well, not exactly, but we'd still love for you to join us! Just in time for the gift-giving holiday, make potions of perfumed oils, bath salts, and bath bombs to give as gifts or keep them all to yourself – we won't tell anyone. There are only 15 covetable spots available for this event

so get your tickets asap!

This craft night event will take place on Thursday, December 13 at 6:00 pm inside the Laurel Hill Gatehouse. Enter at 3822 Ridge Avenue, Philadelphia, PA 19132. Free parking is located in the lot across the street from the Gatehouse and within the cemetery. Tickets for this event are \$20/person.

Thu, December 13, 2018 7:30 p.m at the Free Library of Philadelphia, 1901 Vine Street, 19103

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

Kirsten Gillibrand | Bold and Brave: Ten Heroes Who Won Women the Right to Vote

On the eve of the one-hundredth anniversary of the Nineteenth Amendment, which granted women the right to vote, New York Senator Kirsten Gillibrand introduces children to ten suffragists who raised their voices for justice. With illustrations by The New Yorker contributor and artist Maira Kalman, Bold and Brave profiles courageous visionaries including Susan B. Anthony, Sojourner Truth, and Alice Paul. Senator Gillibrand is also the author of the 2015 New York Times bestseller Off the Sidelines: Speak Up, Be Fearless, and Change Your World, "one of the most helpful, readable, down-to-earth, and truly democratic books ever to come out of the halls of power" (Gloria Steinem).

Cost: \$15 or \$27 - optional book with ticket

Buy Tickets Online

Saturday, December 15, 2018 at 1:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

Death Loves a Shining Mark: The Language of Mourning

In Victorian America, formal bereavement was an accepted cultural institution. Mourning was observed through many non-spoken rituals to commemorate the dead, dictate social behavior and demonstrate the relationship to the deceased by a complicated system of rules to abide by. The use of symbolism in funerary monuments became increasingly important in how to memorialize a life that had passed, and impart information about how that life was lived; thereby creating an entire visual language around grief, mourning and bereavement. On this walking tour of the grounds, visitors will learn about Victorian mourning customs, and decipher the symbolic messages left behind by Laurel Hill's dearly departed.

The cost is \$15/person; \$13/students and seniors; or \$12/members.

Tuesday, December 18, 2018 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/>

Tuesday, December 18, 2018 at 7:00 pm to 10:00pm at The Franklin Institute Science Museum, located in Center City Philadelphia, at the intersection of 20th Street and the Benjamin

Franklin Parkway.

<http://www.fi.edu>

SCIENCE AFTER HOURS

Holiday Bizarre

Enter the pixelated landscapes that once inhabited the cabinets of your local arcade. Explore the worlds of your favorite video games and discover how current games are bridging the gap between science and education.

This event is 21+.

Due to the popularity of this event, we strongly recommend that you purchase tickets in advance as capacity is limited and may sell out.

Friday, December 28, 2018 at 10:00 am at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

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 monthly as part of Laurel Hill Cemetery's Fourth Friday and Second Saturday tour series.

The cost is \$12/person; \$10/students and seniors; or \$9/members.

Monday, December 31 at 12:00 pm at Laurel Hill Cemetery, 3822 Ridge Avenue, Philadelphia

<http://www.thelaurehillcemetery.org>

General Meade Birthday Celebration

The annual General Meade Birthday Celebration will mark the 202nd anniversary of the birth of General George G. Meade, commander of the Union Army at the Battle of Gettysburg. A parade of Civil War re-enactors, civilians in period attire, special dignitaries, heritage groups and participants will advance to Meade's final resting place and memorialize his services to his nation. A 21-gun salute and champagne toast will cap off the program at graveside, and will be followed by a reception in the Cemetery Gatehouse. A tour of historic Laurel Hill will be offered following the festivities (weather permitting).

The event will take place on Monday, December 31 at 12:00 pm, 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.

Free and open to the public; a \$5 donation in support of Laurel Hill Cemetery's work and preservation is suggested.

Tuesday, January 15, 2019 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/>

Saturday, January 19, 2019 at 2:00 PM.

**PhACT Lecture.
Topic TBA**

Tuesday, January 22, 2019 at 6:00 PM at Suzanne Roberts Theatre, 480 South Broad St., Philadelphia

Penn Lightbulb Café

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

Ian Lustick, professor of political science and Bess W. Heyman Chair, School of Arts and Sciences

“Why the U.S. President Doesn’t Matter for the Middle East Peace Process”

The Israeli-Palestinian “peace process,” focused on the future of the West Bank and Gaza Strip, has continued for almost three decades. But it is more of a carousel, lots of movement but no direction, than a process of moving the state of affairs in a particular direction. In his talk, Ian Lustick will explain why the carousel continues when no one involved really believes a negotiated two-state solution is possible. In this view, whether the White House is occupied by a President named Bush, Clinton, Obama, or Trump makes no substantial difference for Israeli-Palestinian peace. He will also explain what to look for to know that real change is happening. Lustick is a world-renown expert on Middle Eastern politics. His present research focuses on the demise of states and the implications of the disappearance of the option of a negotiated “two-state solution” to the Israeli-Palestinian conflict.

Monday, January 28, 2019 at 7:00 PM at Scoogi’s Italian Kitchen & Bar

738 Bethlehem Pike Flourtown, PA 19031

American Revolution Round Table of Philadelphia,

<http://arrtop.org/>

See website for program details.

Free and Open to the Public.

Tuesday, February 5, 2019 at 7:00 PM at Washington Memorial Chapel, on Route 23 in Valley Forge.

Friends of Valley Forge Park

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

Valley Forge – America’s Existential Moment

Bob Drury will speak.

Free and Open to the Public.

**Saturday, February 16, 2019
at 2:00 PM.**

**PhACT Lecture.
Topic TBA**

Tuesday, February 18, 2019 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, March 13, 2019 at 7:00 pm - 9:00 pm

at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion

<http://www.irands.org>

Teilhard, Original Sin, Evolution, and the Curia: What Went Wrong?

Daryl Domning, PhD

Daryl Domning, PhD, Professor of Anatomy at Howard University in Washington, DC, is a paleontologist who studies the evolution of marine mammals. Daryl has also developed an interest in the theological implications of evolution and is active in science/religion activities and dialog. With the late theologian Monika Hellwig, he wrote *Original Selfishness: Original Sin and Evil in the Light of Evolution* (2006). He was a co-organizer and speaker at the Washington Theological Union’s public conference series “Atom + Eve: Using Science in Pastoral Ministry.”

Come join us at 7pm on March 13th! Free Will Donations are accepted and very much appreciated. Light refreshments will be offered.

Saturday, March 16, 2019 at 2:00 PM.

**PhACT Lecture.
Topic TBA**

.Sunday, April 7, 2019 at 1:00 pm - 4:00 pm at Commonwealth Chateau, Chestnut Hill College, 9230 Germantown Avenue, Philadelphia, PA 19118

The Institute for Science and Religion

<http://www.irands.org>

Cultivating a Sense of Place: Contemplative Ecology in a Time of Loss

Douglas Christie, PhD

The Spanish philosopher José Ortega y Gasset once said: “Tell me the landscape in which you live and I will tell you who you are.” Here we find a beautiful expression of the deep and fundamental connection that exists between place and human identity. But how in fact does place shape identity? How is it that our deepest emotions and values, including those that we consider to be part of our spiritual life, come to be so closely tied to the places we inhabit? What do we lose—in relation to our identity, our sense of meaning, even our sense of God—when these places are lost or degraded? Is it still possible to cultivate a sense of wholeness and integrity in relation to the places we inhabit? If so, what sensibilities and practices (especially contemplative practices) will help us realize it? This workshop will focus on what it means to cultivate a deeper sense of place and a

stronger ethical commitment to caring for the places we love.

Douglas E. Christie, PhD received his B.S. from the University of California, Santa Cruz, his M.A. from Oxford University and his Ph.D. from the Graduate Theological Union, Berkeley and has been awarded fellowships from the Luce Foundation, the Lilly Foundation, and the NEH. His primary research interests focus on contemplative thought and practice in ancient and medieval Christianity and on spirituality and ecology. He is the author of *The Word in The Desert: Scripture and the Quest for Holiness in Early Christian Monasticism*, *The Blue Sapphire of the Mind: Note for a Contemplative Ecology*, and is the founding editor of *Spiritus: A Journal of Christian Spirituality*. His current work is focused on the idea of mystical darkness and the contemporary sense of exile, loss and emptiness.

Come join us at 1pm on April 7th! Free Will Donations are accepted and very much appreciated. Light refreshments will be offered.

Saturday, April 20, 2019 at 2:00 PM.

**PhACT Lecture.
Topic TBA**

Saturday, May 18, 2019

PhACT Expedition to Indian Rock

See page 6

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**Beware of false knowledge;
it is more dangerous than
ignorance.**

**George Bernard Shaw
(1856–1950)**

Philadelphia Area Lecture Host Websites

This listing is likely incomplete. If there is a site you wish listed or a link is erroneous then please email the Phactum editor at phactpublicity@aol.com

Academy of Natural Sciences

Monday, January 13, 2013 at 6:00 PM-8:00 PM at The Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia 19103

www.ansp.org

American Philosophical Society

, Benjamin Franklin Hall, 427 Chestnut Street, Philadelphia

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

Free and Open to the Public

American Revolution Roundtable of Philadelphia (ARRTOP)

at MaGerks Pub and Grill, 582 South Bethlehem Pike, Fort Washington, Pennsylvania

<http://arrtop.com/>

Last Monday of most months.

Free and Open to the Public

College of Physicians of Philadelphia

19 South Twenty-Second Street, Philadelphia, PA

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

Delaware County Institute of Science

11 Veterans Square, Media, PA 19063

<http://delcoscience.org>

Delaware Valley Opera Company at the Venice Island Performing Arts Center, located in the Manayunk section of Philadelphia. Turn onto Cotton Street from Main Street and use the Venice Island public parking lot.

www.dvopera.org
2017 Summer Opera Festival

Delaware Valley Amateur Astronomers

in the Radnor Township Municipal Building, 301 Iven Ave, Radnor, Pennsylvania 19087

<https://dvaa9.wildapricot.org>

Free and Open to the Public.

Eastern State Penitentiary

2027 Fairmount Avenue, Philadelphia, PA
First Tuesday of every month.

<http://www.easternstate.org/home>

Franklin Institute -

<http://www.fi.edu>

Free Library of Philadelphia (FLOP)

1901 Vine Street, 19103

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

Freethought Society

<https://www.ftociety.org/>

Friends of Valley Forge - first Tuesday of the month

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

Free and Open to the Public.



Humanist Association of Greater Philadelphia (HAGP)

www.HAGP.org

Institute for Science and Religion

<http://www.irands.org>

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

Laboratory for Research on the Structure of Matter - Science Cafe

<http://www.lrsm.upenn.edu/events/sciencecafes/index.html>

Laurel Hill Cemetery

3822 Ridge Avenue, Philadelphia,

<http://www.thelaurelhillcemetery.org>

Nerd Nite -

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

Email us at: nerdnitephilly@gmail.com

Penn Science Cafe & Lightbulb Cafe

at World Cafe Live, 3025 Walnut Street, Philadelphia

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

Free and Open to the Public.

Penn State University Abington

112 Woodland Building at 1600 Woodland Rd | Abington, PA 19001

<http://abington.psu.edu/cultural-community-events>

Pint of Science

<https://pintofscience.us/city/philadelphia>

Rittenhouse Astronomical Society

at the Fels Planetarium, The Franklin Institute, 222 North 20th Street, Philadelphia
Astronomy lecture open to the Public.

Third Tuesday of every month.

www.rittenhouseastronomicalsociety.org/

Science History Institute

315 Chestnut Street, Philadelphia, PA 19106

<http://www.sciencehistory.org>

Science on the Hill at St. Joseph's University

at Landmark Americana Tap & Grill at 54th and City Avenue, Philadelphia 19131
at St. Joseph's University

<http://scienceonthehill.weebly.com/>

Free and Open to the Public.

Science on Tap

2nd Monday of each month at 6:00 PM
National Mechanics, 22 S. Third Street, Philadelphia, PA 19106

<http://scienceontaphilly.com/>

University of Pennsylvania Museum

3260 South Street, Philadelphia, PA 19104

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

Wagner Free Institute of Science

1700 West Montgomery Avenue, Philadelphia,

www.wagnerfreeinstitute.org

Free and Open to the Public

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

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The Philadelphia Association for Critical Thinking is grateful for the hospitality extended by Community College of Philadelphia and especially Dr. David Cattell, Chair of the Physics Department, for hosting PhACT and giving us access to such excellent facilities. Part of CCP's mission is to serve Philadelphia as a **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 Editor, Ray Haupt
phactpublicity@aol.com

The PhACT website is: www.phact.org



"The essence of science is that it is always willing to abandon a given idea for a better one; the essence of theology is that it holds its truths to be eternal and immutable."

~ H. L. Mencken, (1880-1956)