"The advancement and diffusion of knowledge is the only guardian of true liberty."
James Madison

## Phactum

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

October /November /December 2017

editor: Ray Haupt email: phactpublicity@aol.com

## The Curious Bind Runes of GR 1

By Don Nigroni

According to Erik Wahlgren in *The Vikings and America* (1986), an Inuit named Pelimut had discovered a small runestone on Kingittorsuaq Island, a small island off the western coast of Greenland in the far north, which, in 1824, was shown to W. A. Graah. The stone had been found at a site on said island where there were three piles of stones. Were you to connect those piles with lines then you would have had an equilateral triangle. Wahlgren thought the runestone and piles might have been made in 1333. The Kingittorsuaq runestone, also known as GR 1, is today on display in the National Museum of Denmark in Copenhagen (see photos).

My translation of this text is:



GR 1 in the National Museum of Denmark in Copenhagen. Photograph taken by Don Nigroni on September 1, 2017.

Erlingur, son of Sigvath, and Baarne, son of Tortar, and Enrithi, son of As, on the Saturday before Rogation Day raised these piles of stones and sailed away.

Following this text are six strange characters, the first, second and sixth have the same shape and the third, fourth and fifth do likewise. These characters look like bind runes, two or more runic letters combined into one character. I would transliterate the first, second and last as *mty* and the other three as *mey* yielding the perplexing sequence *mty mty mey mey* 

mey mty.

Based on the text, it seems that three Norsemen sailed to Kingittorsuaq Island. They would have been up there hunting for whales, seals, walrus tusks and narwhal horns. These men would have then made those piles of

RUNIC STONE FROM NORTHERN GREENLAND
Clay slate with runic inscription found on the small island of Kingittorsuaq off the coast of Upernavik in Northern Greenland. The text reads: "Erlingr Sigvatsson and Bjarne Thordarson and Eindridi Oddson built cairns on the Saturday before Rogation Day," followed by a series of cryptic, indecipherable runes. The men named were presumably hunters, and reached as far north early in the year, unless, that is, they stayed throughout the winter. Rogation Day is on April 25th. The tablet is from the mid 13th century.

Display Description of GR 1 by the National Museum of Denmark in Copenhagen. Photograph taken by Don Nigroni on

stone and carved that runestone as a memorial to their accomplishment and as a marker, perhaps for themselves or for others.

The peculiar bind runes might be cryptic runes or magic runes, perhaps both. The former, according to Michael P. Barnes in *Runes: A Handbook* (2012), are "Runes altered so as to conceal their normal shape". Magic runes, including runic spells, shapes and rituals, are used to try to invoke or compel supernatural beings and also to directly affect events by supernatural causality, namely, in a non-mechanistic materialistic manner. And while there is general agreement among runologists as to the interpretation of some runes that are thought to be magical, others are controversial as to their magical import. Regardless, it seems unlikely that the baffling and confusing sequence at the end of GR 1 will be deciphered anytime soon, perhaps never.

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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: DAISY HOPPING - A tactic of argument by which one leaps from point to point faster than one's opponent can sufficiently address/refute the preceding point(s). A promiscuous pursuit of "talking points," as opposed to the responsible propagation of ideas which are each followed through to their mature development, in discussion/debate.

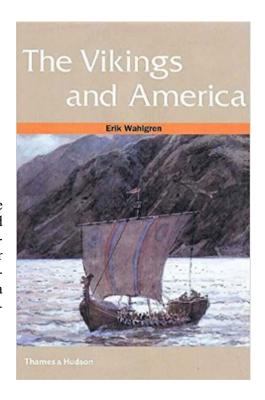
**Don Nigroni** received a BS in economics in 1971 from Saint Joseph's University and a MA in philosophy from Notre Dame in 1973. He retired in 2007 after working for 32 years as an economist with the US Bureau of Labor Statistics. He now spends his time cutting invasive plants as a volunteer Weed Warrior, hiking, kayaking, bird watching and metal detecting for buried treasure. In addition to those pursuits Don is an enthusiastic traveler, amateur historian, and all around good guy.

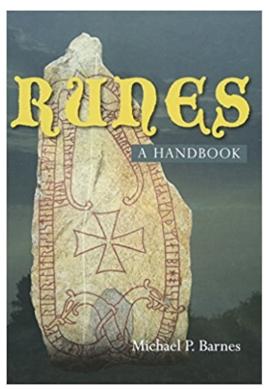
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## The Vikings and America By Erik Wahlgren

Publisher: Thames & Hudson (April 2000) ISBN-10: 0500281998 ISBN-13: 978-0500281994

Excavations at L'Anse aux Meadows in northern Newfoundland have revealed the presence of the Vikings around AD 1000. But was this the mysterious Vinland ("land of grapevines") which, according to the Icelandic sagas, Leif Eriksson discovered almost one thousand years ago? In his account Wahlgren argues for a location farther south and also suggests Viking exploration far to the North. He also answers the question: "Why did the Vikings eventually leave the New World?" with his theory that a worsening climate and attacks by native Eskimos and Indians put paid to the first European presence in North America





## Runes: a Handbook By Michael P. Barnes

Publisher: Boydell Press; 1 edition (May 20, 2013) ISBN-10: 1843837781 ISBN-13: 978-1843837787

Runes, often considered magical symbols of mystery and power, are in fact an alphabetic form of writing. Derived from one or more Mediterranean prototypes, they were used by Germanic peoples to write different kinds of Germanic language, principally Anglo-Saxon and the various Scandinavian idioms, and were carved into stone, wood, bone, metal, and other hard surfaces; types of inscription range from memorials to the dead, through Christian prayers and everyday messages to crude graffiti. First reliably attested in the second century AD, runes were in due course supplanted by the roman alphabet, though in Anglo-Saxon England they continued in use until the early eleventh century, in Scandinavia until the fifteenth (and later still in one or two outlying areas). This book provides an accessible, general account of runes and runic writing from their inception to their final demise. It also covers modern uses of runes, and deals with such topics as encoded texts, rune names, how runic inscriptions were made, runological method, and the histo-

ry of runic research. A final chapter explains where those keen to see runic inscriptions can most easily find them. Professor Michael P. Barnes is Emeritus Professor of Scandinavian Studies, University College London.

## 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, un-

less 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.



### Professor Alan Mann, an anthropologist, will discuss The Anthropology of Food

This talk is a biocultural exploration of what humans have chosen to eat and the ways we think about what is good (and healthy) food and what is not. Do we really know what exactly are our nutritional needs, and how has our modern society made our choices both immensely wide but also potentially dangerous to our health? Is a vegetarian diet best for our health? Can we understand more about what we should be eating by looking at the diets of our ancestors? Is the heavily meat -based paleo diet really good for us?

Alan Mann is Professor Emeritus of Anthropology at Princeton University.



#### MCHUMOR.com by T. McCracken



"Very nice, but will it put mammoth meat on the table?"

Cartoon by T. McCracken http://www.mchumor.com/ Used by Permission Saturday, November 18, 2017 at 2:00 PM. PhACT Lecture. In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets.

Robert Hicks, Ph.D., curator of the Mutter Museum at the College of Physicians of Philadelphia, will discuss:

Vaccination Pure and Spurious: The Confederate Vaccination Crisis of the Civil War

The Confederate southern states experienced several smallpox epidemics during the American Civil War, blaming the disease on the Union northern states. Confederate doctors responded by vaccinating soldiers but then discovered that some vaccinations were ineffective ("spurious") and instead spread other diseases, particularly syphilis. This presentation considers how the Confederacy managed vaccinations and tried to solve the numerous spurious cases. His illustrated tale includes the deliberate infection of children on plantations as a source of vaccine, and allegations of vaccination poisoning in the conflict's only war crimes trial. In a surprising convergence of history, a museum collection, and current disease research, a detective story concludes the presentation!

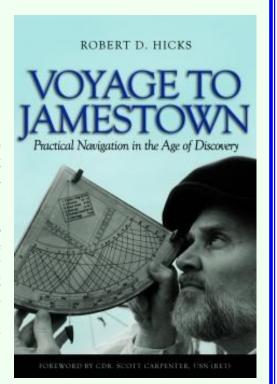
#### **VOYAGE TO JAMESTOWN**

Practical Navigation in the Age of Discovery By Robert D. Hicks, Foreword by CDR Scott Carpenter, USN (Ret.)

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

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

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

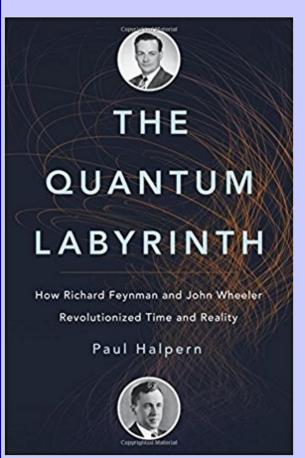


Saturday, January 20, 2018 at 2:00 PM. PhACT Lecture. In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets.

Paul Halpern, Ph.D., a physicist and cosmologist, will discuss his new book:

The Quantum Labyrinth: How Richard Feynman and John
Wheeler Revolutionized Time and Reality

In 1939, Richard Feynman, a brilliant graduate of MIT, arrived in John Wheeler's Princeton office to report for duty as his teaching assistant. A lifelong friendship and enormously productive collaboration was born, despite sharp differences in personality. The soft-spoken Wheeler, though conservative in appearance, was a raging nonconformist full of wild ideas about the universe. The boisterous Feynman was a cautious physicist who believed only what could be tested. Yet they were complementary spirits. Physicist Paul Halpern will discuss the little-known story of their friendship, which is the subject of his new book The Quantum Labyrinth: How Richard Feynman and John Wheeler Revolutionized Time and Reality (Basic Books). Together, Feynman and Wheeler rethought the nature of time and reality that laid vital groundwork for late-twentieth-century breakthroughs in particle physics. Their friendship and collaboration enabled Feynman to show how quantum reality is a combination of alternative, contradictory possibilities, and inspired Wheeler to develop his landmark concept of wormholes, portals to the future and past.



# The Quantum Labyrinth: How Richard Feynman and John Wheeler Revolutionized Time and Reality

By Paul Halpern, Ph.D.

Publisher: Basic Books; 1 edition (October 17, 2017)

Hardcover: 336 pages

ISBN-10: 0465097588 ISBN-13: 978-0465097586

The story of the unlikely friendship between the two physicists who fundamentally recast the notion of time and history

In 1939, Richard Feynman, a brilliant graduate of MIT, arrived in John Wheeler's Princeton office to report for duty as his teaching assistant. A lifelong friendship and enormously productive collaboration was born, despite sharp differences in personality. The soft-spoken Wheeler, though conservative in appearance, was a raging nonconformist full of wild ideas about the universe. The boisterous Feynman was a cautious physicist who believed only what could be tested. Yet they were complementary spirits. Their collaboration led to a complete rethinking of the nature of time and reality. It enabled Feynman to show how quantum reality is a combination of alterna-

tive, contradictory possibilities, and inspired Wheeler to develop his landmark concept of wormholes, portals to the future and past. Together, Feynman and Wheeler made sure that quantum physics would never be the same again.

Saturday, February 17, 2018 at 2:00 PM. PhACT Lecture. Topic to be determined

Saturday, March 17, 2018 at 2:00 PM. PhACT Lecture. Topic to be determined

Saturday, April 21, 2018 at 2:00 PM. PhACT Lecture. Topic to be determined

Saturday, May 19, 2018 PhACT Expedition. At 2:00 PM at Laurel Hill Cemetery at 3822 Ridge Avenue in Philadelphia.



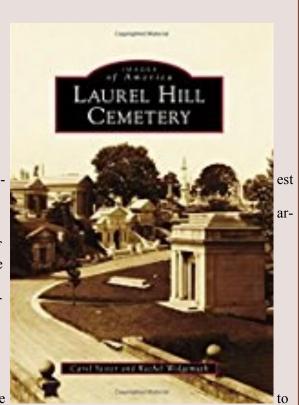
In 1837 necessity drove John Jay Smith to create a new kind of cemetery in Philadelphia. Not that there weren't already cemeteries. There were more than seventy of them in what we now call Center City. They stood in the way of progress and they were absolutely sure to prove tiny and inadequate for the city's future population.

So Smith bought acres a few miles north of the city in an area that he expected to remain forever rural. He hired

## Laurel Hill Cemetery (Images of America) by Carol Yaster and Rachel Wolgemuth

- Publisher: Arcadia Publishing (August 7, 2017)
  - Paperback: 128 pages
- ISBN-10: 1467126551 ISBN-13: 978-1467126557

Established in 1836, Philadelphia's Laurel Hill Cemetery was one of the earlirural cemeteries in America. The picturesque views and outstanding horticulture, along with sculptures and monuments designed by notable artists and chitects—like Alexander Milne Calder, Alexander Stirling Calder, Harriet Frishmuth, John Notman, and Thomas Ustick Walter-attracted thousands of visitors. Laurel Hill became the desired place of burial for Philadelphia's elite and the final resting place for those with last names like Widener, Wharton, Meade, and Elkins. The cemetery's design was much admired and widely imitated, both locally and nationally. While the 20th century ushered in a steep decline for Laurel Hill, the establishment of a friends group in 1978 and the cemetery's designation as a National Historic Landmark in 1998 signaled a transformation for the cemetery. Laurel Hill entered a new century as a revitalized and relevant institution. Once again, the cemetery is regarded as an important part of the community, a worthy destination for visitors, and a place share in the stories of the men and women whose lives shaped both Philadelphia and the nation





childbirth.

John Notman—later to be a famous architect but then just a young immigrant from Scotland—to lay out what the Victorians called a picturesque landscape. It would have gently curving paths, groves of trees, and splendid views of the Schuylkill. Later this rural cemetery would provide one of the important models for New York's Central Park.

A Quaker, Smith may not have realized that his beloved trees would soon be supplemented by elaborate monuments of stone. And I mean elaborate: a model of the doorway to Moyamensing Prison for a prominent prison reformer, a mausoleum carved into a rocky hillside for an Arctic explorer, and a mother with children in her arms for a woman who died in

We will see Victorian monuments and we will see such striking modern ones as a huge candle to light the darkness and a giant microphone for a beloved sportscaster. And we will stop at the grave of the Philadelphia photographer who, way back in 1839, took the first selfie.

Date: Saturday May 19, 2018

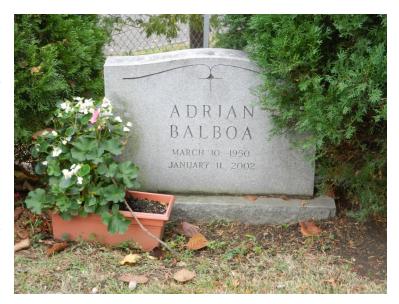
Meeting Point: The Gatehouse at 3822 Ridge Avenue

Time: 2:00 P.M.

Suggested Contribution: \$15 for historic preservation

of the monuments.

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## **Letters to the Editor**

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

Editor: John Tyler was the tenth President of the United States (1841 to 1845). When he was born in 1790, George Washington was still President. Two of President Tyler's grandchildren are still alive! [At least they were in February.]

You can see the details of this particular case at <a href="http://www.snopes.com/history/american/tylergrandsons.asp">http://www.snopes.com/history/american/tylergrandsons.asp</a>, but the general idea is not all that remarkable. Take a 100-year-old man (born 1917) who was born when his father was 71. Old man, young wife. Not unusual. See Trump, Donald. Centenarian's father (born 1846) was born when his father (centenarian's grandfather) was 71. That could put the grandfather's birth back in 1775, when we were still a British colony.

I don't know how many people alive today had grandfathers born back in the 18<sup>th</sup> century, but they're around. Howard J. Wilk Philadelphia

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## Various Ruminations

## of Woo Woo and Real Science and some Gossip

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

#### Cancer

On page 13 of this Phactum historian Clarissa F. Dillon, Ph.D. relates some tales of cancer diagnosis and treatment as it happened in Philadelphia during the early 19th century. The outcome for sufferers was not at all optimistic. On Page 19 Jennifer Parrado presents a brief history of the Leukemia & Lymphoma Society (LLS) highlighting successful advances in blood cancers, some of which occurred in Philadelphia between the end of World War 2 and today.

Cancer remains a menace but methodical application of scientific thinking has certainly improved detection and treatment outcomes. In these articles we do not address quackery, but rest assured Phactum will be doing so in future editions

#### On the other hand ...

Why wait to whack cancer quacks, other quacks, and medical fraudsters in general? We shall turn to Dr. Stephen Barrett, the dean of quack watchers, and his weekly publication, Consumer Health Digest.



Roses are red,
Violets are blue,
The Editor of Phactum,
Wants Letters from YOU



Your opinion counts and we would like to hear from you. Phactum is an open forum on matters of science and technology, anti-science and anti-technology, history and economics, mythology and legend, and very importantly science based medicine and quackery. Varying viewpoints are encouraged. If there is something on your mind feel free to write a letter to the editor or an original article to be published in Phactum. There are few restrictions of topic but we do wish to avoid harsh commentary on matters of religion except perhaps where religion contradicts science. Poets, with license, are welcome. We do not engage in partisan politics. And, please, no tails of the Kardashians. Book reviews are very welcome and PhACT associates who are authors with new books are more than welcome to advertise (for free) in Phactum.

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

chd-subscribe@lists.quackwatch.org

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

## Another "integrative medicine" doctor facing charges in Texas (September 17, 2017)

The Texas Medical Board has charged Ted Leroy Edwards, Jr., M.D. with "failing to meet the standard of care and nontherapeutically prescribing pancreatic cancer treatment for one patient." The complaint states that the treatments included intravenous vitamin C, oxidative therapy, pulse therapy, and a regimen of oral supplements that included Biomulsion D, Poly MVA, Argaricu Blazei Murill, curcumin, indol 3 carbinol, genistein, protease, and Apex water, none of which met the generally accepted standard of care for patients with metastatic pancreatic cancer. Edwards practices as part of the Hills Medical Group at the Center for Health and Healing in Austin, Texas.

## Infant poisoned by "homeopathic" bracelet (September 3, 2017)

The U.S. Centers for Disease Control and Prevention has reported that routine screening of a female infant aged 9 months in Manchester, Connecticut, found anemia and a blood lead level of 41 µg/dL (Levels exceeding 5 µg/dL are abnormal.) The cause was traced to a handmade "homeopathic magnetic hematite healing bracelet" purchased from an artisan at a local fair. The child wore the bracelet for teething-related discomfort and was sometimes noted to chew on it. Small spacer beads from the bracelet tested at the Manchester Health Department were positive for lead (17,000 ppm). No identifying marks indicating metal content or manufacturer were found on the bead. The vendor records were not available, and the bracelet maker could not be located. The report cautioned that handmade metal jewelry, even if manufactured or purchased in the United States, may pose risk because infants have natural mouthing behaviors. [Garcia P, Haile J. Notes from the field: Lead poisoning in an infant associated with a metal bracelet—Connecticut, 2016. MMWR 66:916, 2017]

## ►► Defiant black salve marketer receives six-year prison sentence (July 9, 2017)

Samuel A. Girod, 57, an Amish farmer who resides in Kentucky, was sentenced to six years in prison plus three years of supervised release for (a) impeding an officer of the United States, (b) obstruction of proceedings before a federal agency, (c) witness tampering, (d) failure to appear, and (e) nine violations of the Food, Drug, and Cosmetic Act involving products he made and distributed. The judge also ordered Girod to pay a \$1,300 assessment plus \$14,239 in restitution to customers. Since 2001, despite repeated inspections and warnings from the FDA, Girard manufactured and marketed herbal products with unapproved health claims. In 2013, a



What could be more logical than to seek a cancer relief ointment from an innocent naïve Amish farmer?

federal court ordered him to stop marketing products unless their labeling and advertisement met FDA regulations. When he continued to do so, he criminally was charged with illegal marketing and failing cooperate with to FDA enforcement officials. One of his products was "TO--MOR-GONE," black salve that he claimed to be effective against skin cancers.

Supporters are portraying Girod's prosecution as government overreach. In a TV interview after Girod was sentenced, one said: "All this is is an innocent naive Amish farmer making a living." During the trial, the prosecutors said that "Girod doesn't recognize rules that aren't his own" and "had brought the charges on himself." Cancer Treatment Watch has details about Girod's activities and links to the relevant documents. Quackwatch describes the dangers and regulatory history of black salves.

#### ►► Australian cancer fraudster fined (October 3, 2017)

The Federal Court of Australia has ordered Annabelle



Natalie Gibson (a/k/a Belle Gibson) to pay AUS\$410,000 for engaging in unconscionable conduct relating to the sale of her book and app, *The Whole Pantry*. [Annabelle (Belle) Gibson and Inkerman Road Nominees Pty Ltd - Court action. News release, Sept 28, 2017] The court found that Gibson, 25, had falsely stated that (a) she had been diagnosed with brain cancer, (b) she was given only four months to live, (c) after rejecting stand-

ard treatment, she cured herself with "natural" methods, and (d) a portion of the proceeds from the book that described her methods would be donated to charities. The Court also ordered Gibson to pay AUS\$30,000 for costs to Consumer Affairs Victoria, which initiated the case against her.

## Quack Muscle Test Debunked (September 11, 2017)

Quackwatch has posted a report on the bi-digital O-ring test (BDORT), a variant of applied kinesiology that is claimed to provide information about internal organs by testing finger strength. To perform the test, the patient positions the thumb and another finger of one hand together to form a circle ("O-ring") while his other hand holds a sample tissue of an internal organ. The practitioner then places his

fingers into the circle and tries to pull the patient's fingers apart. Proponents claim that whether or not the circle can be forced open reflects the health status of the patient's organ that corresponds to the tissue sample. BDORT was developed in the early 1980s and patented in 1993 by Yoshiaki Omura, M.D., Sc.D., a physician/acupuncturist who worked in New York City during most of his professional career. BDORT is closely related to Quantum Reflex Analysis, which is also discussed in the report. [Barrett S\_Some notes on the bi-digital O-ring test and Quantum Reflex Analysis. Quackwatch, Sept 10, 2017] The idea that muscle-testing can determine the status of the body's organs or provide a basis for treating health problems is preposterous. Despite this, thousands of practitioners use such tests.

#### Vampire Scare

The United Nations reports that it had to withdraw personnel from two districts in southern Malawi, one of the worlds poorest nations, where a vampire scare has triggered mob violence. Belief in witchcraft is widespread in rural Malawi. A spate of vigilante violence linked to a vampire rumors also erupted in Malawi in 2002.

At least five people have been killed in the area since mid-September by lynch mobs accusing them of vampirism. Mobs searching for vampires have been mounting road blocks in the district, raising security concerns.

Malawian President Peter Mutharika said the reports were "distressing and agonizing."

Rumours of vampires allegedly originated from Mozambique and "spread across" the borders to the Malawian districts of Mulanje and Phalombe, according to the LIN

Malawi, where witchcraft is widely believed and education standards are low, is regularly dogged by rumors of "vampire" activity.

The United States embassy has also temporarily withdrawn its team of Peace Corps volunteers from the districts surrounding Mulanje and has advised its citizens not to visit the affected districts.

https://www.nbcnews.com/news/world/vampire-scare-triggers-mob-violence-prompts-u-n-pull-staff-n809386



It is rumored that the United Nations will be shipping mirrors, crosses, and garlic.



Cartoon by Benoît Leblanc http://peopleinwhitecoats.blogspot.ca/ Used by Permission

#### **Send Me To Another Planet Department**

**Post-truth** – an adjective defined as 'relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief'.

Post-Truth was chosen by the Oxford English Dictionary as the word of the year for 2016. Apparently this word came into frequent use because of the contentious Presidential election in the Unites States and the Brexit referendum in the United Kingdom. The word is generally used in some political context but why leave it there? I can see Anti-Vaccination enthusiasts picking up on the term, perhaps as a "post-medicine" mantra designed to voiding hard won medical knowledge; or perhaps, "post-science" where all known science is discarded in favor of how one would like things to be.

**Post-science** has a curious appeal to me as I am rather fond of dragons and unicorns.

## **Meeting Reports - September 2017**

Reported by Jordan Chapman, a Physics student of Dr. David Cattell at Community College of Philadelphia.

### Kenneth Silber, a science and politics journalist, discussed Science and Politics in a Post-Truth'Era. Saturday, September 16, 2017

Ken Silber's presentation on the modern skepticism in science was a very informative and interesting look into modern politics dealing with science policy. The unshakable relevancy of the presentation also seemed to increase the engagement with the audience. His opening with a brief overview of how the recent March for Science helped to identify individual political ideologies was a strong place to start before he dove into some of the other workings that seem to indicate skepticism against modern science.

One of the strengths of his presentation, in my opinion, was that he didn't focus on climate change being the only indicator of partisanship, though he mentioned it in passing. Where the presentation really shined was when he talked about other indicators based on aspects like education levels and age and how such things correlated with skepticism. His mentioning of how social media also plays a part in the seemingly increasing skepticism and pseudoscience views as another strong moment. Though the most interesting moment was data he showed at the end focusing on how it was more likely to believe in things such as ghosts based on political beliefs. Some of the results he presented were somewhat surprising and differed significantly from what I would have expected. I also found myself wondering about how some of Paul Offit's talking points in a spring PhACT meeting of this year would have fared in this meeting as many of the issues raised by Offit are certainly present today and have similar partisan appeal in some cases.

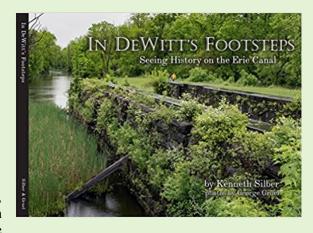
In any case, if there was a weak point in the presentation it would have to be that Silber didn't bring much attention to other issues, like vaccination for example, that in the same vein as climate change have serious consequences but many people question. Though at the point I feel as though I'm nitpicking at an otherwise strong presentation.

### In DeWitt's Footsteps: Seeing History on the Erie Canal By Kenneth Silber

Publisher: Kenneth Silber; 1st edition (September 1, 2017) Hardcover: 68 pages

ISBN-10: 0692902791 ISBN-13: 978-0692902790

In the early 19th century, DeWitt Clinton, governor of New York, championed and oversaw the construction of the Erie Canal, which linked the Eastern Seaboard to the Great Lakes and thus helped secure



a future for the United States as a dynamic, continent-wide nation. Two centuries later, DeWitt Clinton descendants join in an exploration of their notable ancestor's legacy in a book that intertwines national and family history and a photographic journey along the canal's historic and modern routes. Features photos by George Gruel and hand-drawn maps by C. Brooke Silber. Autographed by the author.

## Cancer: Diagnosis and Treatment in Early Nineteenth-Century Philadelphia

By Clarissa F. Dillon, Ph.D.

The diagnosis of cancer is terrifying today and was so in the past. Sores that didn't heal and lumps in various parts of the body were often called cancers, so it is difficult today to determine if the problem was malignant or benign.

There were definitions for "an eating cancer." An 18th-century dictionary entry was sparse: "3. A violent swelling, or sore, not be cured." A self-help book provided more details.

A *Cancer* is a hard round, uneven, painful Swelling of a blackish or leaden Colour, the Veins round which seem ready to burst. It comes commonly at first with a swelling about as big as a Pea, which does not at first give much Pain, nor change the Colour of the Skin.<sup>2</sup>

Recommended treatments varied and were pursued hopefully but not always optimistically. Cold baths were prescribed as one treatment for breast cancer and the application of a goose dung and celandine salve was another.<sup>3</sup> A popular book by a British physician stated: "...this is one of those diseases for which no certain remedy is yet known." He did, however, advise using mercury pills and ointment. He wrote enthusiastically about a treatment based on a kitchen garden product.

The root of the common Carrot may be grated and moistened with as much water as will bring it to the consistency of a poultice or cataplasm, This must be applied to the sore, and renewed twice daily. It generally cleans the sore, eases the pain, and takes away the disagreeable smell...<sup>5</sup>

A period encyclopaedia stated firmly,

...unless it can be extirpated, root, branch, and seed, it will get exasperated, and strike inwards, generate others, and increase those already formed.<sup>6</sup>

Surgery was necessary to remove tumors and cancers, but "The success of the operation is exceedingly precarious..."

The above material deals with theories. To understand more, it is necessary to pursue actual sufferers. A diary kept for almost half a century by the wife of a prominent Philadelphia merchant provides a wealth of information about people.

#### CANCER, n.

- 1. The crab or crab-fish. This genus of animals have generally eight legs, and two claws which serve as hands; two distant eyes, supported by a kind of peduncles, and they are elongated and movable. They have also two clawed palpi, and the tail is jointed. To this genus belong the lobster, shrimp, cray-fish, &c.
- 2. In astronomy, one of the twelve signs of the zodiac, represented by the form of a crab, and limiting the suns course northward in summer; hence, the sign of the summer solstice.
- 3. In medicine, a roundish, hard, unequal, scirrous tumor of the glands, which usually ulcerates, is very painful, and generally fatal.

From Noah Webster's Dictionary of 1828

An African-American woman, Patience Gibbs, worked for Elizabeth Drinker and her daughter. A brief report of Patience's problem can be found.

Phactum

[22 April 1804] ...she has a lump in the back of her Neck, which she fears is cancerous, she is come for advice...

[1 May] ...Patience Gibbs came to show me the sore on the back of her Neck, which a black Doctor has been cutting, and has put a Caustic plaster on he tells her it is a Cancer and he can cure it, I wish he may...

[17 May] ...Patience Gibbs was here this morning The Cancer is come out of the back of her Neck or rather lower--the black Doctor has shown such skill, it was done by a plaster, 'tis about the size of a half cent, and twice as thick, rather oval than round....8

Although the diagnosis was cancer, that lump could have been benign. The treatment appears to have been successful.

The Drinker diaries contain another record of a lump thought to be cancer. The patient was Susannah Swett, Elizabeth Drinker's husband's mother-in-law by his first marriage. From the diary entries, it is evident that S. Swett, as she is referred to, remained closely connected to Henry Drinker and his second wife. We can follow her problem as it appeared and progressed.

[13 May 1806] ...S. Swett came to spend the day with us--she sent for Docr. Kuhn to examine a red lump on her Cheek that she has been uneasy about for some time past--The Doctor spoke of it as nothing alarming, advis'd a plaster of Goddards cerate, to be renew'd morning and evening...

[26 May] ... S Swett dined here the lump on her Cheek is more in-flamed! She sent for Dr. Kuhn, he came, and after looking at it, he told her to continue the same dressing, and to put a poultice of bread

and milk on it, going to bed, to part with 8 ounces of blood tomorrow morning--he called me into the entry when going away, and said, that was all he could do for her, if it did not become better under the treatment, he advised her to send for Dr. Physick or Dr. Wister, this I did not inform her off [sic]--poor thing she seems enough apprehensive already--Dr. Kuhn also mention'd to her the use of leeches.

[6 June] ... Sister went this evening to see S. Swett, and to recommend Patty Brand a Doctress who has done many cures, but SS puts off, tho' she thinks her face is no better

[23 June] ... Sister went this evening to visit S. Swett, her face is no better, she has applied to Dr. Catheral, who is attending her...he has

ordered another sort of plaster; I think she has done wrong in applying to another while she was under the care of M. Brand...

[30 June] ...MS. went this evening to see S. Swett, whose face is no better, I fear it is something very bad...

[7 July] ...sent this morning for Dr. Physick, he came, told him the situation of S. Swetts face, desired him to visit her, which he did, his opinion is that the lump in her Cheek must be cut out, nothing else can cure it said he cant say positively that that will. I went to see her this evening Molly Rhoads with me she is to conclude ere long, and if it is to be done to send for the Doctor--she seems composed. I feel much for her...

[9 July] ... Sally and Nancy went to see S. Swett, the poor old woman has come, I believe, to a conclusion to have the lump in her Cheek taken out, but the time is not fixt...

#### Poultice or cataplasm

A poultice is made by mashing herbs, plant material or another substance with warm water or natural oils to make a paste. The paste can be applied directly to the skin and covered with a piece of clean cloth. If the herb used is potent such as onion, garlic, ginger, mustard, etc., you may want a layer of thin cloth between the skin and the herb.

[10 July] ...I sent Abraham for Dr. Physick this morning he came, let him know that the lump in S. Ss face has increased, he said he will call on her in a day or two and if it appears to him to be enlarged it will be best to take it out, if not, he would rather wait for cooler weather--I told him it now lay intire[t]y with him--she appear'd given up to what he thought best...

[19 July] ...Dr. P----- visited S. Swett this morning he says the lump in her face must be taken out by the knife--she put him off for a day or two, when she is ready, is to send for him...a friend has been to visit her who has recommended the use of Snails, applied to the sore, she knows a woman who has had a cancer in her face for 20 years past, and the snails has keep't it from becoming much worse--so that I expect the Doctor will not be sent for in a hurry. If she can keep it from growing worse till cool weather it will be a favour, but I much fear she cannot, it is so near her Eye...

[24 July] ...Mary Hillburn called to let me know that the Doctor would be there at 3 o'clock, I went and he came, Dr;. Dorsey with him. S. Swett appear'd undismade, sat down in the Arm Chair ready for the opperation--her face was towards the window, I sat behind her on the foot of her bed--she made some complaint in the groaning way, in the beginning, but not any, or next to none afterwards, as near as I could judge he was 5, 6, or 7 minuits about it, she bore the operation with great fortitude, the Doctor thought so, as did I, the Cancer, for CancerI have no doubt it was, was as big as a very large garden Bean, and the hole in her Cheek appear'd much larger, she bleed a great deal--had to change most of her Cloaths. Dr. P. said she should have Some one to sit up with her tonight, lest her face should bleed, I observed he tied some-thing with thread in two places, which I suppose was veins, that were cut and occasioned the great bleeding.--M.H. say'd she will set John [Tease's] daughter to sit up with her...Sent Abraham this evening to know how she is, she sent word bravely, the pain not so great as when I left her...the Doctor has been there again to tell her that if her face should bleed in the night to send for Dr. Dorsey, or if necessary for him--he shows care and attention, which perhaps is necessary...

[3 August] ...William went with me this evening to visit S. Swett, she seems cleaver--her Cheek was poulticed while I was there--I dont like the looks of it--but am no great judge of sores!...

[7 August] ...S. Swett has spungy flesh in her cheek, I sent Abram. To her with burnt Allum--she is otherwise bravely...

[8 August] ...sent Abram. to S.S. she says the Doctor was to see her this morning he says her face is cleaver, but she is so affected by the warm weather, as to be very poorly...



[5 Sept.] ...sent Abraham forenoon to ask S. Swett how she was, she told him that a hard lump had form'd in her sore Cheek, and she wish'd I would send to desire the Doctor to call on her, I sent Abraham to Docr. Dorsey, who lives not far off, asking him to [step] here which he soon did, he engaged to visit S.S. and let Dr. Physick know how she is and also to inform me...

[9 Sept.] ...Dr. P----- has been to see her, he dont say that any thing had is growing again, but advid'd her take a few drops of liquid laudanum and bath her face with it, I believe she is afraid to put the question to him...

[14 Sept.] ...I went...to see S. Swett, she appears as well as formerly, but feels springes in her Cheek, which occasions uneasiness no wonder...

[10 March 1807] ...A Methodist preacher call'd at Prices to look at S.Swett's cancer, he professes himself qualified for the cure of such ill conditioned sores--his name is Asa Smith...

[16 March] ...I went after dinner to see S. Swett--poor thing she is almost constantly confin'd to her bed--I recommen'd [nay] insisted on her having an injection administered this evening as it is ten days, Isabella says, since her bowels were opened...

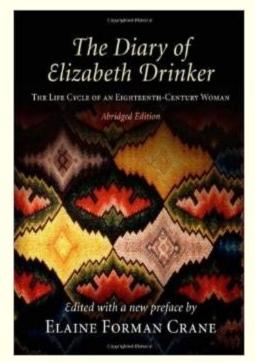
[17 March] ...S. Swett...was delerious all night the Doctor was there today, he put a new plaster on her face--to little purpose I fear...

## The Diary of Elizabeth Drinker: The Life Cycle of an Eighteenth-Century Woman by Elaine Forman Crane (Editor)

Publisher: University of Pennsylvania Press; Abridged Edition (January 6, 2010) Paperback: 352 pages

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The journal of Philadelphia Quaker Elizabeth Sandwith Drinker (1735-1807) is perhaps the single most significant personal record of eighteenth-century life in America from a woman's perspective. Drinker wrote in her diary nearly continuously between 1758 and 1807, from two years before her marriage to the night before her last illness. The extraordinary span and sustained quality of the journal make it a rewarding document for a multitude of historical purposes. One of the most prolific early American diarists—her journal runs to thirty-six manuscript volumes—Elizabeth Drinker saw English colonies evolve into the American nation while Drinker herself changed from a young unmarried woman into a wife,



mother, and grandmother. Her journal entries touch on every contemporary subject political, personal, and familial.

Focusing on different stages of Drinker's personal development within the domestic context, this abridged edition high-lights four critical phases of her life cycle: youth and courtship, wife and mother, middle age in years of crisis, and grandmother and family elder. There is little that escaped Elizabeth Drinker's quill, and her diary is a delight not only for the information it contains but also for the way in which she conveys her world across the centuries.

[18 March] ...I went after dinner to see S. Swett, she appear'd more colected than at my last visitthe Injection, which had been agreed upon when I was last here was neglected or omitted, no evacuation has taken place for a very long time--I advised the matereals got, and when ready, gave it myself. it had no effect--I desired Isabella to repeat it this evening...

[25 Sept.] ...I Price sent word by Abraham that S.S. was very low, she did not think she would live till night, and Abrahams Mother said she had been there, and it was her opinion that she could not continue 'till tomorrow--MS is come there since dinner...she thinks S. Swett is not so near her end as thought by I, Price--appears to have more strength than she expected...

On 27 September, S. Swett died at the age of 85 years and 3 months. We cannot be sure that the tumor removed from her face was malignant, but everyone involved believed that it was. The diary entries provide us with information not only about the treatments used or recommended to deal with cancer, but also tell us about the activities of family and friends. We are fortunate to have such a detailed "case history."

#### **Footnotes**

<sup>2</sup> John Wesley, *Primitive Physick*:... 14th ed. (Bristol: Printed by William Pine...1770), p. 93.

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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.

<sup>&</sup>lt;sup>1</sup> Samuel Johnson, *A Dcitionary of the English Language*, in 2 vols. (London: Printed by W. Strahan...1755; facsimile reprint by Longman Group UK Limited, Harlow, UK, 1990), n.p.

<sup>&</sup>lt;sup>3</sup> Ibid., p. 43; p. 44.

<sup>&</sup>lt;sup>4</sup> William Buchan, M.D., *Domestic Medicine:*... [orig. pub. 1769; Phila ed. 1771] New Edition (Boston: Printed for Joseph Bumsteed, 1809), p. 314.

<sup>&</sup>lt;sup>5</sup> Ibid., p. 316

<sup>&</sup>lt;sup>6</sup> Encyclopaedia Britannica:... in 3 vols (Edinburgh: Printed for A. Bell and C. Macfarquhar...1771; facsimile reprint by Encyclopaedia Britannica, Inc., Chicago, 1979), Vol. III, pp. 129-130.

<sup>&</sup>lt;sup>7</sup> Ibid., Vol. III, p. 664.

<sup>&</sup>lt;sup>8</sup> *The Diary of Elizabeth Drinker*, ed. by Elaine Forman Crane (Boston: Northeastern University Press, 1991), pp. 1739-1740; p. 1741; p. 1744.

<sup>9</sup> Ibid., p. 1929; pp. 1932-1933; p. 1036; p. 1940; p. 1942; pp. 1945-1946; pp. 1948-1949; p. 1950; p. 1953; p. 1954; p. 1955; p.

<sup>&</sup>lt;sup>9</sup> Ibid., p. 1929; pp. 1932-1933; p. 1036; p. 1940; p. 1942; pp. 1945-1946; pp. 1948-1949; p. 1950; p. 1953; p. 1954; p. 1955; p. 1963; p. 1964; p. 1965; p. 2016; p. 2017; p. 2018; p. 2020.

<sup>&</sup>lt;sup>10</sup> Ibid., p. 2021.

## **Cancer:** Diagnosis and Treatment in Early Twenty-first Century Philadelphia

"The diagnosis of cancer is terrifying today and was so in the past. Sores that didn't heal and lumps in various parts of the body were often called cancers, so it is difficult today to determine if the problem was malignant or benign," wrote Clarissa Dillon, Ph.D. in the previous essay. It is true, cancer is still terrifying today as it was in the past, but things have changed in the last two centuries, and cancer treatment outcomes are slowly becoming more favorable to the sufferers.

Great progress has been made in matters of diagnosis and treatment of most cancers, much of which has been funded by private philanthropy, and no small amount has occurred in Philadelphia.

Unfortunately, some people happily go back to the old days of fear, superstition, and discarding proven scientific medi-

MCHUMOR.com by T. McCracken



"Frank, leak to the tabloids that these slow moving broccoli flakes cure cancer."

cine. Much of that attitude appears to be encouraged by unscrupulous operators of "alternative medicine" clinics and folkloric medicinal products. There is no lack of such purveyors and susceptible people, some of whom are desperate for cures and relief of pain. In the days of Elizabeth Drinker, the late 18th century, doctors had little knowledge of disease and how the human body works. They were not quacks; they just did not know. It seems so strange that knowledge has been gained in the past two centuries that leads to seemingly miraculous cures, yet cynical quackery perversely thrives.

In Phactum we have often discussed cancer quackery and real science. The notes that follow, compiled by Jennifer Parrado, Donor Development Director of the Leukemia & Lymphoma Society, tell a far more hopeful tale then the notes from Elizabeth Drinker's Diary. Jennifer dwells mainly on blood cancers, but all cancers have similar histories of progress and growing optimism. Her notes do not talk of mystical hope, but, instead tell a tale of slow and steady medical progress that, like an accelerating locomotive, is chugging along at an ever faster pace.

Let's not go back to the "good old days" or cancer treatment or any other medical malady issue.

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

## A Brief History of LLS, The Leukemia & Lymphoma Society

Notes prepared by Jennifer Parrado, Donor Development Director The Leukemia & Lymphoma Society | Eastern Pennsylvania Chapter

The Leukemia & Lymphoma Society (LLS) is the largest voluntary health organization dedicated to funding research, finding cures and ensuring access to treatments for blood cancer patients.

Since 1949 LLS has been on the forefront of blood cancer advances such as chemotherapies and stem cell transplantation leading the way to the targeted therapies and immunotherapies that are saving thousands of lives today.

Philadelphia and Eastern PA (EPA) are leading the way nationally with groundbreaking research. This year alone, LLS has provided Eastern Pennsylvania institutions including the University of Pennsylvania, Children's Hospital of Philadelphia, and The Wistar Institute over \$8.3 Million in funding.

#### 1946 | William Dameshek, MD

In 1946, studies by William Dameshek, MD, who later served as an advisor to the Leukemia Society of America, led to the first anti-cancer chemotherapy.

#### 1949 | The Leukemia Society founded

In 1944, the de Villiers family loses their teenage son, Robert Roesler, to leukemia.

In 1949, led by the de Villiers' family, who lost a teenage son to leukemia in 1944, the Leukemia Society was founded, later named the Leukemia Society of America (LSA). Dedicated to curing leukemia, lymphoma, myeloma, and other blood cancers, it's now The Leukemia & Lymphoma Society (LLS), the world's largest voluntary (nonprofit) health organization dedicated to funding blood cancer research and providing education and patient services.

#### 1950 | The Jimmy Fund established

Sidney Farber, MD, started the Jimmy Fund to support his research to fight childhood leukemia, which led to chemotherapy drugs for lymphoma and leukemia patients.

George H. Hitchings, PhD, an advisor to LSA, developed the most widely used anti-leukemia drugs, which later earned him the Nobel Prize for Physiology or Medicine.

**1956** | E. Donnall Thomas, MD, conducted the first successful bone marrow transplant on a leukemia patient in 1956. Dr. Thomas was an LLS advisor in the 1960s, and was awarded the Nobel Prize in 1990.



#### 1960 | First combination chemotherapies

The first combination chemotherapy is developed for childhood leukemia patients by Emil "Tom" Frei, MD, and Emil J. Freireich MD, under the leadership of Dr. Gordon Zubrod, Director of the National Cancer Institute's (NCI) Clinical Center. James Holland, MD, was one of the first researchers to advance combination chemotherapy. He was among the first LSA

grant recipients, receiving funding in 1955.

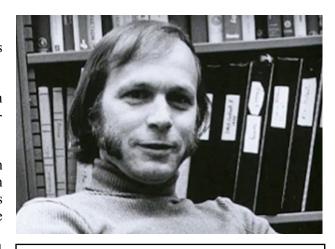
#### 1970 | Early understanding of the genetics of cancer

The discovery of oncogenes led to an understanding of cancer cells at the genetic level.

For his role in identifying oncogenes, J. Michael Bishop, MD, an advisor to LSA, later receives a Nobel Prize for Physiology or Medicine.

1980 | Riccardo Dalla-Favera, MD, and his LLS-funded research team studied the molecular pathway involved in immune B-cell activation and how those pathways became dysregulated in B-cell cancers. Years later (2004), he led a team of LLS-funded researchers investigating the genetic origins of B-cell non-Hodgkin lymphoma.

1985 | In 1985 and again in 1989, Hagop Kantarjian, MD, received LSA scholar awards to study new approaches to treating patients with chronic myeloid leukemia (CML). He later played a significant role in the development of the first targeted therapy to treat CML patients.



John Michael Bishop (b. 1936), immunologist and microbiologist who shared the 1989 Nobel Prize in Physiology or Medicine with Harold E. Varmus

#### 1990 | First FDA approvals for targeted blood cancer drugs

The discovery of genetic pathways was followed by the first FDA approvals for new targeted drugs to treat blood cancers. In 1990, LLS-funded researcher Susan Rabinowe, MD, and others, showed the protein CD20 is consistently present on B-cell chronic lymphocytic leukemia (CLL) cells.

1996 | In 1996, Brian Druker, MD, tested a BCR-ABL-blocking drug. This resulted in the first clinical trial, led by Dr. Druker and Charles Sawyers, MD, of STI-571, later known as imatinib (Gleevec®) in 1998. Today, imatinib has helped more than 250,000 CML patients. Dr. Sawyers later led studies identifying the genetic causes of resistance to imatinib, leading the way to development of follow-on therapies for patients with imatinib-resistent CML.

#### **2001** | New understanding leads to even more discoveries

Advances continued in the cellular and molecular understanding of cancer, leading to an increasing number of new discoveries. From 2001 to 2005, Drs. David Maloney, Margaret Shipp, Felipe Samaniego and others showed rituxan improved the effectiveness of the standard four-chemotherapy regimen for diffuse large B-cell lymphoma patients.



University of Pennsylvania cancer and HIV expert Carl June, MD.

**2004** | A multi-institution Phase II trial in 2004, led by Alan List, MD, and clinical colleagues, including Richard Stone, MD, confirmed the efficacy of lenalidomide (Revlimid®) for patients with a rare form of myelodysplastic syndromes (del(5q) MDS).

**2009** | In 2009, LLS-funded investigators John Byrd, MD, and Jennifer Brown, MD, and others, presented preliminary evidence of clinical activity of idelalisib in B-cell malignancies in a Phase I trial.

#### **2010** | Great progress with targeted immunotherapies

LLS-funded research continued to drive breakthroughs and advances, transforming cancer's grim past into a promising future. From 2010-2012, John Byrd and colleagues published Phase II trial results for ibrutinib in CLL/and small lymphocytic lymphoma (SLL) patients, showing safety and lasting remissions.

In a trial for ALL patients using innovative chimeric antigen receptor therapy (CAR -T), LLS-funded researchers Carl June, MD, of University of Pennsylvania, and Stephan Grupp, MD, of Children's Hospital of Philadelphia, have reported that 36 of 39 children responded to the therapy.

Stephan Grupp, MD, played an instrumental role in the advancement of immunotherapy, particularly in treating pediatric acute lymphoblastic leukemia (ALL) patients. In 1992, LSA awarded Dr. Grupp, a Career Development Special Fellow Award, which he credited with helping to launch his career.

#### 2014

New advances in immunotherapy include an approach called immune checkpoint inhibitors that unleash the immune system by removing the "brakes." This approach is advanced by researchers including LLS-funded Margaret Shipp, MD and Steve Ansell, MD

#### 2017 | Today and Beyond

*LLS Applauds Another Advance for Blood Cancer Patients*, (http://www.lls.org/lls-us-hq/news/lls-applauds-another-advance-for-blood-cancer-patients) applauding the U.S. Food and Drug Administration's approval of Eastern Pennsylvania's Vyxeos<sup>TM</sup>, a treatment supported by LLS for high-risk patients with AML.

LLS Investment Pays Off: FDA Approves Immunotherapy for Blood Cancer Patients, (http://www.lls.org/lls-us-hq/news/fda-approves-revolutionary-immunotherapy-for-blood-cancer-patients) heralding the U.S. Food and Drug Administration's approval of Kymriah, an immunotherapy that reprograms a patient's immune system to kill cancer cells.

FDA Approval of AML Therapy is a Significant Advance for Blood Cancer Patients, (http://www.lls.org/lls-us-hq/news/fda-approval-of-targeted-therapy-for-aml-is-a-significant-advance-for-blood-cancer) announcing the U.S. Food & Drug Administration approval of Mylotarg®, a new treatment for patients with AML.

Led by LLS, Beat AML collaboration expands to include multiple institutions, drug companies, a company to provide genetic analysis, the FDA, and a clinical research organization, and launches a groundbreaking Master Trial to test a number of investigational targeted drugs to treat patients with AML.

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Donations to this worthy charity are always appreciated.

In 2016 LLS distributed \$50 million through patient financial aid and co-pay assistance programs and \$70 million toward cutting edge research with approximately \$10,1 million invested in the Greater Philadelphia area.

Donations are tax deductible and may be sent to::

Leukemia & Lymphoma Society Eastern Pennsylvania Chapter 100 N. 20th Street Suite 405 Philadelphia, PA 19103

**WWW.LLS.ORG** 



In 2012 Emily Whitehead, age seven, was dying from acute lymphoblastic leukemia (ALL). Emily, a patient at Children's Hospital of Philadelphia, was treated by Dr. Carl June with a new experimental therapy, chimeric antigen receptor therapy (CAR-T). Today, Emily is in remission and is a healthy and active teenager.

## How Well Can Ethics/Morality Be Codified?

#### by Paul Schlueter III

One of Society's main functions is to devise and publish ("codify") a set of rules for human interaction that levels the playing field of competition for resources and benefits in a manner that permits the largest practical portion of the society to thrive. In Free Inquiry, April/May 2017, philosophy professor Ryan Jenkins wrote, "If the law is a project of structuring interactions in a community so that people with different beliefs can coexist and flourish, then it is not obvious where to strike the balance between respectful attitudes and total social well-being."

Elsewhere in the same article, Jenkins described the non-codifiability thesis, which he says may be traced to Socrates, as "the idea that morality cannot be codified in an exhaustive set of rules that an intelligent person could follow in any context." Jenkins was writing about the morality of using autonomous lethal weapons (drones, soldier-bots, etc.) in military contexts, but the tie to civic law is just as interesting, and more relevant to the readers of skeptic writings.

It's a commonly understood axiom that rules exist to guide our social interactions for the best benefit of everyone, even if certain individuals may not receive the greatest personal benefit or experience the greatest personal freedom under those rules. I do not have the freedom to yank you out of your car at an intersection and drive away with it, no matter how deeply I desire to impress my prom date with the fine set of wheels I use to pick her up. Nor may you park those fine wheels in front of a fire hydrant, no matter how much you paid to own and display them. We have a codified set of rules (Law) which we have allowed our representatives to write for our Society, and the social contract demands that we all follow those laws, or pay various consequences if caught violating them.

There's an interesting expression of an exception codified among the restrictions of law. Ham (amateur) radio operators are constrained by law to limit their operations to specific frequency bands, specific types of signal, and specific broadcast power levels. These rules exist largely to pre-

vent operators from interfering with the airwave use of others, be those others amateurs, commercial operators, or the military/police authorities. The exception is "during an emergency" (a phrase which is itself carefully defined and codified within FCC law). During an emergency, any radio operator (licensed or not) may use any available radio device to call for aid and carry out other vital communications related to the emergency. In other words, if a police car is involved in a serious crash, and the officers within are unable to call for aid, YOU are legally permitted to use their (otherwise off- limits) car or portable radios to call for emergency assistance. You may use those radio communications to call for assistance for non-police victims, too. But you aren't allowed to call the newspaper and ask their reporters (who often monitor emergency communications) to come and interview you about your heroism in doing this.

In another example, if your house is burning down, and power and phone lines are out, you may use any communications device you can find to call for help. FCC rules don't entitle you to break into the home of your neighbor to use his ham radio; however, if you cause minimal damage (say, breaking one window pane) and enter ONLY for that emergency purpose, it is unlikely the ham operator or the authorities will charge you with burglary for doing so. Exceptions such as this are within the discretion of the local District Attorney, and he has been elected (in part) for his ability to use good sense in determining when an incidental violation of laws (such as those against breaking into a home) had a valid moral justification.

In PA, there's no "self defense" exception to the laws forbidding homicide. However, only a few years ago PA adopted "the castle doctrine" allowing a home's resident to shoot an intruder in the home. I won't pretend expertise in the distinction, but doesn't it seem worthwhile to seek clarity BEFORE you get that gun (or break in to use that radio)?

It's not likely that local laws and ordinances codify many specific exceptions to permit residents to commit acts during emergencies which would otherwise be crimes. Having a list of such exceptions in his pocket might inspire an adolescent to test their limits by creating the very "emergencies" that would "entitle" him to break into, say, a jewelry store or a pharmacy. It is better that a citizen have serious cause to consider his options, and then to reconsider his choice, preferably a few times before deliberately breaking a law.

Now, let's consider the sheer number of laws which would be necessary, if a society were to try to anticipate and evaluate every possible circumstance and those actions citizens might take in response to them. It's quite a chore just to list all the violations of law (and their appropriate punishments), as can be seen when you go to a Law Library and view the shelf full of statutes which codify the criminal and civil laws of our community. Then, look further and examine the rows and rows of shelves full of "caselaw," which are judicial rulings to interpret and apply the statutes; one little exception may well require page upon page of carefullyworded opinion, and it will only apply to that case, and those extremely similar to it.

Just as there are relatively few "General Practice family doctors," who broadly deal with the full scope of human health, there are relatively few "general lawyers." Most lawyers specialize in a very narrow and specific field of legal practice, which is a large reason why they work within law firms that can sweep the specialized expertise of multiple lawyers into one office. Each member of such a firm has the

handy resource of a colleague who is better versed in the particulars of a subtle topic than he, and each specialist may focus on his own area of expertise while being there for his associates, as well.

For better or for worse, the laws of our society have become extremely complicated, probably beyond any one person's full comprehension. Yet, every lawsuit and appeal seeks to identify an exception, or to draw a finer line of distinction, between a thousand gradient shades of grey in each subject area. If you live or work close to the line, it's a good idea to keep a specialized lawyer's number on your speed dial, so you can keep up with day by day changes in what is (or isn't) permissible.

While Law and Ethics are related, they aren't quite the same thing. Ethics are actually more concerned with "what is inherently fair," while Law tends to deviate from inherent fairness according to the specific interests which have influence upon the legislators who codify the law. In Law, politics has its influence, and when was the last time that you felt confident that politicians had your best interests at heart?

Law is much more fully codified than Ethics; there are simply many more people working to split the hairs of legal distinction than there are people working to figure out how benefits and restrictions may "most fairly" be balanced. Let's not even begin to contemplate the added complexity once you try to factor in the religious considerations of even just three competing (and mutually derisive) major religions.

**Éthicks.** *n.s.* without the singular. [ἡθικὴ.] **The doctrine of morality; a system of morality.** For of all moral virtues, she was all That *ethicks* speak of virtues cardinal. *Donne*.

I will never set politicks against *ethicks*; especially for that true *ethicks* are but as a handmaid to divinity and religion. *Bacon's War with Spain*. Persius professes the stoick philosophy; the most noble, generous, and beneficial amongst all the sects who have given rules of *ethicks*. *Dryden's Juvenal*, *Dedicat*.

If the atheists would live up to the *ethicks* of Epicurus himself, they would make few or no proselytes from the Christian religion. *Bentley's Sermons*.

**Mora'lity.** *n.f.* [moralite Fr.. from moral.]

l. The doctrine of the duties of life; ethicks. The sytem of *morality*, to be gathered out of the writings of ancient sages, falls very short of that delivered in the gospel. *Swift's Miscel*.

A necessity of sinning is as impossible in **morality** as any the greatest difficulty can be in nature. Baker on Learning.

2. The form of an action which makes it the subject of reward, or punishment.

The **morality** of an action is founded in the freedom of that principle, by, virtue of which it is in the agent's power, having all things ready and requisite to the performance of an action, either to perform or not perform it. South's Sermons.

We're still trying to come to a workable consensus on how to balance the 1st amendment rights of cartoonists against the religious sensitivities of the followers of a certain prophet. A solution could be codified by arbitrary legislative decision, but then that very action has repercussions because similar rights are similarly offensive to similar sensitivities.

Which bathrooms are off-limits to whom? Which dress codes are suitable for the workplace, and when does commenting on a co-worker's mode of dressing cross the line into harassment? Which tunes may one whistle while walking through which neighborhoods? What safety levels must be met by a company building toys for children? Who is

"responsible" when Red Dye #n is found to cause cancer in 2% of consumers, twenty years later?

Now, let's consider the use of lethal force, and for simplicity just limit it to a drone flyer equipped with firepower equivalent to a police officer's sidearm. May the residents of a gated community hire a security firm to patrol the community grounds with such a device? Will the security company be authorized to program the drone to shoot a subject, and when? May it shoot only non-

residents? What warning(s), and in how many (and which) languages, must it first give?

What if the trespasser is a Private Eye, licensed to check up on a spouse suspected of infidelity? What if the P.I. is a person of one very specific ethnic/religious mix likely to face a well-known set of prejudices no matter what his purpose for being there? This is ethically untenable but where in America is it not true, anyway? What if the suspect's lover doesn't happen to understand the drone's warning language (s)? What if a resident's school chum is an adolescent with authority issues, and he flips the drone the bird?

Will the drone withhold a shot if the subject is carrying a baby in a chest cradle? How will the drone know if it's really a baby, or instead maybe an explosive vest able to mow down a crowd of fifty?

Even if there's a human supervisor who must give final authorization before the drone may fire, how well can that human discern the situation through available surveillance? How well trained is HE, and what are his religious, political, and racial biases? What if the supervisor's boss is hovering over his shoulder, issuing conflicting orders?

Can you confidently say that no such situation might come up? That it won't be YOUR nephew in the crosshairs?

To get back to the title question, I propose that there is a finite degree of practicable codification. You can't make laws and rules more complex than what their subjects can reasonably comprehend, and in doing so, you are constrained by sheer overload to only the most basic of situations. This must necessarily leave vast areas of grey, multiple exceptions not included in the code, and enormous variety in the interpretation/comprehension of language involved.

"Ethics is knowing the difference between what you have a right to do and what is right to do."

~ Potter Stewart (1915-1985), Associate Justice of the Supreme Court, 1958 to 1981

I propose that there are also degrees of offenders. Some people make it their business to violate every rule they encounter, or to encourage the same in others. Some people thoughtlessly or ignorantly violate rules, unaware of their error. Other people are literally impeded from considering their actions, whether by illness, injury, or intoxication (deliberate, accidental, or brought on by another with malice).

Where codification can separate such degrees of culpability it should be done, but pro-

vision must also be made for instances when there are mistaken interpretations, or misdeterminations of degree. The law provides appellate courts to evaluate claims that mistakes were made in initial hearings/trials, but both legislation and court precedents have lately steered in the direction of creating ways to bar review on appeal, in part because those who lose rarely drop the matter until they've taken it "all the way to the Supreme Court."

It should be pointed out that EVERY court appeal involves some "technicality" of law; the first requirement of an appeal is to claim that a decision made by a lower court has violated some technicality of statute or precedent! To object that someone's appeal "only won by a technicality" is redundant nonsense, because EVERY appeal is decided on the relative merits of technical argument.

One commonly heard phrase is that the American judicial system is imperfect, but it's "the best the world has to offer." This is usually stated by patriots who wish to excuse an actual flaw revealed in our judicial system, isn't it? As for the objective evaluation of quality, it is largely just a matter of opinion which is "best:" Is it the social libertarianism of the Scandinavian block, or is it the strict totalitarian authority

of Russia or China? America falls somewhere between these (raising the question of whether we benefit from "a balance between extreme positions"). A lot depends on whether you think the maximum punishment for mass murder should be 21 years in prison, or that criticizing the Leader's policies should be a summary capital offense. We tend to measure judicial systems much as we measure religions; we automatically support the one in place where we find ourselves, and rarely give it critical evaluation until it somehow works against our personal interest.

Ethics are less place-defined than Law. Law involves jurisdictions and borders (city, state, national), while Ethics tends to remain more consistent across boundaries of legal sovereignty. A government is well served by codifying Law to serve the needs of those in power. However, Ethics resides more within the open field of Philosophy, subject to rational (or at least ideological) debate (one reason why the intellectuals are among the first eliminated when a totalitarian regime makes its coup).

Definitions should be codified (to ensure that interpretation differences are minimized), but the general exchange of ideas and social values crosses jurisdictional boundaries with ease. Rather than fences and walls to mark where Laws change, Ethics are limited only by the ability to communicate. As English has become the world's business language, it has also become more useful for the exchange of ideas between groups who use different languages (and the modes of thought that tend to spring from one's native language).

This leads me to the proposal that English might well become the world's language of Ethics (and by extension, have even greater value to international diplomacy). As more and more world citizens debate relative ethics across political and language boundaries, codifying definitions and concepts in English might serve the free exchange of ideas. In time, if conservative older generations allow it, our descendants

Morality is doing what is right, no matter what you are told. Religion is doing what you are told, no matter what is right.

~H. L. Menchken (1880-1956), Journalist

might come to realize that there is enough in common among far-flung peoples that Ethics and Morality will become agreed upon more consistently, and have greater impact on everyone's daily behaviors.

The further we can remove Ethics and Morality from the traditions and constraints of Religion, the more we'll free up the conversation. As it now stands, reliance on "that which is written" in the Torah, the Bible, or the Koran tends to separate us, rather than bringing us together. Ideas such as honoring one's parents or treating one's neighbors fairly could be universal, but their common adoption is actually impeded when their codification document is a religious book. Much of this is due to the link that ALL the commands within a given religious text share; if one goes to holy doctrine for honoring parents or fair treatment of neighbors, then they ALSO use holy doctrine to support hatred of apostates, gays, and adulterers (capital offenses in all of the world's three largest religious books!) If one's enemies are DE-FINED by whether or not people share the same religious manual (or even, the same interpretation of a short phrase WITHIN that manual), then it becomes almost impossible to discuss differing values or opinions.

Law is often derived specifically from religious tradition. Ethics benefits the most from setting aside the (literally) hidebound strictures of Scriptures, and applying the skills of Critical Thinking to the old ways most of us have never seriously considered. Law demands that obedience blindly follow; Ethics demands that moral people think through their beliefs and behaviors, and CHOOSE THE BEST ANSWER. In this area, rigid codification of Ethics and Morality works against the progressive development of ideas, but well-educated Critical Thinking (much like the advancement of the Sciences) is the most efficient course toward greater Justice and Equity.

No short essay can fully address this complex topic, but I hope that this one has at least started a couple of debates. May the best ideas win!

**Paul Schlueter III** has found it necessary to study Law in moderate depth, both defending himself against civil action and pursuing criminal appeal (it may be notable that he lost, in both instances). He has studied and argued Ethics and Morality as an intelligent and concerned secular humanist. Reasoned argument with the opinions stated above is robustly encouraged.

As for FCC law, Schlueter holds the top broadcast operator licenses in both the commercial and the amateur classes, mandating some familiarity with relevant radio/TV law.

## **Evolution's Next Homo**

#### by Paul Schlueter III

I recently enjoyed rewatching "The Island of Lost Souls," a 1930's adaptation of the story of the island of Dr. Morreau, starring Charles Laughton in the delightfully-mad scientist role. The great quote that justifies and misleads the storyline: "All of animal life trends toward the human form" (more or less paraphrased).

In this tale, Dr. Morreau reveals that his experiments

alter a single aspect of the germ line in animal genomes, causing them to "evolve" many thousands of years in a single specimen. Somehow (it isn't made clear, of course), the poor GMO beast/men of the island are then brought into an operating theater called "The House of Pain," where they are surgically altered even further (apparently without benefit of anesthetic!)

This movie and its various remakes over the decades have contributed to the general public's misunderstanding of both evolution and of the processes of genomic experimentation. On one hand, Morreau's garden contains vegetables and flowers made ten or twenty times their normal size (yet without apparent change in form); on the other hand, the man/beasts are shambling horror creatures, partially covered in splotchy fur, with partially-animal features (a goat leg, a pig nose, etc.), yet they walk upright and speak, fol-

low moral rudiments known as "The Law" (... "are we not men?"), and grudgingly obey Morreau and his stinging whip.

As in much of classic sci-fi, these events take place on a remote, uncharted island, outside the oversight of social authorities, where a mad scientist may run gloriously amok. The most horrifying concept? Morreau's "masterpiece" creation is the island's only "woman," a chimera of sexy Polynesian form, yet just a bit strange-looking. Morreau wants to breed this willing specimen with the hapless American everyman, a shallow-minded but athletic shipwreck survivor

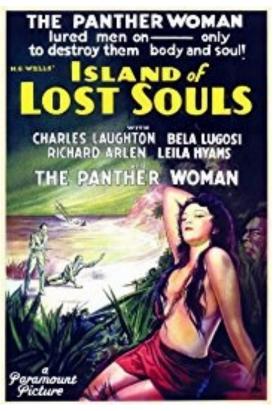
who is stranded on the island by various misfortunes. When the shipwreck survivor's fiancé comes on a rescue mission to find him, Morreau considers an alternative plan; breeding HER to one of his male chimera. Either way, the suggestion of bestiality, combined with the horrific suggestion that it just might result in viable offspring, carries the most profound warning of the film: Trust not science, for its practitioners wallow in blasphemous sin!

Given generations of such schlock, is it any wonder that the ordinary people of our era are so disturbed by GMO foods, by the potential presented by Crispr/Cas-9, and by anything that naysayers can brand "genetic manipulation?"

Dr. Frankenstein created a monster by (depending on which version you absorbed) stitching together body parts scavenged from the graves of executed criminals, or imperfectly reengineering the cells and flesh of each needed organ and part so as to regrow an entire creature from scratch (the act which made the creature so monstrous was its creator's subsequent neglect, a point overlooked by generations of readers!) Nuclear scientists released their pernicious rays into the world, turning everything from ants to bees to T. rex-like lizards into gigantic monsters threatening humanity. Space travelers encounter aliens out to take our lovely world from us, or perhaps simp-

ly to devour us directly. The world of the horror movie is about as anti-science as any genre to which any of us have ever been exposed, and a lifetime of viewing them has left the scientifically-ignorant in fear of science itself, because they've seen the worst consequences imagination can offer on the silver screen.

Let's look again at the more realistic facts of evolution. We humans ARE NOT the "goal" of some Creation-like refinement process. Life has branched countless times, in as many directions, from the simplest single-celled lifeform.



That form threw off varieties, and those which were best adapted to survive their environments reproduced, so over vast eons of time life spread out into the millions of forms which currently live on our planet. All Terran life is genetically related to common ancestors (though perhaps removed by billions of years), but EVOLUTION DOES NOT PROCEED IN ANY SPECIFIC DIRECTION. It most certainly did not have Homo sapiens "in mind" as some ultimate target! There is no consciousness "guiding" evolution.

It might turn out that we will be the death of the primate lineage(s) on this planet - we're certainly wiping out all our nearest animal relatives, and on the path we're following, we're equally as likely to wipe ourselves out too. In the sense of being responsible for exterminating whole species, we are likely to end up being the final species of primate to walk the earth.

That does not, however, equate to our being some end goal of primate evolution.

Between about 500,000 and a million years ago, there is good evidence that our genetic line shared Africa with multiple other hominid species, each related in the lost bones of archaic ancestors, each walking a different evolutionary path in unique directions. Some of these other species interacted with us. It's likely that other species tried to avoid us. Each species succeeded or failed merely by its adaptation, a matter

of pure luck.

We have genetic evidence that ancient humans interbred with Neanderthals, Denisovans, and perhaps other hominid cousins, whose genes help us to survive to this very day. All of our Homo cousins went extinct, with or without our competitive push over that fateful line. For about 30,000 years, H. sapiens have been the sole hominid species on Earth, and we still go out of our way to kill each other off at every opportunity. We've gotten so good at it that we can wipe out millions with the push of a single plastic button, and now we've even lost full control over how many despots get to have a plastic button of their own! We've evolved into Homo homicidicus!

Our science and technologies are evolving much faster than biological systems. If you follow the intrepid explorations of biologists, Crispr/Cas-9 (and other genetic editing methods) have been letting us explore the consequences of making edits to single genes in a wide variety of organisms. We think we might be able to control mosquito sterility as a way to slow the spread of Zika and Dengue. We're finding epigenetic markers and tags that don't actually make up part of our genome, but which control gene activity (much as a tight vise jaw could control the flow of water through a rubber hose). We already use viruses as bellboys, carrying medicines and gene- editing tools into cells to make deliberate

## The Island of Dr. Moreau

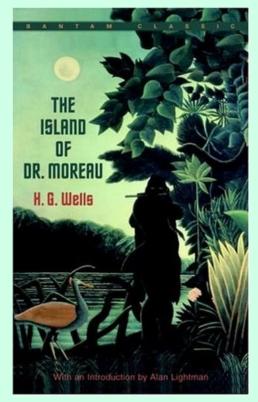
By H.G. Welles

Publisher: Bantam Classics; Reissue edition (May 1, 1994)
First published 1896

ISBN-10: 0553214322 ISBN-13: 978-0553214321

Ranked among the classic novels of the English language and the inspiration for several unforgettable movies, this early work of H. G. Wells was greeted in 1896 by howls of protest from reviewers, who found it horrifying and blasphemous. They wanted to know more about the wondrous possibilities of science shown in his first book, *The Time Machine*, not its potential for misuse and terror. In *The Island of Dr. Moreau*, a shipwrecked gentleman named Edward Prendick, stranded on a Pacific island lorded over by the notorious Dr. Moreau, confronts dark secrets, strange creatures, and a reason to run for his life.

While this riveting tale was intended to be a commentary on evolution, divine creation, and the tension between human nature and culture, modern readers familiar with genetic engineering will marvel at Wells's prediction of the ethical issues raised by producing "smarter" human beings or bringing back extinct species. These levels of interpretation add a richness to Prendick's adventures on Dr. Moreau's island of lost souls without distracting from what is still a rip-roaring good read.



changes within the cell envelopes. And yes, we modify the genomes of plants by adding or removing genes so that we can alter their adaptability to our environment, and to suit our own needs.

We have selectively bred domestic plants and animals over millennia until we've lost track of the original stock lines; there may or may not be an archaic horse breed in the steppes of Siberia, and the wolf species that was the ancestor of modern dogs may or may not still be hunting the woods of Eastern Europe. We're certain that the progenitor of modern cattle, the Aurochs, is now extinct.

Mammoths and Mastodons have also gone extinct, but some still entertain the notion of trying to resurrect them with a combination of cloning frozen DNA and inseminating that into modern elephants (if we don't kill those off too, in the interim). For whatever reason, we seem perfectly content to leave the long-faced bear and the giant sloth extinct.

Tigers and lions will soon join the sabre-tooth in extinction, and invasive boa constrictors will probably wipe out the Florida panther faster than we can supplement its genetic diversity with re-introduced central- American panther cousins. Instead, we let our domestic kitties go feral and wipe out the small critters of every habitat we exploit, so smaller felines will survive just fine.

We've all but eliminated the remaining Great Apes, through both overhunting and habitat destruction. Our closest remaining primate cousins, chimpanzees and bonobos, will not evolve any further. In the six million years since our line diverged from theirs, they didn't become much more humanlike, so it's unlikely that they'd ever become more human and make this the Planet of the Apes, even if one of our virus creations were to wipe us out to make room for them.

If humanity goes extinct, no "alternate humanity" will

come along to take our place. No primate over about ten pounds in size is likely to survive us. Life on Earth may continue (or not), but the next predominant life form might not be "conscious" or "intelligent." It might not even be vertebrate!

When a meteor or comet wiped out nearly all the dinosaurs (leaving what later became birds, and various smallish lizards), tiny little mammals that had previously scurried underfoot became dominant. One branch of the mammal group, primates (coming from a lemur-like species) eventually evolved into hominids, and then into us, but next time around, the dice of chance might fall in favor of ants.

There's even a pessimistic theory going around that jellyfish will inherit the Earth, essentially "setting back evolution" a billion years or so. If every lifeform more complex than a jellyfish has to evolve all over again, we probably cannot imagine the creatures that might evolve anew.

Our best hope, as a species, is probably for science to find a way to make humans more conformist. It's our wideranging freethinking that has gotten us into this mess, exacerbated by our weird ability to devise self- serving, fallacious arguments to justify every selfish interest or urge we indulge. We'd be much more likely to survive, and to evolve into the NEXT Homo species that follows us, if we become more hive-like, or somehow segregate into competitive (conservative vs. liberal?) "herds" trying to bodily monopolize our dwindling resources and exclude our enemies into extinction. There ain't room enough on the planet for so many "differences" anymore! Who do YOU think will prevail in the evolutionary contest, "us" or "them?"

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"Another principle that I believe can be justified by scientific evidence so far is that no-body is going to emigrate from this planet not ever....It will be far cheaper, and entail no risk to human life, to explore space with robots. The technology is already well along....the real thrill will be in learning in detail what is out there...It is an especially dangerous delusion if we see emigration into space as a solution to be taken when we have used up this planet....Earth, by the twenty-second century, can be turned, if we so wish, into a permanent paradise for human beings..."

## 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 21, 2017 at 2:00 PM. PhACT Lecture. In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets. Professor Alan Mann, an anthropologist, will discuss *The Anthropology of Food* 

Saturday, November 18, 2017 at 2:00 PM. PhACT Lecture. In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets. Robert Hicks, Ph.D., curator of the Mutter Museum at the College of Physicians of Philadelphia, will discuss: Vaccination Pure and Spurious: The Confederate Vaccination Crisis of the Civil War

Saturday, January 20, 2018 at 2:00 PM. PhACT Lecture. In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets. Paul Halpern, Ph.D., a physicist and cosmologist, will discuss his new book: *The Quantum Labyrinth: How Richard Feynman and John Wheeler Revolutionized Time and Reality* 

Saturday, February 17, 2018 at 2:00 PM. PhACT Lecture. TBA

Saturday, March 17, 2018 at 2:00 PM. PhACT Lecture. TBA

Saturday, April 21, 2018 at 2:00 PM. PhACT Lecture. TBA

Saturday, May 19, 2018 PhACT Expedition. At 2:00 PM at Laurel Hill Cemetery at 3822 Ridge Avenue in Philadelphia. \$15.00 suggested contribution to Laurel Hill.

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

See websites for details—Page 32

Friday, October 13, 2017 Delaware Valley Amateur Astronomers

Tuesday, October 17, 2017 Free Library of Philadelphia Tuesday, October 17, 2017 Academy of Natural Sciences of Drexel University

Tuesday, October 17, 2017 University of Pennsylvania Museum of Archaeology and Anthropology

Wednesday, October 18, 2017 University of Pennsylvania Museum of Archaeology and Anthropology

Wednesday, October 18, 2017 Free Library of Philadelphia

Wednesday, October 18, 2017 College of Physicians of Philadelphia

Wednesday, October 18, 2017 Science on the Hill at St Joseph's University

Wednesday, October 18, 2017 Franklin Institute Thursday, October 19, 2017 American Philosophical Society

Thursday, October 19, 2017 Franklin Institute Saturday, October 21, 2017 PhACT Event. See website for details: www.phact.org

Saturday, October 21, 2017 University of Pennsylvania Museum of Archaeology and Anthropology Tuesday, October 24, 2017 Penn Science Café

Thursday, October 26, 2017 Free Library of Philadelphia

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Wednesday, October 25, 2017 Franklin Institute Saturday, October 28, 2017 Chemical Heritage Society Monday, October 30, 2017 American Revolution Round Table of Philadelphia

Tuesday, October 31, 2017 Penn Science Café Wednesday, October 31, 2017 Franklin Institute

Wednesday, November 1, 2017 Philadelphia Nerd Nite Thursday, November 2, 2017 Free Library of Philadelphia Thursday, November 2, 2017 Institute for Religion and Science

Thursday, November 2, 2017 University of Pennsylvania Museum of Archaeology and Anthropology

Friday, November 3, 2017 Free Library of Philadelphia Friday, November 3, 2017 Chemical Heritage Society Monday, November 6, 2017 Chemical Heritage Society Tuesday, November 7, 2017 Eastern State Penitentiary Tuesday, November 7, 2017 Friends of Valley Forge Park Wednesday, November 8, 2017 Rittenhouse Astronomical Society

Wednesday, November 8, 2017 Free Library of Philadelphia

Thursday, November 9, 2017 Franklin Institute
Thursday, November 9, 2017 Free Library of Philadelphia
Friday, November 10, 2017 Free Library of Philadelphia

Friday, November 10, 2017 Delaware Valley Amateur Astronomers

Saturday, November 11, 2017 Chemical Heritage Society

Monday, November 13, 2017 Science on Tap Monday, November 13, 2017 Free Library of Philadelphia

Thesday, November 14, 2017 Institute for Religion and Science

Tuesday, November 14, 2017 Penn Science Café Wednesday, November 15, 2017 College of Physicians of Philadelphia

Thursday, November 16, 2017 Free Library of Philadelphia

Thursday, November 16, 2017 Chemical Heritage Society

Saturday, November 18, 2017 PhACT Event See website for details www.phact.org

Saturday, November 18, 2017 University of Pennsylvania Museum of Archaeology and Anthropology Monday, November 27, 2017 American Revolution Round Table of Philadelphia

Tuesday, November 28, 2017 Free Library of Philadelphia Wednesday, November 29, 2017 Free Library of Philadelphia

Friday, December 1, 2017 Chemical Heritage Society
Tuesday, December 5, 2017 Eastern State Penitentiary
Tuesday, December 5, 2017 Friends of Valley Forge Park
Tuesday, December 5, 2017 Penn Science Café
Tuesday, December 5, 2017 College of Physicians of Philadelphia

Tuesday, December 5, 2017 Free Library of Philadelphia Wednesday, December 6, 2017 Philadelphia Nerd Nite Thursday, December 7, 2017 American Philosophical So-

Friday, December 8, 2017 Delaware Valley Amateur Astronomers

Saturday, December 9, 2017 Chemical Heritage Society Wednesday, December 13, 2017 Rittenhouse Astronomical Society

Thursday, December 14, 2017 Franklin Institute Saturday, December 16, 2017 University of Pennsylvania Museum of Archaeology and Anthropology

Monday, December 18, 2017 American Revolution Round Table of Philadelphia

Saturday, December 30, 2017 Chemical Heritage Society Sunday, December 31, 2017 Laurel Hill Cemetery

Tuesday, January 2, 2018 Friends of Valley Forge Park
Tuesday, January 2, 2018 Eastern State Penitentiary
Monday, January 8, 2018 Science on Tap

Wednesday, January 10, 2018 Rittenhouse Astronomical Society

Saturday, January 20, 2018 PhACT Event See website for details www.phact.org

Monday, January 29, 2018 American Revolution Round Table of Philadelphia

Tuesday, February 6, 2018 Friends of Valley Forge Park
Tuesday, February 6, 2018 Eastern State Penitentiary
Monday, February 12, 2018 ... Science on Tap
Wednesday, February 14, 2018 Rittenhouse Astronomical
Society

Saturday, February 17, 2018 PhACT Event See website for details www.phact.org

Monday, February 26, 2018 American Revolution Round Table of Philadelphia

Tuesday, March 6, 2018 Eastern State Penitentiary Wednesday, March 14, 2018 Rittenhouse Astronomical Society

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## Calling All Astronomers! Rittenhouse Astronomical Society

Monthly Meetings! Bring all of your outof this-world questions! Join The Rittenhouse Astronomical Society the second Wednesday of each month at 7:30 p.m. in the Fels Planetarium at the Franklin Institute. The society offers all persons an op-



portunity to participate in the activities of an astronomical group at the laymen's level. They aim to spread knowledge, awareness and enjoyment of astronomy and astronomical issues. It is a popular science club that keeps its members up-to-date on the latest developments. No experience is necessary to attend the FREE meetings. Come with your astronomy questions!

www.rittenhouseastronomicalsociety.org/

#### The Delaware Valley Amateur Astronomers

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

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

Meetings start at 7:00 with time for informal socializing.

Announcements and the main talk begin at 7:30 sharp.

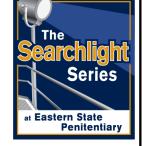
Meetings start at 7:00 with time for informal socializing. Announcements and the main talk begin at 7:30 sharp. Refreshments are provided. Upcoming club events are listed on the DVAA website: http://dvaa.org

## 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

## 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/

Free and Open to the Publick

#### **Chemical Heritage Foundation**

315 Chestnut Street, Philadelphia, PA 19106

http://www.chemheritage.org

#### 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

https://dvaa9.wildapricot.org

Free and Open to the Public.

#### **Eastern State Penitentiary**

2027 Fairmount Avenue, Philadelphia, PA 19130 http://www.easternstate.org/home

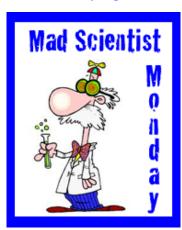
Franklin Institute http://www.fi.edu

#### Free Library of Philadelphia (FLOP)

1901 Vine Street, 19103 http://libwww.freelibrary.org/ authorevents/

#### Freethought Society

https://www.ftsociety.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 Phila**delphia (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.thelaurelhillcemeterv.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.

#### 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. www.rittenhouseastronomicalsociety.org/

Science on the Hill at St. Joseph's Uni-

versity

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://scienceontapphilly.com/

#### University of Pennsylvania Museum

3260 South Street, Philadelphia, PA 19104 http://www.penn.museum/eventscalendar

#### **Wagner Free Institute of Science**

1700 West Montgomery Avenue, Philadel-

#### www.wagnerfreeinstitute.org

Free and Open to the Public



#### 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

#### Thursday, October 12, 2017, 6 to 8 pm

#### Lantern Slide Salon

Celebrate Archives Month Philly with a showcase of glass lantern slides from the special collections of local institutions. In the spirit of lantern exhibition culture, this salon will present historic images along with intriguing stories, all projected in the Wagner's immersive lecture hall from a historic projector. Don't miss this rare opportunity to see an old technology and experience rarely -displayed slides from some of Philadelphia's most distinguished institutions. Free; registration encouraged: www.wagnerfreeinstitute.org

#### Wednesday, October 25, 2017, 6 to 7:30 pm

#### Empire of the Living Dead: The Scientific History of Peruvian Mummies

Mummification began in the South American Andes millennia earlier than in Egypt, and it reached a heyday under the Incas in Peru. When the Spanish invaded in 1532, fear of these embalmed and sacred bodies led to their confiscation and collection. Hear Penn State history professor Christopher Heaney explore the afterlives of Peruvian mummies in this Weeknights at the Wagner lecture.

Free; registration encouraged:

#### Thursday, November 2, 2017, 5:30 to 7:30 pm Evening with an Expert: Fossils

See the Wagner's historic collections as never before— in an intimate, scholar-led tour! This edition will feature Delaware Valley University professor Dr. Jason Downs exploring highlights from the Wagner's vast, significant fossil collection. The tour is limited to 20 people and includes a wine and cheese reception.

Tickets required; \$30 (\$20 for Wagner members).

## Saturday, November 11, 2017, at 3pm. Join us for our 2017 Westbrook Lecture: Dire Predictions: Understanding Climate Change by Dr. Michael E. Mann, Pennsylvania State University

Devastating hurricanes. Record-breaking temperatures. Melting polar ice caps. Climate change is already having an effect on our everyday lives, but many people don't understand the science behind it (and some don't even acknowledge it is real). For our 2017 Westbrook Lecture, renowned Pennsylvania State University climate scientist Dr. Michael E. Mann will explain the solid evidence confirming climate change and its human influences—from instrumental measurements to computer-modeled predictions. He will also describe the frightening impacts of climate change, some of which we are already experiencing, and possible solutions to the problem. The Wagner's museum will be open from 1 pm until the talk begins at 3 pm. Our Annual Member Reception will take place after the talk and will include a book signing with Dr. Mann. The reception is free for members, \$10 for guests. We strongly encourage you to RSVP separately for the member reception by calling Alison Hansen-Decelles, Development Manager, at 215-763-6529 x11.

Wednesday, November 29, 2017, 6:00 PM – 7:30 PM The Good, the Bad, and the Chemistry: Decoding Chemical Sensationalism

#### by Dr. Michelle Francl, Bryn Mawr College

Is there really coal tar in macaroni and cheese? Should you eat things that you can't pronounce? If a chemical is used to make yoga mats, is it safe to consume? Questions like these come up because there is a lot of information—and misinformation—about chemicals online and in the media. Chemists have a leg up on the rest of us when it comes to answering these questions. They see molecules in everything from coffee to blood to cheesy sauce, and they understand the way atoms and compounds work, including what makes some beautiful and others dangerous. At this Weeknights at the Wagner lecture, chemist Dr. Michelle Francl will decode the mysteries about chemicals and provide strategies that non-chemists can use to determine whether mainstream recommendations about chemicals are scientifically sound or purely sensationalism.

#### Adult Education Fall 2017 Course Schedule

### The Cosmos: A History of Modern Astronomy, Professor Darin Hayton.

6 Wednesdays, September 27 - November 1, 2017, 6:15 - 7:30 PM

Independence Branch of the Free Library, 18 S. 7th Street (between Market and Chestnut). The invention of the telescope in the early 17th century made it possible for astronomers to see things that had never been seen before. This course will look at how new observations —from Galileo's discovery of the moons of Jupiter to Hubble's discovery of the expanding universe—challenged accepted ideas about the size, age and the very nature of the universe.

No preregistration necessary. Register by attending the first class.

## A Selective History of 19th Century American Entomology, Professor Greg Cowper.

6 Wednesdays, October 4 - November 8, 2017, 6:15 - 7:45 PM. **Fishtown Community Branch of the Free Library**, 1217 East Montgomery Ave. This class will examine the field of Entomology, the study of insects, through the lens of 19th Century America, and chronologically explore the entomologists, their work, the science, and the insects that were influential in this important era of discovery.

No preregistration necessary. Register by attending the first class. \\

### The Science Behind Global Warming, Professor Kevin Cannon.

6 Mondays, October 16 – November 27, 2017, 6:30 - 7:45 PM. Falls of Schuylkill Neighborhood Branch of the Free Library of Philadelphia, 3501 Midvale Avenue (at Warden Drive). This course explores the science that is associated with global warming, and examines the evidence pointing to ongoing global warming and the modeling techniques used to predict the warming trend. The course will present relevant scientific information to help participants make informed public policy choices.

No preregistration necessary. Register by attending the first class.

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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.



## LAUREL HILL CEMETERY **EVENTS**

3822 RIDGE AVENUE, PHILADELPHIA, 19132 Www.Thelaurelhillcemetery.org 215-228-8200

Laurel Hill Cemetery was established in 1836 not only established as a permanent, non-sectarian burial place for the dead, but also as a scenic, riverside sanctuary for the living. Today it is open seven days a week with free admission for self-guided strolls, exercise, sightseeing or picnics. A full schedule of diverse programs for all ages and interests are offered throughout the year. For more information on visiting the cemetery see the website

#### Saturday, October 14 at 10amThe 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.

#### Sunday, October 15 at 1pm 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 "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 America's third President, William David Barker of (www.thethomasjefferson.com), who will be visiting Laurel Hill from his home in Williamsburg, Virginia.

#### Friday, October 20 & Saturday, October 21 at 7pm 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.

#### October 26 - 28, at 7pm Dracula: A Gothic Mystery

1897- When a young man disappears during a business trip to Transylvania, his fiancée back in England clings to the hope that he will soon return safely. But the usually cool and rational Mina Murray cannot escape the feeling that something terrible has happened and that worse is to follow. Her friend, Dr. Jack Seward, laughs these fears off as fanciful. But when a series of ominous and inexplicable events start to befall her and her friends, Mina senses that the danger is far too real... and far closer than any of them can imagine. Adapted from Bram Stoker's classic tale, this suspenseful retelling of Dracula explores the insidious power of evil and the twisted ways in which we welcome it into our lives.

#### Friday, October 27 at 10am The Hot Spots and Storied Plots



In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead?

#### Sunday, October 29, 1-3pm Fall Family Day: Halloween Picnic and Parade

Spend an autumn afternoon exploring the many wonders and mysteries of Laurel Hill Cemetery while celebrating Halloween! Fall Fun for the Family at Laurel Hill will thrill and chill both the young and old! The cemetery's primary location overlooking the Schuylkill River will offer visitors majestic views of the colorful fall foliage and vibrant landscape along Kelly Drive. Activities will include arts and crafts, a pumpkin patch and

Halloween games and goodies.

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.

#### Sunday, November 5 at 1pm Members-Only: Inside the Mausoleums and Vaults of Laurel Hill

Laurel Hill is comprised of 78 acres of visible art, architecture and natural beauty, but there is much to be seen beneath the sod. Led by Laurel Hill's Superintendent, Bill Doran, members will have the opportunity to dig deeper and learn about the many underground vaults—some holding as many as 70 deceased—that remain hidden to the naked eye. This behind-the-scenes tour will be followed by refreshments in the Historic Gatehouse. Wear comfortable walking shoes and bring a flashlight.

#### Friday, November 10 at 10am Marine Corps Anniversary Service

Join active and retired members of the United States Marine Corps at Laurel Hill Cemetery as they commemorate the 242<sup>nd</sup> anniversary of the founding of the Marine Corps in Philadelphia on November 10, 1775. 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. After the service, the Cemetery will mark Veterans' Day with a tour of the final resting places of the heroes who made the ultimate sacrifice for our country. Learn about the people who died in battle in the Revolutionary War, the Indian Wars, the War of 1812, the Mexican War, the Civil War, the Spanish American War, World War I, World War II, in Korea, and in Vietnam. Their heroic exploits will be relived and honored.

#### Friday, November 11 at 10am The Hot Spots and Storied Plots

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead?

## Saturday, November 11 at 1pm Patriots, Politicians and Playwrights: Philadelphia Lawyers

For over 200 years, the term "Philadelphia lawyer" has been an iconic description of an attorney who goes the extra mile, maintains the highest ethical standards and, like Rocky Balboa stepping up to Apollo Creed; takes on challenges that lesser lawyers stay away from. Laurel Hill is home to a number of the first "Philadelphia lawyers" as well as others whose courtroom skills and colorful personalities made them among the most talked-about attorneys of their day. Meet the man who investigated Benedict Arnold before he turned traitor, the attorney who was involved in the Court's first argument concerning slave rebellions, and the prosecutors who found second lives as novelists and poets. They may have made their final arguments, but you can ensure their stories live on during this spirited walking tour of their final place of rest.

## Sunday, November 12 at 1pm By Arms and Courage: Laurel Hill's Military Legacy

In addition to the many Civil War military figures who now rest at Laurel Hill Cemetery, there are numerous individuals who served in our Nation's other conflicts: the Revolutionary War, War of 1812, Mexican War, Indian Wars, Spanish/American War, and the great global conflicts

of the 20th Century. This Veteran's Day weekend, join us for a walking tour as we pay tribute to those who served bravely and now rest in honored glory

#### Saturday, November 18 at 1pm Legendary Civil War Ladies

The American Civil War was not just fought on the battlefield. Efforts on the home-front helped finance and support the battles, while also ensuring there was something for soldiers to return home to. Join living historian, Kerry Bryan, in period attire as Elizabeth Hutter, Civil War nurse and founder of the Northern Home for Friendless Children. Through the lens of Hutter's own life story, learn about the struggles, accomplishments and tireless efforts of women during the Civil War era. From nursing the sick, to inventions that would aid the Union in warfare, to fundraising to clothe and feed its troops, the ladies of Laurel Hill served their nation in various ways. The program will conclude with a seasonal reception inside the Cemetery's historic Gatehouse.

## Sunday, November 19 at 1pm 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.

Friday, November 24 at 10am The Hot Spots and Storied Plots
In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead?

#### Saturday, December 2 at 10am 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!

## Friday, December 9 at 10am The Hot Spots and Storied Plots

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most famous home of the dead?

### Sunday, December 10 at 1pm Having the Last Word: Epitaphs of Laurel Hill

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 Phillies 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, sen-

timental 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.

#### Friday, December 22 at 10am The Hot Spots and Storied Plots

In life and in death, we all have stories to tell and what better place to hear tales of wonder than Philadelphia's most fa-

mous home of the dead?

## Sunday, December 31 at Noon General Meade's 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).



General George G. Meade (1815-1872)

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|  | nation of \$        | dedicated for High School Scien | nce Fair prizes  |       |
| Address:                                   | Address:            |                                 |                  |       |

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## "Truth often suffers more by the heat of its defenders than the arguments of its opposers."

~ William Penn (1644-1718), founder of the Province of Pennsylvania

