

Politics is the art of  
looking for trouble,  
finding it everywhere,  
diagnosing it  
incorrectly and  
applying the wrong  
remedies.

– Groucho Marx

# Phactum

The Newsletter of the  
Philadelphia Association for Critical Thinking  
February 2010

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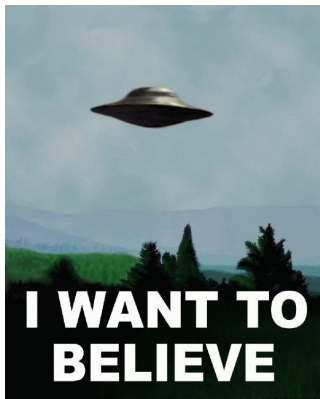
Saturday, February 20, 2010 at 2:00 PM

Dr. David Cattell, Chairman of the Physics Department of Community College of Philadelphia, will host Dr. Ted Goertzel, Professor of Sociology at Rutgers University, for a discussion of

## CONSPIRACY THEORIES IN SCIENCE

In Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets. Parking is easily available but is no longer free for PhACT attendees at CCP events. The Saturday parking rate is \$3.50. Enter the college parking lot on 17th Street which is one way south bound. This meeting site is handicap accessible.

**This PhACT event is free and open to the general public.**



Dr. Goertzel's talk will include claims on both sides of the global warming issue, that the other side is censoring, and will discuss conspiracy belief in general. Conspiracy Theory is an immensely rich topic as our lives are surrounded by various conspiracies great and small, malevolent and good natured. Some are sinister such as political intrigues and criminal plots to discredit or defraud. Others are harmless, such as the silliness of UFO claimants and those elaborate schemes to carry out a surprise party.

*(Continued on page 2)*

One of the greatest delusions in the world is the hope that the evils in this world are to be cured by legislation. – Thomas B. Reed (1886)

(Continued from page 1)

It does become a bit distressing when science is at the center of Conspiracy Theories. We do, after all, expect scientists to be objective and even “scientific” in attitude and demeanor. However, if one were to dig deeply into a science controversy one might very well find factions based upon ego, power, and financial interests.

The current Climate Change/Global Warming debate is an interesting example where experts on both sides of the issue are unhappy about the statements and tactics of the other. That issue remains unresolved, but there are other science conspiracies where the science is indeed well resolved that have significant impact upon our lives and large numbers of supporters on both sides.

PhACT and other critical thinking and skeptics groups routinely discuss Creationism, homeopathy, UFO’s, anti-vaccination activists, free energy devices, and many other issues. Those controversial areas all have scientific claims and large number of True Believers at odds with the beliefs of skeptics. Oddly enough, those True Believers are wrong in their contentions and WE, of course, are right in ours.

Come to the meeting with an open mind and questions, and as an attendee you need not feel obliged to adhere to mainstream skeptical thinking, whatever that may be ... even though we are right.

Our speaker, Ted Goertzel, earned his B.A. at Antioch College, Yellow Springs, Ohio, 1964, in sociology and anthropology, an M.A. at Washington University, 1966, in sociology and Latin American Studies, and Ph.D. At Washington University, St. Louis, 1970, in sociology. In 1973 Ted became Professor of Sociology at Rutgers University.

He has written or co-authored many books including “*Cradles of Eminence*”: *Second Edition*, “*Fernando Henrique Cardoso: Reinventing Democracy in Brazil*”, “*Linus Pauling: A Life in Science and Politics*” (with Ben Goertzel, Mildred Goertzel and Victor Goertzel), “*Turncoats and True Believers: The Dynamics of Political Belief and Disillusionment*”. *Sociology: Class, Consciousness and Contradictions* (with Albert Szymanski), *Three Hundred Eminent Personalities: A Psychosocial Analysis of the Famous* (with Mildred Goertzel and Victor Goertzel), and “*Political Society*”. In addition he has written countless articles, essays, and book chapters.

Dr.Goertzel’s web page is:

<http://crab.rutgers.edu/~goertzel/>

**“The budget should be balanced; the treasury should be refilled; national debt should be reduced; and the arrogance of public officials should be controlled.” – Cicero. 106-43 B.C.**

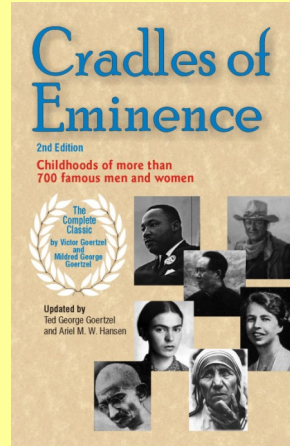
## Cradles of Eminence: Childhoods of More Than 700 Famous Men and Women

By Victor Goertzel, Mildred Goertzel, Ted Goertzel, and Ariel Hansen

Great Potential Press; 2 edition (January 2004)

Paperback: 456 pages \$16.47

ISBN-10: 0910707561 ISBN-13: 978-0910707565



What were the common childhood experiences of 700 eminent adults? Among things, they disliked school; their families valued education; they had strong mothers; and they grew up feeling "different" from others. This exciting update of the 1964 classic includes information from "Three Hundred Eminent Personalities" (1978), as well as from new biographies published in the last six years. Key findings include:

- Most had at least one ambitious parent who was striving and driving.
- Their parents were highly opinionated
- Their parents often held unconventional opinions that were shocking, even antagonistic, to others.
- Many of the parents--especially mothers--dominated their children's lives.
- As children, few liked school, and still fewer liked their teachers.



"You're a selfish bastard, Lewis! Those stem cell lines were meant for people who've LOST an organ!"

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

# PHACT CALENDAR

**Dr. David Cattell, Chairman of the Physics Department of Community College of Philadelphia** hosts meetings of **PhACT** - at 2:00 PM on the third Saturday of most months at Community College of Philadelphia, in **Lecture Room C2-28 in the Center for Business and Industry at the corner of 18th and Callowhill Streets**. Parking is easily available but is no longer free for PhACT attendees at CCP events. The Saturday parking rate is \$3.50. Enter the college parking lot on 17th Street which is one way south bound. This meeting site is handicap accessible. **PhACT Meetings are free and open to the public unless otherwise noted.**



**Saturday, February 20, 2010 - Conspiracy Theories in Science.** Ted Goertzel of Rutgers University will speak to us on "Conspiracy Theories in Science" and will give some up to date insights on the global warming email scandal. See Page 1.

**Saturday, March 20, 2010 - TBA**

**Saturday, April 17, 2010 - TBA**

**Wednesday, February 10, 2010 at 7:30 PM. Pierre Teilhard de Chardin: The China years.** With Kathleen Duffey, SSJ, Ph.D., Professor of Physics, Chestnut Hill College.

How did Jesuit paleontologist Pierre Teilhard de Chardin sustain his spirit under the burden of long years of exile and rejection by church authorities? What supports were available to him despite the fact that his efforts to live out a vision that he discerned to be of God were continually thwarted? In this lecture, Dr. Duffy will explore the clues to Teilhard's spiritual depth found in his letters to his family and friends and plumb more deeply our own source of spiritual strength.

This talk and all talks in Metanexus Science and Spirit lecture series are free to the public and will take place at 7:30 pm in Congregational Hall of Bryn Mawr Presbyterian Church, 625 Montgomery Avenue, Bryn Mawr. For more info: (484) 592-0304 or [info@metanexus.net](mailto:info@metanexus.net)

**Friday, February 12, 2010 - Delaware Valley Mensa General Membership Meeting**

♣ **The Economy, Financial Investments, and Tax Change** - During the past twenty four months we have been bombarded with rhetoric and propaganda as to what the next four years will look like. Change and Hope were the key buzz words and sound bites that were on every body's lips. Now the cold, hard reality is history. Now is a good time to reevaluate your financial situation. What did Hope, what did Change translate into? What does this all mean to your wallet and your retirement account. Our speaker this month is Edward Marden is a tax consultant with H and R Block. He will discuss such topics as, but

not limited to:

- ♣ the changes in the tax laws,
- ♣ what we need and can do to maximize our returns
- ♣ what we need and can do to minimize our chances for audit,
- ♣ how to use the changing tax laws to our advantage during 2007.
- ♣ The decline in the dollar value and what that means to us as individuals

A very timely topic, if there ever is one..

The General Membership Meeting will be held at the Police Administration Building, 750 Race Street, Philadelphia, PA. This meeting is DVM's only activity specifically open to the public, so feel free to invite your friends and relatives. Door prizes will once again be awarded, sponsored by Chocolate. The dinner is at 6:00 and the meeting will begin promptly at 8:00. The meeting is free.

PS: Don't let traffic on the Schuylkill Expressway interfere with attending. Consider taking SEPTA and exiting at Market Street East / Gallery, it is only a two block walk to the Police Administration Building. Contact Pete Stevens ( [pete.stevens@phila.gov](mailto:pete.stevens@phila.gov) ) for more information.



## Saint Valentine's Events

**Saturday, February 13 and  
Sunday February 14.**  
See next page.

The **PhACT Calendar** is open to members and non-members who wish to announce meetings and events of other groups of which they are interested or affiliated. These events should be of some general interest to the Skeptical or Scientific community and should be within a reasonable radius of Philadelphia. Send submissions to the editor at [phactpublicity@aol.com](mailto:phactpublicity@aol.com). Keep the announcements brief. Space is limited and insertions will be made on a first come-first served basis after the needs of PhACT are accomplished. Phactum does not accept paid advertising.

**Saturday, February 13, 2010**  
**'TIL DEATH DO US PART:**  
**THE LOVE STORIES OF LAUREL HILL CEMETERY**



Love and Death...The preferred subjects of poets and philosophers across eras and oceans...Subjects intertwined in their great mystery, in their power to inspire, to destroy, and to change our worlds forever.

Some may contend that Death can not bring an end to true Love, while others deem only Love itself to be colder, more unfor-giving than Death. The love stories of Laurel Hill are as varied as the hearts from which they have sprung...Hearts no longer intact, though perhaps still beating...for someone...somewhere.

Join us in honoring the "spirit" of Valentines' Day for *The Love Stories of Laurel Hill*, a walking tour of Laurel Hill Cemetery to take place on Saturday, February 13th at 4:00pm. While many of the stories we'll hear may certainly warm our hearts, the rest of our appendages will be subject to the "stone-cold" of a cemetery winter. Please dress appropriately. Hot beverages will be provided at the start of the program; red wine and sultry bites will warm your flesh afterwards.

The program cost is \$25 per person. As space is limited, advance registration is required. Please call 215-228-8200, or email [tours@thelaurelhillcemetery.org](mailto:tours@thelaurelhillcemetery.org), to reserve a space for you and your beloved.

**Sunday, Feb. 14, 2010, 3-4:30 p.m.**  
**VALENTINE'S DAY WITH THE JAMESON SISTERS.**

Terry Kane, vocals and Ellen Tepper, Celtic harp. 500 years of Love Songs. Register for this FREE event in the Library Office, Abington Free Library, 1030 Old York Road, Abington, PA 19001, 215-885-5180, ext. 15 or by email.



**Wednesday, February 24, 2010 7 PM - Philadelphia: Game-Changing Advances in Medicine** at the Franklin Theater, in the Franklin Institute at 20th Street and the Benjamin Franklin Parkway in Philadelphia,

The Philadelphia region is home to some of the top medical research in the country, and two recent studies have captured the world's attention. Meet with cutting-edge researchers as they explain and answer questions for the public about their extraordinary investigations—and inform us of the far-reaching ramifications of their studies.

Dr. Katherine High of the Center for Cellular and Molecular Therapeutics at CHOP and Dr. Jean Bennett, Kirby Professor of Ophthalmology at the University of Pennsylvania School of Medicine, present the exciting research behind the gene therapy work

that has improved or restored vision to the congenitally blind—and may be the first step in medical science's goal of using gene therapy to cure disease.

Autism gene research was named one of TIME's Top Ten Medical Breakthroughs of 2009—research led by Dr. Hakon Hakonarson, director of the Center for Applied Genomics at CHOP and associate professor of Pediatrics at Penn School of Medicine, and Dr. Gerard Schellenberg, professor of Pathology and Laboratory Medicine at the University of Pennsylvania School of Medicine explores the meaning of his team's work in understanding the complex genetic structure of autism spectrum disorders—and their recent discoveries around the genetic risk of autism.

Event is free with registration. Please call 215.448.1254.

**Saturday, April 10, 2010 at 3 P.M. - TITANIC'S FLOATERS: Recovery, Preparation, and Disposition.** - According to the statistics from the existing records of the White Star Line, managing company of the R.M.S. Titanic, there were 98 passengers destined for Pennsylvania on that fateful voyage in April of 1912. Of that number, 45 were from the Philadelphia area. Six of these are entombed or memorialized at Laurel Hill Cemetery.

Every year in April, Laurel Hill Cemetery commemorates the solemn anniversary of the sinking of the "Ship of Dreams." The event commences with a walking tour of Laurel Hill, where we visit the burial places of the Titanic passengers, and hear their unique stories. The tour continues at West Laurel Hill Cemetery, where six additional Titanic-related men and women rest. Following the walking tours, a slide-supported presentation will highlight the connection between Philadelphia and the Titanic; this year's focus is not on the survivors or the bodies immediately recovered at the scene of the disaster, but on the bodies that later re-emerged from the depths. The evening is always capped off by a sumptuous feast that replicates the one served aboard Titanic on that final, fateful day.

Widener University Professor and Resident Folklorist, Dr. J. Joseph Edgette, hosts this annual event, which will take place starting at 3:00pm on Saturday, April 10, 2010. The cost is \$25 per person for the tours only, and \$75 per person for the entire package, including tours, presentation and dinner. Advance registration is required. Space is limited, so make your reservations early by calling 215-228-8200.

**Wednesday, April 14, 2010 at 7:30 PM.** - Metanexus Lecture: Peter Dodson, Professor of Anatomy and Paleontology, University of Pennsylvania. **"God and the Dinosaurs"**. At Bryn Mawr Presbyterian Church 625 Montgomery Avenue, Bryn Mawr, PA.

**Saturday, May 1, 2010 Public Paranormal Investigation of Eastern State Penitentiary** Cost : \$100 per person for 9 hours at the prison!! from 5pm - 2am. There will be a brief guided tour along with the history of the prison, then we will break off into groups and start investigating. you will be grouped with experienced investigators and learn how to perform a true paranormal investigation in one of the most active locations in our area. The best part is, all Proceeds are going directly to the Hospital Restoration Project at Eastern State! let's help preserve this piece of history! Details to follow. See the PIRA website:

<http://home.comcast.net/~parainvestigator/Index/Main.html>



1700 West Montgomery Avenue  
Philadelphia, PA 19121

ph 215-763-6529 [www.wagnerfreeinstitute.org](http://www.wagnerfreeinstitute.org)

The Wagner Free Institute of Science announces its free science courses for Winter/Spring 2010. The courses run from five to ten weeks. Lectures are held in the evening and last approximately one and a half hours. The courses are taught on an introductory college level and are appropriate for adults wishing to enrich their knowledge of the sciences, as well as for motivated junior and senior high school students.

**Global Change, Mass Extinctions, and Biodiversity in the Fossil Record**, Professor William B. Gallagher. Saturday, January 30, 2010, beginning at 10:15 AM. 10 Saturdays. University of Pennsylvania Museum of Archaeology and Anthropology, 33rd and Spruce Streets. This course will consider the linkages between environmental change and biodiversity fluctuations by studying the geologic record of mass extinctions. It will also look at biotic recovery and diversity rebounds after extinctions. No preregistration required.

**Introduction to Pollination Biology**, Professor Tatyana Livshultz. Monday, April 5, 2010, beginning at 6:30 PM. 6 Mondays. Pennsylvania Horticultural Society, 100 N. 20th Street. This course will survey the science of pollination biology, including the discovery of plant pollinations in the late 17th century, plant adaptation to animal pollination and how they evolve, and the importance of pollination to human society. This course requires preregistration. To preregister, call 215-763-6529, ext. 23, beginning Monday, November 16, 2009.

**Introduction to Birding in the Delaware Valley**, Professor Clifford Hince. Wednesdays, April 7 - April 28, 2010 (6:30-7:45 PM) and Saturdays, May 1, 8 & 15 (3 field trips from 8:00-11:00 AM). Independence Branch of the Free Library, 18 S. 7th Street and three field trips to local parks. This course will provide an introduction to birding in the region, including when and where to bird, and how to identify species in the field. No preregistration required.

All courses, unless otherwise indicated, are offered free of charge. For full course information and syllabuses, call 215-763-6529 or visit [www.wagnerfreeinstitute.org](http://www.wagnerfreeinstitute.org)

## Lectures

**February 11, 2010 at 5 PM - A History of North Broad Street.** A lecture by Robert Morris Skaler. Part of the series North of Center: A History of Broad Street presented by the North Philadelphia Arts and Culture Alliance.

**Thursday, March 4, 2010 - "Stories Behind the Species: Animals at Risk"** - Presented by DR. SCOTT McROBERT, St. Joseph's University  
4:00 - 7:00 PM Lecture at 5:30 PM

We are living in the midst of a mass extinction.

While the world is seeking solutions to a complicated series of environmental concerns, everything from global climate change to searches for new sources of energy, few people realize that animal and plant species are disappearing at an alarming rate. And while mass extinctions have occurred before, this is the first time in which the activities of one species, humans, are responsible for elevated rates of extinction of species across the entire planet.

In this talk, Dr. Scott McRobert will provide a general overview of the current causes of extinction, and tell stories about amazing animals, some still alive, some lost forever. If weather permits, Dr. McRobert will bring along some endangered species from his lab.

Dr. Scott McRobert has been fascinated by animals all of his life and says that his work as a scientist isn't much different from the things he did as a child. Dr. McRobert received his bachelor's degree in biology from Juniata College, his master's degree and Ph.D. in behavioral genetics from Temple University, and studied pheromone biochemistry as a postdoctoral fellow at Montana State University and the University of Hawaii. He is currently a professor of biology at Saint Joseph's University where he studies animal behavior, ecology and evolution. As part of his work, Dr. McRobert oversees the Biodiversity Laboratory at St. Joe's, which house hundreds of rare, exotic and highly endangered animal species.

**Saturday, March 27 at 1:00 PM - Westbrook Lecture 2010**  
Dr. Bonnie Bassler "I Am One of You: The Secret Language of Bacteria". Until recently, it was not believed that disease-causing bacteria could communicate with each other. Scientists have been aware of communication in a few marine species since the 1970s, however these were considered an anomaly. While studying bioluminescence, Princeton University microbiologist, Dr. Bonnie Bassler discovered that cell-to-cell bacterial communication, also known as quorum sensing, is actually ubiquitous in the bacterial world.

It is her goal to understand quorum sensing and the molecular mechanisms bacteria use to communicate with one another in order to combat deadly bacterial diseases. Dr. Bassler's latest studies suggest that interfering with their communication could prevent bacteria from mounting a deadly assault on their host organism, a discovery that may provide an alternative to traditional antibiotics in fighting disease, especially ones that are prone to drug resistance.

Dr. Bassler is the Squibb Professor of Molecular Biology at Princeton University. The recipient of a MacArthur "genius" grant, she will discuss her groundbreaking research, revealing that bacteria are much more sophisticated than anyone ever realized.

Talk begins at 1 PM

The museum will be open from 12-4 PM

## Thursday, May 20, 2010

"Silent, Weird, Beautiful:

Philadelphia's City Hall and It's Architect"

Presented by DR. MICHAEL LEWIS, Williams College

4:00 - 7:00 PM Lecture at 5:30 PM

## Family Program

**Saturday, April 24, 2010** - 3rd Annual Natural History Road

Show. Presented by the Wagner Free Institute of Science and a panel of experts specializing in plants, shells, insects, rocks and minerals

Presentation at 1:00 PM

Road Show from 2:00 to 4:00 PM

Bring your treasures!



## Science on Tap, A Science Café

*Science on Tap* is a monthly gathering in Philadelphia for anyone who is interested in

getting together with other people to discuss a range of engaging science topics.

Held at National Mechanics, a relaxed, convivial bar in Old City, *Science on Tap* features a brief, informal presentation by a scientist or other expert followed by lively conversation. The goal is to promote enthusiasm for science in a fun, spirited, and accessible way, while also meeting new people. Please come join the conversation! On the second Monday of each month at 6:00 PM.

### What's On Tap

**February 8, 6:00 p.m.**

#### **“Imperialism and the Family Business: Population Structure and Political Change on the Central Coast of Peru”**

Lori Jahnke, S. Gordon Castigliano CLIR Fellow at The College of Physicians of Philadelphia

The Late Intermediate Period (A.D. 1000–1450) on the coast of Peru was the scene for a complex array of social, political, and economic interactions. During this period, the Chancay culture of the

Central Coast flourished in the face of northern pressure from the encroaching Chimú Empire and the consolidation of the seafaring Chinchá polity to the south. Jahnke examines osteological and archaeological data to reconstruct Pre-colonial population structure on the Central Coast of Peru and discusses the challenges for conducting bioarchaeological research amidst ongoing archaeological site destruction.

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

**March 8, 6:00 p.m.**

#### **“The Impact of Meteors on the Origin and Early Evolution of Life”**

Alexandra Krull Davatzes, Assistant Professor in the Department of Geology, Temple University

**Presented by the American Philosophical Society (APS) Museum.**

**National Mechanics** 22 South Third St. Philadelphia PA 19106  
215-701-4883

Free and Open to the public (age 21+) or minors accompanied by a chaperone 25+. Want to join the Science on Tap mailing list? Contact us at [scienceontapphilly@gmail.com](mailto:scienceontapphilly@gmail.com) and include "subscribe to mailing list" as the subject line



**The College of Physicians of Philadelphia**

BIRTHPLACE OF AMERICAN MEDICINE<sup>SM</sup>

**The College of Physicians of Philadelphia**

**19 South Twenty-Second Street**

**Philadelphia, PA 19103**

**(215) 563-3737 x304**

[http://www.collphyphil.org/prog\\_calendar.htm](http://www.collphyphil.org/prog_calendar.htm)

College of Physician lectures and programs are free. There may be a fee at some receptions.

**Tuesday, March 9, 2010 at 6:30PM**

#### **Ethics, Turning a Job Into a Profession**

At this lecture, John Baird, PhD will discuss the nature of ethics, including the overlap between ethics and criminal law. He will then consider a number of situations in clinical practice in which ethical dilemmas can arise, and include some discussion of the ways in which psychopathic disorder can give rise to ethical problems for doctors irrespective of their specialty. Finally, he will discuss some strategies for dealing with the ethical issues which arise for all medical practitioners in day to day practice.

Free, but register for this event at: <http://www.eventbrite.com/event/512546039>

**Friday, March 19, 2010 4 - 5:30PM**

#### **Philadelphia Area Colloquium in the History of Science, Technology and Medicine: From Fish to Man: MACOS and Animal Objectivity**

Discussion of a paper by Erika Lorraine Milam, PhD, Assistant Professor, Department of History, University of Maryland, College Park.

Following the successful Soviet launch of the Sputnik satellite in 1957, it seemed clear to U.S. legislators that Americans had fallen behind in the race for space. One way to ensure a democratic tomorrow for the next generation was to improve the quality of science education in public school classrooms. Beginning with the physical and mathematical sciences,

curriculum reform efforts quickly extended to the biological and social sciences. By the early 1960s, a group of anthropologists and educators were collaborating on a new pedagogical program called Man: A Course of Study, or MACOS. The authors of MACOS looked for a way to transport elementary school students virtually to the far reaches of the world so that they could discover what it was to be human through the careful study of a different human culture. MACOS, however, turned into a political battleground over the appropriate use of other cultures as a pedagogical model for teaching American children. Some people objected to claims that all cultural solutions to biological problems were morally equivalent. Biology came to vie with anthropology in the classroom, and for a time, the use of primates as models of human society was far less controversial than examining other cultures.

Sponsored by the F.C. Wood Institute for the History of Medicine and the Philadelphia Area Center for the History of Science.

NOTE: This colloquium involves discussion of an academic paper that will be posted at [www.pachs.net](http://www.pachs.net) in early March. Please register online, here, or contact [info@pachs.net](mailto:info@pachs.net) for further information.

**Friday, April 2, 2010 5:30 - 7PM**

#### **Exhibit Grand Opening for Corporeal Manifestations**

Corporeal Manifestations is a unique collaboration between the Mütter Museum and curator Sasha K. Reibstein, Assistant Professor of Art, Director of Ceramics Palomar College, which highlights artists who create traditional ceramic figurative work by exploring the psychology of our biological existence. The multidisciplinary exhibition interprets the documentation and display of medical specimens and their conditions in three-dimensional objects from clay, one of the most natural materials available to artists. Medical research and ceramic arts reflect on how we understand our physical selves and construct how perceptions of the human body. The work exhibited ranges from the strong realism of Tip Toland's and Christina West's life-size figures to Jason Briggs and Jessica Kruegger's abstract forms which resemble body parts and organs, focusing on the sensual and visceral. Artists Roxanne Jackson's and Kate MacDowell's sculptures depict realistic anatomical parts that blend with elements from nature, exploring our relationship and dominance over the natural world. Sponsored by the Mütter Museum of The College of Physicians of Philadelphia.

NOTE: Registration is not required for this event.

## APS Museum Calendar: January –May 2010

### Second Sundays at the APS Museum 1-4pm

APS Museum, Philosophical Hall, 104 S. 5th St.  
Family-friendly afternoons (ages 5+) at the APS Museum, featuring activities and/or demonstrations inspired by the Dialogues with Darwin exhibition.

**February 14:** Wiggly Worms with teaching artist Shelley Hedlund

**March 14:** Create plant imprints

**April 11:** Book arts with artist Rosae Reeder

**May 9:** Make your own magic lantern

### The Tract House: A Darwin Addition

January 29-April 11, 2010 Hours: Friday-Sunday, 11 a.m.- 5 p.m.  
First Fridays until 8 p.m.  
231 N. Third St.

**The Tract House: A Darwin Addition** presents an evolutionary twist on classic religious tracts. Artist Lisa Anne Auerbach and a graphic designer have created printed ephemera based on writing that was both commissioned from artists and solicited from the public. The completed tracts are displayed at 231 N. Third St. where visitors can peruse the many versions and take what they wish, free of charge. Auerbach hopes that the tracts will “educate, activate, infuriate, explicate, obfuscate, and titillate.” The project focuses on the democratic aspect of the printed image – the implied necessity for dissemination of the multiple.

### The Darwin Music and Poetry Project

**February 19 at 8pm**

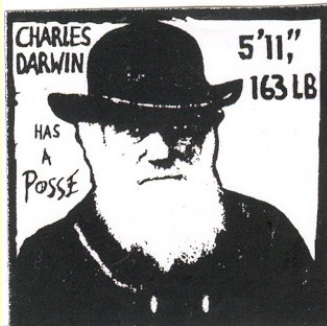
**February 21 at 2pm**

Franklin Hall, 427 Chestnut St.

The APS Museum and Network for New Music have joined forces for an evening of new chamber works inspired by the ideas, the life, and the writings of Darwin. Philadelphia composer Maurice Wright has been commissioned to create an original work for instrumental ensemble, projected video, and computer sound that will start the evening. Composers and poets involved in Network’s innovative Poetry Project series (now in its sixth incarnation) will then take the stage to present new works for voice (baritone Randall Scarlata) and small ensemble. The text for these pieces will be works by Philadelphia-area poets created in response to the dialogues exhibition. Each score will be the work of a student composer from Philadelphia-area universities.

Ticket prices: \$20 General Admission; \$15 Seniors; \$10 Students with ID. Tickets are \$5 more at the door - you’ll save money if you buy in advance! (cash, check, or credit card - there is a small fee for credit card purchases). Tickets available on NNM’s website :

[networkfornewmusic.org/tickets](http://networkfornewmusic.org/tickets) or by phone: 215.848.7647



**March 5, 2010 at 6:30pm**

Lisa Anne Auerbach, “Pass It On”

Artist’s lecture

(Preceded by Thomas “2mas” Struck rapping on Darwin)

APS Museum, 104 S. Fifth Street

Tantalizing agitprop in the form of religious tracts and sweaters? Paeans to the survival of small, DIY businesses? LA artist Lisa Anne Auerbach will stir you to action with her witty, colorful, and unlikely art works. Auerbach will discuss (among other projects) her current collaboration with the APS Museum and Philagrafika on *The Tract House: A Darwin Addition*, which presents an evolutionary twist on classic religious tracts to get the word out about Darwin and his ideas.

Please RSVP to [rsvp@apsmuseum.org](mailto:rsvp@apsmuseum.org)

**March 23 at 6:30pm**

Karen Snetselaar, Professor and Chair of Biology, Saint Joseph’s University “Charles Darwin the Experimental Botanist”  
Franklin Hall, 427 Chestnut St.

Lecture in collaboration with the Pennsylvania Horticultural Society. The lecture is followed by a wine reception and curatorial tour with Sue Ann Prince.

\$20 admission, \$10 admission for Friends of APS and PHS members. To register and purchase tickets, please contact Carol Dutil at 215-988-8869 or [cdutil@pennhort.org](mailto:cdutil@pennhort.org)

**Friday, March 26, 2010 at 5:30 PM**

The Architectural Ethics of Frank Furness

MICHAEL J. LEWIS

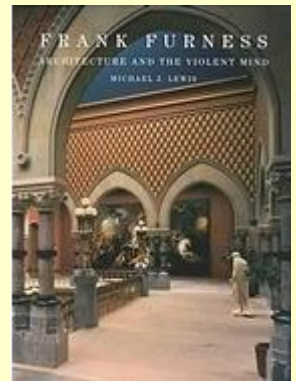
5:30 PM

Benjamin Franklin Hall, 427 Chestnut Street

Michael J. Lewis is Faison-Pierson-Stoddard Professor of Art at Williams College. He writes widely on art and culture, and his essays have appeared in the *New York Times*, the *Wall Street Journal*, and the *Atlantic Monthly*, and his books include *Frank Furness: Architecture and the Violent Mind* and *American Art and Architecture*. In 2008 he received a Guggenheim Fellowship for his study of Utopian societies. The Philadelphia architect Frank Furness designed some of the most imaginative and idiosyncratic buildings of the Victorian era, including the Pennsylvania Academy of the Fine Arts and the Fisher Fine Arts Library of the University of Pennsylvania. Since his rediscovery in the 1960s, after generations of ridicule and neglect, he is now regarded as one of Philadelphia’s great cultural figures. This lecture will show how his architecture rested on a rich and complex ethical basis, which was shaped by the transcendentalist philosophy of Ralph Waldo Emerson, and which Furness passed on to his pupil Louis Sullivan.

Reception: 5:30 p.m., Program: 6:00 p.m.

RSVP: [sduffy@amphilsoc.org](mailto:sduffy@amphilsoc.org) or call Reception Desk (215) 440-3400



For more information about these and other upcoming APS events, visit [www.apsmuseum.org](http://www.apsmuseum.org)



Connecting people to nature since 1812.

## The Academy of Natural Sciences

### Center for Environmental Policy "Philadelphia's Window on the Environment"

#### Upcoming Public Events

**Tuesday, February 23, 2010**

#### Awakening The Dreamer, Changing The Dream Symposium

5:30 - 6:00; Reception and light refreshments

6:00 - 9:30 pm; Program (includes short break).

Registration is limited!

<http://phillyawakeningthedreamer.eventbrite.com/>

The Symposium is dedicated to awakening hopeful new perspectives for building a new future...one that is built on sustainable practices, spiritual fulfillment, and social justice. The Awakening The Dreamer, Changing The Dream Symposium looks directly at 'where we are' presently and how to move forward with hope and empowered vision.

In this condensed symposium, participants are asked to face issues directly, to process them collectively, and to move in to 'awakening' - a place of individual and collective empowerment. Participants explore our present day culture through inspiring video, up-to-date facts and figures, and dynamic group interaction.

**The Awakening The Dreamer, Changing The Dream Symposium** is an initiative of the Pachamama Alliance, a San Francisco based non-profit whose mission it is to preserve the Earth's tropical rainforests by empowering the indigenous peoples who are its natural custodians, and to contribute to a global vision of equity and sustainability for all.

For more information on the Pachamama Alliance, please visit: [www.pachamama.org](http://www.pachamama.org)

**Monday, March 25, 2010**

#### 2nd Annual Mid-Atlantic Cleantech Investment Forum

Blank Rome's Energy Industry Group and The Academy of Natural Sciences Center for Environmental Policy, are pleased to sponsor the 2nd Annual Mid-Atlantic Cleantech Investment Forum. The program will be moderated by Blank Rome partners, Thomas Dwyer and Lou Rappaport, and will feature a panel of experts and thought leaders discussing cleantech venture and corporate investing as well as a showcase of leading Mid-Atlantic cleantech companies.

With additional support from: Cleantech Alliance Mid-Atlantic  
For more information, contact: Lorrie Scott

[Scott-la@BlankRome.com](mailto:Scott-la@BlankRome.com)

#### Upcoming Programs:

Spring Socially Responsible Investment Series: Details TBA  
(March, April, May)

- ♣ Thursday, Feb. 18, 2010, Urban Sustainability Forum **Institutional Approaches to Sustainability** (Speakers: TBA)
- ♣ **Thursday, March 18, 2010**, Urban Sustainability Forum **Building Codes** (Speakers: TBA)
- ♣ **Monday, May 10, 2010**: Annual Cheryl Beth Silverman Memorial Lecture, featuring Dr. Sylvia Earle, Oceanographer. This program is co-sponsored by The Academy of Natural Sciences and The Explorer's Club with the generous support of The Silverman Family.

Unless otherwise noted, all Town Square programs are held in the Auditorium, Academy of Natural Sciences, 1900 Benjamin Franklin Pkwy, Philadelphia PA. All Town Square Events are free and open to the public. For more information, contact [cep@ansp.org](mailto:cep@ansp.org).

The Center for Environmental Policy is made possible by the generous assistance of the William Penn Foundation and the Environmental Associates of the Academy.

Center for Environmental Policy  
The Academy of Natural Sciences

1900 Benjamin Franklin Parkway, Philadelphia, PA 19103

[www.ansp.org/environmental/](http://www.ansp.org/environmental/) | 215-299-1108 | [cep@ansp.org](mailto:cep@ansp.org)



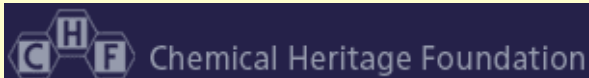
### 2009-10 Penn Science Café Schedule

The Penn Science Café, the lecture series that hauls science out of the lab and treats it to a night on the town. Free and open to the public, it's an opportunity to pitch questions to leading scientific experts.

6 P.M. @ the MarBar, 40th and Walnut street location, 2nd floor of the Marathon Grill, menu items available for purchase  
RSVP to Jordan Reese, [jreese@upenn.edu](mailto:jreese@upenn.edu) or 215-573-6604.  
RSVP's are encouraged, but we aren't sticklers.

- **Jan 20, 2010**, Ruth Schwartz Cowan, History and Sociology of Science: **DNA Banks and Genetic Tests, Should I make a deposit? Should I take one?**
- **Feb 16**, Max Mintz, Department of Computer Science **Quantum Computing**
- **March 17**, Jonathan Moreno, History and Sociology of Science: **Bioethics in Washington**
- **April 14**, Josh Plotkin, Department of Biology **: A Viral Evolution**
- **May 12**, Robert Kurzban, Department of Psychology: **The Cognitive Process Behind Hypocrisy**





**Events and exhibits at  
Chemical Heritage Foundation**

**315 Chestnut Street  
Philadelphia, PA 19106**

Tel: 215-925-2222 • Fax: 215-925-1954

<http://www.chemheritage.org>

Events are free and open to the public unless otherwise noted.

**Tuesday, February 9, 2010 12:00 PM to 1:00 PM**  
**Brown Bag Lecture: James R. Voelkel, "The Digital Edition of  
Isaac Newton's Alchemical Papers: Challenges and Promises"**

**Thursday, February 11, 2010 10:00 AM to 2:00 PM**  
**Joseph Priestley Society Symposium: "The Incubation of  
Science-Based Start-Up Companies"**

Open to the public. Free for Robert Boyle Society members  
(please register by phone). Registration required

**Tuesday, February 16, 2010 12:00 PM to 1:00 PM**  
**Brown Bag Lecture: Robert D. Hicks, "Bringing Physics to  
Physicians"**

**Tuesday, February 23, 2010 12:00 PM to 1:00 PM**  
**Brown Bag Lecture: Jo Ann Caplin, "Is She or Isn't She—a  
Leonardo?"**

Brown Bag Lectures are free and open to the public. RSVP  
Requested

**Ongoing exhibitions**

**Transmutations: Alchemy in Art (exhibit) :**  
Monday-Friday, 10:00 a.m. to 4:00 p.m., by appointment only  
Call 215-925-2222 to make an appointment.

**The Whole of Nature and the Mirror of Art: Images of  
Alchemy (exhibit)**  
Du Pont Gallery  
Free and open to the public.

## The Zwaanendael Museum

Built in 1931 in Lewes, Delaware, the Zwaanendael Museum was created to honor the 300th anniversary of Delaware's first European settlement, Zwaanendael, founded 1631. The museum models the former City Hall in Hoorn, the Netherlands. It has 17th century Dutch elements such as stepped facade gable, terra cotta roof tiles, carved stonework, and decorated shutters. The top of the building's front features a statue of David Pietersen de Vries, leader of the expedition that founded Swanendael.

The museum's exhibits represent the history of Sussex County by revealing the history of those who lived in Delaware's southeastern coast. Exhibits include the Swanendael settlement, Cape Henlopen Lighthouse, the bombardment of Lewes by the British in the War of 1812, pilots of the Delaware River and Bay, and the ever-changing Delaware coastline.

Zwaanendael Museum, 102 Kings Highway (Kings Highway at Savannah Road), Lewes, DE 19958. Phone: (302) 645-1148 Wednesday-Saturday, 10 a.m.-4:30 p.m. Open on Labor Day, Memorial Day and July 4th. Hours subject to change.

Admission is Free and open to the public. Donations are accepted.

See page 25 for a report of a PhACT expedition to the Zwaanendael Museum to research the "**Fiji**" Merman. We thank Bridget Warner and others of the museum staff for their cooperation.



**Front entrance of Zwaanendael Museum  
Photo by Bob Clark**

## Letters to the Editor

Editor: The British press recently played a story about how various ancient sites were linked up in uncanny triangular formations - well, it turns out that the same chilling patterns are found in other ancient monuments as well. Read and be enlightened.

<http://timesonline.typepad.com/science/2010/01/aliens-with-a-taste-for-pick-n-mix-woolworths-stores-follow-uncanny-geometrical-patterns.html>

Thumbs up to the Times reporter. What a great way to respond to hokum.

David Cragin, PhD  
Yardley, PA

Editor: An SSE (Society for Scientific Exploration) colleague sent me this link:

[http://scienceandpublicpolicy.org/images/stories/papers/reprint/climategate\\_analysis.pdf](http://scienceandpublicpolicy.org/images/stories/papers/reprint/climategate_analysis.pdf)

It is a lengthy paper and I've only read the intro, which covers several pages, but Phactum readers may be interested in knowing about it. The intro was an easy read, and makes total sense to me. See what you think.

L. David Leiter

Willow Grove, PA

Associate Members Representative, SSE

Editor: Thanks for publishing my piece, "Lucy's Aunt, Ardi", in the January 2010 issue Here's a little follow-up.

Ardipithecus ramidus ("Ardi") has raised quite a bit of controversy among paleoanthropologists. Science News ran a subsequent article in the Jan. 16, 2010 issue, by Bruce Bower, called "Evolution's Bad Girl", in which Bower characterizes her as a "biker chick strutting into a debutante ball," where of course she inspires a raucous ruckus. One issue of contention is the theoretical placement of the human-chimp divergence point; what I cited was 6mya, but in this article there is suggestion that DNA analysis places the split at "between 5 million and 4.5 million years ago," while another suggestion says fossil evidence puts it at "more like 8 million to 10 million years ago." This contention is extremely difficult to resolve, because evolution doesn't stamp fossils with model version information. Ardi may be a transitional form to the human lineage, or a very interesting side branch that isn't actually one of our ancestor species. Only DNA samples could tell us for sure, and so far, science has barely been able to read DNA from Neanderthals, and very little of greater age. Even so, DNA doesn't come with time stamps; we can speculate about an apparent rate of accumulating mu-

tations, but we really don't know how consistent that rate has been across millions of years.

Another issue of contention is the interpretation of canine tooth size, and its relevance to male combativeness. Also relevant in this debate is the overall difference in body size between males and females (presumably, some argue, male peacefulness and monogamy increase as the gender differential in body size and canine tooth size diminishes.) It is notoriously difficult to make meaningful presumptions about behavior patterns from skeletal fossils, and the arguments over interpretations of Ardi's lifestyle are apparently just warming up.

The new SN article states that Ardi did NOT have an opposable thumb, which somewhat surprised me. The artist's conception images I've seen suggest that the thumb would be opposable, and the article's own initial illustration (by Jay Matternes) shows one ardpithecus female carrying a baby on her back, while nuzzling a flower held in a distinctly opposable-thumb fashion. Still, one supposes that expert bone analysis should overrule artists' conceptions, eh? It DOES appear that Ardi's big toes are



**Sahelanthropus tchadensis**  
Radiological measurements estimate the soil where the fossil was found is between 6.8 million and 7.2 million years old.

opposable, though the article only describes them as "grasping."

Another part of the article goes deeper into the other members of the hominid family, even providing a nice graphic of a timeline. As recently as 1981, *A. afarensis* ("Lucy") was thought to be the earliest hominid. However, since the mid-'90s, fossil evidence of greater age, have been discovered. They are *Sahelanthropus tchadensis* (6 mya),

*Orrorin tugenensis* (6 mya), *Ardipithecus kadabba* (5.8 - 5.2 mya), and *Australopithecus anamensis* (4.2 mya), all of which precede Lucy (3.75 mya.) *Kenyanthropus platyops* (3.5 mya) has also recently been discovered. Most of these are fractional remains, so identification is difficult, but the aspect of their age is fairly well established. *A. afarensis* was displaced as our "oldest ancestor" some time ago, and even Ardi does not appear to hold the position (that goes to *Sahelanthropus tchadensis*, for the time being.)

If you want to learn more, there's a special issue on Ardi in Science, October 2, 2009.

Paul Schlueter III  
Dallas, PA

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# Various Ruminations

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

## Numeracy in Prison

In the November/December 2009 Phactum, Paul Schlueter III discussed the topic of illiteracy, especially the problem of illiteracy among prison inmates. It is a huge social problem that often leads to illegal behavior and imprisonment. Shamefully, many prisoners are released with little or no improvement in ability to read or write, thus being highly vulnerable to repeating bad behavior and subsequent incarceration.

Paul has written a similar piece on the matter of "numeracy" among prisoners which can be found on page 16.

As a matter of curiosity I did a Google search using the keywords "prisoner" and "numeracy". The results were a bit disconcerting. Of the first twenty hits using those keywords, ten were from the United Kingdom, six from Australia, two from New Zealand, and two from the United States. Considering that the US is by far the largest English speaking country it would be reasonable to expect the largest amount of information on this topic to originate in the US, but it does not appear to be so. My observations are not at all scientific but the disparity is glaring.

## Homeopathic Advantage!

This little gem is from Vicki Hyde, Chair-entity of New Zealand Skeptics.

*When Billy Joel's daughter attempted to commit suicide last month, fortunately she chose to take an overdose of homeopathic "medication", and thus sur-*

*vived.*

*The medical non-emergency apparently sparked some public questioning of homeopathic practices. Few people outside the industry are aware that homeopathy relies on massive dilutions, special shaking and a belief that water can remember having had a useful substance in it.*

Although there is a grim bit of humor in this story the matter of suicide should not be treated lightly, it is a serious mental health issue. This story is not intended to mock those with suicidal urges but it is intended to once again point out the absurdity of homeopathic medications, the use of which in treating disease could in itself be suicidal because of its inefficacious nature.

## Dowsing for Landmines

I do not often hear the word "dowsing" in conversation, but not long ago I did overhear the word in passing. It occurred to me that I might put something facetious into Phactum about dowsing, perhaps even dowsing for landmines. And I promptly forgot that idea.

A few days later Tom Napier mentioned dowsing in an e-mail, that one James McCormick has been charged with fraud in Britain for selling bomb-detecting dowsing rods to the Iraqi Army for up to \$60,000 apiece. This story has been previously exposed by James Randi, among others, but the arrest is new.

Two days later, Ed Gracely also corresponded on this matter referring to a New York Times article:

<http://www.nytimes.com/2010/01/24/world/europe/24scanner.html>

It seems that Mr. McCormick, a former police officer in Merseyside, Somerset, became Managing Director of the British company, ATSC Ltd. At least \$85 million was paid by the Iraqi government for at least 1500 of the bomb detec-

**"Only barbarians are not curious about where they come from, how they came to be where they are, where they appear to be going, whether they wish to go there, and if so, why, and if not, why not."**

**~Isaiah Berlin ( 1909 - 1997)**



If you are a curious person, not a barbarian, you are invited to participate in Phactum by expressing your curious thoughts writing articles and Letters to the Editor about things that interest or bug you. Suggestions to improve Phactum are very welcome. You need not be in agreement with matters discussed here, especially with the Editor who does not bite. In fact, polite disagreement and constructive criticism are especially welcome. We do attempt to refrain from Partisan Politics and intemperate criticism of religion.

Original poetry is welcome, especially if it rhymes.

Send articles and letters to the Editor at  
[phactpublicity@aol.com](mailto:phactpublicity@aol.com)

tors, called ADE 651. Experts say the device does not work as there is no electronic circuitry in the device capable of detecting anything. The detector wand on ADE 651, as on all dowsing devices, will swivel freely with minor hand movements magically pointing to the target substance. In fact the device does not even have batteries. It is powered by the static electricity charge of the human operator. ADE 651 operates on the principle of “electrostatic magnetic ion attraction”, whatever that may be.



The ADE 651 electronic

Interestingly, the Iraqi's were paying between \$40,000 and \$60,000 per unit although ATSC Ltd. was marketing the devices for \$16,000 apiece. The difference is explained as costs for training, spare parts, and commissions.

The failure to detect explosives has killed thousands and the situation is made only

worse by fraudulent operators such as McCormick. Fortunately McCormick was arrested; unfortunately he was released on bail. One wonders how so obvious a fraud can be executed on such a large scale. Is the culprit a lack of Critical Thinking skills or an abundance of larcenous minds or that the Iraqi government wanted to at least appear to be doing something protective.? Perhaps it is all of those things and is a good item for discussion with Dr. Goertzel.

Here is a BBC video report on this matter:

<http://www.youtube.com/watch?v=rQMwXo1SSVo>

And here is a James Randi video on the same matter giving more details:

<http://www.youtube.com/watch?v=ruTmqfGJhTI>

Meanwhile the ADE 651 continues to be used in Iraq as a security screening device.

### Pendulum Dowsing

**As if dowsing for bombs is not bad enough get** a load of this: while doing a web search using keyword “dowsing” I encountered what to me is yet another new concept. **Pendulum Dowsing for Chakras.** Apparently this manner of dowsing has the ability to detect even that which does not exist. I am not clever enough to make this up. I did not bother to investigate further.

Those who attended Ken Biddle's lecture at the January 2010 PhACT meeting might recall that he had some dowsing equipment on display. It is used by ghost hunters to detect ghosts. Unfortunately, and not surprisingly, it does not work.

### The MMR Vaccine Flap: Vaccine scaremonger slammed.

We have often reported various matters surrounding the hysteria surrounding the MMR Vaccine controversy largely

brought about by unfounded claims of a British physician, Dr. Andrew Wakefield.

Dr Stephen Barret, in his weekly Consumer Health Digest, January 28, 2010 reports that all has not gone well lately for Dr Wakefield in that some questions have been raised about Dr. Wakefield's financial practices as well as his research. There will be hearings in April.

*The British General Medical Council (GMC), which registers doctors in the United Kingdom, has reported that Dr. Andrew Wakefield had acted dishonestly and irresponsibly in connection with a research project and its subsequent publication. The hearing, which started in July 2007, centered on a study of children by Wakefield and twelve others that linked the measles-mumps-rubella (MMR) vaccine with autism and bowel problems. Subsequent studies found no connections, but sensational publicity caused immunization rates in the UK to drop more than 10 percent. Ten of the study's authors have since renounced its conclusions; and Lancet's editor said he should not have published the study and that Wakefield's links to litigation against the manufacturers of the MMR vaccine were a "fatal conflict of interest."*

*The GMC began investigating after learning that Wakefield had failed to declare he had been paid £55,000 to advise lawyers representing parents who believed that the vaccine had harmed their children. The GMC said that Wakefield had improperly recruited the patients at his son's birthday party, paid them £5 to give blood specimens, and later subjected some of them inappropriately to colonoscopy, lumbar punctures, and other tests without approval from a research review board. Wakefield was also criticized for not disclosing that he had filed a patent for a vaccine to compete with the MMR, and for starting a child on an experimental product called Transfer Factor, which he planned to market. The GMC panel concluded that the allegations against Wakefield could amount to "serious professional misconduct" and will deliberate on what action to take at a hearings scheduled to begin in April.* [http://www.casewatch.org/foreign/wakefield/mc\\_findings.pdf](http://www.casewatch.org/foreign/wakefield/mc_findings.pdf)

*During the investigation, Wakefield relocated to Austin, Texas, where he helped found Thoughtful House Center for Children, a "nonprofit" clinic that offers many unsubstantiated treatments for autism. He does not have a medical license but oversees the clinic's research program. The clinic's latest (2008) tax filing lists his salary as \$270,000.*

[http://www.casewatch.org/990/thoughtful\\_house\\_2008.pdf](http://www.casewatch.org/990/thoughtful_house_2008.pdf)

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

### USS Philadelphia returning from last mission

This little item was posted in the Philadelphia Inquirer, February 1, 2010:

#### *Inquirer Staff Report*

*The attack submarine USS Philadelphia is slated to return to the United States this week from its last deployment, marking an end to 33 years of service.*

*The Philadelphia (SSN 690) is expected to arrive at the Naval Submarine Base in New London, Conn., on Wednesday.*

*The Los Angeles class submarine will be decommissioned later this year on a date yet to be set.*

*On its last deployment, the Philadelphia was involved in operations in the U.S. Central Command area and made port calls in Scotland, Bahrain, and Gibraltar, the Navy said.*

*The sub is the sixth U.S. Navy vessel to be named after the City of Brotherly Love.*

### Conspiracy Theories

What a great topic for PhACT. Have you noticed that in “Ruminations” in every edition of Phactum just about every item involves a conspiracy of one kind or another, even if a relatively harmless one such as pendulum dowsing or a ship return to port? And it is that way in every other Skeptical newsletter as well.

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Cartoon by Dave Lowe

<http://www.paraabnormalthecomix.com/>

Used with Permission

## January 2010 Meeting Report

By Becky Strickland

Ever wonder what causes those flashes of light, streaks and other unwanted images in your photographs? Some people interpret these anomalies as proof of ghosts. Ken Biddle, our January speaker, founded the Paranormal Investigators and Research Association (PIRA) to investigate such claims.

His investigations are a textbook example of the scientific method, which he defines as ‘the ability and willingness to assess claims and make objective judgments on the basis of well supported evidence, rather than emotion or anecdote.’

There are many ways the camera lens can fool us. Light reflecting off dust, pollen and insects can suggest orbs. The camera flash can reflect off moisture in the air or from the photographer’s breath, suggesting ectoplasmic mist. Pictures taken through old wavy glass will produce unusual images. Background objects out of focus may appear ghostly. Ken has encountered people who honestly misinterpret images and people who deliberately fake effects. In every investigation he attempts to recreate the effect using prosaic methods. So far he has succeeded in that, disappointing, even angering, some people. Ken is very open to the possibility that ghosts exist, but relies on scientific methods, rather than hopefulness or deception, to prove their existence.

For more information see the P.I.R.A. website at:

<http://home.comcast.net/~parainvestigator/Index/Main.html>



# Why the camera sometimes lies.

By Tom Napier

Last month's speaker, Kenneth Biddle, showed how many alleged ghost photographs result from some of the lesser-known characteristics of everyday cameras. Here I'd like to fill in some of the technical background.

The simplest camera consists of a light-tight box with a sheet of light-sensitive material at one end and a simple lens at the other. If the distance between the lens and the sheet equals the "focal length" of the lens then parallel rays of light converge to a small point on the sheet. The position of the point depends on the angle the rays make with the center line of the lens. This creates an inverted image on the sheet of any sufficiently distant object.

To take photographs you need to add a shutter. This allows light to enter the camera for just long enough to apply the correct amount to the light-sensitive material. My first camera had a "shutter speed" of a thirtieth of a second. Its only adjustment was a strip of metal with three different-sized holes in it. This slid in front of the lens to reduce its effective size, letting one take well-exposed photos even on sunny days.

## Depth of field

Such a camera works fine if the object being photographed is far away. It only focuses parallel light rays to a point but the light from nearer objects diverges. The lens cannot make it converge to a point and you get a blurry image. My old camera couldn't take clear photographs of anything nearer than ten feet. To focus on nearer objects you must increase the distance between the film and the lens. This brings near objects into focus but no longer makes a clear image of distant objects.

There is a "depth of field" beyond which images are blurred. Its width depends on the effective diameter (aperture) of the lens. Small lenses inherently have a greater depth of field but also collect less light. You must photograph only brightly lit scenes or use long exposures. The latter is a nuisance when photographing moving objects or objects such as people who dislike holding still for minutes at a time.

Increasing the aperture lets in more light but decreases the depth of field. The image brightness depends on the ratio between a lens's focal length and its aperture. This is referred to as its "f-number". The smaller it is, the brighter the image. My old camera had an f-number about 10. A good modern camera lens opens up to about 1.4. One aim of a lens designer is to fabricate lenses that allow in as much light as possible without being impossibly heavy and expensive.

Even the best designer cannot overcome the basic physical limitation, a wide aperture results in a narrow depth of field. Many a pricey lens is rarely used at its full aperture.

## Spherical aberration

For manufacturing convenience the surfaces of almost all lenses are ground to match a piece cut from the surface of a sphere. Unfortunately, light that passes through the center of such a lens comes to a focus further from the lens than does light that passes through nearer the edge. This is called "spherical aberration" and it too causes blurry images. There are three solutions.

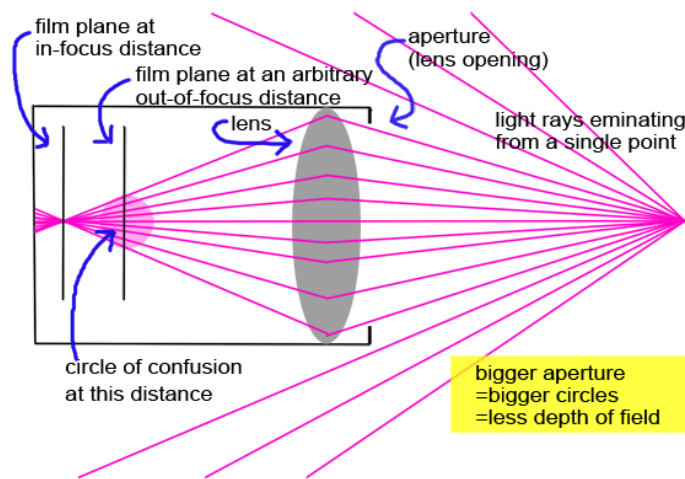
One is to use very small (large f-number) lenses. Early astronomical telescopes used two or three inch diameter lenses with focal lengths of as much as 60 feet! The expensive solution is to grind a lens to a carefully calculated aspheric shape. This is rarely done with lenses but is standard practice in telescope

mirrors. The simplest solution is to add more components to the lens to cancel out the aberration.

## Chromatic aberration

A simple lens also bends different colors of light by different amounts. That is, its focal length depends on the color of the light. If you focus green light correctly then red and blue light will be out of focus and will make colored blurs around each point in the photograph. This is called "chromatic aberration."

It too can be minimized by using a lens with a very small aperture or by combining two lenses made from different types of glass. In the latter case two colors of light can be brought to a focus. Adding even more lenses brings most of



the visible spectrum into reasonable focus at the same point.

Pre-1950 camera lenses had at least four elements but even so, had difficulty achieving f-numbers less than about 4. Modern fixed focal length lenses may have six or eight elements. A zoom lens, whose focal length can be changed, may have as many as 14.

### Internal reflection

Glass transmits about 92% of the light that hits it. The rest is reflected from the front and back surfaces. Early camera lenses used few elements partly because multiple-lens systems were hard to calculate by hand but also because the 4% reflection at each surface let very little light get through the complete lens.

One way around this was to design lenses in which adjacent elements had the same curvature and could be cemented together to reduce the reflection. This placed constraints on the lens design but did let more light through. Sophisticated computer programs and the discovery of exotic glasses have made designing complex lenses much more practical but what has made today's camera lenses possible is the "anti-reflection coating" applied to both surfaces of each element. A layer of magnesium fluoride is evaporated on the lens surface. If this is given a thickness of half a wavelength of visible light, the reflection from its surface and the reflection from the glass cancel out. This cuts the total reflection down to less than 1%. This too only works for one color of light which is why coated lenses have a purple tinge under reflected light. Better lenses use multiple layers to cancel reflections over a wider color range.



Trapezoid shaped  
UFO

### The complete lens

The traditional professional camera used 35 mm or larger film and had a correspondingly large and expensive lens. The smaller the image the smaller one's lens need be. Film cameras went through a cycle of cost-cutting, first using minute (110 size) negatives and then switching to short focal length (wide angle) lenses used with the older 35 mm film.

Today's CCD (digital) cameras achieve phenomenal results by combining a small high-resolution detector with a tiny but accurately fashioned lens. The greater sensitivity of the CCD compared to film lets digital cameras use larger f-number lenses under the same lighting conditions.

A camera lens is more than chunks of glass. It contains an iris to adjust its aperture. This comprises six or eight curved metal leaves that can rotate to block off the outer parts of the light path. When they are out of the way, the lens's aperture is circular; as they cut down the light the aperture becomes a hexagon or an octagon.

Cameras with a non-removable lens generally bury the shutter in the lens. This too uses rotating leaves but is normally completely closed or open. Cameras whose lenses

can be exchanged use a "focal plane shutter" which slides a narrow slit across the film surface. Different parts of the image are recorded at slightly different times. This can produce curious distortions of moving objects.

### Ghosts, UFOs and other bogies

As Biddle pointed out, point sources of light that lie outside the camera's focal range are magnified into the circular blurs that are glorified as "orbs." In the extreme case you end up with an image of the camera's aperture.

As I mentioned, this can be a hexagon or an octagon. It can look extremely hard-edged and flying-saucer-like. Around the 1997 anniversary of the Roswell Incident television was awash with shows claiming "evidence" for UFOs. One showed five round objects flying in formation. Each had an identical trapezoidal wedge cut out of it.

We were solemnly assured that as this photo was taken by NASA it was firm evidence of alien visitors. I hooted with laughter since it was quite obvious what it showed -- if you knew anything about telescopes. The picture was really five out-of-focus points of light. Each object was an image of

either the telescope's aperture or its mirror.

The black trapezium was probably the shadow of the pick-off for a star tracking device. Light from a bright source, even if off to one side of the field of view, can enter a lens, reflect off an internal surface and then be reflected back into the lens from an outer surface. Since the light passes through the lens by a quite unintended path it arrives at the film totally out of focus. This is the source of the "lens flares" also mentioned by Biddle. These often image the camera's aperture and appear as hexagonal objects.

Modern camera lenses are wonders of optical design and manufacturing. They normally give excellent results but one must be aware of their potential flaws and know to what natural phenomenon to attribute them.

*Tom Napier has been a stalwart skeptic and member of PhACT for many years and delights in exposing the outlandish claims of pseudo-scientists and charlatans. Tom made his living as a physicist, writer, and scientific consultant. After coming to Pennsylvania he worked mainly in electronic design and management. He is now retired although still doing occasional consulting jobs.*

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"It rubs me the wrong way, a camera... It's a frightening thing...Cameras make ghosts out of people."

*Bob Dylan (American folksinger, b.1941)*

# "Numeracy Among Prisoners"

by Paul Schlueter III



As a sort of follow-up to my article "Prison Illiteracy; Does Reading Prevent Crime?" (Phactum, Nov./Dec. '09), it has been suggested that a related, but separate, discussion of numeracy among inmates might be of interest. I'll continue with the same caveat as before; I essentially have no access to actual statistics, but in various roles over my 24 years of incarceration, I have considerable direct experience helping other inmates with math and related subjects, which gives me anecdotal insights I'll share here.

There is a spectrum of educational levels among inmates, ranging from immigrants who never attended anything like U.S. public schools, through individuals who dropped out of education at various points, and reaching as high as those who have attained college degrees, and even post-graduate degrees. There is essentially a bell curve of sorts, with the bulk of inmates falling into the middle, having more than a sixth grade education, but less than a college education. As for myself, though I have parents with doctorates, I rebelliously never attended a single day of college.

Numeracy can broadly be defined as an individual's familiarity with numbers, their uses, and their manipulation for practical (or purely intellectual) purposes. Let's begin with the skill of counting. Our base ten number system is fairly well understood by inmates, but while nearly every inmate can count a pile of poker chips, the spots on dominoes or dice, and Monopoly play money, it is routine to come across glazed eyes and confusion when trying to discuss the tens column vs. the hundreds column. This shows considerable practical skill at counting, but a drop-off of ability at the point where numeric discussion becomes abstract.

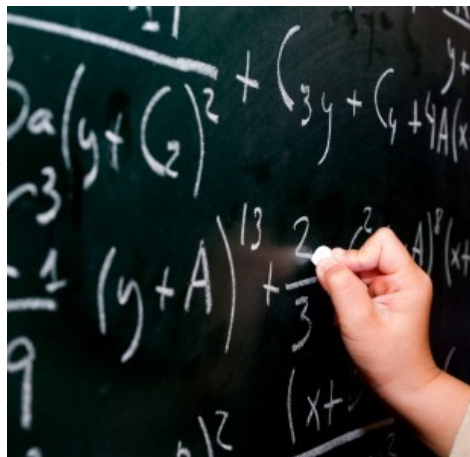
There's an interesting discussion of "what developmental psychologist Jean Piaget called formal thinking" in the article "Atheism Rising", by James Allen Cheyne (Skeptic, Vol. 19, No. 2, 2009, pp. 33-37), and what Cheyne calls ACH (for "abstract categorical and hypothetical") thinking. Piaget cites the age at which abstract formal thinking arises at around 15-18 years. For most U.S. children, these are the high school years.

For many, many inmates (I regret being unable to cite specifics), their high school education was either incomplete,

or non-existent. While "dropping out" of school certainly places a definite point on the end of formal education, it is rarely indicative of the point when formal education stopped reaching the teen's understanding! While some pregnant girls might drop out abruptly (and at a point when they were otherwise able to keep up with their class work), male teens generally become distracted and gradually fall behind on class work for an extended period of time before they actually make the choice to stop attending school altogether. Math, apparently, is among the first subjects to lose students' comprehension, particularly at the point where its theoretical explanations become abstract.

You can probably define "denominator" with relative ease, perhaps referring to the phrase "common denominators," which is useful in the math involving fractions. How well can you define "rational numbers?" (There's a clue in this paragraph!) Can you define, and give an example of, "inversions?" When would you use "cross multiplication?" Each of these terms is used within the high school curriculum, and at least moderate competence at applying these skills is required to pass a General Equivalency Diploma (GED) test. The GED also includes Geometry, Algebra, and some basic Trigonometry, and if you don't grasp the abstracts listed above, those more-advanced subjects will be beyond your reach UNTIL you acquire remedial assistance (the need for which is likely to be a stunning blow to the fragile ego of a teenager!) One serious bout of disease in the early teen school season, and you could very well find yourself hopelessly lost in Math class, as well as psychologically unable to admit your "stupidity" and seek out extra help.

I can offer a prime example from personal experience. I remember my Freshman Algebra 1 class as quickly becoming confusing and opaque to me, not because of illness-related absence, but because I avoided homework, and was distracted by adolescent male-female interactions in class. I somehow managed to avoid abject failure, but I certainly had poor understanding of Algebra at the end of the year. In my Sophomore year ('74-'75, at age 14), I took Geometry 1, and there first became exposed to the rules of Geometric Proofs. I can explicitly point at this sub-subject as the beginning of my continuing interest in rationality and scientific thinking (what Cheyne would call ACH thinking), and ever since then I've





been a strong proponent for teaching Geometry BEFORE Algebra in school. As a Junior, Algebra 2 "clicked" easily with me, because the exposure to definitive terminology, procedural rules, and a process of breaking a "word problem" into abstract math to obtain solution in Geometry had given me a new way to think about math. Had I NOT studied Geometry, or had I been absent for much of the Proofs section, all subsequent math study might well have been pointless. Instead, I found that I could keep up with Physics (though Biology still eluded me for years), and the variety of mechanistic principles that evolve from that subject.

In prison, I discovered that even a High School education gives one a considerable advantage over the majority of fellow inmates. In various jobs, I saw that my fellows had great trouble reading a ruler, planning to budget their miniscule incomes, or grasping statistics expressed in percentages. It wasn't an INTELLECTUAL shortcoming, at least for most, but rather one of simple lack of patient remedial tutoring (which needed to involve careful ego-stroking, as well.) In music theory classes, eyes glazed over when the subject came around to "How many quarter notes will there be in a half note?" Guys simply didn't know how to manipulate the basic fractions, when expressed in those terms. Yet, EVERYONE could tell me how many quarters a dollar was worth. EVERYONE knew (by rote experience) how many quarter-grams of meth or cocaine there were in each gram, and how many grams of pot there were in a quarter-, half-, or whole ounce. They could easily split \$15 dollars two ways, or three ways. Where practical application fell into their experience, I saw that inmates were generally quite competent, even confident, with their math. It was just the abstract applications that tripped them up.

In music theory, time is broken up into fractions of arbitrary periods, usually stated as beats per minute. Usually, the beat is represented by a quarter note. I've routinely played with inmate musicians who can compose, memorize, and perform astonishingly-complex rhythmic structures, yet it can be like pulling teeth to try explaining how 8 eighth notes fill up the same "bar" of music as 4 quarter notes, or two quarter notes and a half rest. Similarly, in the prison tailor shop, a man who can cut out the complex patterns for a salable glove, and sew it together within the time that the

boss is away on a coffee break, might not be able to actually measure a 3-1/2" width of cloth using either a ruler or a tape measure. He'll WEAR a tape measure around his neck to look the part, but if you ask him to measure someone's waistline, he might simply mark the dimension with his thumb, and hold it until he can compare it to the waist of a pair of pants off the shelf! A bit of string would serve as well! Why would he care how many feet there are in a yard?



Cartoon by Gruhn  
gruhn@webdonuts.com  
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In neither situation is the inmate expected to demonstrate numeracy before participating. He's likely to get a prison job or a spot in a band on the basis of social networking (a purely practical skill), and from that point on he'll assert seniority or toughness or some other irrelevant distractor whenever called upon to perform math he doesn't grasp.

Classes are different. When in a class on Building Trades, the student is forced to demonstrate that he can read the even-denominator fractions of a standard ruler early on. If he can't do so, yet his fellow students are all doing it, ego gives him the motivation to

admit that he "has trouble with that", and then non-judgmental assistance is given, for as long as necessary, until he masters the new skill. The same goes for EVERY skill taught in the class, from hammering a nail to running a table saw to figuring out the rafter angles and lengths of a complex gabled roof. In seeing that the math has practical usefulness, AND that he won't be allowed to attempt the task until he can, like his peers, demonstrate that he understands the theory, the student is motivated to learn. As an inmate, being in class and earning 25¢/hour beats sitting idly on the cell block, earning nothing, and having to beg for a smoke or a cup of coffee.

In electronics class, potential students are required to prove that they have a high school diploma or GED, as a prerequisite. Even so, most struggle with 9th Grade abstract math, such as basic Algebraic "variables" and "word problems." Yet, even the early applications of DC electronics involve computing parallel resistance networks, which is taught in all of three fashions (simple division of matched values, a method called "product over sum", and a method that involves the use of inversions.) A student must be capable of assigning meaningful variables to specific values, plugging those specific values into the correct

formulas made up of those variables, performing the mathematics (usually on a calculator... at this point, there's little value in longhand techniques), and finally converting the end result's variable back to a practical numerical value, rounding to the nearest "standard component value", answering the original question in "plain language." This all takes place within the first segment of the curriculum. It's also where the majority of the students who eventually drop out of the class make that decision, but while I was there, I never saw a student willing to try get thrown out of the course for not progressing fast enough.

Despite the relative innumeracy issues affecting the majority of inmates, those on the higher end of the spectrum do enjoy some opportunities to exercise their math intellects. Computer programming is available as a course, and it eventually involves abstract math in such subjects as converting "plain language" to binary machine code, and working with abstract computer languages to create highly-structured algorithms that perform desired tasks. College level courses offered to inmates are strictly limited by "security concerns", so one of the few areas where inmates are free to study (given the ability to grasp the material) is Accounting/Business Management.

On the other hand, my own studies in electronics (extending over 11 years, including student, apprenticeship, and teacher's aide/technician roles) brought me up against a "brick wall" when I sought to study Calculus, for the purpose of moving into electronics engineering. Though I was able to buy a Calculus book, my vocabulary of abstract math jargon was just insufficient to follow the "Advanced Placement" High School level text. I sought assistance from other inmates, and could find nobody with a grasp of the application or theory of Calculus. I asked the prison's math teachers, and my own electronics teacher, and discovered that none of them felt confident enough to even try to help me. I asked the school administrator at that time to look into bringing in either a teacher, or a teaching assistant with Calculus competence, and was told that the priorities of the vast majority of prisoners were on a much more basic level

of math, and that the expenditure for advanced math courses (for the few inmates capable of attempting the courses) was unjustifiable. (There was a Surveying course offered here, when I first arrived, but it was cut before I could take the course.)

***"All human beings, whatever their cultural or historical background, suffer when they are intimidated, imprisoned or tortured . . . We must, therefore, insist on a global consensus, not only on the need to respect human rights worldwide, but also on the definition of these rights . . . for it is the inherent nature of all human beings to yearn for freedom, equality and dignity, and they have an equal right to achieve that."***

***-- 14th Dalai Lama***

Small consequence; even the electronics class has been reduced to a course on installing pre-made units in construction projects (with almost no formal attention to the theoretical underpinnings of the topic), and then even that program was discontinued when it was decided that the teacher was needed more urgently to supervise part of the maintenance department staff. "Good thing," some staff tacitly figure, "since we didn't much like the idea that some

of our inmates were learning things about electronics that are beyond our ability to understand, and therefore beyond our ability to properly supervise for security's sake." Knowledge, in the prison environment, is something that inmates must be offered, but only within limits; there's such a thing as knowing too much, and the bar isn't very high.

In conclusion, there is a desperate and ongoing need for funding, staff, and facilities to teach inmates basic numeracy skills, in order to bring them up to a level where they can effectively fit into the workplace after release. A large (and continually refreshed) portion of the inmate population suffers from an effective lack of abstract thinking skills where math is involved, and those skills are necessary to obtaining a GED. But there also exists an "anti-intellectual" bias against helping inmates (with the capability to do so) progress beyond the "basic functionality" math skills, supported by fear of knowledge which the staff themselves don't really have, and the general focus on security necessary to run a correctional institution. This last comes because there is relatively little higher education among the Security branch of the staff, which suggests that recruitment of better-educated personnel might prove valuable.

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*"While we diminish the stimulant of fear, we must increase to prisoners the incitements of hope, in proportion as we extinguish the terrors of the law, we should awaken and strengthen the control of the conscience."*

*-- Dorothea Dix*

# "A Rational Calendar" by Paul Schlueter III



After the next apocalypse, I think we should start following a new, RATIONAL calendar. Here are my ideas (which should be at least as good as the next guy's!) Because of the change of seasons, it's fairly reasonable to tie the year to Earth's orbit of the sun, which takes about 365 days. I think we should set Day One at the winter solstice (in the Northern hemisphere, the shortest day and longest night of the year.) Leap Days, one every four years, can be inserted as Holidays, simply doubling the First Day holiday!

Since most of us think of years in "base 10" groups (decades, centuries, millenia, etc.), let's break the year into 10 months, as well. If you want to name the months, this would let us use September for the seventh month (septa), October for the eighth (octo), November for the ninth (novo), and December for the tenth (deci), instead of this silly thing we've been doing. Each of the other months should also be named for its Latin numerator (Unember, Diember, Triember, etc.) Or, more simply yet, why not just use the numbers one thru ten?

Each month would have 36.5 days, if broken up evenly. To keep things simple, let's just make odd-numbered months have 37 days, and even-numbered months have 36 days. To also straighten out the whole mess of all these oddball religious holidays, let's just have a national secular holiday on the first day of every odd-numbered month, spacing five of them equally thru the year.

That leaves a nice, evenly divisible 36 "functional" days per month. I'll leave you to invent new day names (rather than naming them after the Sun and Moon, four Nordic deities, and a Roman one), and perhaps even names for the weeks (I don't know why we never did THAT... do you?)

Six day weeks (six of them) might be useful. Or, we could choose two 18-day weeks, three 12-day weeks, or four 9-day weeks. I personally like the 9-day week, with work for 2 days, followed by a day off, three times per weekly pay period. This would fit in with all sorts of interesting ways to combine 8-hour (1/3-day) shifts.

As computer-centered generations are now discovering, it makes the most sense to write your date with the year first, followed by the month, followed by the day. If needed, you can even include the hours, minutes, and seconds, for real precision.

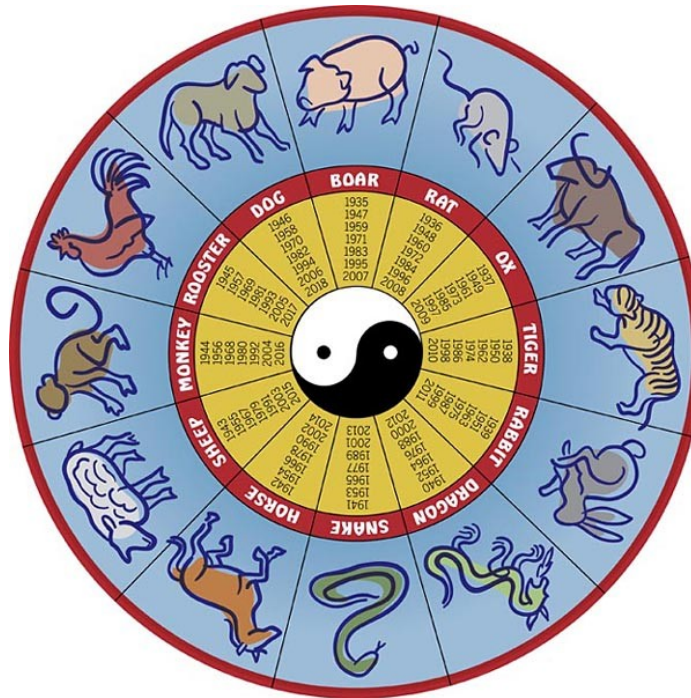
The best part of all this, perhaps, would be the opportunity it would provide to re-employ many people in redesigning calendars and watches, or back-counting all the old dates so we can all learn our new birthdate, etc.

I won't go so far as to claim that my new calendar system is the best possible. However, pending better suggestions, I propose that mine is at least more rational than the Gregorian method we currently use in the western world. If we

wait until there's actually an apocalypse to start using it, we might even get lucky and convince the whole world to go by the same calendar, instead of the several different ones nations and faiths insist on to this day.

*Paul Schlueter III is serving Life in Prison in NE Pennsylvania. His supporters have recently created a website about him. [www.jaybird.org](http://www.jaybird.org)*

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Chinese Calendar

"My wife's jealousy is getting ridiculous. The other day she looked at my calendar and wanted to know who May was." - Rodney Dangerfield

# Observations on the prevailing Doctrines of Life and Death.

TO M. DUBOURG.

Your observations on the causes of death, and the experiments which you propose for recalling to life those who appear to be killed by lightning, demonstrate equally your sagacity and your humanity. It appears, that the doctrines of life and death, in general, are yet but little understood.

A toad buried in sand will live, it is said, till the sand becomes petrified; and then, being enclosed in the stone, it may still live for we know not how many ages. The facts which are cited in support of this opinion are too numerous, and too circumstantial, not to deserve a certain degree of credit. As we are accustomed to see all the animals, with which we are acquainted, eat and drink, it appears to us difficult to conceive, how a toad can be supported in such a dungeon; but if we reflect, that the necessity of nourishment, which animals experience in their ordinary state, proceeds from the continual waste of their substance by perspiration, it will appear less incredible, that some animals in a torpid state, perspiring less because they use no exercise, should have less need of aliment; and that others, which are covered with scales or shells, which stop perspiration, such as land and sea turtles, serpents, and some species of fish, should be able to subsist a considerable time without any nourishment whatever. A plant, with its flowers, fades and dies immediately, if exposed to the air without having its root immersed in a humid soil, from which it may draw a sufficient quantity of moisture to supply that which exhales from its substance and is carried off continually by the air. Perhaps, however, if it were buried in quicksilver, it might preserve for a considerable space of time its vegetable life, its smell, and color. If this be the case, it might prove a commodious method of transporting from distant countries those delicate plants, which are unable to sustain the inclemency of the weather at sea, and which require particular care and attention. I have seen an instance of common flies preserved in a manner somewhat similar. They had been drowned in Madeira wine, apparently about the time when it



was bottled in Virginia, to be sent hither (to London). At the opening of one of the bottles, at the house of a friend where I then was, three drowned flies fell into the first glass that was filled. Having heard it remarked, that drowned flies were capable of being revived by the rays of the sun, I proposed making the experiment upon these; they were therefore exposed to the sun upon a sieve, which had been employed to strain them out of the wine. In less than three hours, two of them began by degrees to recover life. They commenced by some convulsive motions of the thighs, and at length they raised themselves upon their legs, wiped their eyes with their fore feet, beat and brushed their wings with their hind feet, and soon after began to fly, finding themselves in Old England, without knowing how they came thither. The third continued lifeless till sunset, when, losing all hopes of him, he was thrown away.

I wish it were possible, from this instance, to invent a method of embalming drowned persons, in such a manner that they may be recalled to life at any period, however distant; for having a very ardent desire to see and observe the state of America a hundred years hence, I should prefer to any ordinary death, the being immersed in a cask of Madeira wine, with a few friends, till that time, to be then recalled to life by the solar warmth of my dear country! But since in all probability we live in an age too early and too near the infancy of science, to hope to see such an art brought in our time to its perfection, I must for the present content myself with the treat, which you are so kind as to promise me, of the resurrection of a fowl or a turkey cock.

I am, &c.

Translated from M. Dubourg's edition of Franklin's Works, Vol. I. p. 327. It is without date, but the letter to which it is an answer is dated April 15th, 1773. —



## Gambling and the Law®: Pathological Poker By Professor I. Nelson Rose

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Is it fair to ask someone who plays primarily, or exclusively, poker whether he is a compulsive gambler?

Is poker even gambling? Does a person who plays day and night and wins, making a good living, have a gambling problem?

Of course, he might have a different problem. He might be a workaholic.

The tests that have been developed to uncover gambling problems are pretty good. The most famous is the Gamblers Anonymous 20 Questions. These ask about things like gambling interfering with work and home life, feeling guilty, being unable to quit, breaking the law to get money to gamble, and thinking of suicide. Most compulsive gamblers answer yes to at least seven.

But these tests are not specifically designed for poker players. For example, number 14, "Did you ever gamble longer than you had planned?" won't work with home games. I have never heard of a social game where players did not go beyond the agreed upon end time, for "one last round."

Poker has gotten the attention of mental health professionals. But many of these do not play, or if they do, they may not appreciate how different poker can be. Someone who plays once a month in a social game is different from someone who plays every day as a professional. Games played in private homes are different from those played in hotel rooms, which are not the same as licensed card rooms.

And then there is the Internet. You can play for free, for micro-stakes of 1 and 2 cents, as well as for big money. A player who plays occasionally at one table online is not the same as one who plays four, or even eight, tables at a time, all the time.

To help poker players determine whether they might have a gambling problem, I have created my own test. I don't claim it is entirely scientific. But it is not made from scratch. I've looked at the literature and discussed this with professionals who treat compulsive gamblers.

I am interested to know what you think. Some of these questions may be way off. Let me know if any seem simply wrong, or don't tell us anything. Or if I left anything out.

I don't know how many you need to answer to be a

compulsive gambler. My guess is that if you are answering yes a lot, you should call a gambling hot line, like 1-800-GAMBLER, to see if you have a problem.

### Questions for Poker Players

- ♠ Do you play for stakes that you know are too high?
- ♠ Do you sometimes feel you can't quit because you are behind?
- ♠ Do you sometimes feel you can't quit because you are ahead?
- ♠ When you lose, is it often because of bad beats rather than your own bad play?
- ♠ Do you often get angry at other players at the table, for such things as slowing down the game?
- ♠ Have you gone on tilt more than once?
- ♠ When you are losing, do you increase your bets to try to get even?
- ♠ Do you often stay in too many hands?
- ♠ Do you drink a lot, sometimes going on binges?
- ♠ Do you sometimes forget important social obligations, because you are playing?
- ♠ Have you misled or lied to your family, friends or at work about how much poker you play?
- ♠ Are you increasingly using the ATM?
- ♠ Have you lied to get money to play poker?
- ♠ Do you feel bad about things you have done because of poker?
- ♠ Are you more interested in poker than sex?

Send your comments to [rose@sprintmail.com](mailto:rose@sprintmail.com).

*Professor I Nelson Rose is recognized as one of the world's leading experts on gambling law and is a consultant and expert witness for players, governments and industry. His latest books, **Internet Gaming Law** (1st & 2nd editions) and **Gaming Law: Cases and Materials**, are available through his website, [www.GamblingAndTheLaw.com](http://www.GamblingAndTheLaw.com).*

# In the Footsteps of Our Forbearers

## *Official Prison Visitors: Continuing the Mission*

By Dee Johnson and Ezra Geggel

*“In performing these visits with the hope of doing good, it is deemed essential to approach the prisoner in a spirit of kindness, and thus convince him that, although the world may have cast him off, there is one at least who feels that he is still a fellow being.”*

Philadelphia Society for Alleviating the Miseries of Public Prisons’ Annual Report, 1862

**For** more than two centuries, The Pennsylvania Prison Society has led penal reform down a long road toward humanity. Undoubtedly, its founders encountered prisons much different than today’s complex institutions.

“Jails up until the time of the American Revolution were used largely for persons awaiting trial and other punishments, and for debtors and sometimes witnesses,” noted Dr. Norman Johnston, history professor at Arcadia University and Prison Society board member emeritus.

And the American Revolution would transform all aspects of American life as it had once existed, especially the penal system. Enlightenment-influenced reformers abhorred inhumane punishments, such as banishment, physical chastisement and the gallows. Imprisonment, they believed, would better befit a civilized society. But along with this new form of punishment emerged a new assortment of problems.

### **A hodgepodge of disorder**

At Philadelphia’s Walnut Street Jail, first-time offenders were locked up with recidivists. Black and white, old and young, men, women and even children were crowded together in squalor, surrounded by disease. Rape and robbery occurred often. And jailors regularly sold liquor to prisoners. They even encouraged prostitution.

To make matters worse, prisoners were often charged for services, such as food, heating and clothing. Some starved, even died, and winter caused even greater suffering. And more often than not, offenders left prison more hardened than they had arrived.

### **A changing Society**

In 1787, a group of leading Philadelphians—among them Benjamin Franklin, Bishop William White and Dr. Benjamin Rush—appalled at the conditions of the Walnut Street Jail, founded the **Philadelphia Society for Alleviating the Miseries of Public Prisons**. And the members of this organization would influence some of the most creative and influential penal reforms in history.

For instance, Dr. Rush believed that prisoners should have a “house” where they could do penitence and repent for their crimes in complete isolation. This method, known as the Pennsylvania System, was a totally new concept that would

set Pennsylvania apart from all other states.

### **Building a new kind of prison**

To begin effectively implementing the Pennsylvania System, the Society lobbied for and received funding to build Eastern State Penitentiary. Construction began in 1822.

And this new facility would afford prisoners many modern conveniences, even before the White House had installed them. Central heating, shower baths and flushing toilets were some of the amenities provided in this penitentiary.

### **From model to outmoded**

The Pennsylvania System gained recognition from governments around the globe, which sent delegates to study it. Alex de Tocqueville, a French philosopher and author of *Democracy in America*, was one such delegate; he praised the new method. And prisons all over the world were modeled after Eastern State Penitentiary. But by the early 1900s, the Pennsylvania System of isolation and penitence was outmoded and replaced by a congregate system where prisoners shared cells and interacted during incarceration. And although the Pennsylvania System was ending, the Society’s influence in penal reform remained steadfast and strong.

### **Acting up**

At the outset, the Society established an Acting Committee (now called Official Prison Visitors) to monitor prison conditions, advocate for prisoners, and facilitate and organize prisoner visits by its members.

“Society members made regular visits to prisons to speak with prisoners about their lives as well as conditions in the prison [and] did discourage some of the abuses [that] might otherwise have occurred over the years,” explained Dr. Johnston.

As a result, Society members noticed an improvement in food, clothing, heating and sanitation at the prisons.

### **A new decree**

The Society worked diligently to ensure continued citizen involvement in the administration of justice in Pennsylvania. As a result, the Official Visitation of Prisons Act—the only

one of its kind in the nation—was adopted in 1829 by the Pennsylvania General Assembly. This new decree would not only grant Society members access to state and county correctional facilities, but would also sustain citizen oversight of the prison system and inmate advocacy for centuries to come.

### Continuing the mission

Today—222 years later—the Prison Society has 67 statewide chapters and more than 450 Official Prison Visitors. Each year, they make thousands of visits to county jails and state prisons throughout the Commonwealth, monitoring conditions of confinement and assisting prisoners in resolving their concerns.

“The work of Official Prison Visitors is unpaid, but certainly not unrewarding,” Prison Society Executive Director William DiMascio said. “From the colonial founders to the hundreds of current volunteers, we are a group that shares a deep commitment to social justice and human dignity.”

John Hargreaves, Director of Volunteers, served as an Official Prison Visitor for nearly 30 years before heading up the Official Prison Visitors Network in 2007. He believed so strongly in the work of the Official Prison Visitors, he resigned from his position as a criminologist with the Commonwealth of Pennsylvania to become director of the network.

“This network is the backbone of the Prison Society [and] volunteers are engaged in a variety of activities related to its mission of restorative justice and progressive prison reform,” Hargreaves said.

And with more than 51,000 inmates in state prisons and

45,000 in county jails in Pennsylvania, volunteers are needed now more than ever.

### Far and away

Prisons are typically located far from the communities offenders call home. And although strong family ties during imprisonment have been known to have a positive impact on returning prisoners, more than 62 percent of parents in state prisons are held more than 100 miles from their residence. These geographical barriers hinder the prisoner’s ability to access services and also inhibit family members from keeping in touch and taking an active role in the rehabilitation process.

### Bridging the gap

Volunteers help bridge the gap between the prisoner and community and offer services that might not otherwise be provided. They act as a link to community agencies. They maintain contact with the families and friends of prisoners. They heighten public awareness of the importance of criminal justice reform. And they continue the original mission of the Society.

### You can help!

If you’re a member of the Prison Society, you can become an Official Prison Visitor. All you need is a willingness to serve. For more information about the Official Prison Visitors Network or to apply, call 215.564.6005, ext. 100 or send an e-mail to [kgolini@prisonsociety.org](mailto:kgolini@prisonsociety.org). General information also is available at [www.prisonsociety.org](http://www.prisonsociety.org).

## Bishop William White (1748-1836)



William White was born in 1748 at Philadelphia, the son of Esther Hewlings and Colonel Thomas White, a lawyer and surveyor. He received his education at the College of Philadelphia (now the University of Pennsylvania), graduating in 1765. White married Mary Harrison in 1773; together they had eight children.

In the turmoil that marked the eve of the American Revolution, the young Rev. White became known as a moderate revolutionary. White was concerned that the war not split the American branch of the Anglican church from that in Britain. He devoted much of his efforts to keep the church unified in America, and in accord with the wishes of the bishops in Britain. Immediately after his ordination White had been appointed assistant minister of Christ Church; when the Loyalist rector departed in 1779, White took on that position. He remained rector of the united parishes of St. Peter's and Christ Church until his death. He was also named chaplain to the Continental Congress.

White was not an inspiring preacher, but he was an excellent theologian and talented organizer. White was a member of the American Philosophical Society and one of the first people involved in prison ministry in the city.

White was elected president of the first General Convention of the Protestant Episcopal Church which met in Philadelphia in 1785, and there helped author the constitution of the emerging American church.

The convention of the diocese of Pennsylvania elected White its Bishop the following year; consecration followed at Lambeth in England in 1787. He was presiding bishop of the Protestant Episcopal church from 1795 to 1836.

During his long tenure as a University of Pennsylvania trustee, White served Penn in all three of its forms: the College of Philadelphia, the University of the State of Philadelphia, and the University of Pennsylvania. Under the charter of 1755, White was a trustee of the Academy and College of Philadelphia from 1774 until 1791, serving as that board's president in 1790 and 1791 and as its treasurer from 1775 to 1778. As senior minister of the Protestant Episcopal Church in Philadelphia, served from 1779 to 1791 as ex-officio trustee of the University of the State of Pennsylvania, chartered by the new state government at the time of the American Revolution. After the 1791 union of the College of Philadelphia with the University of the State of Pennsylvania, White was elected to serve as a trustee of the resulting University of Pennsylvania.

# The Zwaanendael Merman

By Don Nigroni

In *A Dictionary of English Folklore* (2000), under the topic of mermaids, Jacqueline Simpson and Steve Roud wrote that, “the sea-dwellers of English folklore were probably originally tailless, but the concept of the fish-tailed mermaid (and merman), long established in Mediterranean lands as a development from the classical siren, arrived here early in the Middle Ages.” They also stated that, “The belief



**The Zwaanendale Merman**  
Photo by Bob Clark

that they really existed persisted for centuries, reinforced by travellers’ tales of sightings and captures, and also by fakes made up from monkeys and fish, which were common from the 16th to the 19th centuries.”

Christopher Columbus reported that he had seen three of them on January 8, 1493 during his first voyage, presumably manatees, but was disappointed that they weren’t as beautiful as depicted in pictures. In *Legends and Superstitions of the Sea and of Sailors in all Lands and at all Times* (1885), Fletcher S. Bassett wrote:

So-called mermaids have been exhibited several times in England. +In 1755, a carefully made imposture representing a mermaid, said to have been captured in the Grecian seas, was exhibited in London. Another, said to have been captured at sea by a Captain Forster, was shown at Covent Garden at the same time, and there is an account of the exhibition of one in Chamber’s “Book of Days,” in 1809. In 1822, a figure made in the East Indies, and brought to London, consisting of a fish-tail joined to an ape’s body, was exhibited in London, purchased at a high figure by Barnum, and brought to America. I believe it is now in the Boston Museum.

+ Gould.—Myths of the Middle Ages.

And we are fortunate to have an original fake merman on display nearby at the Zwaanendael Museum in Lewes, Delaware. The museum building is modeled after the town hall located in Hoorn, the Netherlands, and contains many interesting historic, nautical artifacts. On January 28, 2010, Ray Haupt, editor of *Phactum*, my cousin, Bob Clark, and I visited the museum to see the Zwaanendael Merman. The accompanying text next to the merman stated:

Fish, hair, Ivory, oak, stain, varnish, glass, rayon, dye  
Mid-19th century China?

The rayon apparently referring to a material patented in 1855 by Swiss chemist George Audemars. According to the text, the creature “belonged to the Martin family for nearly a century after being presented to a member of the family by an old sea captain.” The merman was displayed at the museum intermittently from 1941 until it was purchased for \$250 and in 1985 given to the museum by the Lewes Historical Society. In addition, the text noted that, “The Zwaanendael Merman has ‘relatives’ in at least six museums across North America.”

*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 32 years as an economist for the US Bureau of Labor Statistics. He now spends much more time hiking, mountain biking, kayaking and bird watching.

For more information about the Zwaanendael Museum see page 9.



**Ray Haupt and the author beside the Zwaanendael Merman. Photograph by Bob Clark.**



# The Lawndale, Illinois Big Birds Incident

By Don Nigroni

**On July 25, 1977, a 10-year-old boy in Lawndale, Illinois was allegedly picked up by a mysterious big bird. Perhaps what was seen was an out-of-range Andean condor, a relict teratorn, a supernatural thunderbird or, maybe, just a bird from a quite common species but at a stage where it wasn't readily identifiable by its appearance.**

Long, long ago there were many remarkable creatures soaring over our planet, namely, pterosaurs, until around 65 million years ago (Unwin 2006, 18). In addition, many huge mammalian species became extinct about 10,000 years ago (Houston 2001, 31-32) but at least some massive birds of that period, known as teratorns, would have once been seen by the early American Indians (Mayor 2005). And there may be a multitude of fantastic flying beings on distant planets in our own universe or in other universes, dimensions or planes. Nonetheless, there is no convincing evidence that any strange and wondrous flying creatures have been here for thousands of years. Yet, flying monsters have been reported in the Old World for centuries such as ancient griffins and medieval dragons. And they have also been reportedly seen over North America, some as recently as the 20th century.

The American Indians were familiar with a variety of thunderbirds which supposedly had various wingspans, even twice as much as a war canoe (Clark 2003; Skinner 1915). Likewise, depending on which version was being related, the Jersey Devil of the New Jersey Pine Barrens purportedly had various wingspreads, apparently even more than quadruple the height of a man (Jersey Sees a Devil 1899; McCloy and Miller, Jr. 1998, 2001). There were reports of large birds in the Black Forest of Pennsylvania during the 19th and 20th centuries with wingspans supposedly at around 35 and even 75 feet (Lyman, Sr. 1973). And on November 25, 1966 a man reportedly saw a creature with “a wingspan every bit of 10

**Turkey vulture** *Cathartes aura*



The Turkey Vulture, *Cathartes aura*, is found throughout most of the Americas. It also known Turkey Buzzard (or just "buzzard"), and in some areas of the Caribbean as the John Crow or Carrion Crow. The Turkey Vulture is the most widespread of the New World vultures, ranging from southern Canada to the southernmost tip of South America. It inhabits a variety of open and semi-open areas, including subtropical forests, shrublands, pastures, and deserts. The Turkey Vulture has a wingspan of 170–183 cm (67–72 in), a length of 64–81 cm (25–32 in), and weight of 0.85–2.26 kg (1.9–5 lb). It has dark brown to black plumage; a featherless, purplish-red head and neck; and a short, hooked, ivory-colored beak. Its life expectancy in the wild ranges upward of 16 years, with a captive life span of over 20 years being possible.

feet” near Point Pleasant, West Virginia after a November 15 sighting nearby by two couples of Mothman touched off a monster hysteria in that area (Hyre 1966). Also, during a flap in south Texas involving Big Bird, a police officer on January 3, 1976 purportedly saw a creature with a wingspan of “about 15 feet or so” (Gerhard 2007). And an alleged sighting on July 25, 1977 of big birds with wingspreads of 10 feet or more started a flap in central Illinois (Coleman 2001; Hall 2004).

Nevertheless, some extinct and extant mundane flying creatures with impressive wingspans have soared over North America. Quetzalcoatlus northropi, an extinct pterodactyl for which fossil remains were first discovered in Texas in 1973, attained gigantic wingspans of around 33 feet or more (Unwin 2006, 87, 160-161). Members of one teratorn species reached enormous wingspans of about 23 feet,

namely, the South American *Argentavis magnificens* (Chatterjee, Templin, and Campbell, Jr. 2007). And teratorns in the North American species *Aiolornis incredibilis* and *Teratornis merriami* attained wingspans of up to 18 feet (Giant Fossil Bird Found in Murrieta 2007) and about 11 ½ feet (Chatterjee, Templin, and Campbell, Jr. 2007), respectively.

Even today some birds have impressive wingspans. South American Andean condors reach up to 10 ½ feet (Chatterjee, Templin, and Campbell, Jr. 2007), the adult being a mainly dark bird with a distinctive collar of white feathers almost completely around the base of its neck

(Ferguson-Lees and Christie 2001, 314). And even excluding large birds that would not likely be mistaken for flying monsters like swans and geese, there are many extant North American landbird species listed in the second edition of the National Geographic Society's Field Guide to the Birds of North America with long wingspans such as: California Condor (9 feet), American White Pelican (9 feet), Steller's Sea-Eagle (6 feet 8 inches to 7 feet 11 inches), White-tailed Eagle (6 feet to 7 feet 10 inches), Jabiru (7 ½ feet), Bald Eagle (5 feet 10 inches to 7 ½ feet), Golden Eagle (6 feet 8 inches to 7 feet 4 inches), Whooping Crane (7 feet 3 inches), Brown Pelican (7 feet), Common Crane (6 feet 3 inches), Sandhill Crane (6 feet 1 inch), Great Blue Heron (6 feet), Osprey (4 feet 10 inches to 6 feet) and Turkey Vulture (5 feet 9 inches).

A famous flying monster bird flap that occurred in central Illinois during July 1977 began with an encounter with two big birds, one of which supposedly lifted up a 10-year-old boy named Marlon Lowe on July 25 near his home in Lawndale and carried him a few feet before dropping him. Loren Coleman, a famous cryptozoologist, referring to this encounter wrote that, "Today, this remarkable sighting is regarded as one of the most important avian cryptozoological events ever to have been investigated." He stated that seven witnesses offered the same description: "two huge, coal-black birds with long, white-ringed necks, long curled beaks, and wingspans of 10 or more feet." (Coleman 2001) A July 31, 1977 newspaper account reported that the boy weighed 70 pounds and also told about "Texas John" Huffer who on July 30 took extensive film of the larger of two birds that he and his son initially spotted in a tree (UPI 1977). Based on size, shape, motion and field marks, the bird that flew off and which Huffer continued to film at Lake Shelbyville, Illinois was obviously a common turkey vulture (MonsterQuest 2007). According to the paper, Huffer claimed that bird had about a 12 foot wingspan (UPI 1977) even though a turkey vulture's span would normally be less than half that size and he had nearby trees to help him judge size.

After researching the matter at her local library, Ruth Lowe, Marlon's mother, was sure that the bird that she saw attack her son was not a turkey vulture (Coleman 2001). But, according to the National Geographic Society's field guide, of all the North American landbird species listed above, we'd only expect to find the American White Pelican, Great Blue Heron and Turkey Vulture in central Illinois during the breeding season. However, she may have rejected the possibility that she saw turkey vultures simply because an adult turkey vulture: 1.) has distinctive reddish-crimson skin showing on its head (Heintzelman 2004) and 2.) does not have a white ring of feathers around its neck. But birds within the same species can look quite different from one another, sometimes dramatically so, depending on age, sex, season, subspecies and color phase (National Geographic Society 1996, 8). A recently fledged turkey vulture has

grayish-black, not reddish-crimson, skin showing on its head and some of them have a ring of white down feathers encircling their necks (Heintzelman 2004). In central Ohio, turkey vultures begin egg laying in early April (Coles 1944, 223) and incubation for turkey vultures takes 38 to 41 days and fledging takes 10 to 14 weeks (Ferguson-Lees and Christie 2001, 308). Hence, it would not have been unusual for some turkey vultures to have fledged during late July when the Lawndale sighting occurred. Taking into consideration that it is notoriously difficult to judge the size of objects against an open sky at a distance, a comparison of the description of the Lawndale birds to some recently fledged turkey vultures with white rings of feathers still about their necks shows a surprisingly good match.

<u>Lawndale birds</u>	<u>some recently fledged turkey vultures</u>
(Coleman 2001)	(Ferguson-Lees and Christie 2001; Heintzelman 2004; National Geographic Society 1996)
huge, coal-black birds	large, dark brown, appear black from a distance
long, white-ringed necks	necks encircled by rings of white feathers
long curled beaks	longish, hooked bills
wingspans of 10 or more feet	wingspans around 5 feet 9 inches

Based on American Indian oral traditions, a supernatural thunderbird could very easily pick up a 70 pound boy since there are tales of them lifting up whales (Clark 2003). But not only weren't the feet of *T. merriami* (Campbell, Jr. and Tonni 1983, 399), Andean condors and turkey vultures (Houston 2001, 26) designed for grasping, but they also couldn't lift up that much weight, much less still fly. *A. magnificens* could weigh somewhere around an amazing 154 pounds but *T. merriami* might only weigh about 30 pounds (Chatterjee, Templin, and Campbell, Jr. 2007). Assuming that *A. incredibilis* were approximately 40% larger than *T. merriami* (Campbell, Jr. and Tonni 1983, 396), they might have weighed somewhere around 42 pounds. David Houston noted that Andean condors are sexually dimorphic with males weighing 24 to 33 pounds and females 18 to 24 pounds and that turkey vultures only weigh less than two to four pounds (Houston 2001, 68). Apparently young Marlon Lowe saw the big birds, became frightened, ran, stumbled and fell but then might have subsequently thought that he had fallen to the ground because one of those birds had lifted him up and then dropped him. Nevertheless, it seems much more plausible that the birds seen in Lawndale on July 25, 1977 were not supernatural thunderbirds or relict teratorms or even out-of-range condors, but instead just turkey vultures with at

least one of them having recently fledged and still possessing a ring of white down feathers around its neck.

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#### Note

1. North America is used here as in the National Geographic Society's Field Guide to the Birds of North America: Second Edition to mean North America north of Mexico.

#### References

Campbell, Jr., Kenneth E. and Eduardo P. Tonni. 1983. Size and Locomotion in Teratorns. *The Auk* 100: 390-403.

Chatterjee, Sankar, R. Jack Templin, and Kenneth E. Campbell, Jr. 2007. The aerodynamics of Argentavis, the world's largest flying bird from the Miocene of Argentina. *Proceedings of the National Academy of Sciences* 104: 12398-12403.

Clark, Ella E. 2003. *Indian Legends of the Pacific Northwest*. Berkeley, Los Angeles and London: University of California Press, 161-163.

Coleman, Loren. 2001. *Mysterious America: The Revised Edition*. New York: ParaView Press, 22-24.

Coles, Victor. 1944. Nesting of the Turkey Vulture in Ohio Caves. *The Auk* 61: 219-228.

Ferguson-Lees, James and David A. Christie. 2001. *Raptors of the World*. Boston and New York: Houghton Mifflin Company.

Gerhard, Ken. 2007. *Big Bird! Modern Sightings of Flying Monsters*. Bideford, North Devon, England: CFZ Press, 18-19.

Giant Fossil Bird Found in Murrieta. 2007. San Bernardino County Museum. Available at <http://www.sbcounty.gov/MUSEUM/discover/divisions/geo/giant.htm>; accessed on January 8, 2010.

Hall, Mark A. 2004. *Thunderbirds: America's Living Legends of Giant Birds*. New York: ParaView Press, 11-35.

Heintzelman, Donald S. 2004. *Guide to Hawk Watching in North America*. Guilford, Connecticut and Helena, Montana: The Globe Pequot Press, 3-4.

Houston, David, 2001. *Condors and Vultures*. Stillwater,

Minnesota: Voyageur Press.

Hyre, Mary. 1966. *Mason Monster Spotted Again*. *The Athens Messenger* (Athens, Ohio), November 25, 1966.

Jersey Sees a Devil. 1899. *The Evening Tribune* (Hornellsville, New York), July 31, 1899.

Lyman, Sr., Robert R. 1973. *Amazing Indeed: Strange Events in the Black Forest*. Coudersport, Pennsylvania: The Potter Enterprise, 93-97.

Mayor, Adrienne. 2005. *Fossil Legends of the First Americans*. Princeton and Oxford: Princeton University Press, 162-163.

McCloy, James F. and Ray Miller, Jr. 1998. *Phantom of the Pines*. Moorestown, New Jersey: Middle Atlantic Press.

McCloy, James F. and Ray Miller, Jr. 2001. *The Jersey Devil*. Moorestown, New Jersey: Middle Atlantic Press.

MonsterQuest. 2007. *Birdzilla*. National Geographic Society. 1996. *Field Guide to the Birds of North America: Second Edition*. Washington, D.C.: National Geographic Society.

Skinner, Alanson. 1915. *Social Life and Ceremonial Bundles of the Menomini Indians in Anthropological Papers of the American Museum of Natural*

*History*, Volume XIII. New York: American Museum of Natural History.

Unwin, David M. 2006. *The Pterosaurs From Deep Time*. New York: Pi Press.

UPI. 1977. 'Big Bird' Sighted Again. *The Sunday Phoros-Tribune* (Logansport, Indiana), July 31, 1977.



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Science! true daughter of Old Time thou art!  
Who alterest all things with thy peering eyes.  
Why preyest thou thus upon the poet's heart,  
Vulture, whose wings are dull realities?  
How should he love thee? or how deem thee wise?  
Who wouldst not leave him in his wandering  
To seek for treasure in the jewelled skies,  
Albeit he soared with an undaunted wing?  
Hast thou not dragged Diana from her car?  
And driven the Hamadryad from the wood  
To seek a shelter in some happier star?  
Hast thou not torn the Naiad from her flood,  
The Elfin from the green grass, and from me  
The summer dream beneath the tamarind tree?

— Edgar Allan Poe

Sonnet, 'To Science' (1829), *Saturday Evening Post*  
(11 Sep 1830)

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