

“Who Still Denies Electric Currents in Space?”



Hannes Alfvén

Hannes Olof Gösta Alfvén [Swedish: [al ve n]; 30 May 1908 – 2 April 1995] was a Swedish electrical engineer, plasma physicist and winner of the 1970 Nobel Prize in Physics for his work on magnetohydrodynamics (MHD).

Born: 1908-05-30
Died: 1995-04-02
Nationality: Swedish
Occupation: Scientist

We have to learn again that science without contact with experiments is an enterprise which is likely to go completely astray into imaginary conjecture.

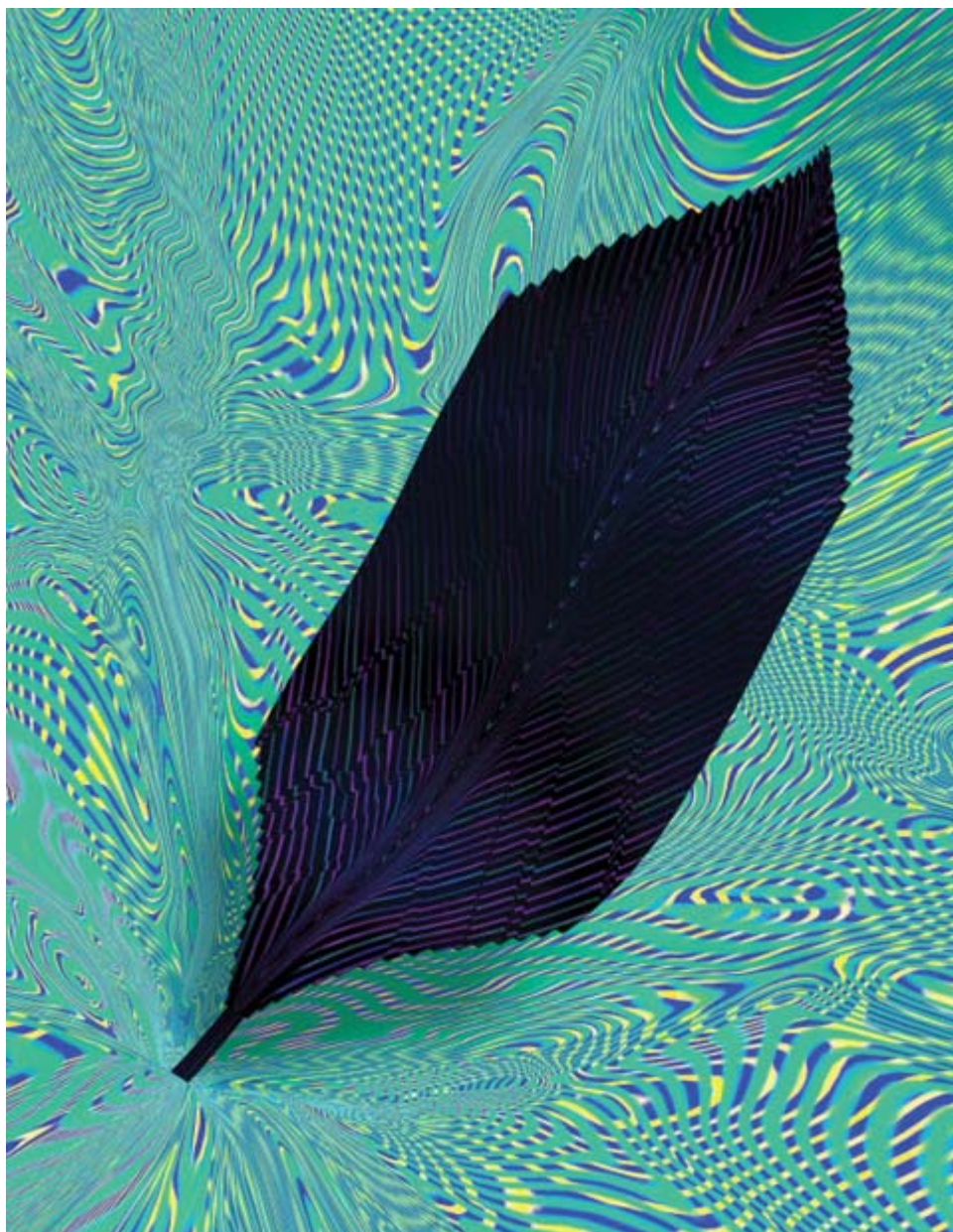
“New papers in peer-reviewed astrophysical journals propose that powerful electric currents flow in extra-galactic jets and that the jets themselves are ‘fundamentally electromagnetic structures.’ However, if you follow science media, it’s likely that you’ve not noticed any attempt to contextualize the development as significant for astrophysics. One person who has noticed this disconnect is Thunderbolts colleague Chris Reeve, who has spent many years documenting online discourse on scientific controversies. Recently, Chris published a commentary exploring why the recognition of vast, cosmic electric currents has apparently yet to register either with science journalists or most online commentators.”

[Watch the entire talk posted online April 2, 2018 on YouTube](#)

[\(17:15\).](#)

link submitted by Robert Petrovich

The race to invent the artificial leaf



*In this excerpt from his new book *Taming the Sun*, Varun Sivaram follows the research paths of two rival scientists determined to find a way to wring fuel out of thin air.*

by Varun Sivaram February 21, 2018

“Since the early 1970s, scientists have been on a quest to develop a technology that could create liquid fuels out of carbon dioxide, water, and sunlight far more efficiently than photosynthesis, the process by which plants harness sunlight to produce carbohydrates and store energy. They call it the artificial leaf.

“A commercially viable artificial leaf would solve several of the trickiest challenges in clean energy. It would create a way to directly and affordably store solar energy while producing a carbon-neutral fuel that could transform the transportation sector, even offering a way to make long-distance air travel environmentally sustainable.

“Scientists have made slow but considerable progress on the two crucial steps in the process: developing catalysts that use solar energy to split water into oxygen and hydrogen, and creating others that can convert hydrogen and carbon dioxide into an energy-dense fuel. The remaining trick is to combine these tasks in an affordable and scalable way, using cheap and abundant materials.”

[Read the entire article posted February 21, 2018 online at technologyreview.com](https://www.technologyreview.com/2018/02/21/597555/artificial-leaf-solar-energy-storage-fuel-transportation/)

link submitted by Robert Petrovich

Taming the Sun: Innovations to Harness Solar Energy and Power the Planet

Foreword by Barack Obama
"A must-read look into the limitless potential of an energy source
as timeless as the sun that may very well save the earth."

—John F. Kerry, 68th U.S. Secretary of State

TAMING *the* SUN

Innovations to Harness Solar Energy
and Power the Planet

[Taming the Sun: Innovations to Harness Solar Energy and Power the Planet](#) (MIT Press, 2018) Hardcover by Varun Sivaram (A Council on Foreign Relations Book)

How solar could spark a clean-energy transition through transformative innovation – creative financing, revolutionary technologies, and flexible energy systems.

“Solar energy, once a niche application for a limited market, has become the cheapest and fastest-growing power source on earth. What’s more, its potential is nearly limitless – every hour the sun beams down more energy than the world uses in a year. But in *Taming the Sun*, energy expert Varun Sivaram warns that the world is not yet equipped to harness erratic sunshine to meet most of its energy needs. And if solar’s current surge peters out, prospects for replacing fossil fuels and averting catastrophic climate change will dim.

“Innovation can brighten those prospects, Sivaram explains, drawing on firsthand experience and original research spanning science, business, and government. Financial innovation is already enticing deep-pocketed investors to fund solar projects around the world, from the sunniest deserts to the poorest villages. Technological innovation could replace today’s solar panels with coatings as cheap as paint and employ artificial photosynthesis to store intermittent sunshine as convenient fuels. And systemic innovation could add flexibility to the world’s power grids and other energy systems so they can dependably channel the sun’s unreliable energy.

“Unleashing all this innovation will require visionary public policy: funding researchers developing next-generation solar technologies, refashioning energy systems and economic markets, and putting together a diverse clean energy portfolio. Although solar can’t power the planet by itself, it can be the centerpiece of a global clean energy revolution.”

[Take a look inside the book at amazon.com](https://www.amazon.com/dp/0143126420)

“Light-based therapy for Alzheimer’s disease”



Alzheimer’s disease, which affects more than 5 million people in the United States, is characterized by beta amyloid plaques that are suspected to be harmful to brain cells and to interfere with normal brain function. Previous studies have hinted

that Alzheimer’s patients also have impaired gamma oscillations. These brain waves, which range from 25 to 80 hertz (cycles per second), are believed to contribute to normal brain functions such as attention, perception, and memory.

Using LED lights flickering at a specific frequency, MIT researchers have shown that they can substantially reduce the beta amyloid plaques seen in Alzheimer’s disease, in the visual cortex of mice. This treatment appears to work by inducing brain waves known as gamma oscillations, which the researchers discovered help the brain suppress beta amyloid production and invigorate cells responsible for destroying the plaques.

This four minute video, by the researchers, gives an overview of their work:

https://www.youtube.com/watch?v=0_p4QWkE2Ls

link submitted by Michael McIntyre

“RUPERT SHELDRAKE: Science Set Free, Part 1”



Part 1 of a talk by Rupert Sheldrake at the conference ELECTRIC UNIVERSE 2013: The Tipping Point, in Albuquerque, New Mexico.

SEE PART 2: <http://www.youtube.com/watch?v=VRKvvx...>

Many scientists like to think that science already understands the ways of the natural world. The fundamental questions are answered, leaving only the details to be filled in. The impressive achievements of science seemed to support this confident attitude. But recent research has revealed unexpected problems at the heart of physics, cosmology, biology, medicine and psychology. Dr. Shel Drake is a biologist and author of more than 80 scientific papers and 10 books, including *Science Set Free* (September 2012).

For more information on Dr. Shel Drake SEE:

<http://www.shel Drake.org>

link submitted by Robert Petrovich

“What Moves?”



Bright light. PHOTO: Arsgera (1070)

“When you’re in a boat, you see waves of water lap against the hull. If you could tie a flag to a molecule of water, you could see that molecule move up and down. When you’re at a concert, you hear waves of sound press against your ear. If you could tie a flag to a molecule of air, you could see that molecule move back and forth.

“When you tune your radio to your favorite station, you set its sensory organ—the antenna and tuning circuit—to respond to waves of electromagnetic potential energy. If you could tie a flag to ... um, what exactly could you tie a flag to?

“The water or air molecule moves. You can measure its spatial displacement as it varies with time, and you can plot those measurements on a graph with displacement along one axis and time along the other. The result is a sinusoidal curve that resembles the form of the water’s surface which we call a wave.

“Hence we speak of water waves, usually without distinguishing

the “real” surface feature from the metaphorical mathematical form. And we speak of sound waves, usually without being aware that the term is, in this instance, entirely metaphorical. We have developed mathematical manipulations that enable us, on the basis of metaphorical resemblances, to predict and to utilize various attributes of periodically moving water and air molecules. The wave theory of water and the wave theory of sound have been wondrously productive cognitive tools.

“So, too, we speak of electromagnetic waves. And we have developed mathematical manipulations that have been wondrously productive. We measure voltages or currents; we graph their variation with time; and the graphs have the form of a wave. But what moves? . . .”

[Read the entire article posted on March 26, 2018 at
thunderbolts.com.](#)

[Watch the video based on the article posted on May 7, 2018 at
YouTube.com.](#)

link submitted by Robert Petrovich

“Ancient Egyptian Music: Hymn

to the Sun”



“Let our imaginations take us to the ancient times of Ancient Egypt; to the green and fertile borders of the Nile ; to the golden deserts and all the mysteries of this spiritual civilization. We hear now a priestess singing her devotional chant to Ra in the first rays of the day. This music is part of the soundtrack of the Brazilian TV series El Clon. It was composed and performed by Marcus Viana who also played all the violins, violas , cellos and keyboards. You can find it on the album Maktub at the site www.sonhosesons.com.br.”

[Listen to this song posted online by Marcus Viana on YouTube \(3:35\)](#)

link submitted by Frieda Nelson

“The Mystery of Jesus’s Brother Gets Even Weirder”



Jesus and James. Unknown painter. Possibly 14th century.

“Whether Jesus had any siblings is an old debate within Christianity. A number of passages in the New Testament have been stoking this speculation for almost two thousand years. The Gospel of Mark mentions Jesus having brothers and sisters, while the Gospel of Matthew talks about his “brothers” James, Joseph, Simon and Judas. Are these references more figurative than literal, meaning these are just spiritual brothers? An

incredible recent find of an ancient text just put James back in the spotlight of this controversial mystery. ”

[Read the entire article posted online December 25, 2017 by Paul Ratner at bigthink.com.](#)

link submitted by Robert Petrovich

New Views on the Shroud of Turin

[“Unwrapping the Shroud: New Evidence”](#)



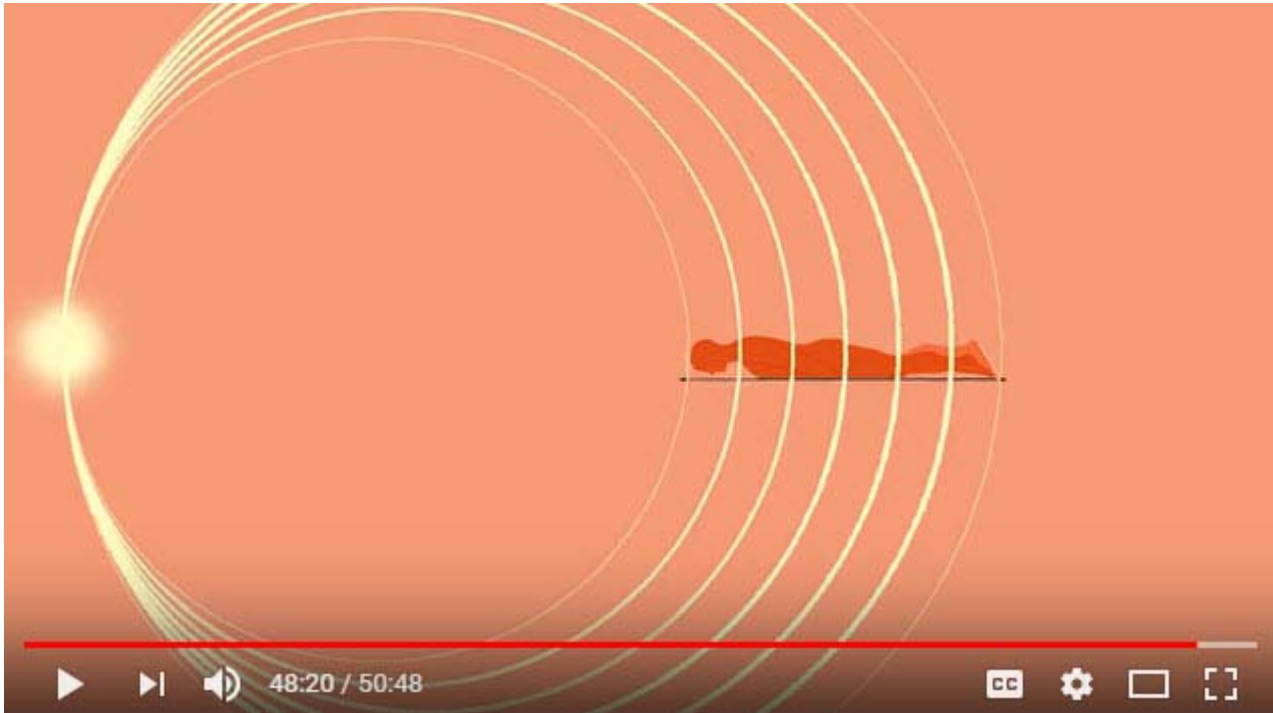
[New evidence on the Shroud of Turin from April 2013.](#)

[“The Shroud of Turin Conference 2017 – Role of Radiation in Image Formation”](#)



[Streamed live on Jul 22, 2017](#)

["The new astonishing phenomenon detected on the Shroud"](#)



[Published on Mar 11, 2018](#)

“Photogrammetric restitution on the Shroud of Turin has revealed a previously unknown phenomenon that opens up new horizons for science. The strength of this discovery is stressed by the fact that the geometrical data used for restitution can be verified with tools that are accessible to everyone. The discovery was made by the INTERNATIONAL INSTITUTE FOR ADVANCED STUDIES OF SPACE REPRESENTATION SCIENCES

www.istitutorappresentazionespazio.it”

– links submitted by Frieda Nelson

“Ancient DNA and the new science of the human past”



Dr. David Reich

“Beginning in 2010, it became practical to sequence whole genomes from DNA extracted from ancient human bones, and to analyze the data to understand changes in biology over time. Since that time, the amount of ancient DNA data has increased at an extraordinary rate, with the number of samples with at least one-fold genome coverage being five in 2013, eighteen in 2014, and 116 in 2015. Dr. Reich will begin his lecture by describing how present-day Europeans derive from a fusion of highly divergent ancestral populations as different from each other as are Europeans and East Asians. He will then summarize the history of modern humans in Europe over the approximately

45,000 years since they first arrived. He will next describe the spread of farming populations from the Near East over the last 12,000 years. He will finally conclude by describing how the analysis of ancient DNA has led to some of the insights about human biological change over time.”

< [Watch the entire lecture of Dr. David Reich posted September 21, 2016 by the National Institutes of Health on YouTube \(1:05:45\)](#) >

link submitted by Frieda Nelson