

Ode to E Pluribus Unum for Sunday December 10 2023

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NASA X-ray Telescopes Reveal a Ghostly Cosmic Hand



Credit: X-ray: NASA/CXC/Stanford Univ./R. Romani et al. (Chandra); NASA/MSFC (IXPE); Infrared: NASA/JPL-Caltech/DECaPS; Image Processing: NASA/CXC/SAO/J. Schmidt)

In 1895, Wilhelm Röntgen discovered X-rays and used them to image the bones in his wife's hand, kicking off a revolutionary diagnostic tool for medicine.

Now two of NASA's X-ray space telescopes have combined their imaging powers to unveil the magnetic field "bones" of a remarkable hand-shaped structure in space. Together, these telescopes reveal the behavior of a dead collapsed star that lives on through plumes of particles of energized matter and antimatter.

<https://bit.ly/46YZbho>

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What To Know About Hanukkah and How It's Celebrated Around the World



AP Photo: Sebastian Scheiner

In Hebrew, Hanukkah means "dedication," and the holiday marks the rededication of the Temple in Jerusalem in the 2nd century BC, after a small group of Jewish fighters liberated it from occupying foreign forces.

Jews across the religious observance spectrum — from Reform to Conservative to Orthodox — focus on the same theme of bringing light into the darkness and emphasizing that even a small, against-the-odds effort can have a transforming effect.

https://apnews.com/article/hanukkah-meaning-traditions-2023-79c6eea50e6979a195f179b8b6a517d8?utm_source=join1440&utm_medium=email

This year, Hanukkah will be celebrated from Dec. 7 through Dec. 15.

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On the Homestretch

Beware of the fading slipstream of long tethered pride.
Well past apogee stern laws of reason now decree
How flawed visions and thwarted purpose elide,
Ensnaring virtues set to stem hope's febrile tide.

Refocused beyond youth's fear or callow mire
Ageless passions lie less violent in more stable air.
Hollow hemispheres of polar truth implode, expire,
Then birth again with inklings of some distant fire.

Things I've seen before, perceived, partaken, even been
Then metered by the micron quart or peck, devoured whole
Where left to ebb and flow in limbo, allowed to toss and spin
Until rekindled by late life wonder I gauge them once again.

I protest as nonsense what we've seen in youth was end
And meaning of our earthly quest. Pray not so my friend
That in each instant of awareness we should have to fend
For morsels of remembrance to reap a hollow dividend.

John Trotti, 2023

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What Happens to Your Brain as You Age



nccmed

As the most complex organ in your body, your brain changes radically throughout your life. Starting from before birth and continuing even after you've died. This is what happens to your brain as you age.

<https://youtu.be/cMim0uU1yzA>

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Hadrian X Robotic Brick-Layer Heading to U.S.



HadrianX

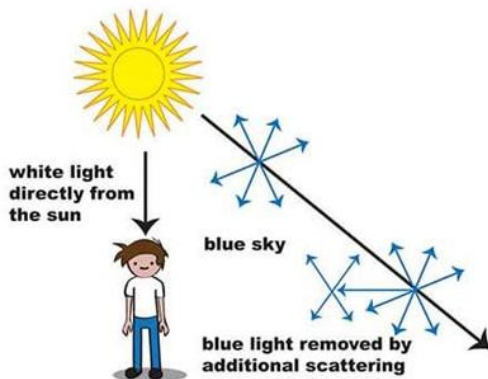
The truck successfully built an outdoor structure with large U.S. format concrete masonry blocks at an average lay rate of 240 blocks per hour. It has a peak speed of 326 blocks per hour, according to the company.

<https://youtu.be/wPhRb2AF92I>

By Rob Sutton for Construction Equipment

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Why Is the Sky Blue?



skyjinx.com

The sky's blueness isn't from reflecting the water. Instead, its color has to do with scattered light.

<https://bit.ly/3SqRXOF>

If you, as I, wonder why the color of Martian sky is different from Earth's...

The Martian atmosphere is primarily composed of carbon dioxide (about 95%) with trace amounts of other gases, including nitrogen and argon. On Earth, our atmosphere consists mainly of nitrogen and oxygen, which scatter shorter-wavelength blue light more effectively, giving our sky its characteristic blue color.

Mars has a significant amount of fine dust particles in its atmosphere. These particles can scatter sunlight in a way that can result in a reddish or pinkish hue in the Martian sky, particularly during sunrise and sunset. This scattering of sunlight by Martian dust can create the famous "Mars red sky" effect.

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Stain Removal Is the Unsung Hero of Sustainable Fashion

Fast fashion makes it too easy to discard clothes when you stain them. By becoming a stain-removal expert, you can buy higher-quality clothes you really love.



getty

or decades, fast fashion has ruled the apparel industry, churning out clothes so cheap they have effectively become disposable. By some estimates, consumers wear garments only 7 to 10 times before discarding it. As a result, a truckload of clothes end up in a landfill every single second. This excessive consumption is driving the planet to the brink of collapse: Fashion is now responsible for 8% of global carbon emissions.

So what can you do with stains?

<https://bit.ly/3MNb1mJ>

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Honda's Latest Hydrogen Fuel Cell System: A Multi-Use Marvel?



Honda's Hydrogen Fuel Cell Stack Module Prototype
Image Credit: Honda

Honda Showed Off new hydrogen tech at the Brussels Expo.

At the start of the 2023 European Hydrogen Week in Brussels, Honda unveiled its next-generation Hydrogen Fuel Cell Stack Module, and it's not your average fuel cell system.

This H2 drivetrain doesn't put all its eggs in one basket.

Honda designed this latest H2 system to be exceptionally durable and versatile to serve multiple uses.

Not only can this next-gen hydrogen fuel cell system be included within fuel cell vehicles, but it can also reportedly be used in commercial vehicles, construction machinery, and even in stationary power stations.

Specifically, the fuel cell system is anticipated to be exceptionally effective as a power source for large-size mobility products and large-scale infrastructure that are heavily used. It is also supposed to be particularly effective for mobility products that rely on fast refueling where being powered by batteries would prove difficult.

“The characteristics of our next-generation fuel cell system are ideal for meeting the pressing needs of several industries seeking a rapid transition to zero emissions power sources,” explained Ingo Nyhues, Deputy General Manager, Europe Business Planning & Development, Honda Motor Europe.

<https://youtu.be/4aRY04cmIDY>

“It is a highly versatile unit thanks to its compact dimensions, powerful output, outstanding durability, and ability to provide quick startup times – even in low temperature environments.”

The next-gen hydrogen fuel cell system is a demonstration of Honda’s commitment to carbon neutrality.

Honda’s showcasing of its next-generation Hydrogen Fuel Cell Stack Module prototype is the latest demonstration of the company’s promise to achieve carbon neutrality across all its global operations by 2050.

Nyhues added that the expertise Honda has gained over the past 30 years of hydrogen R&D gives the company a “perfect foundation” to apply their technologies to the new sectors in Europe, ultimately supporting the net zero ambitions of the region.

Collaboration is key.

hydrogen news ebookThe H2 drivetrain prototype being showcased by Honda was developed together with GM. Honda believes in collaborating with business and technology partners to expand applications of the fuel cell system. .

By Angie Bergenson for Hydrogen Fuel News

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Historical Portraits of Native Americans from 125 Years Ago



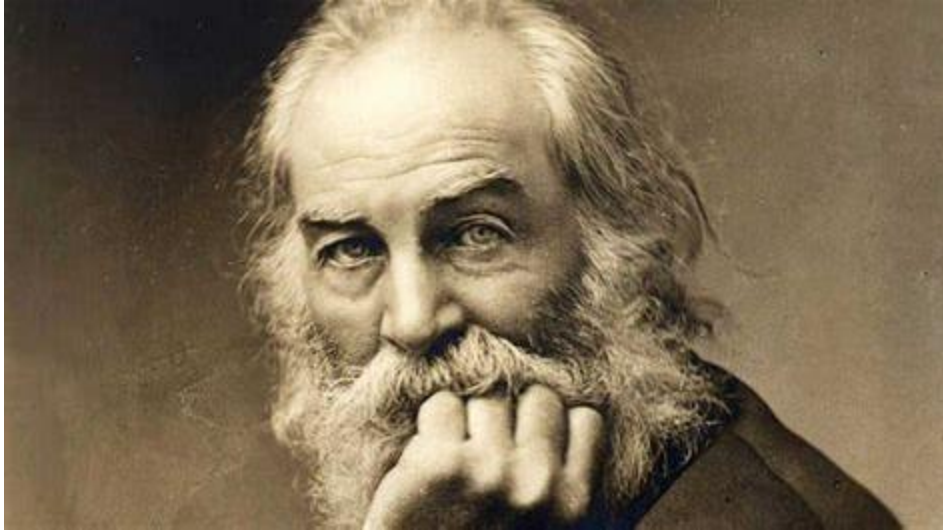
Boston Public Library has a beautiful collection of historical imagery that includes hundreds of portraits of Native Americans.

These sepia-toned images show peoples from the Sioux, Apache, Kiowa, Arapahoe and Crow tribes, taken around 1898.

<https://bit.ly/46IWz6a>

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Walt Whitman (1819-1892)



investors.com

The American poet, essayist, and journalist is considered one of the most influential poets in American history. Whitman incorporated both transcendentalism and realism in his writings and is often called the father of free verse. His work was controversial in his time, particularly his 1855 poetry collection [Leaves of Grass](#), which was described by some as obscene for its overt sensuality.

Whitman's influence on poetry remains strong. Art historian Mary Berenson wrote, "You cannot really understand America without Walt Whitman, without Leaves of Grass... He has expressed that civilization, 'up to date,' as he would say, and no student of the philosophy of history can do without him." Modernist poet Ezra Pound called Whitman "America's poet... He is America."

I Hear America Singing

I hear America singing, the varied carols I hear,
Those of mechanics, each one singing his as it should be blithe and strong,
The carpenter singing his as he measures his plank or beam,
The mason singing his as he makes ready for work, or leaves off work,
The boatman singing what belongs to him in his boat, the deckhand singing
on the steamboat deck,
The shoemaker singing as he sits on his bench, the hatter singing as he
stands,
The wood-cutter's song, the ploughboy's on his way in the morning, or at
noon intermission or at sundown,
The delicious singing of the mother, or of the young wife at work, or of the
girl sewing or washing,
Each singing what belongs to him or her and to none else,
The day what belongs to the day—at night the party of young fellows,
robust, friendly,
Singing with open mouths their strong melodious songs.

O Captain! My Captain!

O Captain! my Captain! our fearful trip is done,
The ship has weather'd every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting,
While follow eyes the steady keel, the vessel grim and daring;

But O heart! heart! heart!

O the bleeding drops of red,
Where on the deck my Captain lies,
Fallen cold and dead.

O Captain! my Captain! rise up and hear the bells;
Rise up—for you the flag is flung—for you the bugle trills,
For you bouquets and ribbon'd wreaths—for you the shores a-crowding,
For you they call, the swaying mass, their eager faces turning;

Here Captain! dear father!

This arm beneath your head!

It is some dream that on the deck,
You've fallen cold and dead.

My Captain does not answer, his lips are pale and still,
My father does not feel my arm, he has no pulse nor will,
The ship is anchor'd safe and sound, its voyage closed and done,
From fearful trip the victor ship comes in with object won;

Exult O shores, and ring O bells!

But I with mournful tread,
Walk the deck my Captain lies,
Fallen cold and dead.

I Saw in Louisiana A Live-Oak Growing

I saw in Louisiana a live-oak growing,
All alone stood it and the moss hung down from the branches,
Without any companion it grew there uttering joyous leaves of dark
green,
And its look, rude, unbending, lusty, made me think of myself,
But I wonder'd how it could utter joyous leaves standing alone there
without its friend near, for I knew I could not,
And I broke off a twig with a certain number of leaves upon it, and twined
around it a little moss,
And brought it away, and I have placed it in sight in my room,

It is not needed to remind me as of my own dear friends,
(For I believe lately I think of little else than of them,)
Yet it remains to me a curious token, it makes me think of manly love;
For all that, and though the live-oak glistens there in Louisiana solitary in
a wide flat space,
Uttering joyous leaves all its life without a friend a lover near,
I know very well I could not.

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International Classical Music Awards 2023 Wrocław Philharmonic



escape2poland

A bouquet of the very finest music is performed at the International Classical Music Awards 2023 Gala Concert. The NFM Wrocław Philharmonic, conducted by Giancarlo Guerrero, performed with the award winners, who presented the most beautiful pieces from their repertoire. The 13th ICMA concert took place on April 21, 2023 at the Grand Auditorium of the National Forum of Music in Wrocław, Poland.

https://youtu.be/UeUGuhH_XUo

Even better is to go to Wrocław. It is a fantastic city.

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John Salmon Plays Brubeck



johnsalmon.com

https://youtu.be/chh_vnA3X0w

John Salmon performs his stylistic arrangement of Bach's Prelude in F Major followed by Bach's Fugue in F (WTC I, BWV 856) which he then morphs into the Two-Part Contention by Dave Brubeck.

Performed during the Friday night performance of the Festival for Creative Pianists on May 22nd at the Wash Park Center for Music & Arts.

Time Out <https://youtu.be/FUFiKSmqivo>

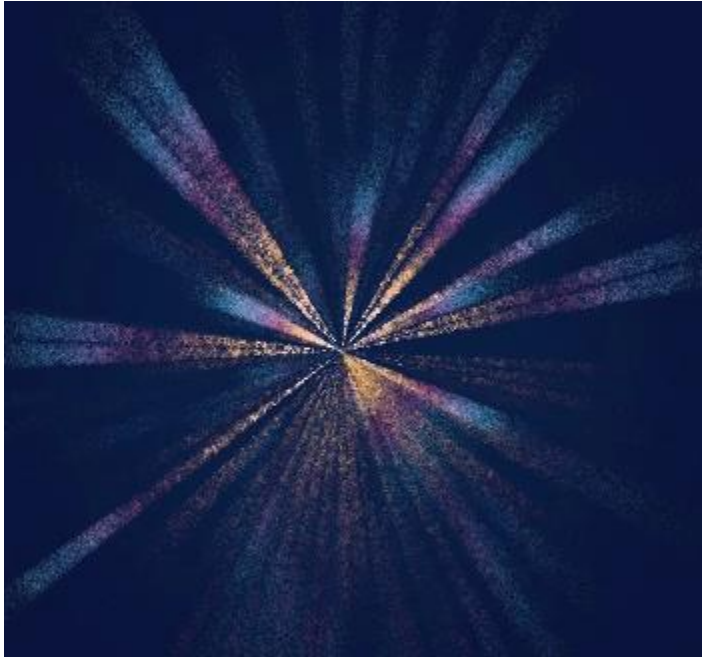
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The Most Shocking Discovery in Astrophysics Is 25 Years Old

A quarter of a century after detecting dark energy, scientists are still trying to figure out what it is.



The Dark Energy Spectroscopic Instrument (DESI) will spend five years creating a 3-D map of the universe that will help reveal the nature of the dark energy driving cosmic expansion. The project's first six months of data show slivers of the universe that represent just 1 percent of the survey's ultimate volume of space. The colors represent different types of galaxies, including nearby bright galaxies in yellow, luminous red galaxies in magenta and galaxies with supermassive black holes in turquoise. Credit: Nadieh Bremer;

Source: "The Early Data Release of the Dark Energy Spectroscopic Instrument," by DESI Collaboration et al.; 2023 (data)

The time has finally come to tackle one of the fundamental questions in cosmology: What is the fate of the universe?

Specifically, in a universe full of matter that is gravitationally attracting all other matter, logic dictates that the expansion of space—which began at the big bang and has continued ever since—would be slowing. But by how much? Just enough that the expansion will eventually come to an eternal standstill? Or so much that the expansion will eventually reverse itself in a kind of about-face big bang?

<https://bit.ly/46glxK4>

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Alvaro Herrero Lopez Beltra: Fostering Change

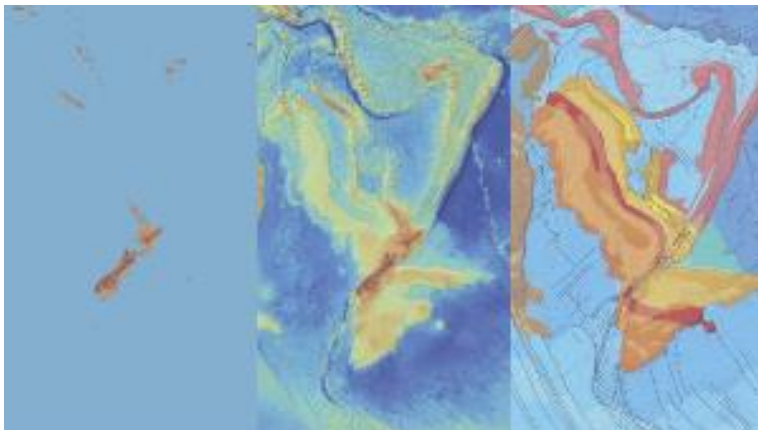


Underwater photographer Alvaro Herrero Lopez Beltran has just won the third overall place in 2023's Ocean Photographer of the Year competition. In this interview, he speaks to Oceanographic about the moment he took the heartbreaking shot of a dying, entangled whale.

<https://bit.ly/3PEJPs2>

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Zealandia Was Torn in a Flood Of Fire 100 Million Years Ago



Scientists have fully mapped the lost continent of Zealandia in a world first, discovering new details about how it broke away from the supercontinent Gondwana through the ignition of a huge volcanic region tens of millions of years ago.

<https://bit.ly/48SOXAj>

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Golden Horseshoe Crab Photo Wins Wildlife Photography Awards

Here are the winners of the prestigious 2023 Wildlife Photographer of the Year contest.



A mesmerizing photo of a golden horseshoe crab beat nearly 50,000 images to win the Natural History Museum's Wildlife Photographer of the Year competition. French underwater photographer and marine biologist Laurent Ballesta took the impressive photo in the Philippines, showing the tri-spine horseshoe crab followed by a trio of golden trevallies.

<https://bit.ly/3QgoyFk>

Some of these are thought-provoking.

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Titanosaur Fossils Fill 'Black Hole' in Dinosaur History



Titanosaur fossils fill 'black hole' in dinosaur history
(Andrew McAfee and Talia Mastalski, Carnegie Museum of Natural History)

A newly described titanosaur species, named after an ancient Egyptian deity, fills a gap in our understanding of Africa's dinosaurs.

<https://bit.ly/3RTV7u5>

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Don't Mess with Geezers



istock

Shown below, is an actual letter that was sent to a bank by an 86 year old woman. The bank manager thought it amusing enough to have it published in The Times.

Dear Sir:

I am writing to thank you for bouncing my check with which I endeavored to pay my plumber last month.

By my calculations, three nanoseconds must have elapsed between his presenting the cheque and the arrival in my account of the funds needed to honor it..

I refer, of course, to the automatic monthly deposit of my entire pension, an arrangement which, I admit, has been in place for only eight years.

You are to be commended for seizing that brief window of opportunity, and also for debiting my account \$30 by way of penalty for the inconvenience caused to your bank.

My thankfulness springs from the manner in which this incident has caused me to rethink my errant financial ways. I noticed that whereas I personally answer your telephone calls and letters, --- when I try to contact you, I am confronted by the impersonal, overcharging, pre-recorded, faceless entity which your bank has become.

From now on, I, like you, choose only to deal with a flesh-and-blood person.

My mortgage and loan repayments will therefore and hereafter no longer be automatic, but will arrive at your bank, by cheque, addressed personally and confidentially to an employee at your bank whom you must nominate.

Be aware that it is an OFFENCE under the Postal Act for any other person to open such an envelope.

Please find attached an Application Contact which I require your chosen employee to complete.

I am sorry it runs to eight pages, but in order that I know as much about him or her as your bank knows about me, there is no alternative.

lease note that all copies of his or her medical history must be countersigned by a Notary Public figure, and the mandatory details of his/her financial situation (income, debts, assets and liabilities) must be accompanied by documented proof.

In due course, at MY convenience, I will issue your employee with a PIN number which he/she must quote in dealings with me.

I regret that it cannot be shorter than 28 digits but, again, I have modelled it on the number of button presses required of me to access my account balance on your phone bank service.

As they say, imitation is the sincerest form of flattery.

Let me level the playing field even further. When you call me, press buttons as follows:

IMMEDIATELY AFTER DIALLING, PRESS THE STAR (*) BUTTON FOR ENGLISH

#1. To make an appointment to see me

#2. To query a missing payment.

#3. To transfer the call to my living room in case I am there.

#4 To transfer the call to my bedroom in case I am sleeping.

#5. To transfer the call to my toilet in case I am attending to nature.

#6. To transfer the call to my mobile phone if I am not at home..

#7. To leave a message on my computer, a password to access my computer is required. (Password will be communicated to you at a later date to that Authorized Contact mentioned earlier.)

#8. To return to the main menu and to listen to options 1 to 9

#9. To make a general complaint or inquiry.

The contact will then be put on hold, pending the attention of my automated answering service.

While this may, on occasion, involve a lengthy wait, uplifting music will play for the duration of the call.

Regrettably, but again following your example, I must also levy an establishment fee to cover the setting up of this new arrangement.

May I wish you a happy, if ever so slightly less prosperous New Year?

Your Humble Client

Gerty

P.s. And remember: Don't make old people mad. We don't like being old in the first place, so it doesn't take much to piss us off.

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Describe Rocks Like a NASA Scientist



NASA

There are all kinds of rocks and minerals that make up our planet – as well as our Moon and other rocky worlds. By studying them, we can learn about the conditions that allowed them to form.

<https://bit.ly/46OALXF>

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The State of Education Per Pisa 2022 Results



oecdeditoday.com

Preparing students for a changing world

Eighteen countries and economies performed above the OECD average in mathematics, reading and science in 2022. Between 2018 and 2022, mean performance in mathematics across OECD countries fell by a record 15 points. Reading fell 10 points, twice the previous record, whereas science performance did not change significantly. On average, reading and science trajectories had been falling for a decade, though math had remained stable between 2003-2018. Colombia, Macao (China), Peru and Qatar improved in all three subjects on average since they began to take part in PISA.

<https://www.oecd.org/publication/pisa-2022-results/>

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Eye Scans Provide Insight into Kidney Health

3D eye scans can reveal vital clues about kidney health that could help to track the progression of disease, research suggests.



ed.ac.uk

The team looked at OCT images from 204 patients at different stages of kidney disease, including transplant patients, alongside 86 healthy volunteers.

They found that patients with chronic kidney disease had thinner retinas compared with healthy volunteers. The study also showed that thinning of the retina progressed as kidney function declined.

These changes were reversed when kidney function was restored following a successful transplant. Patients with the most severe form of the disease, who received a kidney transplant, experienced rapid thickening of their retinas after surgery.

<https://bit.ly/483CEjl>

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Jay Thomas Lone Ranger Story...and More



They'll believe me, citizen.
Spiritofthebear

https://youtu.be/cT6di_mutZQ

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Both addresses look similar
but not the same.

Spot the Difference?

maybank2u.com is not the same as
maybank2u.com

citibank.com is not the same as
citibank.com

(the first one is correct, the second one
is from hackers)

The "a" in the later url is a cyrillic
alphabet.

An average internet user can easily fall
for this. Be careful for every mail
requiring you to click on a link.

Please Stay Alert

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Life-Extending Drug for Big Dogs Closer to FDA Approval

If approved, the drug designed for lifespan extension would be the first of its kind authorized in any species.



Bernese mountains dogs are one of the biggest dog breeds, but sadly only live for an average of six to eight years.

Image credit: Rita_Kochmarjova/Shutterstock.com

Big and giant dogs, such as golden retrievers, Great Danes and Newfoundlands tend to have notoriously short lifespans – the latter have an average life expectancy of eight to 10 years. Previous research has suggested that this is the result of years of selective breeding for big dogs, giving them the genetic recipe for huge bodies, but also short lives.

<https://bit.ly/3uU7s7R>

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Absurd Signs of Shrinkflation!



!funny.xom

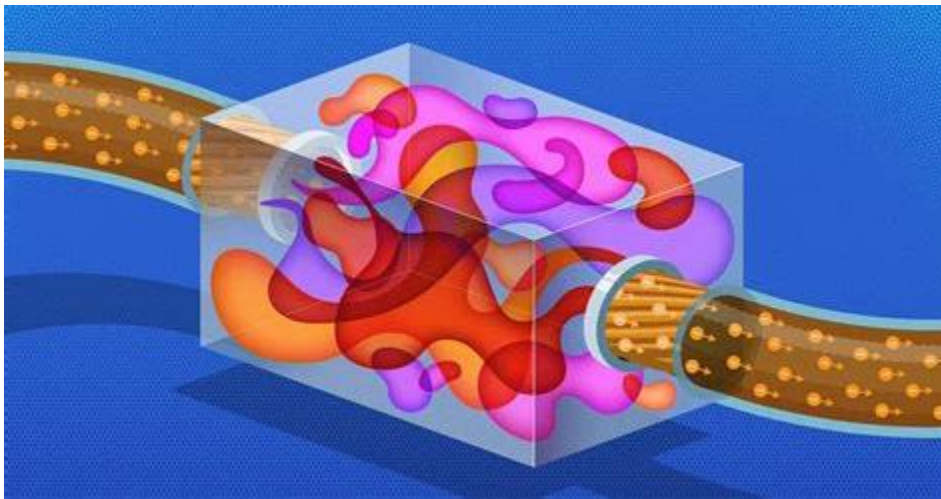
Here are some absurd evidence of shrinkflation that companies are guilty of. It's so obvious, it's embarrassing! What did you think? Please leave a comment in the section below and remember to share the video and sign up for our free newsletter!

<https://youtu.be/40eYtwXkYpc>

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Strange Metals Where Electricity May Flow Without Electrons

For 50 years, physicists have understood current as a flow of charged particles. But a new experiment has found that in at least one strange material, this understanding falls apart.



The unusual flow of electric current through a strange class of metals challenges our textbook understanding of charge-carrying particles — because whatever is shuttling current through these metals looks nothing like electrons.

Samuel Velasco/Quanta Magazine

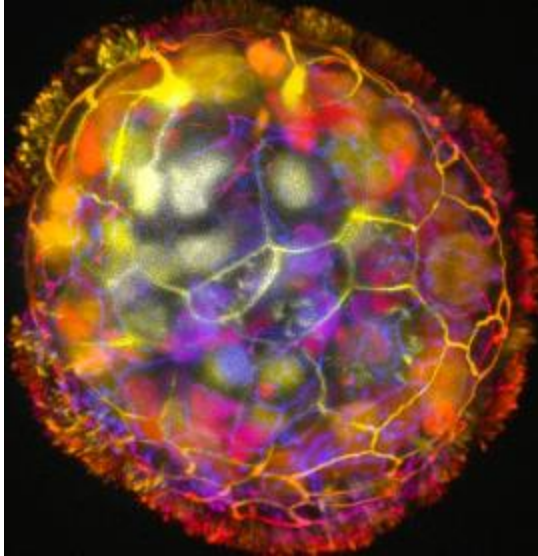
Canonically, electric current results from the collective movement of electrons, each carrying one indivisible chunk of electric charge. But the dead steadiness of Chen's current implied that it wasn't made of units at all. It was like finding a liquid that somehow lacked individually recognizable molecules.

<https://bit.ly/3R2eVsU>

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Tiny Robots Made from Human Cells Heal Damaged Tissue

The 'anthrobots' were able to repair a scratch in a layer of neurons in the lab.



Each anthrobot is made up of a few hundred cells. Credit: Gizem Gumuskaya, Tufts University

The 'anthrobots' were made using human tracheal cells and might, in future, be used in personalized medicine.

<https://bit.ly/3Ne9u9g>

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Tinkerbell and her cousin, Tacobell!



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Babies' Brains Start to Learn Language Before Birth



talknua

Young humans learn words remarkably quickly. And research with newborns suggests that's in part because they start to pick up language in utero.

Fetuses gain the ability to hear sometime between five and seven months gestation. Previous studies had indicated that during this time, they learn to recognize the sounds of music and speaking voices they hear. But whether they really pick up on the language in either has remained unclear. So, researchers fitted one- to five-day-old newborns with electroencephalography (EEG) caps to measure their brain activity. Then they played kids' stories in English, Spanish, and French—the last of which was their parents' language. When the French story came at the end, the newborns' brains reacted differently, exhibiting brain wave patterns that suggested they were already primed to learn their parent's tongue, according to the authors.

"These results provide the most compelling evidence to date that language experience already shapes the functional organization of the infant brain, even before birth," the team writes.

The team plans to follow up with infants at other ages. "This technique could certainly help us in the future to quantify how the learning abilities change with the baby's age," says co-author Benedetta Mariani.

[Read the Paper](#)

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What Is Quantum Computing?



Avanade.com

Many researchers believe that quantum computers will complement rather than replace our conventional technologies.

Just as people could envision few of today's uses of classical computers and related technologies back in the 1950s, we may be surprised by the applications that emerge for quantum computers.

<https://bit.ly/3Rlnqko>

This article was reviewed by a member of Caltech's Faculty.

The article actually makes sense...right up to the point when my mind decoheres but..

[Here's a little more.111111111](#)

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Huge Study Finds Genetic Risks Behind 'Cannabis Use Disorder'

In a study that included genetic data from more than 1 million people, scientists started to unravel the genetics of cannabis use disorder.



Scientists uncovered patterns of genetic traits shared by people with cannabis use disorder. (Image credit: Photo by Pablo Vera/AFP via Getty Images)

Scientists have pinpointed gene variants tied to the risk of developing [cannabis use disorder](#), in which people build up tolerance to weed and struggle to cut back despite negative impacts on their life and health.

The disorder has formal diagnostic criteria in the [manual for mental health disorders](#). But "roughly, what it means is cannabis use that becomes problematic and involves tolerance or other biological signs of dependence, like withdrawal," [Dr. Joel Gelernter](#), a professor of genetics and neuroscience at Yale University School of Medicine and researcher with the U.S. Department of Veterans Affairs (UDVA), told Live Science.

To probe potential genetic risks of the disorder, Gelernter and colleagues drew data from the [Million Veterans Program](#), which gathers genetic and medical data from U.S. veterans, as well as other large datasets.

In all, their analysis included the genomes of more than 1 million people, about 64,000 of whom had a cannabis use disorder diagnosis. These included mostly people of European descent, but also those of African, East Asian and mixed ancestries.

Related: [How does cannabis get you high?](#)

In each population, the team uncovered key hotspots of genetic variation in the genome — called "loci" — associated with cannabis use disorder. They found 22 loci relevant to Europeans, two each among Africans and East Asians, and one in people with mixed ancestries.

"That's why it's just a crucial need to increase recruitment outside of European ancestry" for genomic research, first study author [Daniel Levey](#), an assistant professor of psychiatry at Yale University School of Medicine and researcher with UDVA, told Live

Science. Expanding the dataset will reveal more gene variants that are relevant to each population.

The genetics behind cannabis use disorder

In the new study, published Monday (Nov. 20) in the journal [Nature Genetics](#), hotspots of variation often appeared near genes related to neurons, the nervous system cells that [communicate with electrical and chemical messages](#). This included a gene that codes for a dopamine receptor that's known to be crucial to the brain's reward system and to play a [role in addiction](#).

Other types of neurons that respond to different chemical messengers also cropped up in the data. But "we didn't see cannabinoid receptors pop up to the top," which are the receptors [cannabis' ingredients](#) directly plug into, Gelernter noted. It's possible that genes related to cannabinoid receptors would pop up in larger datasets. But for now, "I think most of what we saw is downstream to the direct interaction of ingredients in cannabis with brain receptors," he said.

In addition to identifying loci, the researchers investigated if these genetic traits appeared alongside those related to other disorders and behaviors. They uncovered links between cannabis use disorder and smoking cigarettes, various forms of substance dependence, and symptoms of post-traumatic stress disorder (PTSD).

They compared these genetic patterns tied to cannabis use disorder with [patterns previously linked to general cannabis use](#). The two patterns were quite different — general cannabis use was not linked to PTSD, for example. However, both general cannabis use and the diagnosed disorder were linked to schizophrenia, although the latter was a stronger link. Gelernter said the team plans to further study the link between schizophrenia and cannabis use disorder, since [this has been raised in past research](#).

Finally, the team uncovered a potential genetic link between cannabis use disorder and lung cancer, but this requires more research to fully understand.

"Smoking cannabis does contain combustion products that could be a mechanism for how it's associated with lung cancer," Levey said. "But we need to have more focused studies to disentangle that relationship." That's especially true because cannabis use disorder was also tied to cigarette smoking, a known cause of [lung cancer](#).

RELATED STORIES

—[Cannabis is no better than a placebo for treating pain, 20 studies show](#)

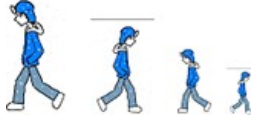
—[CBD reportedly discovered in plant that's not cannabis](#)

—[We may finally know where the cannabis plant originated](#)

"To what extent might what we observed be attributable to people simultaneously smoking cigarettes?" Gelernter said. At least in their analyses, cannabis use disorder remained linked to lung cancer even after cigarettes were removed from the equation, but further research is still needed to know what that link means.

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My Walking Thoughts



For Sunday December 10 2023

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Trip to Terra Incognita: Quantico, September 1959 (Cont.)

Lights out took place at exactly 2200 and with this evening's duty complete, Sergeant Davy departed, his heavy tread echoing down the ladder well, reinforcing his threat for the morrow. This cheery prospect was made more pungent by jet lag as my internal clock said it was only 1900 meaning that even with all the excitement since my arrival I was hours away from sleep. Instead, my mind sifted through Mr. Pollard's descriptions and advice and my prospects of making it through the next several days relatively unscathed. "Nil," Barney, my alter ego opined, adding to my foreboding, but at the same time the size and shape of my surroundings began to take shape.

I was a member of the second platoon of Company B, which consisted of an at the moment unknown platoon commander, a grizzled gunnery sergeant, two 3-stripe buck sergeants, and what I figured at rough count to be 50 targets of their affections...*Candidates* was their name for us.

If our platoon was nominal, then with three such units each in Companies A, B, C, and D, there were roughly 600 of us miserable bastards about to undergo a life-changing experience. According to Mr. Pollard, somewhere between a third and half of the total would disappear from our ranks in the next twelve weeks. If one-quarter of the initial group were destined for aviation training, somewhere around 75 of us would be heading for flight school.

As it turned out, my grassroots' figures were pretty accurate except for my platoon, whose attrition rate came close to two-thirds owing to ...well I'll get to that later.

Mulling the prospects deep into the night, I was rudely brought to the present by an overly enthusiastic hammering of Sergeant Davy's swagger stick—his baton of authority—on the squad bay's garbage can.

"Ok, girls," he shouted though a whisper would have done the job just as efficiently, "Hit the deck, shower, shave, dress, make your racks, and fall in in front of the barracks

ready for a little wake-up run." His soliloquy was a little more colorful, but you get the idea and so did we.

That first breakfast was my introduction to a Marine Corps staple, S-O-S, a worthy companion to powdered eggs, potatoes, some sort of juice, and coffee so thick it could stand by itself. That morning I was judicious in my portions, but thereafter I learned to heap as much on the tray as it would hold and devour the mess in fewer than the 10 minutes allotted to the task. Three thousand calories in a dozen or so gulps.

Back at the barracks, we retrieved our belongings and took the first transitional steps in the journey from civilian to Marine. It was here that Mr. Pollard's advice came into sharp focus.

"Take with you absolutely the least amount of stuff you can," he had warned, and I had. Not so, many of my fellow candidates, more than half of who brought weighty gear. Two had golf bags, many others tennis racquets, sacks of books, large pieces of luggage...lord knows what else, which they were allowed to lug from place to place as shuffled from line to line where we were issued several sets of Marine utilities, packs containing ponchos, shelter-halves, entrenching tool, K-bar knife, field mess kit, socks, shorts, t-shirts, heavy boots...yatta-yatta junk that by the time we were finished weighed close to 100 pounds. Then it was time for the armory where we were issued a WWI/II-vintage 1903-A3 Springfield rifle, our constant companion for all but our trip to the rifle range where we were introduced to the semi-automatic M-1 Garand for qualification.

By mid-morning, the bushes were filled with the rich variety of civilian accoutrements that candidates found no longer necessary to their stay, so it was time for the obligatory haircut and then medical shots for every disease on the planet.

We spent the afternoon learning about the gear we had been issued, how to make a rack the Marine Corps way, and a list of things we had to have memorized before evening chow.

Between then a lights out we practiced field-stripping and cleaning our Springfield, now and then distinguishing it with the near-sacred refrain,

This is my rifle'
This is my gun.
This one's for shooting
and this one's for fun.

"Sweet dreams, candidates," the lullaby this time provided by Sergeant Bulldog.
"Tomorrow, we find out just how tough you feather merchants are."

In the instant before the squad bay went black, I saw there were two empty racks.

To be continued.

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