## Ode to E Pluribus Unum for Sunday June 11 2023



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## Think Astrophotography is Just Point-and-Shoot? Think Again



#### Messier 101

Image Credit: NASA, ESA, CFHT, NOAO; Acknowledgement - K.Kuntz (GSFC), F.Bresolin (U.Hawaii), J.Trauger (JPL), J.Mould (NOAO), Y.-H.Chu (U. Illinois)

Big, beautiful spiral galaxy M101 is one of the last entries in Charles Messier's famous catalog, but definitely not one of the least.

About 170,000 light-years across, this galaxy is enormous, almost twice the size of our own Milky Way. M101 was also one of the original spiral nebulae observed by Lord Rosse's large 19th century telescope, the Leviathan of Parsontown.

Assembled from 51 exposures recorded by the Hubble Space Telescope in the 20th and 21st centuries, with additional data from ground-based telescopes, this mosaic spans about 40,000 light-years across the central region of M101 in one of the highest definition spiral galaxy portraits ever released from Hubble.

The sharp image shows stunning features of the galaxy's face-on disk of stars and dust along with background galaxies, some visible right through M101 itself. Also known as the Pinwheel Galaxy, M101 lies within the boundaries of the northern constellation Ursa Major, about 25 million light-years away.

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## **Entire CA Charter School Class Accepted into 4-Year Universities**



Collegiate charter school in Boyle Heights, CA will be sending its entire graduating class off to four-year universities for the fourth time in five years. The majority of these graduating seniors will be the first in their families to do so.

Collegiate Charter High School in Boyle Heights, California, an independent charter school founded in 2015 is in the middle of one of the densest populations of Latino families that live at or below the poverty level.

"These 45 Collegiate scholars are proving that, with the right supports, a rigorous curriculum, and dedicated teachers, any student can reach their college dreams in the City of Los Angeles."

Forty-five seniors at Collegiate Charter High School of Los Angeles were celebrated earlier this month with a special "Senior Signing Day" ceremony to reveal which schools they plan to attend in the coming year. The ceremony holds special weight for Collegiate educators as almost all of the graduating seniors come from low-income 3, many of which are Spanish-speaking immigrant families.

Hector Alvarado, the principal at Collegiate, said he was honored and humbled to have been part of the journey of these graduating seniors, saying he has no doubt that they will "help solve some of the biggest, toughest problems our society faces today."

The school said it's committed to ensuring its students graduate with high school diplomas and embark on the pursuit of higher education, which it said is critical to breaking the cycle of intergenerational poverty.

"These 45 Collegiate scholars are proving that, with the right supports, a rigorous curriculum, and dedicated teachers, students can reach their college dreams in the City of Los Angeles," said Alvarado.

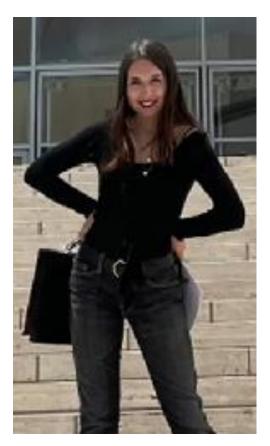
Collegiate said the school's 45 seniors have so far earned a combined \$630,000 in scholarships.

Collegiate Charter High School is an independent charter school that was founded in 2015. The school is tuition-free, and any California high school student is welcome to apply for admittance, regardless of zip code. The enrollment as of the 2022-23 school year is 206, according to the school's website.

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### LA Phil Composer Fellow Mia Ruhman:

"Welcome to the Funky House," played by David Howard



https://youtu.be/PdeCG8M4kAc

The brand new composition, specifically written to highlight the beauty and richness of the female voice is a setting of the iconic Christmas text, "O Magnum Mysterium."

Seraphour is dedicated to the preservation and proliferation of the sacred canon as told through the lens of the unaccompanied female voice. The Ruhman "O Magnum Mysterium, " is the ensemble's second commission project.



https://youtu.be/hiPUdPPg2yk?t=1

https://seraphour.com/?p=601

*Mia is my granddaughter Chelsea's best friend. They've collaborated on a number of short movies.* 

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Never seen anyone jogging and smiling, so that's all I need to know about that.

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## Prince (1958-2016)



extratv

The singer, guitarist, songwriter, producer, dancer, and performer on keyboards, drums, and bass was among the most talented American musicians of his generation.

Like Stevie Wonder, he was a rare composer who could perform at a professional level on virtually all the instruments he required, and a considerable number of his recordings feature him in all the performing roles.

Prince's recording career began with funk and soul marketed to a Black audience; his early music also reflected the contemporary musical impact of disco. Later records incorporated a vast array of influences, including jazz, punk, heavy metal, the Beatles, and hip-hop, usually within an overall approach most informed by funky up-tempo styles and soulful ballads; the latter often featured his expressive falsetto singing.

Raspberry Beret <a href="https://www.youtube.com/watch?v=l7vRSu\_wsNc">https://www.youtube.com/watch?v=l7vRSu\_wsNc</a>

Little Red Corvette <u>https://youtu.be/zxaA5jc8M9Q?t=1</u> d

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#### Will Rogers' Wit and Wisdom



The Famous People.Com

As Will Rogers Used to Say: Never Squat With Your Spurs On!

Will Rogers, who died in a 1935 plane crash in Alaska with bush pilot Wiley Post, was one of the greatest political country/cowboy sages this country has ever known. Some of his sayings:

- 1. Never slap a man who's chewing tobacco.
- 2. Never kick a cow chip on a hot day.
- 3. There are two theories to arguing with a woman. Neither of which works.
- 4. Never miss a chance to shut up.
- 5. Always drink upstream from the herd.
- 6.If you find yourself in a hole, stop digging.
- 7. The quickest way to double your money is to fold it and put it back into your pocket.
- 8. There are three kinds of men:

The ones that learn by reading.

The few who learn by observation.

The rest of them have to pee on the electric fence and find out for themselves.

9.Good judgment comes from experience, and a lot of that comes from bad judgment.

10.If you're riding' ahead of the herd, take a look back every now and then to make sure it's still there.

11.Lettin' the cat outta' the bag is a whole lot easier'n puttin' it back.

12.After eating an entire bull, a mountain lion felt so good he started roaring. He kept it up until a hunter came along and shot him. *The moral: When you're full of bull, keep your mouth shut.* 

### About Growing Older..

First  $\sim$  Eventually you will reach a point when you stop lying about your age and start bragging about it.

Second  $\sim$  The older we get, the fewer things seem worth waiting in line for.

Third ~ Some people try to turn back their odometers. Not me; I want people to know 'why' I look this way. I've traveled a long way, and some of the roads weren't paved.

Fourth  $\sim$  When you are dissatisfied and would like to go back to youth, think of Algebra.

Fifth ~ You know you are getting old when everything either dries up or leaks.

Sixth  $\sim$  I don't know how I got over the hill without getting to the top.

Seventh  $\sim$  One of the many things no one tells you about aging is that it's such a nice change from being young.

Eighth  $\sim$  One must wait until evening to see how splendid the day has been.

Ninth ~ Being young is beautiful, but being old is comfortable and relaxed.

Tenth  $\sim$  Long ago, when men cursed and beat the ground with sticks, it was called witchcraft. Today it's called golf.

And, finally  $\sim$  If you don't learn to laugh at trouble, you won't have anything to laugh at when you're old.

*My father wrote three of Wil Rogers' movies, "Apocryphal," said, explaining that Rogers was going to say and do on screen whatever he wanted. He was working on another when Rogers died.* 

<u>Judge Priest</u> (1934) <u>Life Begins at 40</u> (1935) <u>Steamboat Round the Bend</u> (1935)

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### The Genetic Links Between Different Dog Breeds



There are nearly 400 modern domestic dog breeds with unique histories and genetic profiles, many of which share genetic traits based on their geographic origin. This visualization captures the links between 150 common breeds—for example, boxers share genetic variants with 11 of 16 breeds of European Mastiff, along with five others outside of that group. Explore which breeds your pet is linked to with this chart.

Select from the list on the upper right side of the article.

https://bit.ly/3WXJEKr

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### **Maps Not in Your World Atlas**

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If you're Kim Jong Un, What Do You Do During a Pandemic?

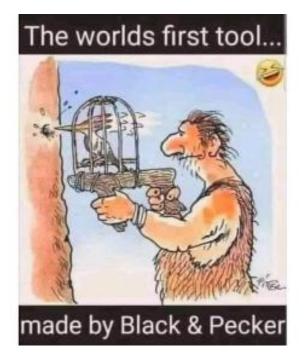


Well you build walls on the Chinese and Russian frontiers to stop smuggling and defections in order to keep your people safe and happy, that's what.

https://bit.ly/3J36iLQ

What a guy.

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### Saipan Invasion, June 15<sup>th</sup> 1944



In June 1944, Admiral Raymond A. Spruance's 500-ship fleet, carrying about 125,000 Marines and Sailors steamed 1,000 miles from the Western Marshall Islands to the South Mariana Islands, the last bastion of Japan's Central Pacific perimeter.



### How Menopause Reshapes the Brain

Researchers are starting to learn how the early stages of menopause affect brain health - and what that could mean for treatment.

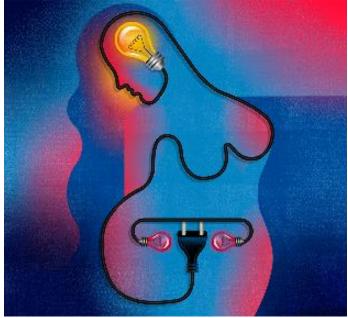


Illustration by María Corte

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# Flashmob Poliforum León



https://youtu.be/BscrVuRnb78

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# Explore this Fascinating Map of Medieval Europe



'Twas a wise child who knew his neighbors in this hodge-podge world. Visual Capitalist

What did Europe look like in the Middle Ages? That's a tough question to answer since Europe's borders and territories were (and still are) constantly in flux.

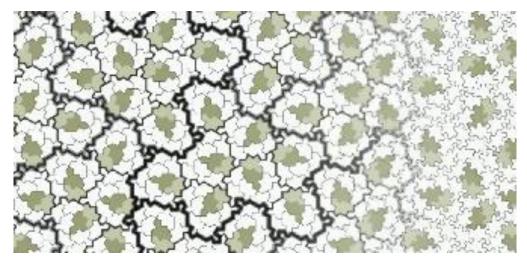
#### https://bit.ly/3NjITbm

This map, shared by Reddit user <u>/ratkatavobratka</u>, provides a historical snapshot of Europe in 1444—a time when European society was made up mostly of independent territories that were governed by landowners rather than a centralized authority.

https://bit.ly/3Ck3o1k

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## **Mathematicians Find Elusive 'Vampire Einstein' Shape**



Researchers have discovered a new 14-sided shape called the Spectre that can be used to tile a surface without ever creating a repeating pattern, ending a decades' long mathematical hunt.

Or as my hero Gordon in Phantoms from Vietnam explains to another POW:

"Tetradecagon —14-gon for you peasants. As the interior angles sum to...ahh...14 times two...28...minus four...24...times 90...equals...ahh...2160 degrees. So, each of the interior angles is...[154 degrees]

By Paul Sutter for Live Science

https://bit.ly/3NjFJo0

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### Meet the Voice in Your Car

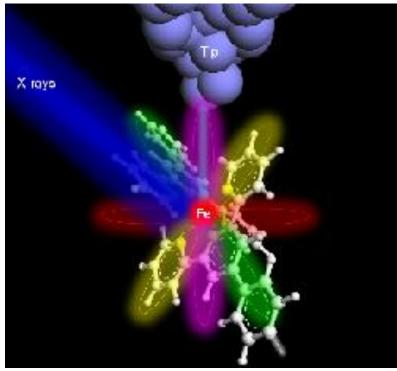


Karen Jacobsen; not just your GPS but Siri. That's some voice...and she sings.

https://youtu.be/hOLRWJVIseY

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## Scientists Report World's First X-Ray of a Single Atom in Nature



When X-rays (blue color) illuminate onto an iron atom (red ball at the center of the molecule), core level electrons are excited. X-ray excited electrons are then tunnel to the detector tip (gray) via overlapping atomic/molecular orbitals, which provide elemental and chemical information of the iron atom.

A team of scientists from Ohio University, Argonne National Laboratory, the University of Illinois-Chicago, and others, led by Ohio University Professor of Physics, and Argonne National Laboratory scientist, Saw Wai Hla, have taken the world's first X-ray SIGNAL (or SIGNATURE) of just one atom. This groundbreaking achievement was funded by the U.S. Department of Energy, Office of Basic Energy Sciences and could revolutionize the way scientists detect the materials.

https://bit.ly/43ID4tz

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## **Detailed Image of the Human Retina**

Researchers from Basel and Zurich are creating a high-resolution atlas that depicts the development of the human retina. One technique they use is a new method that allows them to visualize more than 50 proteins simultaneously.



reddit.com

https://bit.ly/3pJnjDI

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### **Blanket Octopus Reveals Her Billowing Iridescent Membrane**



In a short clip captured during a blackwater night dive in the Lembeh Strait, a blanket octopus unfolds and displays a colorful web multiple times her original size.

https://bit.ly/45vS53m

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# **Quantum Computing Explained with a Deck of Cards**



How does the technology work and what does it mean for our future? Scientist Dario Gil, VP of Science and Solutions at IBM, provides clarity on this complex topic.

https://youtu.be/yy6TV9Dntlw

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**Iceland's Ancient Glacial Caves** 



Ryan Newburn

"When you look into the walls of an ice cave, you are looking into the past as if you were suddenly inside of a time capsule that had been buried for 500 to 1,000 years," says Ryan Newburn. "Every air bubble that you see is oxygen from a different time period. Every speckle of ash is from a different volcanic eruption."

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### **Aaron Copland: The Tender Land**



The setting is the 1930s in the midwestern United States, at the time of the spring harvest and also of high school graduation.

The opera tells of a farm family in the Midwest of the United States. Copland was inspired to write this opera after viewing the Depression-era photographs of Walker Evans and reading James Agee's Let Us Now Praise Famous Men. He wrote the work between 1952 and 1954 for the NBC Television Opera Workshop, with the intention of its being presented on television. However, the television producers rejected the opera.

Eventually, the work had its premiere on April 1, 1954 at the New York City Opera, with Thomas Schippers as the conductor, Jerome Robbins as the director, and a cast including the young Norman Treigle

https://youtu.be/UkDuEQKED4Y

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### UK Still To Decide Who Pays \$31M Aircraft Carrier Repair Bill



The UK Royal Navy HMS Prince of Wales aircraft carrier has spent 411 days being repaired or

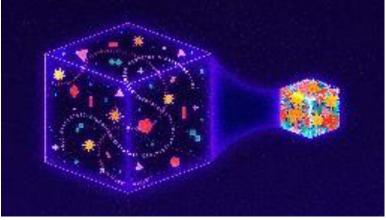
docked since entering service in December 2019. (Royal Navy on Twitter)

Construction and delivery of the warship was carried out by the now defunct Aircraft Carrier Alliance comprising of BAE Systems, Babcock and Thales, complicating the liability assessment but also potentially leaving the MoD to shoulder costs of the repair bill.

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## Data Compression Drives the Internet. Here's How It Works.



Kristina Armitage/Quanta Magazine

One student's desire to get out of a final exam led to the ubiquitous algorithm that shrinks data without sacrificing information.

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# **Microsoft Agrees to Buy Fusion Electricity from Helion in 2028**



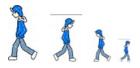
A view of the end of Helion's seventh generation prototype, the Polaris. Photo courtesy Helion

Silicon Valley insider Sam Altman has invested \$375 million into Helion, the largest investment he personally has ever made. His other big bet is artificial intelligence company OpenAI, in which Mirosoft is a large investor.

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**My Walking Thoughts** 



For Sunday June 11 2023

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