

# Ode to E Pluribus Unum for Sunday November 12 2023

=====



=====

## Is the ISS Looking for a Place to Land?



*Exploring the universe from a backyard in Arizona! Astrophotographer Andrew McCarthy captured the International Space Station slipping across the Moon's face, gently kissing the Tycho crater.*

*Image credit: Andrew McCarthy via Twitter*

=====

## The Falcon and the Redstone



*Image Credit & Copyright: Matt Haskell*

In a photo from the early hours of July 29 (UTC), a Redstone rocket and Mercury capsule are on display at Cape Canaveral Launch Complex 5. Beyond the Redstone, the 8 minute long exposure has captured the arcing launch streak of a SpaceX Falcon Heavy rocket.

The Falcon's heavy communications satellite payload, at a record setting 9 metric tons, is bound for geosynchronous orbit some 22,000 miles above planet Earth. The historic launch of a Redstone rocket carried astronaut Alan Shepard on a suborbital spaceflight in May 1961 to an altitude of about 116 miles.

Near the top of the frame, this Falcon rocket's two reusable side boosters separate and execute brief entry burns. They returned to land side by side at Canaveral's Landing Zone 1 and 2 in the distance.

=====

## What Is TED-Ed and How Does It Work for Teaching?



TED-Ed is the place to go for educational videos that are made for classroom learning and beyond.

<https://www.techlearning.com/how-to/what-is-ted-ed-and-how-does-it-work-for-education>

=====

## Move over "LOL": Gen Z Embraces "IJBOL"



*Illustration: Shoshana Gordon/Axios*

There's a new way to describe something funny on social media: "IJBOL," or "I just burst out laughing."

Why it matters: People online constantly look for ways to express exactly how they are responding to content, MaryLeigh Bliss, the chief content officer for youth research organization YPulse, told Axios.

- "Since the beginning of communicating through chat, which is what Millennials grew up doing, we've been looking for ways to communicate this incredibly physical reaction to what we're experiencing, seeing, reading," she said.

**State of play:** K-pop fans are some of IJBOL's most prominent users, according to a search for the term on X.

- Vice President Kamala Harris has become the face of memes surrounding the new acronym.
- IJBOL accurately captures the feeling of going from quietly scrolling to letting out a burst of laughter, members of Gen Z told the New York Times.

**Context:** Young people are spending more time than anyone else on their phones, Bliss said. As a result, they have to convey the wide range of human experiences in text-based communication.

- "It's all rooted in the amount of time that they are living online," she said.

**Reality check:** When internet trends become too mainstream, Gen Z stops finding them cool, Bliss said.

- This means IJBOL, with increased prominence, may be used more ironically from here on out. It could see a similar fate to the crying laughing emoji, 😂, now widely considered cringe.
- (To express a laugh through emoji, you should now use the skull, 💀, or tears, 😭.)

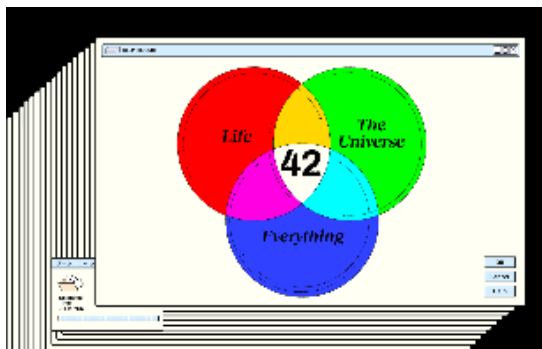
**Flashback ...** LOL: laugh out loud

- LMAO: laughing my ass off
- ROFL: rolling on the floor laughing

*You mean I won't have to keep asking what LOL means?*

=====

## 42 Really Is the Answer to These 5 Fundamental Questions



*The answer to the ultimate question about life, the Universe, and everything has been asserted to be 42 by the infamous Douglas Adams. But... if 42 is the answer, what's the question?*

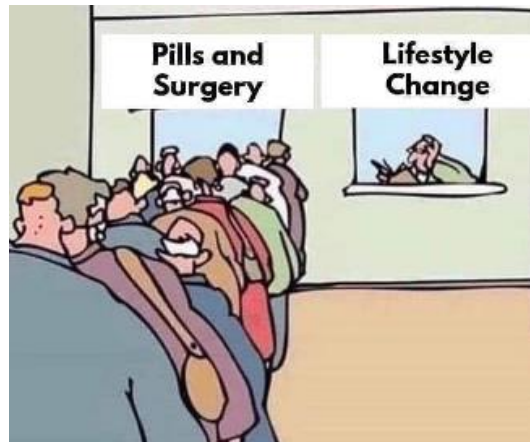
*Credit: Ben Gibson/Big Think*

Although we still don't know the question, we know that the answer to life, the Universe, and everything is 42. Here are 5 possibilities.

What's the point of knowing the answer if, 7.5 million years later, no one can remember what the question was? That paradoxical scenario is exploited for humorous effect in Douglas Adams' Hitchhiker's Guide series.

[https://bigthink.com/starts-with-a-bang/42-answer-fundamental-questions/?utm\\_source=join1440&utm\\_medium=email&utm\\_placement=newsletter](https://bigthink.com/starts-with-a-bang/42-answer-fundamental-questions/?utm_source=join1440&utm_medium=email&utm_placement=newsletter)

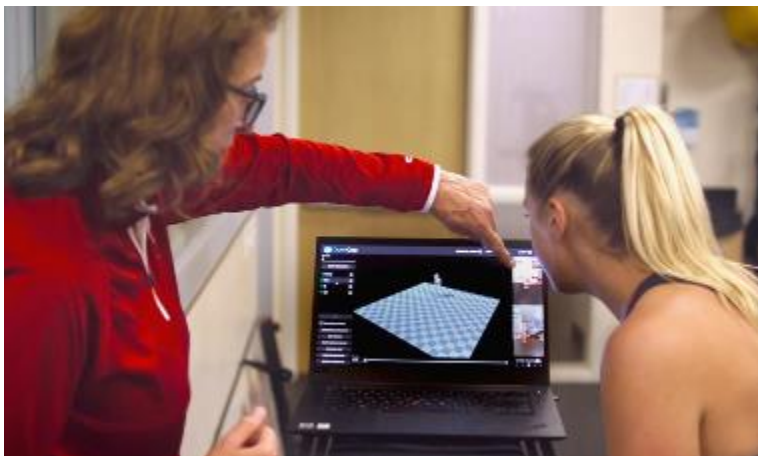
=====



=====

## **OpenCap: Sophisticated Human Biomechanics from Phone Video**

With synchronous video from a pair of smartphones, engineers at Stanford have created an open-source motion-capture app that democratizes the once-exclusive science of human movement – at 1% of the cost.



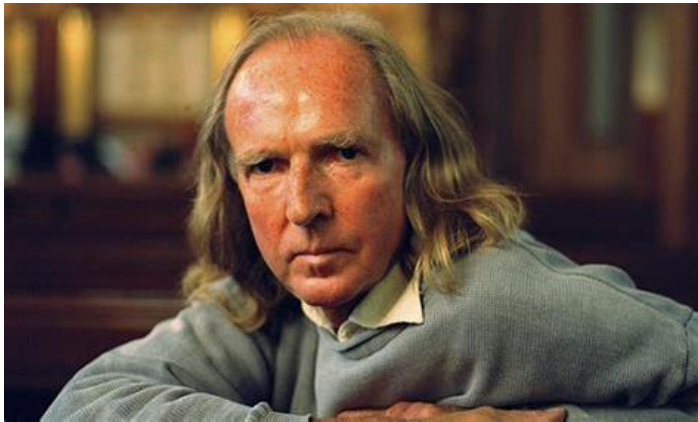
*Occupational therapist Julie Muccini reviews an OpenCap capture with a study subject.  
Photo courtesy of Kurt Hickman*

Diseases like arthritis and sports injuries can impair the way people move and engage in life. Computational musculoskeletal analysis can inform better interventions and improve rehab decisions for patients and athletes, but measuring the dynamics and forces at play in human movement requires a lot of time, equipment, and expertise. It's expensive. Though millions across the world might benefit, too often computational motion research is a luxury few patients can afford.

<https://bit.ly/40IFzkQ>

=====

## **John Kenneth Taverner 1944 –2013**



An English composer is known for his extensive output of choral religious works, among which are *The Lamb* (1982), *The Protecting Veil* (1988), and *Song for Athene* (1993).

During his career he became one of the best known and popular composers of his generation, most particularly for *The Protecting Veil* and *Song for Athene* which was sung at the funeral of Princess Diana.

The Lamb <https://youtu.be/h-mSmEfLmZc>

Song for Athene <https://youtu.be/PHRII3y1WRQ>

Akathist Of Thanksgiving <https://youtu.be/TA9BtFnbLJw>

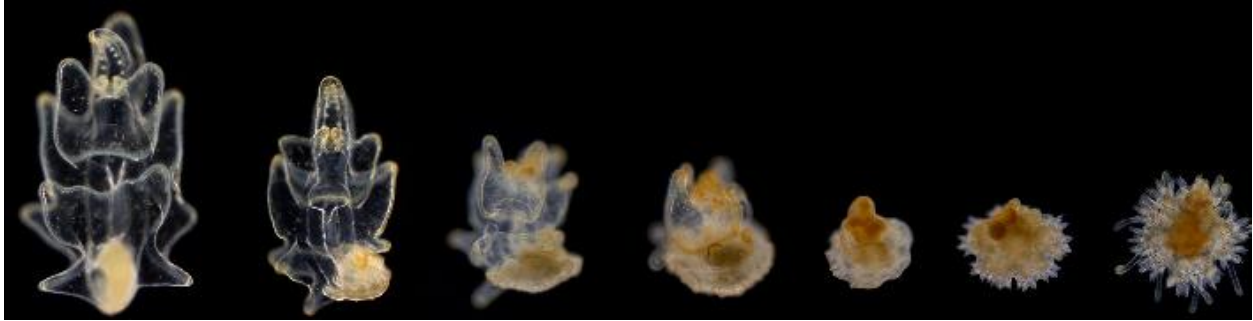
Fragments of a Prayer <https://youtu.be/x-pj5SntRn0>

The Protecting Veil <https://youtu.be/xT0MF4XNjKA>

=====

## **Study Reveals Location of Starfish's Head**

A new study that combines genetic and molecular techniques helps solve the riddle of starfish body plans, and how starfish start life with bilateral body symmetry – just like humans – but grow up to be adults with fivefold “pentaradial” symmetry.



*Images of sea star metamorphosis, where they transition from larvae with a bilateral (symmetric across the midline) body plan into young adult sea stars with a five-point star shape called a pentaradial body plan.  
(Image credit: Laurent Formery)*

<https://bit.ly/40nHMML>

=====

## **Peripheral Visual Information Affects Choice**



*The visible condition, where two options are shown on the screen side by side.*



*The hidden condition, where only the product the study participant is looking at is visible.  
Credit: Brenden Eum*

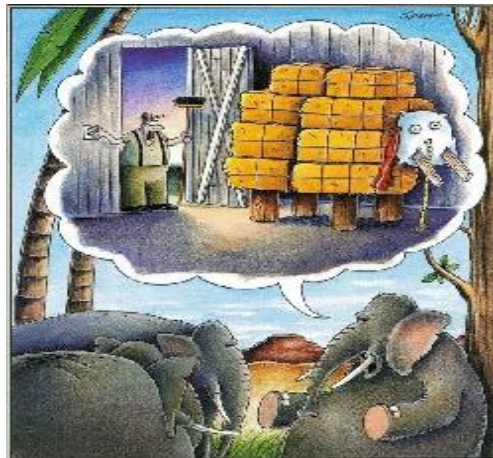
Researchers have known for some time that decision makers are more likely to select items that they look at more during the choice process—and, of course, packaging and placement can encourage this.

This is called "attentional choice bias," and it means that you are more inclined to choose the item you're looking at, other factors being equal. One result of attentional choice bias is that at least some of the time you may end up choosing a less desired option simply because you were paying more attention to it.

<https://bit.ly/3saoH47>

=====

## Toomba's Escape from the Cleveland Zoo



=====

## Seagrass Guardians



*sharkswhalesdolphins.photoshelter.com*

In Vanuatu, the Edges of Earth expedition team meets the resident dugong population and finds out what vital roles they play in the local ecosystems.

<https://oceanographicmagazine.com/features/dugongs-in-vanuatu-seagrass-guardians/>



=====

## Did We Domesticate Plants--or Did They Domesticate Us?

The answer is not so clear.



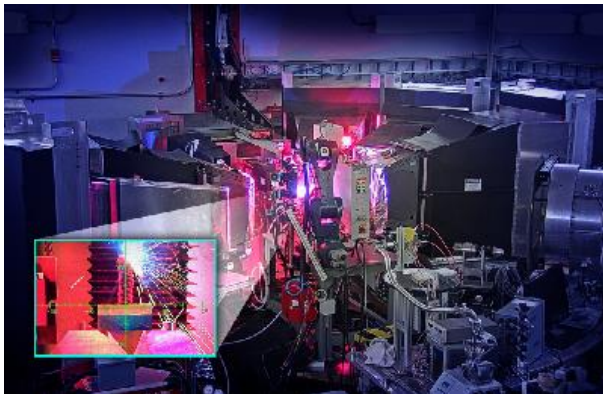
*Anthropology.net*

Archaeologists at Çatalhöyük, a 9,000-year-old site in Turkey, offer lessons on how agriculture and other major innovations can yield unexpected long-term consequences for human society and the world around us.

[https://youtu.be/dzmH1kZA\\_iQ](https://youtu.be/dzmH1kZA_iQ)

=====

## Additive Manufacturing: Neutrons See Stress in 3D-Printed Parts,



*The Open-AM experimental platform, installed at the VULCAN instrument at ORNL's Spallation Neutron Source, features a robotic arm that prints layers of molten metal to create complex shapes. This allows scientists to study 3D printed welds microscopically.*

*Credit: Jill Hemman, ORNL/U.S. Dept. of Energy*

Using neutrons to see the additive manufacturing process at the atomic level, scientists have shown that they can measure strain in a material as it evolves and track how atoms move in response to stress.

<https://bit.ly/45BHra8>

=====

## 3D Map of Mt. Everest & the Himalaya



Interactive 3D map of Mount Everest, the Himalaya and popular trekking tours

We created an interactive 3D map of Mount Everest and the Himalaya which is unique in its resolution, unparalleled in detail, and based on the latest satellite technology. The map includes the two most-travelled routes to the highest mountain on Earth, all historical routes and the most famous trekking routes in the Khumbu region. If you plan a trip to Mount Everest, then install the RealityMaps app version now !

<https://mount-everest3d.com/3d-map/>

*A little less challenging than dodging crevasses.*

=====

## This Tool Looks to See if traditional Chinese herbs actually 'heal'



*The new tool predicted that Chaihu (*Bupleuri radix*), also known as Chinese thoroughax root, pictured above, could be used to treat abdominal swelling.*

*(Image credit: jxfzsy via Getty Images)*

A new tool may be able to predict the effectiveness of herbs used in traditional Chinese medicines — but what do experts think of its assessments?

<https://bit.ly/3QoIRz7>

*Ahh. Another call for more research.*

=====

## Some Hilariously Useless Signs



<https://youtu.be/JiMP7FuIhd4>

=====

## Wallace Stevens, Poet (1879-1955)



*thefamouspeople.com*

The American modernist poet was born in Reading, PA, educated at Harvard and then New York Law School, and spent most of his life working as an executive for an insurance company in Hartford, CT. He won the Pulitzer Prize for Poetry for his *Collected Poems* in 1955.

Stevens is a rare example of a poet whose main output came largely only as he approached 40 years of age. His first major publication (four poems from a sequence titled "Phases" in the November 1914 edition of *Poetry*) was written at age 35, although as an undergraduate at Harvard, Stevens had written poetry and exchanged sonnets with Santayana. Many of his canonical works were written well after he turned 50.

### **A High-Toned Old Christian Woman**

Poetry is the supreme fiction, madame.  
Take the moral law and make a nave of it

And from the nave build haunted heaven. Thus,  
The conscience is converted into palms,  
Like windy citherns hankering for hymns.  
We agree in principle. That's clear. But take  
The opposing law and make a peristyle,  
And from the peristyle project a masque  
Beyond the planets. Thus, our bawdiness,  
Unpurged by epitaph, indulged at last,  
Is equally converted into palms,  
Squiggling like saxophones. And palm for palm,  
Madame, we are where we began. Allow,  
Therefore, that in the planetary scene  
Your disaffected flagellants, well-stuffed,  
Smacking their muzzy bellies in parade,  
Proud of such novelties of the sublime,  
Such tink and tank and tunk-a-tunk-tunk,  
May, merely may, madame, whip from themselves  
A jovial hullabaloo among the spheres.  
This will make widows wince. But fictive things  
Wink as they will. Wink most when widows wince.

\*\*\*

### **The Idea of Order at Key West**

She sang beyond the genius of the sea.  
The water never formed to mind or voice,  
Like a body wholly body, fluttering  
Its empty sleeves; and yet its mimic motion  
Made constant cry, caused constantly a cry,  
That was not ours although we understood,  
Inhuman, of the veritable ocean.

The sea was not a mask. No more was she.  
The song and water were not medleyed sound  
Even if what she sang was what she heard,  
Since what she sang was uttered word by word.  
It may be that in all her phrases stirred  
The grinding water and the gasping wind;  
But it was she and not the sea we heard.

For she was the maker of the song she sang.  
The ever-hooded, tragic-gestured sea  
Was merely a place by which she walked to sing.

Whose spirit is this? we said, because we knew  
It was the spirit that we sought and knew  
That we should ask this often as she sang.

If it was only the dark voice of the sea  
That rose, or even colored by many waves;  
If it was only the outer voice of sky  
And cloud, of the sunken coral water-walled,  
However clear, it would have been deep air,  
The heaving speech of air, a summer sound  
Repeated in a summer without end  
And sound alone. But it was more than that,  
More even than her voice, and ours, among  
The meaningless plungings of water and the wind,  
Theatrical distances, bronze shadows heaped  
On high horizons, mountainous atmospheres  
Of sky and sea.

It was her voice that made  
The sky acutest at its vanishing.  
She measured to the hour its solitude.  
She was the single artificer of the world  
In which she sang. And when she sang, the sea,  
Whatever self it had, became the self  
That was her song, for she was the maker. Then we,  
As we beheld her striding there alone,  
Knew that there never was a world for her  
Except the one she sang and, singing, made.

Ramon Fernandez, tell me, if you know,  
Why, when the singing ended and we turned  
Toward the town, tell why the glassy lights,  
The lights in the fishing boats at anchor there,  
As the night descended, tilting in the air,  
Mastered the night and portioned out the sea,  
Fixing emblazoned zones and fiery poles,  
Arranging, deepening, enchanting night.

Oh! Blessed rage for order, pale Ramon,  
The maker's rage to order words of the sea,  
Words of the fragrant portals, dimly-starred,  
And of ourselves and of our origins,  
In ghostlier demarcations, keener sounds.

=====

## From Bill and Ellen's Kitchen



HI John -- After my first heart attack, in December 2019, I went on a fairly consistent "plant-based" diet, which is pretty much what it sounds like. I also started taking statin, and the cumulative result was a rapid decline in my levels of bad cholesterol. I also lost 30 pounds in about three months' time. I eventually gained about ten of those pounds back, but my body weight has stayed significantly lower than it was before, and it feels good to me.

Ellen and I have garnered a pretty good library of plant-based recipes in the interim. They're mostly print-outs and things I've copied down by hand, and they're scattered all over the damn place. So a good project for this fall and winter is going to be a comprehensive collection and editing of this stuff, all of which I'll be happy to steer you way if you want to use it in the odes or in your own kitchen.

Ellen prepared this white-bean soup dish the other night. It's one I pulled off the Internet, and for the life of me I can't remember where -- otherwise, I'd include a credit, because it is absolutely delicious!

The "beefless stew" recipe is my mother's old beef stew that we ate when we were kids. All I did was eliminate the beef and add a bit of basil, but it still tastes to me pretty much the same as when I was a kid. Like Proust's tea cake, it never fails to summon memories of our dinner table on cold winter nights! (Note: the beefless stew recipe makes a whole lot of stew. So if you're cooking for just two, say, you might want to cut it in half.)

Anyhow, give these both a try and let me know what you think. More to follow when we get back from Rhode Island.

### **White Bean Soup (Yield: 4-6 servings)**

This creamy soup relies on pureeing cannellini beans for its velvety texture – not heavy cream. If you use dried beans, measure 1.5 cups beans, soak them in plenty of water for about 3 hours, rinse, drain, and then simmer the soup in Step 4 for about 90 minutes, or until the beans are tender. If you don't have a rind of Parmesan cheese, then use grated Parmesan to garnish the soup, along with fresh chopped parsley.

#### **Ingredients:**

3 tablespoons olive oil  
1 medium yellow onion, small dice  
1 carrot, small dice  
1 celery stalk, small dice  
2 cloves garlic, minced  
1 teaspoon minced fresh rosemary  
4.5 cups canned cannellini beans, rinsed and drained  
about 4 cups chicken or vegetable stock  
1 rind Parmesan cheese  
chopped fresh parsley for garnish

#### **Procedure:**

- Heat olive oil in a large soup pot over medium heat. Saute the onions, carrots, and celery in the olive oil until soft.
- Add the garlic and rosemary and continue to sauté for 3 minutes.
- Add the beans, the Parmesan rind, and just enough stock to cover the beans. Bring the soup to boil.
- Reduce the heat to low, cover, and simmer for about 20 minutes.

Use a blender stick to partially puree the mixture. Or, let the soup cool slightly, remove about 1/3 of the mixture from the pot, blend it in the blender, and then return it to the pot. In either case, add additional stock if the soup is too thick. Season to taste with salt and pepper. Garnish soup with chopped fresh parsley (and/or grated Parmesan cheese).

\*\*\*

### **Beefless Stew**

#### **Ingredients**

4 medium potatoes, diced large  
4 carrots cut diagonally  
1 can petit pois peas

1 medium onion  
1 bay leaf  
1 can chopped tomatoes  
1 tablespoon or so of Better Than Bouillon brand vegetable bouillon  
2-3 cups of water  
Salt and pepper to taste  
Fresh basil  
Bell pepper to taste

**Preparation**

Put all this stuff into the pot (with the exception of the onion and basil), bring it up to a boil, then reduce the heat and simmer for a couple of hours. Then add the onion, chopped however you happen to like onion chopped, and the basil, likewise chopped or torn, and cook for another hour or so.

=====

**Isle Emerges in Underwater Volcano Eruption South of Tokyo**



*Plumes of smoke rise from a new isle after a recent volcano on Iwo Jima on Nov. 3.  
Courtesy Of Setsuya Nakada*

After an eruption on Oct. 30, the solidified magma that has been piling up started to break the surface, causing the new isle to form.

<https://bit.ly/40vfKiv>

=====

**Can a Triangle-Shaped Jet Cut Fuel Consumption in Half?**

The startup JetZero hopes to reimagine commercial aviation with \$235 million in Pentagon funding.





*A rendering of JetZero's blended-wing jet.*

*Source: JetZero*

Startup JetZero Inc. is taking aim at that design with a radical proposition: a triangle-shaped aircraft resembling a giant manta ray in the sky, boasting a shorter fuselage that's wide enough to contribute to the lift needed to keep the thing airborne. Gone is the tail, with two engines piggybacked onto the rear taking its place to provide both power and stability.

<https://bit.ly/3suMj3s>

*11.6 pounds per hour per seat? Certainly beats the Phantom's 2,000 lb/hr/seat.*

=====

## **How to Decode the Colorful Tags on Your Bread Bag**

Knowing what each color means could help you score fresher bread.



*Photo: Francois Lariviere / Shutterstock*

It's not every day that you have your mind blown by something as inconspicuous as bread tags. Those colorful plastic clips that keep our loaves of bread closed in between grabbing slices are more than just a decoration — they're the key to freshness.

Thanks to a recent reel by Jordan Howlett, this little-known fact has become somewhat of a brilliant sensation. Before you pick up your next loaf of bread to make your favorite

sandwich, read on about the color-coded key so you can choose the freshest bread possible. Heck, this might even be a bread-buying game-changer.

In his reel, Howlett visits the grocery store to speak to one of the staff about the bread tags. He confirmed that these little plastic ties, also lovingly referred to as “bread buckles” and “bread tabs,” have a dual purpose. In addition to keeping the bread closed, they also tell hungry grocery store shoppers when the bread was baked and packaged while helping to keep things organized for the staff who stock the shelves as well.

### **5 Secrets to Storing Bread (and Making It Last Longer)**

Although some shops use their own methods, and it’s rare to find bread more than a couple of days old still on the shelves, most grocery stores follow a similar schedule with their bread tag coloring as detailed below:

- Monday – Blue
- Tuesday – Green
- Thursday – Red
- Friday – White
- Saturday – Yellow

It should be noted that since most bakeries don’t produce bread on Sundays and Wednesdays, they are omitted. But wait, it goes even deeper. To help us remember the nifty key, the days of the week match the colors when listed alphabetically. So, since “blue” starts with ‘b’ and is close to the start of the alphabet, it corresponds to Monday.

That means if you go to the grocery store on a Friday, you’ll want to choose a loaf with a white or red bread tag to ensure the freshest bread for your grilled cheese. Don’t forget the other important tool you can check as well ... the expiration date. This was hilariously pointed out by the grocery store worker from the reel, who joked that it was “an even cooler secret” when he saw how excited Howlett was about the whole bread tag concept.

*By Lauren Breedlove for Food&Wine*

=====

**My phone has this cool app that shows me what I would look like as an old person. It's called Camera.**

=====

## Florida's War on Invasive Critters: Pity the Muscovy Duck



*Audubon.org*

In Florida, even comparatively benign creatures can become objects of violence, as evidenced by the peculiar hatred of Muscovy ducks, accused by municipalities of seizing food and habitat from more decorous native birds.

The Muscovy, it's true, is an odd duck. They're possessed of patchy coloring, clumsy proportions, and eyes ringed by a wet-looking inflammation of red caruncles that bring to mind a neglected tumor. They're also inept flyers, prodigious defecators, and notorious belligerents known to accost pedestrians and block traffic. And they don't quack: They hiss. Even their name confuses: The ducks hail from Brazil, yet, for reasons no one can remember, they were christened after an antiquated term for the region surrounding Moscow.

This bird's behavior and lack of surface charm have made it a magnet for put-downs. The president of a Jupiter homeowner's association denounced Muscovies to the Palm Beach Post as "messy." A spokesman for the Miami Zoo once called them "feathered rats." Even the Audubon Society refers to Muscovies, in an official publication, as "dumpy."

History teaches us that such casual animus reliably incites bloodshed. Indeed, in Florida, Muscovies are routinely kicked, clubbed, strangled, stabbed, decapitated, shot with pellet guns, and pummeled with golf clubs. A brood of ducklings was once run over with a lawnmower. Condo owners organize killings in which entire duck families are butchered or forcibly expelled from their properties' water features. It is, in fact, legal to kill a Muscovy duck in Florida, though, per state law, their end must be "humane."

Floridian contempt for the duck is hardly universal. Long ago in Mexico, the Aztecs believed Muscovies to be the alter ego of the mighty Wind God, Ehecatl, and rulers

adorned themselves in rich cloaks sewn from their feathers. Archaeologists have uncovered surpassingly beautiful images of the bird, shaped in clay and chiseled in basalt.

Invasive species cost the global economy over a trillion dollars each year. Find out how these non-native organisms are introduced into an ecosystem, how they impact local communities, and which measures can be taken to help prevent the introduction of invasive species.

Sharing the Mesoamerican empire's reverence is Eunice Sivertsen, an 83-year-old resident of Margate, Florida, the ducks' present-day champion and savior. In the war on invasives, Sivertsen is an outstanding pacifist. For more than 40 years, she's run Duck Haven, a nonprofit sanctuary devoted to Muscovies, out of her back patio, transforming a '60s-era ranch house into an anatine Lourdes. Because they're not indigenous to Florida, no wildlife shelter in the state will take them in. Only her.

On a mellow February morning, I visited Sivertsen, a short, snappy woman who, after a half-century in Broward County, still retains the adenoidal timbre of her native Queens. Sivertsen explained that she used to nurse injured Muscovies back to health and then let them go. But after FWC labeled them invasive, in 2010, making it illegal to release them into the wild, she now discharges her rehabilitated wards to a secret network of private estates whose owners share her fondness for the befuddling ducks.

Sivertsen herself houses about 60 long-term residents who suffer from permanent disabilities. She gave me a tour of her facility, a packed warren of chicken wire, dog houses, Astroturf, and plastic Jesus figurines, and introduced me to her waddling convalescents.

"That's Dixie," Sivertsen said. "Cookie. Ariel. Caroline. Paul. Santeria. Bobby and Peter. Sometimes Bobby and Peter fight." She narrowed her eyes. "But not when I'm around."

In Sivertsen's description, Duck Haven is little different from any of Florida's other assisted-living centers, thick with drama and bruited gossip. Cricket has a rude habit of bothering Nancy, who's old and unwell. Cookie, a flirt from Louisiana, is always chasing after Ollie. Paul and Judy are a couple, but they occasionally stray. Pixie is letting herself go. Sivertsen denied having a favorite duck, other than Charlie—"my sheriff"—who had been with her 11 years. (Charlie would die during the COVID pandemic. In his stead, Sivertsen soon deputized a Charlie II.)

The bulk of her day is devoted to setting out the Muscovies' meals (mostly scratch grains, lettuce, and dog chow) and cleaning duck feces. She's helped by a few volunteers fulfilling court-ordered community service, as well as her young grandchildren, who live next door. Because her shelter caters to an invasive species, it's ineligible for state funding. Duck Haven costs over \$3,000 per month to manage. Much

of Sivertsen's Social Security check goes to food and electricity, both to keep the ducks warm in winter and their pond water running all the time, with the rest made up by donations.

She pointed out a special paddock for a quartet of blind Muscovies and another for ducks mangled by "angel wing," a syndrome caused by a bread-heavy diet, in which the last joint of the forelimb becomes twisted, rendering the duck flightless. Two ducks were missing lower beaks, an injury likely caused by animal attacks, leaving their tongues lolling. Sivertsen bought one of the beak-less birds a prosthetic, made of plexiglass, for \$2,500. It lasted a few months, but on July 4, a neighbor set off some fireworks and the startled duck ran headlong into a wall, shattering it.

"I hear what people say, but I don't think they're ugly," Sivertsen said, picking up Charlie and cradling him. The wart-faced duck, alarmingly large but calm, flopped limply into Sivertsen's thin arms. "I love `em."

=====

## Some Creative Commercials



<https://youtu.be/bIRa63nR2mU>

*Wait'll you get to the VW clip.*

=====

## Willie Nelson Enters the Rock and Roll Hall of Fame



Willie Nelson is now officially a member of the Rock and Roll Hall of Fame. Just don't ask him what he has to do with rock & roll. "It's been a long ride from my first DJ job to being here with y'all," he said during his acceptance speech. "And as a DJ, I was playing those first songs by Elvis. I remember writers calling that 'rockabilly' rather than rock & roll, and I never did pay much attention to categories, and I'm not sure the fans did either."

The 90-year-old country music legend - and here, that word "legend" is appropriate - was inducted into the Rock Hall during Friday night's ceremony at the Barclays Center in Brooklyn. Naturally, the nonstop touring artist also performed.

Nelson, ever the collaborator, joined Chris Stapleton for a lively run-through of "Whiskey River," the Johnny Bush song that the Red-Headed Stranger has been using to open his concerts since time immemorial.

Whiskey River <https://youtu.be/IPkEmBCZTIA>

On The Road Again <https://youtu.be/Gdlyi5mckg0?t=1>

Willie Nelson, Merle Haggard It's All Going to Pot <https://youtu.be/A6c6eUeoa9Q>

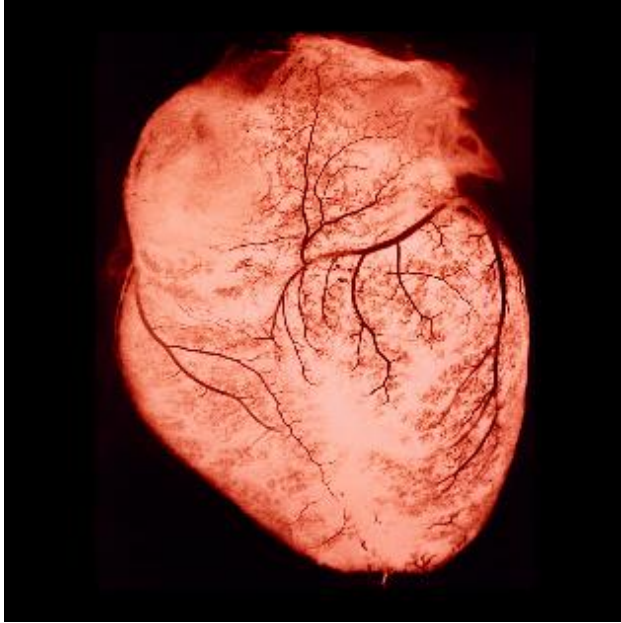
Full Concert <https://youtu.be/KZ-z1b623Qw?t=2>

*Seems like people have heard of my near neighbor. Yeah, 4 miles down Hwy. 33*

=====

## Now We Know How COVID Attacks Your Heart

Even patients with mild COVID symptoms could face a higher risk of developing heart disease and stroke



*A human heart, showing the arteries and veins which supply blood to the cardiac muscles. The blood vessels, which lie immediately below the surface of the heart, have been injected with a dye, making visible even the smallest capillaries that form this exquisite arterial network.*  
*Photograph By Science Photo Library*

Scientists have noticed that COVID-19 can trigger serious cardiovascular problems, especially among older people who have a buildup of fatty material in their blood vessels. But now a new study has revealed why and shown that SARS-CoV-2, the virus that causes COVID-19, directly infects the arteries of the heart.

The study also found that the virus can survive and grow inside the cells that form plaque—the buildup of fat-filled cells that narrow and stiffen the arteries leading to atherosclerosis. If the plaque breaks, it can block blood flow and cause a heart attack or a stroke. The SARS-CoV-2 infection makes the situation worse by inflaming the plaque and increasing the chance that it breaks free.

This can explain long-term cardiovascular effects seen in some, if not all, COVID-19 patients.

SARS-CoV-2 virus has already been found to infect many organs outside the respiratory system. But until now it hadn't been shown to attack the arteries.

"No one was really looking if there was a direct effect of the virus on the arterial wall," says Chiara Giannarelli, a cardiologist at NYU Langone Health, in New York, who led the study. Giannarelli noted that her team detected viral RNA—the genetic material in the virus—in the coronary arteries. "You would not expect to see [this] several months after recovering from COVID."

Mounting evidence now shows that SARS-CoV-2 is not only a respiratory virus, but it can also affect the heart and many other organ systems, says Ziyad Al-Aly, a clinical epidemiologist at Washington University in St. Louis. Al-Aly's research has shown that the risk of developing heart and cardiovascular diseases, including heart failure, stroke, irregular heart rhythms, cardiac arrest, and blood clots increases two to five times within a year of COVID-19, even when the person wasn't hospitalized.

"This important study links, for the first time, directly the SARS-CoV-2 virus with atherosclerotic plaque inflammation," says Charalambos Antoniades, chair of cardiovascular medicine at the University of Oxford, United Kingdom.

### **Virus triggers the inflammation in plaque**

A recent study of more than 800,000 people led by Fabio Angeli, a cardiologist at University of Insubria in Varese, Italy, has shown that COVID-19 patients develop high blood pressure twice as often as others. More worrying is that the risk of cardiac diseases can also rise for patients who suffered only mild COVID symptoms.

"I saw a patient who now has a defibrillator, and she didn't even have a severe [COVID] illness," says Bernard Gersh, a cardiologist at Mayo Clinic, Rochester, Minnesota.

Wondering whether the cardiovascular damage during COVID was due to the virus directly attacking the blood vessels, the NYU team analyzed autopsied tissue from the coronary arteries and plaque of older people who had died from COVID-19. They found the virus was present in the arteries regardless of whether the fatty plaques were big or small.

"The original finding in this study is that the virus was convincingly found in the plaque in the coronary artery," says Juan Carlos Kaski, a cardiovascular specialist at St George's, University of London, who was not involved in the study.

The NYU team found that in the arteries, the virus predominantly colonized the white blood cells called macrophages. Macrophages are immune cells that are mobilized to fight off an infection, but these same cells also absorb excess fats—including cholesterol from blood. When macrophages load too much fat, they change into foam cells, which can increase plaque formation.

To confirm that the virus was indeed infecting and growing in the cells of the blood vessels, scientists obtained arterial and plaque cells—including macrophages and foam cells—from healthy volunteers. Then they grew these cells in the lab in petri dishes and infected them with SARS-CoV-2.

Giannarelli found that although virus infected macrophages at a higher rate than other arterial cells, it did not replicate in them to form new infectious particles. But when the



macrophages had become loaded with cholesterol and transformed into foam cells, the virus could grow, replicate, and survive longer.

"We found that the virus tended to persist longer in foam cells," says Giannarelli. That suggests that foam cells might act as a reservoir of SARS-CoV-2. Since more fatty buildup would mean a greater number of foam cells, plaque can increase the persistence of the virus or the severity of COVID-19.

Scientists found that when macrophages and foam cells were infected with SARS-CoV-2 they released a surge of small proteins known as cytokines, which signal the immune system to mount a response against a bacterial or viral infection. In arteries, however, cytokines boost inflammation and formation of even more plaque.

"We saw that there was a degree of inflammation [caused] by the virus that could aggravate atherosclerosis and cardiovascular events," says Giannarelli.

These findings also confirm previous reports that measuring inflammation in the blood vessel wall can diagnose the extent of long-term cardiovascular complications after COVID-19, says Antoniades.

"What this study has found is that plaque rupture can be accelerated and magnified by the presence of the virus," says Kaski.

### **Understanding heart diseases after COVID**

While this new research clearly shows that SARS-CoV-2 can infect, grow, and persist in the macrophages of plaques and arterial cells, more studies are needed to fully understand the many ways COVID-19 can alter cardiac health.

"The NYU study identifies one potential mechanism, especially the viral reservoir, to explain the possible effects" says Gersh. "But It's not going to be the only mechanism."

This study only analyzed 27 samples from eight elderly deceased patients, all of whom already had coronary artery disease and were infected with the original strains of virus. So, the results of this study do not necessarily apply to younger people without coronary artery disease; or to new variants of the virus, which cause somewhat milder disease, says Angeli.

"We do not know if this will happen in people who have been vaccinated," says Kaski. "There are lots of unknowns."

It is also not clear whether and to what extent the high inflammatory reaction observed in the arteries of patients within six months after the infection, as shown in the new study, will last long-enough to trigger new plaque formation. "New studies are needed to show the time-course of the resolution of vascular inflammation after the infection," says Antoniades.

COVID patients should watch for any new incidence of shortness of breath with exertion, chest discomfort, usually with exertion, palpitations, loss of consciousness; and talk to their physician about possible heart disease.

*By Sanjay Mishra for National Geographic Science*

=====

## **Rear Seat Passengers May Be at Risk in Pickups**

Ram 1500, Ford F-150, Toyota Tundra, and Chevrolet Silverado 1500 were evaluated in side crash tests.



*A 2023 Ford 150 undergoes Insurance Institute for Highway Safety (IIHS) updated side crash test.  
IIHS*

The Ram 1500 crew cab, Ford F-150 crew cab, and Toyota Tundra crew cab earn “good” ratings; the Chevrolet Silverado 1500 crew cab is rated “acceptable.” In the updated moderate overlap front crash test, however, only the Tundra manages a marginal IIHS rating. The F-150, Ram 1500, and Silverado are rated “poor.”

<https://bit.ly/3u5xhBv>

=====

## **NuScale, UAMPS Terminate Small Modular Reactor Project**

NuScale and the Utah Associated Municipal Power Systems determined that the 462-MW project would likely not reach a sufficient subscription level to continue toward deployment.



*A NuScale reactor module. The company and its partner, the Utah Associated Municipal Power Systems, announced Wednesday that they had decided to terminate a 462 MW small modular reactor project in Idaho.*

*Permission granted by NuScale Power, LLC*

The project, which was expected to be the first commercial SMR in the U.S. faced rising costs.

<https://bit.ly/479RYLm>

=====

## **Frank Borman, Astronaut and Avid GA Pilot, Dies At 95**



*Astronaut Frank Borman, who donated his personal archives to the Experimental Aircraft Association, has died.*

*Photo: EAA*

Astronaut Frank Borman, commander of the first manned flight to circle the moon, died Tuesday (Nov. 7) in Billings, Montana. He was 95. Borman spent almost 20 full days in space over two missions and later served as the leader of Eastern Airlines. He was a committed general aviation pilot, very active in the effort to promote safety among the Mitsubishi MU-2 pilot community.

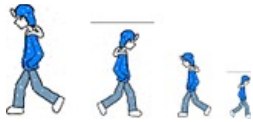
Borman was the oldest living astronaut, a distinction now passed to Jim Lovell, who is also 95, but 11 days younger. In a statement, current NASA administrator Bill Nelson said, "Frank began his career as an officer with the U.S. Air Force. His love of flying proved essential through his positions as a fighter pilot, operational pilot, test pilot, and assistant professor. His exceptional experience and expertise led him to be chosen by NASA to join the second group of astronauts.

"In addition to his critical role as commander of the Apollo 8 mission, he is a veteran of Gemini 7, spending 14 days in low-Earth orbit and conducting the first rendezvous in space, coming within a few feet of the Gemini 6 spacecraft."

Jack Pelton, chairman and CEO of the Experimental Aircraft Association, said, "We at EAA came to know him for more than 30 years as an enthusiastic aviator and supporter of programs that would build on the legacy of Mercury, Gemini, and Apollo. We were honored in 2018 when Frank donated his personal archives to EAA, which are now on display at the EAA Aviation Museum, and always welcomed him back to Oshkosh when he could join us here. We express our condolences to Frank's family and many friends, and say to Frank, Godspeed, and thank you."

=====

## **My Walking Thoughts**



## **For Sunday November 12 2023**

=====

## **Preparing for a Trip**

Over the years I've become pretty proficient at readying myself and my conveyances for journeys...clothes, toiletries, safety gear...all the things prudence suggests.

For instance, if I'm headed from my home near Ventura to a conference in Las Vegas in the Spring or Fall, then a minimum amount of apparel should suffice...a liter of water, perhaps a sandwich unless I feel an insane urge to stop at Barstow for a burger. I carry warning flares, first aid kit, some simple tools, an odd assortment of fix-it gizmos in a small box, a 1-gallon can of fuel, cell phone and a little cash. If it's winter I up the ante to a 5-gallon Jerry Can of fuel, and tire chains. Summer? Forget that. No one needs to go to Las Vegas that bad.

If I must go to or through Los Angeles, I've found it prudent to pack in a good book along with several liters of water and enough extra food and fuel to cope with an

extended stay in the not too unlikely occurrence of encountering a gridlocked freeway stretching from the Pacific to the Arizona border.

I was explaining this to a neighbor over coffee, and out of nowhere he asked, "But what about 'the big trip?'"

"Huh," I said, not understanding what he meant by 'the big trip.'"

"You know," he answered, "the one at the end of the trail."

"What would I know about that," I responded, a bit unnerved at the thought. But after all my previous hogwash on travel I decided to give it a shot.

While we don't have all the problems of Pharaohs with pyramids taking all the stuff they value—you know, a herd of goats, several splay-footed quadrupeds, and a corps of loyal esnes (you can look them up)—I could see some sense in considering things to facilitate such a journey.

I've found there are two absolute necessity items when journeying to foreign lands: toilet tissue and duct tape...perhaps some loose change to tip Charon for his labors providing the ferryman actually exists. Finally an up to date passport and American Express card might prove useful...just in case.

What else?

I haven't a clue since the only people I know of who've made the return trip are movie stars and not one of them has bothered to tell me what would be nice have on 'the other side.'

I guess it's just not worth worrying about. Toilet paper and duct tape for certain and leave the rest to chance.

=====

## **Is Anyone Looking at Climate Change in Terms of Chaos?**

Yes, at least a few.

I'm returning to my Walking Thoughts of several weeks ago that advanced the proposition that it's important to introduce the topic of non-linear behavior at as early point in our education process as possible. Here's a case in point.

Chaos theory is a branch of mathematics and physics that studies how complex systems can exhibit unpredictable and nonlinear behavior, even when they are governed by deterministic laws. Some scientists and researchers have explored the concept of global warming and climate change in terms of chaos theory and complex systems, which when applied to climate science can help in understanding the nonlinear and often chaotic interactions within the Earth's climate system.

Climate is the veritable poster child of a complex, nonlinear system with many interrelated components, including the atmosphere, oceans, land, and ice. Small changes in one part of the system can lead to significant and sometimes unpredictable effects throughout the entire system. As such, chaos theory can be used to examine how feedback loops, threshold effects, and small initial perturbations can lead to larger and potentially more chaotic outcomes in the context of climate change.

Climate models, which are used to simulate and project future climate scenarios, often incorporate elements of chaos theory to account for the inherent complexities and uncertainties in the climate system. These models help researchers explore the potential for abrupt and unexpected changes in climate, such as the rapid melting of polar ice, shifts in ocean circulation patterns, or the intensification of extreme weather events.

In summary, while global warming and climate change are predominantly studied using traditional climate models and statistical analyses, chaos theory and complex systems thinking are also employed to better understand the unpredictable and nonlinear aspects of climate dynamics.

While the main focus on anthropogenic climate change has a strong scientific basis due to the overwhelming evidence that human activities, such as the burning of fossil fuels and deforestation, concerns about the influence of funding and political factors on research priorities are valid and have been discussed within the scientific community. This is something that I intend to think about in my walks.

---