# Ode to E Pluribus Unum for Sunday May 18 2025



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# **Terminator Moon: A Moonscape of Shadows**



Image Credit & Copyright: Rich Addis

What's different about this Moon? It's the terminators.



In the featured image, you can't directly see any terminator -- the line that divides the light of day from the dark of night. That's because the featured image is a digital composite of many near-terminator lunar strips over a full Moon.

Terminator regions show the longest and most prominent shadows -shadows which, by their contrast and length, allow a flat photograph to appear three-dimensional. The overlay images were taken over two weeks in early April.

Many of the Moon's craters stand out because of the shadows they all cast

to the right. The image shows in graphic detail that the darker regions known as maria are not just darker than the rest of the Moon -- they are also flatter.

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Joe Horton Comments on Last Week's "Earth's landmasses are holding onto a lot less water than they used to — and this loss is not just due to melting ice sheets. Terrestrial water storage, which includes water in underground aquifers, lakes, rivers and the tiny pore spaces within soil, declined by trillions of metric tons in the early 21st century, researchers report in the March 28 Science." "OK, I give up" Joe says. "Where did all the water go? Sea level rising? If so, we should actually see it rise. No one has. In clouds? Also not correct since it's no cloudier now than it used to be. And if it had done that, we'd have more rain, not less, which would lead to the ground being wetter, not drier.

"What this suggests--if true--is that the polar ice caps are growing rather than shrinking, which would mean we're heading back toward another mini-ice age. Which would contradict the idea that the earth is heating up. This whole article appears to me to be inconsistent with any form of rational probability."

Anyone want to wade into this pond?



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#### Inside the Colosseum: Hidden Mechanisms of Ancient Rome



he Colosseum, completed under Rome's Emperor Titus, was the largest amphitheater ever built. Explore the arena through 3D reanimation and see how it was built with trapdoors and intricate underground tunnels, and designed to hold massive amounts of water for sweeping naval battles.

https://youtu.be/bmvxRMYxlhE

# **Chords & Riffs**

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## Herb Alpert (1935 - )



brittanica.com

The American trumpeter and music industry executive is known for leading the band Herb Alpert & the Tijuana Brass and for cofounding A&M Records. Hit albums by Alpert, one of the best-selling instrumentalists of all time, helped A&M Records become an industry powerhouse.

Although he initially studied classical music, he began listening to and absorbing the music of jazz performers such as Charlie Parker and Harry James. He attended Fairfax High School in Los Angeles, graduating in 1953. Alpert started a series of jobs in the music industry in 1957. He coproduced recordings for the surf music duo Jan and Dean, played with pickup bands, and cowrote songs for soul music singer Sam Cooke, teaming up with songwriter Lou Adler to write Cooke's hit song "Wonderful World"

He found his musical niche with the instrumental song "The Lonely Bull (El Solo Toro)," and his style was dubbed "Ameriachi," an easy-listening blend of mariachi, jazz, and rock music.

Throughout the 1970s and '80s, Alpert increased his involvement in the creative development of A&M, but he also kept recording. In 1974 Herb Alpert & the Tijuana Brass released the album You Smile—The Song Begins, anchored by the track "Last Tango in Paris," which features an orchestral arrangement by composer Quincy Jones.

Alpert has won eight Grammy Awards in his career, including a 1997 Trustees Award for his contributions to the field of musical recording. He was awarded a star on the Hollywood Walk of Fame in 1977. Alpert and Moss were inducted into the Rock & Roll Hall of Fame in 2006 for their work at A&M Records.

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Rise <u>https://youtu.be/q7O3eYJptTc</u>

Spanish Flea https://youtu.be/ZhEmtlpExUo

Route 101 https://youtu.be/7GCLdCu2vm4

A Taste of Honey <a href="https://youtu.be/LGmQXuySF28">https://youtu.be/LGmQXuySF28</a>

Herb Alpert, Tijuana Brass And Other Delights https://youtu.be/us4TBtlbrcQ



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The Harpsichord's Vital Role in Early Music



A Flemish harpsichord by Andreas Ruckers the Elder, c.1640, beautifully preserved with painted birds and flowers, Latin mottos, and a later keyboard extension ('ravalement') reflecting evolving musical tastes © Christopher Gardner

The harpsichord, with its distinctive, bell-like tone and elegant appearance, occupies a central place in the history of Western classical music. As a defining instrument of the Renaissance and Baroque periods, the harpsichord played a vital role in the development of early music, both as a solo instrument and within ensembles.

Despite its eventual eclipse by the fortepiano and the modern piano, the harpsichord's contribution to the evolution of musical language and performance practice remains profound. Its revival in the 20th century, particularly through the efforts of historically informed performance practitioners, has ensured that the harpsichord continues to charm and captivate audiences today.

Unlike the piano, which strikes strings with hammers, the harpsichord plucks its strings with quills or plectra—traditionally made from bird feathers—when the keys are depressed. This mechanism results in a bright, clear sound, though without the capacity for dynamic variation based on finger pressure.

#### https://bit.ly/4mbI9Es

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# Chimps Talk to Each Other Much Like We Do, Study Finds



© Liran Samuni, Taï Chimpanzee Project

Chimps are a lot like us: They're sociable, empathetic, and genetically close to humans — and a recent study suggests wild chimpanzees use even more nuanced, human-like communication than previously believed.

After studying <u>53 wild chimpanzees for 12 hours at a time</u>, researchers found that they combine hoots, grunts, and calls to create new meaning in a way that's reminiscent of how people use idioms or tweak the order of words to build new phrases, per NBC News. "Generating new or combined meanings by combining words is a hallmark of human language," Catherine Crockford, a researcher at the Max Planck Institute for Evolutionary Anthropology who co-directs the Taï Chimpanzee Project, said in a press release.

And chimps may very well not be the only ones, as other recent research provides evidence that bonobos have also evolved to modify their language to talk to one another in a similar way. The takeaway: "There is indeed something special about hominid communication — that <u>complex communication</u> was already emerging in our last common ancestor, shared with our closest living relatives — or that we have underestimated the complexity of communication in other animals as well, which requires further study," said study co-author Cédric Girard-Buttoz.



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#### **Chimps Got Rhythm**



289Country,com

A new <u>study</u> revealed chimpanzees drum with rhythm when they bang on tree trunks and share similarities with humans in their ability to hold a beat. The discovery, in one of the closest relatives to modern humans, sheds light on the evolutionary building blocks of music.

The behavior is believed to be a form of long-distance communication (<u>read study</u>) and suggests the chimps employ different sequences depending on the social situation. Researchers who analyzed 11 communities of chimps across six populations and two subspecies found groups from separate regions of Africa produced different rhythms for the same context, suggesting the mammals independently developed their own methods of communication.

The study also hints at a longstanding anthropological question—despite being a common human experience, how and why humans produce music remains unclear.

The study comes on the heels of a separate observation of an individual Californian seal—named Ronan—<u>that can keep time</u> via rhythmic beats.

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# **Early Migraine Relief**

healthshots.com

A new clinical trial has found the migraine drug <u>ubrogepant</u> can reduce nonheadache symptoms—such as fatigue, brain fog, and light sensitivity—that occur in the hours before a migraine attack begins. The findings, released yesterday, suggest ubrogepant (which blocks pain-related receptors in the brain) may be the first acute treatment to help manage the run-up to migraines.

Migraines <u>(see overview)</u> are intense headaches often accompanied by nausea and sensitivity to light or sound, affecting roughly 14% to 15% of the world's population.

Many experience early warning signs, known as "prodrome" symptoms, like mood changes, neck pain, or food cravings, hours before the headache starts. Watch what happens to the brain during a migraine <u>here</u>.

In the trial, researchers studied 438 adults ages 18 to 75 with at least a one-year history of migraines. Compared to a placebo, participants who took ubrogepant during the prodrome phase reported faster and greater relief, including improved concentration within one hour, reduced light sensitivity after two, less fatigue and neck pain after three, and decreased dizziness and sound sensitivity between four and 24 hours.



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#### World's First Mass-Produced Flying Car Prototype Unveiled



piston.my

Created by Slovakia-based company Klein Vision, the AirCar production prototype made its public debut May 8, after making its insider debut at the 2025 Living Legends of Aviation Awards Ceremony in Beverly Hills late last month. At the event, Morgan Freeman and John Travolta presented the car's inventor, Stefan Klein, with a Special Recognition Award for Engineering Excellence.

Per the company website, the AirCar is the result of Klein spending the past 20 years "converting his flying car dream into reality." The vehicle already holds a Certificate of Airworthiness and has successfully completed over 170 flight hours and more than 500 takeoffs and landings. It's capable of automatic transformation from car to aircraft in under two minutes, enabling the operator to simply drive to an airport and then take off.

https://bit.ly/4ddv6yc

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#### **Grizzly Bears Could Enter Their Comeback Era in California**



Yellowstonepark.com

Though the grizzly bear is prominently featured on the California flag, it's been a little over a century since anyone within the state spotted one in the wild. That could soon change, per a new study outlining a potential reintroduction plan for the apex predators.

"For a hundred years, people have been saying, 'Ah, it's over.' But science actually shows that's not the case," Peter Alagona, an environmental historian who led the <u>grizzly bear feasibility report</u>, told The Guardian. His team estimates that the state could host up to 1,700 bears across three areas: the northwest forest near the Oregon border, the southern Sierra Nevada, and a southwestern region near Santa Barbara.

The sheer amount of space in California makes a <u>grizzly comeback</u> possible, Alagona added, noting the effort "would be a slow, deliberate, and careful process." However, public opinion is another critical piece of the puzzle. "I think that the question is really whether people are interested, engaged, excited, enthusiastic, and willing to support this," he said.

Proponents say grizzlies could help keep other species in check, disperse seeds, balance the natural ecosystem, and restore cultural resonance, particularly for Indigenous groups. "If we bring it back, it reminds us of a new future," said Melissa Wilder, a wildlife program coordinator with the Los Padres ForestWatch. "And I think we need hope right now."

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#### Earth's Poles From Space in This Stunning 4-Hour Spacex Video

The first humans to orbit Earth's poles shared the view.



Crew Dragon Resilience's dome window looks upward at a snow-sheeted, cloudy Earth. (Image credit: SpaceX)

SpaceX posted the four-hour video on its X account over the weekend, highlighting some of Dragon's best views as the Fram2 crew gazed in awe from the spacecraft's domed window.

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#### AltoVolo is a New Sleek eVTOL Aircraft

Sigma Takes Flight: A Sleek Leap Toward the Skies



AltoVolvo

London startup AltoVolo just unveiled the Sigma, a hybrid-electric eVTOL that looks part spacecraft, part sculpture. With tilting jet propulsion, it uses batteries for lift-off, liquid fuel for range, and ambition for everything in between.

Projected to fly 510 miles, cruise at 220 mph, and hit 290 mph at full tilt, it does all this while weighing just 2,160 lbs—with three passengers on board. At only 15.7 feet wide, it's compact, clean, and seriously fast.

https://bit.ly/4jZrliy

A scaled prototype has already flown; now comes the full-size demonstrator. No production date yet, but Sigma's message is clear: the sky isn't the limit, it's the beginning.



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#### **FLASHMOB CENTRAL**

#### Flash Mob at the Bank of America Tower



youtube

https://youtu.be/rq9TgLE7ePw

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# Abel Prize to Japanese Mathematician Who Abstracted Abstractions



Masaki Kashiwara received the honor, often regarded as the Nobel Prize in mathematics, for work that combined different mathematical fields to solve challenging problems.

Peter Bagde/Typos1/The Abel Prize

Masaki Kashiwara, a Japanese mathematician, received this year's Abel Prize, which aspires to be

the equivalent of the Nobel Prize in math. Dr. Kashiwara's highly abstract work combined algebra, geometry and differential equations in surprising ways.

"First of all, he has solved some open conjectures — hard problems that have been around," said Helge Holden, chairman of the prize committee. "And second, he has opened new avenues, connecting areas that were not known to be connected before. This is something that always surprises mathematicians."

Mathematicians use connections between different areas of math to tackle recalcitrant problems, allowing them to recast those problems into concepts they better understand.

https://bit.ly/43mYHCF

#### "Strongest Evidence Yet" of Life on Distant Planet K2-18b

There has been vigorous debate in scientific circles about whether the planet K2-18b, which is 124 light years away in the Leo constellation, could be an ocean world capable of hosting microbial life, at least.

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An artist's concept shows what exoplanet K2-18 b could look like based on science data. The illustration was released on September 11, 2023. NASA, CSA, ESA, J. Olmsted (STSCI), Science: N. Madhusudhan (Cambridge University)/Handout via REUTERS K2-18b has long been considered the premier candidate for a "hycean planet" — an ocean world bigger than Earth with a hydrogen-rich atmosphere.

Hycean planets, much like Earth, are covered in oceans and have atmospheres rich with hydrogen, an element that is essential for life. Many of the planets are bigger and hotter than Earth — up to 2.6 times larger than our planet and reaching atmospheric temperatures up to nearly 200 degrees Celsius, or 392 degrees Fahrenheit.

https://bit.ly/3EduEmV

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#### Why Everything in the Universe Turns More Complex

A new suggestion that complexity increases over time, not just in living organisms but in the nonliving world, promises to rewrite notions of time and evolution.



Irene Pérez for Quanta Magazine

In 1950 the Italian physicist Enrico Fermi was discussing the possibility of intelligent alien life with his colleagues. If alien civilizations exist, he said, some should surely have had enough time to expand throughout the cosmos. So where are they?

Many answers to Fermi's "paradox" have been proposed: Maybe alien civilizations burn out or destroy themselves before they can become interstellar wanderers.

https://bit.ly/4cKOBhA

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#### 'It Really Is the Holy Grail of Curative Medicine'

Stanford bioengineer Mark Skylar-Scott is on a "science fiction" quest to 3D print human hearts and other organs on demand, using cells from a patient's own body.



Stanford bioengineer Mark Skylar-Scott

#### Andrew Brodhead

Chronic organ failure is a major cause of death – around 500,000 people are diagnosed with heart failure every year in the U.S. And yet, only a few thousand heart transplants are performed annually. Most people just aren't good candidates because of their age or condition and the scarcity of donor organs.

What if we could 3D print new hearts and other organs on demand, using cells from a patient's own body? How do we take a few cells in a petri dish and turn them into a kilogram of tissue that you can watch with your own eyes beating?

Our goal would be to make your own heart, made of your own cells, on demand, with no need for immunosuppression.

https://bit.ly/3Ev6Mv6



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#### **Mission To Boldly Grow Food in Space Labs Blasts Off**



Astronauts enjoy eating in zero gravity, but the freeze-dried food itself is not much fun to eat NASA

Steak, mashed potatoes and desserts for astronauts could soon be grown from individual cells in space if an experiment launched into orbit today is successful.

A European Space Agency (ESA) project is assessing the viability of growing so-called lab-grown food in the low gravity and higher radiation in orbit and on other worlds.

ESA is funding the research to explore new ways of reducing the cost of feeding an astronaut, which can cost up to  $\pounds$ 20,000 per day.

#### https://bit.ly/4ir15Mw

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# Hydrogen Fuel Cells Power New Future for Data Centers in California

Bloom Energy and Equinix are joining forces to push data center sustainability to the next level, rolling out hydrogen fuel cells at one of Equinix's flagship facilities in California's tech-heavy Bay Area.



Hydrogen Fuel News

With the massive growth in cloud services, AI applications, and cryptocurrency mining, power demand is skyrocketing. And most of that power still comes from fossil fuels. That's where Bloom Energy's SOFC tech steps in. Their system, called the Bloom Energy Server, runs on hydrogen, creating electricity without combustion.

Bloom Energy's systems use solid oxide fuel cells that run super-hot — we're talking 500°C to 1,000°C. That high temp allows for fuel flexibility. While the tech can run on natural gas or biogas, Equinix is going all-in on green hydrogen, produced by electrolysis.

#### https://bit.ly/4jKr8PR

I intend to keep an eye on this, looking to see if the approach survives until the cost of green hydrogen becomes sustainable.

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#### World's First Operating System for Quantum Computers Unveiled

*QNodeOS is the world's first operating system designed for quantum computers and will enable connections between different types of quantum computers.* 



The new operating system is the first in the world that allows quantum computers with different kinds of qubits to function together in a single network. (Image credit: hh5800 via Getty Images)

Scientists have developed the world's first operating system designed for quantum computers, which could let quantum computers connect with each other, thereby paving the way for a <u>quantum internet</u>.

An operating system, such as Microsoft Windows or Apple iOS, is the program responsible for managing every other application on a computer. However, most quantum computers are designed and built for a specific function; for example, to run an experiment or simulation. This limits the potential functionality of quantum computers and hampers their connectivity. There are also different types of quantum computers that use different kinds of <u>quantum bits</u> (qubits) to achieve quantum superposition in different ways.

But on March 12, scientists published a new study in <u>Nature</u> describing QNodeOS, an operating system for quantum computers that works with all kinds of machines irrespective of the type of qubits they use.

https://bit.ly/3Gpymua

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#### Meet a copper alloy stronger than steel

The new super-strong copper alloy can be used to build better airplanes and spacecraft.



A cross-section of the new copper alloy, with the orange dots representing copper atoms, the yellow tantalum atoms and the blue lithium atoms. (Image credit: Lehigh University)

The new alloy, a mixture of copper, tantalum and lithium, was built on nanoscales to withstand extreme temperatures and strains, and could have crucial applications for aerospace, defense and industry. The researchers published their findings March 27 in the journal <u>Science</u>.

"This is cutting-edge science, developing a new material that uniquely combines copper's excellent conductivity with strength and durability on the scale of nickel-based superalloys," study co-author Martin Harmer, an professor emeritus of engineering at Lehigh University in Bethlehem, Pennsylvania, said in a statement.

Currently, the most common materials used in high-stress environments such as gas turbine engines and chemical processing equipment are nickel-based superalloys, which are strong, resistant to corrosion and can withstand high temperatures But these alloys fall short in terms of their electrical conductivity, limiting some of their potential applications. To solve this problem, the researchers sandwiched copper-lithium precipitates between two layers rich in tantalum, an element that is highly resistant to corrosion.

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## Former Staten Island Landfill Set to Become Pollinator Haven



Timothy A. Clary/Afp Via Getty Images

Once the world's largest landfill, Fresh Kills Landfill spent 53 years as a lifeless dump — but it's now set to house 50,000 violets instead. The wasteyard closed in 2001, and was converted into a park nearly three times the size of Central Park in 2023. On Wednesday, the Freshkills Park Alliance launched its <u>50,000 Violets Project</u>, which aims to attract bees, monarch butterflies, and other pollinators to the purple fields.

The Fresh Kills Landfill, which received up to 29,000 tons of trash daily at its peak, was shut down after pushback from locals who deemed it a threat to public health. "What was once a terrible thing for Staten Island is turning into an incredible place of beauty, acceptance, and reclamation," Alliance President Mark Murphy said, per the Staten Island Advance. "This is a testament to 23 years of science, of incredible engineering, to ensure that this is a safe, clean, and reclaimed environment."

The project team will plant the <u>violets over the next two years</u>, and scientists will study the impact of the flowers on the region and reintroduce native pollinators to evaluate the project's success. "Our 2,200 acres of native grassland is not just a place of beauty, but a place of highly efficient carbon capture, of resilience, regrowth, and environmental sustainability," said Murphy.

Fresh Kills was called back into service in the wake of the Twin Towers attacks, becoming the repository for the disaster debris.

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### The Suburban Office Park That Launched Silicon Valley

Stanford built one of the first office parks in the country. Tech pioneers swooped in.

![](_page_19_Figure_2.jpeg)

#### the hustle

In the town of Palo Alto, California, tucked away between El Camino Real and Junipero Serra Boulevard, you'll find the most influential office park in the world. Designed in the early 1950s as one of America's first suburban office parks, the ~700-acre development is home to 150 companies.

https://bit.ly/4j96Leu

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For Lexophiles

- 1. No matter how much you push the envelope, it'll still be stationery.
- 2. If you don't pay your exorcist you can get repossessed
- 3. I'm reading a book about anti-gravity. I just can't put it down.
- 4. I didn't like my beard at first. Then it grew on me.
- 5. Did you hear about the crossed-eyed teacher who lost her job because she couldn't control her pupils?
- 6. When you get a bladder infection, urine trouble.
- 7. When chemists die, they barium.
- 8. I stayed up all night to see where the sun went, and then it dawned on me.
- 9. I changed my iPod's name to Titanic. It's syncing now.
- 10. England has no kidney bank, but it does have a Liverpool.
- 11. Haunted French pancakes give me the crepes.

- 12. This girl today said she recognized me from the Vegetarians Club, but I'd swear I've never met herbivore.
- 13. I know a guy who's addicted to drinking brake fluid, but he says he can stop any time.
- 14. A thief who stole a calendar got twelve months.
- 15. When the smog lifts in Los Angeles U.C.L.A.
- 16. I got some batteries that were given out free of charge.
- 17. A dentist and a manicurist married. They fought tooth and nail.
- 18. A will is a dead giveaway.
- 19. With her marriage, she got a new name and a dress.
- 20. Police were summoned to a daycare center where a three-year-old was resisting a rest.
- 21. Did you hear about the fellow whose entire left side was cut off? He's all right now.
- 22. A bicycle can't stand alone; it's just two tired.
- 23. The guy who fell onto an upholstery machine last week is now fully recovered.
- 24. He had a photographic memory but it was never fully developed.

![](_page_20_Picture_13.jpeg)

#### **Threshold: The Blue Angel Experience**

![](_page_20_Picture_15.jpeg)

avgeekery.com

When the Blue Angels transitioned to the F-4J Phantom in 1965, many (including me) feared the team had bitten off more than it might be able to chew.

What emerged was up until then the most exciting airshow event ever seen, proof of which is presented in <u>Threshold, the Blue Angel Experience</u>, narrated by Leslie Nielson, the first "behind the scenes" view of the team that in the process became a squadron.

https://youtu.be/rv8XfeOmgug

The originals have all gone to Valhalla, so you'll want to tuck this video somewhere for safe keeping where you can find it when you need a 'flying fix.'

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#### **My Walking Thoughts**

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For Sunday May 18 2025

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#### A New Future for Odes?

George Smith, writer, editor, long time friend, and a man of infinite ideas, proposed looking into getting high school journalism classes to adopt the Ode's editorial approach into their curriculum.

Obviously I am wildly in favor of George's suggestion, but lack the exposure to the high school education community necessary to bringing this to pass. That's where I need your thoughts and maybe your help in getting this in front of the people who can make this happen.

I guess a starting point lies in recognizing why I began the project nearly seven years and why the readership has shown growth over that period. Part of the reason was my belief that "News" as presented by the major media (and increasingly in the hands of social media) served the purposes of groups and individuals more interested in promoting limited agenda rather than exploring the broad range of activities meeting broader objectives.

If you see the value of this the education of future journalists please give me your thoughts.

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#### Last Night at a Vietnam Retrospective.

In recognition of the 50th anniversary of the end of the Vietnam War, the Carpinteria, CA, History Museum asked a quartet of residents share their recollections of their service during the period in response to questions posed by the Museum's hostess.

I was there at the suggestion of friends from high school days, though in all honesty I arrived unsure how the panel's experience would reflect my own. I needn't have

worried as during the two hours of questions and answers I realized how completely their thoughts matched mine.

I'll provide details of their observations in future Walking Thoughts, but my overriding takeaway was the pride each had in his or (yes) her service... that despite the hardships of the period had been defining moments in their lives.

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