



Sharing Knowledge to create a Better World!



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# Weekly Science Report

## December 30, 2022

**“Right up to the very end, life must be worn gloriously, because until our last moment the future is what we make it.”**

Star Trek: Strange New Worlds

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## Introduction

Steve Detwiler created this publication with the support of Graham Hancock and the late John Anthony West to share news and information on various disciplines to include but not limited to paleontology, space sciences, genetics, and archaeology. His goal behind sharing this publication has always been very simple, by sharing knowledge we can make our world a better place. This publication is Mr. Detwiler's contribution to bring people together and share ideas and discoveries with his fellow humans.

I hope you enjoy this publication and that the content challenges and inspires you!

The Weekly Science Report is also on social media at:

- Facebook: <https://www.facebook.com/weeklysciencertp/>
- Twitter: <https://twitter.com/wklysciencertp>

## News Articles

### Paleontology, Evolution and Prehistoric Studies

The Mystery of Nevada's Ancient Reptilian Boneyard

[https://www.wired.com/story/the-mystery-of-nevadas-ancient-reptilian-boneyard/?bxiid=5bd6790424c17c1048020acb&cndid=41291302&esrc=twitter-newsletter-c&mbid=mbid%3DCRMWIR012019%0A%0A&source=EDT\\_WIR\\_NEWSLETTER\\_0\\_DAILY\\_ZZ&utm\\_brand=wired&utm\\_campaign=aud-dev&utm\\_content=WIR\\_Daily\\_121922&utm\\_mailing=WIR\\_Daily\\_121922&utm\\_medium=email&utm\\_source=nl&utm\\_term=P1](https://www.wired.com/story/the-mystery-of-nevadas-ancient-reptilian-boneyard/?bxiid=5bd6790424c17c1048020acb&cndid=41291302&esrc=twitter-newsletter-c&mbid=mbid%3DCRMWIR012019%0A%0A&source=EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_content=WIR_Daily_121922&utm_mailing=WIR_Daily_121922&utm_medium=email&utm_source=nl&utm_term=P1)

Archaeologists uncover oldest known projectile points in the Americas

<https://phys.org/news/2022-12-archaeologists-uncover-oldest-projectile-americas.html>

The earliest humans swam 100,000 years ago, but swimming remains a privileged pastime

<https://phys.org/news/2022-12-earliest-humans-swam-years-privileged.html>

Six recent discoveries that have changed how we think about human origins

[https://theconversation.com/six-recent-discoveries-that-have-changed-how-we-think-about-human-origins-190274?utm\\_medium=Social&utm\\_source=Twitter&s=09#Echobox=1671035954](https://theconversation.com/six-recent-discoveries-that-have-changed-how-we-think-about-human-origins-190274?utm_medium=Social&utm_source=Twitter&s=09#Echobox=1671035954)

First evidence found of a dinosaur eating a mammal

<https://phys.org/news/2022-12-evidence-dinosaur-mammal.html>

11,000-year-old carving may be earliest narrative scene

<https://phys.org/news/2022-12-year-old-earliest-narrative-scene.html>

Hunter-gatherer social ties spread pottery-making far and wide

<https://phys.org/news/2022-12-hunter-gatherer-social-pottery-making-wide.html>

Humans have been using bear skins for at least 300,000 years, suggests study

<https://phys.org/news/2022-12-humans-skins-years.html>

Human ancestors may have sailed across the Aegean Sea

<https://phys.org/news/2022-12-human-ancestors-aegean-sea.html>

## History

Dutch leader apologizes for the Netherlands' role in slave trade

<https://www.npr.org/2022/12/20/1144311201/the-dutch-leader-apologizes-for-the-netherlands-role-in-slave-trade?sc=18&f=1001>

Germany: Former Nazi camp secretary, 97, appeals conviction

<https://apnews.com/article/crime-legal-proceedings-gdansk-germany-ee5c2f07c36915eb9064dc89f4ae080f>

Salmon People: A Native Fishing Family's Fight to Preserve a Way of Life

[https://www.propublica.org/article/salmon-people-a-native-fishing-family-s-fight-to-preserve-a-way-of-life?fireglass\\_rsn=true#fireglass\\_params&tabid=a7039fddc9f64d37&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.propublica.org/article/salmon-people-a-native-fishing-family-s-fight-to-preserve-a-way-of-life?fireglass_rsn=true#fireglass_params&tabid=a7039fddc9f64d37&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

To share Native American culture and history the right way, artifacts should always be returned to tribes

[https://www.sandiegouniontribune.com/columnists/story/2022-11-27/to-share-native-american-culture-and-history-the-right-way-artifacts-should-always-be-returned-to-tribes?utm\\_source=dlvr.it&utm\\_medium=twitter&fireglass\\_rsn=true#fireglass\\_params&tabid=a64db2beda0e83ff&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.sandiegouniontribune.com/columnists/story/2022-11-27/to-share-native-american-culture-and-history-the-right-way-artifacts-should-always-be-returned-to-tribes?utm_source=dlvr.it&utm_medium=twitter&fireglass_rsn=true#fireglass_params&tabid=a64db2beda0e83ff&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

Amna Nawaz is stepping into history at PBS, and she hopes to make room for others like her

<https://19thnews.org/2022/12/amna-nawaz-making-history-pbs-newshour/?s=09>

The story of the nativity: Who were the three wise men?

[https://www.middleeasteye.net/discover/christmas-nativity-story-three-wise-men-who-were?utm\\_source=Facebook&utm\\_medium=Social&utm\\_campaign=Social\\_Traffic&utm\\_content=ap\\_7au7vukuqv](https://www.middleeasteye.net/discover/christmas-nativity-story-three-wise-men-who-were?utm_source=Facebook&utm_medium=Social&utm_campaign=Social_Traffic&utm_content=ap_7au7vukuqv)

Emmett Till and his mother honored with congressional medal

<https://www.nbcnews.com/news/nbcblk/emmett-mother-mamie-honored-congressional-medal-rcna62934>

UNESCO highlighting importance of Indigenous languages in 10-year plan

<https://www.cbc.ca/news/canada/north/unesco-decade-of-indigenous-languages-1.6696136>

West Point will remove Confederate symbols from its campus

<https://www.npr.org/2022/12/22/1145107950/west-point-confederate-symbols-robert-lee?sc=18&f=1001>

The Most Inspiring Immigration Stories Of 2022

[https://www.forbes.com/sites/stuartanderson/2022/12/20/the-most-inspiring-immigration-stories-of-2022/?utm\\_medium=social&utm\\_source=ForbesMainTwitter&utm\\_campaign=socialflowForbesMainTwitter&s=09&sh=4f2eef733312](https://www.forbes.com/sites/stuartanderson/2022/12/20/the-most-inspiring-immigration-stories-of-2022/?utm_medium=social&utm_source=ForbesMainTwitter&utm_campaign=socialflowForbesMainTwitter&s=09&sh=4f2eef733312)

Tribes Intervene in Lawsuit Restoring Two Utah National Monuments

[https://nativenewsonline.net/environment/tribes-intervene-in-lawsuit-restoring-two-utah-national-monuments?utm\\_content=buffer8fb51&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer&fireglass\\_rsn=true#fireglass\\_params&tabid=a2bb50ab4494ba41&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation2-us-east-1.wss.prod.fire.glass](https://nativenewsonline.net/environment/tribes-intervene-in-lawsuit-restoring-two-utah-national-monuments?utm_content=buffer8fb51&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer&fireglass_rsn=true#fireglass_params&tabid=a2bb50ab4494ba41&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass)

Descendants of executed Dakota 38+2 ride to Mankato to honor ancestors  
[https://www.mprnews.org/story/2022/12/23/descendants-of-executed-dakota-382-ride-to-mankato-to-honor-ancestors?utm\\_term=nprnews&utm\\_medium=social&utm\\_source=facebook.com&utm\\_campaign=npr](https://www.mprnews.org/story/2022/12/23/descendants-of-executed-dakota-382-ride-to-mankato-to-honor-ancestors?utm_term=nprnews&utm_medium=social&utm_source=facebook.com&utm_campaign=npr)

The Federal Government Has a Long History of Stealing Land from Tribes. But Co-management Is a Step in the Right Direction.  
[https://www.outsideonline.com/adventure-travel/news-analysis/government-tribes-co-management/?utm\\_content=buffer92e2e&utm\\_medium=social&utm\\_source=twitter.com&utm\\_campaign=buffer](https://www.outsideonline.com/adventure-travel/news-analysis/government-tribes-co-management/?utm_content=buffer92e2e&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer)

Native victims of mass execution remembered in Minnesota  
<https://indiancountrytoday.com/news/native-victims-of-mass-execution-remembered-in-minnesota>

How the secrets of ancient cuneiform texts are being revealed by AI  
[https://www.newscientist.com/article/mg25533981-400-how-the-secrets-of-ancient-cuneiform-texts-are-being-revealed-by-ai/?utm\\_medium=social&utm\\_campaign=echobox&utm\\_source=Facebook&fbclid=IwAR282DViZ\\_P-NCntTuY4LMQBFc0-A9a2xx\\_gUGmT-HU4NM2yvrCOz9aTb2E#Echobox=1671731100](https://www.newscientist.com/article/mg25533981-400-how-the-secrets-of-ancient-cuneiform-texts-are-being-revealed-by-ai/?utm_medium=social&utm_campaign=echobox&utm_source=Facebook&fbclid=IwAR282DViZ_P-NCntTuY4LMQBFc0-A9a2xx_gUGmT-HU4NM2yvrCOz9aTb2E#Echobox=1671731100)

Inside the Nisga'a Nation's Fight to Get a 36-Foot Totem Pole Back From Scotland  
<https://www.smithsonianmag.com/history/inside-the-nisgaa-nations-fight-for-the-return-of-a-36-foot-totem-pole-180981342/>

U.S. Restores J. Robert Oppenheimer's Security Clearance After 68 Years  
<https://www.smithsonianmag.com/smart-news/us-restores-j-robert-oppenheimers-security-clearance-after-68-years-180981329/>

Attila the Hun raided Rome due to starvation, not bloodlust, study suggests  
<https://www.livescience.com/attila-the-hun-raided-to-escape-drought>

## Archaeology

'A second front': fight to save 1,000-year-old caves from developers in Ukraine

<https://www.theguardian.com/world/2022/dec/25/a-second-front-fight-to-save-cave-complexes-from-developers-in-ukraine>

Researchers discover over 100 new ancient designs in Peru's Nazca lines

<https://www.reuters.com/world/americas/researchers-discover-over-100-new-ancient-designs-perus-nazca-lines-2022-12-19/>

Britain's Stone Age Building Boom

[https://www.nationalgeographic.com/magazine/graphics/stonehenge-was-one-triumph-amid-a-prehistoric-building-boom-feature?cmpid=org=ngp::mc=social::src=facebook::cmp=editorial::add=fb20221221ngm-resurfstonehengeprehistoricbuildings&linkId=194537348&fireglass\\_rsn=true#fireglass\\_params&abid=aaa40402cd9ead17&start\\_with\\_session\\_counter=2&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.nationalgeographic.com/magazine/graphics/stonehenge-was-one-triumph-amid-a-prehistoric-building-boom-feature?cmpid=org=ngp::mc=social::src=facebook::cmp=editorial::add=fb20221221ngm-resurfstonehengeprehistoricbuildings&linkId=194537348&fireglass_rsn=true#fireglass_params&abid=aaa40402cd9ead17&start_with_session_counter=2&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

Burial cave dedicated to Jesus midwife Salome reveals treasures; will open to public

<https://www.timesofisrael.com/burial-cave-dedicated-to-jesus-midwife-salome-reveals-treasures-ahead-of-opening/>

Huge 2,000-year-old Mayan civilization discovered in northern Guatemala

<https://phys.org/news/2022-12-huge-year-old-mayan-civilization-northern.html>

Israel, right-wing group to fully excavate biblical Siloam Pool in East Jerusalem

<https://www.timesofisrael.com/israel-right-wing-group-to-fully-excavate-biblical-siloam-pool-in-east-jerusalem/>

Heritage protection foundation Aliph expands with office in Saudi Arabia

[https://www.theartnewspaper.com/2022/12/22/heritage-protection-foundation-opens-office-in-saudi-arabia?fireglass\\_rsn=true#fireglass\\_params&tabid=ac788bfae64119a7&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation2-us-east-1.wss.prod.fire.glass](https://www.theartnewspaper.com/2022/12/22/heritage-protection-foundation-opens-office-in-saudi-arabia?fireglass_rsn=true#fireglass_params&tabid=ac788bfae64119a7&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass)

Researchers offer new interpretation of a 4,000-year-old cemetery

<https://phys.org/news/2022-12-year-old-cemetery.html>

Why the mysterious Scottish broch is making a return

[https://www.bbc.com/reel/video/p0cpl9nf/why-the-mysterious-scottish-broch-is-making-a-return?at link type=web link&at link origin=BBC News&at format=link&at bbc team=editorial &at medium=social&at ptr name=facebook\\_page&at campaign=Social\\_Flow&at link\\_id=284B502C-8456-11ED-9024-1DCE96E8478F&at campaign\\_type=owned&fireglass\\_rsn=true#fireglass\\_params&tabid=a9e1c6128ced5ff7&start\\_with\\_session\\_counter=2&application\\_server\\_address=isolation2-us-east-1.wss.prod.fire.glass](https://www.bbc.com/reel/video/p0cpl9nf/why-the-mysterious-scottish-broch-is-making-a-return?at link type=web link&at link origin=BBC News&at format=link&at bbc team=editorial &at medium=social&at ptr name=facebook_page&at campaign=Social_Flow&at link_id=284B502C-8456-11ED-9024-1DCE96E8478F&at campaign_type=owned&fireglass_rsn=true#fireglass_params&tabid=a9e1c6128ced5ff7&start_with_session_counter=2&application_server_address=isolation2-us-east-1.wss.prod.fire.glass)

List of foreign buyers of Korean cultural assets in 1930s-50s unveiled

[https://en.yna.co.kr/view/AEN20221219003600315?input=tw&fireglass\\_rsn=true#fireglass\\_params&tabid=a742ab5dce3c7449&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation2-us-east-1.wss.prod.fire.glass](https://en.yna.co.kr/view/AEN20221219003600315?input=tw&fireglass_rsn=true#fireglass_params&tabid=a742ab5dce3c7449&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass)

Indigenous Australians fight to protect sacred art from industry and pollution

<https://www.todayonline.com/world/indigenous-australians-fight-protect-sacred-art-industry-and-pollution-2069331?s=09>

Vandals Destroy 30,000-Year-Old Indigenous Cave Drawings in Australia

<https://www.smithsonianmag.com/smart-news/30000-year-old-indigenous-cave-drawings-in-australia-have-been-destroyed-180981363/>

Divers recover 275 artifacts, including 'remarkable' book, from Arctic shipwreck

<https://www.heraldonline.com/news/nation-world/world/article270506482.html>

30 incredible sunken wrecks from WWI and WWII

<https://www.livescience.com/world-war-i-ii-sunken-wrecks->

(Un)following the Recipe

<https://www.archaeology.org/issues/496-2301/digs/11043-digs-china-bronze-recipe>

Neolithic Tombs Discovered in Central China

<https://www.archaeology.org/news/11102-221230-china-suyang-tombs>

## Egyptology

Researchers identify bird species depicted in ancient, finely detailed Egyptian painting  
<https://phys.org/news/2022-12-bird-species-depicted-ancient-finely.html>

Additional Mummies Uncovered Near Vizier's Tomb in Luxor  
<https://www.archaeology.org/news/11103-221230-egypt-luxor-tombs>



## General Science

Hotels say goodbye to daily room cleanings and hello to robots as workers stay scarce  
<https://www.npr.org/2022/12/21/1143475374/hotels-labor-worker-shortage-robots-automation?sc=18&f=1001>

## Physics, Earth and Space Sciences

Inside-out asteroids: A practical method for creating space habitats

<https://newatlas.com/space/space-habitat-ring-plan/>

Goodnight, sweet spacecraft: NASA's InSight lander may have just signed off from Mars

<https://www.npr.org/2022/12/20/1144402999/nasa-insight-mars-lander?sc=18&f=1001>

Decades of Jupiter Observations Have Revealed Something Strange

[https://www.vice.com/en/article/5d38bz/decades-of-jupiter-observations-have-revealed-something-strange?utm\\_source=vice\\_facebook&utm\\_medium=social](https://www.vice.com/en/article/5d38bz/decades-of-jupiter-observations-have-revealed-something-strange?utm_source=vice_facebook&utm_medium=social)

Nuclear fusion breakthrough: What does it mean for space exploration?

[https://www.space.com/nuclear-fusion-breakthrough-spacetravel?fireglass\\_rsn=true#fireglass\\_params&tabid=acf8ae61176ace80&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.space.com/nuclear-fusion-breakthrough-spacetravel?fireglass_rsn=true#fireglass_params&tabid=acf8ae61176ace80&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

NASA's Pluto Spacecraft Begins New Mission at the Solar System's Edge

[https://www.scientificamerican.com/article/nasas-pluto-spacecraft-begins-new-mission-at-the-solar-systems-edge/?utm\\_term=Autofeed&utm\\_medium=Social&utm\\_source=Facebook#Echobox=1671629577](https://www.scientificamerican.com/article/nasas-pluto-spacecraft-begins-new-mission-at-the-solar-systems-edge/?utm_term=Autofeed&utm_medium=Social&utm_source=Facebook#Echobox=1671629577)

Russian space debris forces space station to dodge, delays US spacewalk

<https://www.space.com/russian-space-debris-cancels-nasa-spacewalk>

Early results from NASA's DART mission

<https://phys.org/news/2022-12-early-results-nasa-dart-mission.html>

Five space exploration missions to look out for in 2023

<https://phys.org/news/2022-12-space-exploration-missions.amp>

Scientists investigate potential regolith origin on Uranus' moon Miranda

<https://phys.org/news/2022-12-scientists-potential-regolith-uranus-moon.html>

Moon rivers? UK scientists at heart of mission to extract water from lunar rock

[https://www.theguardian.com/science/2022/dec/26/moon-rivers-uk-scientists-at-heart-of-mission-to-extract-water-from-lunar-rock?CMP=fb\\_gu&utm\\_medium=Social&utm\\_source=Facebook#Echobox=1672065012](https://www.theguardian.com/science/2022/dec/26/moon-rivers-uk-scientists-at-heart-of-mission-to-extract-water-from-lunar-rock?CMP=fb_gu&utm_medium=Social&utm_source=Facebook#Echobox=1672065012)

Rescue Soyuz spacecraft can't reach International Space Station until February

<https://www.space.com/international-space-station-rescue-soyuz-february>

New measurements of galaxy rotation lean toward modified gravity as an explanation for dark matter

<https://phys.org/news/2022-12-galaxy-rotation-gravity-explanation-dark.html>

Venus may have Earth-like lithospheric thickness and heat flow

<https://phys.org/news/2022-12-venus-earth-like-lithospheric-thickness.html>

Chinese astronomers detect over 100 new open clusters

<https://phys.org/news/2022-12-chinese-astronomers-clusters.html>

Action of two protostars appears to be making conditions right for planet formation

<https://phys.org/news/2022-12-action-protostars-conditions-planet-formation.html>

## Environment, Climate Change and Alternative Energy Sources

The world has a new plan to save nature. Here's how it works — and how it could fail.

[https://www.vox.com/down-to-earth/2022/12/19/23515099/cop15-montreal-biodiversity-climate?fireglass\\_rsn=true#fireglass\\_params&tabid=a45982d87885cc80&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.vox.com/down-to-earth/2022/12/19/23515099/cop15-montreal-biodiversity-climate?fireglass_rsn=true#fireglass_params&tabid=a45982d87885cc80&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

EU agrees to the world's largest carbon border tax

[https://www.cnn.com/2022/12/19/energy/eu-carbon-border-tax?fireglass\\_rsn=true#fireglass\\_params&tabid=a8c1181360f4305b&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.cnn.com/2022/12/19/energy/eu-carbon-border-tax?fireglass_rsn=true#fireglass_params&tabid=a8c1181360f4305b&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

This little-known bottleneck is blocking clean energy for millions

[https://www.washingtonpost.com/climate-environment/2022/12/20/clean-energy-bottleneck-transmission-lines/?fireglass\\_rsn=true#fireglass\\_params&tabid=ad76993aecda78ad&start\\_with\\_session\\_counter=3&application\\_server\\_address=isolation1-us-east-1.wss.prod.fire.glass](https://www.washingtonpost.com/climate-environment/2022/12/20/clean-energy-bottleneck-transmission-lines/?fireglass_rsn=true#fireglass_params&tabid=ad76993aecda78ad&start_with_session_counter=3&application_server_address=isolation1-us-east-1.wss.prod.fire.glass)

Ancient farming practice makes a comeback as climate change puts pressure on crops

<https://www.usatoday.com/story/news/2022/12/28/cover-crops-can-help-fight-climate-change-effects-us-farms/10798179002/?gnt-cfr=1>

Study identifies new cause of melting Antarctic ice shelves

<https://www.eurekalert.org/news-releases/975229>

Uneven wetting under climate change is causing diverse variations in the thawing of frozen ground on the Tibetan Plateau

<https://www.eurekalert.org/news-releases/975240>

Researchers develop eco-friendly materials capable of purifying water

<https://phys.org/news/2022-12-eco-friendly-materials-capable-purifying.html>

## Biological, Genetics and Medical Sciences

A new kind of blood test can screen for many cancers — as some pregnant people learn  
<https://www.npr.org/sections/health-shots/2022/12/23/1141679898/a-new-kind-of-blood-test-can-screen-for-many-cancers-as-some-pregnant-people-lea?sc=18&f=1001>

Gene editing could revive a nearly lost tree. Not everyone is on board  
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Other

Nothing to report

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