



Sharing Knowledge to create a Better World!



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Weekly Science Report

January 13, 2023

“People come here penniless but not cultureless. They bring us gifts. We can synthesize the best of our traditions with the best of theirs. We can teach and learn from each other to produce a better America.”

Mary Pipher

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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 Mysterious Origin of Dragons

https://www.discovermagazine.com/the-sciences/the-mysterious-origin-of-dragons?utm_campaign=organicsocial&utm_content=How%2C%20exactly%2C%20did%20the%20ide&utm_medium=social&utm_source=facebook&fbclid=IwAR1aoWwmFv67TujQy8EfdF83o1q3gpAVwzKeRFiv6nDiiPX_RNI9h6gNtrQ

Below Madagascar, cave divers surface secrets of the past

<https://www.popsci.com/science/cave-divers-paleontologists-madagascar/>

Mysterious symbols in cave paintings may be earliest form of writing

https://www.newscientist.com/article/mg25634202-800-mysterious-symbols-in-cave-paintings-may-be-earliest-form-of-writing/?utm_medium=social&utm_campaign=echobox&utm_source=Facebook&fbclid=IwAR0QDBU8vyN9lm6QOv_xUUJZxrJ17bAz5yPsfWNZkFu-FpYHhVV9k-Vk_xo#Echobox=1672929111

Stone Age humans stepped out in cave bear fur 300,000 years ago

https://www.cnn.com/2023/01/05/europe/bear-skins-prehistoric-clothing-scn/index.html?utm_medium=social&utm_content=2023-01-05T13%3A20%3A06&utm_source=fbCNNi&utm_term=link&fbclid=IwAR20OPkBW-bKEPOqt_HqeX2hykSLAcfajaUxgUqIXgyR8Wky36OFLk9IZ60&fireglass_rsn=true#fireglass_params&tabid=aa392d26d01a15d7&start_with_session_counter=2&application_server_address=isolation1-us-east-1.wss.prod.fire.glass

High-altitude living has changed more than just the genes of some Peruvians

https://www.science.org/content/article/high-altitude-living-has-changed-more-just-genes-some-peruvians?utm_label=AAAS%23ScienceMagArchives&utm_medium=twitter&utm_source=social&utm_campaign=AAAS&fireglass_rsn=true#fireglass_params&tabid=af5e071823924a8f&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Mass production of stone bladelets shows cultural shift in Paleolithic Levant

<https://phys.org/news/2023-01-mass-production-stone-bladelets-cultural.html>

Human and Neanderthal brains have a surprising 'youthful' quality in common, new research finds

<https://www.livescience.com/youthful-human-and-neanderthal-brains>

Look at the face of the 'Jericho Skull,' buried 9,000 years ago with shells for eyes

<https://www.livescience.com/jericho-skull-facial-approximation>

Fossils reveal dinosaurs of prehistoric Patagonia

<https://www.eurekalert.org/news-releases/976525>

Evolution of uniquely human DNA was a balancing act, study concludes

<https://www.eurekalert.org/news-releases/976613>

Prehistoric population once lived in Siberia, but mysteriously vanished, genetic study finds

<https://www.livescience.com/previous-unknown-hunter-gatherers-siberia>

Phylogenetic bracketing suggests some dinosaurs' neuron density was equal to that of modern primates

<https://phys.org/news/2023-01-phylogenetic-bracketing-dinosaurs-neuron-density.html?fbclid=IwAR0Ztko1-z2iHeYW-nTg2NS-lme17idU0WJbPZS3hRhh85qkqTwPK2m75Q8>

History

NASA Apollo astronaut Walt Cunningham has died at age 90

https://www.npr.org/2023/01/03/517135016/nasa-apollo-astronaut-walt-cunningham-died?utm_campaign=npr&utm_term=nprnews&utm_source=facebook.com&utm_medium=social&fbclid=IwAR0cM1YCAh6mUnPEmZA0hx_03VVuqE_EytDsf1PFLtqQpK1paa62TkkU5Q&fireglass_rsn=true#fireglass_params&tabid=a7dbdd4880eb2e96&start_with_session_counter=2&application_server_address=isolation1-us-east-1.wss.prod.fire.glass

Thousands queue to pay tribute as the body of retired pope Benedict XVI lies in state

<https://www.npr.org/2023/01/02/1146544377/thousands-queue-to-pay-tribute-as-the-body-of-retired-pope-benedict-xvi-lies-in-?sc=18&f=1001>

Study suggests Mayas utilized market-based economics

https://phys.org/news/2023-01-mayas-market-based-economics.html?fbclid=IwAR0FyB-vIA11tFeozFksyuG0EI-NcOGrcRWYLR7NgTNT-oiZ_9s-5pWfp_Q

Germany refuses WWII reparations talks, Poland turns to UN

<https://apnews.com/article/politics-poland-warsaw-government-berlin-5aab10aa2e69bee76762bf76a1573b94>

Biden signs law to help preserve Japanese American WWII incarceration camps

<https://www.nbcnews.com/news/asian-america/biden-signs-law-help-preserve-japanese-american-wwii-incarceration-cam-rcna64502>

This ancient language puzzle was impossible to solve—until a PhD student cracked the code

https://www.popsci.com/science/sanskrit-puzzle-2500-years-old/?fbclid=IwAR14GQuhrgthvif1AUyoleR7yzkjSMfyu3QOj9iTXJXUaMDjrHRJRk78Nc&fireglass_rsn=true#fireglass_params&tabid=a03318693837b0a8&start_with_session_counter=2&application_server_address=isolation2-us-west-2.wss.prod.fire.glass

U.N. exhibit remembers when the world turned its back on stateless Jewish refugees

https://www.jta.org/2023/01/10/ny/u-n-exhibit-remembers-when-the-world-turned-its-back-on-stateless-jewish-refugees?utm_campaign=sprout&utm_medium=social&utm_source=NYJW_Twitter&fireglass_rsn=true#fireglass_params&tabid=a69a789c5a79d648&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass

'Lost in limbo': Taliban's application for Unesco protection of historic Kabul garden still unanswered after a year

https://www.theartnewspaper.com/2023/01/10/talibans-world-heritage-application-for-historic-kabul-garden-in-limbo?fireglass_rsn=true#fireglass_params&tabid=a1d210e25eb661c1&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass

Long before Silicon Valley, scholars in ancient Iraq created an intellectual hub that revolutionised science

<https://phys.org/news/2023-01-silicon-valley-scholars-ancient-iraq.html>

Ancient DNA Reveals a Genetic History of the Viking Age

<https://www.smithsonianmag.com/smart-news/ancient-dna-reveals-a-genetic-history-of-the-viking-age-180981404/>

Native Americans—and their genes—traveled back to Siberia, new genomes reveal
<https://www.science.org/content/article/native-americans-and-their-genes-traveled-back-siberia-new-genomes-reveal>

Exploring a Forgotten Jewish Land
<https://www.archaeology.org/issues/498-2301/letter-from/11057-ethiopia-beta-israel>

Who Was Yasuke, Japan's First Black Samurai?
<https://www.smithsonianmag.com/history/who-was-yasuke-japans-first-black-samurai-180981416/>

A New Discovery Puts Panama as the Site of the First Successful Slave Rebellion
<https://www.smithsonianmag.com/history/new-discovery-puts-panama-site-first-successful-slave-rebellion-180981312/>

The Misunderstood Roman Empress Who Willed Her Way to the Top
<https://www.smithsonianmag.com/history/misunderstood-roman-empress-willed-way-to-top-180981294/>

You Can Retrace the Footsteps Jewish Refugees Took on a Hike Through the Alps
<https://www.smithsonianmag.com/travel/you-can-retrace-footsteps-jewish-refugees-took-hike-through-alps-180981298/>

Archaeology

Collapse, contamination: Mexican scientists sound alarm at Mayan Train

https://www.reuters.com/world/americas/collapse-contamination-mexican-scientists-sound-alarm-mayan-train-2023-01-04/?taid=63b57f60540f7d0001e0df52&utm_campaign=trueAnthem:+Trending+Content&utm_medium=trueAnthem&utm_source=twitter&fireglass_rsn=true#fireglass_params&tabid=a2c38d1a7e4f46f6&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Mystery of why Roman buildings have survived so long has been unraveled, scientists say

https://www.cnn.com/style/article/roman-concrete-mystery-ingredient-scn/index.html?utm_medium=social&utm_term=link&utm_source=fbCNNi&utm_content=2023-01-07T01%3A01%3A08

LIDAR reveals ancient Mesoamerican structures aligned for use as a 260-day calendar

https://phys.org/news/2023-01-lidar-reveals-ancient-mesoamerican-aligned.html?fbclid=IwAR0x-MGv68Oo_0_sXd1sWy-v0E9q2500xPAow_oVv-4rXEwgXdrItah36cg

Remains of ancient, indigenous dogs found at Jamestown, as well as proof people ate them

<https://phys.org/news/2023-01-ancient-indigenous-dogs-jamestown-proof.html>

Police Discover Hundreds of Stolen Artifacts at Two Spanish Residences

<https://www.smithsonianmag.com/smart-news/police-discover-hundreds-of-stolen-artifacts-at-spanish-residences-180981401/>

Discovery of the temple of Poseidon located at the Kleidi site near Samikon in Greece

<https://phys.org/news/2023-01-discovery-temple-poseidon-kleidi-site.html>

Remains of Ohio fighter pilot shot down in WWII identified

<https://phys.org/news/2023-01-ohio-fighter-shot-wwii.html>

Europe's famous bog bodies may be part of a tradition that spanned millennia

<https://phys.org/news/2023-01-europe-famous-bog-bodies-tradition.html>

Headless skeletons in a settlement trench: A 7,000-year-old mass grave?

<https://phys.org/news/2023-01-headless-skeletons-settlement-trench-year-old.html>

'Princely' tomb of Hun warrior unearthed in Romania

<https://www.livescience.com/princely-tomb-hun-warrior-romania>

Egyptology

US museum returns looted ancient sarcophagus to Egypt

https://www.theguardian.com/world/2023/jan/03/us-museum-returns-looted-ancient-sarcophagus-to-egypt?CMP=fb_gu&utm_medium=Social&utm_source=Facebook#Echobox=1672753437

Inside a Pharaoh's Coffin

<https://www.archaeology.org/issues/494-2301/features/11027-egypt-amenhotep-i-mummy-scans>

Ancient Egyptian pharaoh Ramesses II's 'handsome' face revealed in striking reconstruction

<https://www.livescience.com/ramesses-ii-facial-reconstruction>

General Science

Artificial intelligence discovers new nanostructures

<https://phys.org/news/2023-01-ai-nanostructures.html>

Feathered robotic wing paves way for flapping drones

<https://techxplore.com/news/2023-01-feathered-robotic-wing-paves-drones.html>

Physics, Earth and Space Sciences

Newly Discovered Asteroid Is a Weird 'Mini Moon' on a 200-Year Visit to Earth

https://www.cnet.com/science/space/newly-discovered-asteroid-is-a-weird-mini-moon-on-a-200-year-visit-to-earth/?fbclid=IwAR3XeG3SUHHT3vhmnrPTdu2hk7iEcWWN_YhmJZ16S_r7d6Jclj-us-ICIOY

ISS astronauts are building objects that couldn't exist on Earth

https://www.popsci.com/science/iss-resin-manufacture-new-shapes/?fbclid=IwAR0RhXPCn11i4xab-Legz0ghgezT1FfBvPlboDuKTqjyxjNdi1G5b_gAWJo&fireglass_rsn=true#fireglass_params&tabid=aacc8f541440ccfe&start_with_session_counter=2&application_server_address=isolation1-us-east-1.wss.prod.fire.glass

A potentially revolutionary solar harvester just left the planet

<https://www.popsci.com/technology/caltech-solar-energy-power-satellite-prototype-launch/>

Scientists just tried to see inside an asteroid with radio waves from this HAARP array

<https://www.space.com/haarp-peers-inside-asteroid>

Caltech to launch space solar power technology demo into orbit in January

<https://techxplore.com/news/2023-01-caltech-space-solar-power-technology.html>

A bright green comet may be visible with the naked eye starting later this month

<https://www.npr.org/2023/01/08/1147685424/comet-green-january-e3-ztf-nasa?sc=18&f=1001>

The moon beckons once again, and this time NASA wants to stay

https://www.washingtonpost.com/technology/interactive/2023/nasa-moon-artemis-launch/?utm_campaign=wp_main&utm_medium=social&utm_source=facebook&fbclid=IwAR2Gbf0NUb890ln7aJCU1_kBYe2XQz90NBhA8EP-beu-roRZrSGdrdvhR9E

Building blocks of life found in meteorite that crash landed in Gloucestershire

<https://phys.org/news/2023-01-blocks-life-meteorite-gloucestershire.html>

An astronaut crew is stuck waiting in space after their Russian spacecraft suffered damage

<https://www.floridatoday.com/story/tech/science/space/2023/01/11/a-replacement-russia-soyuz-astronaut-capsule-damaged-international-space-station-nasa/69797934007/>

NASA's moon-orbiting space station will be claustrophobic, architect says

<https://www.space.com/lunar-gateway-station-claustrophobic-architect-says>

The Propulsion System That Could Get Us From Earth to Neptune in 1 Year

https://www.popularmechanics.com/space/deep-space/a42467338/propulsion-system-interstellar-travel-earth-neptune/?utm_medium=social-media&utm_campaign=socialflowFBPOP&utm_source=facebook

Colorado Springs defense firm using gaming to train Space Force personnel

https://gazette.com/business/colorado-springs-defense-firm-using-gaming-to-train-space-force-personnel/article_3c90a18a-3e54-11eb-b8a9-d7745769d3ba.html?fireglass_rsn=true#fireglass_params&tabid=a52ff0cd0a651ba7&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

The ozone layer is on track to recover in the coming decades, the United Nations says

https://www.npr.org/2023/01/10/1147977166/ozone-layer-recovery-united-nations-report?fireglass_rsn=true#fireglass_params&tabid=a2c273ee0e221c55&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

James Webb Telescope Confirms the Existence of Its First Exoplanet

https://www.smithsonianmag.com/smart-news/james-webb-confirms-the-existence-of-its-first-exoplanet-180981436/?utm_medium=social&utm_source=facebook&utm_campaign=editorial&utm_term=1/12/2023&utm_content=new

Virgin Orbit's LauncherOne rocket suffers in-flight failure in Britain's first orbital flight

<https://www.cbsnews.com/news/virgin-orbit-failure-launcherone-richard-branson/?ftag=CNM-00-10aab6a&linkId=196628357>

Hubble finds hungry black hole twisting captured star into donut shape

<https://phys.org/news/2023-01-hubble-hungry-black-hole-captured.html>

Scientists See Quantum Interference between Different Kinds of Particles for First Time

<https://www.scientificamerican.com/article/scientists-see-quantum-interference-between-different-kinds-of-particles-for-first-time/>

Environment, Climate Change and Alternative Energy Sources

Race to Develop Carbon Removal Technology Begins with Record Funding

https://www.scientificamerican.com/article/race-to-develop-carbon-removal-technology-begins-with-record-funding/?fireglass_rsn=true#fireglass_params&tabid=abb987c4b4c03736&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Norway says fund to reduce Amazon deforestation in Brazil back in business

https://www.reuters.com/business/environment/norway-says-fund-reduce-amazon-deforestation-brazil-back-business-2023-01-04/?taid=63b51397fe01750001724eec&utm_campaign=trueAnthem:+Trending+Content&utm_medium=trueAnthem&utm_source=twitter&fireglass_rsn=true#fireglass_params&tabid=af6f80a14bba6158&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Renewable Companies Strive for 24-Hour Power

https://www.wsj.com/articles/renewable-companies-strive-for-24-hour-power-11672781955?mod=e2tw&fireglass_rsn=true#fireglass_params&tabid=a486a538078d8a40&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Offshore wind farms threaten New Jersey's shellfish industry. Should fishing communities be compensated?

https://www.usatoday.com/story/news/nation/2023/01/03/offshore-wind-farms-threaten-new-jerseys-shellfish-industry/10980892002/?qnt-cfr=1#fireglass_params&tabid=a5a6d73869f3c73d&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Climate change is forcing cities to rethink their tree mix

https://phys.org/news/2022-12-climate-cities-rethink-tree.html?fireglass_rsn=true#fireglass_params&tabid=afdb5700c4742d8c&start_with_session_counter=3&application_server_address=isolation2-us-east-1.wss.prod.fire.glass

North Kesteven solar farm could power 180,000 homes, say firms

https://www.bbc.com/news/uk-england-lincolnshire-64225179?xtor=AL-72-%5Bpartner%5D-%5Bbbc.news.twitter%5D-%5Bheadline%5D-%5Bnews%5D-%5Bbizdev%5D-%5Bisapi%5D&at_medium=social&at_format=link&at_ptr_name=twitter&at_bbc_team=editorial&at_link_origin=BBCNews&at_link_id=1331A43E-9108-11ED-9AC9-BFAB4744363C&at_campaign=Social_Flow&at_link_type=web_link&at_campaign_type=owned&fireglass_rsn=true#fireglass_params&tabid=a56e038dd627aa44&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

'I am an optimistic person': the scientist who studies climate catastrophes

https://www.theguardian.com/environment/2022/dec/29/i-am-an-optimistic-person-the-scientist-who-studies-climate-catastrophes?utm_campaign=Carbon%20Brief%20Daily%20Briefing&utm_content=20230103&utm_medium=email&utm_source=Revue%20Daily&s=09

Hydrogen storage material's key restriction identified

<https://phys.org/news/2023-01-hydrogen-storage-material-key-restriction.html>

Researchers create smaller, cheaper flow batteries for clean energy

<https://techxplore.com/news/2023-01-smaller-cheaper-batteries-energy.html>

Oceans Break Heat Record for Fourth Year in a Row

<https://www.scientificamerican.com/article/oceans-break-heat-record-for-fourth-year-in-a-row/>

Biological, Genetics and Medical Sciences

Why scientists dug up the father of genetics, Gregor Mendel, and analyzed his DNA

https://www.npr.org/sections/health-shots/2022/12/30/1142202365/gregor-mendel-genetics-dna-analyzed?utm_medium=social&utm_term=nprnews&utm_source=facebook.com&utm_campaign=npr

FDA approves new Alzheimer's drug that appears to slow progression of disease

<https://www.nbcnews.com/health/health-news/fda-approves-alzheimers-drug-appears-slow-disease-rcna62928>

Study identifies potential new approach for treating lupus

<https://medicalxpress.com/news/2023-01-potential-approach-lupus.html>

Scientists identify how a biological pathway leads stem cells to die or regenerate

<https://phys.org/news/2023-01-scientists-biological-pathway-stem-cells.html>

Other

Pentagon receives more than 350 new reports of UFO sightings

<https://www.nbcnews.com/politics/national-security/pentagon-receives-350-new-reports-ufo-sightings-rcna65631>

3D printing reaches new heights with two-story home

https://www.reuters.com/technology/3d-printing-reaches-new-heights-with-two-story-home-2023-01-12/?fireglass_rsn=true#fireglass_params&tabid=a59ec0c78f44ec7a&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass

Additional Informational

Archaeologists awarded NSF grant to survey Florida cultural heritage sites damaged by Hurricane Ian

<https://www.floridamuseum.ufl.edu/science/archaeologists-awarded-nsf-grant-to-survey-florida-cultural-heritage-sites-damaged-by-hurricane-ian/>

Ancient DNA from Protohistoric Period Cambodia indicates that South Asians admixed with local populations as early as 1st–3rd centuries CE'

<https://www.nature.com/articles/s41598-022-26799-3>

The Preservation of Art and Culture in Times of War (Ethics, National Security, and the Rule of Law)

<https://www.amazon.com/Preservation-Culture-Ethics-National-Security/dp/0197610560>

Space Policy Edition: JPL Director wants "every brain" to have the chance to work in space exploration

https://www.planetary.org/planetary-radio/jpl-director-work-in-space-exploration?fireglass_rsn=true#fireglass_params&tabid=a71e97b22fa5cc6d&start_with_session_counter=3&application_server_address=isolation1-us-west-2.wss.prod.fire.glass