



MENSA
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Meet Mensan hero Joe Warnke on p5

what's in the MWJ this month...



Rare Stone Discovered delineating Ancient Rome's City Limits

Archaeologists have discovered a rare stone delineating the city limits of ancient Rome that dates from the age of Emperor Claudius in 49 A.D. and was found during excavations for a new sewage system.

Rome Mayor Virginia Raggi was on hand for the recent unveiling of the pomerial stone, a huge slab of travertine that was used as a sacred, military and political perimeter marking the edge of the city proper with Rome's outer territory.

It was found on June 17 during excavations for a rerouted sewer under the recently restored mausoleum of Emperor Augustus, right off the central Via del Corso in Rome's historic centre.

In ancient Rome, the area of the pomerium was a consecrated piece of land along the city walls, where it was forbidden to farm, live or build and through which it was forbidden to enter with weapons.

At a press conference in the Ara Pacis museum near the mausoleum, Claudio Parisi Presicce, director of the Archaeological Museums of Rome, said the stone had both civic and symbolic meaning.

"The founding act of the city of Rome starts from the realization of this 'pomerium,'" he said of the consecrated area. The stone features an inscription that allowed archaeologists to date it to Claudius and the expansion of the pomerium in 49 A.D., which established Rome's new city limits.

Raggi noted that only ten other stones of this kind had been discovered in Rome, the last one 100 years ago.

"Rome never ceases to amaze and always shows off its new treasures," she said.

The stone will be on display at the Ara Pacis museum, the Richard Meier-designed home of a 1st century altar until the Augustus Museum opens.

Phys.org, July 16, 2021

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Contributing to the Mensa World Journal

Please send your articles of general interest, your ideas, your poems and your letters to mwjeditor@mensa.org

Articles should be no more than 500 words, presented in MSWord, and be accompanied by hi-res graphics or photos.

FROM THE EXCOMM

Recently-elected US Chair, Timmy King

As one of the new members of the International Executive Committee, my first job was to understand the important issues and challenges facing our international family.

As I studied things, I wasn't surprised to find that the international issues are remarkably similar to the issues we face daily in American Mensa. And the national issues we face in American Mensa are remarkably similar to the issues our 100+ local groups face every day. There is probably some scientific explanation for this, but I believe that our shared intelligence gives us a deep natural connection.

When I first joined Mensa, I was surprised and overjoyed to hear other people telling stories that mirrored my personal experiences.

And when I started to meet Mensans from other countries, they too had similar experiences:

- So many of us had special teachers who understood our potential and inspired us to learn and grow. Or we had teachers who sadly could not challenge us and tried to make us conform.

- We worked in companies that encouraged creativity and open communications. Or we struggled in bu-

reaucracies that opposed change in every way.

- We found people who accepted and loved us for who we are and how we interact with the world. Or we struggled to fit into societal norms that made us feel like outsiders.

Our individual cultural experiences are unique, but we have a natural common bond. That common bond is our strength. It is why we volunteer so much of our life to make Mensa an amazing experience for all members. It is why we write articles for our newsletters, why we argue about punctuation in rules and bylaws, why we watch how every penny is spent. Even though we have thousands of volunteers devoted to the administration of the Mensa family, we can't lose focus that the true value is in the deeply personal connections we make



on a daily basis.

The past 12+ months have challenged us in ways unexpected. But they also brought us together in ways that we never imagined. We were pushed out of our comfortable face-to-face meetings, but it opened up new online communities that made international connections easier and more natural. We saw that we are more alike than we are different. We had rolling happy hours, global noodle chats, sister-city meetings, etc.

Someday, hopefully soon, we

Gifted Youth Forum on Workplace



Dear Members,

We are glad to share that we will now be opening the **Gifted Youth Forum** to all members who are interested in contributing, learning about and developing Gifted Youth around the world.

Look forward to meetings, discussions, best practices and resources as we bring together our best minds to foster, nurture and develop our Gifted Youth in our National Mensas.

Let's spread the word and gather our best minds and practices together.

This forum is hosted by the **Mensa International Gifted Youth Committee** and is open to all members in good standing in their National Mensas.

<https://mensainternational.workplace.com/groups/giftedyouthforum/>

(from p3)

will solve the COVID problem. We will get back to local meetings and large regional gatherings.

I am confident that we will continue to build our international online community. We will find that we are more alike than we are different.

We will grow stronger together.

...timmy
chair@us.mensa.org

Did you know...

from neurosciencenews.com

- Short naps of up to 60 minutes in duration do not mitigate the effects of a night of sleep deprivation, a new study reports. However, the amount of slow-wave sleep achieved during a nap was related to reduced impairments associated with sleep deprivation.

- A team co-led by scientists at Scripps Research has used advanced imaging methods to reveal how the production of the Alzheimer's-associated protein amyloid beta ($A\beta$) in the brain is tightly regulated by cholesterol.

- Blocking specific opioid receptors in specific neurons in mice restored depressed breathing that had occurred as a result of opioid overdose.

- A set of brain signals known to help memories form may also influence blood sugar levels, finds a new study in rats.

- "Neurograins" brain-computer interfaces independently record electrical impulses and send signals wirelessly to a central hub that coordinates and processes the signals.

Mensan Heroes

by Susan Jensen

This month we meet American Mensan Joe Warnke who has won numerous awards during his almost 22 combined years as a Chicago policeman and fireman, including awards for valour, life saving, department commendations, and fitness.

Joe grew up on the South Side of Chicago, one of two sons born to two Chicago police officers. Always athletic, he played for Loyola University Chicago's basketball team. After college, he enjoyed a brief professional basketball career in Ireland.

At age 23, back in the USA awaiting word on possible European basketball jobs, Joe's parents talked him into taking the Chicago Police entrance exam - which he aced. Joe entered the Police Academy thinking he would quit as soon as a pro-basketball offer came in. Instead, he discovered he loved serving the citizens of Chicago.

Joe's first assignment was in the infamous Chicago Cabrini-Green public housing complex. "95% of the residents were good people who worked with the police to identify the drug dealers and violent criminals poisoning their community. We developed a great relationship with them. My partner and I served as 'play uncles' (a type of father figure) to the kids. They would show us their homework and we would reward good grades. Off duty, I played basketball with them, and taught several to box at the local park," says Joe.

The same qualities which made Joe such a good athlete - communication skills, hand-eye coordination, fast reflexes, strength, calm under pressure, and sharp mind - quickly landed him promotions to the gang unit and from there, the SWAT team. While a member of the SWAT team, Joe has served hundreds of high-risk search warrants as well as responding to many danger-



ous call-out situations (bank robbery, active shooter, bomb threats, hostage/barricade/terrorist incidents, etc.).

In one SWAT call-out, a recently fired employee returned to an auto parts dealer with a pistol, took three employees hostage and barricaded himself with them inside. When Joe and the SWAT team arrived, they heard gunfire coming from inside the location. It was revealed later that the offender was shooting at gas tanks, hoping to blow up the building. Thinking the shooter was attempting to execute his hostages, Joe, along with his sergeant and three other team members, forced entry into the building and were immediately fired upon. As they were continuing down a hallway, the shooter appeared from a doorway with his pistol raised. Joe was able to take out the shooter, and all

three hostages were safely rescued. Joe won one of his six Awards of Valour for that incident.

Joe's heroism is personal as well as professional. Almost a decade ago, he gained sole custody of his now 13-year-old daughter and realized his long hours as one of the Mayor's bodyguards (his position on the police department at that time) were not conducive to raising a child as a single, full-time father. He switched to the Chicago Fire Department in 2012, which gave him more time with his daughter. Despite being one of the oldest candidates in his Fire Academy class, Joe received the "Most Outstanding Candidate" award upon graduation for his outstanding grades, peak physical fitness levels, and leadership. While in the Academy, serving ambulance duty, Joe delivered his first baby.

When Joe graduated from the Fire Academy, he chose to be assigned to truck 26, located in the heart of the Westside of Chicago. This was an extremely busy firehouse as Joe quickly learned, catching three fires on his first day. His firehouse responded to as many medical emergencies as fires. Joe has brought many people back to the land of the living via CPR and advanced cardiac life support. Once, he was called to a seizure victim, who was in full cardiac arrest. Joe and the paramedics were able to restore a pulse but en route to the hospital the patient lost his pulse again and again and extreme

(continued on p6)

Just 7% of our DNA is unique to modern humans, study shows

What makes humans unique? Scientists have taken another step toward solving an enduring mystery with a new tool that may allow for more precise comparisons between the DNA of modern humans and that of our extinct ancestors.

Just 7% of our genome is uniquely shared with other humans, and not shared by other early ancestors, according to a study published recently in the journal *Science Advances*.

“That’s a pretty small percentage,” said Nathan Schaefer, a University of California computational biologist and co-author of the new paper. “This kind of finding is why scientists are turning away from thinking that we humans are so vastly different from Neanderthals.”

The research draws upon DNA extracted from fossil remains of now-extinct Neanderthals and Denisovans dating back to around 40,000 or 50,000 years ago, as well as from 279 modern people from around the world.

Scientists already know that modern people share some DNA with Neanderthals, but different people share different parts of the genome. One goal of the new research was to identify the genes that are exclusive to modern humans. It’s a difficult statistical problem, and the researchers “developed a valuable tool that takes account of missing

data in the ancient genomes,” said John Hawks, a paleoanthropologist at the University of Wisconsin, Madison, who was not involved in the research.

The researchers also found that an even smaller fraction of our genome - just 1.5% - is both unique to our species and shared among all people alive today. Those slivers of DNA may hold the most significant clues as to what truly distinguishes modern human beings.

“We can tell those regions of the genome are highly enriched for genes that have to do with neural development and brain function,” said University of California, Santa Cruz computational biologist Richard Green, a co-author of the paper.

In 2010, Green helped produce the first draft sequence of a Neanderthal genome. Four years later, geneticist Joshua Akey co-authored a paper showing that modern humans carry some remnants of Neanderthal DNA. Since then, scientists have continued to refine techniques to extract and analyze genetic material from fossils.

“Better tools allow us to ask increasingly more detailed questions about human history and evolution,” said Akey, who is now at Princeton and was not involved in the new research. He praised the methodology of the new study.

However, Alan Templeton, a population geneticist at Washington University in St Louis, questioned the authors’ assumption that changes in the human genome are randomly distributed,

rather than clustered around certain hotspots within the genome.

The findings underscore “that we’re actually a very young species,” said Akey. “Not that long ago, we shared the planet with other human lineages.”

Phys.org, July 16, 2021

(continued from p5)

measures were needed to get his heart pumping. To Joe’s surprise, this patient wound up walking out of the hospital with no mental deficits five days later.

Joe enjoys coaching his daughter’s basketball team, chaperoning her school field trips and spending quality time together. “I know I’m setting the bar for whomever my daughter is going to date in her future. My goal is to set that bar high. It’s up to me to teach her right from wrong, to respect yourself and others, maintain your integrity and require that from others in your life. That can only be done by example.”

Joe joined American Mensa in 2011 and is now a lifetime member. He enjoys interacting with many members, and attends the AG and WeeM when his schedule allows.

Dear to Joe’s heart is the charity *Ignite the Spirit*, which raises money to support first responders and their families in times of need. One source of revenue is their *Fireman Calendars*.

If you visit www.ignitethespirit.org next year, you’ll recognize Joe as Mr. July 2022.

MEMBER PROFILE

by Susan Jensen

Australian Mensan, Ronda Green, an expert in nature and Australian wildlife, conducts ecotours of various parts of Australia that combine gentle adventure with learning.

Ronda grew up in South Australia at a time when a girl's ambitions were supposed to centre around looking pretty and getting married. But Ronda was academically gifted and never aspired to becoming a housewife. Instead, her fascination with all living things propelled her to leave high school a year early to start a holiday farm - a sort of vacation resort with animals to feed and exercise, horses to learn to ride, nature study games, bush walks, treasure hunts, campfire singalongs and a small natural history museum.

After three years of running the farm, she applied to study science at university. The faculty advisor tried to talk her out of it because of her lack of a High School diploma. Although shy, she had just gained some confidence by passing the Mensa entry test. She persuaded



the advisor to let her have a go, and went on to receive a PhD in Zoology from Monash University.

At age 27, Ronda married Denis, an industrial chemist, became a tertiary lecturer and had a daughter and a son. In 1996 she and her husband purchased 87 acres at the foot of Mt Chinghee near the Queensland and New South Wales border, close to three national parks.

Ronda and Denis started **Araucaria Ecotours**, specialising in educational wildlife tours. They were one of the first tours eco-certified by Eco-tourism Australia. Ronda also joined the Wildlife Sector of the Cooperative Research Centre for Sustainable Tourism (a joint organisation involving universities and tourism businesses around Australia) and became Vice-

chair and then Chair of Wildlife Tourism Australia, a national organisation which grew from the Centre. Ronda is Chair of the Scenic Rim branch of the Wildlife Preservation Society of Queensland and has authored several books.

Today, Ronda and her son Darren run the tours while Denis (waylaid by asthma) handles the back office. Ronda initially

took the Mensa entry exam to prove to family members that her being "different" wasn't because she was mentally deficient. She has greatly enjoyed her five decades of Mensa membership, and has run Mensa picnics, hosted guest speaker evenings at her home, acted as both host and guest in SIGHT (Special Interest Group for Hospitality to Travellers), and cherishes the friends she has met at many game nights and restaurant gatherings.

Have a question or comment about Australian wildlife or geography? Feel free to contact Ronda at: platypuscorner@bigpond.com

Are we good decision-makers?

A few months ago, I came across a social media post in a forum exclusive to British Mensans. One member had posted: "I feel I haven't achieved anything. I'm in my late 40s and looking back, I've made wrong decisions all my life..."

Within moments, the discussion thread was inundated with replies from kind Mensans who offered support and guidance. Fascinatingly, there were also many of them who echoed this sentiment. This member was not alone. There are many of us who believe we have made wrong decisions during our lives and regret them when we look back.

Isn't it obvious that high IQ is a guarantee of great analytical skills, which eventually lead to good decision-making? A team of scientists from the Biomedical Research Centre at the University College London (UCL) disagree. The UCL researchers wanted to identify how the human brain functions during decision-making and the factors that affect this. They recruited a cohort of 830 young people (aged 14 – 24) to understand the factors that affect decision making ability of humans, which they called "decision acuity". Participants were given a battery of 39 tasks that assessed a diverse range of decision-making skills. 349 of the participants underwent brain functional magnetic resonance imaging (fMRI) test, which measures the small changes in blood

flow that occur with brain activity, on the same day as the cognitive tests, to assess resting-state functional connectivity profiles. Among other factors, the researchers also considered age, demographics, gender, psychological dispositions as well as IQ.

IQ was measured using the Wechsler Abbreviated Scale of Intelligence. The results were stunning and perhaps, disappointing for most of us. Decision acuity and IQ had dissociable brain signatures, implying that a high IQ doesn't necessarily mean an individual will make the right decisions. The researchers claim that decision acuity is reflected in how strongly connected certain brain networks are, and it is decreased in those with aberrant thinking and low general social functioning.

Through the behavioural and brain data, they conclude that this is a new cognitive construct that underpins decision-making ability across multiple domains. The researchers assert that, their discovery provides valuable input for understanding mental health, particularly regarding poor social function and aberrant thought patterns.

Inham Hassen

This open access research paper, published in May 2021, is available at: <https://doi.org/10.1016/j.neuron.2021.04.019>

People who purposefully breach COVID-19 regulations tend to share certain characteristics, finds a study of attitudes and behaviours in four countries.

When people protested about the COVID-19 lockdown in Sydney, Australia, recently, many were speculating about whether a certain type of person was more likely to be involved. Does science back that up?

A new University of Sydney study assessed people's behaviours and attitudes towards pandemic regulations in Australia, the UK, the US, and Canada. It found that roughly 10 percent of people were noncompliant.

Those individuals were mostly male, less agreeable (less cooperative, less considerate), less intellectual as a personality trait (less willing to try new experiences), and more extroverted.

Published in high-ranking journal *PLOS ONE*, the study also found that these people tended to prioritise freedom and their own self-interest. They also perceived their social culture as tolerant to variation in values and behaviour, with greater tolerance for deviance. Contrary to the stereotype, most of them were not young.

They also tended to engage less with official sources, such as government announcements and news and engaged more in unhealthy coping strategies such as denial and substance abuse.

Neurosciencenews.com July 30, 2021

supplementally...

by John Blinke

Friendly Dogs

Science News July 12, 2021. “Dogs Tune Into People In Ways Even Human-Raised Wolves Don’t.” Dogs quickly figure out what it means when a person points at an object. But wolves, and even chimps, fail to understand. And you know what happens when you walk into a room full of dog puppies. There is licking and eye contact and you get mobbed by happy squirming bodies. But, walk into a room full of wolf pups and the best you can hope for is that they will ignore you. More likely, they will cower as far away from you as they can get — even when they have been raised from birth by friendly, attentive humans. Why is there such a difference in behavior? Scientists at Arizona State University in Tempe say thousands of years of selective breeding have produced dog critters that are instinctively tuned-in to people.

Quick Fix

Science News, June 29, 2021. “How Covid-19 Vaccines Were Made So Quickly Without Cutting Corners.” How was the Covid-19 vaccine created so quickly? It wasn’t as fast as it seems because mRNA vaccines have been in development for decades. On the other hand, all of the red tape was snipped. That just means Covid researchers were first in line for every approval, instead of waiting in line. Most of the required manufactur-



ing techniques had already been developed over several decades to fight other viral diseases like SARS, MERS, HIV, and Rabies. Even the fat globule delivery system for RNA had already been tried with other vaccines. About the only things medical scientists did not have in hand were adequate funding and the DNA sequence of the virus. The Covid-19 virus even contributed to its own defeat by spreading so easily because that made clinical trials go faster.

Flying on Mars

Jet Propulsion Laboratories, July 12, 2021. “NASA’s Mars Helicopter Reveals Intriguing Terrain for Rover Team.”

Hooray! The Mars helicopter known as Ingenuity has proven its worth as an advance scout for NASA’s Perseverance rover. The copter’s vantage point ten metres above the ground in Jezero Crater has saved the rover from approaching a dune field that could have become a fatal sand trap. The copter also photographed interesting geological features the rover might choose to investigate. Route planning is normally done with

pictures from the Mars Reconnaissance Orbiter. But even those superb images can only show objects a metre wide. Ingenuity’s ringside seat lets it see much more detail. It will save time and it will keep the rover safe. Not bad for a prototype helicopter whose only job was to prove whether it was possible to fly on Mars!

Bigger and Bigger

ScienceDaily June 30, 2021. “There May Not Be a Conflict After All” (Astrophysical Journal) Scientists don’t like to make mistakes. So they measure things several ways when they have the opportunity. In the case of the expanding universe, they measured the expansion rate with redshift measurements and also with observations of the cosmic microwave background. The trouble was that the two methods gave different answers. But with newer measurements done by scientists from the University of Chicago, the disparity is shrinking. So, we might not have to rewrite the textbooks yet.

Photo: Bharathi Kannan on unsplash.com

Precocious

Science News, July 22, 2021. "Pterosaurs May Have Been Able To Fly As Soon As They Hatched." (Scientific Reports)

Some quadrupeds can walk as soon as they are born. But newly hatched pterosaurs could fly! Scientists at University of Southampton in England make this claim because they have found baby pterosaurs that had flight membranes while still in the egg. Babies had proportionately shorter wings and stronger bones than adults. So they were probably more nimble fliers. The scientists speculate that hatchlings would zoom around chasing bugs in the forest while adults would move out to more open spaces to make a living.

JB

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determine whether the brain activity observed during the play period reappeared spontaneously during sleep," Sophie Schwartz explains.

By comparing MRI scans of the waking and sleeping phases, the scientists observed that during deep sleep, the brain activation patterns were very similar to those recorded during the gaming phase.

"And, very clearly, the brain relived the game won and not the game lost by reactivating the regions used during wakefulness. As soon as you go to sleep, the brain activity changes. Gradually, our volunteers started to 'think' about both games again, and then almost exclusively about the game they won when they went into deep sleep," says Virginia

Sterpenich.

Two days later, the volunteers performed a memory test: recognising all the faces in the game, on the one hand, and finding the starting point of the maze, on the other. Here again, the more the brain regions related to the game were activated during sleep, the better were the memory performances.

Thus, memory associated to reward is higher when it is spontaneously reactivated during sleep. With this work, the Geneva team opens a new perspective in the study of the sleeping brain and the incredible work it does every night.

Sciencedaily.com, July 15, 2021

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THERESE'S TEASERS

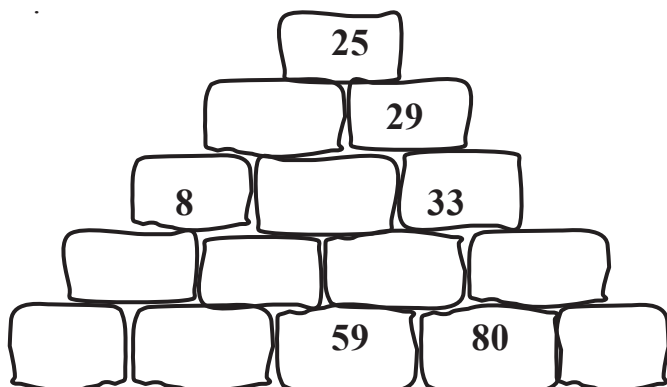
Cryptosum

Each symbol represents a different digit from 1 to 9. The sum of the digits in each row and column is shown. Find the sum of the numbers along the diagonal line from the top left-hand corner.

				18
				18
				22
				16
23	23	18	10	?

Cairn

The number on each stone represents the difference between the numbers in the two stones on which it sits. There is a two-digit number in each of the bottom stones, using the digits 0-9 once each.



Rebus

Which country is represented below?



Riddle

I am a word, of letters four
I'm a nasty mess, but also more:
I'm a beast if my order of letters' unsure;
But change them again, and I am: therefore!

Cryptosquare

Each solution has five letters. Arrange your five answers in the grid below so that 1 Across = 1 Down, 2A = 2D etc.

- Rock stars confused
- Plays proms out-of-tune
- Hub of a rotten Earth?
- Mistake or blunder?
- A roman candle manifests scent

1					
2					
3					
4					
5					

Answers

Cryptosum: 24 (6+ 8+ 9+ 1) **Cairn:** 17 34 59 80 26
Rebus: Republic of In-dia **Riddle:** Gore Ogre Ergo
Cryptosquare: Trass Romps Heart Error Aroma. **Grid:**
Heart Error Aroma Romps Trass. © Therese Moodie-Bloom

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