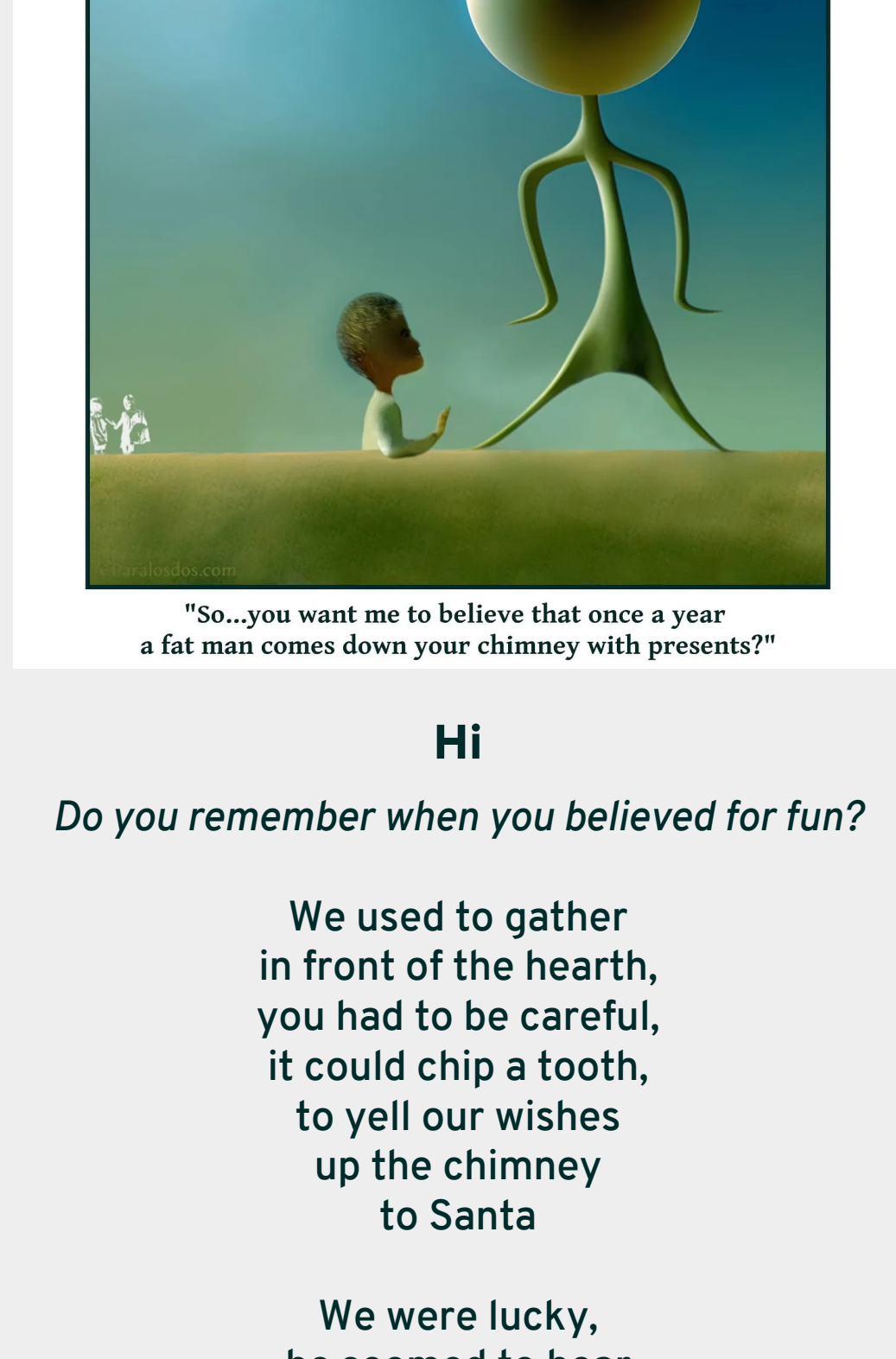


Change Happens

Have a great day,
find your way



Hi

Do you remember when you believed for fun?

We used to gather
in front of the hearth,
you had to be careful,
it could chip a tooth,
to yell our wishes
up the chimney
to Santa

We were lucky,
he seemed to hear
some of what we said,
and we knew
that not everyone
had a hearth,
nor a chimney

We continued to
beg for forgiveness
and reward,
long after
the smallest of us
knew that no one
could squeeze past
the flue,

because it was
so wonderful
to believe
together

Against long odds

How did life on Earth begin?

"Earth formed roughly 4.6 billion years ago, and for several hundred million years the planet's surface was almost certainly too hot and heavily bombarded by comets and asteroids to be hospitable to any kind of lifeform. About a billion years later, life not only existed, but was also leaving evidence of its presence in the form of fossilized microbial mats.

So, what happened in the interim? How did life spring from non-life over the course of a half billion years or so?"

- Endlessly considered for as long as consideration has been a thing. How did life on earth begin? This article gives three popular theories how we, and apparently only we, came to be. Sparked by lightning, maybe brought to Earth from outer space hidden in comets and meteorites, or hiding in the earth's oceans. It makes me wonder: how many times did life begin and end before it took root. Considering how outrageously unlikely it is that life as we know it exists, you would think that it was more than once.

Driving is complicated

Why are 'driverless' cars still hitting things?

"If you've ever seen a driverless vehicle with an odd-looking spinning top adorning its roof, those are LiDAR, or Light Detection and Ranging, sensors. LiDAR systems send out millions of laser pulses in all directions around the vehicle and then measure how quickly those lasers bounce back to the vehicle and then use that information to create an impressively accurate 3D map of the car's surroundings. This digital image of light pulses can detect the presence of pedestrians, cyclists, and other vehicles. It can also detect variations in topography which could be useful for car navigating around potholes or other hazards. All of this happens nearly instantaneously."

- A look at where driverless cars are right now in terms of technology and safety. The different methods being used to ascertain what's around the car. It gives some insight into how they work, how they can be so spookily driverless. It appears that, regardless of anyone's feelings one way or the other about cars without human piloting, robot driven cars are here to stay.

No minds eye

I can't picture things in my mind.

I didn't realize that was unusual

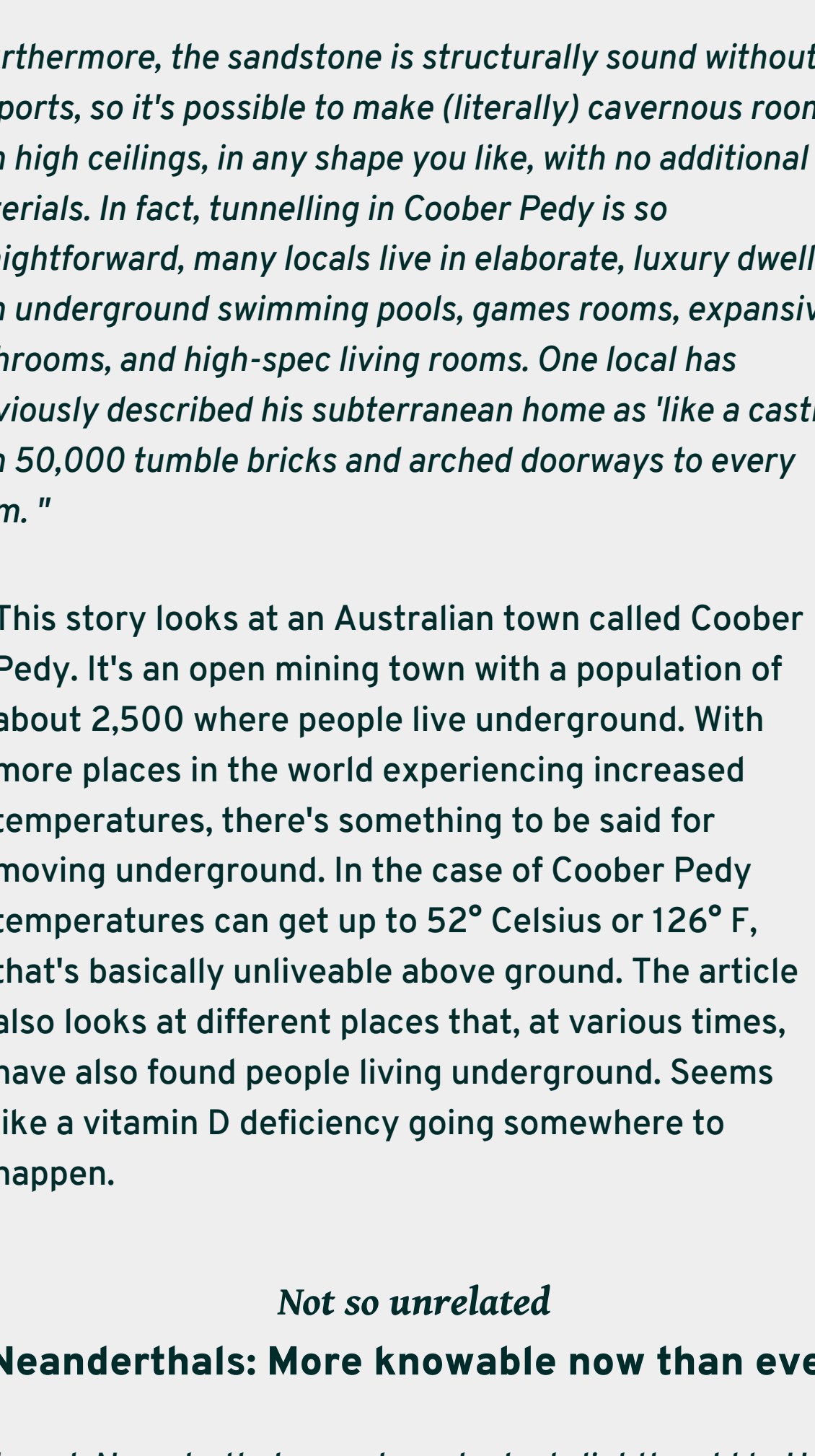
"Aphantasia is relatively new to being named. In the late 19th century, scientists, notably Francis Galton, wrote that some people were better able to picture objects in their minds than others. But it wasn't until 2003 that the University of Exeter's Adam Zeman published the first case report on aphantasia, after meeting a 65-year-old who lost the ability to mentally visualize familiar people and places after a surgery."

- A woman with aphantasia explains how she discovered that she had it and how it affects her. Very interesting article, written from the perspective of a person who can't visualize images in their head. If you ask her to close her eyes and picture her favourite childhood stuff, she can't. She doesn't see any images. If I need to describe my childhood dog, I go to an image in my head. The woman in the article would consult a list. Interesting to imagine not being able to imagine an image.

December 2, 1804

Coronation of Napoleon

It's better to be emperor



Wiki Rabbit Hole

"Napoleon I and his wife Josephine were crowned Emperor and Empress of the French on Sunday, December 2, 1804 (11 Frimaire, Year XIII according to the French Republican calendar, commonly used at the time in France), at Notre-Dame de Paris in Paris. It marked "the instantiation of [the] modern empire" and was a "transparently masterminded piece of modern propaganda". Napoleon wanted to establish the legitimacy of his imperial reign with its new dynasty and nobility. To this end, he designed a new coronation ceremony unlike that for the kings of France, which had emphasized the king's consecration (sacre) and anointment and was conferred by the archbishop of Reims in Reims Cathedral. Napoleon's was a sacred ceremony held in the great cathedral of Notre Dame de Paris in the presence of Pope Pius VII."

No fear of closed spaces

The Australian town

where people live underground

"Furthermore, the sandstone is structurally sound without supports, so it's possible to make (literally) cavernous rooms with high ceilings, in any shape you like, with no additional materials. In fact, tunnelling in Coober Pedy is so straightforward, many locals live in elaborate, luxury dwellings, with underground swimming pools, games rooms, expansive bathrooms, and high-spec living rooms. One local has previously described his subterranean home as 'like a castle', with 50,000 tumble bricks and arched doorways to every room."

- This story looks at an Australian town called Coober Pedy. It's an open mining town with a population of about 2,500 where people live underground. With more places in the world experiencing increased temperatures, there's something to be said for moving underground. In the case of Coober Pedy temperatures can get up to 52° Celsius or 126° F, that's basically unliveable above ground. The article also looks at different places that, at various times, have also found people living underground. Seems like a vitamin D deficiency going somewhere to happen.

Not so unrelated

Neanderthals: More knowable now than ever

"Though Neanderthals may have looked slightly odd to Homo sapiens, studies of ancient DNA show they did interbreed with our species. To Viola, that has important implications. 'Homo sapiens clearly recognized Neanderthals as mating partners, which suggests they thought of them as humans – maybe 'the weird guys living behind the mountains,' but still, fellow humans,' he says. 'More or less whenever both species extensively co-occurred, there has been genetic exchange.'"

- An excellent article examining all the new understandings we have of Neanderthals. I find it amazing to consider that there was a variation of human that wasn't us but was not far from us. Where they not human? And, if not human, then what did Neanderthals represent? We interbred, that can't be dismissed. Homo sapiens seemed to feel they were part of the club.

There are levels in the survival game

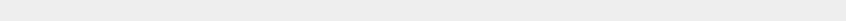
Will Cockroaches Outlive Humans?

"Cockroaches as a group are one of the most if not the most varied of all insect groups, in terms of their reproductive biology.' A few species are parthenogenetic, meaning that they reproduce asexually. Others produce egg sacks, and others have abandoned egg cases in favor of nurturing eggs in their brood pouch. Females of certain species literally take their offspring under their wing – their forewing, to be exact. With these diverse means of reproduction at their disposal, the cockroach is well equipped to rebound after a cataclysmic event."

- If the question is will cockroaches outlast us the answer is, yes, yes they will. If you're disgusted by them definitely skip this article, but if you're interested in how they can manage to set the standard for species survival, this is the place to find out. It's interesting and a bit disgusting. Very cockroachy.

"As scarce as truth is, the supply has always been in excess of the demand."

Josh Billings



it's your life
you understand

Please feel free to forward [Change Happens](#) to anyone you think might enjoy it and have a most excellent day