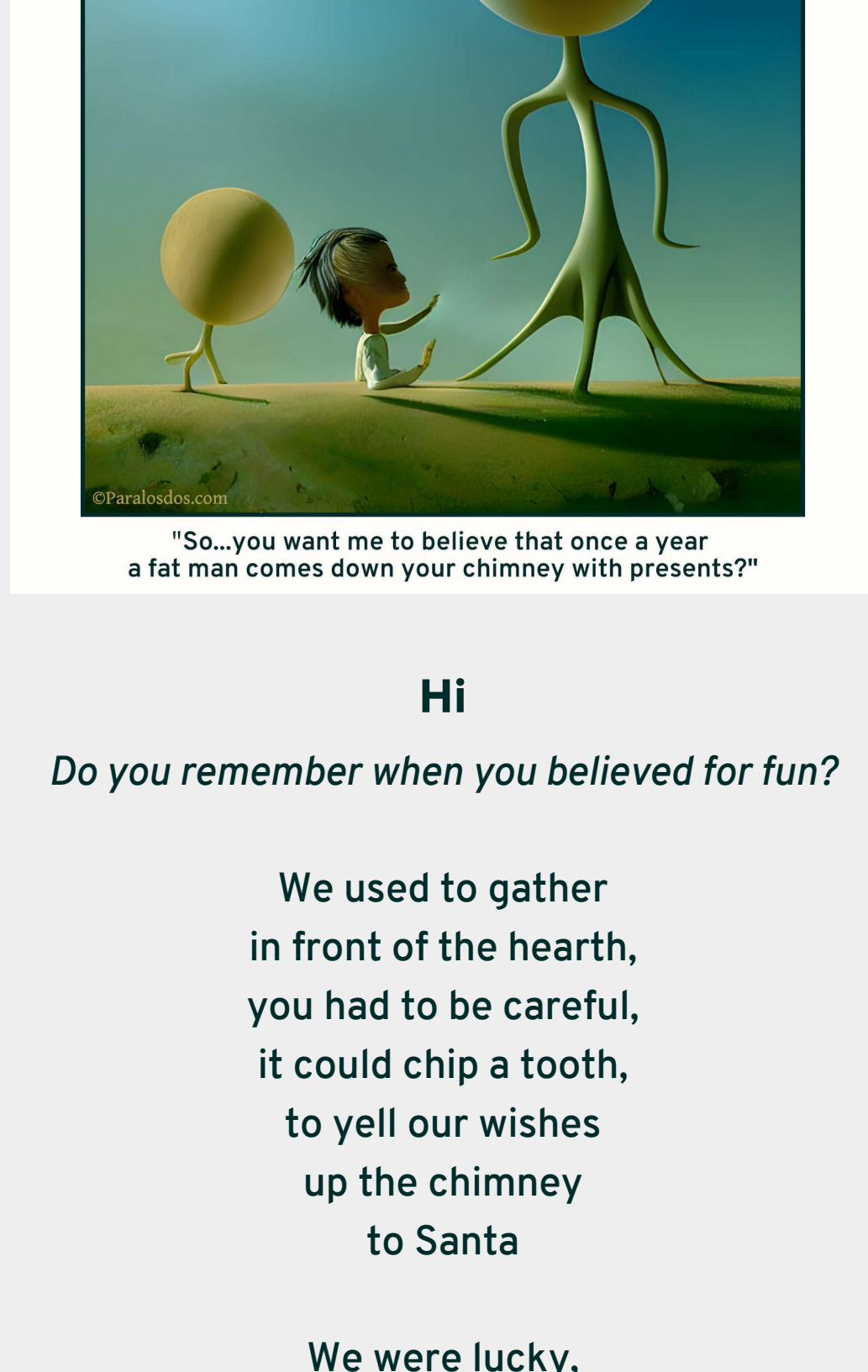


Change Happens

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

It's getting hotter

What is climate change? A really simple guide

Carbon dioxide levels are higher than any
time in the last 800,000 years
Atmospheric CO₂ concentrations, parts per million



Source: NOAA/Berner et al., 2015

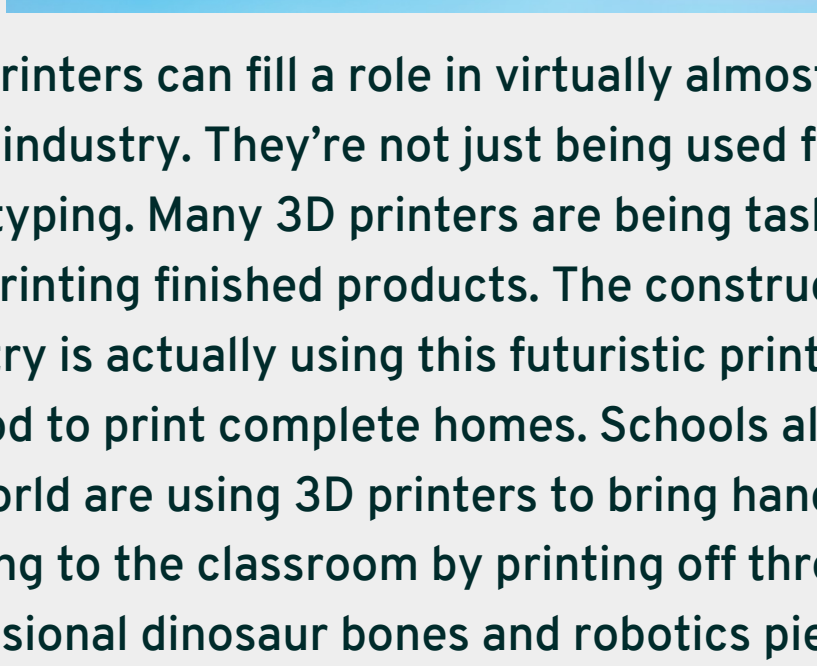
"Climate is the average weather in a place over many years. Climate change is a shift in those average conditions.

The climate has fluctuated naturally throughout the world's history.

But scientists say that there is no doubt that the particularly rapid climate change seen over the past century is caused by humans. "

Not for earthlings

Are We Ready to Head to Mars? Not So Fast



" If space travelers were somehow able to create a pregnancy, it would be no easy ride, the Weinersmiths write. We simply don't know which, if any, part of the developmental process requires constant gravity, and the mother's bones would be weakened in microgravity, which could make childbirth risky. If artificial gravity couldn't be provided to the mother-to-be, an alternative might be a human-sized centrifuge to spin the pregnant person around. Such a device, called an 'Apparatus for Facilitating the Birth of a Child by Centrifugal Force,' was patented in 1963, and Zach Weinersmith sketches a diagram of it that shows it to be just as bizarre as it sounds. "

The future of manufacturing

How Does 3D Printing Work?

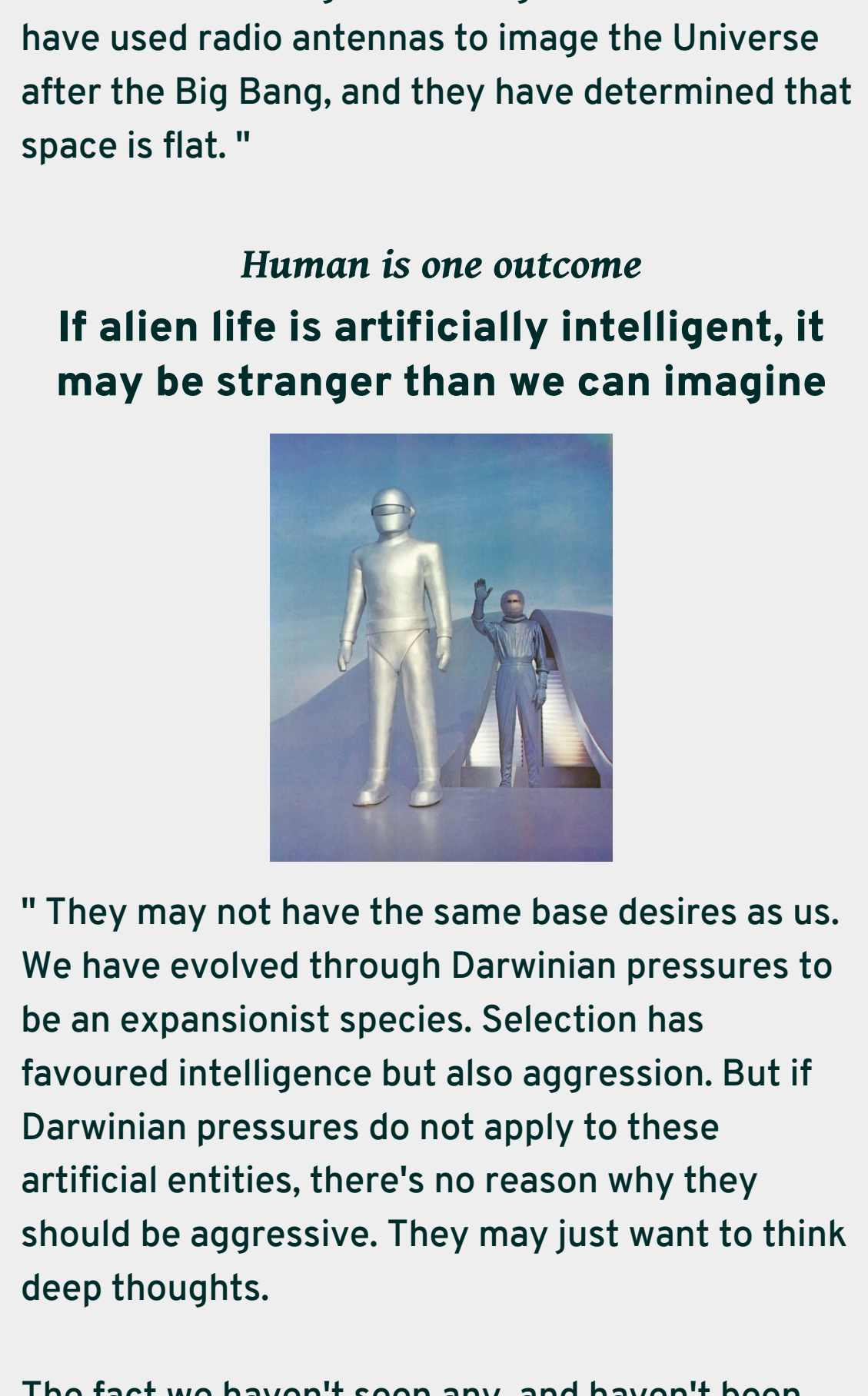


" 3D printers can fill a role in virtually almost every industry. They're not just being used for prototyping. Many 3D printers are being tasked with printing finished products. The construction industry is actually using this futuristic printing method to print complete homes. Schools all over the world are using 3D printers to bring hands-on learning to the classroom by printing off three-dimensional dinosaur bones and robotics pieces. The flexibility and adaptability of 3D printing technology makes it a game-changer for any industry. "

November 10, 1969

Sesame Street

Something good for all

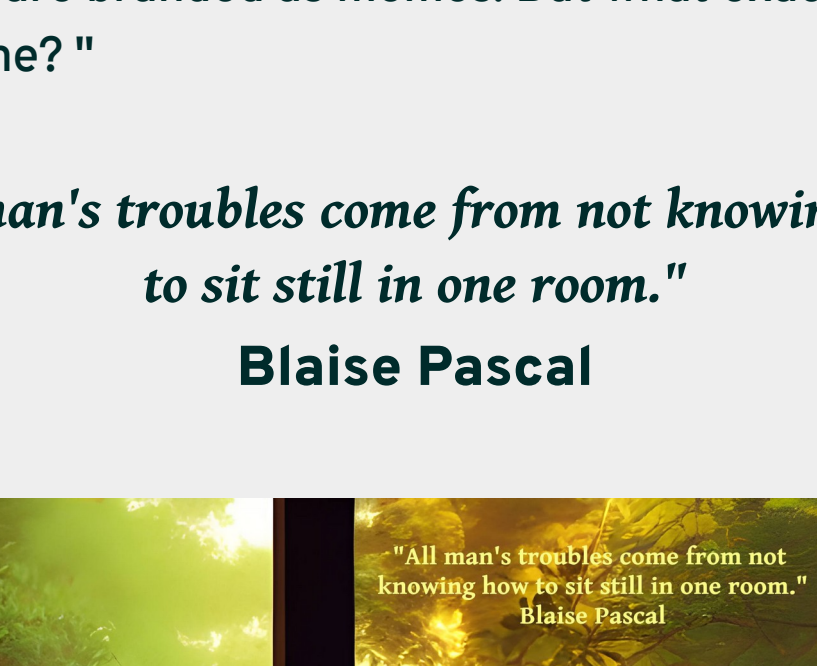


Wiki Rabbit Hole

" Sesame Street was conceived in 1966 during discussions between television producer Joan Ganz Cooney and Carnegie Foundation vice president Lloyd Morrisett. Their goal was to create a children's television show that would "master the addictive qualities of television and do something good with them," such as helping young children prepare for school. After two years of research, the newly formed Children's Television Workshop (CTW) received a combined grant of US\$8 million (\$64 million in 2022 dollars) from the Carnegie Foundation, the Ford Foundation, the Corporation for Public Broadcasting and the U.S. federal government to create and produce a new children's television show. "

We don't know

What is the shape of space itself?



" The shape of space plays a significant role in the future of the cosmos, determining whether the Universe will expand indefinitely or contract in a 'Big Crunch.' There are three commonly discussed shapes of space: flat, spherical, and hyperbolic or "saddle." Each shape has distinct geometrical properties, such as the behavior of parallel lines and the sum of angles in triangles. Astronomers have used radio antennas to image the Universe after the Big Bang, and they have determined that space is flat. "

Human is one outcome

If alien life is artificially intelligent, it may be stranger than we can imagine



" They may not have the same base desires as us. We have evolved through Darwinian pressures to be an expansionist species. Selection has favoured intelligence but also aggression. But if Darwinian pressures do not apply to these artificial entities, there's no reason why they should be aggressive. They may just want to think deep thoughts.

The fact we haven't seen any, and haven't been invaded by them, doesn't mean there's nothing out there. They may simply be more contemplative. We can't assess whether the 'great silence' of the cosmos signifies their absence, or simply their preference. "

From biology

Where Does the Word 'Meme' Come From?

" Certain fads, catchphrases, dances, and songs bombard our society—nowadays, almost all of these are either born on or popularized through the internet. Grumpy Cat, Rickrolling, Left Shark, Barbenheimer, This Is Fine—all of these ubiquitous cultural sensations have this in common. Some of them stick for a while, some don't. Those that linger are branded as memes. But what exactly is a meme? "

"All man's troubles come from not knowing how to sit still in one room."

Blaise Pascal

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