

The Voice of the Secular World

SECULAR WORLD

Magazine

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2023

SAMPLE

Leveraging science
and reason to
advance humanity
for a better world.

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Declaration of Policy and Aims

Over time, we have developed a complex and integrated social, technical and economic system so powerful that we have begun to destroy the environment on which we depend.

A significant barrier to solutions is that the overwhelming majority of humans follow religious belief systems that are morally compromised by a set of antiquated, divisive ideas and texts.

We believe that in order to sustain humanity and advance our civilization, we must move beyond supernatural religious beliefs to reason-based living focused on:

- Democratic, secular governance
- A comprehensive set of human rights
- An economic system that provides fair compensation and opportunities for all
- The restoration and sustainability of the natural environment

Leaning on science and reason, Secular World Magazine is dedicated to the communication and promotion of efforts, behaviors, and activities that support a happy, productive life for all human beings living in harmony with each other and our environment.

EDITOR'S BACKGROUND AND STATEMENT ON RELIGION

Editor

Bruce G. Weiner



As founder of The Secular Community, I have envisioned a secular, democratic future for our world. I believe that, at least in the public sphere, having both a secular and democratic environment is key to our success in addressing the problems humanity faces and for providing the freedom and security that humans universally crave.

Religion wrongly focuses on the supernatural at the expense of focusing on reality and the realization that we, humans, are the only 'power' that can effectively address and resolve our problems, that we are all interrelated, among ourselves and with nature, and that we must band together and cooperate to realize greater human dignity and justice.

In the pages of this magazine, The Secular Community, as publisher, will be promoting secularism, based on science and reason, as the best path forward, along with a democratic process that provides equal opportunity and standing for all.

Food for Thought (Quote of the Month)

Is God willing to prevent evil, but not able? Then he is not omnipotent. Is he able, but not willing? Then he is malevolent. Is he both able and willing? Then whence cometh evil?

Is he neither able nor willing? Then why call him God?

Epicurus (ancient Greek philosopher)

Letters to the Editor



Send letters to the Editor to info@secularworldmagazine.org.

Secular Snippets



- **Secular Quote:** “With or without religion, you would have good people doing good things and evil people doing evil things. But for good people to do evil things, that takes religion.” - Steven Weinberg, Theoretical Physicist and Nobel Prize Laureate in Physics
- **World Population:** In November, the United Nations announced that the world’s population had exceeded 8 billion for the first time. Humanity did not reach 1 billion until 1840 (it took over ten thousand years to reach that milestone).
- **Intergalactic Insight:** To reach the nearest large galaxy, Andromeda, one would have to travel 186,000 miles per second (the speed of light) for 2,500,000 years.
- **Human Evolution:** Modern humans emerged about 300,000 years ago in south and east Africa and remained within those confines for approximately 200,000 years, before beginning their migration. It took 50,000 years before humans reached Asia. We didn’t reach the Americas until about 12,000 years ago.
- **Sustainability:** Meeting the needs of the present without compromising the ability of future generations to meet their needs - is a recent concept. It dates back to 1987 when it appeared in the famous Brundtland Report (also entitled “Our Common Future”) produced by several countries for the United Nations.
- **Tipping Points:** Evidence is accumulating that the planet is on the brink of irreversible changes to its life support systems. They’re called tipping points. Once they start, they can’t be stopped. Tipping points at 1.5 degrees centigrade increase in Earth’s average temperature: Coral reefs die off, Greenland and West Antarctic ice sheets collapse. and the permafrost regions in the northern latitudes abruptly thaw. Tipping points at 2.5 degrees centigrade temperature increase: Arctic ice and mountain glaciers melt and West Africa monsoons become more severe. The average temperature has increased approximately 1.0 degrees centigrade since 1880, but the yearly increases have been rapidly accelerating over the past few decades.
- **Endangered Species:** Currently, in the International Union for Conservation of Nature (IUCN) red list, more than 41,000 species have been assessed to be under threat from extinction.
- **Secular Growth:** According to the latest British census, England and Wales are, for the first time, no longer majority Christian nations. The downward trend for Christianity in Britain parallels what is happening across Europe, where more and more people no longer identify with any religion.

Innovations

Breakthroughs in science and technology can often help us cope with the challenges we face, both big and small. This column will feature such breakthroughs on an ongoing basis.

Power Global battery module - India is currently home to many of the world's most polluted cities. A lot of that pollution comes from millions of auto rickshaws that roam city streets. An auto rickshaw is a motorized version of the pulled or cycle rickshaw that originated in Japan in the middle 1800s. The rickshaw has been a common mode of transportation in many countries, particularly in Asia. By the late 1930s, a cycle and motorized version had been developed.

Millions of gas powered auto rickshaws are in use in India and other countries, a significant source of air pollution. Electric rickshaws answer this problem, but recharging the batteries on a regular basis is a challenge. Power Global of India has a solution. They are establishing a network of kiosks where rickshaw owners can conveniently swap batteries for about \$3 dollars a day, a savings of roughly 30 percent compared to the cost of gasoline or diesel.



Perennial soil measurement system - Farming is one of the top ten contributors to the carbon emissions that drive climate change. New, innovative farming techniques can significantly reduce those emissions. But there has to be a measurement system in place to determine that the changes in farming practices are having the desired affect.

That's where the Perennial company comes in. They have built and successfully deployed a measurement, reporting and verification system for soil-based carbon removal. The goal is to measure and decrease the amount of CO2 emissions from agriculture.

By using remote sensing, Perennial's technology reduces the costs and increases the accuracy of CO2 soil measurements. Agricultural companies can use the information produced by Perennial to quantify and verify their CO2 offset projects used to meet their net-zero commitments for addressing climate change.



RELIGIONS ARE MAINSTREAM, ACTIVE AND DESTRUCTIVE

by Joseph R. Simonetta



“All truth passes through three stages. First, it’s ridiculed. Second, it’s violently opposed. Third, it’s accepted as self-evident.”

The great majority of religious thought originated thousands of years ago in the infancy of our intelligence.

These untested collections of dogmatic principles — antiquated, divisive, and dysfunctional — were formed before the age of science.

They were written by men and women, often self-proclaimed priests and priestesses, profoundly ignorant of our world as we know it today.

The effect of these flawed creeds has not been to bring us together but to permanently separate us.

The violence in our world is due to too much religion rather than too little.

We praise distant mythological gods as we exploit our neighbors.

We dream of the “hereafter” as we destroy the “here”.

The inconsistencies and incredibilities of traditional religions, derived typically from supernatural sources and that which is referred to as “divine revelation”, are nothing more than a fantasy and delusion left over from the ignorant and superstitious childhood of the human race.

“All truth passes through

three stages. First, it's ridiculed. Second, it's violently opposed. Third, it's accepted as self-evident." – Schopenhauer

"Religious ideas are subject to the same laws of evolution that govern everything else in the universe." – Gandhi

"To insist on a spiritual practice that served us in the past is to carry the raft on our backs after we have crossed the river." – Buddha

Having crossed the river myself, I ditched the raft.

Today's major religions are mainstream, active, and destructive.

Even though the stories that formed them are antiquated, inconsistent, and discredited, these religions continue to control countless minds and complicate, often cause, many of the world's wars, terrorist strikes, senseless killings, and social injustices.

Some argue rightly that religions historically have provided an ethos of community service and teachings that emphasize aid to the poor and ill.

The flip side is that religion allied itself with political power.

Theocracies worked hand in glove with monarchies.

Prophecy and revelation were engineered to maintain tyrants in power over an

ignorant and superstitious populace.

The result has been to concentrate and maintain wealth and power in the hands of the few.

Religion, with fallacious authority, often provides noble-sounding excuses for warfare.

History shows there is no end to what people, ginned up on their particular form of self-righteousness, have done and will do.

Humanity must be weaned away from this pernicious, dogmatic, delusional, and divisive, war-causing form of intoxication.

While it is true that useful insights, universal wisdom, ethical guidance, comfort, and inspiration can be found scattered throughout ancient religious traditions – along with an abundance of blatant absurdities – none of this is neither unique or as profuse as that which can be found in a plethora of

secular traditions and communities.

Religious adherents allege problematically that their truths, derived from their particular deity, are inerrant and infallible.

This results in incendiary claims to the exclusive possession of 'truth', fans the flames of tribalism, and has fomented bloody discord.

One would have to have his head deep in the sand and his mind intoxicated with dogma not to see the endless problems associated with these old religions.

Religion, with all its elaborate rituals, costumes and falsehoods, is likely the world's longest, most magnificent and pernicious charade.

It's time for humanity to travel on a new track: reality.





Threatened/Endangered Species

Currently, on the International Union of Conservation of Nature (IUCN) red list, more than 41,000 species have been assessed to be under threat of extinction. Each month, the Secular World Magazine will feature one of those species.

This month, we are featuring the humpback whale. Humpbacks are baleen whales, a category that also includes blue, right, minke and gray whales. Baleen refers to the plates that the whales have inside their mouths, instead of teeth. The plates are used to filter their prey from the seawater ingested inside their mouths.

Humpback whales eat shrimp-like crustaceans called krill. They also eat small fish and plankton. An average humpback will eat between 3000 and 5000 pounds of food each day in order to maintain their massive weight, which can reach up to 40 tons.

Humpback whales are found in oceans across the world and typically migrate more than 9000 miles each year moving back and forth between polar waters to feed and to tropical waters to breed. They can reach more than 50 feet in length and in spite of their size, they do have natural predators, the primary predator being orcas.

Humpback whales are well known for breaching the ocean's surface, making a spectacular leap above the water, which makes them popular attractions for whale watchers. The males of the species are also known for the songs they produce, which can last more than 30 minutes.

Commercial whaling in the 19th and 20th centuries severely reduced humpback whale numbers. By the time they were listed as endangered, their population had been reduced to approximately 10,000. Today, that number has increased to 80,000, but they are still considered to be endangered.

Iranian Protests Continue Unabated - Is This the Beginning of the End for the Iranian Islamic Republic?

It all started on September 13th with the arrest of Mahsa Amini, a 22-year-old Iranian woman. She was arrested by the morality police in Tehran for allegedly violating Iran's laws that require women to cover their heads with a headscarf, otherwise known as a hijab.

Amini later died in police custody, the police saying that she suffered a heart attack. But eyewitnesses, including women who were detained with Amini, said she was severely beaten by the police and died as a result of police brutality.

Amini's death resulted in an eruption of protest among the Iranian public, the largest protests in more than a decade. Various female protestors cut their hair or removed their headscarf as an act of protest.

There was an immediate crackdown on the protests by Iranian security forces. More than 300 Iranians were killed in the two months following Mahsa Amini's death. Amnesty International reported that Iranian security forces were firing into some groups with live rounds and killing other protesters by beating them with batons.

Among the dead at the hands of Iranian security forces are 58 children, some as young as 8 years old. The organization Human Rights in Iran (HRA) reported that 46 boys and 12 girls under the age of 18 have been killed since the onset of protests on September 16.



The Iranian government has been imposing internet blackouts and other communications restrictions in an attempt to limit the protesters' connections to the outside world. But still, the protests continue.

Protests have taken place in dozens of Iranian cities, perhaps most notably in the city of Khomein, ancestral home of the Islamic Republic's founder, Ayatollah Khomeini. Protesters lit fire to the house, which had been converted into a museum following Khomeini's death in 1989.

There are multiple reasons for the protests beyond the immediate cause, the death of Mahsa Amini. Everyday Iranians have been

feeling the sting of international sanctions that the elite are largely insulated from. But primarily, the protests are about freedom, particularly political freedom for women, who are fighting for equality and their basic rights.

The Islamic Revolution of 1979 that replaced the much despised Shah was a culture war that largely targeted restricting women's rights. These latest protests continue a long-standing effort by women to win their just freedoms. Whether they will be successful or not this time around is something that the whole international community will be watching with interest.

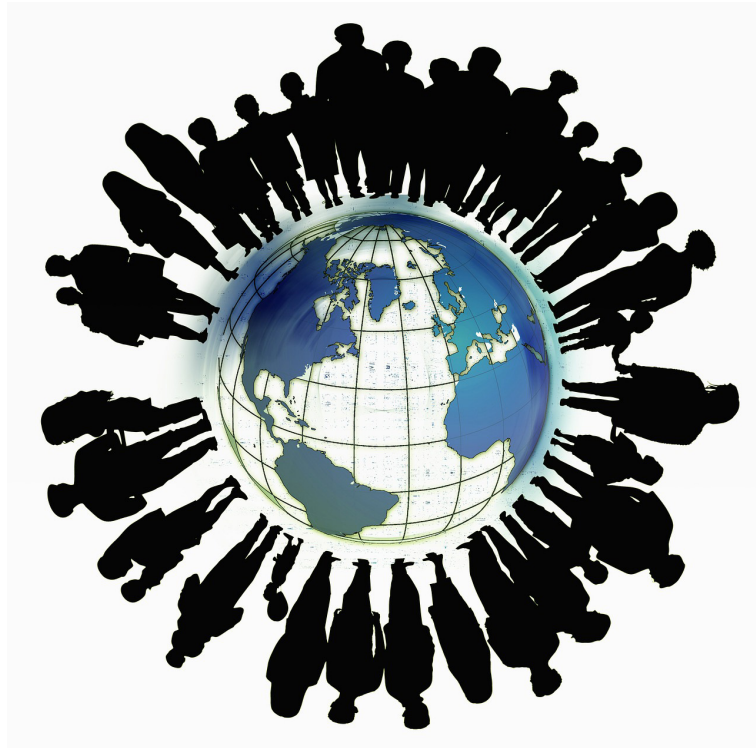
Overpopulation

One reason why our climate change crisis is so dire is that we have too many people. Its not, strictly speaking, the number of people, because humans represent only 1 percent of the biomass on the planet. No, its the way we live and the resources we consume that's the problem.

For 95 percent of our existence, we lived a relatively simple life as hunter-gatherers, taking very little from our surroundings. The advent of agriculture, however, changed everything.

Agriculture allowed humans to migrate from hunter-gatherers to a sedentary lifestyle. We could begin to grow food ourselves, in large quantities, which allowed our populations to grow rapidly.

It took more than 10,000 years, however, for the human population to reach a billion, about the year 1800. But only took another 130 years for humanity to reach 2 billion. And little more than 90 years later, we've passed 8 billion.



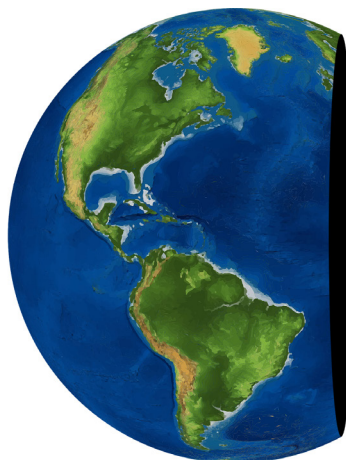
According to the Global Footprint Network, "humanity is using nature 1.8 times faster than our planet's biocapacity can regenerate. That's the equivalent to using the resources of 1.8 Earths."

Even worse, if everyone lived like Americans (many other countries' people aspire to a similar lifestyle), we would

need the equivalent of 5.1 Earths. Obviously, that's unsustainable.

The world's population is still growing, expected to hit 9 billion in just 15 years (2037). What can be done?

Although birth rates are in general decline, population growth is expected to continue for the foreseeable future. One thing that can help is to close the gap in education and employment opportunities for women around the world. The better educated women are, and the more they are able to be suitably employed, it has been shown that they are less likely to have children. Additionally, it is obvious that we will need to change to a more sustainable lifestyle.



The Fight Against Climate Change

Climate change is a highly complex problem which will require a multitude of solutions to solve. There is no panacea. Mitigating climate change will require action from individuals, corporations and governments.

Most of the solutions having the biggest impact will require the application of science and technology. Three important solutions that individuals and communities can contribute to without needing any new technologies or major funding are: Reducing food waste, converting to plant-rich diets and family planning and education to encourage a reduction in birth rates.

With regard to science and technology, an ambitious effort was conducted a few years ago to define a set of solutions to meet the climate

change problem. That effort, called Project Drawdown, listed more than 90 potential solutions, rank ordered by their impact on climate change.

One of the most valuable solutions listed is one that may surprise most people - refrigeration management. Chemicals used for refrigeration have long been a hazard for the environment.

Back in the 1970s, scientists identified that chemicals such as freon (commonly used for refrigeration) could be causing a hole in the ozone layer. The ozone layer prevents harmful, life-threatening rays from the sun to penetrate our atmosphere.

In 1985, the theory of ozone depletion was finally proved.

Just two years later, an international treaty was completed to reduce the use of the harmful chemicals that were the cause (CFCs).

Three years later, that treaty was strengthened (the Montreal Protocol) and the ozone layer is slowly recovering as a result of that effort.

Unfortunately, the replacement for CFCs, called HFCs, are turning out to be just as bad. Although HFC refrigerants do not affect the ozone layer, they are 1000 times more potent than carbon dioxide as a greenhouse gas, therefore having a major impact on climate change.

With the planet getting warmer and the human population still growing, there is going to be increasingly greater demand for refrigerants over the coming decades. Unfortunately, there is no 'one size fits all' solution for replacing HFCs.

Solutions have to be found for different types of air conditioning: home, industrial, commercial, and transportation. While alternatives have been identified, they are still being researched and are probably years away from being implemented. In the meantime, the problem with HFCs impacting climate change continues largely unabated.



Trust Science

by James A. Haught

Long ago, I concluded that no reliable evidence supports gods, devils, heavens, hells, miracles, prophecies and other supernatural stuff of religion. Those magic claims simply arise from the human imagination. Instead, I chose to trust the honest search of science to explain ultimate mysteries of existence.

Aye, there's the rub. Answers by science are sometimes almost as baffling and logic-defying as the mumbo-jumbo of churches. Multiple universes, for example – or Einstein's assertion that time slows and dimensions shorten as speed increases – or the mysteries of “quantum weirdness,” with particles popping in and out of existence in pure vacuum.

Or the seeming impossibility of pulsars, which gravity compresses into a solid mass of neutrons weighing 100 million tons per cubic centimeter. How can a bouillon cube weigh 100 million tons? Or the astounding claim at the heart of the Big Bang theory: that all matter in a trillion galaxies originated from a proton-size dot that exploded 13.8 billion years ago. Holy moly.

In his posthumous book, Stephen Hawking – sometimes called the greatest scientist since Einstein – says the entire vast universe essentially burst from nothing, following laws of nature. The book, *Brief Answers to the Big Questions*, reiterates his well-known atheism:

“It's my view that the simplest explanation is that there is no

God. No one created the universe and no one directs our fate. This leads me to a profound realization: there is probably no heaven and afterlife either. I think belief in an afterlife is just wishful thinking. There is no reliable evidence for it, and it flies in the face of everything we know in science. I think that when we die we return to dust.”

In a 2011 interview with *The Guardian* newspaper, Hawking said each human brain is like a computer, and it's inevitable that some computers malfunction and die. “There is no heaven or afterlife for broken-down computers,” he said. “That is a fairy story for people afraid of the dark.”

If no divine creator made the universe, what did? Blind laws of nature, he says:

“Since we know that the universe was once very small – perhaps smaller than a proton – this means something quite remarkable. It means the universe itself, in all its mind-boggling vastness and complexity, could simply have popped into existence without violating the known laws of nature. From that moment on, vast amounts of energy were released as space itself expanded....

“But of course the critical question is raised again: did God create the quantum laws that allowed the Big Bang to occur? In a nutshell, do we need a god to set it up so the Big Bang could bang? I have no desire to offend anyone of faith, but I

think science has a more compelling explanation than a divine creator.”

Another of my science heroes is atheist-genius J.B.S. Haldane, who hatched the theory that life began in a “primordial soup” of chemicals. He saw that some science discoveries are almost impossible to believe. In 1928, he told a London newspaper:

“The universe is not only queerer than we suppose, but queerer than we can suppose.”

When theologians hounded him about God's creation, Haldane quipped that the creator “must have had an inordinate fondness for beetles,” to make 400,000 different species. And Haldane spoofingly saluted Noah for finding pairs of all creatures to take on the ark, when there are 310 different species of birds just in India alone.

As I said, findings by science can seem nearly as absurd as the miracle claims of religion – but there's a crucial difference: Science is honest. Nothing is accepted by blind faith. Every claim is challenged, tested, double-tested and triple-tested until it fails or survives as true. Often, new evidence alters former conclusions.

Even though the universe seems queerer than we can suppose, honest thinkers have little choice but to trust science as the only reliable search for believable answers.

News From Across the Globe

Sharm el-Sheik, Egypt

The 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27), that took place in the Egyptian coastal city of Sharm el-Sheik, concluded on November 27th. The conference was largely a bust, having achieved no significant advances in the fight against climate change.

Developing countries won a concession to set up a fund to provide financial assistance for losses and damage due to climate change. But there was no agreement on how the fund would be set up, where the funds would come from and how the funds would be distributed.

The final text of the COP27 agreements included a provision to boost the use of low-emissions energy. But that designation is vague and could include the continued use of gas. Although gas has lower emissions than coal, it is still a fossil fuel and major contributor to climate change.

Doha, Qatar

Under intense pressure, European teams dropped their plan to wear 'one love' LGBT armbands during the World Cup soccer matches held in Qatar.

The plan to wear armbands were a direct result of Qatar's abysmal human rights record and the fact that homosexuality is illegal in the country.

Earlier this year, a Qatar ambassador said that homosexuality is a "damage in the mind." As a result, there are concerns about the safety of LGBTQ fans visiting Qatar for the games.

Controversy also surrounds the treatment of foreign workers. 85% of Qatar's population are foreign workers. Since 2010, when Qatar was awarded the 2022 World Cup, an estimated 6500 foreign workers have died, many of the deaths linked to preparation for the games. There have been numerous accusations of forced labor, dangerous working conditions and lack of proper housing and sanitation. Qatar's oppressive set of laws, discriminating not only against the LGBTQ community but women and migrant workers, is part of a recent trend toward more right-wing authoritarianism around the world.

New York, USA

A recent survey by the Pew Research Center found that

religiously unaffiliated adults were much more likely to consider climate change to be a serious problem (70%) than religiously affiliated Americans (52%). Seventy percent of people categorized as having low levels of religious commitment said the Earth is warming due to human behavior, compared to 39% of those who are highly religious.

Washington, D.C., USA.



On November 23rd, the U.S. Customs and Border Protection's Office of Trade issued a ban shipments of sugar from Central Romana Corporation, a major sugar producer in the Dominican Republic. The ban follows years of allegations that Central Romana was subjecting its workers to harsh labor conditions.

Central Romana is the largest landowner and employer in the Dominican Republic. It ships more than 200 million tons of

sugar to the United States each year.

Paris, France



There is an international organization that oversees the units we use to weigh and measure things. It is commonly called the metric system.

With the world's population passing 8 billion, the members of the International Bureau of Weights and Measures decided, for the first time since 1991, that we needed additional descriptors to better describe the weight and size of the things in our world.

Participants at the 27th meeting of the General Conference on Weights and Measures agreed four new prefixes for the metric system, which are the ronna, quetta, ronto, and quecto.

Ronna and quetta measure how large something is. Ronna has 27 zeros after the first digit in the measurement and quetta has 30 zeros. Ronto and quecto measure how small something

is. Ronto has 27 zeros after the decimal point and quecto has 30 zeros.

Applying the new measurements, the weight of the Earth equates to 6 ronnagrams. An electron's weight is one rotogram.

Shanghai, China

Protests broke out across China on November 26th, in response to harsh Covid controls put in place by China's autocratic leader, Xi Jinping. The demonstrations were triggered by an apartment fire that resulted in 10 deaths.

Many people believe that Covid restrictions prevented fire fighters from responding in a timely manner, causing an unnecessary loss of life. Protesters could be heard shouting "we want freedom" and calling for Xi Jinping to step down.

Chinese officials fear that relaxing the Covid restrictions could result in a surge in deaths. The Chinese Covid vaccine, developed domestically, is less effective than those developed in other countries such as the United States. The Chinese government has not approved the use of any foreign vaccines.

Panama City, Panama

The Convention on International Trade in Endangered Species,

known as CITES, concluded its latest conference in November by adding over 500 species to its endangered list. While that may seem like a large number, there were already more than 35,000 species on the list.



While CITES' efforts are admirable, the world is continually losing ground in the battle to prevent species loss. Another conference in December in Montreal, Canada is supposed to address the 2.5% annual decline in wild animal populations. The prospects for progress at that conference are not considered to be good.

Known as the COP15 Biodiversity Conference, the international group under the United Nations has met periodically since 1994, with no discernable successes in stemming the tide of losses in biodiversity across the planet.

Featuring: The Secular Community

Each month we will feature an article on a secular organization, of which there are currently many. Each organization has its own specific mission and constituency. By publicizing these organizations, we hope to show commonality of interests and help to bind our non-religious community together toward addressing common interests and meeting common goals.

Bruce Weiner of San Diego, California founded The Secular Community in May 2018. Weiner saw religion as an impediment to solving the serious problems facing humanity, particularly climate change.

The following, in his own words, is the explanation for putting the organization in place, its history to date and its goals:

“Being both a father and grandfather, in looking around the social and political landscape in 2018, I was very concerned about the future for my children and grandchildren. In particular, I was concerned about climate change, which in the coming decades could threaten humanity’s very existence if not aggressively countered.

And we weren’t countering it, and still aren’t today, four years later. There are multiple reasons why the world is struggling in addressing climate change. But its not only climate change. Human rights are a problem in many parts of the world. Hundreds of millions of people lack proper nutrition and healthcare. Lack of proper sanitation and education are also major problems in parts of the world.

One of the biggest reasons why we’re not doing better is religion.



THE SECULAR COMMUNITY

There are some 4000 religions in the world, each believing that they have it right and all of the others are wrong. The three major religions, Christianity, Islam and Hinduism, account for about 70% of the human population.

But those religions are steeped in antiquated, morally flawed dogma, dating back centuries. Religious beliefs have been the source of ongoing conflict and violence since their inception.

We also have the problem that there are 195 different countries in the world, and they each have their own cultures and other interests to deal with. But although imperfect, those countries have made an effort to come together, through the United Nations, to try and address climate change and other problems facing humanity such as healthcare, poverty and conflict.

Religions have not made a comparable effort. Religions control vast fortunes and have extensive organizations. Their money and organizations could be put to good

use solving real world problems. But that money and the people they employ are mostly used to promote their self-interests, each religion trying to promote itself at the expense of other religions.

And what about the secular landscape? There were, in fact, other secular organizations in place in 2018. Why start a new one? My feeling was that the existing set of organizations were primarily established to promote the right of their members to be secular. I envisioned something broader, to bring together people across the globe on a non-religious basis to supplement and support the international community’s efforts to solve world problems.

Another issue is money. The existing secular organizations are largely dues paying. And while it absolutely takes money to run and promote an organization, I knew that if we required membership fees, that would disqualify large numbers of people from joining.

The other side of the coin, of course, is that if someone is not

contributing anything, what does it mean to be a member. Nonetheless, I opted for membership being free.

With very little in the way of funds, we have nonetheless been able to grow to almost 16,000 members in four years, with more than 30,000 Facebook followers.

Until this year, we had no formal organization. But in February, we established a Board of Directors and registered in California as a non-profit corporation. The addition of a Board of Directors has been a boon to our efforts as we are getting a wider range of ideas and experience brought to bear to help promote the organization.

One of the ideas is this magazine. We are launching the magazine to promote secular thoughts and ideas, but also as a fundraiser to enable us to expand the reach of the organization.

Its been interesting over the past four years to have dealt with so many different cultures across the globe. We have members in more

than 120 countries and while human aspirations are similar across cultures, there are certainly differences in the perspectives of different peoples. And of course, language is sometimes an issue.

Additionally, we have put forth a set of beliefs and guidelines that are more inclusive and morally grounded than you can find in the texts of the major religions. The Secular Community believes that every human being is entitled to the following set of rights:

- The right to life and liberty, liberty being the freedom to do that which injures neither another person nor the environment.
- The right to be happy, happiness being a key element of human existence.
- Being free from discrimination based on a person's race, color, sex, sexual orientation, religious or other personal beliefs, nationality or social origin.
- Not being held in slavery or servitude.
- Being able to live in a free and open society with the right

to vote, free speech, a basic education and an environment free of harmful pollution.

- Have an opportunity for honest employment that provides, at a minimum, a sufficient income to cover basic needs for themselves and their families.
- Have access to quality, affordable healthcare.

Our experience is that people are increasingly finding religion to be wanting in value and choosing to leave. This is particularly true of Islamic nations, where beliefs are forced on people, whether they do or do not agree with them.

The Secular Community gets a regular stream of individuals from countries such as Pakistan, Afghanistan and Iran, asking for help to escape religious persecution. The trends are clear that in democratic countries, where people have the freedom to choose and express their beliefs, the number of people belonging to a religion is definitely in decline.



The Real Creation Story

This is the real story of how we came to be, as best we know it today, based on the existing science. Because it's based on science, this is a story we could only have begun to tell over the past few hundred years.

Before that time, the story of creation belonged to the realm of myth, told in various forms by different cultures and religions across human history. Why is knowing the true story so important? Because as humans, we crave for meaning in our lives and how we got here is fundamental to understanding our place in the Universe.

The story told here is different today than it was a few years ago and will probably change again as the future unfolds and we uncover new information.

That's the beauty of science, to constantly question and improve our knowledge, enabling us to continually advance as a species and to use our understanding of reality to improve our lives and the environment that surrounds us.

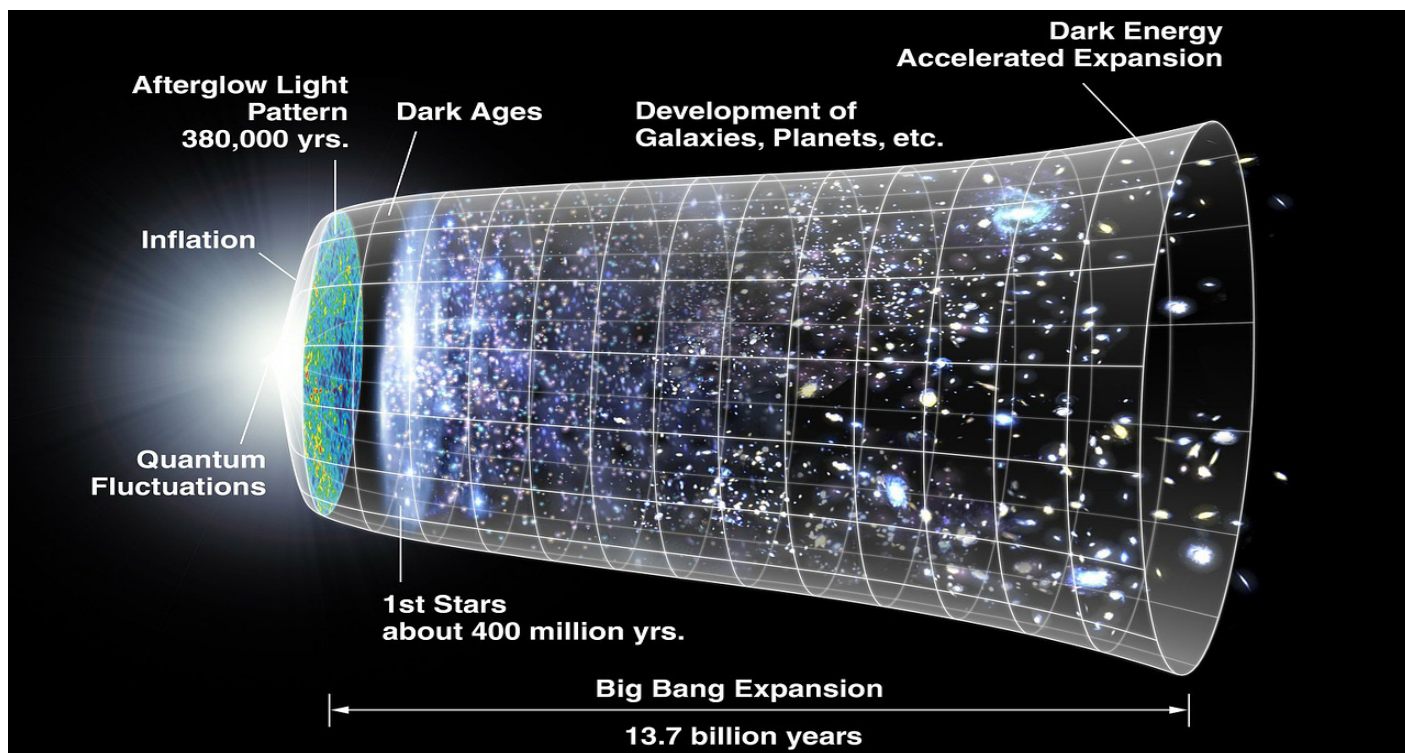
The Beginning of Time and Space

In the beginning, all matter and energy were indistinguishable from each other, concentrated at a single point and infinitesimal in size. The concepts of time and space did not yet exist. Then, nearly 14 billion years ago, a great cataclysm occurred, causing the Universe to burst forth from this concentration of matter, energy and time, and space as we now know it, came into existence. This

event has been dubbed by scientists as the Big Bang.

But where did that original concentration of matter and energy come from? There are a few theories. One is that our Universe is not unique, that events that triggered the Big Bang are regular occurrences and ours is one of many universes. Another is that it was the result of an earlier universe that collapsed, and that we are part of an endless cycle of an alternately expanding and contracting universe. Science does not yet know, one of many scientific mysteries yet to be solved and understood.

Following the initiation of the Big Bang in the first fraction of a second, all of the matter and energy that the universe would ever hold expanded outward at an incredible speed. At this point, the Universe was just a fraction of a second old and so hot that matter and energy were effectively interchangeable.



Source: NASA Jet Propulsion Laboratory



Milky Way Galaxy

In another fraction of a second, the fundamental bits that are the building blocks of matter appeared. Called quarks, they began to match up with corresponding anti-quarks and each time they did, they would annihilate each other, generating huge amounts of energy. The radiation that accompanied this activity resulted in an intense but brief illumination, and the quarks that didn't pair up were ultimately transformed into the particles that would eventually form our stars and planets.

Before the end of the next fraction of a second, the major forces which govern matter came into existence, the most important of which was gravity. This was immediately followed by the formation of the nuclei of hydrogen and helium.

Hydrogen is both the simplest and most plentiful element in the Universe and the fuel for the stars that light up our night sky. At this point, however, there was still too

much heat and energy to allow those elementary particles to come together to form atoms.

After the initial burst of extraordinary energy, the light faded and the Universe was plunged into darkness as the intense heat and chaotic movement of particles prevented the free flow of photons, the particles of energy that are the carriers of light. It was to be more than 400,000 years before the matter from that initial burst of energy would cool sufficiently for the first atoms to finally form and photons to flow freely, providing the light that would bring the Universe out of its darkened state when the first stars were formed.

The formation of atoms was a major event in the creation of the universe because atoms are the basic building blocks of everything we can see and feel. Each atom is comprised of three types of particles; protons, which are positively charged, electrons, which are

negatively charged, and neutrons, which have no charge. It is the number of protons that determine what element an atom represents. For example, one proton is hydrogen, two protons is helium, six protons is carbon and eight is oxygen.

Atoms are infinitesimally small. The human body contains billions and billions of them. Atoms are also mostly empty space, with tiny electrons circling in a wide arc away from the nucleus. Atoms are also resilient, meaning their life is virtually infinite. So the objects they comprise may change state over time (for example, from solid to liquid), but the atoms themselves just go on and on, recycled, as it were, in the ever changing universe.

There was, of course, no one on the scene to observe these earliest events in the creation of the Universe, no one with a camera to capture these early moments of time and space for posterity. But

through the wonders of science, we have been able to work back from the structure and movement of the Universe as it exists today and largely re-construct the events as they first occurred. Brilliant minds, following the scientific method, have unlocked many of the secrets of our origin and our history, although many details remain obscure. The following narrative is a summary of the collective achievements of those great minds, giving us extraordinary insight into the history of creation traced back to the beginning of time.

The Formation of Stars and Galaxies

After the initial period of the Universe's expansion, the environment of space continued to cool and gaseous clouds of hydrogen and helium, called nebulae, began to form, setting the stage for the next level of complexity in the evolution of the Universe, the creation of stars. At that point, the Universe was still dark and consisted of just those massive clouds of hydrogen and helium, floating through mostly empty space. The ratio of three parts hydrogen to one part helium that made up those clouds is approximately the same ratio of those elements that we find in the Universe today. As a result of the formation of atoms and small variations in the density within those gaseous clouds, gravity had an opportunity to exert its influence, splitting those clouds into billions of smaller clouds. Thus began the process of star formation.

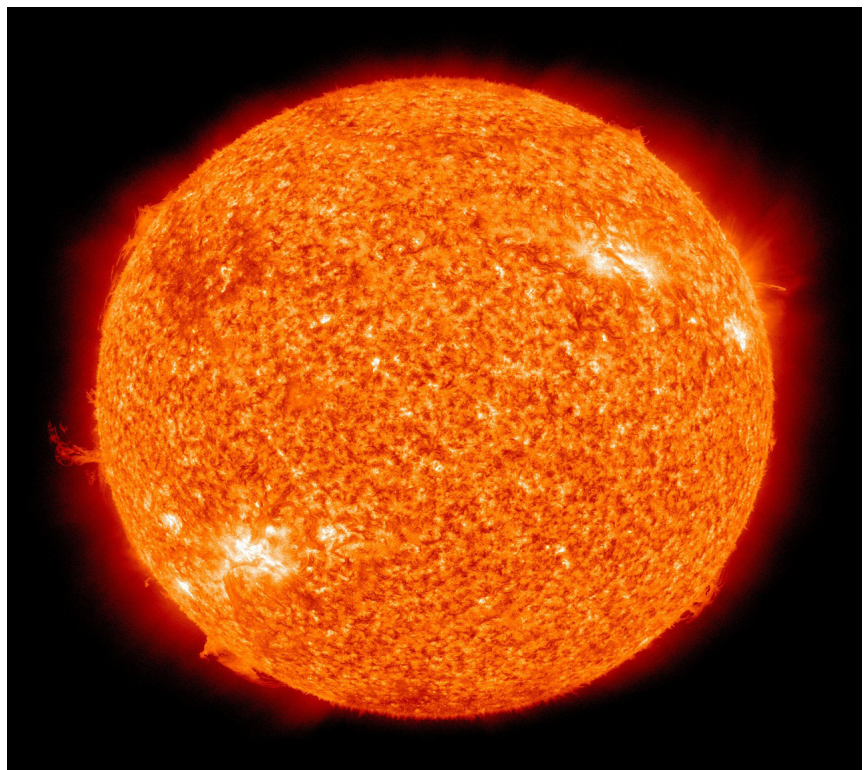
The process of star formation depended heavily on the force of gravity, which continued to work its magic and caused individual clouds of hydrogen and helium to

begin to collapse as the particles of matter within each cloud were increasingly drawn to each other. As the collapse of one of these individual clouds progressed, the pressure and temperature at the center increased. As a result, atoms collided with increasing frequency and force, causing a rise in temperature. Eventually, the temperature at the core reached more than 10 million degrees, a point at which the nuclei of the hydrogen atoms began to fuse together into helium nuclei, forming a star. As the process continued and more stars formed, they became gathered into clusters, which became galaxies. One of those early galaxies was our own Milky Way.

But when those first stars and galaxies took shape, there were still no life forms to observe and appreciate their growing beauty made visible by the intense light they emitted. Today, it is estimated that there are billions of galaxies spanning our Universe, each comprised of billions of stars. To

get our heads around how big that number is, it has been estimated that if you counted all of the grains of sand on all of the beaches on earth, the total you came up with would be less than the number of stars in our Universe. Surprisingly, in spite of that vast number of galaxies and stars, most of the Universe remains just empty space, an indicator of just how vast the Universe actually is.

Other numbers indicating how small our piece of the galaxy is are equally daunting. Our Milky Way galaxy is part of a cluster of more than a thousand galaxies that astronomers call the Virgo Cluster. The Milky Way is more than 100,000 light years in diameter, a light year being the distance that light travels in one year's time. Our home, the Solar System, is situated about 27,000 light years from the center of our galaxy. The Milky Way was one of the earliest galaxies formed and it is ever changing, with stars dying and new stars being created on a



The Sun

regular basis. Our star, the Sun, sits more than 4 light years from its nearest neighbor, the star Proxima Centauri. If we were to travel there, it would be, to say the least, a long journey. Travelling in our fastest spacecraft, it would take 78 years to complete the trip to Proxima Centauri, roughly equivalent to a human lifetime.

The billions of stars that populate the Universe come in different sizes and brightness. Some give off both visible and infrared light. Others radiate x-rays and radio waves. Stars vary in color as well and the color of a star is indicative of its relative surface temperature. Blue stars are the hottest, yellow and white stars are in the middle range and orange and red stars have the lowest surface temperature. Our sun is a yellow star and, although formed nearly five billion years ago, is only mid-way through its life span.

All stars burn hydrogen to maintain their energy output and the rate at which it is burned is determined by the star's size. Smaller stars burn hydrogen more slowly than larger stars and therefore their life spans are greater. Our Sun, being a medium-sized star, has a life span of approximately 9 billion years. Much larger stars have a shorter life span, sometimes no more than a few million years.

A Giant Cloud Becomes Our Sun

A multitude of stars formed in our galaxy ahead of our Sun. The formation of our star, as it were, didn't begin until nearly 8 billion years had elapsed from the beginning of the Universe. The formation of the Sun and its surrounding planets was triggered by the

gravitational collapse of a giant cloud of matter floating in space. Most of the matter in that giant cloud was the direct result of a massive explosion of a very large, dying star called a supernova. Only the lightest elements, hydrogen, helium and traces of lithium and beryllium, were created from the Big Bang. All of the key elements such as nitrogen, oxygen and carbon, that would be needed to form the Earth as we know it and support life, were missing. Those additional elements are created through the death of supernovas. Such stars are more than 10 times the size of the Sun and have much higher internal temperatures.

Like any star, when they run out of hydrogen to burn, they become unstable and start burning helium. But because their internal temperature is much hotter than other stars, when the helium is gone they can start burning other elements, before eventually collapsing and then exploding. At the end of this process, additional elements are manufactured and scattered into space as the star explodes.

It took approximately 100,000 years for the Sun to form, consuming more than ninety-nine percent of the total mass of all of the material that made up the cloud from which it and the rest of the Solar System was formed. The remainder of the material eventually formed the planets, including, of course, our own.

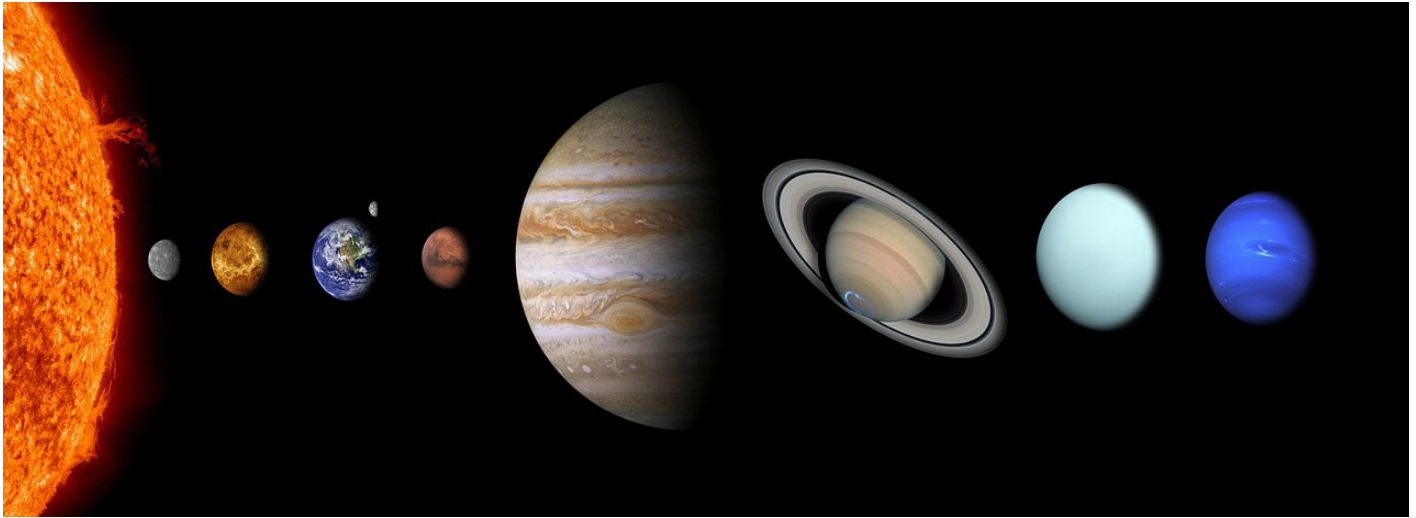
The Sun is larger and burns brighter than 95 percent of the stars in our galaxy. Like the Earth orbiting the Sun, the Sun likewise orbits around the center of the Milky Way. Travelling approximately 200,000 miles per day, it takes more than 200 million years for

the Sun to complete one orbit around the center of our galaxy, and while it's doing this, of course, it's dragging us with it.

The Sun, contrary to what some might think, is not solid. It is instead a round ball of hot plasma, comprised, like other stars, of mostly hydrogen and helium. Its diameter is more than a hundred times that of the Earth, sitting in the middle of the Solar System some 92 million miles from our planet. It takes about eight minutes for light emitted from the Sun to be visible here on Earth. At its core, thermonuclear fusion generates the energy that we depend on to maintain life here at home, and although the Sun is midway through its life expectancy, it should continue to provide the light and energy we depend on for the next five billion or so years.

The Sun's ability to provide that energy comes from a continuous nuclear explosion at its core, which generates temperatures of about 15 million degrees. At those temperatures, hydrogen atoms are continuously fused into helium, releasing vast amounts of energy. The photons of energy produced in the Sun's core gradually work their way to the surface, which can take as long as a million years. Once the photons hit the outer surface of the Sun, however, they are radiated outward at the speed of light through the Solar System and beyond.

In addition to providing the direct energy we need to maintain life on earth, the Sun's energy impacts both our climate and weather. Man's early recognition of at least some of these influences and their importance predates recorded history. As a result of such understanding, some of the human cultures that have existed over



time have worshipped the Sun as a god.

One way in which the Sun strongly influences our planet is via the solar wind, an extension of the outer atmosphere of the Sun called the corona. Charged particles are continuously emitted from the corona and fly outward, traversing the entire Solar System at speeds of about 250 miles per second.

The strength of the solar wind is directly related to the level of activity on the surface of the Sun. Unfiltered, these particles can do great damage to both us and our planet. Fortunately, the particles carried by the solar wind are deflected as they reach Earth by a magnetic field that surrounds our planet. This magnetic field extends more than 10,000 miles into space, protecting us not only from the particles of the solar wind but from harmful cosmic rays as well.

The Earth's magnetic field is generated by its core, made of solid iron and nickel. The core is surrounded by liquid iron and nickel and as electrons flow around this liquid outer core, the magnetic field is produced.

Solar wind particles are pushed by

the Earth's magnetic field towards the northern and southern latitudes. When the particles are strong enough, the effects become visible in the form of what is called the aurora borealis, or northern lights in the arctic region and the aurora australis, or southern lights in the Antarctic. The northern and southern lights are among the most beautiful sights on the planet.

The Earth and Moon Take Form

After the formation of the Sun, over the next few million years the dust grains that remained began forming clumps. These rock formations, which over time collided with each other and the other remnants left from the formation of the Sun, began to form larger and larger bodies. As they grew, their increasing gravitational fields pulled in larger and larger objects, eventually growing into the inner set of four planets that exist today, including the largest, our Earth. The outer planets, Jupiter, Saturn, Uranus and Neptune, were formed by the more gaseous materials that were flung farther out in space during the Sun's formation.

We are fortunate that the planets formed the way they did. Earth is in a perfect position to benefit from the Sun's energy in support of life. Venus, the next closest in, is too hot. Mars, much farther out, too cold. Had Jupiter, which is just a huge ball of hydrogen and helium been much bigger, it would have become a star.

A two-star system is not all that uncommon in our Universe, but if it had happened in our little corner of the galaxy, it would have resulted in a different dynamic. The Earth likely would have evolved differently, perhaps still supporting life, but perhaps not.

The process of the Earth's creation played out over millions of years, until our planet had grown to its present size, an amalgam of billions and billions of rocks. But today's Earth is nothing like that initial ball of rock. Toward the end of its initial development, the strong gravitational pull of the earth was pulling in not only rocks and dust from the surrounding space but extremely hot, radioactive material as well.

As this hot material built up over time, it literally melted the Earth. This melting, combined with the Earth's gravitational force, caused

the denser elements in the Earth's mass to be pulled down into the center of the planet, forming its central core.

As the cold atmosphere of space began to cool the surface, however, a hard crust began to form over the molten mass. Over the next million years, the crust continued to form, eventually covering the entire planet.

During this period, the Earth experienced a violent collision with another, smaller planet-like object. That collision ripped off a large chunk of the top layers of the Earth, hurtling vast amounts of debris into space. Over the next few thousand years, the moon would form from that debris in a close orbit around our still young planet.

would have made it appear many times larger than it does today, it would have been difficult to see though the Earth's atmosphere, which at that time was believed to have been filled with heavy clouds of dust.

Over time, the interplay between the gravitational forces of the Earth and its satellite began pushing the moon away and the Earth's day became gradually longer.

Although considerably slowed, the moon continues to move away from the Earth at a rate of about an inch a year. At that rate, it will be millions more years before we see any appreciable lengthening of our current daily cycle of night and day.

The Earth Evolves

The fully formed Earth is com-



The moon's formation occurred within just a few diameters of the earth. Being so close, each body's gravitational forces directly influenced the behavior of the other. One way that the moon impacted the Earth was to speed up its rotation. In fact, just after the moon formed, the Earth's day was estimated to have been just six hours; three hours of sunlight and three hours of night. And while the moon's proximity to the Earth

posed of three separate regions. First, there is the central core, primarily made up of iron. The core extends about halfway to the surface of the planet. The next layer is the mantle, which accounts for about two-thirds of the Earth's mass and sits between the core and the third layer, the crust. The crust, or surface layer, varies from about 4 miles thick under the oceans to about 25 miles under the continents.

The Earth's crust, however, is not one solid mass. It is actually made up of a series of plates, which are moved around by the semi-molten layer of material that sits immediately below it. This movement, dubbed 'continental drift' by geologists, has continually re-configured the alignment of the continents over many millions of years.

As the plates move they sometimes collide, which is how some of our planet's great mountain ranges were formed, such as the Andes and the Himalayans. The convergence of these plates, as they slide by each other moving in opposite directions, is what causes earthquakes.

The formation of continents and the oceans would take another 200 million years of Earth's history to complete. The water that would form the oceans was delivered, literally, from outer space by a constant bombardment of the Earth's surface by meteorites. Many of those meteorites contained ice and others contained droplets trapped inside their outer core. As the meteorites hit the Earth and exploded, the droplets trapped inside were released or the ice melted.

The water that would eventually cover two-thirds of our planet was delivered from space literally drop by drop over millions and millions of years. When the initial increment of water was delivered, however, the hot environment would have evaporated it into the atmosphere, until the

Earth cooled to the point that condensation could occur.

The meteorite bombardment eventually subsided as the mate-



As the earth cooled over time, the Earth's crust finally began to take some permanent form. As the crust formed, surface temperatures continued to drop, the water vapor saturating the atmosphere began to condense and it started to rain. Soon much of the planet was covered in oceans, with land masses pounded by tidal forces that were much stronger than they are today due to the much closer orbit of the moon.

rial left over from the formation of the planets was gathered by the Earth and other planets. Even today, however, meteorites continue to bombard our planet, but at a much slower rate. Nonetheless, it is estimated that the earth still accumulates over 100 tons a day of material from meteorites that penetrate our atmosphere.

Once the raining down of meteorites had abated and the earth began to cool, much of the toxic gases in the atmosphere condensed into rock-like material

and fell back to the surface of the planet. But the Earth continued to be a hot bed of geologic activity for millions of years, with volcanoes pouring carbon dioxide and water vapor into the air in huge volumes.

The amount of carbon dioxide in the atmosphere at that time approached the levels contained in the noxious atmosphere that currently exists on Venus, and our atmosphere was still too warm for the water vapor to condense, leaving the planet's surface dry.

As the oceans formed, they absorbed much of the carbon dioxide in the atmosphere, the heavy cloud cover abated and the Earth's surface began to experience its first consistent exposure to direct sunlight. The sunlight and the thinning atmosphere caused the oceans to partially evaporate, the land masses expanded and what we now call continents began to take shape. But although coverage of the earth by land was expanding,



those land masses were barren of any life, and the atmosphere was devoid of the oxygen that we depend on today to sustain life as we know it.

Life Begins

Once the continents and surrounding oceans had formed, our planet was ready for the next radical phase in its evolution. It was nearly four billion years ago and the stage was set. Two key elements were in place; energy, either directly from the sun or heat generated from the interior of the Earth, and the water that covered most of the Earth's surface.

But still more was required before the spark of life could ignite to transform the heretofore desolate landscape, and it began in our oceans.

But first, what is life? Surprisingly, science has yet to coalesce around a single definition. What is generally agreed is that life consists of chemically-based, biological processes and is self-sustaining. We also associate, as part of defining a living organism, the ability to metabolize and to reproduce.

Metabolism is a fundamental process necessary for life to exist. It involves being able to take in some form of material, process it chemically, add some of the processed material to its own form and excrete the remainder. Life also requires the ability to reproduce. Otherwise, life could not sustain itself because all life is a process of being born, living, and eventually dying.

Life also depends on carbon, specifically carbon-based molecules, whose unique properties facilitate

a life form's ability to reproduce. Finally, life depends on both water and a constant source of energy to sustain itself.

Although scientists cannot pinpoint precisely when life first appeared on our planet, we know that it was more than 3.5 billion years ago because enough cells existed by then to begin leaving their imprints in fossils. Given that the planet was still being regularly bombarded by meteorites and the atmosphere was still filled with hostile gases, it is reasonable to believe that the first life forms emerged at or below the surface of the oceans.

The oceans were a ready environment for life to begin because the ocean's absorption of the carbon dioxide in the atmosphere provided an abundant source of the organic, or carbon-based material, that could be developed into the basic building blocks necessary for life to exist. Originally, it was thought that life first emerged in the shallows of the oceans.

The combination of water and other elements at the surface of our early oceans was characterized as a kind of soup, which, by bringing the right combination of ingredients together, resulted in the formation of large, carbon-based molecules, molecules being two or more atoms that are chemically bonded together. It was also thought that either the energy from the sun or lightning in the atmosphere provided the spark that brought the first life forms into being.

When that hypothesis was formed, however, many details about the environments that existed at the oceans' depths were unknown. It was believed for a

long time that the bottom of the ocean would be mostly devoid of life due to the lack of sunlight and the extreme pressures. As humans began to explore the ocean depths, however, it was found that the bottom of the sea was actually teeming with life.

Of particular interest with respect to life's origins are hydrothermal vents, fissures in the earth's surface from which geothermally heated water is released. The most famous of these hydrothermal vents are found in Yellowstone Park in the northwest United States. But they are also found at the bottom of the sea, in many cases near volcanic hot spots.

These deep sea vents often support complex communities of life forms, for which single-celled organisms are the base of the food chain. It is here, far below the ocean's surface, where many scientists now believe was the most likely place for life to have originated.

Those earliest life forms, first appearing about 500 million years after the Earth was formed, were single-celled, the cell being what scientists now consider to be the basic unit of life. Bacteria and their nearest relatives, archaea, are single-celled life forms and researchers have found these simple organisms thriving on the energy that pours out of volcanic vents at the oceans' bottom. Since sunlight does not penetrate to the depths of the ocean where those thermal vents reside, these organisms use a process called chemosynthesis, which uses chemicals instead of sunlight to produce the energy they need to sustain life.

Today, forms of these bacteria and archaea are ubiquitous, populat-

ing nearly every nook and cranny across the surface of the planet. Even though life has evolved well beyond those first, single-celled species, single-celled organisms are still the most abundant life forms on the planet today.

But evolution beyond simple bacteria and archaea took a long time. In fact, single-celled species had the planet more or less to themselves for over a billion years. These original life forms were also anaerobic, that is, they lived in an oxygen-free environment. For the first 2 billion years of Earth's history, there was very little free oxygen in either the atmosphere or the oceans.

A little more than 2.3 billion years ago, that began to change with the appearance of cyanobacteria in the oceans. Cyanobacteria, originally miss-identified and labeled as blue-green algae, were the first microbes to use photosynthesis. Photosynthesis is the process by which an organism is able to absorb light energy, usually from the Sun, combine it with carbon dioxide and water and convert it into chemical energy, with oxygen as a byproduct.

As they multiplied, these cyanobacteria began to form large colonies, called stromatolites, which floated on the surface in the oceans shallows. At this time, the oceans were a reddish color, because of the large amount of iron content dissolved in the water. Initially, the oxygen produced by the growing colonies of cyanobacteria reacted with the iron, resulting in rust (iron oxide), with deposits accumulating on the ocean floor.

These former ocean sediments are visible today in banded-iron formations found in various parts of

the world. The removal of the iron content from the oceans changed their reddish color to the blue it is today.

After about 50 million years, however, that oxidation process largely played out and the oxygen levels in the atmosphere and the oceans began to build up. Called the Great Oxygenation Event, the increasing oxygen levels destroyed most of the anaerobic organisms, considered by many scientists as the planet's first mass extinction event.

But the oxygenation of the atmosphere had other effects as well. Between approximately 2.4 and 2.1 billion years ago, the reduction in methane and carbon dioxide resulting from the activity of the cyanobacteria in the oceans to produce oxygen reduced the greenhouse gas effect, cooling the atmosphere. Like the oceans, the sky, which had been a dirty pinkish color, turned blue.

At that time in the Earth's history, there was just one super continental land mass, which is referred to as Rodinia. About 700 million years ago, Rodinia began to break up, and the global climate began to cool.

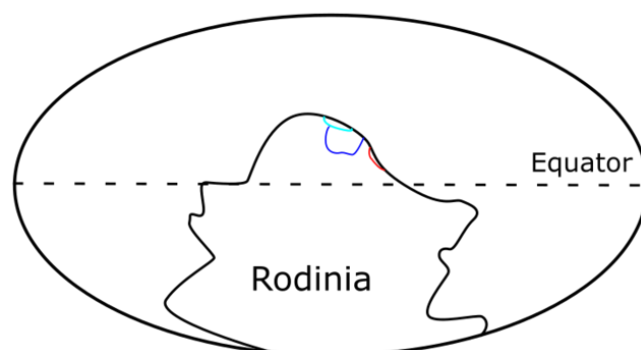
The lower atmospheric temperatures resulted in ice sheets

beginning to form, which eventually covered large portions of some continents, lowering sea levels. This has been referred to as 'snowball Earth', considered the largest period of glaciation in Earth's history. Since then, the amount of ice covering the planet has varied in on-going cycles as climate conditions have changed over time.

The Great Oxygenation Event also had a profound effect on the Earth's geology, resulting in the creation of thousands of new minerals as the increasing amounts of oxygen reacted with other elements. It is also credited with creating an environment that was more conducive to further evolution in the complexity of living organisms. Oxygen was a new source of energy for supporting life and the increasing amounts in the atmosphere eventually led to the creation of the ozone layer, an important shield against the Sun's harmful ultraviolet radiation, making it easier for new life to make a home on land.

Next Month – How life evolved from single-celled organisms to the complexity that exists today.

~1000 million years ago
Supercontinent Rodinia



Cultural Diversity

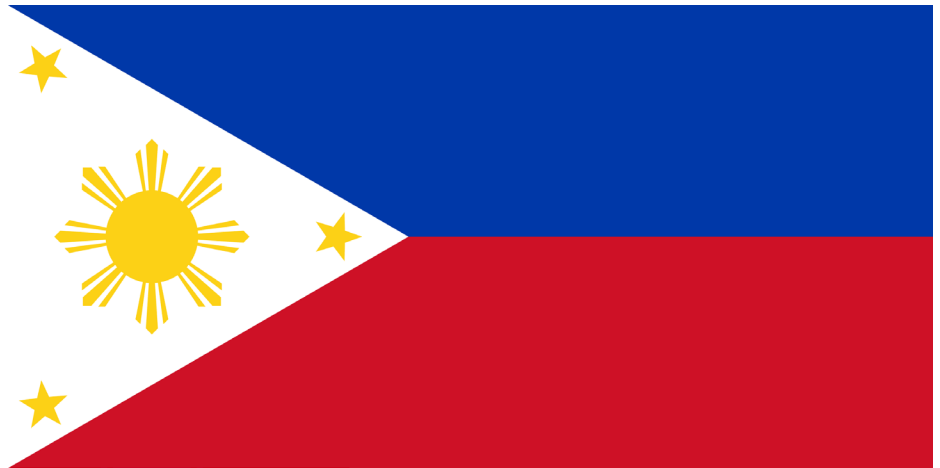
This month, we are featuring the Philippines, the 30th most populous country in the world. It is situated in the middle of the Pacific Ocean, comprised of more than 7000 islands. After more than 400 years of being a colony, first of Spain and then the United States, it became an independent country in 1946, following its liberation from Japan during World War II.

The Philippines is home to more than 13,000 plant species, more than 3000 of which are unique to the islands. It has more than 200 bird species that are also believed to be unique to the Philippines.

There is a rich blend of ethnic groups that make up the Philippines' population, the largest of which are the Tagalog at approximately one-quarter of the population. While Filipino and English are official languages of the country, there are an estimated 180 languages spoken throughout the islands.

The Philippines is officially a secular state which protects freedom of religion. Christianity is the dominant faith, shared by nearly 90% of the population. Non-religious people make up just 3% of Filipinos.

Because of its long history under Spanish rule (more than 300 years), the Hispanic influence is still significant, reflected



in Spanish names, architecture, music, food and the Catholic religion.

Food is an important part of Philippine culture. Like many other Asian countries, rice is the primary food. But Filipinos enjoy a wide variety of foods and many popular dishes, such as pancit, lumpia and adobo, are increasing finding their way into other countries and cultures.



Festivals are also an important part of Filipino culture. There are an estimated 40,000 festivals that take place across the country throughout the year.

Most of those festivals take place at the village level. But there are also a fair number of very large festivals drawing millions of participants.

None of the largest such festivals, that takes place during the month of October in Bacolod City, nicknamed the City of Smiles. The festival is called Masskara (mask) and is attended annually by more than 3 million people over a 20-day period.



Book Reviews

The Age of Resilience: Reimagining Existence on a Rewilding Earth

by Jeremy Rifkin
St. Martin's Press (November 1, 2022)
320 pages

Jeremy Rifkin is a best-selling author, a well known economic and social theorist. In his new book, *The Age of Resilience*, an extension of his book *The Empathic Civilization*, he poses the question of what's next for humanity in the face of a man-made mass extinction triggered by humanity.

Rifkin notes that we have been living during the Age of Progress, which began in the late 19th century, building upon the advances in science and technology of the industrial revolution. The Age of Progress provided a major leap in productivity for the world's economy, delivering advances in transportation and communication, such as the airplane, the automobile, and the telephone.

Rifkin points out that the key element of the Age of Progress has been efficiency, giving people more and more time for leisure. Our technological prowess has enabled us to be, as Rifkin puts it, "the dominant species on Earth."

But that's the problem. While we have advanced technologically with greater and greater efficiency, we have done so "to the ruin of the natural world."

With the human race facing catastrophe with "the collapse of our planetary ecosystems... we are beginning to realize that we never did have dominion (over the Earth) and that the agencies of nature are far more powerful than we thought."

So Rifkin posits as to what comes next. "How do we adapt to the havoc that is coming?"

His answer is that we need to transform ourselves from the Age of Progress to the Age of Resilience. Rifkin equates resilience with a shift from efficiency to adaptability, proposing that we need "sweeping changes in the economy and society including the shift from productivity to regenerativity." This means moving from "consumerism to eco-stewardship, gross domestic product (GDP) to quality-of-life indicators (QLI), negative externalities to circularity, and geopolitics to biosphere politics."

Starry Messenger: Cosmic Perspectives on Civilization

by Neil deGrasse Tyson
Henry Holt & Co. (September 20, 2022)
288 pages

Neil deGrasse Tyson, in his new book, has a much different focus than that of Mr. Rifkin. The focus of *Cosmic Queries* is very much on today, and what we do about the split

in our societies over things such as war, politics, religion, truth, beauty, gender and race.

His answer to what ails us - "a cosmic perspective and the rationality of science."

Tyson promises that "whatever opinions you hold, an infusion of science and rational thinking can render them deeper and more informed than ever before. This path can also expose any unfounded perspectives or unjustified emotions you may carry."

All that is well and good, but it appears that he is more or less preaching to the choir. Those that follow Tyson generally follow his logic and agree with scientific methods. It's how to get the majority of people, who are still grounded in ancient religions dogma, to emerge from the darkness of ignorance.



James Webb Telescope: Southern Ring Nebula

Celebrating Human Creativity

Each month, the Secular World Magazine will be featuring examples of the beauty that has been created over the course of the human experience. Since we are a visual medium, the examples we illustrate will largely be of art objects. From our earliest days, humans have created art to reflect and illuminate their life experiences.



Wall art of Ancient Egypt (ca. 1300 BCE)



Picasso: Portrait (1910)
Art Institute of Chicago



Cave Painting: Altamira Bison (ca. 10-15000 BCE)