"It's Only Natural"

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Alexander Slocum
Walter M. May and A. Hazel May Professor of Mechanical Engineering
Massachusetts Institute of Technology
77 Massachusetts Avenue, Room 3-445 Cambridge, MA 02139-4301
slocum@mit.edu http://pergatory.mit.edu Twitter: @ahslocum

It's only natural that humans have come to this point in time where we either choose to simply survive, or thrive far into the future: It all depends on our will to learn from the past and work creatively and earnestly together to create a bright future for us all. Accordingly, the purpose of this short essay and set of poems and images is to encourage people to think what will they do to create their own future, a world in which they want to live?

Many believe human's ability to look at the world around them and choose their path originates from the story of Adam and Eve. This raises the question if "God" could predict everything in advance, why was the snake allowed in the tree? Judging by history, humans have always been free to choose their own path, and it is by this that they will be judged, as evidenced by society's laws and their enforcement. Indeed, societies formed and spread as Humans exercised dominion over the earth by means of their brains and opposable thumbs; however, as is now apparent, humans have flourished at the expense of the natural world of which many seem to forget they are also a part.

As we came from Nature, we are thus part of it; and just as if we do not take of ourselves we wither, so it shall be with our environment and hence ourselves. Nature itself actually could care less, for even after the great asteroid ended the reign of the dinosaurs and most life, Nature bounced back ③. Balance is needed, but how is it best achieved? Many people believe balance comes not from governments informed by scientists but from "God" (or social media?) and are quite content to learn by reading verse written long ago (or recently posted and fed to them) or by listening to the exhortations of people trained to teach them about God (or what they should click on). While some claim to hear the voice of God, few claim to actually see and talk to God conversationally (but much is posted online).

On the other hand, God having created everything and being all knowing also knows about science and engineering (the internet could not exist without science). And science and engineering are run by the Natural Laws that God also created (and scientists and engineers discover and use). Laws such as discovered by Einstein and a host of other brilliant people that have given us the miraculous civilization in which we live. Chief among these laws is the 2nd law of thermodynamics which states entropy always increases, and thus perpetual motion is impossible. This law thus means in order for something to happen, there must be a source of energy; and in our universe there is one fundamental source of energy from which all others evolve. That source is when two atoms of the simplest element, hydrogen, fuse to form a new atom, helium, that has a slightly lower mass than that of the two hydrogen atoms individually. What happened to the little bit of mass lost? It was turned into pure energy: "light" with all its brightness, warmth, and glory to spread out in all directions. This is E=mc²: energy equals mass times the speed of light squared.

One day the universe as we know it may ultimately come to something that will lead to a big pause and then perhaps another "AHA!" moment and then there will be a new light and perhaps new physical laws. But for now, we have a set of natural laws we have discovered and learned how to use that have given us a life full of air travel, cell phones, the internet, and many diverse energy sources all ultimately evolved from E=mc². So, it stands to reason that God gave us life, natural laws and free will to discover and do stuff; and rather than micromanage us on a daily basis, God seems to be content to observe us until according to some people there will be a final judgment.

Some believe we were pure and wonderful until we took a bite from the apple and attained knowledge (e.g., algorithms that favor hate speech because it creates more clicks) which made God mad and drove us from the Garden of Eden. By discovering natural laws and using them to our advantage to harness many forms of energy, such as hydrocarbons from long dead plants that originally grew because of light from the sun, we have taken the fateful bite of the apple of science. To make matters more interesting, we have also decoded the recipe for life, and have vanquished many of the afflictions that for eons kept us in balance with Nature. Our free will has led us to freely expand to the point where many believe we can expand no more and, indeed, might have to contract to survive. The 2nd Law has no mercy.

How can we know what to do next? Many believe in the words of long dead scribes who wrote verse about God's laws, and the exhortations of those who portend to understand God's laws and feel obliged to teach others about what they think was written. There is some debate as to who is correct in their interpretations as evidenced by many different religions in the world; however, people from every religion read by light, talk on cell phones, access the internet. Many travel weekly by car to visit places of worship to learn more about God's words and some travel by air now and then to visit Holy places. And all of these modern marvels that make possible the spreading of God's words and laws are made possible by the discovery and understanding of God's Natural Laws.

Unlike those who preach about what God meant by words in verse written long ago, despite never apparently having been able to say they actually themselves talked to God for explicit clarification, scientists and engineers have not only discovered many of God's Natural Laws, they have learned that they can put them in a form that needs no discussion with God directly for clarification as they have mastered the fact that "mathematics is the language with which God has written the universe" (Galileo Galilei). Indeed, "science" is the process of observing things to form an understanding of why things are happening and to, ultimately, encode that understanding with a mathematical formula; and "engineering" is the process of observing things to form an understanding of what needs to be done and, ultimately, to create something to do it.

These same scientists have been saying louder and louder, and many are now shouting, that the same Natural Laws that have enabled engineers to create things to make our lives much more pleasant and longer lasting than ever before in history, that these same Natural Laws tell us we are about to engineer ourselves back to the stone age. Climate change is real, the ice is melting and the waters are rising and the weather is ever fiercer. Some may think they can choose not to believe, that God will never let this happen, that in Genesis 8:1–22, God promised never to cause a flood, but God never promised to prevent humans from themselves

causing their own flood! Indeed, free will means the Earth is ours to do with what we please. And that means we must waste no time to engineer our path to a renewables based future.

So, what to do? Perhaps we should listen to the prophetic words of Greta Thunberg as she spoke to the United Nations general Assembly: "We are in the beginning of a mass extinction and all you can talk about is money and fairy tales of eternal economic growth - how dare you!' And then to her speech to the US Congress "unite behind science, and then I want you to take real action".

Each person has free will and thus can do what they wish (you do not have to click on hateful things). But if a person does not believe in climate change and does not believe we must all work hard together to reverse it from conserving every bit of energy we can, consuming less, recycling more, and putting our production capabilities towards creating renewable energy machines to drive our carbon emissions to below zero, then that person must also turn off their cell phone, lights, car, heat and go back to living a natural life just as God gave them in the time just after that fateful bite of the apple. And for those holier than thou folks who look forward to the waters rising and the fearsome heat as fires rain down upon us, they must remember Matthew 21:12, and remember all the innocent children who never had a chance to make a choice who will suffer and die because of your inaction. Your greed takes you to a big bang toga party to celebrate the end when you will get to wait for God to find your name in the book of life. Imagine your thoughts when God cannot find your name because your greed and lack of action in life led to climate catastrophe. Revelation 20:11-15. Perhaps one day from the lake of fire you created to which you return, one day a new light will begin again? Genesis 3:19.

We are close to the point of no return, in just a few decades scientists, using the same Natural Laws that give us all our goodies, say that at the current rate the temperature will rise to the point where even if we were to suddenly go carbon negative, we will not be able to stop the melting and the waters rising. No longer can we afford to say "renewable energy is more costly than hydrocarbons, so let's keep burning until we get a better deal". Indeed, modern history tells us that when science leads to a new idea and a new product, be it air travel, space flight, cell phones, the internet it takes one to two decades for the idea to reach the masses. We do not have the time to bet on hope for a new magic energy source nor do we have the time to then build it out.

Fortunately, we DO have "good enough" renewable energy sources to save our climate and ourselves and we DO have the economic ability to deploy them, and in so doing create great jobs and business opportunities for ALL. God has a path for us to follow as brought to us by Isaiah 2:4. And for guidance along this path we just need to remember: As the movements of the sun and the moon can be predicted by precise calculation, and the stars above and the earth below lie in delicate balance; we must not transgress this balance while we weigh our decisions on what path we take to the future. (Quran).

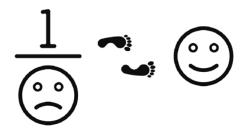
And it is thus in view of the above that the following set of poems were created, evolved and matched with images gathered to try and help as many people of as many different types as possible to realize that if people for a few generations can set aside their differences and come together as a team, they will be able to free themselves of carbon-based energy, build their economies, and create a bright sustainable future for us all. It's only natural \odot .

A Sustainable Revolution

A Bright Future for Energy & the World YES We Can Do It!

Including many thoughts to evolve
Some lots more than others >
Some less than druthers <

Many different peoples
Gathered under varied steeples
Each will see things in different ways
And that's the real key to happy new days



To mask or not to mask?
That's not the question to ask
We all must no longer waddle
We need a new economic model

From COVID-19 economic ashes we can rapidly rise
Powered by focus on harvesting energy from the skies
Rapid testing isolation and treatment can open up the store
Harmony and balance with nature we can economically restore

The economy we must stimulate
On things that for all will be great
Trillions are discussed on being spent
Later we must not wonder where it went

Fossil fuels generate 300 gigawatts of US power
Replace with renewables for every kilo Watt hour
\$2.50 to buy and replace the power generation assets
\$2 to upgrade grid and add enough storage to hedge bets

To make all this invest 10% in US manufacturing base \$5/Watt gives us a really strong economic stimulus case So for 1.5 trillion dollars good jobs we can create And on the environment we can stop the hate

Due to our CO2 gassing Heat records keep amassing We grow yet wallow in pollution We ignore that there is a simple solution

As corals & salmon die of heat before they can spawn
Carbon emitters must no longer turn their heads and yawn
On renewables we must ALL spend a reasonable part of what we earn
Or soon our atmosphere will be like that of Venus and it will be humanity's turn







https://www.kyuk.org/post/summer-chum-salmon-die-likely-caused-heat-stress-say-scientists

(Photo: NASA)

Our dependence on carbon fuels is causing global strife
The amazon burning should be a signal for all life
Nature and Physics simply do not care
We humans have no time to spare

Forget fake news

We have too much to lose

Money will not buy a place to hide

We must work together to stem the warming tide





https://www.theceomagazine.com/business/management-leadership/ostrich-strategy-ignorance-no-excuse/

"Mathematics is the language with which God wrote the universe"

To ignore tHIS great gift is myopic, silly, SAD and perverse

And the math for phones to ring & planes to fly

predicts planet warming from CO2 in the sky

Energy themes must be the focus in schools
While industry is supported and retools
Lest we all pay the ultimate price
Together walk from sad to nice





For all the brave soldiers who died for our way of life it will have been in vain if all ends in climate strife A slowly increasing carbon tax is the way to start to fund actions to keep us from falling apart

Because even with all our military might soon there will be nothing left for which to fight Let's quickly pivot to form the Climate Defense Forces to develop and protect all Earth's precious renewable sources





https://www.washingtonexaminer.com/trumps-july-4th-militaryparade-is-a-good-idea



https://devotionsbychris.com/tag/arlington-national-cemetery/



https://www.solarcostguide.com/guides/benefit-from-solar-energy/



https://www.al.com/living/index.ssf/2015/01/a time to plant tre es and shru.html

Military spending* is 2.2% of GWP But to actually protect and keep us free Arms makers and dealers can quickly evolve and profit from environmental problems they solve

To transition rapidly to renewables we already have the means We know how to design, make, and deploy the machines Companies of all stripes promise negative emissions Consumers demand negative carbon conditions

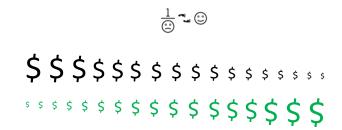


Population	7,000,000,000
Average 24/7 power per person (W)	2,000
Capital investment cost (including storage) per renewable Watt	\$ 5.00
Investment per person required	\$ 10,000
Total investment cost	\$ 70,000,000,000,000
World Annual Economic Output	\$ 75,000,000,000,000
% per year to be refocused on renewable energy	2%
Amount per year	\$ 1,500,000,000,000
Years to total renewables	46.7

 $^{{\}color{red}^*} \ \underline{\text{https://www.cnbc.com/2018/05/02/global-military-spend-rose-to-1-point-7-trillion-in-2017-arms-watchdog-says.html} \\$

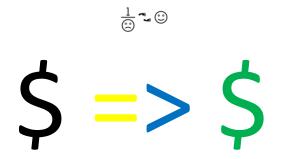
Our selfishness is rapidly leading us to the terrible tragic tipping point trillionth ton CO2 heats the planet up, tundra melts, methane released, and all life is done The solution is simple, like buying insurance for our property and health We just have to spend a modest portion of our paper wealth

And we can control carbon with hedges
Split up the complex problem with wedges
Transition from black to green at an increasing rate
and all have good jobs and profit while avoiding a dire fate



Some think all the hydrocarbons they own they can sell but soon it will drive the climate and us all to hell Instead they should carefully sell just enough and invest dollars in renewable energy stuff

The key is to invest wisely to turn black into green and become owners of many a renewable energy machine Harvest energy from the earth, wind, water and the sun's rays They can forever bring income, peace, happiness, glory and praise



Humans take heed A carbon tax we need Start slow and rise steady So all can plan and be ready

Start with a tonne costs a dollar
And no one need complain or holler
It's a simple solution to decarbonization
Carbon tax spent on renewable electrification





https://commons.wikimedia.org/wiki/File:Taft_oil_well_blow-out_in_Kern_County_ca_ 1920_(CHS-2498).jpg

But carbon producers relax There's an alternative to a carbon tax Take just 10% of the gross you sell to burn and invest in renewables for a sustainable return

It's a BIG idea that's very keen
Invest income to turn Black Into Green
Produce carbon and buy renewables now
and create a long term carbon free cash cow







https://www.ndtourism.com/articles/north-dakota-makes-advances-energy



Applied Energy Volume 242, 15 May 2019, Pages 1189-1197



Black into green: A BIG opportunity for North Dakota's oil and gas producers

David D.J. Taylor ^{a, 1}, Mariya Layurova ^a, David S. Vogel ^{b, c}, Alexander H. Slocum ^a A 🗵

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Highlights

- The business inertia of hydrocarbon production can accelerate wind energy production.
- Emissions-to-price ratio makes BIG funding feasible for oil and natural gas in ND.
- BIG's wind farm is funded from 10% of hydrocarbon revenues and $0.03\$ wind power.
- Over 40 years, ND's oil and gas can fund 89,000 wind turbines, generating 155GW.
- This wind power offsets 100% of the well-to-wheel emissions of ND's oil and gas.

https://doi.org/10.1016/j.apenergy.2019.03.158

Jobs for many are at hand to farm, replant, and help the land Its as simple as Re and Afforestization to play a big part in resilient decarbonization

5.5 million miles of overhead lines powers US

Under them plant switchgrass and *Brassica napus*Planting 1/3rd would equal a one gigawatt powerplant

Funding the Department of Energy should be quick to grant





http://be-eco-friendly.blogspot.com/2011/04/reforestation.html



http://chinaplus.cri.cn/mvchina/life/35/20170804/13916.html



https://articles.extension.org/pages/26635/switchgrass-panicum-virgatum-for-biofuel-production



https://upload.wikimedia.org/wikipedia/commons/8/8b/Rape_Field - geograph.org.uk - 759058.jpg

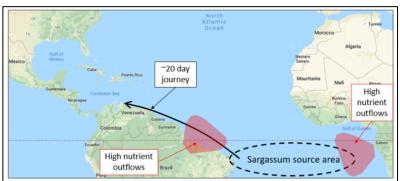
Agricultural runoff is flowing into the warming ocean
And so excessive seaweed growth is set into motion
Our oceans have become a giant garbage patch
The flow of plastic we must stop and catch

Selective Ocean Sequestration of Carbon could be a key Clean up the oceans and help us become carbon free SOScarbon to the bottom many kilometers deep Under intense cold and pressure it will keep



www.soscarbon.com





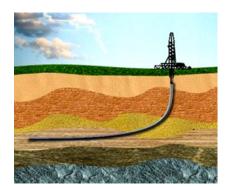
Don't just drill for oil and gas to burn also seek long term CO2-free return Invest now 10% of all your worth and drill for heat in the earth

Energy for "free"?

The key is a high COP

For every Watt in you pour
a heat pump can give back four

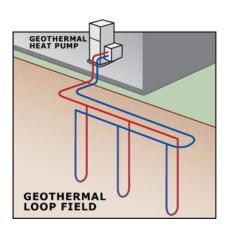




 $https://www.rigzone.com/training/insight.asp?insight_id=295$



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http://www.heddenbroswelldrilling.com/geothermal.html

If you have dug a big deep hole from which you extracted the coal then create an upper and lower lake Pumped Storage Hydro you can make

From coal get other molecules directly
Carbon fiber and polymers if cooked correctly
Think composite planes and wind turbine blades
A new economy for miners and all sorts of skilled trades

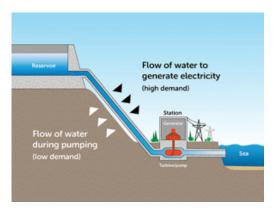




https://www.materialstoday.com/carbon-fiber/features/carbon-fibre-producers-optimistic-in-downturn/



https://www.kolotv.com/content/news/Push-to-close-last-Nevada-coal-plant-centers-on-money-416509173.html



https://www.energy-storage.news/news/energyaustralia-ponders-worlds-largest-seawater-pumped-hydro-energy-storage

https://www.sciencealert.com/scientists-spot-530-000potential-pumped-hydro-sites-to-meet-all-our-renewableenergy-needs

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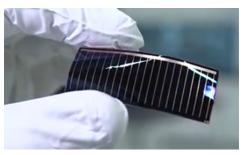
Process old coal ash, it's a resource to generate cash: Extract valuable "toxic" metals, and last, make concrete and offshore turbines' ballast

Market the minerals well and make many a GaAs solar cell Waste nothing and be resource efficient Symbiotic thinking is key to being proficient

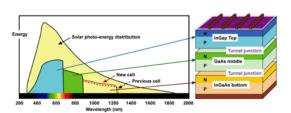




http://appvoices.org/coalash/



https://www.altadevices.com/technology/

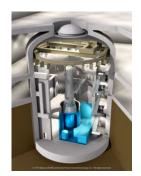


http://www.sharp-world.com/corporate/news/130424.html

Power from the atom is part of the answer to help ward off painful climate change cancer Modular standardized reactors can be done right and they will ensure the lights burn through the night

Nuclear fuel from the sea
can give us endless power CO2 free
Robotically process or bury spent fuel on site
re-use and vitrify to prevent hazardous waste blight





http://powertrends.blogspot.com/2010/07/s mall-modular-reactors-fun-and-exciting.html



https://www.npr.org/sections/thetwo-way/2017/01/13/509673094/miniaturized-nuclear-power-plant-u-s-reviewing-proposed-design



https://www.sciencedirect.com/science/article/pii/S2213138814000848

We need a resilient electric grid so of reliability worries we can be rid All help with a small extra fee to remit We can bury the lines for power we transmit

Batteries can share and smooth the load to store energy and propel us down the road Auto companies and workers need not suffer a rift Excess capacity to make renewables can help the shift





https://spectrum.ieee.org/energy/the-smarter-grid/utilities bury-more-transmission-lines-to-prevent-storm-damage



https://www.voutube.com/watch?v=ie5INaMXN5Q

https://new.abb.com/systems/hydc

https://gas2.org/2017/04/26/total-electric-cars-decrease-demand-gasoline-2030/



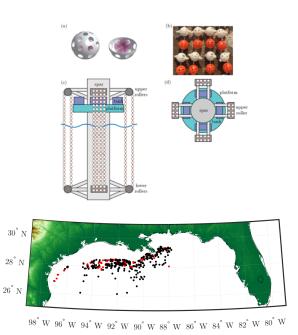
https://www.teslarati.com/tesla-gigafactory-1-solar-rooftop-array/

1/8/20 20

A green new deal Could have great appeal But as with each new revolution before History teaches energy and minerals we will need more

It will take massive amounts of metals to be newly mined while on the land there are not enough to nicely find they exist abundantly dissolved in the ocean Industry just needs to be set in motion









The Middle East's oil has generated incredible wealth! but is it worth a future of ever worsening health?

Long ago the region was the cradle of civilization

Now become a catalyst for climate salvation

All the countries in the region
Form a renewable energy legion
In your hearts you know what to do
To us all, Mother Earth, and Allah be true





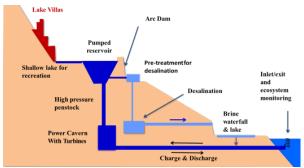
It can be foreseen that from every Arab Nation there can be brotherhood and reconciliation Trade weapons of death and destruction for renewable systems construction

Together build resilient and renewable energy systems on land with pumped seawater hydro storage for power on demand Fresh water flowing freely from desalination

Lead the rebirth of human civilization







http://www.sciencedirect.com/science/article/pii/S2213138816300492 https://www.youtube.com/watch?v=4gboKpiqWTY



https://www.siemens.com/ma/en/home/company/topic-areas/ingenuity-for-life/tarfava-wind-farm.html



https://www.power-technologv.com/projects/sweihan-photovoltaic-independent-nower-project-abu-dhahi/

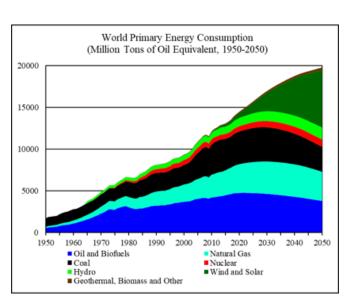
All war torn and gang infested lands
People come together with helping hands
Cast aside differences and human madness
Build new economies and chase away sadness

Let the sun shine on solar panels making power for all and even more from wind turbines standing tall Renewable power built by workers skilled A bright future for us all we can build





https://www.dw.com/en/global-conflict-continues-to-rise-index-shows/a-44090159



http://peakoilbarrel.com/world-energy-2018-2050-world-energy-annual-report-part-1/

Help us oh great leaders of the world's many devout
Please pray, stand up, preach and loudly shout!
It's time to end all the distrust, war and hate
People and planet together can all be great

Its been said in many different ways
How each of us should live out our days
How we should be kind and truthful to each other
Let it also be said we must treat the planet as our mother

- And I brought you into a plentiful land to enjoy its fruits and its good things. But when you came in, you defiled my land and made my heritage an abomination. <u>Jeremiah 2:7</u>
- But ask the beasts, and they will teach you; the birds of the heavens, and they will tell you; or the bushes of the earth, and they will teach you; and the fish of the sea will declare to you. Who among all these does not know that the hand of the LORD has done this? In his hand is the life of every living thing and the breath of all mankind. <u>Job 12:7-10</u>
- Indeed Allah will not change the conditions of a population until they change what is in themselves. Qur'an 13:11
- Pancha Mahabhutas: Five Great Elements (space, air, fire, water and earth); and Dharma (cosmos), Karma (ourselves), Ahimsa (non-violence), & Sanyasa (restraint) <u>Hinduism and Buddhism</u>
- "Mathematics is the language in which God has written the universe" Galileo Galilei
- "Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world." <u>Albert Einstein</u>

When the sun and wind brings power to me and you We can all together be eatin' that rainbow stew Nelson Mandela's ideas for reconciliation can be a key to decarbonization

Prisons must become a place to rehabilitate Learn useful skills and not just incarcerate Opportunities for all can stop the hurt Even if just to plant trees in the dirt





https://energynews.us/2018/12/03/midwest/minnesota-prison-program-aims-to-prepare-inmates-for-solar-iobs/



http://www.clog-online.com/news/announcing-clog-prisons/







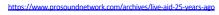
https://www.nh.gov/nhdoc/divisions/corrrectional/index.html

This is a call to all earth's song writers and musicians please become the planet's climate physicians Climate change causing many a yelp we are desperate for your help

We need to all to raise their voices and harmonize to sing aloud *Yes We Can* rapidly decarbonize Bring on lots of concerts for climate aide invest in renewables the money made











https://www.farmaid.org/press-release/farm-aid-2018-sells-out-four-hours/

As sure as the sun sets, we are in charge of our fate but we all must make haste and not stagnate
We can control pollution, hunger, and strife and together paint a joyful canvas of life



The vote must be unanimous

Make All Great And Magnanimous
Our actions must show the world we care
A model for peace and prosperity everywhere!



Put The World First

Marc Graham and Alex Slocum, http://www.untoldrecords.com/marcgrahamphd/worldfirst3.mp3

The most important calculations are those that will save nations, Like building wind plantations, instead of more gas stations, And seeking new destinations in space, is complicated, The Earth is worth saving from troubles that we created, It's time to double efforts, in land, water and sky, It's time to come together, it's time to solarize, The answer is blowing in the wind and flowing in the water, The polar caps are melting, sea levels are on a rise, Surprised that super storms still haven't opened our eyes, Some scientist theorize, and politicians decide, That man is not at fault, so they gamble with our lives, Let's get off the sidelines and show we're not psychotics. Insane, awaiting change from the same planned periodic, Debates with fate at stake, of our consequent generations, Reversing the complications, requires more impatience, No time to be wasted, this fight is not symbolic, A catastrophic plight, or relationship symbiotic... Decide... It's Time...

Action, no longer passive, too massive to stagnate,
Reaction, we seize the moment, accelerate to create,
With force, remove mobs from desperate situations,
Renewed energy jobs, will lay the foundations,
Question, research, guess, test, analyze with a passion,
'Cause building what we create, is the prevalent high fashion,
Our fate's in our control, so let's stand hands united,
The only way we'll fold, is in a world divided
It's time we all put the World First