

For my friends,
who taught me what it means to have a community of people
who share big ideas and big dreams, and who care about truth.

For Nay Petrucelli, Joseph Capriotti, Eliezer Yudkowsky, and Geoff Anders,
who taught me to care, to believe in humanity, to act on that belief.
Who taught me that something more is possible.

For my family,
who taught me what it means to come together during the winter,
to love each other, and to sing.

For anybody who strives to make their world a little less ugly.
Less a sea of blood and violence and mindless replication.

For a child,
who might or might not be born, five thousand years from now.
Who might or might not think to ask their parents:
“Where does love come from?”

The background is a dark, starry night sky with a bright moon in the upper right. In the foreground, a family of three (two adults and a child) is silhouetted against a snowy, illuminated landscape. A large, dark tree stands to the left of the family. The overall mood is mysterious and somber.

Like most things,
winter was once a mystery.

The world grew cold, and dark.
The sun withdrew, leaving us with only the pale moon,
and stars that lay unimaginably far away.

Life became fragile. People died.
And they didn't understand what was happening, or why.

They desperately threw festivals in honor of sun gods with all-too-human motivations, and prayed for the light's return.

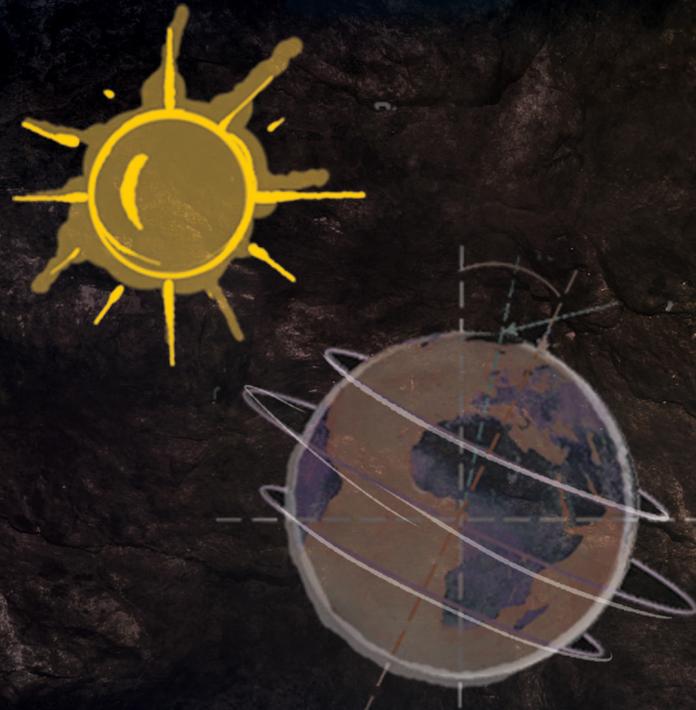


It didn't work.



(Although we did learn that throwing giant parties in the middle of winter is an excellent idea.)

But then, something incredible happened.

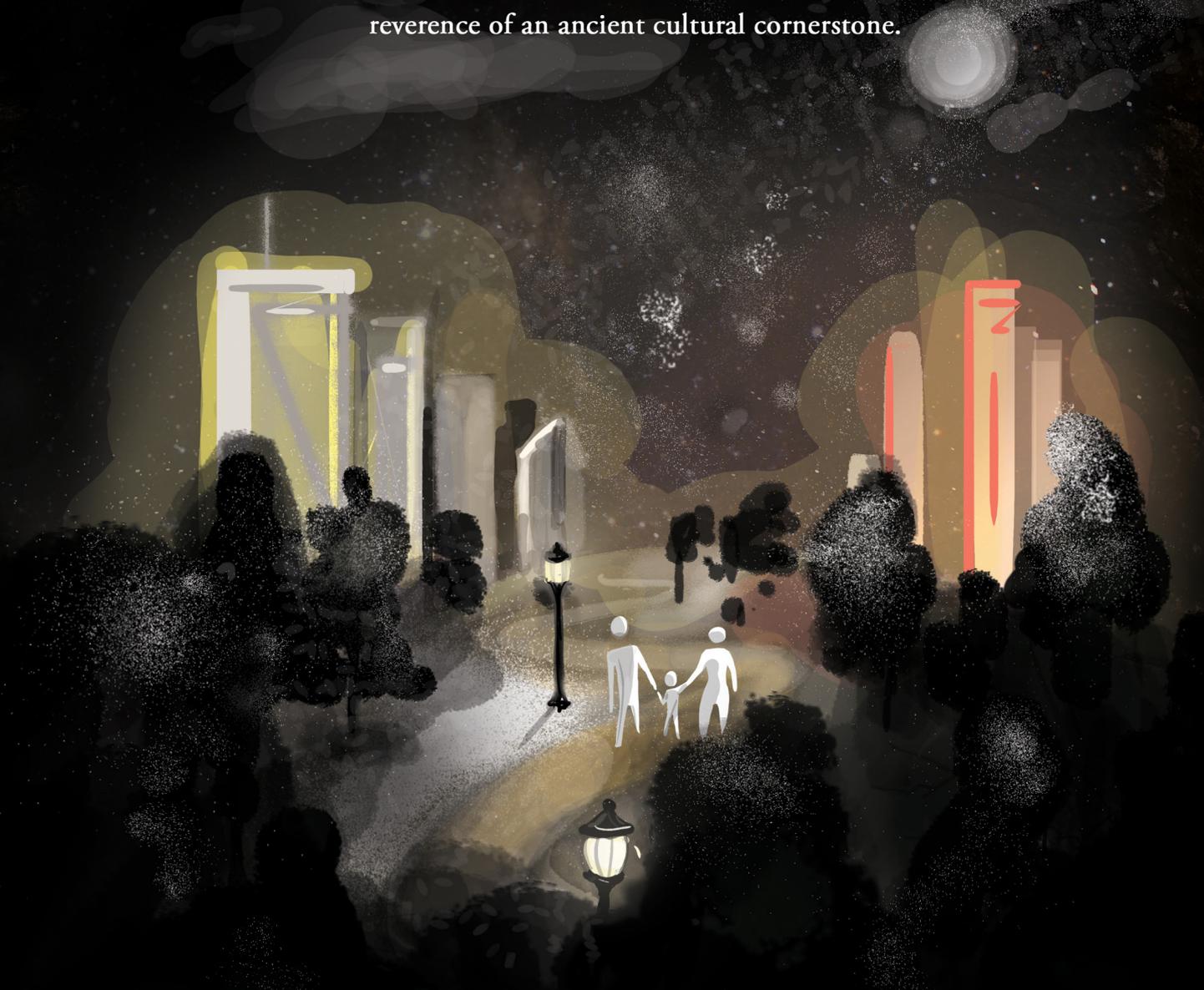


We studied the sky. We invented astronomy, and agriculture.
We began a long journey towards truly understanding our place in the universe.

And we used that understanding to make our world better.

Thousands of years later, winter isn't so scary.
But the symbol of the solstice - the departure and return of the sun, is still powerful.

The work we've done to transform winter from a bleak
season of darkness into a festival of light deserves a holiday with all the
reverence of an ancient cultural cornerstone.



And the most inspiring thing?
The knowledge that our journey is only just beginning.

*This book contains a collection of traditions and rituals,
to be performed by humanists on Solstice Eve.*

*Rituals do not appear, at first glance, to have a practical benefit.
They are symbolic actions. We participate because they have emotional power.*

*That power is real – symbols matter quite a good deal.
But they only matter insofar as humans willingly assent to them.
Humans must understand that symbolism, draw strength from it,
and then pour their own emotional energy back in.*

*A ritual you don't care about will feel meaningless.
A poorly executed ritual can drain that energy away.
But a good ceremony, full of people who take those symbols
seriously, can magnify your emotions and transform you.*

*It's difficult to create ritual from scratch.
To be effective, it must have a timeless quality about it.
It needn't actually be timeless – there are plenty of good Christmas
songs only a few decades old. But it must have the feel of
something extremely familiar, personal, and sacred.*

*Most traditions are not created – they evolve. The evolution of ideas is not
quite so blind or mindless as organic evolution, but it is a similar process.
It often produces valuable subtleties that nobody intended, yet which
would have been very difficult create by intelligent design. It includes
in-jokes and absurdities that let you know you are among friends.*

*But sometimes, you just don't have access to the tradition and
ritual you want. You want something timeless and powerful that speaks
to your highly specific, complex, nuanced and slightly weird beliefs.*

*I have some oddly specific, nuanced, and weird beliefs.
And I had the hubris to arrange a night of carefully designed
ritual for myself and my friends to celebrate them.*

Perhaps others may learn from my example, for good or for ill.

But! Warning!

*Ritual can be powerful and beautiful, but it can also be dangerous.
It can be a carrier wave for ideas, and sometimes, ideas can turn out
to be wrong. The fun or beautiful songs and games that propagated that
idea can become oddly hollow, or worse, dangerous.*

*The memes carried by this book are not ancient, quaint concepts
that we pay lip service to. They are ideas that we think are important to
consider, based on our current understanding of the world.
And when you take an idea seriously, it is all the more important
to be able to surrender it, if you turn out to be wrong.*

*Every year, every single one of these songs, stories and poems
is to be reconsidered. To some extent, simply to improve upon
their beauty. The songs that are not so pretty nor quick to remember,
it's okay change them or let them die. Try new ideas. Experiment.
And if you feel you can make sweeping changes with an artist's
touch and an engineer's precision, try that as well.*

*But above all, consider whether a song communicates truth or falsehood.
By your latest, best understanding of the world: does this song or story
communicate an idea or emotion that is valuable, or dangerous?
Has a once good idea begun attracting more emphasis than it deserves?*

*Art is not about literal truth, but about giving valuable emotional weight to true things.
I leave it to you to decide what is beautiful and good and what is not.
Only you can protect yourself against the possibility of insanity.*

If there is any single thing this book means, it is this:

*You must decide alone.
But you are not alone.*

Commentary on Commentary

Throughout this book, there will be commentary written on black pages, on the left-hand side as you see here.

The comments are generally chosen to give emphasis and context to the book, but if you are the sort of person who likes to experience art without commentary, you may wish to skip over it on your first pass through.

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Imagine no religion. (No, seriously)

Creating a Holiday

Imagine a world where religion was never even a thing. Nobody ever made things up when they didn't know the answer. They just said "I dunno?" until they figured it out. Nobody prayed for rain. Atheism wasn't a word anyone ever bothered to invent.

What kind of holidays did they celebrate anyway?

Three years ago, my local rationality community wanted to celebrate a winter holiday. And not a glib, tongue-in-cheek affair like Seinfeld's Festivus ("for the rest of us!"), or a sarcastic tribute to the Flying Spaghetti Monster. We can be silly and sarcastic sometimes, but we also wanted to take time to reflect seriously on ideas that were important to us. Atheist culture lends itself well to ridiculing something silly, but hasn't done as well at helping people experience wonder together.

A lot of non-religious people are happy to celebrate "Secular Christmas." Keep the presents, keep the warm, family togetherness. Keep the decorations and the carols you like. Just... don't pay special attention to that Jesus fellow, who wasn't actually born on December 25th anyway.

That wasn't good enough for me.

My family is half catholic and half atheist, but we celebrated Christmas with gusto. We had the big Christmas feast. We sang carols for hours, while literally roasting chestnuts over an open fire. Then a bunch of cousins sat around my grandmother's lap while she read "The Night Before Christmas."

And the thing is, even though I don't believe Jesus was especially important... there is a power to those stories. When you listen to certain Christmas carols, you can tell that whoever wrote them cared incredibly passionately about the image of this child, born into poverty on a cold winter night. A child so important that kings traveled for miles and sat next to shepherds, to pay their respects.

There's a particular quality that religious songs can have, but which secular songs rarely do. A sort of transcendence that can be either glorious or quietly reverent. And this isn't because they invoke the supernatural. It's because they tap into messages that are both cosmic and intimate. They tell stories that feel profound. Stories that give people a sense of meaning and narrative in a scary, confusing world.

Now, this book is written for people who care about truth – even when that truth doesn't make a very good story. Even when it turned out that something we cherished was a lie. This book is for people who believe that God probably doesn't exist. That humanity wasn't created on purpose, that the world is unfair, and that we have only each other to make that world better.

But more importantly, it's for people who believe that we *can* make that world better. That evidence and reason are important tools in figuring out the rules that our universe runs on, and that we can use our understanding of those rules to save lives, to help each other find happiness, and fulfillment.

That life can be hard, or even impossible sometimes. But we have to try. And even if there's no God watching, we're not alone.

This book is for people who think that's worth celebrating.

Ritual Components

To conduct a Solstice, you will need some things. Some of those things are people, with particular skills. If you know what you're doing, I heartily recommend that you experiment, try new things, and see what works for your group. But if you're not sure, here's a good starting point:

Participants. This is the most important part. You need the majority of those participants to earnestly want to be there, to care about the ideas your celebrating. You need people who care willing to sing. (*Not* necessarily people who are good at singing. Anyone can sing, and your goal is not to sound like professionals. Your goal is to have fun and feel connected.)

Organizers. You will need some people who can get people to do things (like contribute food or music). You will need people who can cook (or acquire takeout, if that's your thing). You'll need people with enough musical skill to lead others in song, and people who are willing to tell stories. Depending on which of these songs and stories you include, you will likely want two candlebearers who perform a duet and a dialogue together.

Food. Sharing food is one of the most ancient ways that humans built trust and connection. If you have less than 20 people and can fit around a table, I recommend having a sit down meal, where you begin by talking about why your there and why you're grateful for each other. If possible, find recipes that are unique or rare. There's a value to having *special* food (i.e. Grandma's peppermint cookies or Uncle Jack's mince pie) to look forward to all year. And if you have more than 20 people, it'll be hard to have a unified experience at dinner, but you can still have a couple hours before the ceremony to catch up with old friends and make new ones.

Light sources. These can be candles, lanterns, electric lights or anything else you can find. It can be fun to have a variety of lights with different levels of technological sophistication, symbolizing the progress of humanity.

Lyrics. One way or another, people need to know what to sing. You can go to the resources tab at humanistculture.com and find either lyric sheets to print out or a PowerPoint to display on a projector. (A projector is much better if you have it – that way everyone is focused on one place instead of crinkling papers in their lap).

Gifts. Giving each other presents is another ancient way of forming connection – but it's often tricky to do right. When you give each other out of obligation, hastily running to the store to grab *something* without putting thought into it, it can become more of an economic exchange than a gesture of love. There's also an important, childlike magic that comes when a gift is *immediately fun*. I recommend finding at least some gifts that you can start playing with and sharing as soon as you open them.

A Ritual Space. There is a particular power to having a designated space for ceremony. You cross a threshold, and it helps your body and mind transition into a particular mindset. It can be as simple as crossing from the dining room to the living room. For best effect, start the ceremony with the lights dimmed, and then ignite your light sources when you are ready to begin the ceremony proper.





Stonehenge

The Winter Solstice is the longest night of the year. It ushers in a time of cold and darkness.

It marks the beginning of the light's return. But it is *not* the end of the cold. For months afterwards, food is scarce and life is fragile.

For young civilizations, it was a time when if you *hadn't* spent the year preparing adequately for the future, then before spring returned, you would run out of food and die. If you hadn't striven to use your tribe's collective wisdom, to work hard beyond what was necessary for immediate gratification... if you hadn't harnessed the physical and mental tools that humans have but that few other animals do...

...then the universe, unflinchingly neutral, would destroy you without a thought. And even if you did do those things, you might die anyway. Fairness isn't built into the equations of the cosmos.

But it wasn't just the threat of death that inspired the first winter holidays. It was that sense of unfairness, coupled with the desperate hope that the world couldn't really be that unfair. It wouldn't have occurred to the first squirrels that stored food for winter, but it gradually dawned upon ancient hominids, as their capacity for abstract reasoning developed, alongside their desire to throw parties.

Our tendency is to anthropomorphize. Since ancient times, we've seen faces in the clouds. Today, we angrily yell at our cars and computers when they fail us. Rationally we know they are unthinking hulks of metal, but we still ascribe malevolence when the real culprit is a broken, unfeeling machine. For whatever reason, animals of all kinds have a tendency to see patterns in the noise, even when no patterns exist. There is a natural yearning to find meaning in complexity.

One way or another, we told stories about gods, with human motivations. And we honestly believed them, because there was nothing better. Many natural forces were just too complex for early humans to be good at predicting. The rain would come, or it wouldn't, no matter what stories we told.

And then, we had the solstice.

The world was dark and cold. The sun was retreating, leaving us only with the pale moon and stars that lay unimaginably far away. There was the encroaching threat of death, and just as powerfully, there was the threat that sentient cosmic forces that held supreme power over our world were turning their backs on us. And the best we could hope for was to throw a celebration in their honor and pray that they wouldn't be angry forever, that the sun would return and the world would be reborn.

And regardless, take a moment to be glad for having worked hard the previous year, so that we had meat stored up and wine that had finished fermenting.

But as ages passed, people noticed something interesting: there was a pattern to the gods getting angry. Weather may be complex and nigh-unpredictable. But the movements of the heavens... they follow rules simple enough for human minds to understand, if only you take the time to look.

We had a question. "When will the sun retreat, and when will it return?"

When you really care about knowing the answer, you can't make something up. When you need to plan your harvest and prepare for winter so that your family doesn't starve, you can't just say "Oh, God will stop getting angry in a few months."

If you want real knowledge, that you can apply to make your world better, then you need to do science. Astronomy was born.

I want to give you some perspective on how much we cared about this. Stonehenge is an ancient archaeological wonder. To the best of our knowledge, it began as a burial site around 3000 BCE. Over the next thousand years, it was gradually built, in major phases of activity every few hundred years. Between 2600 and 2400 BCE, there was a surge of construction. Huge stones were carted over huge distances, to create a monument that's lasted five thousand years.

Thirty Sarsen stones, each twenty-five tons, carried over twenty five miles. Eighty bluestones. Four tons each. Each of them carried over *one hundred and fifty miles*. All of this, in an era where the height of locomotive technology was "throw it on a pile of logs and roll it."

We don't know exactly how they did all this. We don't know all the reasons why. But we know at least one. The megaliths at Stonehenge are arranged, very specifically, to predict the Solstice to the moment of dawn.

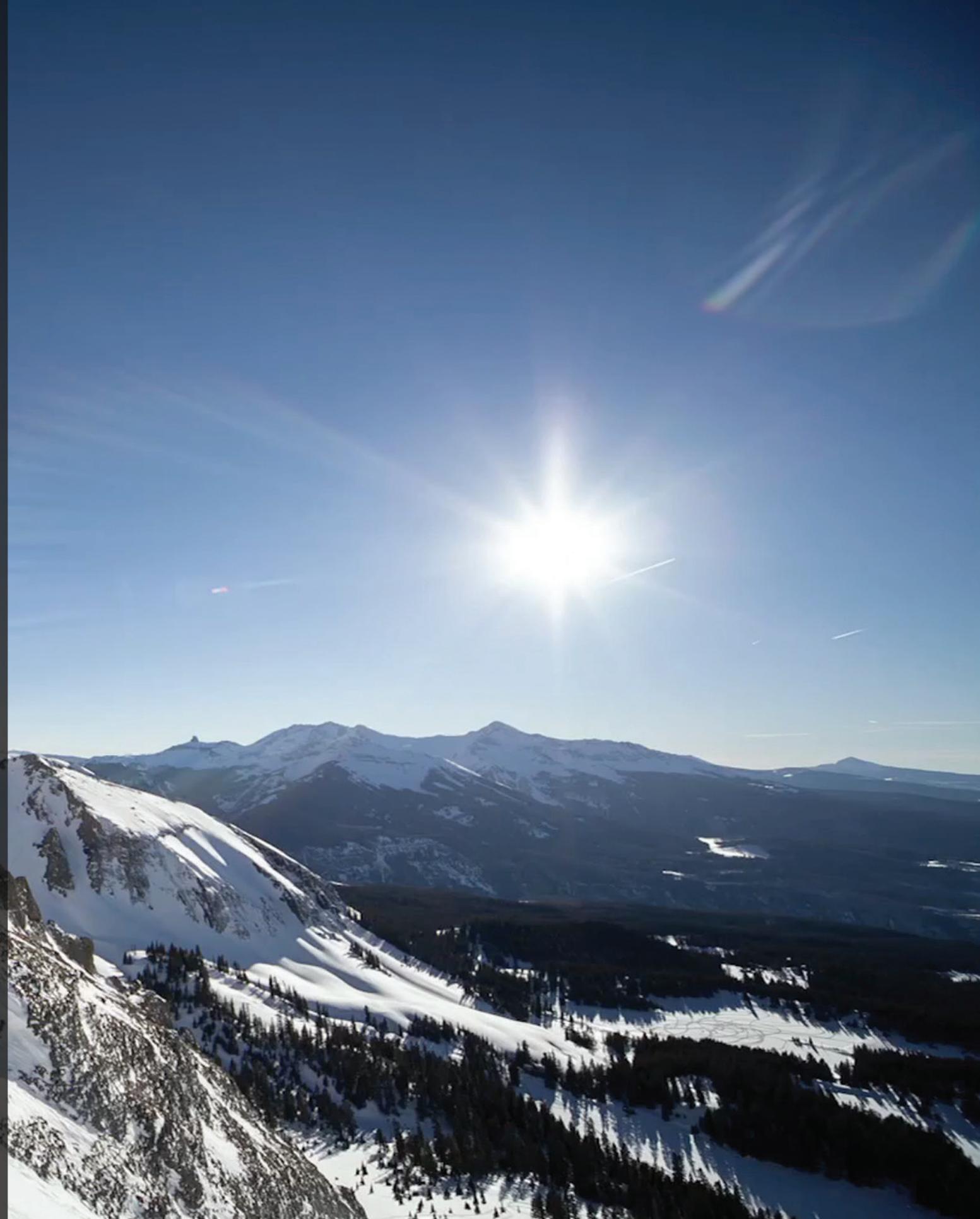
Thirty Sarsen stones, each twenty-five tons, carried over twenty five miles. Eighty bluestones, each four tons, each carried over *one hundred and fifty miles*.

Two hundred years years of that.

That's how much we cared about the answer to that question.

Light

(Ignite your light sources)



First Litany of Tarski

If the sky is blue,
then I desire to believe the sky is blue.

If the sky is not blue,
then I desire to believe the sky is not blue.

Let me not become attached to beliefs I may not want.

*(At this time, someone should run outside quickly, to check what color the sky is.
If you are celebrating in Manhattan at night, the answer is likely "greyish red.")*

*Your answer may vary though. People who were correctly imagining the color of the sky
should congratulate themselves on not blindly surrendering to cached thoughts or groupthink)*

Commentary on the Litany of Tarski

People get attached to ideas. The truth can be uncomfortable.

The Litany of Tarski is a tool for such a time. It changes every time you say it, following a simple template: “If X is true, then I desire to believe X is true. If X is *not* true, then I desire to believe X is not true. Let me not become attached to beliefs I may not want.”

It’s a simple reminder, that whatever the truth turns out to be, it’s better if you face it.

The interesting thing is that the Litany of Tarski is almost always true. No matter *how* certain you are about the proposition you’re considering, it’s worth taking a step back and remember that if you turned out to be wrong, you’d want to change your mind. If God existed, you’d want to know about it. If a political cause you supported turned out to be harmful, or if a friend of yours had betrayed your confidence, you’d probably be better off knowing so that you could make an informed decision about what to do next.

It’s important not to just recite the words. Think before you say it, consider each notion. Imagine the world where the proposition is true, and the world where it is false. Remind yourself that whatever turned out to be the truth, you would be able to deal with it.

We recite the litany several times during the Solstice, to consider different beliefs and illustrate different underlying ideas. Each year, some litanies change. Sometimes they’re a bit silly, sometimes poignant, sometimes dead serious.

Sometimes, like this first one, a little bit tricky, to keep you on your toes. No, the sky is not always blue!

A Story of Voices

Written by Alex Federici and Raymond Arnold

It was a very big question we were asking. “When will the darkness come, and when will the sun return?” Answering that question was monumental. No one person can move 50,000 pound stones. It would require community, exchanging ideas. A collaborative effort.

How exactly does a village of hairless apes coordinate to spend two hundred years moving boulders?

Let’s step back a minute.

Imagine a time, not so long ago, when we were at the utter mercy of nature. We had few tools, little knowledge about how to shape the world around us. Imagine a time that the blizzards came and the food was scarce and our furs and fires weren’t enough, when we huddled together as tight as we could and still our bones were soaked and frozen and aching.

“Invent agriculture and architecture” were not ideas that could occur to anyone just yet. There were too many basic concepts we were missing. But there were a few things we knew.

Sometimes, when life was hard, when we were injured or sick, we would cry out for help. And sometimes, if we cried out loud enough, our fellow humans would come, have mercy on us, and take the time to give us aid and shelter.

Outside was a world of howling winds, spiteful blizzards, and a giant light in the sky that seemed to be vanishing. And our human brains, adapted to understand and form relationships with other humans, had a thought:

Maybe, if we cry loud enough, someone out there will listen.

Maybe I can’t cry loud enough, by myself. Maybe I’m too small and weak and whoever’s out there too vast and powerful to care about someone like me. But if I cry out for help, and *you* cry out for help... if we *all* cry out together...

Maybe we can become loud enough that the forces beyond will listen, and grant our prayers.

There may have been a time when, with our limited knowledge, it seemed that our rational best effort would be to join our voices. We could form a resounding, singular chorus, strong enough to pierce the howling wind and sway the world to be more forgiving.

Now, the beings we imagined ourselves speaking to may not have existed. And the world we cried out for leniency to may have been deaf to our pleas. But, in a very real way, those early vocal rituals had a kind of magic that began turning the tide in our favor, as a species.

That magic was not in our voices' ability to speak to the gods and transform our world, as we once thought, but in our ability to speak to one another and transform ourselves.

It was in the glorious syncopation of emotion that comes from the joining of voices in a large group. It was in the adrenaline coursing through your veins when you heard your voice echoed amongst dozens of others. It raises the hair at the nape of your neck, calling you to action. That bond, that community, that voice, dragged those stones as much as any understanding or knowledge of our world.

It boggles the mind, when you think about it.

A blind, evolutionary process carved a hole in the front of our body. Long before we were human or bipedal or even mammal, there was this opening in our living body, honed to consume other living bodies. And sacs of flesh in our chest, honed over aeons to pull in the atmosphere around us. A wind pipe that, through an accident of evolution, we were able to modulate – so that our breath could howl and change in pitch, like the wind through the trees.

What a funny thing, that our pattern recognizing brains – evolved to differentiate lion's roar from a baby's cry – could notice different ratios in the frequencies of sound. That different sounds could please us. Calm us. Excite us. Bond us.

And those different frequencies of sound could be precisely arranged. So that you could hear my words and know what was happening in my mind. So we could share each other's thoughts.

What a funny thing our voices are. What a funny, powerful thing.

Imagine yourself, your friends and family, unprotected and unknowledgeable. Your world growing colder with each passing day. Not knowing what the future may bring, but hoping that together, with our voices in unison, we may survive and, one day, flourish.

And, together, we sing...

Bring the Light

A tribute to the sun, and the stories we have told of it

Written by Alex Federici

Bring the light...

Bright the li-ight...

Oh bring the light and let it shine on me.

Bring the light (*Bring the light*)

Bring the li-ight (*Bring the li-ight*)

Oh bring the light and let it shine on me.

Drive your chariot (*Drive your chariot*)

Pull the flame (*Pull the flame*)

Oh bring the light and let it shine on me.

Eat the sky (*Eat the sky*)

Make it bleed (*Make it bleed*)

Oh bring the light and let it shine on me.

Speak the word (*Speak the word*)

Let it be (*Let it be*)

Oh bring the light and let it shine on me.

Stardust falling (*Stardust falling*)

Fusing heat (*Fusing heat*)

Oh bring the light and let it shine on me.

Bring the light (*Bring the light*)

Bring the li-ight (*Bring the li-ight*)

Oh bring the light and let it shine on me.

Bring the light (*Bring the light*)

Bring the li-ight (*Bring the li-ight*)

Oh bring the light and let it shine on me.

Bring the Light and the Arc of the Solstice

The first song of the Solstice had a lot of work cut out for it. We're embarking on three different journeys, and "Bring the Light" needed to launch us along each one.

The first journey is an emotional one. We follow the arc of the Solstice itself – beginning with light, transitioning into absolute darkness, and then returning to light. This transition is built into the structure of the evening in several ways – literally beginning with bright lights that are gradually extinguished. We start with loud, boisterous songs before transitioning to more somber, poignant music – and then ending with another kind of brightness, triumphant, transcendent and proud.

We also begin a historical journey. We live today in an amazing world, where winter isn't life or death. That's worth celebrating. But to appreciate that, it's helpful to first remember a time when that wasn't the case. The Solstice begins within the mindset of ancient people, celebrating each of their achievements and revolutions in turn. Bring the Light showcases several different mythologies of the sun – Apollo from the Greeks. Rangi the sky father from the Maori. Christianity. It ends with our present, scientific understanding.

Thirdly, a journey of musical skill.

From the dawn of history, until just a few decades ago, music was part of human life. If you wanted music, you had to create it yourself. And it was normal, expected for people to sing together – in their living rooms, in their car.

Then we invented small earbuds, and somehow music – a phenomenon that we evolved to bond our communities – became an oddly isolated, personal experience. In many cultures, we think of music as a talent that superstars have, not a basic human skill that anyone can develop.

Anyone can learn to sing, but there are a few skills to learn. The music of the Solstice is designed to teach those skills, in turn.

The first such skill is simple, but important – you are allowed to sing. Loudly. It doesn't matter if you think you're any good. You have a human voice, and a human body that will respond with adrenaline and joy when surrounded by the voices of your community.

Bring the Light is there to help you learn that.



Chasing Patterns

Written by Raymond Arnold

*Open eyes and open mind
You seek the truth that you will a way
Hey hey hey*

*Open eyes and open mind
You seek the truth and you will find some day.
Hey... hey... hey...*

Chasing patterns in the sky
Tracing line from star to star
Look around and wonder why
Where we going? Who we are?

Vernal flower, summer breeze
Cricket wings and autumn leaves
Fractal patterns, golden mean
Whispers of a world unseen.

*Open eyes and open mind
You seek the truth that you will a way
Hey hey hey*

*Open eyes and open mind
You seek the truth and you will find some day.
Hey... hey... hey...*

Chasing patterns in the sky
Feeling lost, alone and small
Birds depart and crickets die
Frost enroaching, winter falls

Track the omens, year by year
Fit the pieces, best you can
Tell a story they can hear
Something they can understand

*Open eyes and open mind
You seek the truth that you will a way
Hey hey hey*

*Open eyes and open mind
You seek the truth and you will find some day.
Hey... hey... hey...*

Chasing patterns in the sky
Seasons turn and stories change.
Weather vane and satellite
Rising tide and hurricane

Spiral arm and golden mean
Tracing line from star to star
Seeking worlds yet unseen
Where we going? who we are?

*Open eyes and open mind
You seek the truth that you will a way
Hey hey hey*

*Open eyes and open mind
You seek the truth and you will find some day.
Hey... hey... hey...*

*Open eyes and open mind
You seek the truth that you will a way
Hey hey hey*

*Open eyes and open mind
You seek the truth and you will find some day.
Hey... hey... hey...*

Move the World

A rap / folk song about levers and metaphors

Written by Raymond Arnold

(spoken)

Archimedes said if I wanna move a load,
Gotta get myself a lever, gotta lay it on a fulcrum.
Little bit of effort over quite a bit o' distance.
I can move a load as big as I wish.

(sung)

*I can move the world (Move the world!)
If my lever's long enough I'll move the world (Move the world!)
If I got a place to stand I'll move the world (Move the world!)
Making myself strong enough to move the world (Move the world!)
Move the world, if I got a good plan, yeah!*

Move the world, if I got a good plan, yeah!

But I gott' admit, that the world's pretty big
And all I got here in my hand is a pitiful twig.
But if I had a friend with a great big beam,
I could say Hey Friend, if you share my dream,

*You can Move the world (Move the world!)
If your lever's long enough you'll move the world (Move the world!)
If you got a place to stand you'll move the world (Move the world!)
Making yourself strong enough to move the world (Move the world!)
Move the world, if you got a good plan, yeah!*

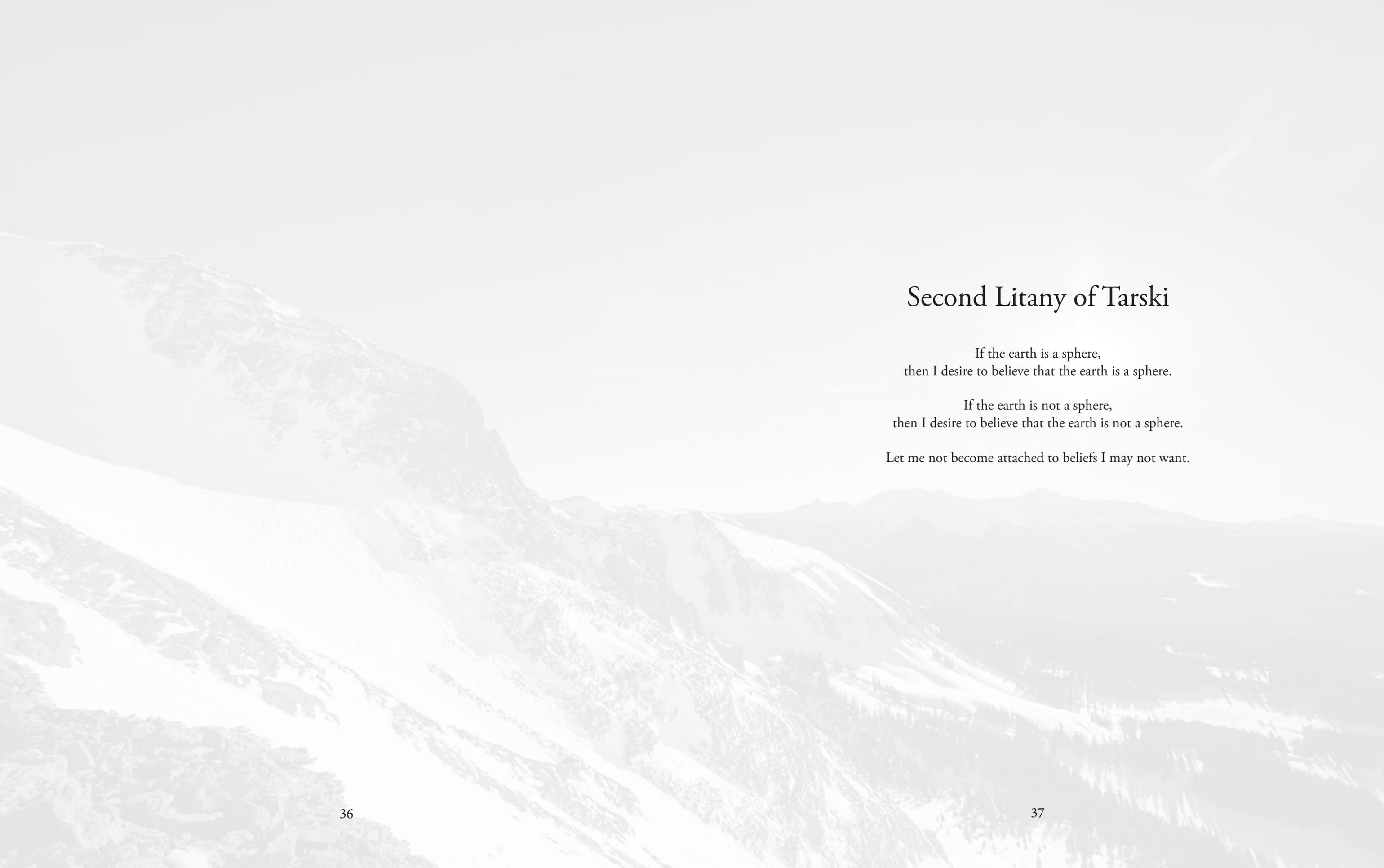
Move the world, if you got a good plan, yeah!

But it seems the beam is still not long enough.
Simple tools a pretty cool but this is kinda tough, but maybe
If we work together we can build a bigger lever,
We can make the world better if we give it a shove. We can

*We can Move the world (Move the world!)
If our lever's long enough we'll move the world (Move the world!)
If we got a place to stand we'll move the world (Move the world!)
Making ourselves strong enough to move the world (Move the world!)
Move the world, if we got a good plan,*

*We can move the world (Move the world!)
If our lever's long enough we'll move the world (Move the world!)
If we got a place to stand we'll move the world (Move the world!)
Making ourselves strong enough to move the world (Move the world!)
Move the world, if we got a good plan,*

Move the world, if we got a good plan,



Second Litany of Tarski

If the earth is a sphere,
then I desire to believe that the earth is a sphere.

If the earth is not a sphere,
then I desire to believe that the earth is not a sphere.

Let me not become attached to beliefs I may not want.



An English literature major once wrote to Isaac Asimov, criticizing him for claiming that we lived in an age where we had finally gotten a basic understanding of the universe straightened out. *“People in each century have thought they understood the universe at last, and each of them has been wrong,”* the man warned.

Asimov responded: *“When people thought the earth was flat, they were wrong. When people thought the earth was spherical, they were wrong. But if you think that thinking the earth is spherical is just as wrong as thinking the earth is flat, then your view is wronger than both of them put together.”*

- Isaac Asimov, on *The Relativity of Wrong*

Twilight

(Extinguish about a third of your lights)



Bitter Wind Blown

Written by Raymond Arnold

Sun barely rising above the horizon
Little one, little one, bitter wind blown

Flowers are withering, naked bark brittle, oh,
Little one, little one, bitter wind blown

Don't understand why the light would abandon us,
Little one, little one, bitter wind blown

And I don't know how much more he may demand of us
Little one, little one, bitter wind blown

Sun, sailing away.
I don't know where. I don't know why.
Sky, darkening grey,
wishing there weren't so many goodbyes...
little one, little one why...
little one, little one why...

Asking me questions I don't have the answers to,
Little one, little one, bitter wind blown

Watching you shiver, and I don't know what to do
Little one, little one, bitter wind blown

Maybe if we did the dance, said the words just right
Little one, little one, bitter wind blown

Maybe he'll come back maybe things'll be alright
Little one, little one, bitter wind blown

Sun, sailing away.
I don't know where. I don't know why.
Sky, darkening grey,
wishing there weren't so many goodbyes...
little one, little one why...
little one, little one why...

little one, little one why...

God Wrote the World

Written by Cat Faber

From desert cliff and mountaintop we trace the wide design,
Strike-slip fault and overthrust and syn and anticline. . .
We gaze upon creation where erosion makes it known,
And count the countless aeons in the banding of the stone.
Odd, long-vanished creatures and their tracks and shells are found;
Where truth has left its sketches on the slate below the ground.
The patient stone can speak, if we but listen when it talks.
Humans wrote the Bible; God wrote the rocks.

There are those who name the stars, who watch the sky by night,
Seeking out the darkest place, to better see the light.
Long ago, when torture broke the remnant of his will,
Galileo recanted, but the Earth is moving still.
High above the mountaintops, where only distance bars,
The truth has left its footprints in the dust between the stars.
We may watch and study or may shudder and deny,
Humans wrote the Bible; God wrote the sky.

By stem and root and branch we trace, by feather, fang and fur,
How the living things that are descend from things that were.
The moss, the kelp, the zebrafish, the very mice and flies,
These tiny, humble, wordless things---how shall they tell us lies?
We are kin to beasts; no other answer can we bring.
The truth has left its fingerprints on every living thing.
Remember, should you have to choose between them in the strife,
Humans wrote the Bible; God wrote life.

And we who listen to the stars, or walk the dusty grade,
Or break the very atoms down to see how they are made,
Or study cells, or living things, seek truth with open hand.
The profoundest act of worship is to try to understand.
Deep in flower and in flesh, in star and soil and seed,
The truth has left its living word for anyone to read.
So turn and look where best you think the story is unfurled.
Humans wrote the Bible; God wrote the world.

*...Do not all charms fly
At the mere touch of cold philosophy?
There was an awful rainbow once in heaven:
We know her woof, her texture; she is given
In the dull catalogue of common things.
Philosophy will clip an Angel's wings.*

- John Keats, *Lamia*

"Nothing is 'mere.' I too can see the stars on a desert night, and feel them. But do I see less or more? The vastness of the heavens stretches my imagination—stuck on this carousel my little eye can catch one-million-year-old light. A vast pattern—of which I am a part."

- Richard Feynman

Commentary on God Wrote the World

Each year I ask for feedback on the Solstice. My favorite comments on this song:

“Explicit science! And explicitly discussing and rejecting religion! And I’ve had this stuck in my head since the solstice.”

“Explicit theism WTF?”

“Interesting even to use the name ‘God’ as having written the world. But I like ‘Humans wrote the bible, god wrote the world.’ Small g? I am an atheist, but I can use the terms. As I see it, god can be described as love, power, the big bang, creativity, gravity, astronomy. I just don’t define it as someone who has sentience. I could go on and on... anyway, cool co-opting of the word.”

Catherine Faber, the atheist folksinger who wrote the song, had this to say about it:

“This song was inspired when a friend of mine complained to me about a run-in with some creationists, and asked ‘what can you say to such people?’ The first words that popped out of my mouth were ‘humans wrote the bible. God wrote the rocks.’”

Adrift in Space and Time

*A meditative journey, to be experienced mindfully.
The first of Seven Secular Sermons by Daniel Böttger.*

Adrift in Space and Time is the first of a series of seven poems that I’m writing: the Seven Secular Sermons. What I’m trying to do is resurrect the ancient genre of didactic poetry, which is something all world religions have, but atheism doesn’t, except for Lucretius’ masterpiece “De rerum natura” back in ancient Rome. At the same time, Adrift in Space and Time is a guided meditation that was designed to facilitate an intensely felt experience of how big and awesome the universe really is. I have found that people who haven’t been very aware of that will find this experience quite amazing. It has made people cry, it has made people appreciate the night sky more, it has made people spontaneously remember the vastness around them while in the middle of everyday situations.

Since this is a meditation, it works best when heard with eyes closed. The way you speak it makes a lot of difference. Its effect is amplified when it is heard by a group of people who don’t interrupt each other’s experience. A group of people speaking it in unison is particularly powerful. For a finale, it is good to repeat the very last stanza many times, with more speakers joining in every time, until the whole room is doing it.

Its strict meter and rhyme make it fit for use in various forms of music. You could sing it to the melodies of various songs, such as “Amazing Grace”, “America the Beautiful”, “Greensleeves” or “House of the Rising Sun”, or write your own. It works as hip hop, as dance music, and probably many other ways I can’t even imagine. This work is released to the public domain, i.e. anyone may use, change or even sell anything derived of it.

The other Sermons are coming in the next couple of years, one after the other. Due to the exceedingly formal way they are written, and due to the complexities of summarizing numerous complex ideas into poetry, progress is very slow. I hope that when they’re finished (judging by the current pace, sometime around 2022), the experience of going through all seven of them will be so intensely overwhelming it will be referred to as Mystical.

– Daniel Böttger

Now this is going to be fun!
 It truly does feel great
 to realize we all are one.
 So we shall meditate.

This meditation's rhyming verse
 describes a paradigm
 of us within the universe,
 adrift in space and time.

As we begin we simple start
 by recognizing how
 a check of every bodypart
 can help us be here now.

We feel our bellies and our heads
 and just become aware
 how arms and hands and feet and legs
 are feeling everywhere.

Between and through them circulate
 our blood-streams to refresh
 the oxygen that activates
 awareness in our flesh.

With every breath we take and leave,
 we clear our inner eyes
 and fully, lucidly perceive
 each second passing by.

Our meditative selves explore,
 and see what's to be found.
 Outside our bodies, there is more.
 Let's take a look around!

Unless we're blind we're free to see,
 unless we're deaf, to hear
 and realize we are utterly
 surrounded by what's here.

Our breaths connect within the air,
 within the atmosphere.
 The envelope of sky we share
 is also part of here.

We also share what rests beneath:
 Our bodies' place of birth
 from which came all who now here breathe
 as children of the Earth.

Of course there's more than senses show
 around us near and far.
 The sky above, the Earth below;
 there's more to where we are.

And of the Earth, we barely know
 the surface we begrime,
 upon the spinning rock below,
 adrift in space and time.

Our calm and meditating minds
 can feel this easily.
 Imagination goes behind
 all things our eyes can see.

To find, as further out we go,
 whichever way we face,
 to left, to right, above, below,
 the solar system. Space.

It's blacker than the night of course
 and bigger than the sky
 and it is hard to see because
 it was not made for eyes.

It effortlessly overwhelms
 imagination. Still
 and everywhere around this realm
 extends and always will.

Around us all and everyone
 we've met or ever can,
 extends the system of the Sun
 that dwarfs all realms of man.

Out there, all human joy and strife
 and knowledge matter not.
 Out there, this fragile ball of life
 is just a pale blue dot.

And there are other, bigger dots
 and countless asteroids.
 This Earth is one among a lot
 around us in the void.

Yet all of them combined appear
 like specks of dust compared
 to one enormous blazing sphere,
 the center that they share.

A thousand times as ponderous
 as all that circles it,
 it radiates splendiferous
 and indiscriminate.

It weighs three-hundred-thirty-three
 times thousand times as much
 as Earth, which seems like mere debris,
 a tiny circling smudge.

There's hydrogen inside the Sun
 that lets it shine so bright
 by burning up: Four million tons
 per second fuse to light.

This fusion forges helium
 and other specks of dust
 that constitute the medium
 from which grows life like us.

But near the Sun, its gamma rays
 and heat do not allow
 life smart enough to be amazed
 at what is true here now.

And further out, it stays too cold
 for molecules to toy
 with games of entropy that mould
 the life that we enjoy.

While outermost, in blackest night,
 drift frozen rocks so far,
 to them our splendid sphere of light
 looks like another star.

We're lucky Earth is temperate
 or life could not have spawned.
 This planet would stay desolate
 and all of us unborn.

As fully as we do depend
 on Earth that we live on,
 we also clearly understand
 we're children of the Sun.

And yet the Sun, though all must spin
 around it, merely is
 a rare domain of light within
 a yawning black abyss.

In outer space surrounding us
 lie distances too great
 for us to easily discuss
 or even contemplate.

For space is mostly nothingness
 around us everywhere,
 the freezing dark is limitless
 in empty space out there.

Of course there is some gravity
 that massive things impart
 and maybe some dark energy
 that pushes them apart.

But nothing's there to hear or see
 or smell or taste or touch
 and trying to imagine, we
 can think of nothing much.

And still we feel, for what that's worth,
 beyond the seen and near
 the vastness outside planet Earth
 that's real now and here.

In meditation, we somehow
 expand our minds to try
 to feel the system we are now
 and here surrounded by.

The moons and planets we can see,
as far as we have found,
are lifeless. Earth now seems to be
the only game in town.

Yet all these places we could go
and cultivate and fill,
are merely specks in what we know
remains much bigger still.

The stars, these many tiny lights,
each are a blazing sun
and circling them, caught in their might,
are planets being spun.

Yet humans cannot see that far.
The pixels of our eyes
are just too few, which is why stars
look like they're equal-sized.

Through telescopes, we understood.
The stars all shine so bright
that only monstrous distance could
dilute them into night.

These distances define the space
that all stars occupy
and make a single, real place
that we're surrounded by.

The stars that shine all night and day
within or out of sight
are what our home, the Milky Way,
appears like from inside.

Our Milky Way contains at least
one hundred billion suns.
Through gravity, they all are pieced
together into one.

Around this place, where we now feel
what we are breathing in,
these suns form one tremendous wheel
with one tremendous spin.

And all these suns are shining clear,
enormous and sublime.
They all are real here where we're
adrift in space and time.

Unmoved by beings such as we
on Earth, our small enclave,
the stars around us now will be
the stars around our graves.

Except for those which have gone through
their hydrogen supply
and end as all things someday do,
for even stars must die.

And some, much bigger than our Sun,
burn brighter still and must
explode one day, when they are done
with making light and dust.

With their magnetic fields unfurled,
their yields annihilate
or sterilize abundant worlds
that life might populate.

Yet all we breathe and eat and drink
comes from these massive bombs.
We're supernova-dust that thinks
about where it came from.

And since the stars have made the clay
that led to our birth,
we're children of the Milky Way,
as are the Sun and Earth.

Yet further still, a million times
beyond the Milky Way,
more galaxies do proudly shine,
around us here today.

These galaxies, each huge and wide,
much like the one we're in,
outnumber all the stars inside
our home and origin.

Around where we consider this,
whichever way we face,
drift billions of these galaxies
right now, right here, in space.

We realize with utter awe
and know beyond all doubt:
Beyond this world are trillions more
that we could learn about.

From here where our bodies stay,
imagination climbs
through further outer Milky Ways
adrift in space and time.

And through the emptiness between
in almost all of space,
where not a single star is seen
in almost every place.

And meditation does allow
our minds to feel it all.
To feel the Universe that now
surrounds us as a whole.

Despite all suns that intersperse
this dark continuum,
most places in this Universe
are total vacuum.

And therefore, atoms are quite rare.
Yet trillions of them have
condensed into the flesh we wear
that draws this very breath.

Two thirds of atoms in us are
still hydrogen which sprang
into existence not in stars
but back in the Big Bang.

For all the time since time began,
as entropy made space,
each travelled an enormous span
to meet here face to face.

Through vacuum and solar flame,
they found their way somehow.
And we as that which they became,
thus came to meet here now.

Through all we breathe and drink and eat,
they travel and endow
with nutrients the living meat
in which we meet here now.

The atoms that we are traverse
all space and time, which means
we're children of the Universe
and we have always been.

The atoms in us met before
and they will meet again,
compelled by universal law
out in the there and then.

One endless cosmic maelstrom,
age-old and ever new,
is where we all are coming from
and where we're going to.

The knowledge we are made of dust
compels us to admit
the Universe is in us just
as we are within it.

From here we may arise to see
and claim as our own
the secrets of reality
just waiting to be known.

And so we know the infinite
is absolutely real.
It's here, it's now, it's intimate,
this vastness that we feel.

Whatever else is true for us,
we'll always know this rhyme.
We'll always know we're made of dust,
adrift in space and time.



When I Die

A lighthearted song about death,

Written by Glen Raphael

They may bury my body when I die
They may bury my body when I die
Near some graveyard I'll be found,
 simply rotting in the ground
If they bury my body when I die

They may burn my body when I die
They may burn my body when I die
 As that fiery furnace flashes
 I'll be nothing more than ashes
If they burn my body when I die

They may use my body when I die
They may use my body when I die
 As the doctors ply their arts
 I'll be in a hundred parts
If they use my body when I die

They may freeze my body when I die
They may freeze my body when I die
 Though I may well be mistaken
 I would hope to reawaken
If they freeze my body when I die

They may eat my body when I die
They may eat my body when I die
 If a zombie horde remains
 They'll be hankering for brains
As they eat my body when I die.

I'd prefer to never die at all
I'd prefer to never die at all
Cheating death is such a rarity
 It would take a singularity
 To permit we never die at all

They may bury my body when I die
They may bury my body when I die
Near some graveyard I'll be found
 Simply rotting in the ground
If they bury my body when I die.

Blue Skies

Written by Phil Robinson

I woke up this morning in the middle of a dream
Of how my life and how my love would be
I saw progress made, foundations laid,
and all my dreams achieved
And through it all, a voice was calling me

But I woke to a bitter world of pain and memory,
I'm hurt and lost and aching all the time
As I push forward everyday in my struggle to be free
It feels much better just to be outside...

With blue skies all around me
Blue skies, on my own
Blue skies, come surround me
Blue skies, take me home

So many times it saddens me,
the differences between
Who I am and who I want to be

I search for something beautiful that's lost in memory
In the rays of light that stream out through the trees

I'm looking for the missing words,
to a promise I can keep
That I'll be the man I know that I can be
And someday, I'm gonna find the key
Someday, I'm gonna find the key

With my blue skies all around me
Blue skies, on my own
Blue skies, come surround me
Blue skies, take me home

With my blue skies all around me
Blue skies, on my own
Blue skies, come surround me
Blue skies, take me home

Commentary on When I Die

The Solstice has always had an undertone of darkness, but it did not originally have a specific focus on death. It came about organically, as I found that death was something my community did not have good tools to address.

Different people deal with death in different ways. I know some atheists who are comforted by the idea of returning to the earth. I know some atheists who are comforted by knowing that even in death, their bodies can help others. I know many people who feel death can never be accepted — doing so seems like a rationalization in the face of something unspeakably awful.

And for many people, a little dose of humor can certainly help release tension.

One way or another, death is among the hardest things we have to face, and secular communities are often unprepared for it. I know many people who lost friends, and who only had religious funerals to go to, who had no way to process their grief in a public setting.

One goal for the Solstice is to create a time when we can come together, talk about death, and experimenting with fragments of what might one day become funeral ritual.

Commentary on Blue Skies

From songwriter Phil Robinson:

The image of the 'Roomful of Sky' is something that has guided me for most of my adult life – not only as an artist, but foremost as a person. It's a celebration of the paradox, of that uniquely human task of having to come to terms with the infinite, using only our finite human capacities. How do we attempt to reconcile what on the surface appears to be irreconcilable?

On the one hand, I acknowledge the yearning within myself to be more than I am right now, and I am drawn to fill the emptiness I feel within. On the other hand, I also feel the abundance all around and within me, and in my gratitude I affirm it.

Somehow, at once, both of these contradictory notions are true. When my intellect struggles to hold both of these concepts in the same space simultaneously, it is often an endless, restless exercise. However, in my experience, when in the presence of the beauty and rapture of the natural world, it has often been easy to feel the peaceful co-existence of both.

Sometimes we are in the darkness, and for whatever reason we don't feel we have access to that which nourishes us. This song is my attempt to make vivid that nourishing vision of the open blue skies. The creative rendering of an idea, whether it be in a song, a phrase, or a visual image, enables us to carry the idea within us as a refuge we can draw upon when needed.

You can take the blue skies with you wherever you go, and offer yourself serenity amidst the chaos.

On Litanies:

The litanies so far have been... cute. They hint at a certain wisdom, a way of thinking that can be profoundly important. But ultimately, the words we have been chanting were chosen to illustrate an idea, not to challenge us.

Before this next litany, I want you think for a moment.

We each make sacrifices, big and small. Sometimes you go for a night without sleep, dancing from dusk till dawn, exhilarating in your body and connection to others. Or, maybe you spent the night at your desk, furiously pouring your soul into a creative project. The rush of a beautiful idea flowing directly from mind to reality.

And the next day, you stumble into work half dead, barely able to function. A sacrifice that your future self pays for a moment of glory. Perhaps well worth it.

Sometimes a sacrifice is bigger. Maybe you need to decide whether to forgo a stable career that will enable you to raise a family – instead following a burning passion to the edge of the earth, away from your home and the people you love.

History is written about the people who followed ideas to the edge of the world, when everyone around them told they were mad. It's vital to humanity that people take risks. Sometimes, a new idea changes the world forever.

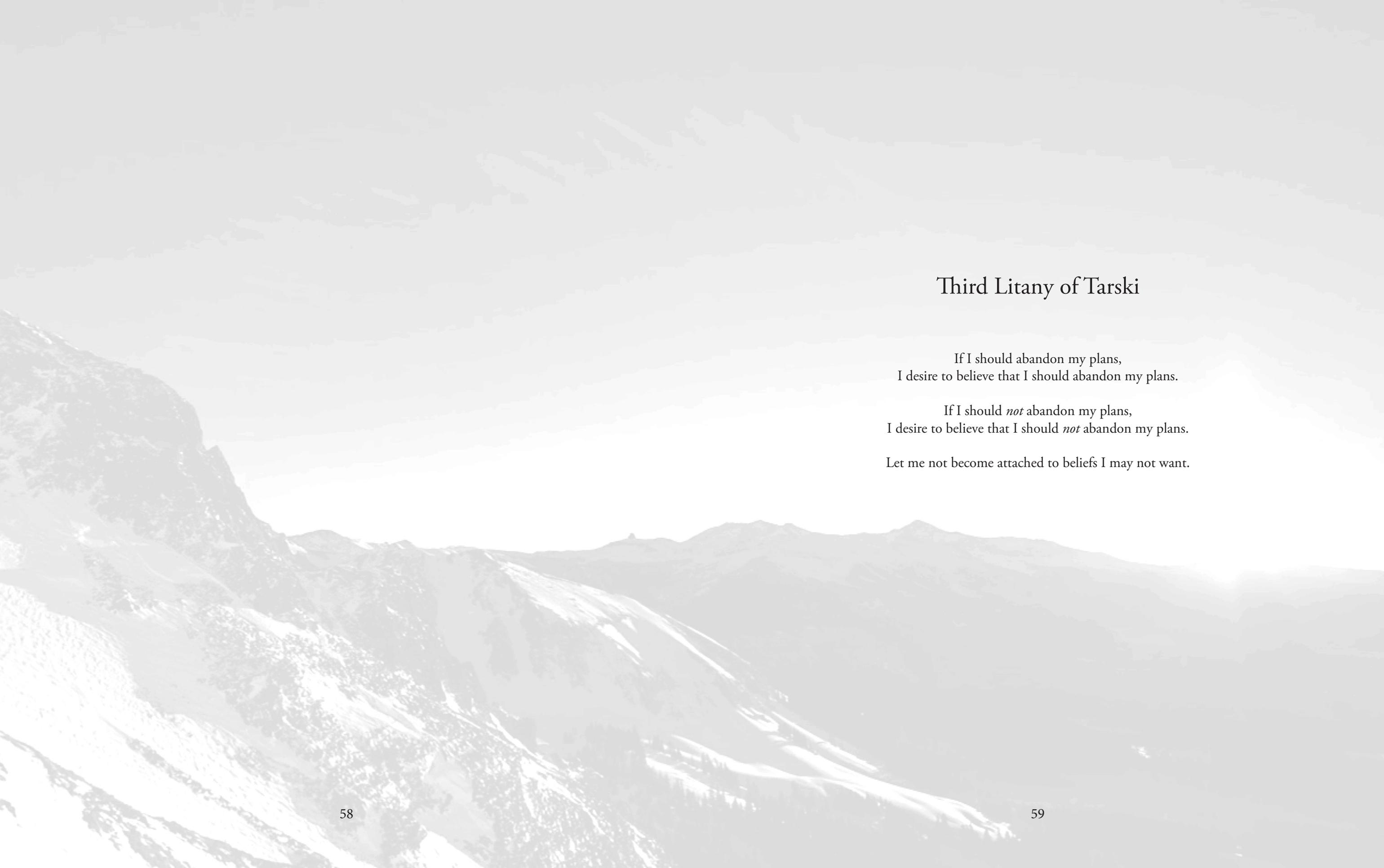
But sometimes, it doesn't. For every idea that works, a hundred lie discarded.

On the whole, I suspect most people should take more risks. The hundred discarded ideas are how progress is made. But still, if a brilliant idea turns out to be foolish, eventually you must be capable of admitting that it isn't working.

So, whoever you are, whatever your life story, I want you to think for a moment.

Think of a choice before you, a plan you are considering that involves a sacrifice. Imagine the world where that sacrifice is worth it. Imagine the world where it wasn't. Let yourself dwell in those worlds for a moment, hold them in suspension. Take a deep breath, and be at peace with the fact that either choice may turn out to be the correct one for you.

When you make the choice, do so unblinded by fear's darkness, or by hope's light.



Third Litany of Tarski

If I should abandon my plans,
I desire to believe that I should abandon my plans.

If I should *not* abandon my plans,
I desire to believe that I should *not* abandon my plans.

Let me not become attached to beliefs I may not want.

Eve

(Extinguish about a third of your light sources)

Beyond the Reach of God

An essay by Eliezer Yudkowsky, edited by Raymond Arnold

I remember, from distant childhood, what it's like to live in the world where God exists. Really exists, the way that children take their beliefs at face value.

In the world where God exists, he doesn't intervene to optimize everything. God won't make you a sandwich. Parents don't do everything their children ask. There are good reasons not to give someone what they desire. I don't *want* to become a simple wanting-thing, that never has to plan or act or think.

But clearly, there's some threshold of horror, awful enough that God will intervene. I remember that being true, when I believed after the fashion of a child. The God who never intervenes – that's just making excuses. The beliefs of young children really do shape their expectations. If you tell them there's a dragon in their garage they honestly expect to see one. They have no reason to imagine a loving God who never acts.

No loving parents, desiring their child to grow up strong and self-reliant, would let their toddler be run over by a car.

But what if you built a simulated universe? Could you escape the reach of God? Simulate sentient minds, and torture them? If God's watching everywhere, then of course trying to build an unfair world results in the God intervening. Stepping in to modify your transistors. God is omnipresent. There's no refuge anywhere for true horror.

Life is fair.

But suppose you ask the question: Given such-and-such initial conditions, and given such-and-such rules, what would be the mathematical result?

Not even God can modify the answer to that question.

What does life look like, in this imaginary world, where each step follows only from its immediate predecessor? Where things either happen, or don't, because of mathematical rules? And where those rules don't describe a God that checks over each state? What does the world of pure math look like, beyond the reach of God?

That world wouldn't be fair. If the initial state contained the seeds of something that could self-replicate, natural selection might or might not happen. Complex life might or might not evolve. That life might or might not become sentient. There might be conscious cows, that lacked hands or brains to improve their condition. They might be eaten by conscious wolves who never thought that they were doing wrong, or cared.

If something like humans evolved, then they might suffer from diseases – not to teach them any lessons, but only because viruses happened to evolve as well. If the people of that world are happy, or unhappy, it might have nothing to do with good or bad choices they made. Nothing to do with free will or lessons learned. In the what-if world, Genghis Khan can murder a million people, and laugh, and be rich, and never be punished, and live his life much happier than the average. Who would prevent it?

And if the Khan tortures people to death, for his own amusement? They might call out for help, perhaps imagining a God. And if you really wrote the program, God *would* intervene, of course. But in the what-if question, there isn't any God in the system. The victims will be saved only if the right cells happen to be 0 or 1. And it's not likely that anyone will defy the Khan; if they did, someone would strike them with a sword, and the sword would disrupt their organs and they would die, and that would be the end of that.

So the victims die, screaming, and no one helps them. That is the answer to the what-if question.

Is this world starting to sound familiar?

Could it be that sentient beings have died, absolutely, for thousands of millions of years... with no soul. No afterlife. Not as any grand plan of Nature. Not to teach us about the meaning of life. Not even to teach a profound lesson about what is impossible. Just dead. Just because.

Once upon a time, I believed that the extinction of humanity was not allowed. And others, who call themselves rational, may yet have things they trust. They might trust "democracy," or "capitalism," or "technology." They believe these things are sacred. Democracies won't ever legalize torture. Technology has done so much good – that there can't possibly be a black swan that breaks the trend and destroys all the good we've ever done.

Anyone listening, who thinks that being happy counts for more than anything in life, well, maybe you shouldn't ponder the unprotectedness of your existence. But I'm speaking now to those who have something to protect.

What can a stone-age tribesman do to save themselves from annihilation? Nothing. Nature's challenges aren't always fair. When you run into a challenge that's too difficult, you suffer the penalty; when you run into a lethal penalty, you die. That's how it is for people, and it isn't any different for planets. And anyone who wants to dance the deadly dance with nature needs to understand that they are up against absolute, utter, exceptionless neutrality.

And knowing this might not save you. It wouldn't save the stone-age tribesman, if they knew. If you think that anyone who fully understands the mess they're in, *must* be able to figure out a way out – well, then you trust rationality. Enough said.

Nothing is sacred. The universe is not fair.

But I don't want to create needless despair, so I'll say a few hopeful words at this point:

If humanity's future unfolds in the right way, we might be able to make our future fairer. We can't change physics. But we can build some guardrails, we can put down some padding.

Someday, maybe, minds will be sheltered. Children might burn a finger or lose a toy, but they won't ever be run over by cars. A super-intelligence would not be intimidated by a challenge where death is the price of a single failure. The raw universe wouldn't seem so harsh, would be only another problem to be solved.

The problem is that building an adult is itself an adult challenge. That's what I finally realized, years ago. If there is a fairer universe, we have to get there starting from this world – the neutral world, the world of hard concrete with no padding. The world where challenges are not calibrated to your skills, and you can die for failing.

What does a child need to do, to solve an adult problem?

Bitter Wind Blown (Reprise)

Written by Raymond Arnold

*Little one, little one, bitter wind blown,
little one, little one, bitter wind blown*

Sun barely rising above the horizon
(Little one, little one, bitter wind blown)

Flowers are withering, naked bark brittle, oh
(Little one, little one, bitter wind blown)

Good folk are gonna die, sun-god ain't shedding tears
(Little one, little one, bitter wind blown)

I just stare at the sky, digging the graves each year.
(Little one, little one, bitter wind blown)

Sun, sailing away. I don't know where. I don't know why.
Sky, darkening grey, wishing there weren't so many goodbyes...
Little one, little one why...

Maybe if we lookin' a while and found a stone,
Little one, little one, bitter wind blown

Dragged it a hundred miles... and got it home
Little one, little one, bitter wind blown

We could dig us a henge, raise those bluestones up high
Little one, little one, bitter wind blown

In two hundred years we could look at the sky, oh
Little one, little one, bitter wind blown

Our children would know, when the winter would come
Little one, little one, bitter wind blown

Lookin' and laboring doing what must be done
Little one, little one, bitter wind blown

Sun, sailing away. I don't know where. I don't know why.
Sky, darkening grey, wishing there weren't so many goodbyes...
Little one, little one why...

A Little Echo

Written by Raymond Arnold

A song for friends of mine, should they ever need it.

My heart is beating. My breath is strong.
I'm walking, running, dancing, playing, having fun.

The wheels inside my mind are turning,
Thinking, feeling, loving, learning,
Wonderin' what kind of person I'll become.

*And life ticks on, and lives connect
And over time I collect a little echo
Of your mind. And so,
Even when we're separated,
Even though it's not the same
It's sort of nice to say your name
And hear you whisper mine.*

My heart is skipping. I take a nervous breath.
I finally see your face again. It's been so long since last you left.

I got a little metal circle hanging on my chest.
As we collide, and intertwine, it presses cold against my breast.

*And life ticks on, and lives connect
And over time I collect a little echo
Of your mind. And so,
Even when we're separated,
Even though it's not the same
It's sort of nice to say your name
And hear you whisper mine.*

My heart is failing. My breath is slow.
I'm looking, longing, loving, wishing that I didn't have to go.

I got a little metal circle hangin' round my neck.
It's got some little words inscribed, the doctors doublecheck.

And I don't quite know if I'll awaken.
Don't quite know what shape I'd take.
I don't quite know how things might change.
I don't quite know what world you would make...
...while I was gone.

I don't quite know.
I don't quite know how long.

*But life ticks on, and lives connect
And over time I collect a little echo
Of your mind. And so,
Even when we're separated,
Even though it's not the same
It's sort of nice to say your name
And hear you whisper mine.*

And hear you whisper mine.

- Dedicated to Andrew and Sarah

On Heroes

When someone does something brave and hard to save a life, we often call them a hero. We tell stories about them, idolizing their qualities. We aspire to be like them. Jesus brings Lazarus back to life, and it's called a miracle.

It's hard to tell stories about scientists. Tedious work in a lab doesn't pack quite the same impact as humans punching or cleverly outwitting one another. But if saving one life is a miracle, science is more miraculous than any legend we told ourselves around ancient campfires.

Here's a story.

In 1942, the people in Mexico were malnourished. The existing agricultural system wasn't equipped to handle it. A fungal rust kept destroying crops, and each year it mutated, making it near impossible to destroy. Millions of people were starving.

Norman Borlaug was a geneticist, part of a small team sent to help. They drove 800 miles to Mexico. When they got there, their office was an adobe shed with a tarpaper roof surrounded by 800 acres of weed-choked fields. There were no trucks or tractors, no research materials, no irrigation supplies. They had the instruction "Fix hunger in Mexico. Go!"

Norman got right to work. He'd need to create a new breed of plant that could feed more people and survive the rust and climate. But it'd take decades to try each crossbreed, wait for them to grow, and then crossbreed again. And every year meanwhile, more people would die.

So Norman Borlaug had an idea – to find thousands of wheat species and start crossbreeding them at once. And he found another region in Mexico with a different climate, where he could continue his work during the winter. The winter crop would be 1200 miles away.

He went to his boss with his plan. His boss said he was crazy.

And Borlaug stared at him and said: *"Don't try to discourage me, Ed. I know how much work is involved. Don't tell me what can't be done. Tell me what needs to be done – and let me do it. To hell with the extra work and strain. It's got to be done, and I believe I can do it."*

Ten years and 40,000 species later, Borlaug had a rust resistant strain that yielded double the wheat. Mexico went from being unable to feed its people, to exporting food.

And then Norman Borlaug spent the rest of his life working to solve hunger. He saved over 250,000,000 lives. If feeding 40 people with fishes and loaves is a miracle, I don't even know what to call that.

I don't have faith in humanity. But people like Norman Borlaug are the reason I trust humanity.

Something Impossible

Written by Raymond Arnold and Grace Avery

Wide awake, late at night, choices to make in the 'morrow.
Voices inside offer comforting lies, whispering reasons to not even try.
Stakes are so high, don't got much time left to borrow...

*Time to shut up! Get up! Do the impossible.
Stand up! Rise up! Can't walk away.
Gotta break off those shackles, and shake off those chains
Gotta make something impossible happen today.
Gotta make something impossible happen today.*

Bold attempts aren't enough, roads can't be paved with intentions.
You probably don't even got what it takes,
but you better try anyway, for everyone's sake
And you won't find the answer until you escape from the
Labyrinth of your conventions.

*Time to shut up! Get up! Do the impossible.
Stand up! Rise up! Can't walk away.
Gotta break off those shackles, and shake off those chains
Gotta make something impossible happen today.
Gotta make something impossible happen today.*

Morning light rising, the sun so surprisingly dire and cruel.
A flicker of hope in your mind is a' churning.
You don't got much time now, your whole world's burning.
Got so many lessons in need of unlearning
That once seemed so terribly crucial, it's time to just

*Just shut up! Get up! Do the impossible.
Stand up! Rise up! Can't walk away.
Gotta break off those shackles, don't take no excuses,
You gotta make something impossible happen*

*So shut up! Get up! Do the impossible.
Stand up! Rise up! Can't walk away.
Gotta make yourself stronger, you don't got much longer
Gotta make something impossible happen today...*

Night

(Extinguish the last of the lights, save for the two candlebearers and the final candle)

Beneath Midwinter Midnight

A call and response song, led by the two candlebearers in the darkness

Written by Raymond Arnold

Beneath midwinter midnight moon *(Beneath midwinter midnight moon)*
Told you I'd be coming soon *(Told you I'd be coming soon)*
I wish somehow, I wish you knew *(I wish somehow, I wish you knew)*
That you are not alone *(You are not alone)*

Beneath midwinter midnight snow *(Beneath midwinter midnight snow)*
No sign pointing where to go *(No sign pointing where to go)*
No single sign that life could grow *(No single sign that life could grow)*
But still you aren't alone *(Still you aren't alone)*

Beneath midwinter midnight sky *(Beneath midwinter midnight sky)*
Sometimes people say goodbye *(Sometimes people say goodbye)*
And no one's there to tell us why *(And no one's there to tell us why)*
But we are not alone *(We are not alone)*
We are not alone *(We are not alone)*

Beneath midwinter morning light *(Beneath midwinter morning light)*
Getting hard to know what's right *(Getting hard to know what's right)*
But take my hand and hold on tight *(But take my hand and hold on tight)*
Cause we are not alone *(We are not alone)*
We are not alone *(We are not alone)*
We are not alone *(We are not alone)*

The Gift We Give to Tomorrow

By Eliezer Yudkowsky, edited by Raymond Arnold

Performed by the two candlebearers

Doesn't it seem a little... amazing?

Hmm?

That an unloving universe could create people capable of love?

Well, no mystery in that. It's just natural selection.

*Well yeah, but evolution is so cruel, and bloody. And bloody stupid!
How could nothing but millions of years of a cosmic death tournament
cough up mothers and fathers, sisters and brothers?*

*How could we get husbands and wives, steadfast friends, honorable enemies? Loyal
defenders who'd lay down their lives for an abstract cause?
Artists, sacrificing themselves for their art?*

*So many kinds of love, for so many reasons other than genes.
So many people doing their part to make their world less ugly,
something besides a sea of blood and violence and mindless replication.*

Is that so surprising?

A mother shares her child's genes.

Cooperation is how we survived.

Is it that surprising that we care about each other?

*I know. It just seems wrong to not be amazed.
Maybe there's no surprise from a causal viewpoint.
But still, it seems to me, in the creation of humans by evolution,
something happened that is precious and marvelous and wonderful.
If we can't call it a physical miracle, then call it a moral miracle.*

It only seems like a miracle from the point of
view of the morality that was produced.

*I suppose you could interpret it that way.
It just feels like that point of view... explains the wonder away.*

It doesn't explain it away. It just explains it.

Of course there's a story behind love.
Behind all ordered events, you'll find ordered stories.
And things that have no story would just be random noise. Hardly any better.

If we can't take joy in things with true stories behind them,
our lives would be empty.

Love has to begin somehow.
It has to enter the universe somewhere.
It's like asking how life itself begins:

Though you were born of your father and mother,
and though they arose from their living parents in turn,
if you go far and far and far away back,
you'll finally come to a replicator that arose by pure accident.
The border between life and unlife.
So too with love.

A complex pattern must be explained by a cause
that's not already that complex pattern.

For love to enter the universe,
it has to arise from something that is not love.
If that weren't possible, then love could not be.

Just as life itself required that first replicator
to come about by accident, parentless, but still caused:
far, far back in the causal chain that led to you:
3.8 billion years ago, in some little tidal pool.

Perhaps your children's children will ask:
"How it is that we are capable of love?"

And their parents will say:
"Because we, who also love, created you to love."

And your children's children may ask:
"But how is it that you love?"

And their parents will reply:
"Because our own parents, who loved as well, created us to love in turn."

And then your children's children will ask:
"But where did it all begin? Where does the recursion end?"

And their parents will say:

*"Once upon a time,
far away and long ago,
there were intelligent beings who were
not themselves intelligently designed."*

*Once upon a time,
there were lovers,
created by something that did not love."*

*Once upon a time,
when all of civilization was a single galaxy,
A single star.
A single planet.
A place called Earth."*

*Long ago,
Far away,
Ever so long ago."*

The two candlebearers extinguish their flames and leave the circle.

A single candle remains.



A Candlelit Story

Each year, before the final candle has been extinguished, a story should be told.

Each year, it may vary, but the theme should reflect the importance of a future where our descendants thrive because of the choices we have made today.

It should be a story that confronts reality at its most harsh, hiding no inconvenient truths nor relying on comforting falsehoods.

And yet, in that darkness, there is a flicker of light to hold onto.

Two years ago, I spoke about death. This is the story I told.

Life, Death and Love

A year ago, I started planning for tonight. In particular, for this moment, after the last candle is snuffed out and we're left alone in the dark with the knowledge that our world is unfair and that we have nobody to help us but each other.

I wanted to talk about death.

My grandmother died two years ago. The years leading up to her death were painful. She slowly lost her mobility, bones turning frail and muscles weak. She stopped being interested in food. All she could do was sit in her living room and hope her family would come by to visit and talk to her.

Then she started losing her memory, so she had a hard time even having conversations at all.

We tried to humor her, as she asked us repeatedly "what are you working on?" over and over, forgetting the increasingly terse answers we had given only minutes before. But there's only so many times you can answer the same question before your patience wears thin. The irritation showed on our faces no matter how hard we tried to be understanding.

She lost her rationality, regressing into a child who would argue petulantly with my mother about what to eat, and when to exercise, and visit her friends. She had been a nutritionist for decades. She knew what she was supposed to eat and why. She knew how to be healthy. And she wanted to be healthy. But lost her ability to negotiate her near term and long term desires on her own.

Eventually even deciding to eat at all became painful. Eventually even forming words became exhausting.

Eventually she lost not just her rationality, but her agency. She stopped making decisions. She lay on her bed in the hospital, not even having the strength to complain anymore. My mother got so excited on days when she would throw a fit, because at least she was doing *something*.

She lost everything that I thought made a person a person, and I stopped thinking of her as one.

Towards the end of her life, I was visiting her at the hospital. I was sitting next to her, being a dutiful grandson. Holding her hand because I knew she liked that. But she seemed like she was asleep, and after 10 minutes or so I got bored and said "alright, I'm going to go find Mom now. I'll be back soon."

And she squeezed my hand, and said "No, stay."

Those two words were one of the last decisions she ever made. One of the last times she had a desire about how her future should be. She made an exhausting effort to turn those desires into words and then breath those words into sounds so that her grandson would spend a little more time with her before she died.

And I was so humiliated that I had stopped believing that inside of this broken body and broken mind was a person who still desperately wanted to be loved.

A week or two later she was gone.

Her funeral was a Catholic Mass. My mom had made me go to church as a child. It always annoyed me. But in that moment, I was so grateful to be able to hold hands with a hundred people, for all of us to speak in unison, without having to think about it, and say:

*"Our father, who art in heaven,
hallowed by thy name.
Thy kingdom come,
thy will be done,
on earth as it is in heaven.*

*Give us this day our daily bread,
and forgive us of our trespasses,
as we forgive those who trespass against us.*

*And lead us not into temptation,
but deliver us from evil."*

I'm not sure if having that one moment of comforting unity was worth 10 years of attending Catholic mass. It's a legitimately hard question. I don't know the answer.

But I was still so frustrated that this comforting ritual was all based on falsehoods. There's plenty of material out there you can use to create a beautiful secular funeral, but it's not just about having pretty or powerful words to say. It's about knowing the words *already*, having them already be part of you and your culture and your community.

Because when somebody dies, it's hard to have the energy for novelty. It's hard to deal with new ideas that will grate slightly against you just because they're unfamiliar. You want cached wisdom that is simple and beautiful and true, that you share with others, so that when something as awful as death happens to you, you have tools to face it, and you don't have to face it alone.

I was thinking about all that, as I prepared for this moment.

But my Grandmother's death was a long time ago. I wanted the opportunity to process it in my own way, in a community that shared my values. But it wasn't really a pressing issue that bore down on me. Dealing with death felt important, but it was a sort of abstract importance.

And then, the second half of 2012 happened.

A friend from the rationality community e-mailed me, to tell me that their grandmother had died. They described the experience of the funeral, ways in which it was surprisingly straightforward, and other ways in which it was very intense.

While I was reading the e-mail, another friend walked into my apartment and said that their mother had died.

Later, I would learn that a coworker of mine also lost somebody that day as well.

In the space of a minute, death stopped being an abstract concept and became something painfully real. Even if I didn't know the people who died, my friends were hurting, and I felt their pain.

I wandered off into the night. I forgot to wear a coat, but decided I didn't care. I wanted to soak in the bitter cold air and wallow in my feelings.

I sang a song about Stonehenge – the song that would one day be rewritten as “Bitter Wind Blown.” At the time, it wasn't quite good enough at what I needed it for. But it was the only song I knew of that attempts to do what I needed. To grimly acknowledge this specific adversary, to not offer any false hope about the inevitability of victory, but to nonetheless march onward, dragging stones for hundreds of miles, bitterly determined that not quite so many people will die tomorrow as today.

I came back inside. I chatted with another friend about the experience. She offered me what comfort she could. She attempted to offer some words to the effect of “Well, death does have a purpose sometimes. It helps you see the good things – ”

And that... really was not what I needed to hear, at that moment.

The problem with embracing rationality is that you learn to stop flinching away from uncomfortable truths. Cultures the world over have come up with reasons why death isn't so bad. Some are outright falsehood. “Grandma is smiling down from heaven.” But even world-views like “death is a natural part of life that helps us appreciate the here and now” don't comfort me anymore. They're the sort of excuse you make when you're faced with something unspeakably awful and you have to tell yourself something – anything – to get through it.

A week later, a friend of hers died.

And a week after that, another friend of mine lost somebody.

A week after that, it wasn't a direct friend of a friend who died, but a local activist was murdered a few blocks from someone's house, and a friend of mine cancelled plans with me because they were so upset.

Then a hurricane hit New York. Half the city went dark. I went back to my notes I had written for this moment and stared and them.

Fuck.

Winter was coming and I didn't know what to do. Death is coming, and our community isn't ready. I set out to create a holiday about death and... it turns out that's a lot of responsibility, actually.

This was important, this was incredibly important and so incredibly hard to handle correctly. We need a way to process what happened to us, but what happened to each of us is personal. Even if we shared exactly the same values, we all deal with death in our own way. And somehow after all of that, after taking a moment to process it, we need to climb back out of that darkness and end the Solstice ceremony feeling joyful and triumphant and proud to be human, without resorting to lies.

There's a lot I don't know how yet, about what to do, or what to say. But here's what I do know:

My grandmother died. But she lived to her late eighties. She had a family of 5 children who loved her. She had a life full of not just fun and travel and adventure but of scientific discovery. She was a dietitian. She helped do research on diabetes. She was an inspiration to women at a time when a woman being a researcher was weird and a big deal. When I say she had a long, full life, I'm not just saying something nice sounding to make us feel better.

My grandmother won at life, by any reasonable standard.

Not everyone gets to have that, but my grandmother did. She was the matriarch of a huge extended family that all came home for Christmas eve each year, and sang songs and shared food and loved each other. She died a few weeks after Christmas, and that year, everyone came to visit, and honestly it was one of the best experiences of my life.

In the dead of winter, each year, two dozen of people came to Poughkeepsie, to a big house sheltered by a giant cottonwood tree, and were able to celebrate *without* worrying about running out of food in the spring.

At the darkest time of the year, my mother ran lights up a hundred foot tall pine tree that you could see for miles. We were able to eat because hundreds of miles away, mechanical plows tilled fields in different climates, producing so much food that we literally could feed the entire world, if we could just solve the political problems.

We were able to drive to my grandmother's house because other mechanical plows crawled through the streets all night, clearing the ice and snow away. Some of us were able to come to my grandmothers house from a thousand miles away, flying through the sky, higher than ancient humans even imagined angels might live.

And my Grandmother died in her late eighties, but she also *didn't* die when she was in her seventies and the cancer first struck her. Because we had chemotherapy, and host of other tools to deal with it.

And the most miraculous amazing thing is that this isn't a miracle. This isn't a mystery. We know how it came to be, and we have the power to learn to understand it even better, and do more.

In this room, right now, are people who take this all seriously. Dead seriously, who don't just shout "Hurrah humanity" because shouting things together in a group is fun.

We have people in this room, right now, who are working on fixing big problems in the medical industry. We have people in this room who are trying to understand and help fix the criminal justice system. We have people in this room, dedicating their lives to eradicating global poverty. We have people in this room who are working to make sure that the human race doesn't destroy itself, before we have a chance to become the people we really want to be.

And while they aren't in this room, there are friends of mine who would be here if they could, who are doing their part to try and solve this whole death problem once and for all.

And I don't know whether and how well any of us are going to succeed at any of these things, but... damn, people. You are amazing, and even if only one of you made a dent in some of the problems you're working on, that... that would just be incredible.

And there are people in this room who aren't working on anything that grandiose. People who aren't trying to solve death or save the world from annihilation or alleviate suffering on a societal level. But who spend their lives making art. Music. Writing things sometimes. People who fill their world with beauty and joy and enthusiasm, and pies and hugs and games and... and I don't have time to give a shout out to everyone in the room but you all know who you are.

This room is full of people who spend their lives making this world less ugly, less a sea of blood and violence and mindless replication. People who are working to make tomorrow brighter than today, in one way or another.

And I am so proud to know all of you, to have you be a part of my life, and to be a part of yours. I love you.

You make this world the sort of place I'd want to keep living, forever, if I could.

The sort of world I'd want to take to the stars.

The final candle is extinguished.

A satellite view of Earth at night, showing city lights and the sun rising over the horizon. The Earth is dark blue with white clouds and golden city lights. The sun is a bright yellow-orange glow on the right side of the frame, partially obscured by the Earth's curvature.

Dawn

(Begin relighting your candles, lanterns and other sources of light)

Brighter Than Today

*An anthem for the future,
Written by Raymond Arnold*

Countless winter nights ago,
A woman shivered in the cold.
Cursed the skies, and wondered why
the gods invented pain.

Aching angry flesh and bone,
Bitterly she struck the stones
Until... she saw that spark
of light, and flame.

And though... the others cried out heresy,
she defied them, proud.... set afire history

Oh...

*Tomorrow can be brighter than today,
although the night is cold.
The stars may seem so very far away...
But courage, hope and reason burn,
in every mind, each lesson learned,
shining light to guide to our way,
make tomorrow brighter than today...*

*Oh..... oh.....
oh... brighter than today....*

Ages long forgotten now,
We built the wheel and then the plough.
Tilled the earth and proved our worth,
Against the drought and snow.

Soon we had the time to fathom
Mountain peaks and tiny atoms,
Beating hearts, electric sparks
And so much more to know.

*Tomorrow can be brighter than today,
although the night is cold.
The stars may seem so very far away...
But courage, hope and reason burn,
in every mind, each lesson learned,
driving darkness far away,
make tomorrow brighter than today...*

*Oh..... oh.....
Oh..... oh.....
oh... brighter than today....*

The universe may seem unfair.
The laws of nature may not care.
Storms and quakes, our own mistakes,
They nearly doused our flame.

But all these trials we've endured,
With moral progress, ailments cured,
Against our herculean task
we've risen to proclaim.

*Tomorrow can be brighter than today,
although the night is cold.
The stars may seem so very far away...
But courage, hope and reason burn,
in every mind, each lesson learned -
Rise up to the stars and say:
make tomorrow brighter than today...*

*Oh..... oh.....
Oh..... oh.....
Oh..... oh.....*

oh... brighter than today....

Light

(Finish reigniting your lights)





Metalitany of Tarski

If the Litany of Tarski is useful,
I desire to believe the Litany of Tarski is useful.

If the Litany of Tarski is *not* useful,
I desire to believe the Litany of Tarski is *not* useful.

Let me not become attached to beliefs I may not want.

Stardust

Written by Raymond Arnold

A moment outside space and time
Bounded boundless energy
Unsurrounded, undesigned,
tiny singularity...

Not quite certain how or why
No one yet alive to see
Suddenly a flash of light,
endless possibility

Stardust, all of us are stardust...
Stardust, all of us are stardust.

Clouds amassing in the dark
Hundred billion miles wide
Aeons pass until the spark,
dust collapsing, stars ignite

Atoms churning, torn apart
Searing hot and shining bright
Born anew within the heart,
bursting forth into the night

Stardust, all of us are stardust...
Stardust, all of us are stardust.

Countless lights across the black
Luminescent and sublime
Silently the ages pass,
no one there to see them shine

But then a cosmic happenstance
Circumstances just align
Somewhere on a fragile dot,
some tiny molecules combine

A simple drive to grow and thrive
Cradled on a tidal shore
Crude, imperfect procreation,
paving way for so much more

Stardust, all of us are stardust...
Stardust, all of us are stardust.

Find My Tribe

Written by Raymond Arnold

Hey oh hey, hey oh hi!
Hey oh hey, hey oh hi!

Steering through a stormy sea (*Hey oh hey, hey oh hi*)
Sailing solo, thinking free (*Hey oh hey, hey oh hi*)
Tangled memes and dreams abound (*Hey oh hey, hey oh hi*)
Don't know where to settle down (*Hey oh hey, hey oh hi*)

Wanna find a tribe to call my own
Wanna find my kind, wanna build a home

Hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)
Singin', hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)

If I could find some folk who always try (*Hey oh hey, hey oh hi*)
To question why and understand (*Hey oh hey, hey oh hi*)
Always striving, optimizing (*Hey oh hey, hey oh hi*)
Building something grand (*Hey oh hey, hey oh hi*)

Gonna find a tribe to call our own
Gonna carve a cultural cornerstone

Hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)
Singin', hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)

Not afraid to stand alone (*Hey oh hey, hey oh hi*)
Seek the truth where'er it lies (*Hey oh hey, hey oh hi*)
But if you would sail beside me (*Hey oh hey, hey oh hi*)
We could chart a path into the skies!

Singin',
Hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)
Singin', hey oh hey, hey oh hi (*Hey oh hey, hey oh hi*)
(*Hey oh hey, hey oh hi*)

On Tribes, Connection, and Action

Getting freethinkers to work together is like herding cats.

We distrust authority and groupthink – for good reason. Some of us literally escaped from cults, sleep deprived and forbidden to think. Others have simply seen organizations ossified by ideology, unwilling to change with the times.

In some ways, I think freethinkers should be even *more* worried about groupthink than they are. Tribalism is an insidious virus of the mind. Getting excited about *my tribe* makes it all too easy to ignore my “people’s” shortcomings, and easy to dismiss others. I once got into an internet argument about Bayesian vs Frequentist statistics and I literally felt the hairs on the back of my neck stand up. I don’t even *use* Bayesian statistics. But a lot of my friends think it’s important, so I saw an attack on it as an attack on my people.

Tribalism is terrifying. Political squabbles can destroy your ability to think.

And, yet... tribalism gets stuff *done*.

Humanity didn’t go to the moon for the love of knowledge, boldly going where no one had gone before in the name of science. Americans and Russians raced to a new frontier because “*Screw those other people, we’re better than them!*”

Sharing a tribe, knowing that *your people* have your back, creates the kind of trust that lets people drag stones for two hundred years. It drives civil rights marches and fuels the fires of nascent intellectual movements, transforming them into real social and technological change.

A local tribe – a community – accepts you as are and makes you feel safe. A great tribe shares your values, and helps you *grow*. I was lucky enough to find people who cared deeply about rationality, who believed it could change our lives.

My dream is to share a tribe with those who always seek the truth, even when it stings. Who are always looking for new ways to grow. Who are ambitious enough to earnestly seek to change the world, taking new ideas seriously. Coordinated enough to bring those ideas to fruition, and yet able to update and refine those ideas – never growing so attached to a cause that they wouldn’t be able to turn away if new evidence showed they were wrong.

And somehow, creating a powerful ingroup without creating an outgroup to be demonized.

The pieces of that tribe are here already. Among the skeptics and atheist and rationalist and humanist and transhumanist communities that I have encountered, there are the beginnings a culture that I think can change the world.

I can’t wait to see what we become.

Birth of a Meme

This next song might provoke some questions. It’s a Christmas carol, and not one of those secular “Let it Snow, Let it Snow” type Christmas carols. “Do You Hear What I Hear?” is a well established story about Jesus.

It’s also among my favorite songs. For a long while, as an atheist I was sort of embarrassed about that. But I couldn’t stop singing it. The imagery struck me:

A small, fragile idea is whispered from the night wind to the humblest of creatures. A child, shivers. A shepherd boy speaks truth to power, even if his voice trembles. A proud king is humble enough to listen.

This is a song about the birth of a meme, passing from person to person – changing each of them, even as they change it in turn. The idea grows stronger, directing itself towards more and more powerful agents. And then, one day, it reaches the ear of a king.

And then it changes the world.

As an artist hoping to tell stories that shape the future, this resonates with me.

But I noticed something else: not once does this song mention Jesus by name. If you didn’t already know about Christianity, it needn’t be anything more specific than an obviously-metaphorical song about ideas changing over time, and their power to help people.

And so I included it in the 2012 Solstice. Later, I learned something else:

This song was written during the Cuban Missile Crisis by Noël Regney and Gloria Shayne Baker, a husband and wife. They lived in a era when death loomed over the entire world. They wrote the song as a plea for peace, and at the time, they couldn’t make it through the words without breaking down, crying.

The child in this song has always been the future of humanity. In my mind, they aren’t necessarily a child that exists today. They are a child that might – or might not – be born someday, depending on the choices we make. A child that might or might not suffer, depending on the world we create for it.

A child that might or not be recognizably human, who might or might not share enough of our values, to think to ask its parents “*Where does love come from?*”

That child, that possible child, is sacred to me.

This song has always been about hope, that people would be wise enough to ensure there is a tomorrow, brighter than today.

Do You Hear What I Hear?

A song about ideas, and their power to change the world.

Written by Noël Regney and Gloria Shayne Baker.

Said the night wind to the little lamb,
“Do you see what I see?
Way up in the sky, little lamb,
Do you see what I see?
A star, a star, dancing in the night
With a tail as big as a kite,
With a tail as big as a kite.”

Said the little lamb to the shepherd boy,
“Do you hear what I hear?
Ringing through the sky, shepherd boy,
Do you hear what I hear?
A song, a song high above the trees
With a voice as big as the the sea,
With a voice as big as the the sea.”

Said the shepherd boy to the mighty king,
“Do you know what I know?
In your palace walls, mighty king,
Do you know what I know?
A Child, a Child shivers in the cold--
Let us bring him silver and gold,
Let us bring him silver and gold.”

Said the king to the people everywhere:
“Listen to what I say!
Pray for peace, people, everywhere,
Listen to what I say!
The child, the child sleeping in the night
He will bring us goodness and light,
He will bring us goodness and light”

Bring us light,
Bring us light,
Bring us light...

Bring the Light (Reprise)

A song about human light.

Written by Raymond Arnold

Bring the light...
Bright the li-ight...
Oh... bring the light and let it shine on me.

Bring the light (*Bring the light*)
Bring the li-ight (*Bring the li-ight*)
Oh... bring the light and let it shine on me.

Filament glow'n (*Bring the light*)
Hearth and home (*Bring the li-ight*)
Oh... bring the light and let it shine on me.

Bridle the wind (*Bring the light*)
Harness the sea (*Bring the li-ight*)
Oh... bring the light and let it shine on me.

Sunder the atom (*Bring the light*)
Thund'ring power (*Bring the li-ight*)
Oh... bring the light and let it shine on me

Sun arising (*Bring the light*)
Shining, free (*Bring the li-ight*)
Oh... bring the light and let it shine on me

Bring the light (*Bring the light*)
Bring the li-ight (*Bring the li-ight*)
Oh... bring the light and let it shine on me.

Bring the light (*Bring the light*)
Bring the li-ight (*Bring the li-ight*)
Oh bring the light and let it shine on me.

(quieter, contemplative, hand over heart)

Feel it beat (*Bring the light*)
Feel its heat (*Bring the li-ight*)
Oh... bring the light and let it shine on me

Snap the synapse (*Bring the light*)
Seed the dream (*Bring the li-ight*)
Oh... bring the light and let it shine on me

Commentary on Bring the Light

So, full circle. Ancient people, thrown into an unfair world. They refused to accept that unfairness. They rallied communities, singing, crying, praying to sway the gods' favor and change their fate. "We are here," they cried. "Do not abandon us."

When that wasn't enough, they began to look at the world, and measure, and predict. They learned to create their own light, and drag stones.

Over thousands of years, they transformed a season of darkness into a festival of light.

In the reprise, the mythologies of the sun are replaced by human lights - from a lightbulb's filament to atomic power to increasingly efficient, renewable solar power.

It ends with the light that start all of that - the warmth of a beating heart and the electrical impulses of the brains that set us on our journey.

A Thousand Stars (Tausend Sterne Sind Ein Dom)

Translated from German by Daniel Böttger.

*A thousand stars erect a shrine
of wordless worlds embracing night.
A candle blooms and spreads its shine
and fills our hearts with such delight.*

*Within its silence we rejoice,
enraptured by this blissful light,
as if this shrine could have a voice
that rings throughout this solstice night.*

*From now the darkness falls away
for we have lit this light of ours.
Into next years it shows our way
on through these silent, starlit hours.*

Clock of the Long Now

By Kevin Kelly, edited by Raymond Arnold

There is a Clock ringing deep inside a mountain.

It is hundreds of feet tall, designed to tick for 10,000 years.

Every once in a while the bells of this buried Clock play a melody.

Each time the chimes ring, it's a melody the Clock has never played before.

The Clock's chimes have been programmed to not repeat themselves for 10,000 years.

Most times the Clock rings when a visitor has wound it, but the Clock hoards energy from a different source and occasionally it will ring itself when no one is around to hear it. It's anyone's guess how many beautiful songs will never be heard over the Clock's ten millennial lifespan.

The Clock is real. It is now being built inside a mountain in western Texas.

Five thousand years after the construction of Stonehenge, a new monolithic calendar is being assembled.

The Long Now Foundation is an organization dedicated to long term thinking. They are carving a hole into a mountain, building a two hundred foot monument of metal, stone and ceramic. The Clock of the Long Now will tick once a year, and bong once a century. The millenium hand moves imperceptively slowly to human eyes, every thousand years triggering a resounding series of chimes.

The Clock of the Long Now is being built, not to answer questions, but to ask them.

Who would build a clock that big, to last that long? Why? How? A person asking those questions is forced to grapple with countless generations and the passing millenia. If a Clock can keep going for ten thousand years, shouldn't we make sure our civilization does as well? If the Clock keeps going after we are personally long dead, why not attempt other projects that require future generations to finish?

The people of Stonehenge gave their children the beginnings of astronomy.

What kind of future are we creating?

“Such a clock, if sufficiently impressive and well-engineered, would embody deep time for people. It should be charismatic to visit, interesting to think about, and famous enough to become iconic in the public discourse. Ideally, it would do for thinking about time what the photographs of Earth from space have done for thinking about the environment. Such icons reframe the way people think.”

*– Stewart Brand,
board member of the Long Now Foundation*

The engineering behind such a clock is tricky. To last for ten millennia, it cannot contain expensive metals or jewels that anyone would want to steal. It must be simple enough to understand and maintain, so that even if society collapses our descendants could repair it without knowledge of electricity. It must not rust, or fuse together. It must be modifiable. It must be powered so that it retains accuracy even after thousands of years.

Once completed, reaching the Clock will be a journey. You must start at dawn. When you arrive at its hidden entrance in an opening in the rock face, you will find a jade door rimmed in stainless steel, and then a second steel door beyond it. These act as a crude airlock, keeping out dust and wild animals. You rotate its round handles to let yourself in, and then seal the doors behind you.

It is totally black.

You head into the darkness of a tunnel a few hundred feet long. At the end there's the mildest hint of light on the floor. You look up. There is a tiny dot of light far away, at the top of top of a 500 foot long vertical tunnel about 12 feet in diameter.

You begin the ascent, climbing a spiral staircase, winding around the outer rim of the tunnel toward the faint dot overhead. The first part of the Clock you encounter on the ascent up the spiral staircase is the counterweights of the Clock's drive system. This is a huge stack of stone disks, about the size of a small car, and weighing 10,000 pounds. Depending on when the clock was last wound, you may have to climb 75 feet before you reach the weights.

After you pass the weights, you arrive at the winding station. It takes two or three visitors to push the turnstile and lift the 10,000-pound stones. You rotate around until you can go no further. Now the Clock is wound.

You keep climbing. For the next 80 feet you pass 20 huge horizontal gears (called Geneva wheels), 8 feet in diameter, each weighing 1,000 pounds. This is the mechanical computer that calculates the over 3.5 million different melodies that the chimes will ring inside the mountain over the centuries. The chimes never repeat so that every visitor's experience is unique, and the calculated variety creates a sense of progressive time, rather than endless recycling. And “calculate” is the correct word, because cut into the gears is an elaborate system of slots and sliding pins, which, much like a Babbage Difference Engine, will perform digital calculations, generating the next sequence of the ten bells. Only the Clock calculates without electricity, using your stored energy to moving its physical logic gates and bits. This is the world's slowest computer.

On days when visitors are there to wind it, the calculated melody is transmitted to the chimes, and if you are there at noon, the bells start ringing their unique one-time-only tune. The 10 chimes are optimized for the acoustics of the shaft space, and they are big.

Finally, out of breath, you arrive at the primary chamber. Here is the face of the Clock. A disk about 8 feet in diameter artfully displays the natural cycles of astronomical time, the pace of the stars and the planets, and the galactic time of the Earth's procession.

And then, if you turn one final crank, the Clock will calculate and display the time of day.

Behind the main chamber's dials the stairs continue up to the outside summit of the mountain. The shaft above the Clock continues to the surface, where its opening to the daylight is capped with a cupola of sapphire glass. This is the only part of the Clock visible from outside, on the mountain peak. In this outdoor cupola sits the thermal-difference device to power the timekeeping, and also a solar synchronizer. Every sunny noon, a prism directs sunlight down the shaft and slightly heats up the device.

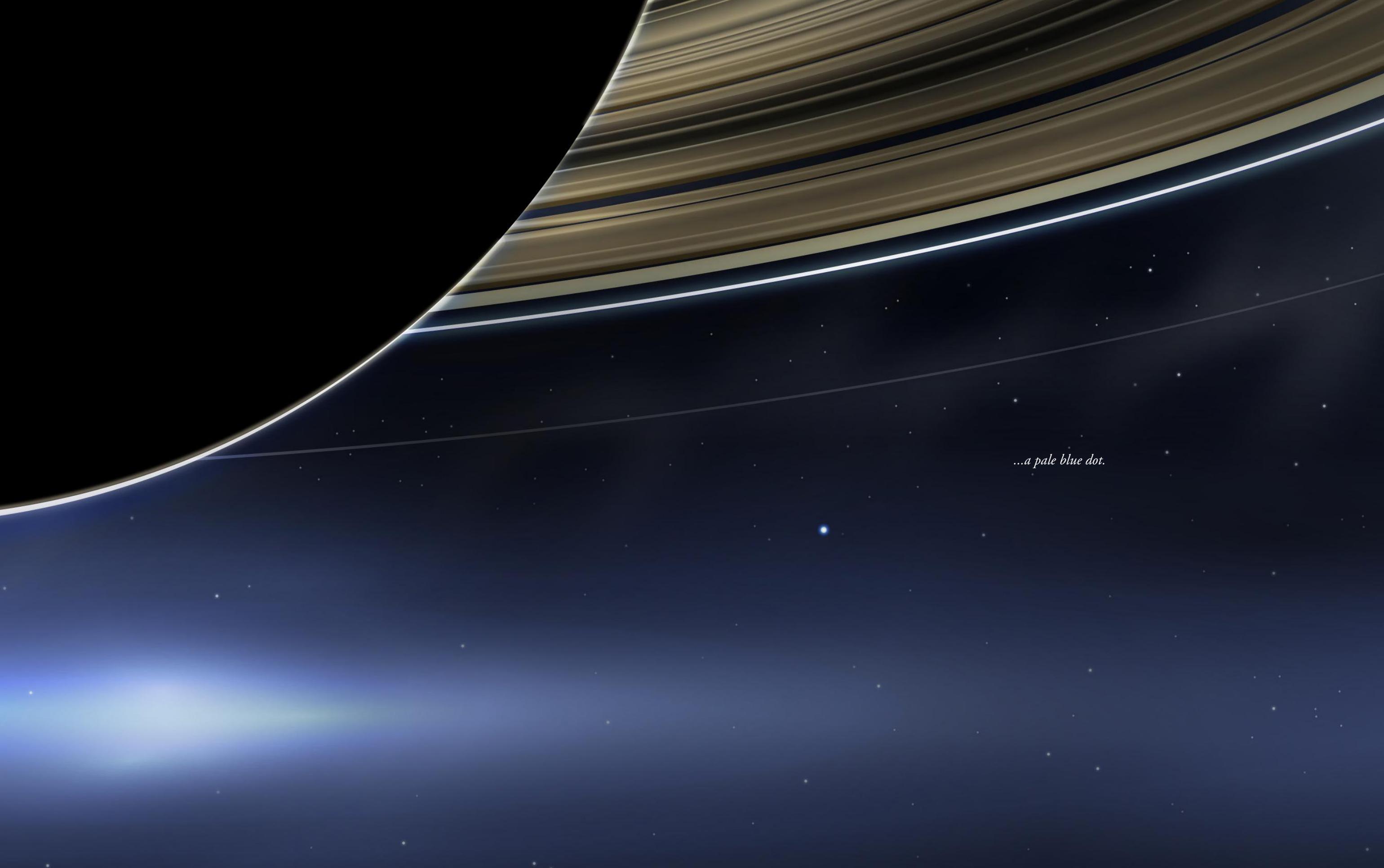
That synchronizing signal is transmitted by rods further down to the Clock's innards, where the imperceptible variations in the length of the day as the earth wobbles on its axis will be compensated so that the Clock can keep its noon on true solar noon. In that way the Clock is self-adjusting, and keeps good time over the centuries.

The journey to the Clock in the mountain ends on the summit in light. It is the sun that powers its ringing below. Like a heart beating while we sleep, the Clock in the mountain keeps time even when we pretend the past did not happen and the future will not come.

The biggest problem for the beating Clock will be the effects of human visitors. Over centuries, valuables of any type tend to be stolen, kids climb everywhere, and hackers naturally try to see how things work or break. But it is humans that keep the Clock's bells wound, and humans who ask it the time. The Clock needs us. It will be a long journey to get inside the Clock under the mountain. But as long as it ticks, the Clock keeps asking us, in whispers of buried bells, "Are we being good ancestors?"

"I cannot imagine the future, but I care about it. I know I am a part of a story that starts long before I can remember and continues long beyond when anyone will remember me. I sense that I am alive at a time of important change, and I feel a responsibility to make sure that the change comes out well. I plant my acorns knowing that I will never live to harvest the oaks."

*- Danny Hillis,
Founder of the Long Now Foundation*



...a pale blue dot.

Fifth Litany of Tarski

If a child will be born five thousand years from now,
then I desire to believe a child will be born five thousand years from now.

If a child will *not* be born five thousand years from now,
then I desire to believe a child will *not* be born five thousand years from now.

Let me not become attached to beliefs I may not want.

Uplift

Written by Andrew Eigel

Hands chip the flint, light the fire, skin the kill
Feet move the tribe, track the herd with a will
Humankind struggles on the edge of history
Time to settle down, time to grow, time to breed

Plow tills the soil, plants the seed, pray for rain
Scythe reaps the wheat, to the mill, to grind the grain
Towns and cities spread to empire overnight
Hands keep building as we chant the ancient rite

Coal heats the steam, push the piston, turns the wheel
Cogs spin the wool, drives the horses made of steel
Lightning harnessed does our will and lights the dark
Keep rising higher, set our goal, hit the mark.

Crawl out of the mud,
Ongoing but slow,
For the path that is easy
Ain't the one that lets us grow!

Light to push the sails, read the data, cities glow
Hands type the keys, click the mouse, out we go!
Our voices carry round the world and into space
Send us out to colonize another place,

Hands make the tools, build the fire, plant the grain.
Feet track the herd, build a world, begin again.

Five Thousand Years

Written by Raymond Arnold

A possible child,
Dreaming through the longest night
A possible smile,
Waking to a distant light

A whole world of possibilities,
Tell me what you see
Where's that child going? Tell me,
Who's that child gonna be?

In five thousand years...
(Whatcha wanna do, whatcha wanna see, in another)

Five thousand years...
(Where we wanna go, who we want to be, in another)

In five thousand years
If we boldly set our sight,
Journey through the coldest night
In five thousand years...

We'll build ourselves a brand new home,
Raise the glass domes high.
And in a century or three
Our children might look at the sky

And then at last they'll see
That distant yellow sun.
The cradle of humanity,
And all the things we might become.

In five thousand years...
(Whatcha wanna do, whatcha wanna see, in another)

Five thousand years...
(Where we wanna go, who we want to be, in another)

In five thousand years...
If we sailed across the stars,
Unimaginably far
In five thousand years...

(Instrumental break)

And maybe good folk still might die,
But maybe not, we gotta try
I don't quite know what shape we'll take
I don't quite know what world we'll make

I don't quite know how things might change
I don't quite know what rules we'll break
Our present selves may think it strange
But there's so many lives at stake

In five thousand years...
(Whatcha wanna do, whatcha wanna see, in another)

Five thousand years...
(Where we wanna go, who we want to be, in another)

Five thousand years...
If we could see through space and time,
What kind of world you think we'd find
In five thousand years...

Oh, entropy is bearing down
But we got tricks of sticking 'round.
And if we live to see the day
That yellow fades to red then grey,

We'll take a moment, one by one
Turn to face the dying sun
Bittersweetly wave good bye,
The journey's only just begun!

In five thousand years...
(Whatcha wanna do, whatcha wanna see, in another)

Five million years...
(Where we wanna go, who we wanna be, in another)

In five billion years...
When all that we once know is gone,
Our legacy will carry on
In five billion years.

Five billion years...
Whatcha want to do, whatcha wanna see, in another
Five billion years...
Where we wanna go...
...who we wanna be...?

The Road to Wisdom

*The road to wisdom?
Well it's plain,
and simple to express.*

*You err,
and err,
and err some more.*

*But less,
and less,
and less.*

– Piet Hein

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