

**IS THE UNIVERSE DESIGNED?
HOW SCIENCE REVEALS ARTISTIC DESIGN
IN THE NATURAL WORLD
IS THIS A SOURCE OF SPIRITUAL PERCEPTION?**

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Spring is in the air. It is happening all around us, bringing us joy.

We contemplate the miracle of life – a miracle we take for granted.

“Miracle” is defined as something that can’t be explained.

We think we can explain how and why leaves emerge and flowers bloom according to natural laws.

But, at the most fundamental level we cannot explain “life” as such.

How did a universe, that includes living, conscious beings, emerge from a cold void that exploded with a super-hot burst of energy?

Natural laws? Where did those come from? Why do they exist?

Yet, natural laws are real, and they hold throughout the universe.

Our house in the forest has a second floor.

On the second floor I can observe the higher branches of trees outside the windows.

I watch the hundreds of tiny branches, seemingly dead all winter, start sprouting tiny, green shoots that will become leaves.

The processes that trigger this event, the complexity of the genes at work, the predictability, -- all are truly amazing.

I have to stop and remind myself that this planet began a hot, rocky void.

What brought life into being? – **life** that is all around us, and **is** us?

This is an awe-inspiring concept – and “awe” is at the center of our spiritual sense.

“Awe” is what has given rise to our enduring religions and philosophies – Confucianism, Hinduism, Buddhism, Judaism, Christianity, Islam, animist religions, Humanism, ... the list goes on.

Awe! – Amazement at the world we find ourselves living in.

Some 13.5 billion years ago, energy, time, and space came into being. Millions of years later, matter formed, then stars, galaxies, and planets.

Some nine billion years after that creative emersion, earth formed out of a cloud of dust and gas.

Organic atoms, formed in exploding supernovas, spread through the universe, and some landed on this planet.

After another billion years, organisms formed from those imported atoms and molecules, and, for some reason, steadily become more complex – leading to us and to all of the Earth’s fauna and flora . And led to our consciousness of it all.

Why? Why? Why?

Is this story believable? Prior generations created myths to explain existence. Now we have testable scientific evidence for this story.

Is the science enough to explain our world?

Some may not even care or wonder.

But others care, they are amazed, they ponder, they feel!

How did chaos become complexity?

Life. Consciousness. Each cell is a miracle.

Today I share with you, two stories that reach the same inspiration – that of a nobel prize winning physicist, and that of a woman with little formal education who has reached this same inspiration from her heart, not from research and experimentation.

Frank Wilczek

One scientist who is among the closest to explaining all this is Frank Wilczek.

Dr. Wilczek received the Nobel Prize in physics for his work in explaining the interactions of subatomic particles, like quarks, leptons, muons.

His field of research, physics, is that branch of science concerned with all matter and energy – our whole world.

Wilczek is, obviously, a true believer in science.

Yet his deep studies of the physical universe, from subatomic particles to galaxies, lead him to discuss what he calls “spiritual cosmology.”

The title of his recent book is: *A Beautiful Question: Finding Nature’s Deep Design*.

His use of the word “design” startles us. Does “design” imply designer? Are we delving into the discredited theory of Intelligent Design? No. But “design” – yes!

He begins his most recent book this way:

This book is a long meditation on a single question: Does the world embody beautiful ideas?

Wilczek begins with Pythagoras, then Plato, Galileo, Newton, and other great minds who have contributed, bit by bit, to our understanding of the world.

In each he shows how they have discovered beauty at the fundamental level.

The beauty of certain laws and principles that hold – no matter what.

Over two thousand years ago, Pythagoras gave us the understanding that mathematics governs all things.

Think how remarkable that is!

Mathematics, purely conceptual, not physical, predicts physical things not yet discovered.

Wilczek's survey of discovery continues to the cutting edge of present day quantum mechanics where he has been responsible for new discoveries.

And, in each new discovery he uncovers remarkable beauty and symmetry behind the apparent randomness of things.

Wilczek shows us how our world, with all of its complexity, is composed of only six fundamental entities, four fundamental forces, and the Higgs fluid.

After his meticulous description of all the particles and forces that makes up the world, and how they interact, Wilczek is able to say:

...in a powerful sense, our Question (does the world embody beautiful ideas?) has been answered. The world, insofar as we speak of the world of chemistry, biology, astrophysics, engineering, and everyday life, does embody beautiful

ideas. ... and it works its will in quantum theory, through music-like rules. Symmetry really does determine structure. A pure and perfect Music of the Spheres really does animate the soul of reality. Plato and Pythagoras: We salute you!...

Yes: the world is a work of art, and its deepest truths are ones we already feel as if they were somehow written in our souls.

Minnie Humphrey's story.

She was a sixteen year-old girl walking a dusty road on the eastern Colorado prairie in 1890.

Rejected and abused, her life was bleak.

No family, no home, no support, not a single friend to call her own.

She remembered her dying mother, Ida, when Minnie was only a child.

She remembered her father, Isaac, who had built a sod house for his family on the plains of North Dakota.

Remembered how she and her three siblings had been sent away to live with distant relatives as her father neared death the following year.

Remembered how her two sisters died soon after in that hard country.

As a child she already new death – her mother, her father, her sisters.

Now, perhaps it was her turn to die.

She thought of giving herself up to die, alone on the prairie.
Who would know – or care?

Minnie had been passed along from relative to relative in those hard times.

But there had been good times.

At Aunt May's, one of her better stays, she earned her young keep by helping in the family hotel.

Aunt May let her take piano lessons and go to school – a two-mile walk.

But Minnie's good times never lasted long.

At age fourteen Aunt May sent her off to live with May's daughter, a school teacher, and her husband, David Bond, a lawyer in booming Pueblo, Colorado.

By now this precocious and mostly self-taught girl was teaching in local schools herself.

She had a flair for language, and acting.

She loved to read and quote Shakespeare.

Soon she was giving dramatic readings at schools, churches, and even at Pueblo's Grand Opera House.

The girl thrilled audiences with her tales of love, sorrow, inspiration, and humor, with recitations like: "Room for the Leper," and "Down by the Rio Grande."

She gave her earnings to the Bond family to help pay for her keep.

Again her joy was short lived.

Minnie's new world of fun, song and drama came to an end when her guardian, Mr. Bond, decided that this dramatic and interesting sixteen year old should become his lover.

Minnie rejected him. So then there was some real drama. The Bonds left for the east, and Minnie was left a penniless girl in Pueblo with no home, no family, and no safety net. She decided to put Pueblo behind her and she headed west, perhaps instinctively, toward the Colorado Rockies that rise majestically at the edge of the dry plains. Finally someone stopped and gave her a ride to Florence, Colorado, a booming crossroads beautifully situated on the Arkansas River at the foot of the mountains. Florence served as a staging area for the fast-growing mining towns high above. Hoping for a new start, in Florence Minnie met a woman who offered her work at the rich and boisterous mining town of Cripple Creek. She agreed to go, but when they arrived at the establishment where she was to work she discovered it to be a brothel. Betrayed again, she walked away and started walking down the mountain, back toward Florence. A man offered his help, and to drive her to Florence. She accepted, and when they got to the edge of town he tried to rape her. She ran away, leaving behind her suitcase containing her only belongings. Somehow she got back to Florence and eventually found a decent job in a Doctor's home, and later on a home with a well-known family, the Sheffields on a large ranch near Cripple Creek. Despite her years of loneliness and hardship, Minnie found inspiration and peace in the mountains.

She saw the beauty and the serenity of the blue skies and starry nights as the work of a great Artist. Despite all she had been through, she radiated beauty through writing, poetry and song, and through her recitations and her singing. Hear her optimism and appreciation in one of her early poems, "Springtime."

SPRINGTIME

*A lazy haze in the heavens,
A verdant green on the ground;
A bursting of buds in the purple glade
Where buttercups abound.*

*A drifting cloud in the azure sky;
A bird sings in the clover,
And we know as the soft breeze wanders by –
It's Springtime the wide world over.*

*A dream of love on the mountainside;
A maid's eyes pensive, longing;
A merry whistle down the lane
And vagrant fancies thronging.*

*The clear, bright skies of lilac hue;
The farmer's thoughts are straying
Where fields lie dormant in the haze
With last year's weeds decaying.*

*A song drifts through the peaceful mist;
Some early birds are mating,
While all the valley, Springtime-kissed,
Seems like a bride in waiting.*

That romantic “dream of love on the mountainside” came true for Minnie at last. With only an eighth grade education herself, she obtained a teaching certificate and started teaching at a country school in the mountains.

In that village she met a tall, strong, and self-possessed man, William Shepherd.

Though he was working as the driver of a twelve-mule team, he also, like Minnie, had a flair for drama.

They formed a group to put on plays in local establishments.

Minnie and William Shepherd were married in Florence.

With the money they saved from their work, the young family moved to Iowa to buy land for the farm that had been William’s dream.

But after building a home and starting a family that included my mother, two sisters, and a brother, there was a financial crisis.

The family lost their farm to a bank foreclosure.

They sold most of their possessions and loaded the family onto a truck.

Like characters out of John Steinbeck, they drove long days and nights back to Colorado where they obtained a bit of raw land in the mountains under the Homestead Act.

They camped out while father and son cut trees for logs to build a sturdy homestead cabin.

Without electricity or running water, but with Minnie’s precious pedal organ, they created a home in the mountain wilderness.

William Shepherd died in 1932, prematurely aged by his hard life.

His daughters engraved by hand a stone from their homestead to place above his head in the Walsenburg cemetery

Minnie survived and flourished through a hard life to almost 90.

Her songs and poetry reveal a deep spiritual sense.

Living close to the earth, surrounded by mountains, undistracted by possessions and pleasures, she was attuned to the world of nature.

Like the scientist Frank Wilczek, she perceived the world as a work of art.

She came to know the Artist. She referred to her “Artist” as God, but I think God was her metaphor for a deep beauty that permeates the world. I believe Grandma Minnie was a pantheist, but that word wouldn’t have been in her vocabulary.

Minnie, and her Artist, made her hard life a work of art.

She left poems, and memories of her performances, that inspire us still.

She, with her Artist, captured the beauty and spirit of the earth with the wealth of poetry and song she created.

THE ARTIST

*I met an artist at his work,
Painting, ever painting –
Mountain slope and mountain height,
Flowering meadow in summer’s light;*

*Faintest flush of glowing morn,
When upon the ear is born*

*Softest twitter of singing bird,
Far away the stillness stirred.*

*But never he ceases his endeavor
Fashioning, painting on forever.
The zigzag rails of a fence outlines,
Overgrown by weeds and vines,*

*And many a flower that upward climbs
Over the rail's rough incline,
Scarlet blossoms peeping through;
Their vivid colors veiled in dew*

*Tell of the artist's wondrous way,
Who is painting, painting night and day –
All the world in colors gay,
Though skies be blue or skies be grey.*

*This artist's work – how truly grand!
Where bright sky kisses the sunlit land;
He paints the river clear and blue
And mirrors the white clouds floating through.*

*He's painting ever night and day;
He paints the world in tints so gay.
His brush is dipped in the sunset's dye
And hues from crimson clouds on high.*

*Then, changing with the season's call,
He mixes his colors and paints them all.*

*Oh, may this painter who's painted for me
From early years of infancy,
Ever and always my artist be*

Through all my years, eternally.

Over the years many people, from the scientists to the poets, and from many cultures have perceived this “miracle” of life. Many believe that somehow it was designed, but the debate is about what to name the designer.

The core concept of Buddhism is “respect for, and active devotion to the welfare of all beings and forms of life.” The Buddhist blessing: “may all beings find happiness.” (Note the use of the word “beings.”)

Albert Schweitzer’s core concept, his answer to theology, evolved to be “Reverence for Life.”

One of my favorite writers, Annie Dillard, describes the “artist’s” work this way:

The extravagant gesture is the very stuff of creation. After the one extravagant gesture of creation in the first place, the universe has continued to deal exclusively in extravagances, flinging intricacies and colossi down eons of emptiness, heaping profusion on profligacies with ever fresh vigor. The whole show has been on fire from the word go!

From two thousand years ago, Emperor Marcus Aurelius wrote:

Whether the universe is composed of an infinite number of blind atoms or one all-seeing nature, two things are clear: first, I am part of the universe governed by nature; and second, I am related in some way to the other parts like myself.

From William Wordsworth:

*And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the human mind;
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things. Therefore am I still
A lover of the meadows and the woods,
And mountains; and of all that we behold
From this green earth...*

And from Hank Stupi:

*I contemplate the universe, stars and galaxies
I stand in awe...this vast infinity
So much more than what these eyes can see...*

So, what is the “takeaway?”

From scientists, to poets, from the highly educated to those with rudimentary education, from the elite to the humble, many humans discern that there may be more to the story than we know.

That may be the spiritual insight that we feel but can't explain.

A great UU minister, Frederick Buechner, put it this way:

Through some moment of beauty or pain, some sudden turning of our lives, we catch glimmers... we tend to go on as though something has happened, even though we are not sure what it is, was or just where we are supposed to go with it. [That] is to enter the dimension of life that religion is a word for.

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