

Witnesses in Stars and Stones

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From out the misery of a cold, dark, comfortless jail cell in Liberty, Missouri, Joseph Smith asked a poignant question that all of us sooner or later in our lives have asked or will ask: “O God, where art thou?” You know the story—many of you have probably been to see Liberty Jail. The Saints had been driven from their homes—indeed, from their state—in the cold of winter, and the whole Church had been brought down to near destruction.

In answer to Joseph’s question, what comfort did the Lord have to offer? If we turn to D&C 121, we find the answer.

1. First, the Lord invokes the immensity of time: “Thine afflictions shall be but a small moment” (verse 7), He says, and the hope of the enemies of the Saints “shall be blasted” (verse 11).

2. Second, He comforts Joseph and the Saints with promises of great knowledge.

3. Third come promises and exhortations regarding priesthood.

We usually focus our attention in this section on this last point, but, in fact, considerable emphasis is placed on the comfort to be derived from knowledge, and it is about this I would like to speak.

Listen to these words:

All thrones and dominions, principalities and powers, shall be revealed and set forth upon all who have endured valiantly for the gospel of Jesus Christ.

And also, if there be bounds set to the heavens or to the seas, or to the dry land, or to the sun, moon, or stars—

All the times of their revolutions, all the appointed days, months, and years, and all the days of their days, months, and years, and all their glories, laws, and set times, shall be revealed in the days of the dispensation of the fulness of times. . . .

How long can rolling waters remain impure? What power shall stay the heavens? As well might man stretch forth his puny arm to stop the Missouri river in its decreed course, or to turn it up stream, as to hinder the Almighty from pouring down knowledge from heaven upon the heads of the Latter-day Saints. [D&C 121:29–31, 33]

Now, here we are at a great university, all of us focused on the quest for knowledge. From the passage above, as well as from others, it is clear that knowledge is something God values

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greatly. In fact, when you think about it, helping each other grow in knowledge stands at the heart of most of what we do in the Church. When we attend meetings, participate in missionary work, attend the temple, listen to conference, and participate in interviews, these activities are all primarily focused on helping us grow in understanding and knowledge—deep knowledge, that is—knowledge that includes facts but goes far beyond to embrace wisdom, as discussed by Elder Oaks in a wonderful conference talk last spring that I strongly encourage you to reread (see Dallin H. Oaks, “Focus and Priorities,” *Ensign*, May 2001, 82–84).

But going back to Joseph Smith’s situation: What value and comfort do we find in knowledge? Surely we would all agree that knowledge of the gospel itself can comfort and inspire. But can so-called secular knowledge do so as well? When you stop and think about it, it should—that is, when you consider that all truth comes from God. He doesn’t make the distinction between sacred and secular truth. To Him it is all one—it is all truth.

Let me give you an example of the kind of comfort and inspiration I have found in my own life from what we might normally call secular knowledge as revealed in the latter days. These are things I’ve learned in just the kinds of classes you might be taking in school right now.

I’m amazed at the fulfillment of the promise given in D&C 121 that during the term of this dispensation much will be revealed about the stars, planets, and the world in which we live. So when I’m camping at Lake Powell or elsewhere with my kids, I love to talk to them about those things. Our favorite time is at night. Perhaps you can recall being out on a clear night yourself with no clouds and no moon, far from city lights. Close your eyes and go back there with me. Look up. What do you see? A black sky full of stars. Does the sight not fill you with wonder?

How many stars do you think you can see? I’ve asked this of different groups on different occasions, and the usual answers range all the way from thousands to millions.

If you ask your local astronomer how many stars you can see, she’ll tell you it’s about 10,000. The answer will vary a little depending on whom you ask, but it will be in about that ballpark. And for thousands of years that’s how many stars it seemed there were. But it has only been in the last couple of hundred years that we’ve begun to realize how many stars there really are! Just as the Lord has promised, in the dispensation of the fulness of times new knowledge about our universe is accumulating at a breathtaking and accelerating rate.

Probably the most recent and dramatic improvement in our view of the real scope of the universe results from the launching and subsequent fixing of the Hubble space telescope. Now we look out at a tiny patch of sky that before looked like a black, empty spot and find it is full—not of individual stars but of galaxies, each of which has hundreds of billions of individual stars in it.

So what is the answer to our question? How many stars are there? Well, brace yourselves, because the answer is truly awe-inspiring. Again, depending on whom you ask, you’ll get an answer something like this: There are about 100 billion stars in the Milky Way galaxy, and there are about 100 billion galaxies in the known universe.

Now that answer merits some serious pondering. Unfortunately we’ve become rather glib about using big numbers nowadays. With national debts in the trillions and gigabytes in our computers, these numbers roll easily off the tongue. But what do they mean?

Even on the surface you can tell we’re talking about a lot of stars. But how can we get a real feel for the numbers involved? The difficulty reminds me of some verses in LDS scripture that also speak of the immense numbers of worlds in the cosmos.

First, let's turn to Enoch, who is shown the cosmos and says:

And were it possible that man could number the particles of the earth, yea, millions of earths like this, it would not be a beginning to the number of thy creations; and thy curtains are stretched out still. [Moses 7:30]

Now let's see what Abraham said:

Thus I, Abraham, talked with the Lord, face to face, as one man talketh with another; and he told me of the works which his hands had made;

And he said unto me: My son, my son (and his hand was stretched out), behold I will show you all these. And he put his hand upon mine eyes, and I saw those things which his hands had made, which were many; and they multiplied before mine eyes, and I could not see the end thereof. [Abraham 3:11–12]

And here is what Moses saw:

And he beheld also the inhabitants thereof, and there was not a soul which he beheld not; and he discerned them by the Spirit of God; and their numbers were great, even numberless as the sand upon the sea shore.

And he beheld many lands; and each land was called earth, and there were inhabitants on the face thereof. [Moses 1:28–29]

It is interesting that repeatedly in scripture, when the Lord is trying to help us imagine huge numbers of things, He alludes to the grains of sand on the beach. And there is another reason this metaphor is especially fascinating to me: because it pops up in another, entirely unrelated place. In his 1980 television series *Cosmos*, Carl Sagan, a scientist who was, in fact, not a believer, tried to help the viewer understand the enormous numbers of stars there are. Lo and behold, he stated that the number of stars in the known universe is greater than the number of grains

of sand on all the beaches of the planet Earth. Now, when I first heard that, I have to admit I did a double take. I'm from Missouri, as are most scientists, so you have to "show me." (Actually I'm from Canada, eh?) I wanted to be shown that this is really true, so I did my own calculations using outlandish estimates of the amount of beach property on earth, the average depth of a beach, etc. Now there's something you can try at home—so try it, and if you do, you'll be astonished to find that Carl was about right.

Imagine how many stars that represents! Imagine standing on a huge beach, the sand stretching out for miles before you. Reach down and gather up a handful of sand and imagine trying to count the number of grains just in your hand. Now imagine all the sand on all the beaches. That's how many stars there are. This is a really awesome thought! Does it inspire you? It does me. Does just thinking about it take your mind off your problems? It does for me. Perhaps this is what God was talking about when He gave the promise of great knowledge to Joseph Smith in Liberty Jail as a source of love and comfort. Remember the hymn we sang last week: "O Lord my God, when I in awesome wonder Consider all the worlds thy hands have made . . . ; Then sings my soul" ("How Great Thou Art," *Hymns*, 1985, no. 86). You know, it's hard to stay discouraged when your soul is singing. It's hard to look at the night sky and think of the scale of the universe and be depressed. What mankind has learned about the stars has become a source of both comfort and inspiration. And chances are you'll never look at the night sky again without thinking about these ideas.

This whole idea about the scale of the known universe is so fun to contemplate, let's look at it again from another perspective. You are the captain of the starship *Enterprise*, and you have set out to explore the universe, to go where no man (in the case of James T. Kirk) or no one (in the case of Jean-Luc Picard)

has gone before. You wish to identify all the inhabited solar systems in the universe, and so you set out. But you have an important advantage over these other captains. You have a new super-charged *Enterprise* that can ignore all the effects of relativity and acceleration and get from one star to another in one second. You then have one second to explore that solar system and move on to the next. You begin your exploration the second you are born (you are a very precocious child!), and you continue it nonstop for your 100-year life span. You don't stop for lunch or to sleep or to open your Christmas presents. How many stars will you have visited at the end of your journey? It turns out only about 1.5 billion. How discouraging! You worked really hard, but you've only managed to visit around 1 percent of the stars in our own galaxy, let alone in any of the other 100 billion galaxies out there. So how long would it take to visit all the stars at this rate? Oh, about 100 trillion years.

Now, no thinking human being can come up against these newly revealed truths without feeling a sense of awe at the vastness and complexity of our universe. For us, as Latter-day Saints, this kind of insight is a striking testimony of the greatness of God's power. Others, like Sagan, feel the awe and wonder but are not convinced. One might ask, why the difference? Well, because we do not derive our testimonies from nature's wonders. Our testimonies come from the voice of the Spirit to our hearts. Having received the witness, though, the awe we feel finds a comfortable home in our testimonies, it reinforces faith, it confirms and enlarges what we already know to be true. And keeping this kind of perspective inspires us and helps us to endure the challenges of life and, yes, sometimes great suffering, such as Joseph was able to endure in Liberty Jail.

When we look at the night sky, and in many other ways, the wonders of nature bear witness to us day in and day out of a Heavenly Father who brings order to all we see around us. Ask

yourself how often you stop to listen to these witnesses. If you're like me, the answer is "not often enough." That's unfortunate, because every time I stop and listen, I am healed. Each time I grow in appreciation of God's great plan in which all of nature participates, and it heartens me to know that I, together with you, lie at the center of that plan. Just think that all this vast creation was made for you and me! Doesn't that make you feel both humble and wonderful at the same time?

Now we've talked about the majesty of God's creations on the scale of the very large, but there's just as much to be said and it is just as amazing to look at it from the other end of the spectrum: on the scale of the very small. Take just one of those grains of sand we talked about earlier. Even this is a true marvel of complexity. Each grain contains about the same number of atoms as there are stars in the known universe. They are arranged in neat rows, linked by electrons that dance in amazing wheels of choreography. If you were the size of an atom and looked about you within one of these tiny stones, you would see rank upon rank of atoms lined up like soldiers on parade extending outward as far as the eye can see in all directions. In fact, at this scale you could journey for months through the matrix and never find an edge. You would be in a little world that seems to go on forever.

Now the world of atoms as depicted in those \$100 chemistry texts you buy at the bookstore looks static and lifeless, but the real world of atoms is in constant motion, with atoms jiggling and colliding and forming and breaking bonds in a frenzied kaleidoscope of constant change. Only now are we beginning to be able to depict how this amazing world works. Newly revealed knowledge of the miniature world presents another witness—a tiny but powerful witness—to the grandeur of God's laws and the care with which He has designed this amazing universe.

And then there is you. Believe it or not, as befits a child of God, your body is the most complex system in the whole universe. The more we learn about the cells that make you up and the biochemical processes that make you function, the more awe-inspiring you become. Every cell in your body is an amazing little world of its own with gates and walls, with sophisticated chemical factories, with a central government and a complex communications system. If you could be the size of a protein molecule and set out to explore a single cell in your body, you could spend a lifetime observing all the comings and goings and the busy activity and never run out of interesting new things to see. The experience would make going to Disneyland pale in comparison. And you have a hundred trillion such cells of innumerable different kinds! Anyone who has seen a video of circulating blood knows what a complex and awe-inspiring sight it is to see a living system in action at the cellular level. Again, we share this sense of awe with nonbelievers. As Carl Sagan said, “We are, each of us, a multitude. Within us is a little universe” (in “One Voice in the Cosmic Fugue,” episode 2 of *Cosmos* [1980], videocassettes, DVD). For Latter-day Saints the complexity of the biological world provides another witness of the greatness of our Father in Heaven and His creative genius.

As time goes by and we learn more and more about the cosmos on the scale of both the large and the small, the more we find so-called secular and religious truths coming together to bear witness of our Father’s great plan. All of this vast, complex universe has been designed for a purpose—one that includes us as very important players. Mormonism is the only Christian religion I know that adopts the doctrine that the earth is part of a vast civilization that spans the universe, that men and women are passing through one natural phase in the life cycle of eternal beings who populate

the universe in a planned, organized fashion. Think of all the great knowledge that has been poured out in the dispensation of the fulness of times, as prophesied in D&C 121. These truths, both sacred and secular, are an ever-expanding testimony of this marvelous plan. Everywhere we look, both on the scale of the very large and on the scale of the very small, witnesses in nature speak to us of our own place in the grand scheme of life. Knowledge of this plan makes it possible for us to adopt an eternal perspective that is otherwise impossible to achieve. We see life and the problems we face from a whole new angle, and this offers us a sense of hope beyond the confines of this world. It is indeed reassuring to know that there is a plan behind the seeming chaos in which we are immersed, that there is a Master who loves us and who governs all things from the greatest to the least.

Look about you and you will see God all around. In the Lord’s own words:

*All kingdoms have a law given;
And there are many kingdoms; for there is
no space in the which there is no kingdom; and
there is no kingdom in which there is no space,
either a greater or a lesser kingdom.*

*And unto every kingdom is given a law;
and unto every law there are certain bounds
also and conditions. . . .*

*Behold, all these are kingdoms, and any
man who hath seen any or the least of these
hath seen God moving in his majesty and power.*
[D&C 88:36–38, 47]

Now, in conclusion, let’s consider the most awesome thought of all, that through the power of the Atonement we can be joint heirs with Christ and can inherit all this, “all that [the] Father hath” (D&C 84:38). How much is it that the Father hath? Enoch, Abraham, and Moses had an idea, for it was shown to them. We have their testimonies,

but I think we have begun to catch the real vision only in recent years. What the Father hath is an awful lot. And as joint heirs with Christ, just think: It could all be ours one day! What a source of comfort and strength and hope that whatever we have to endure, it is worth it. “All that [the] Father hath” can be ours. I am humbled by that prospect. Look what is in store for us if we live worthy of it. Look at all we stand to lose if we fail. With all that we know, how can we hesitate to do everything it takes, to sacrifice all we have to sacrifice, to obtain those blessings?

Perhaps you find yourself facing great adversity in your life, as did Brother Joseph in Liberty Jail. Perhaps you have felt to cry out, “O God, where art thou?” as did he. The Lord has sent you comfort—many sources of comfort and inspiration—not the least of which are witnesses in stars and stones that He lives, that He loves you, and that He has set in place a plan by which all that He has created can be yours if you will have faith and endure. That we will do so and find great joy therein is my humble prayer, in the name of Jesus Christ, amen.