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## Here Shall Your Proud Waves Be Stayed

*Reflections on knowledge, science, and revelation*

*John D. Mays*

Oh science teachers, consider the joys of your vocation! I have been thinking a lot lately about some of the amazing aspects of God's creation, and meditating on some of the astonishing things God has *said* about his creation. I have also been thinking about what we know and what we don't know, and how these things relate to what we communicate when we teach science. In this essay, I would like to reflect on these things, eventually leading to a meditation on a short passage from Job 38.

### Unique Joys of Teaching Science

It seems to me that there are unique aspects to our knowledge of nature, and these lead to some unique joys in teaching science. To explain, consider the teaching of history. Historians often know *how* things happened (the sequence of events leading up to an incident), but they rarely know *why*—that is, in teleological or ultimate terms. It is risky for historians (or anyone else) to speculate on the ultimate reasons surrounding why something happens because historical events can happen for any number of reasons—an act of human kindness, human error or sinfulness, natural processes, an attack by the Evil One, or an act of grace or judgment from God (and of course these categories are not mu-

tually exclusive). We know why Pharaoh and his army were destroyed—we are told in the Scripture; it is not clear at all why the World Trade Center towers were destroyed, and the fact that everyone has an opinion about it doesn't really settle anything. We know the sequence of events in some detail; ultimately, we cannot say *why* it happened.

I think science teachers are sort of in the opposite position. Our scientific knowledge about how things happen is limited (though it may not seem so). But we do know a lot about the whys of the natural world. Why is creation here? *For God's glory*. Who can forget the first three questions of the Westminster Children's Catechism?

Q: Who made you?

A: God.

Q: What else did God make?

A: God made all things.

Q: Why did God make you and all things?

A: For his own glory.

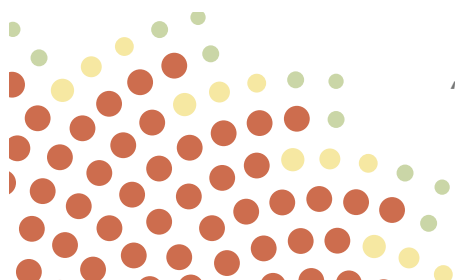
(I can still hear the lilt in my little daughters' voices as they chanted these responses over 20 years ago.)

Now I need to back up. What exactly do I mean when I say that our scientific knowledge is limited? Don't we know a lot? Haven't we put men on the moon and created carbon nanotubes? Yes, we certainly have discovered many amazing things, and

have put them to use in fantastic technologies. But even so, there is much we do not know. Scientifically speaking, how did we get here? How did the energy at the beginning of the universe form from nothing? We don't know. How did life arise? We don't know. What is it that happens when an organism dies—passes through that boundary between living, though perhaps injured or diseased, and not living? We don't know. Why do radioactive atoms strictly follow statistical patterns in their decay rates, and what determines when a single atom of uranium decays? We don't know. How can atoms of a given element, which apparently act independently, decay at different times, but in the aggregate display a consistent half-life? We don't know and perhaps *cannot* know. How does the brain in a developing unborn child generate 25,000 *neurons per minute* for nine months to produce a brain with a billion neurons, each connected to thousands of other neurons—especially when the human genome only has 26,000 genes with which to generate the instructions that control all the myriad bodily processes? We don't know.

"Now hold on there just a minute buster!"—I can hear some of my friends saying. "We *do* know how man got here—

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God made him from the dust of the ground and breathed into him the breath of life. That explanation is as plain as a periwinkle!" Well, I too relish the beauty and profundity of the Genesis narrative, but I do not understand periwinkles or any other flowering plants (a subject for later, perhaps). And it is certainly not adequate to say that after reading the Genesis narrative we know how man *got* here. That's like saying that because we know what spiderwebs look like we understand how spiders know how to build those things. We don't *really* know how we got here. However, I do know that there is a lot more to it than just saying *poof!* and there Adam was blinking awake for the first time, dazed and marveling at the warmth of the sun on his bare shoulders and wiggling his toes in the dirt.



*Anything here you don't understand?*

"But hold on there you reckless naysayer!" other friends will say, "we *do* know how man got here—he *evolved*." With all due respect, this explanation is no more illuminating than Genesis chapter 2. It might even be *less* illuminating, but we don't know that either. Even if there were some element of evolutionary process involved—and I'm not saying there was or there wasn't—that is a far, far cry from explaining man. There is still a lot more—way more—to it than that.

Let's go back to what we *do* know—some profound things about the *why* of creation. Why are hundreds if not thousands of physical parameters in nature fine-tuned for the benefit of human life? So that human life can be! Why must human life be? *For God's own glory*. Why do

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things die? Scientifically, it is impossible to say. But in Psalm 104:29 God has revealed to us a different way to answer this question about life in the world he made: "When you take away their breath they die and return to their dust." This is the real answer to the question of why things die—they die *because God takes their breath away*.

### Materialism—In Our Classrooms?

This kind of biblically informed thinking is really necessary to counteract the materialism that constantly tries to sneak in the back door of our science classes. And I'm not talking about public schools; I'm talking about materialism in Christian schools, because if all we do is cite scientific findings when explaining the natural world to our students, then we are being materialistic. There is much more to say about the natural world than we can say or will ever be able to say merely from scientific research.

Some Christian educators try to combat materialism by wielding the Bible like a bludgeon to smash it: Bible verses and prayers in every chapter, in every class, on every page of a text. But students can find such methods off-putting because they are heavy-handed. An example of this I once encountered was the statement that atomic bonds are supposed to make us think of God's power. Now, I would agree that some things do directly remind us of God's power—storms at sea, for instance. The Bible even connects these together when Jesus calmed the storm. But it seems contrived to make the connection in the context of atomic bonding. The atomic bond is still very much a mystery to us, even though we may have cataloged the bonds with bonding theory, mathematically modeled the bonds with quantum mechanics, and "explained" the bonds by the mediation of bosons.

The persistence of mystery here provides us with a rich context for making much deeper connections between nature and its Creator with our students. For example: 1) the apparent limitlessness of the complexity in atoms—a complexity that seems to many (though not to all) to go far

beyond what the human mind is capable of understanding; 2) the orderliness, regularity, and continuity in atomic bonds, which points like a flashing neon sign at the intelligence behind the natural order, God's intelligence; and 3) the unbreechable wall of mystery surrounding the question of how energy and matter can be brought into existence, along with time itself, from nothing. That is, the mystery of reality—what this world *is*. We deny that it is a dream of God. We claim that it has objective existence apart from God. But when we say this we don't even know what we mean or what we are talking about. Probably there is no such thing as "objective existence apart from God." And probably it is useless to try to imagine my own existence as objectively separate from the world, since I am no doubt as inseparably part of the world as everything else is.

### A Meditation

If we science teachers in Christian schools are to bring a biblical perspective on nature to our students, *it is essential that we spend time in nature meditating on nature*. We should, of course, encourage our students to do the same. (Such encouragement must be delivered while looking the student straight in the eye, communicating through the gravitas of your aspect that you do not consider suggesting meditation to be an exercise in futility.) The following is a short meditation, an attempt to think God's thoughts after him—faith seeking understanding. Topic: the sea.

Job 38:8–11

Or who shut in the sea with doors,  
when it burst out from the womb,  
when I made the clouds its garment  
and thick darkness its swaddling band,  
and prescribed limits for it  
and set bars and doors,  
and said, "Thus far shall you come, and no farther,  
and here shall your proud waves be stayed?"

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*Beautiful...*

I began these reflections by considering that we know so much more about nature than science alone can tell us. What do we *know* about the sea? Shall we ruminate briefly on the Scripture and the sea?

Throughout Job 38–41 God is essentially *boasting* about the works of his creation. In the passage from Job 38, we see God's own love for the sea, his joy over it, and his pride in its splendor. I learn more about the ultimate reality of creation from this simple passage than from all the books of philosophy I have read. Creation is not

an illusion—God made it. Creation is not evil—God positively delights in it. God called the seas good when he made the earth, and indeed they are for without them life on this planet would not exist.

There is something of tremendous importance here when we consider the nature of creation and its status in terms of God's ultimate purposes. The present creation is not the end of the creation journey; there is more to come. Romans 8 describes creation as subjected to futility and groaning as in the pains of childbirth. These are colossally

*And terrifying.*



complex theological statements, and I don't think we can say we have a very clear idea of what they mean. But we at least know that creation is still in process—there is an *unfolding*, as some writers have put it.

But the fact that creation is in process does not mean that creation as it now stands is totally corrupt or broken. There is a strong tendency in sermonizing about Genesis 3 to extrapolate from the curse on the ground that much in nature is now hostile or ugly. It seems to be clear that humans must endure lives of exhausting toil as a consequence of the Fall, but the attitudes ascribed to God in Job should place firm limits around how far we go in describing creation as a hostile place. God *delights* in the sea, even though the sea sometimes wreaks havoc. Mysteriously, God claims sovereign authority over such events in passages such as Isaiah 45:7: "I form light and create darkness, I make well being and create calamity, I am the Lord, who does these things," and Exodus 4:11: "Who has made man's mouth? Who makes him mute, or deaf, or seeing, or blind? Is it not I, the Lord?" And the statements elsewhere in Job about the predator animals God made are strong demonstrations that many creatures (most, in fact), as God made them, are predators—a profound and dizzying idea. I often think that our judgments about the present order—an order that includes predation and calamity—are generally simplistic and fail to see the present order of creation as part of the unfolding of God's supreme plan for all that he has made (and will make). Yes, human sin led to disobedience and corruption for all mankind, and has made our lot in life harder than it would otherwise have been. But we are too quick to leap from this to describing everything in creation that causes us pain as evil. Somehow, in the infinite wisdom of God's creative economy, even the pains we endure now are part of our growth as humans, a necessary component of what God intends for us to become. Of course, C.S. Lewis dwells on this extensively in *The Problem of Pain*.

I have been thinking about these aspects of the present order frequently for some time and still feel that my understanding is minuscule. With Job I must confess that I have uttered what I do not understand, things too wonderful for me.

*Here shall your proud waves be stayed...* Because we understand the history of the earth as entailing total and repeated

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changes to the shapes of the continents, we don't often consider the *deliberateness* of the coastlines, which have been more or less as they are throughout human history. God prescribed limits for the sea, as he has for *everything*. All things have their rightful places, and these places are not random, they are intentional, part of the harmonious order God recognizes by saying, "It is good." The human race lives at a particular time in the history of the universe, a time when hundreds of necessary factors have coalesced or aligned to allow us to live. The boundaries of the sea, in place by God's specific decree, are part of that harmony.

We are all aware of the abundance and strangeness of life in the sea. God created this abundance: "Let the waters swarm with living creatures..." John Steinbeck was fascinated by the abundance of life in the sea, and also by its apparent recklessness. Steinbeck observed that "everything ate everything else with a furious exuberance." Like Annie Dillard, Steinbeck was astonished by the fecundity of nature. Steinbeck was considering a sea snail called the "sea hare" when he wrote: "a California biologist estimated the number of eggs produced by a single animal in a single breeding season to be more than 478 million..." Comments such as these compel continued reflection.

*Here shall your proud waves be stayed...* I am enraptured that God calls the waves *proud*, but what does it mean that the Creator speaks of his creation in such terms? Obviously, this passage is poetry, conceived and written in the most elevated possible

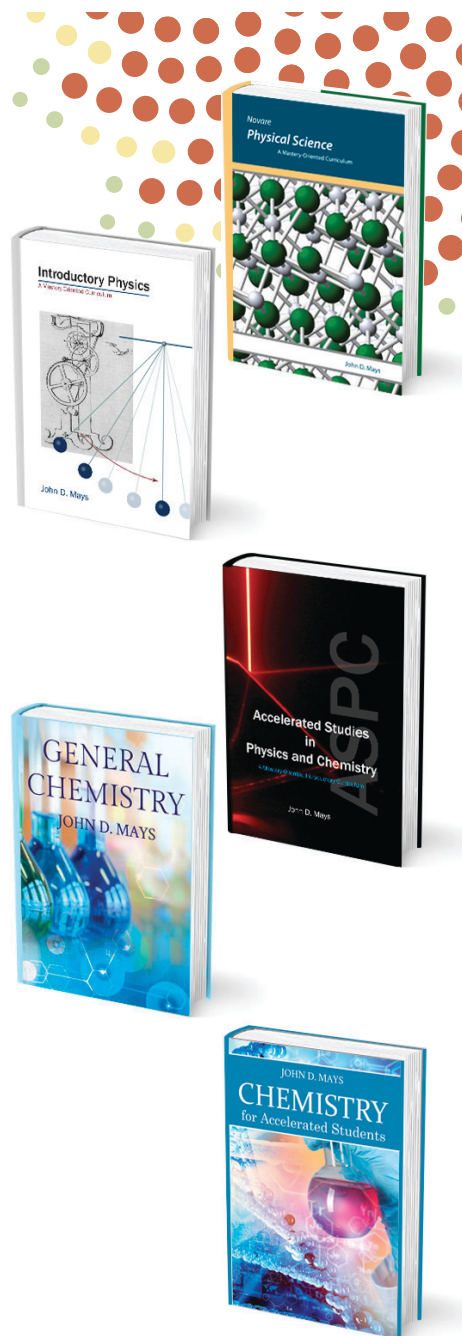
style. Still, why did God call the waves proud? Why this particular choice of adjective? What ineffable mystery lies behind this divine communication?

We must consider the meaning of the term *proud* in this context: not proud in the sense of the human sin of pride, but in the sense meant in the titles *All the Proud Ships* (a novel by Charles E. Friend) and "The Proud Peaks of Scotland" (a Scottish folk song).

Proud as in *majestic*. But with respect to the sea, we must regard even the term majestic as an understatement. *Sublime* is better, but not because sublime means beautiful beyond words—that's not actually what it means. Sublime means *simultaneously beautiful and terrifying beyond words*, and the terror is part of the fascination in the beauty. South of South America, the ocean completely encircles the globe, giving rise to huge waves called Cape Horn rollers, waves 60 to 90 feet high that race around the globe at 30 mph. (You can read about them in Alfred Lansing's tremendous book *Endurance*, the mind-numbing story of Ernest Shackleton's heroic escape from Antarctica in 1914 after his ship was destroyed in the ice.) I cannot conceive of a 90-foot wall of water coming at me at 30 mph. Where are the boundaries now? Where the staying of the proud waves?

Referring to the waves as proud suggests that God imbued the waves with their own *dignity*; they inspire and mystify. The personification is so compelling that we are virtually forced to ascribe volition to them, just as we personify the mountains that seem like great giants to us. We give them human names, like the Three Friars of Cabo San Lucas that Steinbeck wrote about. Jesus himself joined us in personifying the rocks by saying that if his followers did not offer forth praise the stones would cry out. But I take his statement to be more—much more—than mere metaphor.

No space remains for continuing these thoughts. To all of us who aspire to teach children about God's creation: we must meditate on creation in light of God's word if we are to know at all what we are talking about. May we each faithfully do so. ▲



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