



MASTERY. INTEGRATION. KINGDOM.

Earth Care: Good Science, Biblical Stewardship

Late Night Thoughts About Earth Science Textbooks

John D. Mays

Many readers of this newsletter know that next year at this time I plan to be finishing up a new middle school earth science text. In recent months I have been thinking a great deal about this upcoming project

and reading a great deal to prepare for it. The central idea I have been developing for this project is encapsulated in the title of this article. It occurred to me that readers might enjoy a preview of my thoughts on the subject.

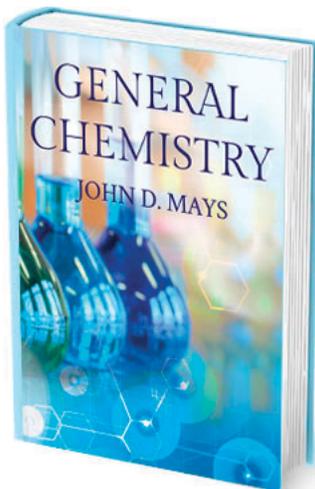
The subject is as broad as the earth itself, as profound as our place in it, and as complex as the political and social controversies we hear about every day. Apart from the controversies, environmental issues have of course been addressed in earth science texts for 50 years; there is nothing new about that. But the pathetic attempts in contemporary textbooks to get kids excited about recycling strike me as eyes-glaze-over hollow. Not only are treatments superficial, they are generally hypocritical.

For example, how many of us go to churches that fill five or ten large trash bags with plastic and polystyrene waste after a church fellowship meal? I remember *weekly* church meals in the 1960s and 70s where we ate on sturdy plastic dishes with metal utensils at tables covered in real cloths, all of which were washed and reused; there was no waste at all except food waste. For the past 20 years, all we see is trash and more trash. What are students supposed to think in such an environment when the earth science text talks about recycling and reducing waste? And this issue is just the tip of the iceberg. Folks, we have a lot of work to do.

(Passing thought: If your church does not have a facility with a kitchen and dishes,

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continued on page 2

Chair, Table, and Lamp

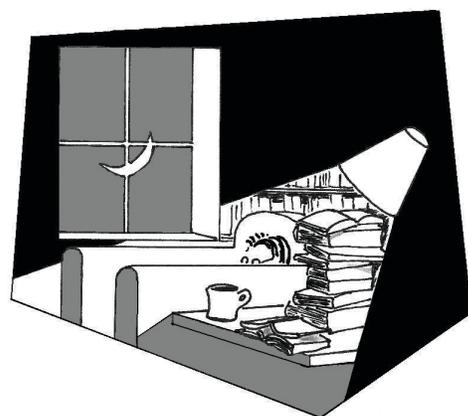
John D. Mays

To accompany the article about earth science texts, I am devoting our book review column this time to a brief outline of some of the great literary works addressing the themes of nature and living in harmony with the earth. This literary tradition has a very long history, going back to the first-century Roman Pliny the Elder, and back 600 more years to the Greek Heraclitus before that. My approach to this enormous lit-

erature has been to read occasionally over a long period of time. As with many other things we wish to accomplish that require a lot of time, doing a little at a time over a long time eventually adds up.

In this short column there is nowhere near enough space to list all the important works in this genre, even if I knew them all. So I will simply list a few of the works with

continued on page 4



what if someone were to organize people to bring dishes, cups and utensils and take them home and wash them? Why aren't we doing this? Surely *someone* in our church and in your church has a heart for such a ministry. Any Life Scouts out there looking for an Eagle service project? Alas, throwing away trash is simply too easy, and in our hectic times washing the dishes seems like unnecessary drudgery.)

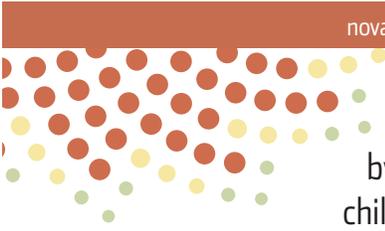
But my vision for an earth science text is to go beyond the conventional material about recycling. I want the text to be imbued with a sense of what caring for the earth looks like in contemporary culture, and I want the discussion in the text to appeal to 21st-century teenagers, most of whom spend a great deal of time in front of a computer and very little time in nature. The cultural context of our teenagers is such that *no* discussion of earth science can take their interest for granted. Their attention is not granted. We have to find ways to get their attention and stimulate their interest.

Nature is More Rewarding than Social Media

One of the most difficult problems is the one I just mentioned—except for Boy Scouts, those who hunt and fish, and a few families who like to go camping, kids don't spend much time in nature any more. And textbook writers do not have the opportunity to plan outdoor activities.

One way to address this might be to relate a few stories from my own boyhood, which included things like playing in the woods along the cliffs of Nonconnah Creek in Memphis (the creek is still there, but as far as I can tell from Google maps the cliffs are not), catching crayfish (we called them crawdads) with bacon on a string at a creek near our home in Houston, and watching our neighbors' cat give birth to a litter of kittens. In the previous issue of this newsletter, I told of the luminous times with the Boy Scouts singing hymns of a Sunday Morning and worshipping as the morning sun baked our faces in pine forest clearings.

Nothing changed when I became an adult. I've been outside most of my life. Recently, I drove out to the country and stayed up all night to take photographs of the moon as it went from full to eclipse to full again. It was stunning. Working out the geometry of why the moon appeared to move to the right while the eclipse began on the left gave me the sensation of feeling the earth rotate and move. It was very fine.



“The earth is not just any gift; it is the most finely crafted of gifts, made for us by a loving Father who gives good gifts to his children.”

Times are somewhat different now, but not so much that we cannot ensure that our children still find ways to enjoy the world God made for us and learn about it through first-hand encounters such as these I have described. I am struck by the apparently incontrovertible notion that to love a thing—any thing—you have to know that thing. We do not love what we do not know about and spend time with—out of sight, out of mind, as the expression would have it. The thing for kids to do is get outside and away from their electronics and social media. As adults it will be plenty hard for them to find time to do so. They should be learning to love God's world while the time to spend in it is easier to come by.

Biblical Stewardship

One of the things I wonder about is why so many Christians have such little regard for the earth, the precious gift fashioned by God as a place for man to dwell. Through the centuries, hundreds of scientists have observed that the world seems designed with human beings in mind—and I believe it was. It seems to me that believers should be the most committed environmentalists of all.

In my recent thoughts I have likened this world—God's gift to us as our earthly home—to a fine, hand-crafted bicycle, fashioned with great care and pride, and given by a loving grandfather to his grandchild. Probably none of us has ever received such a gift, but if we did, imagine how intent we would be on cherishing that bike and caring for it. We would never dream of treating it in a way that was guaranteed to ruin it or use it up.

For Christian schools and home schools, the proper place to start thinking about any academic discipline is to consider what Scripture has to say about it. It is not difficult to demonstrate that the loving God who created this world loves his creation and wants us to take care of it. I constantly hear people shrinking from this message because of a different mentality often espoused by Christians: that the earth is ours to exploit because (a) we are to exer-

cise “dominion” over the earth and its creatures, or (b) we won't be here much longer before Jesus comes back, or (c) this world is not our permanent home so it's fine if we use it up.

My friends, in a word, all such thinking is simply unbiblical. This earth, along with the rest of creation, gives glory to God. Destroying the bicycle does not bring honor to the grandfather who made it, and treating the earth as if it were ours to exploit does not bring honor to its Creator.

At the creation God pronounced all of his work Good, and right at the beginning he commanded Adam to “tend the garden.” In Psalm 104 God's intimate relationship to creation is described, and in the last few chapters of Job God positively *celebrates* and even *boasts* about his creation, using language reminiscent of a proud child describing his latest art project.

But there is no need to rehearse a long list of scriptural texts here; there are plenty of lists out there already. For example, go to earthcareonline.org. Click on Resource Guides, and then on Bible Verses on Creation Care. It will take a while to read through the scores of texts listed there. But for anyone who does read them, the message that comes through is not about dominion; it is about stewardship.

Here's another simple analogy: no one exercises dominion over his bank account. If you treat your bank account as something to plunder whenever you like, you will soon have no bank account. Instead, wise people steward their bank accounts to make available resources go as far as possible, and to renew the account so it will be sustained and grow rather than dry up and run out.

Our relation to the earth is similar but with some key differences. First, creation is a gift; we did not earn it. We treat irreplaceable gifts with an even higher level of respect than things we pay for ourselves. Second, the earth is not just any gift; it is the most finely crafted of gifts, made for us by a loving Father who gives good gifts to his children—just like the loving grandfather giving the hand-crafted bicycle to his grandchild, only on a cosmic scale.

As we consider the more difficult political and cultural issues we face, we need to do so with the understanding that God placed us on earth to take care of it, not to exploit it. And the sad truth is that over the past 200 years we have not done well at this stewardship.

Here I will mention another good resource: God and Nature magazine, produced by the American Scientific Affiliation (“a network of Christians in the Sciences”). The Fall 2013 issue is dedicated to the issue of approaching environmentalism from a Christian perspective. I commend it to you, along with other issues of God and Nature and the ASA’s work in general. You will find it at godandnature.asa3.org/fall-2013.html.

The New Food Era: Farm to Table

I don’t know about where you live, but where I live farmers’ markets are everywhere and a new era of farm-to-table food production on small farms and gardens abounds. This subject is everywhere in the media and on the internet. This seems like a no-brainer. Fresh food is good for us, and the production of food on small, organic farms puts a lot less pressure on the environment that industrial agriculture does.

Note here that I am not saying we should suddenly outlaw industrial agriculture. Such a move would be devastating to the world’s food supply chain. But as the small farm and garden operations become more and more popular in their individual locations, we could all end up eating better food and putting less pressure on the environment. This seems like a topic students should learn about in a text devoted to the science of the earth.

Taking Science Seriously

And then there is an arena of volatile controversy. I am *very* aware that many of my readers do not accept consensus scientific viewpoints on environmental issues. I do not wish to get into debates with these dear folks, and I cannot respond to a bunch of emails trying to set me straight. All I can say is that I believe Christians should take a different point of view.

For years I have found the attitude of many evangelicals toward science to be ironic. We believe the scientists when they tell us that certain new therapies are effective in treating cancer, and if any of us gets cancer, those are the therapies we want. We also believe the scientists when they tell us

that mercury and lead are poisonous, and that we should remove them from gasoline, from paint, from thermometers, and from water faucets. No one has a problem with any of these scientific findings. No one storms around calling for the return of lead-based paint and claiming that the science that led to its elimination is false.

But on the hot-button environmental issues, many evangelicals are up in arms and refuse to accept what scientists the world over are saying. Why is this? What exactly is there to gain from denying the extremely well-established science on climate change (not to mention other issues)?

I’m no expert on the history, but I think the problem must have started back in the 1960s when so many of the new environmentalists were urging environmental awareness while condemning the commercial industries that were providing us with an unprecedented standard of living and engaging in lifestyles that were offensive to evangelical Christians. As a result, back then, when I was a kid, we learned to throw the baby out with the bath water. In rejecting what seemed to be an attack on the American way of life by those whose own lives we did not respect, we developed the attitude that scientists *per se* were liars.

Now, clearly things have changed since the sixties. The science associated with environmental issues is *massively* more complete and more sophisticated than it was 50 years ago. And today there is simply no reason to assume that the scientists are lying to us about climate change.

The rational way to think here is to accept that we have been on the wrong track when it comes to denying well-established science on environmental issues and we need to get on board with addressing the monumental problems we face. We especially need textbooks that speak directly to these issues in a way that is informed by responsible, well-established science. Now, of course, a few preliminary studies do not constitute “well-established science.” But on climate change the science was quite well established by 1990, and now we are *way* past that. As for those who continue to argue that data supporting climate change are skewed or that reports showing anthropogenic climate change were falsified, folks sometimes tell me to go look at the data for myself. Well I have. My answer to these kind folks is that before accepting the position of contesting established scientific consensus, you need to read the rebuttals on *both* sides of the debate. Doing so is al-

most always very illuminating. Further, for every Christian who has indicated to me that they contest the science on issues like climate change, at least 50 have indicated that they accept the science and are looking for a new generation of science texts Christians can use that takes science seriously. This is exactly what I aim to provide.

A Profound Problem of Message

However, the most daunting thing about writing an earth science text is not the controversy over climate change. It is what I alluded to earlier—if 13-year-olds are not spending time out in the natural world, then how can anyone make a case students will accept for loving the natural world? If the kids are sitting inside all the time playing electronic games or looking at their friends’ facebook pages, what can possibly lead them to a position of curiosity about the natural world and concern for its proper stewardship?

While thinking about this problem of message, it occurred to me that I might contact Wendell Berry and ask him how we might think about these things together. I may still try to do that, but recently I came across an article by Naomi Kline that suggests how Mr. Berry would respond.

Naomi Kline hangs out on the left end of the political commentary spectrum, so it is likely that many of my readers will not have heard of her. But hopefully you have heard of Wendell Berry, regarded by many as one of the finest essayists of our time. For over 50 years Berry’s writings have focused on a single unifying theme: what it means for people to live the way we were meant to live, both in community with others and on the earth as our temporal home (the ultimate meaning of “conservative”). Along the way, Berry has engaged every complicated issue you can think of, from farm policy to the automobile culture to suburban sprawl to environmental stewardship.

In her article, Kline wrote: “After listening to the great farmer-poet Wendell Berry deliver a lecture on how we each have a duty to love our ‘homeplace’ more than any other, I asked him if he had any advice for rootless people like me and my friends, who live in our computers and always seem to be shopping for home. ‘Stop somewhere,’ he replied. ‘And begin the thousand-year-long process of knowing that place.’”

To love anything you have to know it. You cannot love what you do not know and do not spend time with. ▲

continued from page 1

which I am familiar. I will list them in order by publication date.

Obviously, not all of the writers listed here are Christians (in fact, most probably weren't). The thing is, all truth is God's truth, whether it comes from a transcendentalist like Henry Thoreau or a knock-about like John Graves. Each of the books listed here is widely regarded as a literary classic. Pick up a couple of these good reads and enjoy them this summer!

The Compleat Angler, Izaak Walton (1653). This classic is still admired as much today as it was 350 years ago. The book is written in a very charming 17th-century style, and tells of a conversation between Piscator, the angler, and Venator, the hunter, and a few other characters. Pages and pages of practical advice on how to catch and cook fish, and plenty of mean sentiments about otters, the fisherman's nemesis.

Walden, Henry David Thoreau (1854). This is a famous account of Thoreau's two-year experiment to discover how to live life as simply as possible. Thoreau writes, "The mass of men lead lives of quiet desperation," and he intended to discover the more basic elements of life by his simple time in the woods at Walden Pond near Concord, Massachusetts. The writing is beautiful and full of observations about the woods, Walden Pond, and human society.

My First Summer in the Sierra, John Muir (1911). Without exaggeration, John Muir is one of the finest writers you could ever hope to read. In this little book Muir tells of a summer he spent assisting a shepherd in what is now Yosemite National Park. (Of course, Muir himself helped to establish the national parks system.) This book is an absolute delight—a fun adventure, wonderful descriptions of the mountains, and beautiful prose. Books like this can't help but make one want to spend time delighting in the beauty of creation.

One Man's Meat, E. B. White (1942). I read this classic years ago and loved it. It is White's endearing account of selling his possessions in New York and taking up residence at a sheep farm in Maine. Full of

wisdom and wit, White was prescient about coming changes in society with the advent of television, as people would become more concerned with the far off, and less concerned about the local.

King Solomon's Ring, Konrad Lorenz (1949). In this book Lorenz, an Austrian zoologist, delivers a layman's account of his research efforts to study the habits of a number of different animal species. All I can say is that Lorenz's account is astonishing. By raising various birds and other animals in a house where they were free to move about (with all of the crazy problems that would entail), Lorenz was able to study them and even develop elemental means of communicating with some, such as brood of jackdaws. Lorenz's book is not so well known these days, but is a unique read.

A Sand County Almanac and Sketches Here and There, Aldo Leopold (1949). This famous work mostly consists of Leopold's insights about the flora and fauna on his Wisconsin farm. Witty and reflective, the book is not an environmental screed; the tone is thoughtful. But it contains some profound meditations on how our agricultural practices have damaged the land. The combination of winsome prose about the wildlife and thoughtful comments on the environment made this book an early classic in the contemporary literature of the genre. (Interestingly, Leopold's farm was only 30 miles or so from the farm where John Muir grew up after his family immigrated from Scotland.)

Goodbye to a River, John Graves (1960). An account of a canoe trip Graves took as an adult in 1957 down the Brazos River in central Texas. Graves grew up hunting and fishing the river, and hearing that some 13 dams were planned along its length, he went to canoe it one more time. In addition to musings about the river, hunting and fishing, Graves recounts dozens of stories about the old time ranchers and their conflicts with the Comanche Indians.

Pilgrim at Tinker Creek, Annie Dillard (1974). Dillard considers herself more of a theologian than a nature writer; this wonderful book combines both. It is *fabulous*—a can't-put-it-down essay about her obser-

vations at a creek in Virginia over the course of a year, and her thoughts on the profound issues of life and violence in nature. It is hard to imagine a better introduction to life science. *Pilgrim* was the winner of the 1975 Pulitzer Prize for General non-Fiction, and is included on the Modern Library's list of 100 Best Nonfiction Books. ▲

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