



Issues, Etc.TM

Christ-Centered Cross-Focused Talk Radio

TRANSCRIPT

Rev. Todd Wilken, Host

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"Creation, Part 4: The Grand Canyon and the Flood of Noah"

Guest:

Dr. Joel Heck

Professor of Theology, Concordia University Texas

Author: *In the Beginning, God*

Conference Speaker at "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation," July 8-10, 2013, Concordia University Wisconsin

March 13, 2013

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WILKEN: I was there when I was a little kid, and I really don't remember it. There are pictures – I think there are pictures. Standing at the edge of this enormous canyon that takes your breath away. You look at this expanse of empty space, this opening in the earth there, and you say, "How did this happen?" Now, there's an explanation. Geologists traditionally have an explanation for the Grand Canyon. Does it

fit? Is it a big, gigantic, glaring piece of evidence against the idea of creation? Is it proof that geology is, well, so slow that we can't even see it happening, but it's happening nonetheless – the Grand Canyon?

Greetings, and welcome to *Issues, Etc.*, coming to you live from the studios of

Lutheran Public Radio. I'm Todd Wilken. Thanks for tuning us in.

On this Wednesday afternoon, the 13th of March, we continue our 4th of a 7-part series on creation. Today we're talking about the Grand Canyon and the Flood. Dr. Joel Heck will be our guest.

Dr. Joel Heck is a regular guest. He's Professor of Theology at Concordia University Texas and author of the book *In the Beginning, God*. He'll be one of the speakers at a conference July 8-10 at Concordia University Wisconsin titled, "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation."

Dr. Heck, welcome back.

HECK: It's a pleasure to be back once again.

WILKEN: What is the textbook explanation for the formation of this amazing geological feature in the American Southwest, the Grand Canyon?

HECK: Well, I'm not going to be giving you an exact or precise scientific explanation of it. I'm really a theologian. But I will say that the various layers of sedimentation that form, the hundreds of feet of layers in the Grand Canyon were formed above water, over hundreds of millions of years. That's a layman's version of it; I'm sure it could be stated much more precisely by others. But that's basically what the typical evolutionary time scheme teaches.

WILKEN: And then the Canyon itself is, I take it, simply carved out by the river that currently runs at its bottom?

HECK: Yes. The Canyon would have been carved very, very slowly based on the whole idea of uniformitarianism, which is a dominant principle in geology: that the present is the key to the past and the processes that we see going on now would

have been responsible for the Grand Canyon being formed over vast ages.

WILKEN: Now, most people who see this accept what they see there, and that is –it's very visible, all the way down, you can see layer upon layer upon layer upon layer of rock and, they tell us, accumulated sediment there. We are watching there, essentially, proof beyond a shadow of a doubt that the geological time scale, as it is normally accepted and taught in all those textbooks, exists. That these things, that old, old Earth is just as old – and there's the proof. We have it sliced like a cake for us to see all the layers. Are there features of the Grand Canyon that defy that explanation?

HECK: Oh, absolutely. Numerous features. And I guess I would refer people, first of all, to any one of the typical kinds of photographs that you see of the Grand Canyon. I've got one in front of me, and as I look at that photograph – I got this one off of the Internet, this one. As I look at that photograph, I see these perfectly flat layers, layer upon layer upon layer with the river carving out the canyon in their midst. As one looks at the layers, one is surprised – well, maybe not surprised. We've been conditioned to think this is evidence of evolution. But one should be surprised at how flat these layers are. In other words, if you look at each given layer and, let's say, it represents thousands or tens of thousands or millions of years for the accumulation of each layer through these various deposits being laid down, it's quite a surprise to me that there's no evidence of erosion at any level of the Grand Canyon except the top level. So as you look at this side angle, and you see lighter layers upon darker layers upon lighter layers and so on, the level of flatness is really remarkable. You would expect there to be jagged surfaces up and down. But it's flat all the way across. And scientists have done experiments in huge water tanks on sedimentation, and they have discovered that very flat layers and relatively thin layers are the norm when you

have a massive amount of water and rather rapid sedimentation. The whole point is that there wasn't enough time from one layer to the next for erosion to take place, and that's exactly why those layers are so flat, one upon the other. If I were to assume that a given layer had no erosion over the thousands or millions of years, that it was the top layer exposed to the sun and the wind and the rain, and presumably some animal life on top of it, I think the flatness of those layers is an indication that they were laid down very rapidly, and laid down by water.

WILKEN: So just the layers that we see, the actual stuff that often is pointed to as the evidence of the millions upon millions of years, actually speaks against millions upon millions of years because of the lack of erosion evident there?

HECK: That's how I see it, and that's how a good number of geologists see it. I had the opportunity to converse with a PhD in geology in the Grand Canyon itself this past summer, and he affirmed that, which is something I had heard from another individual, who had taught on the Grand Canyon. The flatness of those layers and the numerous layers are indication of rapid sedimentation being laid down by water in a relatively short period of time, over the course of a year or so – which is the length of Noah's Flood. That's why I say a year.

WILKEN: What other features of the Grand Canyon speak against its great age and the slowness of its formation?

HECK: One of the problems for evolutionary explanation is that the Colorado River is rolling south, about 2400 feet above sea level within the Canyon. And then all of a sudden at its southern edge, it takes a 90-degree turn to the west and cuts right through a plateau that is 7000 – 8000 feet above sea level. And anyone that knows anything about water, they know that water seeks its own level, that water doesn't run

uphill. And so conventional science and an evolutionary explanation of the Grand Canyon can't explain why a river would cut through a plateau that is higher than the water level. It should go around that plateau, especially under a uniformitarian scenario.

WILKEN: Now, when you say uniformitarian scenario, that'll figure into some of the later things we talk about in this conversation. What is it?

HECK: Well, that things are happening slowly and gradually over thousands and millions of years, and that we don't have a catastrophe to be able to explain the Grand Canyon or many of the other geological features of the Earth's surface.

WILKEN: To your knowledge, are there any kind of hybrid theories about this, where the kind of classic geological explanation will be, "Yeah, the sediments were laid down over millions of millions of years, but the Canyon itself formed very, very quickly by a great amount of water rushing through those sediments."

HECK: I would have to plead ignorant to that question. But the question I thought you were going to ask me was, "So, what does a person from a Flood perspective or a Biblical perspective say to explain how it is that the Colorado River took this 90-degree turn to the west and cut directly through the plateau?"

WILKEN: What is the explanation for that?

HECK: Well, the typical explanation is that following the Flood, there were lots of natural lakes that were formed. And one of those lakes that was formed was formed to the east of the Colorado River, and it was blocked up. And as ice gradually melted or as the weight of the water gradually forced its way to the edge of that lake, eventually that lake burst, about where the Little Colorado River flows into the Colorado

River at the southern edge before it turns west. And when that lake burst, it sent a huge volume of water from east to west, and it is what cut through the plateau. You can see, if you look at the Grand Canyon in a geological survey or a geological representation, you can see that the Grand Canyon does bend a little bit to the south as it goes west. But eventually the force of that water would have cut through this rather porous sedimentary rock – limestone and sandstone particularly – and then eroded it very rapidly with the massive force of the water going from east to west. So creationists and people that take the Flood story seriously and take it literally actually have a very logical explanation for that 90-degree turn to the west through a higher piece of land.

WILKEN: Dr. Joel Heck is our guest. This is part 4 of our 7-part series on creation. Today: the Grand Canyon and the Flood. I'm Todd Wilken. This is *Issues, Etc.*

[BREAK]

WILKEN: Welcome back to *Issues, Etc.* I'm Todd Wilken. Dr. Joel Heck is our guest. He's Professor of Theology at Concordia University Texas, author of the book *In the Beginning, God*. He will be one of the speakers at a conference July 8-10 at Concordia University Wisconsin, titled "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation."

What other features, if any, Dr. Heck, would you find at the Grand Canyon that would speak in favor of a creation/Flood model?

HECK: I would point people, first of all, to Tapeats Sandstone, which is a particular type of sandstone that exists all over the North American continent. It covers about 80% of the United States, and since you have the same type of sandstone at the same geological level, it's an indication of a major catastrophe. That sandstone is the very first layer of sandstone above the

bedrock in the Grand Canyon. Not only is it true of Tapeats Sandstone, but there are several other shales and limestones that are widely distributed through North America and, interestingly, the Tapeats Sandstone is known to exist in many other parts of the world, from southern England and northern Ireland, across Europe to Egypt, Turkey, Kazakhstan, western Australia, and the like. So we have a particular type of sandstone that's widely distributed through the land masses of our world and indication of a major catastrophe at some point that laid down that type of sandstone at some point in the past.

WILKEN: So it's even a broader picture than just the Grand Canyon, although the Grand Canyon figures into that picture. It is a picture of sedimentation on, at the very least, a continental level.

HECK: Oh, yes. Rather remarkable. And very few people know about this, but you can find out a lot of that information online. Somebody could Google "worldwide Tapeats Sandstone" – and Tapeats is spelled t-a-p-e-a-t-s – and will find this type of sandstone all over the world. Rather amazing geological feature. But there are other geological features, one of which I just sort of started to talk about when I said that the Tapeats Sandstone is so widely distributed. It's also the lowest layer of sedimentary rock above bedrock in the Grand Canyon. And while we were there in the Grand Canyon, we had the opportunity to walk up what's called Blackstone Canyon. And our tour guide took us to bedrock, and then pointed out to us the Tapeats Sandstone that is located right on top of it. And the interesting thing, he pointed out, is that even in the evolutionary textbooks, the geological textbooks that talk about the Grand Canyon, they talk about this as the "great unconformity which conventional science is unable to explain." The normal kind of geological formations of the geological column is missing 1.1 billion years between the bedrock and the Tapeats

Sandstone. In other words, there's supposed to be several other layers between bedrock and this lowest layer of sedimentary rock that we call Tapeats Sandstone. But it's not there, and about the only thing that evolutionists can say is, "Well, 1.1 billion years of history must have washed away." But if that's the case, then why do we have, oh, anywhere between 5 million and 70 million years of sedimentation above that? Which is the conventional explanation for the formation of the Grand Canyon, even though those layers would go back a whole lot longer than that, according to a conventional time scheme.

WILKEN: So just paint a picture for us, if you would, based upon the best possible evidence, when it comes to the Grand Canyon. How did the region form geologically? How did the Canyon form geologically? Just walk us through it in terms of, as you say, the model of both creation and the Biblical Flood.

HECK: I'm going to be talking in broad generalities because some of the technical answers to your questions are beyond my training and my scope. But since Noah tells us, or Genesis tells us in the 7th chapter, that all of the land was covered so that even the highest mountains were covered 15 cubits, or about 20 feet. Then after the Flood, the waters began to recede, where some of the oceanic basins, like the Mariana Trench that had previously had a lot of water underneath it, collapsed. The various plates of the earth are moving against one another and forming mountainous ranges. And as that's happening, the water is beginning to drain off down into these huge oceanic holes. So a massive amount of water would have flowed off the North American continent and much of the rich farmland in the Midwest may well have been laid down after the Flood. But when you get to the western United States, or southwestern where the Grand Canyon is located, near where Nevada and New Mexico and Arizona come

together, you've got the water flowing to the west-southwest, towards the Pacific Ocean. And as it flows that direction, initially most of the surface water runs off, and then rivers begin to form, but then you have these various places where massive lakes were formed, and one of those probably just to the east of the current Grand Canyon. And that's the one that would have burst and cut through the middle of this plateau.

WILKEN: Now, let's talk a little bit about something else you wanted to mention in connection with this, and that is fossil formation. It's not necessarily true of the layers in the Grand Canyon, but there are many places all over the world where, going down through the geological column, we find fossils. How does the Flood and fossil formation – how do those things fit together?

HECK: Yes. Most people don't realize this or don't think about this, but there are certain conditions that have to be in place in order for a fossil to form. Because if an animal dies on the surface of the land and simply lies there, sedimentation isn't going to accumulate fast enough to bury it. It's either going to begin to decay very, very quickly or it's going to be eaten by predatory animals or birds. And so in order for a fossil to be formed, a creature has to be covered completely and very suddenly so that there is no possibility of a predator eating that animal, and the oxygen has been cut off so that the animal itself is preserved. And so when you have a fossil formed, it's something that's rather unusual to happen. And particularly when you have literally millions of fossils, fossils in great abundance in certain places in our earth's geology, that's an indication, once again, of a major catastrophe that took place at some point in the past.

WILKEN: And isn't it true – and again, I approach this from a layperson's perspective as well – that we don't find

fossils evenly scattered throughout the face of the earth? We find beds of fossils.

HECK: We find beds of fossils, which I think are indications that there were certain places where these animals, as the water was flowing and trapping them and the sedimentation was coming down over the top of them, that there were certain places they were trapped that they simply could not get away. Rather than being a burial ground where animals went in order to die, it's a geological feature where they got trapped and all of them got buried together.

One of the other interesting features of the Grand Canyon is the folded rock layers that you can see in a couple of places in the Grand Canyon. If you look at the rock closely and you find one of these features, you find the sedimentary layers flat, and all of a sudden you have them curving up to the right and then down again, a rather gentle curve. And if you think about that, when the sedimentary rock was wet, it was able to move without breaking. And so that's another indication that the sedimentary rock

was laid down because of a flood, a major water catastrophe – rather than gradually over millions of years, because then the sedimentary rock would have dried out and any folding of the earth's surface, or up-thrust from underneath would have broken it rather than created these gentle curves in the rock's layers.

WILKEN: Dr. Joel Heck is Professor of Theology at Concordia University Texas. He's author of the book *In the Beginning, God*, and he'll be one of the speakers at the conference called "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation," July 8-10 at Concordia University Wisconsin.

Dr. Heck, thank you very much.

HECK: You're very welcome.

WILKEN: Next time we'll be talking with Dr. Joel Heck about the attraction of an old earth theory.

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