

Faith and SCIENCE

Contradictory or Complementary?



Exhibit at South

Can you be a scientist and a Bible-believing Christian at the same time?

Many people say you cannot. Those who deny God's presence in the material world say that scientific evidence points to evolution, not supernatural creation.

The Biology Department at Southern Adventist University in Collegedale, Tennessee, on the other hand, is convinced that Bible-believers make better scientists, and they created the Origins Exhibit to spark intelligent debate, reflection, and prayer about the topic. The permanent display, located

throughout the halls on the second floor of Hickman Science Center on campus, offers visitors the opportunity to consider the intricacy of the cell, the relationship between the geologic column and the biblical flood, and the significance of beauty in nature.

"Sometimes people say, 'Evolution is stupid—don't believe it.' But this does not prepare our children to deal with highly educated, respected scientists who believe that evolution is true," says Keith Snyder, Ph.D., chair of the Biology Department. "We say, 'Short-term biblical creation is one of the Seventh-day Adventist fundamental beliefs,' but we don't tell our children why, and we expect that just saying that will be

enough. It's not. Children need to know that we must have both faith in the Bible and an understanding that scientific evidence is remarkably consistent with the biblical account of creation. Christians are not compelled by religious or philosophical beliefs to invoke complex stories explaining away design in nature. The Bible liberates us to be better scientists."

An Idea Is Born

When leaders of the Biology Department at Southern decided they wanted to strengthen its emphasis on biblical origins in 2004, they began by hiring paleontologist Lee Spencer,

BY ANGELA BAERG



ern Adventist University Sparks Intelligent Debate

Ph.D., and biologist Earl Aagaard, Ph.D., both of whom had expertise in that area. They hoped these professors would help them achieve one of the university's strategic goals: to enable students to live and learn their Adventist heritage by helping them grow their faith and beliefs through coursework and investigation. Once Spencer and Aagaard became established and helped fortify the department's origins curriculum, it was time to move on to the second phase of the project: doing something to help enrich the university as a whole.

After much brainstorming, the staff decided to build a museum-quality origins exhibit in the hallways of the Biology Department. Their first step was to figure out what they wanted the exhibit to say. There were so many theories

that they didn't have space to feature them all. To settle the debate, Snyder wrote to professors throughout the Seventh-day Adventist system of higher education, asking what they thought were the strongest evidences of a recent biblical creation.

He received many responses, and so the department decided to feature the topics that were mentioned most frequently. Spencer's thoughts on the geologic column and biome succession (the orderly growth of communities in nature from simple to complex) were also indispensable.

"We weren't trying to be comprehensive," Snyder said. "We just chose some theories that we felt were the most defensible scientifically."

After deciding which theories to display, the team had to approach donors who might be willing to sponsor the project. The origins team prayerfully contacted various people whom they knew to be passionate about helping others understand how scientific evidence meshes with biblical creation. God blessed their efforts, and soon they had several enthusiastic donors willing to get the ball rolling.

From Dream to Reality

Devising a plan and finding initial funding had been huge challenges, but the most difficult part was yet to come. Now it was time to figure out how to actually display the concepts. The staff brainstormed together, and in 2006 Spencer began developing a storyboard and preliminary graphics for the dis-

plays. Then the team stumbled upon Ron Hight, a talented and experienced artist who had designed displays for The Institute for Creation Research (ICR) museum near San Diego. Hight helped with concept development and storyboarding, created illustrations, and later assembled a team of artists—many of them either current Southern students or alumni—to provide original artwork for the project.

“We made plans, then we changed our plans literally hundreds of times,” recalled Snyder. “Many times we almost had our arrangement completely finished, but it didn’t feel right. After much prayer, a thoughtful observation from the president of our university sparked the inspiration that helped us finally piece it all together in the right sequence.”

Spencer designed the displays in the science building hallways based on conclusions he had drawn from 30 years of studying the fossil record and thinking outside the box to interpret the data from a biblical perspective. Hight took the displays to the next level, giving them an artistic, thought-provoking, and professional appearance. After creating the first exhibit, which exemplified the quality of work that would be featured in this exhibit, the origins team returned to its donors. The representative model helped supporters envision the overall direction of the project and motivated them to continue sponsoring it.

The exhibit ended up costing nearly \$500,000—a figure that would have



Clockwise from top: Attendees of the Origins Exhibit grand opening event make their way inside after the dedication ceremony.

A parent and children explore the inner workings of a cell.

A child reaches out to feel the texture of the *Allosaurus*, which is an imposing feature of the Geologic Column portion of the exhibit.



Tour at a Glance

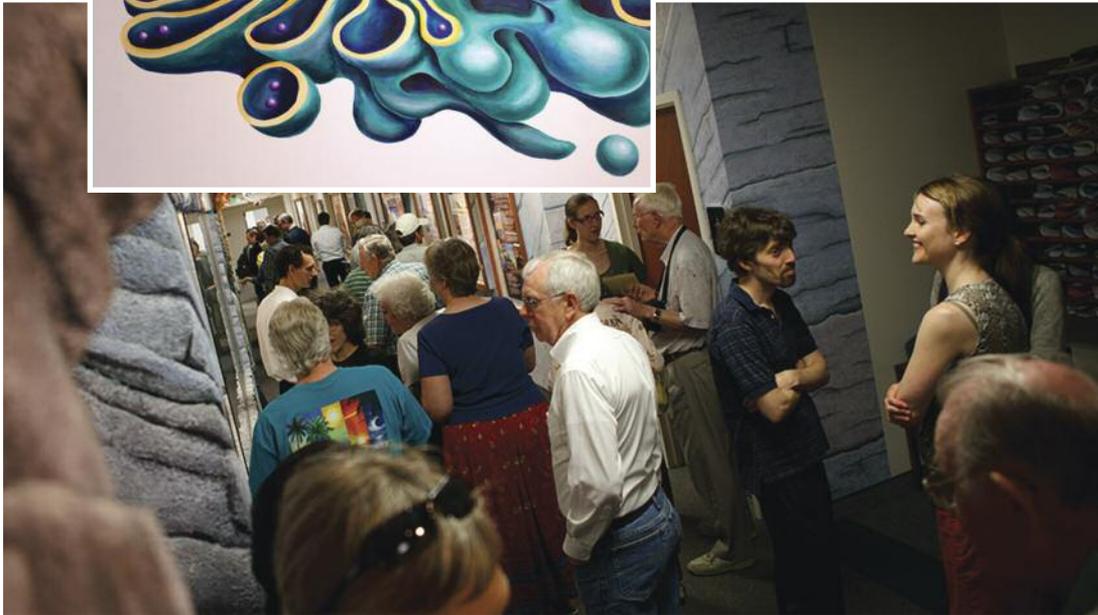
The Origins Exhibit is located in the hallways on the second floor of Hickman Science Center at Southern Adventist University, so the displays are available for self-guided tours whenever the building is open. Brochures help visitors navigate the spaces and digest the information presented. But an hour-long guided tour (which must be scheduled in advance) provides additional layers of meaning. Below are some of the things 22 3rd- and 4th-grade students from Ooltewah Adventist Kindergarten and School experienced on a recent tour:

After starting with prayer, Origins Exhibit educator Carol Raney

and Associate Professor Lucinda Hill Spencer select a child to wear a pair of glasses that has one blue lens and one red lens. They ask the child to share with the class what he or she sees through each lens, jumpstarting a discussion about different worldviews and the distinction between data and interpretation.

The group examines how each of the 100 trillion microscopic cells in the human body is like a factory with thousands of different jobs and complex machines. This topic opens the door to a discussion about intelligent design versus evolution through unguided, chance events and natural selection.

The children see fossils of trilobites, dinosaurs, a pterosaur, tiny horses, and a saber-toothed tiger, and they use a tape to measure



Clockwise from top: A large model of a cell nucleus.

The Mesozoic Era display features colorful artist depictions and fossils, including a replica of an *Allosaurus* skull.

Visitors fill the exhibit hallways at the grand opening event.

Artwork depicting the Golgi apparatus in The Cell portion of the exhibit.

how long a 33-foot fish called a *Dunkleosteus* would have been. They talk about some of the other huge fossils that have been unearthed, such as 2-foot-wide spiders, 7-foot-tall beavers, dragonflies with 3-foot wingspans, and sloths the size of elephants. They also explore how the biblical flood could have caused fossils to be deposited in the order in which we find them.

Hands-on manipulatives, such as a crank that tosses around crushed-up smart phone pieces to see if they can randomly reconnect into a working device, demonstrate the likelihood of intelligent design. In another station, children select a sequence of amino

acids on a computer screen, and the computer calculates how long it might take to produce that same sequence randomly.

As they wrap up their tour, guides point out how discovering the complexity of our world is like finding an amazing painting in the forest. It is evidence that someone with talent was there before.

In 2008, Raney and Hill Spencer took some classes on origins at Southern Adventist University from Lee Spencer. “The two of us would stay after class and talk with him about the need to share origins information with kids so that their faith would not falter when they encountered evolutionary ideas,” Raney remembers. “We often prayed together about the need, asking God to open the doors for us to be able to do something about it. . . . God has answered that prayer!”

been considerably higher if it were not for the generous donation of priceless fossils by friends of the university. In addition, faculty, staff, and exhibit designers made many museum-quality materials instead of purchasing them.

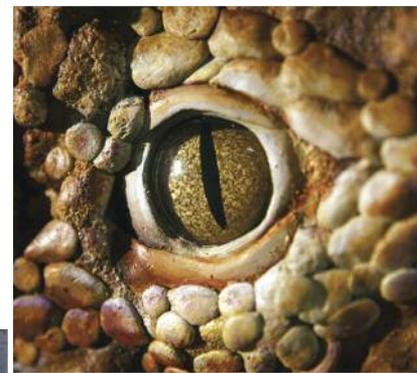
Still, unexpected expenses cropped up (including changes necessary to ensure that everything in the hallways received the approval of the fire marshal). Fortunately, funding from individual donors, the General Conference Faith and Science Council, and the university helped make the exhibit a reality in time for its grand opening in April 2012.

Planning for a Broader Impact

Now that the exhibit is complete, it is time for the third and final phase of the project: sharing the information with as many people as possible. The display is used as an instructional tool for classes at Southern Adventist University, such as the K-6 Science Methods class taught by Faith Laughlin, associate professor in the School of Education and Psychology. She uses the exhibit to help instill in teachers-in-training the importance of addressing science from a biblical worldview in their future classrooms. The origins displays are also integrated into the classwork for Issues in Natural Science and Religion, a course for biology majors on the science, theology, and philosophy of evolution and creation, now taught by Lucinda Hill Spencer, M.D. (Her husband, Lee Spencer, retired in 2011.)

Not only is the exhibit useful for inspiring educators, it also has several hands-on manipulatives for children, making it an ideal educational field trip opportunity (see sidebar “Tour at a Glance”). So far, the Biology Department has hosted tours for church groups, homeschoolers, and a group of 3rd- and 4th-graders from nearby Ooltewah Adventist Kindergarten and School. The university is making this field trip opportunity available to all Christian schools and looks forward to hosting many more tours.

Moreover, Southern Adventist University has taken the first step toward



Clockwise from top left: Visitors explore the artwork and fossils in the Paleozoic Era display.

A three-dimensional model shows the tightly packed structures inside a cell wall.

The vigilant eye of the life-sized *Allosaurus* keeps watch over the Geologic Column exhibit.

The impressive skull of a *Dunkleosteus*, a large prehistoric fish.

A display describing the parts of a simple cell.





Top: Artwork depicting the beauty of creation at every scale, from microscopic organisms to the vastness of space.

Left: Exhibit designer and artist Ron Hight.

Where Do I Start?

For schools that would like to attempt a project similar to the Origins Exhibit but don't know where to begin, Keith Snyder, Ph.D., chair of the Biology Department at Southern Adventist University, offers this advice:

- Make a plan. Be prepared to change it many times.
- Get advice from people with experience.
- Start two-dimensionally; a drawing isn't as good as a 3-D model, but it's better than nothing at all.
 - Get initial funding, then approach your donors again when you have a quality representation of your work.
 - Not everything has to be expensive. Economical ideas can work just as well, or better.
 - Never forget: God has the wisdom we lack.

starting an Origins Center on campus, one part of which will disseminate user-friendly information about biblical creation to schools. Carol Raney, origins educator for the university, is working with Lucinda Hill Spencer to develop curriculum maps, write short scripts for educational DVDs, create quick PowerPoint presentations for busy teachers, contribute to the North American Division's new *By Design* science textbooks, and summarize scholarly articles to make valuable scientific and theological information readily available to people with lots of interest but little time. Eventually, they will have a Website where their resources will be available not only to teachers in Seventh-day Adventist schools, but also to parents of students in other private and public schools, and to homeschooling parents, pastors, and lay people.

After all the origin team's hard work, Snyder still marvels to see how the exhibit touches those who visit, expanding their understanding and helping them open their hearts to Christ. One tour he led reflects the impact the exhibit has had, and will continue to have, on the many people who are searching to find God's truths mirrored in science. When Snyder told one woman about the theory of intelligent design and the biblical explanation of creation, she looked shocked. "I have never heard this before," she said, shaking her head in amazement. "This has just completely changed my life."

For more information about the exhibit, visit <http://southern.edu/faithandscience>. 

This article has been peer reviewed.



Angela Baerg, a 2006 graduate of Southern Adventist University in Collegedale, Tennessee, is a preschool teacher at the Montessori School of Chattanooga and a regular freelance writer for multiple Adventist publications.