

# Ritland, Richard Martin (1925?2019)

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## JAMES L. HAYWARD

James L. Hayward, Ph.D. (Washington State University), is a professor emeritus of biology at Andrews University where he taught for 30 years. He is widely published in literature dealing with ornithology, behavioral ecology, and paleontology, and has contributed numerous articles to Adventist publications. His book, *The Creation-Evolution Controversy: An Annotated Bibliography* (Scarecrow Press, 1998), won a Choice award from the American Library Association. He also edited *Creation Reconsidered* (Association of Adventist Forums, 2000).

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Richard Martin Ritland was a Seventh-day Adventist biologist, paleontologist, and early director of the Geoscience Research Institute. He also served as a professor at Atlantic Union College, Loma Linda University, and Andrews University. He worked extensively on issues of science and faith, and he led geology field conferences to educate Adventist teachers and administrators about the history of the earth and life.

## Early Life and Education

Richard Martin Ritland was born on July 3, 1925 in Grants Pass, Oregon, the second of two sons born to Martin and Mae Ritland (née Puckett). Martin supported his family in various ways including painting, logging, and farming. By the early 1940s he was growing walnuts and filberts on a small farm near McMinnville, Oregon.<sup>1</sup>

Richard attended public school, Laurelwood Academy, and Portland Adventist Academy, graduating from the latter institution in 1942. Early in life he developed an interest in both the Bible and nature as pathways toward a better understanding of God. To further his understanding, he majored in biology, biblical studies, and biblical languages during his four years (1942?1946) at Walla Walla College (now Walla Walla University), College Place, Washington. There he met Juanita Hansen, a transfer student from La Sierra College (now La Sierra University) who had spent her childhood in China as the daughter of American missionary parents. After Richard and Juanita were married on September 29, 1946, Richard did logging for three months before they moved to Washington, D.C., where Richard took coursework at the Seventh-day Adventist Theological Seminary<sup>2</sup>

Following completion of one quarter at the seminary, Ritland accepted an offer to teach biology at Atlantic Union College (AUC), South Lancaster, Massachusetts. Before teaching his fall 1947 classes at AUC, however, he began work toward a master's degree in zoology at Oregon State University. During his tenure at AUC (1947–1953), he completed his master's degree (1949) and finished most of the work toward a PhD in biology at Harvard University, which he earned in 1954.<sup>3</sup>

## Teaching and Administrative Career

Upon finishing his Ph.D., Ritland joined the faculty of the College of Medical Evangelists (now Loma Linda University), Loma Linda, California, where he taught anatomy to medical students.<sup>4</sup>

In 1960, he was invited to join the small staff of what would become the Geoscience Research Institute (GRI) based in Berrien Springs, Michigan. The fledgling organization had been established two years earlier by the Committee on the Teaching of Geology and Paleontology of the General Conference of Seventh-day Adventists to investigate the relationship between geology and the biblical record. In 1964, Ritland was appointed director<sup>5</sup>

As GRI director, Ritland worked to increase the size of the research staff by hiring invertebrate zoologist Harold G. Coffin, parasitologist Ariel A. Roth, geologist Harold E. James, and anthropologist Edward N. Lugenbeal<sup>6</sup> Ritland also



Richard M. Ritland, 1968.  
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conducted tours of important geological sites in western North America to educate teachers and church leaders about the earth's past. And as part of research he carried out at Yellowstone National Park, he supervised the thesis research of the first two students to complete their Master of Science degrees at a new biology graduate program at Andrews University, Berrien Springs, Michigan.<sup>7</sup> His achievement at the institute for which he was most proud, however, was the establishment of a good library.<sup>8</sup>

After eleven years at GRI and finding it impossible to solve perceived conflicts between geology and the biblical record in a way acceptable to Seventh-day Adventist Church leadership, Ritland took a position in 1971 as Professor of Paleontology and Geology in the Department of Biology at Andrews University.<sup>9</sup> There he taught courses in embryology, paleontology, and biogeography until his retirement in 1983.<sup>10</sup>

## Research, Publications, and Perspectives

Ritland's doctoral work at Harvard involved a study of the anatomy of coastal tailed frogs (*Ascaphus truei*).<sup>11</sup> These animals were first discovered in 1897 in the Olympic Mountains of Washington. Adult members of this species are unusual in that they possess a tail-like structure, contain more vertebrae than other frogs, and are the only frogs that engage in internal fertilization. Ritland studied the skeletal structure, spinal nerve pathways, and musculature of these animals for his dissertation, and the results of his work were published in two articles in the *Journal of Morphology* in 1955.<sup>12</sup>

After completing his doctoral work, Ritland turned his attention to issues of paleontology, geology, and biogeography. His research advisor at Harvard, the prominent vertebrate paleontologist Alfred Sherwood Romer, influenced Ritland's interest along these lines.<sup>13</sup> Ritland came to believe that "flood geology," championed by fellow Adventists George McCready Price and Harold W. Clark, failed to account for the evidence he saw from geology and paleontology. He embarked on an effort to convince Seventh-day Adventists to look elsewhere for an interpretive framework for earth history.<sup>14</sup>

One of Ritland's reservations about flood geology was based in his view that the evidence failed to support "ecological zonation theory," a model of geologic history developed by Harold Clark and popular among Adventists and other young-age creationists. Clark's model, the unifying theme of his book, *The New Diluvialism*, was designed to account for the predictable order of fossils in the earth's crust. According to Clark's model, as the waters of the Genesis flood rose higher and higher, successive pre-flood ecological zones were inundated, and organisms buried within these zones eventually became fossils.<sup>15</sup> Ritland, however, pointed out that not only is the order of the fossils in the geologic column predictable, but that the organisms represented by fossils at deeper and deeper levels of the column are progressively less similar to organisms alive today. This fact suggested to him that organisms had changed over a considerable period of time. He also noted that evidence associated with multiple levels of upright trees, dinosaur trackways, and dinosaur nesting sites preserved above and below thick marine deposits precluded the possibility that these represent levels of pre-flood ecological zones. Furthermore, he pointed to the existence of vast deposits of fossil-bearing limestone replete with caverns, the occurrence of recycled fossils, and other features of the fossil record that he believed argued against Clark's model.<sup>16</sup>

Ritland's interest in geology and paleontology motivated him to study the John Day fossil beds in northeastern Oregon, and to carry out field research on the famous "fossil forests" of Yellowstone National Park. He considered the John Day deposits important for several reasons: 1) they contained an extensive portion of the geologic column; 2) they were primarily of volcanic, not water-borne origin; and 3) they contained a wealth of exquisitely preserved fossils which to him showed evidence for significant amounts of change over time. He believed this evidence collectively mitigated against the view that the Genesis flood was responsible for these deposits.<sup>17</sup> Likewise, his research on the famous Yellowstone fossil forests, where many trees were preserved at multiple levels in upright positions within volcanic sediments, led him to believe the flood could not have formed these deposits, and that the upright fossil trees represented ancient trees in position of growth.<sup>18</sup>

Ritland's interpretations of the Yellowstone fossil forests were challenged by his former colleague at GRI, Harold G. Coffin, who did research suggestive to him that the upright trees were transported into vertical position by water or mudflows during the Genesis flood.<sup>19</sup> For a number of years controversy among Adventist scientists revolved around Ritland's and Coffin's opposing views. More recently, investigators have found evidence that some of the fossil trees were preserved in position of growth in accord with Ritland's belief, whereas other trees experienced transport as Coffin had proposed.<sup>20</sup>

The science of biogeography, which deals with the distribution of organisms over the earth, provided yet another source of information influencing Ritland's views. He noted many cases in which related groups of organisms, both living and fossil, are restricted to particular geographic regions of the earth. These so-called *endemic* groups included a family of birds called honeycreepers found exclusively in the Hawaiian archipelago, an order of mammals called xenarthrans (anteaters, sloths, armadillos, etc.) found only in the New World, and multiple families and orders of marsupials restricted to Australia. To Ritland, the existence of these diverse endemic groups, often found on volcanic islands geologically younger than nearby continents, suggested at least two conclusions: 1) extensive levels of adaptive radiation had occurred beyond what most young-age creationists were willing to accept, and 2) more time was required for this radiation to occur than the few thousand years postulated by young-age creationists.<sup>21</sup>

Ritland also was interested in the historical development of ideas related to science and faith. He published a two-part series of articles in the journal *Origins* entitled "Historical Development of the Current Understanding of the Geologic Column." Among other points, he noted "that the basic framework of the geologic column was founded by men with

respect for Scripture [but who] . . . opposed organic evolution.” He posited that there was no “conscious conspiracy on the part of these scientists to undermine the moral and religious authority of Scripture as sometimes has been charged.”<sup>22</sup>

In his book, *A Search for Meaning in Nature* (1970), Ritland provided the most comprehensive presentation of his philosophical approaches to the history of the earth and life. Unlike many creationist writings which criticized evolutionary theory and geology, his book took a more positive approach, one that highlighted the importance of scientific discovery and the evidence for design. The final sentence of the last chapter encapsulated the message of the book and underscored Ritland’s lifelong search for a proper understanding of God’s plan and involvement with the earth and life: “In the quest for truth is a quest for the Infinite.”<sup>23</sup>

## Death and Legacy

Richard Ritland passed away on December 13, 2019 at his home in Olympia, Washington<sup>24</sup> He was ninety-four. Over the years, his views concerning the Genesis flood, the age of the earth, and the history of life ran counter to the ideas of some of his Seventh-day Adventist colleagues. Yet he remained a “Christian gentleman” and maintained “his scientific integrity and graciousness” among both his supporters and detractors.<sup>25</sup> He spent much of his professional life gathering evidence from geology, paleontology, and biology which nudged fellow Adventist scientists to consider alternatives to popular but sometimes unsubstantiated assumptions about the past. His work exerted a lasting influence on Adventist conversations about geology, paleontology, and biology in relation to the biblical record.

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