

together and had since moved apart. However, Wegener was the first to build a detailed scientific case in support of the idea.

Wegener's **theory of continental drift** contradicted many of the existing, widely-accepted ideas about the evolution of the Earth. At that time, scientists thought that the crust could not move horizontally—continents were permanently fixed in the positions in which they had formed billions of years before. You can imagine, most established scientists reacted unfavorably to being told many basic principles of geology were incorrect—especially by a young man who was not even a geologist! Wegener, you might say, was a meteorologist, or weather scientist. Wegener's theory was met with great hostility and rejected by most of the world's scientists.

In spite of the extremely negative response of most of the world's scientists, Wegener and his supporters continued to believe in the theory of continental drift. They kept on collecting evidence to support the theory. About thirty years after Wegener's death, enough evidence had been gathered to convince most of all scientists that continental drift was an acceptable, useful theory.

Evidence From Fossils

Evidence from fossils supports Wegener's theory of continental drift. As you read earlier, Wegener began to work seriously on the theory when he discovered that identical types of fossils had been found in Africa and South America. But as you can see in Figure 12-1, fossils reveal connections among continents as well.

The organism whose fossils provide evidence for continental drift is *Glossopteris* (glahs-SAHF-teh-rihs), an extinct, or no longer living, plant.

Glossopteris fossils, which are located in rocks that are 250 million years old, are found in South Africa, Australia, India, and Antarctica. *Glossopteris* plants were too large to have been carried by wind and too fragile to have survived a trip by ocean.

The seeds could not possibly have traveled great distances that separate the continents. This suggests that the places in which *Glossopteris*'s fossils are found must once have been joined together.

Figure 12-1 The fossilized leaves of the extinct plant *Glossopteris* have been found in southern Africa, Australia, India, and Antarctica. Today, these places are widely separated and have different climates. What do the *Glossopteris* fossils indicate about the positions of the continents in the past?



Washburn City High School