

*Begriffskontinente—Early 20th Century
Contributions from the German Geological
Community in Global Tectonics:
The pre-Plate Tectonics Revolution*

JOHN MURRAY
*University of Manitoba
Winnipeg, Canada*

ABSTRACT. The latter half of the 20th century witnessed a dramatic shift in the guiding assumptions in our understanding of the dynamics of Earth's crust, culminating in the broad acceptance of the plate tectonics model. Historically, the debate in global tectonics subsisted in a rivalry between two competing conceptual systems – a paradigm collision of fixism and mobilism. The geographical, linguistic and political isolation of the German geological community in the years 1900 – 1950 will be described as an instance of moving *Begriffskontinente*, or “*conceptual continents*”, that were intellectually displaced from movements among the geological establishment. This impeded the dissemination of alternative geophysical models contrary to those holding acceptance in the Americas and the United Kingdom. The rejection of Alfred Wegener and his continental displacement hypothesis by American geologists in 1926 was a crucial event in maintaining the isolation of the *geologische Gemeinschaft*, which then was to embrace a radical new hypothesis in the field of global tectonics – that of expansion of the Earth. The German expansionists, led by the seminal work of Ott Christoph Hilgenberg (1896-1976), and his publication in 1933 of *Vom wachsenden Erdball*, were working on ideas considered too extreme even for Wegener's supporters.

The contributions of the German geological community to the foundations of the plate tectonics revolution - beyond those of Wegener himself - remain essentially unknown. Here I will outline how the motions of *conceptual geological continents* provides a richer, more authentic science story of how the imaginative ideas of European geologists collided with the established thinking of the day, and laid the early foundations of the new views of a dynamic Earth.