



INSTITUT DE FRANCE  
**Académie des sciences**

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*Réception des nouveaux Associés étrangers sous la coupole de l'Institut de France*

**Allocution d'Umberto Cordani**  
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I am a geologist, graduated at the University of São Paulo (USP) on 1960, I have taken a specialization in geochronology at the University of California, Berkeley, in 1963, under the supervision of a well known physicist, Professor John Reynolds. With a good NSF grant, he brought to Brazil a complete K-Ar laboratory to be installed at the USP, and remained there during most of 1964, with ample time to transfer his scientific expertise and technical know-how to the Brazilian group. Later, he transferred to me the responsibility of the recently installed laboratory of geochronology. I have got my PhD in 1968, dating the Brazilian South Atlantic islands by the potassium-argon. Later I had a post-doc position at the Université Libre de Bruxelles, when I did a comprehensive geochronological work on the tectonic evolution of a large area in Eastern Brazil. At Bruxelles, I met for the first time our confrere Claude Allegre, during his visit to the laboratory.

My main field of research has always been the application of geochronology and isotopic geochemistry to investigate many different aspects of the Earth's history. I consider my main role in Science to be the introduction and development of these techniques in South America.

My most important scientific achievement is a correlation study between South America and Africa, in order to test the theory of continental drift. A plan was made to measure the ages of many different rocks of both continents, to verify the similarities between age provinces. Patrick Hurley, of the Massachusetts Institute of Technology, led this work and I was the leader of the Brazilian counterpart. The results were more than satisfactory, and the article published in 1967 in *Science* was critical for the confirmation of the theory of continental drift. Together with my work on the age of the South Atlantic, both outcomes greatly contributed for the onset, in 1967-68, of the scientific revolution in the Geosciences that ultimately conducted to the new paradigm of Plate Tectonics. In more recent years, I have worked on issues related with the position of South America within supercontinents like Pangea, Gondwana and Rodinia.

I have always kept a significant international involvement, at the highest level, and was elected President of the most important non-governmental organization in the Geosciences,

the International Union of Geological Sciences (IUGS). That was the period in which I interacted with some of us, like Jean Aubouin and Jean Dercourt. I was also member of the ICSU Board, and as such I could participate of the UN Conference on Environment and Development, held in Rio de Janeiro in 1992. In addition, I was President of the 31<sup>st</sup> International Geological Congress (Rio de Janeiro, 2000), where Claude Allegre held one of the major conferences.

During my scientific life, I had the opportunity to collaborate with many French colleagues. I was Visiting Professor, for short periods, at the Institut de Physique du Globe at Paris, the University of Aix-Marseille III, and the University of Strasbourg. At São Paulo, I interacted with several French researchers like confreres Georges Pedro, which was there at about 1970, and Vincent Courtillot that visited the USP a few years ago. Moreover, I shall mention a few collaborators, all them very competent French geochemists. Roland Trompette, was with me at São Paulo for many years. Norbert Clauer and Michel Bonhomme are my co-authors of some joint papers, and Yves Tardy, Daniel Nahon, Jean-Claude Vicente, Nicole Petit-Maire, Philippe Rocci, Jean-Paul Cadet, Philippe Vidal, among many others, have been good friends since long time.