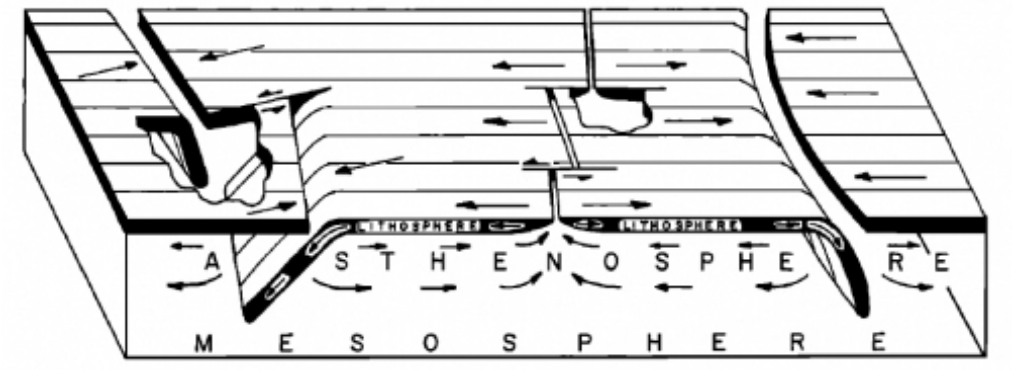


# The Plate Tectonics Revolution at Lamont: 50 Years of Discovery

23 - 24 May 2016 • Monell Auditorium  
Lamont-Doherty Earth Observatory of Columbia University



Isacks, Oliver, Sykes - 1968

23 May

## The Revolution Begins

### *Seafloor Spreading and Magnetic Reversals*

9:00 - 10:30

Steven C. Cande, University of California, San Diego  
*Eltanin 19 Discovery and the Magnetic Time Scale*

Neil D. Opdyke, University of Florida  
*From Continental Drift to Plate Tectonics:  
How to Do a Scientific Reevaluation*

Paul Jeffrey Fox, Texas A&M University  
*Musings About the Maps of Heezen and Tharp, and the Oceanic Crust*

10:30 - 11:00

*Break*

11:00 - 12:00

Manik Talwani, Rice University  
*The Tectonic Origin of the Bay of Bengal and Bangladesh:  
A Detective Story*

Lynn R. Sykes, Lamont-Doherty Earth Observatory  
*Transform Faults and Subduction Earthquakes*

12:00 - 12:30

*Panel Discussion*

12:30 - 1:30

*Break*

### *Plate Boundary Kinematics and Dynamics*

1:30 - 3:00

Bryan L. Isacks, Cornell University  
*New Global Tectonics, Importance of the Boundaries*

Xavier Le Pichon, Collège de France  
*Why I Was Single Author of My Paper "Sea Floor Spreading and  
Continental Drift" In a Lab Where Collective Work Was the Norm*

Tanya Atwater, University of California, Santa Barbara  
*Application to Western North America*

3:00 - 3:30

*Break*

3:30 - 4:30

Donald W. Forsyth, Brown University  
*Driving Forces and Evolution of the Oceanic Lithosphere*

Sean C. Solomon, Lamont-Doherty Earth Observatory  
*Tectonics on Other Planets*

4:30 - 5:00

*Panel Discussion*

You are invited to a two-day symposium to celebrate Lamont's role in the plate tectonics revolution and the continuing advances in our understanding of plate tectonics over the past 50 years.

An important goal of the symposium is to give students and early career scientists a taste of the excitement of being in the vanguard of a scientific revolution. The meeting will honor a number of scientists who contributed to the early development and confirmation of the theories that led to plate tectonics. It will include scientific presentations by distinguished scientists who were involved in plate tectonics from the beginning and those who continue to investigate plate tectonics processes today.

#### Organizing Committee

#### Chairs

W. Roger Buck  
William B. F. Ryan

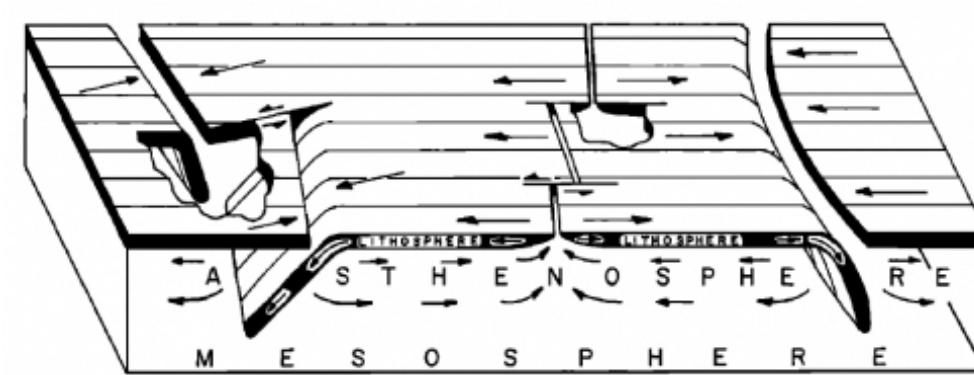
#### Members

Suzanne M. Carbotte  
Einat Lev  
Gregory S. Mountain  
Donna J. Shillington  
Sean C. Solomon  
Lynn R. Sykes



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24 May

## The Revolution Continues

### *Mid-Ocean Ridges*

9:00 - 10:00

William B. F. Ryan, Lamont-Doherty Earth Observatory  
*Exploring the Spreading Centers*

Enrico Bonatti, Lamont-Doherty Earth Observatory  
*The East Pacific Rise in 1963*

Peter B. Kelemen, Lamont-Doherty Earth Observatory  
*Magma Chambers and Ophiolites*

10:00 - 10:30

*Panel Discussion*

10:30 - 11:00

*Break*

### *Passive Margins and Rifts*

11:00 - 12:00

James R. Cochran, Lamont-Doherty Earth Observatory  
*Rifting the Red Sea*

Anthony B. Watts, Oxford University  
*Plate Flexure and Basin Subsidence*

Paul E. Olsen, Lamont-Doherty Earth Observatory  
*Large Igneous Provinces and Continental Breakup*

12:00 - 12:30

*Panel Discussion*

12:30 - 1:30

*Break*

### *Convergent Margins*

1:30 - 2:30

Daniel M. Davis, State University of New York, Stony Brook  
*Accretionary Prisms and Orogens*

Donna J. Shillington, Lamont-Doherty Earth Observatory  
*New Views of Subduction*

Terry A. Plank, Lamont-Doherty Earth Observatory  
*Volcanoes and Cycling of Seafloor into the Mantle*

2:30 - 3:00

*Panel Discussion*

3:00 - 3:30

*Break*

### *Tectonics and Climate*

3:30 - 4:30

Maureen E. Raymo, Lamont-Doherty Earth Observatory  
*Plate Tectonics and Sea Level*

Dennis V. Kent, Rutgers University  
*Plate Tectonics and Carbon Budgets*

Peter H. Molnar, University of Colorado, Boulder  
*Mountain Building and Climate, With Digressions Into Human Evolution, Erosion, Palynology, El Nino, and Other Non-Seismological Stuff*

4:30 - 5:00

*Panel Discussion*

#### Organizing Committee

#### Chairs

W. Roger Buck  
William B. F. Ryan

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