



## ***Marie Tharp Visiting Fellowship for Women***

**Information for Application - Fall 2008  
For Residency in 2009-2010**

**Application Deadline: January 16, 2009**

The NSF ADVANCE Program of the Earth Institute at Columbia University invites applications for the Marie Tharp Visiting Fellowship for Women. The purpose of the award is to provide an opportunity for women scientists and engineers to conduct research at Columbia University for a period of three months. Fellows will have an opportunity to work with faculty, research staff, post docs, and graduate students during their fellowship. Marie Tharp Fellows will be appointed Visiting Scientists at Columbia. Each Fellow is expected to participate in ADVANCE activities and make a scientific presentation during her residence. The program awards three to four Marie Tharp Fellowships each year.

The fellowship is named after Marie Tharp, who was the first to map details of the ocean floor on a global scale. She published the pivotal interpretation of mid-ocean ridges that was crucial to the eventual acceptance of the theories of plate tectonics and continental drift. Tharp based her work on data from sonar readings obtained by Maurice Ewing and his team. Piecing together data from the late 1940s and early 1950s, she and colleague Bruce Heezen discovered a 40,000-mile underwater ridge girdling the globe and established the foundation for the conclusion that the sea floor spreads from central ridges and that the continents are in motion with respect to one another—a revolutionary geological theory at the time. Years later, satellite images proved Tharp's maps to be accurate. Tharp came to Columbia in 1948. She then moved to the Lamont Geological Observatory (now the Lamont-Doherty Earth Observatory), where she began work on mapping the ocean floor. Her map of the ocean floor is still the foundation for research and education in the ocean sciences.

**Who Is Eligible to Apply for a Marie Tharp Visiting Fellowship?** The competition is open to women scientists in the natural sciences and engineering. Since the purpose of the Marie Tharp Visiting Fellowship is to bring promising women scientists to Columbia, faculty (full-time and adjunct) and research scientists at Columbia are not eligible to

apply. Applicants must hold a Ph.D. Minorities and mid-career women are especially encouraged to apply. Applicants must be eligible to work in the U.S.

**What Does the Fellowship Entail?** The duration of the Marie Tharp Visiting Fellowship is for a period of three months. Visiting Fellows are encouraged to visit for three consecutive months, but they may choose to take their fellowship in separate monthly visits. The fellowship must be taken in residence at one of the units or related departments in the Natural Sciences, the School of Engineering and Applied Science, or the Earth Institute at Columbia University (see below for a list of departments and units). The fellowship will provide up to \$30,000 for support of the fellow during the three-month period. The funding can be used for salary, research expenses, travel, childcare, or fieldwork expenses.

**Application Procedure.** Each applicant for a Marie Tharp Visiting Fellowship in 2009-2010 must submit a three-page proposal describing how she would use her time and with whom at Columbia she would like to work. It is strongly recommended that applicants contact their Columbia collaborators prior to submission. The proposal must be accompanied by a *curriculum vitae*, a proposed budget, and two letters of reference. All application materials must be submitted on-line by **January 16, 2009** at the following website: <http://www.ldeo.columbia.edu/tharpfellow> . For more information please visit the NSF-ADVANCE website at the Earth Institute at Columbia University at: [http://www.earthinstitute.columbia.edu/advance/mt\\_fellowship.html](http://www.earthinstitute.columbia.edu/advance/mt_fellowship.html)

**Selection Criteria.** All proposals will be reviewed by a committee of scientists and engineers at Columbia for scientific excellence and potential contribution to the university's research activities. Final decisions will be made by the ADVANCE Executive Committee. Marie Tharp Visiting Fellows will be notified of their appointment by March 16, 2009.

**About the ADVANCE Program.** Funded by a five-year, \$4.2 million National Science Foundation award, the Columbia University ADVANCE Program seeks to increase the participation and advancement of women scientists and engineers at Columbia through institutional transformation. The goals of the program are to (1) change the demographics of the science and engineering community at Columbia, (2) cultivate an environment that attracts, fosters, and promotes women leaders in science and engineering, (3) stimulate institutional cultural change based on social and behavioral science research about gender and race.

**Research units in the Earth Institute (<http://www.earth.columbia.edu>) include:**

- Lamont-Doherty Earth Observatory (LDEO)
- Center for International Earth Science Information Network (CIESIN)
- International Research Institute for Climate and Society (IRI)
- Center for Rivers and Estuaries
- Center for Climate Systems Research (CCSR)
- Center for Environmental Research and Conservation (CERC)
- The Earth Engineering Center (EEC)
- Lenfest Center for Sustainable Energy (LCSE)
- The Center for Global Health and Economic Development (CGHED)
- The Center for National Health Development in Ethiopia (CNHDE)
- Laboratory of Populations
- The Center on Globalization and Sustainable Development (CGSD)
- The Center for the Study of Science and Religion (CSSR)
- The Center on Capitalism and Society
- The Center for Sustainable Urban Development (CSUD)
- The Center for Hazards and Risk Research (CHRR)
- The Columbia Water Center
- The Black Rock Forest Consortium
- Center for Research on Environmental Decisions (CRED)
- Cooperative Institute for Climate Applications and Research (CICAR)
- Goddard Institute for Space Studies (GISS)

**Departments in the Natural Sciences at Columbia University include:**

- Astronomy & Astrophysics
- Biological Sciences
- Chemistry
- Earth and Environmental Sciences
- Ecology, Evolution and Environmental Biology
- Mathematics
- Physics
- Psychology
- Statistics

**Departments at the School of Engineering and Applied Science include:**

- Applied Physics and Applied Mathematics
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering and Engineering Mechanics
- Computer Science
- Earth and Environmental Engineering
- Electrical Engineering
- Industrial Engineering and Operations Research
- Mechanical Engineering

**Barnard College:**

- Anthropology
- Astronomy and Physics
- Biology
- Chemistry
- Environmental Science
- Mathematics
- Psychology

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For further information, please see

[http://www.earth.columbia.edu/advance/mt\\_fellowship.html](http://www.earth.columbia.edu/advance/mt_fellowship.html)

<http://www.ldeo.columbia.edu/about-ldeo/office-director>

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