

Proposal to the Women's Board for Internships of Social Sciences and Humanities Graduate Students working in and on Science Museums.

Proposer:

Leo P. Kadanoff, Emeritus Professor of Physics and Mathematics

Brief Project Description

We have put together an interdisciplinary effort, the Center for the Presentation of Science, aimed at involving graduate students in presenting scientific results in science museums. We have, with funds from the UofC and Aurora's SciTech Hands On Museum, begun a pilot project aimed at bringing Chicago's science and scientists to the Chicago area Science Museums. This project will especially focus on soft condensed matter and cosmology. This document proposes Women's Board funding for paying the interns in the social sciences and humanities in 2004. In the main, the document below is copied from an NSF proposal aimed at supporting the Physical Sciences Division students in the project.

Proposal:

Our goals and objectives include:

- * Enabling the presentation of science, including both the results of up-to-the-moment scientific research and basic science, to a broad public.
- * Teaching graduate students about the presentation of Science, especially the conceptual design of museum exhibits.
- * Helping museums more effectively present scientific material, especially using computerized methods.
- * Developing new career paths for students.
- * Expanding museums' audience base, especially in attracting additional under-served audiences
- * Building greater diversity in the groups taught by the physical sciences division of the University of Chicago.
- * Building a working collaboration that can be replicated.

In this project, each year a team of Chicago graduate students from several different disciplines will spend nine months working and learning

together. The students will be trained in and participate in the presentation of scientific knowledge to a broad public. Chicago people will collaborate with SciTech and the Adler Planetarium and Museum in two teams, each including a faculty or professional-scientist coach and six graduate students, including physical scientists, computer scientists, and social scientists.

Project leadership and administration will come from Professor Kadanoff, Dr. Ronen Mir, Executive Director, SciTech Hands on Museum, Prof. Leo Irakliotis, Computer Sciences, Chicago and Prof. Morris Fred, Social Sciences, Chicago. This effort is being pursued under the sponsorship of the MRSEC (Materials Research Science and Engineering Center) and the CfCP (Center for Cosmological Physics), and in addition the Computation Institute, the High Energy Physics group, and the Masters of Arts program in the Social Sciences (MAPSS). Scientists from all these sponsoring groups would help the students understand and present the results of their research. Dr. Eileen Sheu and Mr. Randall Landsberg, the outreach directors from MRSEC and CfCP will lead the teams of graduate students.

The broad impact of the program would be in the training of a new kind of scientific museum professional and also in the better presentation of science within museums.

The intellectual merit of the proposed program will be in its development of a better knowledge of how science may be presented and in the development of new methods of presentation.

The Graduate Students

There are twelve Graduate students working in the project this year, including:

Ivan Watkins, MAPSS student; School of the Art Institute of Chicago, BFA 1990; artist; extensive experience in community based programs; many grants, e.g., Louisiana Arts Council Grant awarded to develop African American Visual Arts Curriculum for grades K-12. Artistic adviser.

Joanne George, Masters Student in Humanities; Barnard College, BA, 1999 - Anthropology Art History; The Metropolitan Museum of Art, New York, NY; 6/98-5/99 Intern for the Africas, Americas, and Oceanic Department. Artistic adviser.

Katie Resler, MAPSS student, B.S. Ball State University, psychology in 2002. Aiming at career within museums. Previous employment: instructor at a daycare center, Guard at Smart Museum.

Dawnell Moon, MAPSS student; several years experience in archaeology in southeastern Turkey with the Upper Tigris Archaeological Research Project. Worked at Utah Museum of Natural history as docent and worked on artifacts and preservation.

James Munro, Ph. D. Student in Physics, Middlebury College A.B., Physics, May 2002; NIH-SURE Research Fellow 2001,2002; Conducted research on the binding properties of bacteriophage T4 protein and optical properties of semiconductor thin films.

Xinliang Xu, Ph. D. Student in Physics; BS, Tsinghua University, Beijing, 2002, major in physics, minor in English. Work experience, 2 years work as R.A..

Catherine Warner, MAPSS Student; BA William and Mary History and Economics 1999; Docent, Smithsonian National Museum of American History, 2000-2002; Intern, Colonial Williamsburg Outdoor Museum, 1998; The Advisory Board Company, analyst, 1999-2002.

Phoebe France, MAPSS student; BA St. John's College 2000, exhibits facilitator at Brookfield Zoo's Hamill Family Play Zoo. Field Museum Volunteer, summer 2002.

Danas Bagdonas, Master's student in Computer Sciences; BS Mechanical Engineer Klaipeda University, Klaipeda, Lithuania (July 2000). Web Designer, Estancia El Corcel, Clinton, WI (June 01 - June 02); Marketing Director, Marketing / Advertising Agency "Vakarietiskas stilius," Lithuania (Oct. 98 - April 01).

Gurvirender Pal Singh Tejay, Master's student in Computer Sciences; University of Wisconsin-Milwaukee, Masters of Art in Economics, 2002; Bachelor of Arts in Economics, December 2000; 09/99-12/99 Institute of Survey and Policy Research, UWM, Milwaukee, Wisconsin; Student Technical Assistant; 1995 Pilot Indian Air Force.

There are two additional computer sciences students.

Next year's group would be similar but perhaps larger.

Budget:

We request women's board funds to pay four social sciences and humanities interns each a salary of \$1500 for 2.5 quarters of work on the project from January to July 2004. Hence we request \$6000. We cannot do without these students. The seed funding from the University and MAPSS which now pays for them is not renewable.