Letters from John J. Chiment
Earth and Atmospheric Sciences

February 20, 2001

Dear Provost Martin,

Two years ago, at graduation, Pres. Rawlings commented upon a course with "two geologists, a paleontologist, art historian, physicist, physiologist, recycling expert, and a painter." He said on that occasion that this was "the kind of course only Cornell could offer." I agree.

It is not an accident that the instructors for this course (cross-listed as EAS 200, PHY 200, ARTH 200, ARKEO 200, and ENGR 185) have almost all run experiments at the Ward Center. The only real exception is Prof. Lepage, chair of Physics. Ward Center may no longer be cutting edge physics. I simply don't know.

Ward Center is cutting edge geology (R. Kay, S. Kay), paleontology, art history (P. Kuniholm, A. Ramage), material science (the late D. Clark, K. Unlu), and painting (S. Taft). Ward Center provides analytic tools which advance our understanding of medieval manuscripts (R. Calkins, R. Armstrong, W. Hellman), plant-insect interactions (L. Weinstein, D. Lisk), and climate change (S. Burr), to name only a few areas of current investigation.

I hope you will permit this center to continue while outside funding is being secured.

Thank you,

John J. Chiment
Earth and Atmospheric Sciences

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February 12, 2001

One indirect benefit of the Ward Center's presence on the Cornell campus is easy to overlook. The building, designed for research involving highly radioactive substances, is fully monitored and alarmed, permitting low-level radioactive projects and the storage of low-level radioactive material. Ward Center is one of the very few places on the Cornell campus with the permits necessary for such activities and so-recognized by the Cornell Office of Health and Safety.

A recent example of this use is the research by Cornell undergraduate physics student Thanos Pantazis. In 1999 Mr. Pantazis investigated the trace element composition of wood samples from Greece and Turkey using an micro-XRF device, developed for whole-rock analysis on the lunar and Martian surfaces and loaned by the Amptek Corp. of Boston, MA. This analytic device requires a radioactive source, in this case a capsule containing radioactive iron (Fe-55). The analysis served to complement XRF experiments performed at the Cornell High Energy Synchrotron Source (CHESS) and the results were presented at the 1999 CHESS Users Symposium.

Pantazis was able to borrow both the Fe-55 source and the Amptek detector, but would have been unable to conduct his experiments were it not for laboratory space available in the Ward Center. A Fe-55 source requires a permitted, radiation-monitored laboratory for legal operation. Such a facility is available in room 111 of the Ward Center.

Further work with Amptek peltier-cooled XRF detectors is planned by students in the Departments of Space Sciences, Earth and Atmospheric Sciences, History of Art, and Medieval Studies on extraterrestrial rocks, volcanic sediments, wood samples, and ancient inks.