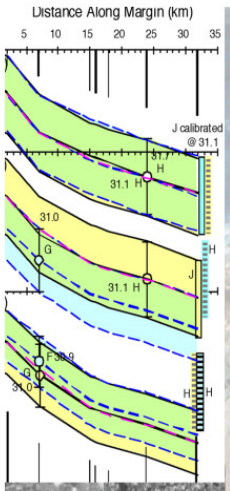

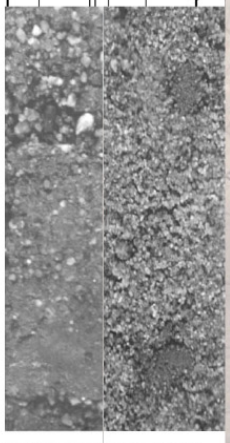

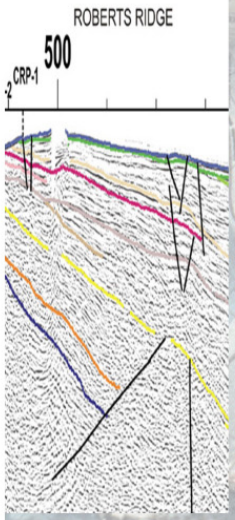

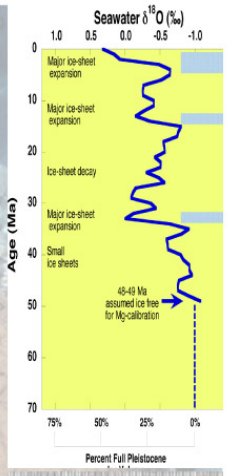

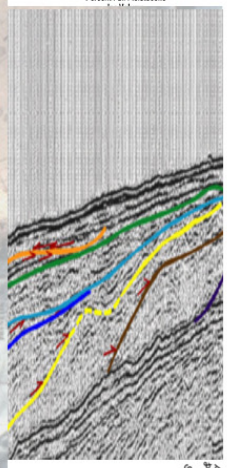

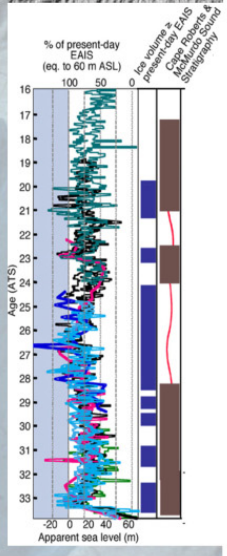

Marine Proxies for Antarctic Ice Volume:

Continental Shelf Sequence Stratigraphy and Seismic Stratigraphy and Deep-Sea Records from High and Low Latitudes

A workshop organized by

Stephen F. Pekar,
Phillip J. Bart,
&
Christopher Fielding

Held at
The 10th International Symposium on Antarctic Earth Sciences
University of California, Santa Barbara
August 26, 2007

Table of Contents for:
Marine Proxies for Antarctic Ice Volume: Continental Shelf Sequence and Seismic Stratigraphy and $\delta^{18}O$ Records from High and Low Latitudes

Schedule for Marine Proxies for Antarctic Ice Volume: Continental Shelf Sequence and Seismic Stratigraphy and $\delta^{18}O$ Records from High and Low Latitudes

Location of Workshop: UCEN Flying A

12:30- 12:45 **Welcome, Introduction, Objectives of Workshop**

12:45- 1:30 **High-latitude sedimentology and stratigraphy**
Presentations by Christopher Fielding, Sandra Passchier, & Ross Powell

1:30 – 1:55 **Discussion**

1:55 - 2:40 **High-latitude seismic stratigraphy**
Presentation by Phil Bart and Laura De Santis

2:40 -3:05 **Discussion**

3:05 - 3:15 **Coffee Break**

3:15 - 4:00 **Low-latitude stratigraphy and backstripping**
Presentations by Michelle Kominz, Stephen Pekar, & Timothy Naish

4:00 - 4:25 **Discussion**

4:25 - 5:05 **Deep-sea evidence: Mg/Ca ratios and $\delta^{18}O$ records**
Presentation by Stephen Pekar

5:05 - 5:30 **Discussion**

5:30 - 6:00 **Beer and wine reception** **Manzanita Village**

6:00 - 8:00 **Dinner buffet** **Manzanita Village**

7:30 - 8:30 **Wrap up meeting, further discussions, book plans** **De Anza 1018**

Marine Proxies for Antarctic Ice Volume: Continental Shelf Sequence Stratigraphy and Seismic Stratigraphy and $\delta^{18}O$ Records from High and Low Latitudes

Co-organizers

Stephen Pekar
Queens College, City University of New York and
Lamont-Doherty Earth Observatory of Columbia University

Phillup J. Bart,
Louisiana State University

Christopher Fielding,
University of Nebraska at Lincoln

PURPOSE OF THIS WORKSHOP

This is a short workshop on bringing together a critical mass of researchers to describe, instruct, share, and discuss some of most important methods in deciphering the cryospheric evolution in Antarctica during the Cenozoic. This includes methods using records from distal sources such as isotopic records from deep-sea cores and stratigraphic records from continental margins, which although are relatively complete, typically include signals not directly related to changes in the ice sheet. Proximal records on the other hand, such as borehole and seismic data from around Antarctica, provide the most direct if inherently fragmentary and qualitative constraints on polar climate and ice sheet dimensions.

This workshop will provide an overview on how ice volume changes are constrained from a number of methods from both distal records and proximal records. It will also serve as a practical guide for understanding the methods as well. Several examples will be shown that will emphasize how the methods were implemented as well as how they can be applied in new data sets.

The workshop will include a series of powerpoint lectures, followed by Q&A and discussions on implementation on other data sets as well the problems, complexities, limitations of each data set in telling us about Antarctica. These will form the basis of discussions that will take stock of the strengths, uncertainties, and limitations of each of method, some of their cutting edge applications as well as comparing the similarities and differences among the different records. This will lead into developing a synthesis of what critical data are needed from the next phase of scientific investigations.