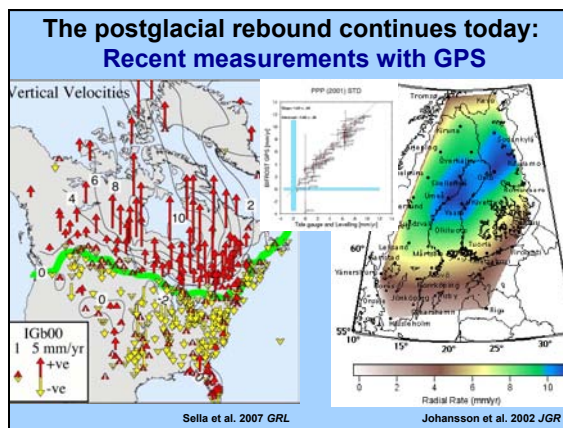
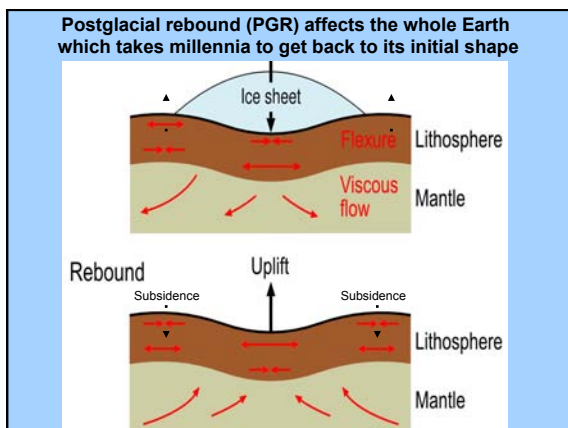
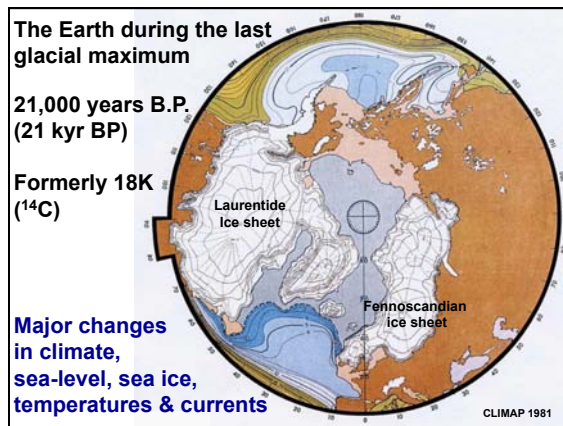


Aix-Marseille universit  COLLEGE DE FRANCE CNRS IRD Institut de recherche pour le d veloppement

Sea level changes since 21,000 years

Edouard BARD
Chaire de l' volution du climat et de l'oc an du Coll ge de France

CEREGE (AMU, CNRS, IRD, CdF) Aix-en-Provence



Drilling onshore the Tahiti barrier reef Papeete harbour

TAHITI 17'50" S
20 km 149' W


P10
P9
P8
P7
P6

Integrated Ocean Drilling Program IODP 310

ODP proposal 519 submitted in 1998 by Camoin, Bard, Hamelin, Davies


Camoin, Iryu, McInroy & IODP 310 Scientific Party 2006

Accurate dating of corals is crucial:
 $^{230}\text{Th}/^{234}\text{U}$ and ^{14}C ages by mass spectrometric techniques

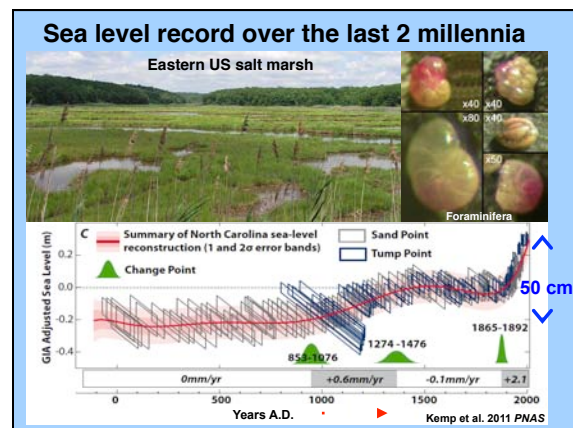
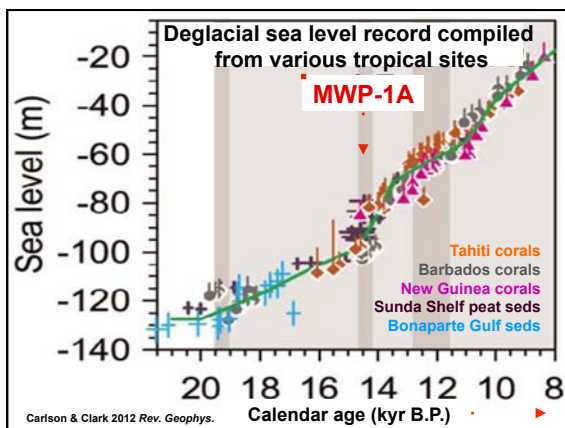
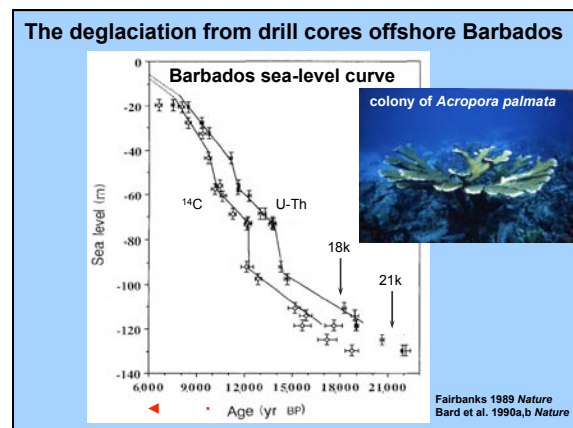
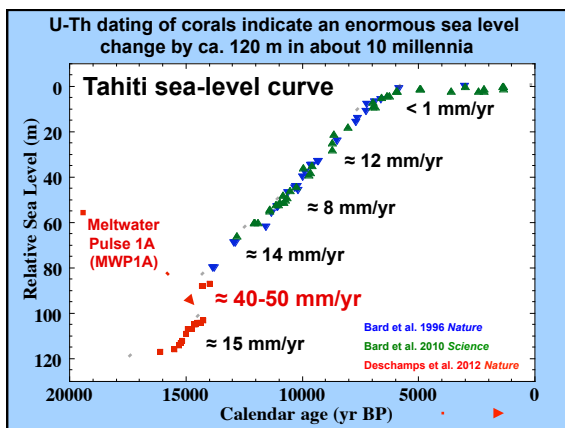


Bonus:
 Time variations of seawater $^{234}\text{U}/^{238}\text{U}$
 Ocean & atmosphere $^{14}\text{C}/^{12}\text{C}$

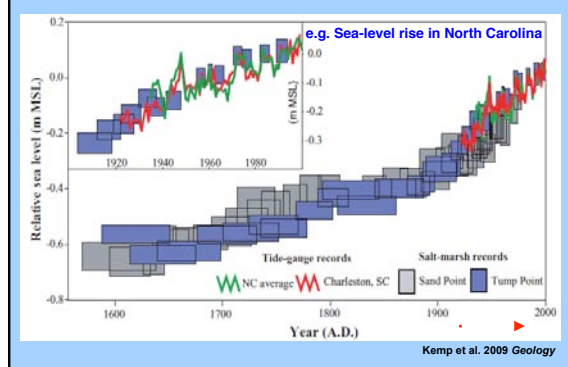
Soon on our campus in Aix-en-Provence...
 EQUIPEX Grant (French "Big Loan" initiative for academia)



Multi-Collector Inductively Coupled Plasma Mass Spectrometer (MC-ICPMS)
Mini accelerator mass spectrometer dedicated to ^{14}C ETH Zürich MICADAS



The salt marsh record agrees with tide-gauges



Global compilation of tide gauge sea level data

