

SALUTE



Jerry Wasserburg, J. H. Chen and Lawrence Edwards relaxing in the field in Bermuda during the April 1987 GSA Penrose Meeting on 'Late Quaternary Sea-Level: the Marine and Terrestrial Record'.

Every so often the Quaternary sciences take a major step forward as the result of new discoveries, or because existing techniques have been refined, or have had a new dimension added to them. Everyone will have their own preferences of examples of these, but no one can deny that outstanding ones would be the discovery of radiocarbon dating, followed, in due course, by the development of accelerator mass spectrometry techniques; or the application of oxygen isotope analysis to deep-sea cores, followed by an increased power after instrument sophistication. These examples, and others, have, of course, been suitably acknowledged by the scientific community. But it is rarely that an opportunity arises for more or less instantaneous appreciation, hard on the heels, as it were, of the announcement of scientific success. So, *Quaternary Science Reviews*, is delighted to salute an

important breakthrough in the measurement of Thorium-230 abundance in corals.

R. Lawrence Edwards, J.H. Chen and G.J. Wasserburg have developed techniques for measuring the abundance of ^{230}Th in corals using isotope dilution mass spectrometry which allows the use of small samples (*Earth and Planetary Science Letters*, **81**, 175–192, 1987). Samples can be measured to a much greater degree of accuracy ($\pm 2\%$ or $\pm 3\%$), and the time-range now available for dating corals ranges between 50 and 500,000 years. For young corals this approach may be preferable to radiocarbon dating. Edwards, Chen and Wasserburg have already successfully analysed corals with ages between 122 and 130 ka, which supports the theory that changes in climate are the result of orbital forcing. This brief note is a salute to them.