

Preface

AN international conference on the theme of "Mechanical Instabilities in Rocks and Tectonics" was held at the Corum Conference Centre, Montpellier, France, from 3rd to 6th September 1991. We organized the conference as one of the series of regular European conferences to discuss recent advances in structural geology. The meeting attracted 229 people from over 22 countries, including 46 students. Six invited Russian scientists attended the meeting, probably their last as U.S.S.R. citizens, although we had to wait until the last minute for confirmation of their participation!

The meeting was structured around the three themes dear to the organizers, namely deformation of the lower crust, experimental deformation and fracture studies. The three days were divided into oral and poster sessions, with each morning and afternoon session beginning with one of the six invited talks (in order of appearance T. Engelder, B. Guy, D. Pollard, J. Tullis, Ph. Davy and S. F. Cox). Fifty-four talks and 90 posters were presented, the abstracts of which were published in *Terra Nova Abstracts* supplement 5 to *Terra Nova* Vol. 13, 1991. Many aspects of mechanical instability were presented including joint development, seismogenic fracturing, stress fields, metamorphic reactions, brittle-ductile failure, buckling, porphyroblast rotation, diapirism, accretionary margins, fabric development, pore fluid changes, pressure solution and superplastic deformation in extension. Two video films were presented on analogue simulation of diapirism (A. Zelikson) and accretionary wedge evolution (J. Malavieille), and one on numerical simulation of grain growth on an Apple Macintosh (P. Bons) during the poster sessions.

Field trips were organized before the meeting, in the French Alps (J.-P. Gratier, M. Caron, J.-P. Gamond), the Languedoc (J.-P. Petit, M. Mattauer) and the Pyrenees (M. Brunel, J.-L. Bouchez), with over 50 people joining the organizers in the field.

During the meeting the participants were left to the delights of local cuisine at lunch time, where everyone could find something to their taste in the local restaurants. An ice-breaker was offered by the Mayor of Montpellier. As is the tradition, a gala dinner with over 100 people was held at a local winery. Various speeches were given describing the local wines in French, but non-French speakers appeared to be unruffled as they drank the article in question.

Such an international meeting depends heavily on financial support from many sources. The attendance of the overseas invited speakers was made possible by funds from B.R.G.M., Schlumberger and Elf-Aquitaine. Shell provided travelling funds for six young scientists, three from developing countries (Algeria, China and Morocco) and three from eastern European countries (Hungary, Poland, Russia). The French Ministre des Relations Exteriéures also provided travel expenses for a Czechoslovakian and a Bulgarian participant. The main cost of the meeting itself was provided by the C.N.R.S. and the Université Montpellier II. Various other companies provided additional funding (Leica, Olympus).

This special issue *Mechanical Instabilities in Rocks and Tectonics* contains 18 papers presented at the meeting. These papers cover a wide range of topics embraced by the general theme of the conference.

We thank the many reviewers for the quick, diligent and constructive manner they helped the authors and editors, enabling us to bring this volume to press within 1 year of the conference.

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