Deep-Water Sedimentation in the Alpine Basin of SE France:
New perspectives on the Grès d’Annot and related systems
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Foreword

The Grès d’Annot (Annot Sandstone) Formation of SE France includes some of the world’s best exposures of sandy turbidites and has been the source of highly influential models of turbidite system development. This formation is now considered as a model example of a tectonically-controlled confined turbiditic ramp, and the Grès d’Annot outcrops constitute a classic area for academic and industrial field courses on deep-water gravity flow deposits. From the early 1930s, the focus of research on these extensive exposures has moved progressively from lithostratigraphy and structural interpretation to sedimentology, seismic-scale architecture of turbidite bodies, evaluation of tectonic controls, and more recently to detailed characterization of the turbidite units as hydrocarbon reservoir analogues.

The spectacular Grès d’Annot exposures are currently the focus of active work by several research groups addressing fundamental questions about gravity flow sedimentation and basin development, and also by workers aiming to use outcrop data as a guide to subsurface correlation and reservoir modelling. For these reasons, the IFP and University of Aberdeen decided jointly to organize an international research conference on the theme of confined turbidite systems, followed by a field meeting. The meeting took place in September 2001 in Nice; 70 geoscientists from 14 countries participated in the conference, with a balanced distribution of delegates from petroleum companies, research institutes and universities. The objectives were to draw up the ‘state-of-the-art’ of the scientific knowledge on confined turbidite systems, and in particular the Grès d’Annot, and to promote discussion on the different approaches developed around that theme.

Two companion special publications of the Geological Society arose from this research conference: a volume on Confined Turbidite Systems (Geological Society Special Publication 222) draws together lessons from diverse examples of confined turbidite systems (recent and ancient) all over the world; the present volume tries to contribute to a fuller understanding of the Grès d’Annot by illustrating the complementary nature of different approaches. Such methods and techniques are intended to result both in enriched understanding of gravity flow deposition and in better-designed hydrocarbon reservoir models, thereby contributing to the improvement of deep-water field development planning. By offering a mature case-study of a peripheral foreland basin, we hope that this volume will be of interest to both academic researchers and industry geoscientists.

Philippe Joseph and Simon Lomas
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This volume is dedicated to the memory of Jean-Marie Quéméner (died 1st August 2001), who worked on the sedimentology and geometry of the Grès d’Annot for his Masters degree from Rennes University (1999).

Figure for foreword
Participants on the field trip to the Grès d’Annot at Chalufy, September 2001.

Figure for cover
Spectacular onlap of Grès d’Annot beds against a pre-existing marlstone slope (pale blue-grey lithologies at the base of the section) at Chalufy. The lower sandstone body is approximately 35 m thick.

The Grès d’Annot is one of the best-studied outcrop examples of a large confined turbidite system. Other examples of such systems are described in a companion special publication (Geological Society Special Publication 222, edited by S. A. Lomas & P. Joseph).