Foreword

Those of us who have worked on fracture for a long time often suspect that the subject has far-reaching implications in fields other than our own. Most come to the subject via various aspects of structural integrity or material development but we observe cracks in rocks and see mowers cutting grass, for example, and perceive that these could be described within a general framework of fracture mechanics. Putting this framework in place and explaining the arguments with supporting evidence is a huge task and it is this that Brian Cotterell has achieved.

We are given a historical review of the subject and intriguing explorations of the influence of fracture in making stone tools and designing classical buildings, for example. The whole area of the influence of fracture in biology is described via its effect on evolution. One is given a whole new perspective on the properties and design of teeth by this section. Biology is probably the next growth area in the subject and this book is a wonderful primer for anyone entering this new field. When this is followed by a review of the importance of fracture in the development of electronic materials one gains some perspective of the enormous range of the book.

I have, I hope, given some idea of the scope of *Fracture and Life*. It is an intellectual achievement of the highest order and required extraordinary diligence by the author to read, let alone review and summarise, the vast literature covered. The book is timely since the subject is changing and moving into new fields. The next generation now have a perfect starting point for this quest.

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