well defined features and on the scale of the rock mass they are pervasive. Accordingly the techniques to map their orientations and describe their thicknesses and surface characteristics are well established. Once the structure is known, and if it is not highly variable, predictions of the attitude and character of these features at any given location within the mass are dependable. On the other hand, the morphology of macrofractures (joints, fissures, cracks, small faults) are highly variable, and the approaches to mapping and describing them also differ. As a result the accuracy of predictions of macrofracture development within a structural framework are either inherently inadequate or are highly subjective. The contributions by Berger (1966) and Silveira et al. (1966) are noteworthy here as they include techniques for the measurement of macrofractures with a view toward obtaining reliable, reproducible, quantitative information with a minimum of personal bias.

Examination of the macrofracture data in the contributions to this theme by Berger, Boretti-Onyszkiewicz, Denissov et al., Mauriño and Limousin, Norris, Paulmann, Pincus, and Silveira et al., shows certain consistencies even though the data are representative of terrains of widely different composition, topography, and structure. Although the macrofractures vary erratically in spacing and number they tend to be developed at any one locality in a reasonably small number of well-defined sets. In the main these sets occur at high angles to the local bedding, foliation, or schistosity and appear to be geometrically and possibly genetically related to the local or regional structure. It follows that if this geometric and genetic relationship can be recognized and tested, one can develop a suitable basis upon which to predict statistically the orientation of the macrofractures in particular domains within the rock mass.