

EXPERT GEOMORPHOLOGICAL ANALYSIS

Expert geomorphological analysis seeks to integrate information from a number of sources to provide a broad-scale and long-term perspective on past and future change. The approach draws heavily on the analysis of historic information as outlined above, an understanding of how landforms evolve, and relative importance of the various process-form interactions. In effect, it is a basis for synthesising, or interpreting, the outputs from the various data analysis methods, within a framework guided by our present understanding of geomorphological behaviour.

As yet there are no well-defined methods, or protocols, to guide this type of analysis. The success of the method is very dependent on the extent and quality of the available data and the skill and background subject knowledge of those undertaking the analysis. It is therefore important to carefully document the interpretation that is being made. Typically this should identify the data sources or results that are being relied on and then set out the conclusions that follow. As far as possible this should rely on accepted behavioural models of geomorphological evolution, or where a new model is being proposed this should be carefully justified. An important aspect of the analysis is to consider any information or data that does NOT support the proposed model. The reason for over-riding or ignoring selected information needs to be explained. Such justification may be straightforward but, given the limits of both current knowledge and the available data, it is quite likely this will involve some discussion of the various uncertainties (and possibly some assessment of the likelihood of a number of different outcomes).

An example of the use of this approach is given in Paper 15 of the [EMPHASYS Report](#).