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EDITORIAL: MANUSCRIPTS AND ILLUSTRATIONS ON DISK

New procedures for processing from disk

During the course of 1994, the publishers have been developing the expertise and facilities to process papers from authors' floppy disks. Electronic production has obvious advantages over rekeying of text (typesetting): we avoid the possibility of introducing new errors, and should be able to produce proofs more rapidly. The *Journal of Structural Geology* is enthusiastic to embrace these new procedures, but keen to retain a dual facility of text production via typesetting as well as disk-processing. Although the majority of *JSG* papers are produced from modern wordprocessing systems, we do not wish to exclude or penalize authors who cannot provide manuscripts on floppy disk. Another consideration is the question of production time, in real and human terms. The Journal is currently typeset in a separate department, by expert staff. New electronic production from disk will become the responsibility of the publisher's production staff, and will involve significant changes in workloads and working procedures. This will place limits on the speed of change, particularly if we wish to avoid disturbance of our production schedules.

Processing text from disk involves a two-stage procedure. All disks are first screened, pre-edited and formatted in a standard way, before transmission to our Production Editor, Nicky Maddalena. She then proceeds with on-screen editing, with reference to the manuscript hardcopy, transferring final editorial changes from editors. At the same time, she must mark all headings, signs and symbols with specific codes—the time-consuming task of 'tagging'. Our initial policy will be to process papers, electronically, which are straightforward text. The decision whether to process through typesetting or disk must ultimately rest with Nicky Maddalena, based upon her assessment of the paper and production time.

We shall only deal with disks of *final versions* of papers, at the 'acceptance' stage. Floppy disks should be sent at the same time as the figure originals, to the editor handling the paper. All disks should be accompanied by 'hard copies' (on paper). Please do not transmit text or illustrations to editors electronically, by e-mail. The editors will work with hard copies, as before, and will not be involved in examining or working with the disk. (That will be done at the publishers.) It is sometimes the case that revised manuscripts are accepted and sent to press with a considerable degree of editing for style and English. The decision whether to continue forwarding heavily edited manuscripts to press, for typesetting, or to return such manuscripts to authors, to make the editorial changes and then submit on disk, will rest with the editor.

We welcome figures on disk, as well as text. Disks of text and figures will generally be treated independently, and need not be on similar systems. Text may be submitted on disk, when figures are not: or vice versa. Some guidelines are given below.

General guidelines for disk submission

Elsevier Science have produced some guidelines for articles on disk, summarized below. More detailed information is available on request from the publisher, at "The Boulevard" address in the inside front cover. Please ensure that both the text and the illustrations follow the Journal's style, as given in the **Instructions for Contributors** (end of issue). This section will be modified to include guidelines for disk submission, in forthcoming issues.

Text files. Most wordprocessing systems can be handled at Elsevier. The preferred storage medium is a $5\frac{1}{4}$ or $3\frac{1}{2}$ inch floppy disk, in MS-DOS format, but other systems are welcome, such as NEC or Macintosh (saved in the usual manner: do not use the option to save in MS-DOS). Please label the disk clearly with your name, the operating system, the wordprocessor (e.g. Microsoft Word, WordPerfect) and version, a short title and the filename. Please keep the paper as one file. It is important to save the file in the wordprocessor format (not in flat ASCII). If you wish to use a character (e.g. a Greek letter) which is not available on your keyboard, please use a code such as @ or #, which can be clearly identified on the hard copy. Please take care identifying 0 from O, and 1 from l.

Graphics—figures and tables. Illustrations are welcome using any of the popular drawing programs for Macintosh and PC: e.g. Adobe Illustrator, Aldus Freehand, Cricket graph, Macdraw, Chemdraw, Corel Draw-for PC. Label the disk as for text files. General points about illustrations are discussed below.

Designing illustrations

Graphics packages have undoubtedly improved the quality of illustrations in science journals. However, these have also introduced new problems in producing and printing illustrations, which readers and authors may not all be aware of. It is not usually the graphics, but their human operators, that cause the problems! In the

days when diagrams were hand-drafted by experienced technicians, a standard range of print size, line weights, and shading styles could be expected. Now, we receive drawings in a vast range of styles. Problems commonly arise with the reproduction of the fine grey tones which are a common feature of many graphics packages. Some diagram styles are very bold, using thick lines and shadow effects, which may work well for overhead projection in a lecture, but can look melodramatic on a page of fine print. Diagrams which are direct computer-output, such as finite-element grids or stereoplots of stress tensors, can pose problems, if they contain both fine lines and small numbers, and large text or arrows. Such ranges of symbol size and line width can make size and reduction estimates very difficult: too small, and the fine print disappears; too large, and the huge letters look ridiculous compared to the printed text. The degree of reduction of illustrations has considerable implications for the length of an individual article, and therefore for the pages of the Journal as a whole. I expressed concern in my previous editorial (*J. Struct. Geol.* Vol. 16, No. 6) at the number of long papers in recent issues of *JSG*. In several cases, it has been the design of the figures, placing limits on reduction, which led to an unduly long paper.

All figures for this Journal are professionally assessed and 'sized' (for degree of reduction) at the publishers. Editors may recommend changes to figure labels, or other minor improvements. Such changes used to be easy to make, when figure originals were submitted on tracing film. Figures produced from computer graphics packages are now commonly submitted as 'originals' printed on paper. While most are of high quality, those that require changes are difficult to alter. Submission of graphics on disk will simplify these procedures.

As stated, we receive a wide range of figure styles, which reflect authors' tastes and drafting experience. I do not want to stifle individuality of style, but I should like to establish a few basic principles, as guidelines. These may, in fact, be helpful to authors faced with a welter of possibilities in their graphics packages.

Print and symbol size. The publishers recommend diagrams which use regular Times or Helvetica typeface with a final (printed) size of 6pt to 8pt type, and equivalent line weights. (If drawing for 50% reduction, use 12pt to 16pt fonts.) Thus, quite a narrow range of print sizes is recommended: a maximum to minimum range of 1.25. Anything more, such as doubling of print size, can look imbalanced.

Shading. Shading poses a particular problem with computer graphics figures. The popular fine tones which give a subtle range of greys, from light to dark, can be unexpectedly difficult to reproduce in print. There are two causes of the problem. First, shading made up of very fine dots can produce patchy originals from regular printers, which will be reproduced or even amplified. Secondly, it can be extremely difficult to judge whether particular shading will work in the final printing, from photocopies of page proofs which the authors receive. Pale greys tend to disappear altogether, and medium to dark greys can appear black. Authors are naturally alarmed. Where shaded contouring is a *necessary* part of a diagram, we must trust that final reproduction will be true to the original. However, where fine tones are *not* essential to the figure, and are only special effects like shaded backgrounds or boxes, we recommend their avoidance for publication. Authors should not be afraid of simple black on white line drawings! For shading on maps, we recommend distinct patterns of spots, dashes, lines, etc., rather than fine tones.

Figure sizes. It is recommended that all diagrams are drawn with the Journal's two-column layout in mind, and final figures are labelled for either single or double column. Please submit figures for review at the expected reduced size. Wherever possible, we hope figures can be designed for a single column (half-page width). A glance at a *JSG* issue will show that a considerable proportion of *JSG* pages are white space! This arises, where figures are a half-way size between single and double column, and their reduction is a compromise between figure reduction and avoidance of blank areas. Poor design and arrangement of multi-part figures can also lead to wasted page space. All this can be minimized, if authors think about figure design and layout, *before* producing their illustrations.

The beauty of computer graphics is that many of the problems raised above can be solved at the touch of a button. I hope that when submitting their diagrams on disk, authors will be amenable to any cosmetic changes made to their figures, in line with the above policies, and for the purpose of improving the appearance and production of their figures.

Susan H. Treagus