

When In-house Composition May Be Beneficial: My Two Conversion Stories

When and how to use in-house composition for a journal is an important topic because the choices can affect allocations of time and money, the quality of a journal, and the satisfaction of personnel. Use of a fully staffed company that specializes in typesetting, layout, and design work and can provide fast and high-quality turnaround is often the best option. In some situations, however, in-house composition is beneficial and can achieve professional results.

The first criteria in making the choice are the volume and turnaround time of your project. Typically, if you have to hire so many people that you are in effect creating a little production company in your organization, it might be hard to justify the expense.

My experience is with small organizations in which the publication design is standard and composition could be smoothly integrated into the functions of the existing staff. For example, after my first conversion, which was with the journal *BioScience*, the copyeditor and the features editor would put simple tags (small code names for parts of the paper, such as title, byline, and text) into their documents before passing them on to me (I was the production manager). Instead of creating a dummy of the journal from the waxed galleys provided by the typesetters, I created real layouts with PageMaker on the computer screen.

The turnaround time for inserting corrections in the files was much shorter when I did it myself than if I sent the material to the typesetters. It was also easier: the editors could hand me material and explain anything that might be confusing, or I could go back to them and ask for clarification. We could communicate about priorities and adjust the layout to use every page more effectively and with less waste. When corrections on the proofs were confusing, whether because of bad handwriting or for technical reasons, I could go directly to authors.

That first conversion came about because the executive director of the American Institute of Biological Sciences

(which publishes *BioScience*) handed me a computer and said, "Rachel, I've signed you up for a PageMaker class. . . ." I had to learn fast. I was helped by the printer's being supportive of the conversion, although at the end the printer decided that we were now too small a client to keep around—definitely an unexpected result.

I began the in-house production by doing the typesetting and layout for the back-of-the-book material, such as book reviews. In the end, I created templates and styles for each section and then simply jumped into doing the whole book. It was harder to do some layouts through the typesetter than to use the new system.

The second conversion I led, for the journal *American Mineralogist*, was similar, although I was hired with an understanding of the intended conversion instead of being surprised by it. Again, the design is standard and easy to set up in templates. And again, I did a few book reviews and other back-of-the-book materials first because such sections rarely have equations, symbols, tables, or other technical material. That helped me to ensure there would be no surprises in the basics of page margins, fonts, communication between my computer and the printer's computer, and so on. As soon as I was authorized, I began doing everything in-house because I remembered how difficult the dual-system time had been at my previous journal. *American Mineralogist* is more technical, so being able to ask the author exactly what correction marks mean is even more important. For example, overseas authors often use different proofreading symbols and write numbers differently. Being about to e-mail and double check quickly has been useful.

At *BioScience* we had an editorial staff of five, each with specific responsibilities; mine was journal production. At *American Mineralogist*, the staffing was different. Besides peer review, the primary tasks of the editorial staff of two and one-half persons were copyediting and proofreading; there was little production work beyond specifying whether artwork was to run in

one or two columns. Thus, the conversion changed the staff responsibilities and skills a great deal. The economic decision was to maintain the current level of staffing. The skills available in the office had to shift to include typesetting and layout and the use of such computer programs as PageMaker, PhotoShop, and Illustrator. The focus of the copyediting shifted to, for example, consistency in abbreviations. It became easier, at least for me, to work online and use search-and-change, macros, and other tools. More responsibility was given to the two scientific editors (the equivalent of other journals' editors-in-chief) for the many odd mineralogic spellings and grammar. The authors now have more responsibility for proofreading. As a result of these changes, I have been able to keep the staff small, and that keeps costs down.

Finding and retaining technically savvy people with editorial skills (such as proofreading and reference formatting) has proved difficult, especially in light of my previous experience of being the only one who needed to understand the computers and programs. Despite staff turnover, we have been producing almost 2000 pages per year, typically divided into eight issues.

Another challenge is posed by the typesetting of very technical material. I tried to solve some problems before conversion occurred at all, including overbars, stacked superscript and subscript characters, special notation (such as angle symbols), Greek characters, and mathematical expressions. A program called MathType (Design Science, Long Beach, CA) has been extremely helpful for mathematics and is one of the most intuitive programs I have ever learned. Many problems are solved simply by being able to raise or lower (or contract) characters incrementally. The design itself is so simple that there has been time for this sort of character-by-character fine-tuning. My experience with many symbols is that it can be easier to do or show an assistant how to do than to explain to an outside vendor. It is also easier for me to

maintain high quality standards when all that is needed to fix something is to open the file and do it.

Most authors have been very cooperative. If they did not supply electronic material, none of this would be possible. The authors also led us into using electronic art and into scanning artwork that they supply. ("Rachel, just scan this new figure and get a new proof back to me tomorrow.") We can still send difficult material to the printer for scanning, but the authors have saved us much time and money by supplying material electronically. (The challenges associated with electronic art could be the subject of another article.)

In-house composition has allowed us to send proofs to authors electronically as PDF files. One of the unexpected results of this system is that we can send second proofs if we feel the need and can get a quick response; in the past, the time and money it would take to send second proofs made it pretty much out of the question. Again, the authors are very supportive of the process, and that has been essential to its success. In the handful of cases in which accessing PDF files has been impossible, we have resorted to faxing.

Finally, once in-house composition is in place, it opens up possibilities for improving everything: letterhead, business cards, invitations, brochures, advertisements, newsletters, and other business documents. They can all look better, be done less expensively, and be turned around quickly.

In-house composition offers these benefits:

1. It can save time, especially when there are corrections to insert.
2. It can improve communication among editors, authors, and layout people.
3. It can be very flexible because layouts are easier to change if the author or editor requests it.
4. It makes it possible to use less paper without losing quality.
5. It can save money, for example, by virtually eliminating author's alteration

charges or by allowing pages in a signature to be adjusted for the most economical color placement. (And sending proofs via e-mail as PDF files saves postage costs.)

6. It leads to new discoveries, such as sending authors PDF files to proofread and obtaining electronic artwork.

7. It leads to improving other documents in the organization (of course, this can be achieved without journal conversion).

In my experience, the factors involved in a successful conversion include these:

1. Supportive superiors willing to accept expenses for computers, software, and training classes.
2. Cooperative authors who supply electronic materials.
3. Staff eager to learn or hired specifi-

cally for the task.

4. Solving problems related to terminology, mathematics, or other challenges before going "live".

5. Creating a relatively simple design that uses easy-to-follow templates, styles, macros, and any other possible computer tricks for standardization.

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