In recording the origins, history, and progress of the Research Group on Manuscript Evidence (RGME), we conduct interviews with people involved in these stages.

I invited our expert Font and Layout Designer, Dr. Leslie J. French, to describe the directions in the creation of the distinctive style of Research Group page-layout and publications. His digital designs for the Research Group begin at the beginning, with our logo and original letterhead, and extend throughout our publications, from pages and posters to booklets and books, including our copyright multilingual font Bembino.

**Question.** What were the steps through which our design approach developed?

**Special Characters**

My first recollection of applications to RGME-like work was adding the Old-English characters to your Epson¹ dot-matrix printer² for Wordstar.³ Maybe that was for the British Museum Colloquium,⁴ or the work for the Corpus 144 facsimile.⁵

Then there was the Apple LaserWriter⁶ in the Computer Lab. We looked at TeX⁷ and Metafont⁸ as an option for setting Old English, and decided TeX wasn’t going to be very user-friendly (for you). We’d already rejected MacWrite.⁹

So I looked at the ‘raw’ format used by the LaserWriter, which was PostScript.¹⁰ That was about the time

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⁴ Colloquium on “Continuity or Discontinuity in the Ninth Century in Anglo-Saxon England”, organized by Mildred Budny and held at the British Museum (1987).
we designed the logo for the fledging Research Group.\textsuperscript{11}

**The Logo**

I remember we had Times Roman\textsuperscript{12} as the basic font – because it was available on all Postscript printers. We wanted the logo to print well on those (by now!) low-resolution printers, also to photocopy well, since laser printing was much more expensive than photocopying for bulk mailings. So the logo had sharp lines and simple curves – no color at that time.

Then we got that HP\textsuperscript{13} laser printer\textsuperscript{14} – the same as the one at Data General — and I was adding characters to Times Roman for the *Palaeographical Handbook*.\textsuperscript{15} That was an attempt to copy font characters before I had the documentation for the font spec, so they were always a little heavy. Then I added the few Japanese characters for the Japan Trip,\textsuperscript{16} again to match Times Roman.

The *Handbook* used raw Postscript to position glyphs on a page in an attempt to reproduce the layout of the manuscript, including different fonts for different layers and glosses. The *Handbook* also contained transcriptions that normalized the layout, editions that normalized the text, and translations as well as catalog and palaeographic descriptions of the selected pages. It was tedious in raw Postscript, and we had only the red-black photocopier to produce bichrome pages. It would look quite different 20+ years on with full-color printing and PDF.

**Font Design**

Somewhere about this time you’d switched from WordStar to WordPerfect\textsuperscript{17} and we’d also acquired a copy of Adobe Garamond\textsuperscript{18} at the time when it shipped as multiple font files with the ‘Expert’ set as a separate font.

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\textsuperscript{11} The stages leading to the completed design for the logo extended for several weeks before its adoption in late 1989. With it came the choice of form for setting our name in print. The first appearances of the logo occurred on the letterhead, then the business cards, then the covers for reports and booklets. The letterhead carried all the invitations to the Seminars and Workshops on “The Evidence of Manuscripts”. [http://manuscriptevidence.org/wpme/seminars-on-the-evidence-of-manuscripts/](http://manuscriptevidence.org/wpme/seminars-on-the-evidence-of-manuscripts/).

The design of the logo remains unchanged, while a later alternate (2000) adds color to its parts.


The Japanese characters appeared on the Research Group letterhead, business cards, and title pages from then onward for some years, beyond the duration (to 1994) of the Research Project from which the Group arose. The move of the principal base to the United States in October 1994 began a new phase for the organization as an entity, leading to its incorporation as a nonprofit educational corporation in November 1999.


At this point I must have found the Adobe Type 1 Font\textsuperscript{19} specification, because I was able to add characters into Garamond. I also added the Old English set into Trump Mediaeval\textsuperscript{20} for the Catalog.\textsuperscript{21}

I think the first real major font design work was adding Hebrew, Greek and Cyrillic into Garamond for Vivien’s book.\textsuperscript{22} That was typeset in WordPerfect, and we got CUP to accept Garamond instead of the font that they originally wanted.


\textsuperscript{21} In its early design stages (from 1990) by its co-publisher, Medieval Institute Publications of Western Michigan University.


Then came the Catalog. Here’s what I remember of that design:

- The original MIP layout was *huge*, way over the 1” binding limit, and boring.
- It was going to be printed on good paper that would support fairly small font sizes and still be legible.
- Once we took over the layout, we could change to Garamond, and the added Old English characters we’d already designed.
- To get the page-count down, we had to drop the point size, to the point where single long lines were unreadable.
- So we needed two-column layout.
- But there was enough space then to have introductory text set larger in single columns.
- That also gave important clues that whichever page was part of the text or part of the actual catalogue entry.
- We also codified and implement the style rules about ‘more space before headings than after’ etc.
- And used kerns and ligatures properly; and recto-verso facing page layout.
- The other novel features were the <> style group-markers to indicate how much of the catalogue entry was being described without needing a very complex section-numbering scheme.

As the work for the Catalog was being completed, the Research Group moved its principal base to America,
and for the printing of the camera-ready copy for the Catalog, we got the HP LaserJet\(^{23}\) 4Plus printer, which had to support downloadable fonts, and have enough memory to layout a single page with many glyphs at camera-ready resolution.\(^{24}\)

**Next Steps**

Once established here in Princeton, I remember the annual series of Symposia, for which I had designed posters and programs.\(^{25}\) I remember getting the logos for the collaborating institutions (Princeton, Rutgers, Fordham, etc.) and we worked to get the balance (and quality) right between their various formats and our RGME logo, still in PostScript. I’m fairly sure that those small posters and programs were designed directly in PostScript.

We had a lot of problems trying to move away from WordPerfect as we moved up successive versions of Windows\(^{26}\) and their different approaches to font loading. Microsoft Word\(^{27}\) never gave the same level of layout control as WordPerfect, and the ‘patches’ I had applied to the WordPerfect printer drivers stopped working, so we had a time when layout was not easy.

I think the next big step was starting to use Adobe InDesign\(^{28}\) with Adobe Garamond. I think that was

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24 A next interview considers the design choices for the Catalog in detail.
point at which the “Style Manifesto” appeared, properly typeset. With it came ShelfLife.

Q. Could you say something about what it enabled in terms of design? For example, how it brought together the layout of text and images upon given pages?

In terms of text layout, the major advantage of InDesign was its support of all of the font-features in Adobe fonts. For example, we didn’t have to manually ‘find-and-replace’ all instances of ‘ffi’ in the text with the single ‘ffi’ ligature, not did we have to manually kern character pairs. Also WordPerfect’s ability to insert graphics into a page layout was quite primitive compared to InDesign. I remember we also looked at, and tried to use, QuarkExpress at the same time, and just found Indesign more natural.

However, InDesign also brought its challenges. For the earlier work, I’d designed ‘parallel’ fonts, so we would pick some glyphs from AdobeGaramond (up to 256 glyphs) and some glyphs from my OEGaramond, by explicitly changing fonts. With OpenType, and removal of the 256-glyphs-per-font limit, things
became easier and harder at the same time. It was easier to use glyphs outside the usual Latin-1\(^{33}\) range, but switching fonts was harder.

We also faced a dilemma, because Adobe Garamond was a commercial font, so that we licensed its use, we didn’t own it. As the quality of our printing increased, the small differences between my attempts to match the Garamond glyphs and the ‘real’ ones were more apparent. There was no way I could design a perfect Old English ‘that’ glyph (thorn\(^{34}\) with bar) without access to Adobe’s design for thorn, and that was close to breaching copyright on the font program. I certainly could not reproduce Adobe’s serif algorithm without looking at their code. Equally we couldn’t distribute our additions to anyone else.

Even ‘free’ fonts were often marked as copyright (as is our own Bembino), and they rarely matched the quality of commercial fonts, so I started to look into what it would take to build our own font from scratch. I knew it was going to be OpenType, and have all the tables that InDesign needed, it has to support Normal and Italic forms, and it had to appear in multiple weights. I didn’t want to copy Garamond.

**Bembino**

I remember we looked again and again at the *Atlas of Typeforms*\(^{35}\) and every time my eye stopped at Bembo.\(^{36}\) That just had to be the one. Palatino\(^{37}\) was my second choice, but we decided that we wanted a book-style font with a lower x-height, again Bembo won over Palatino. We picked “Bembino” as a nice pun on “Bembo” and “Bambino” for our font child.

I looked at examples of Bembo from published originals, and the various fonts with that name, to get a sense of how I wanted it all to fit together, and came up with the basic design grid:

- descender, x-height, smcap-height, uppercase-height and ascender-height,
- and the stem widths for lowercase and upper in five weights.

The weight widths were chosen so that I only had to design the two extreme values (Regular and Bold) and the other three weights were generated automatically by linear interpolation. I designed the foot and head serif as PostScript subroutines, so they would be consistent across all the glyphs, and wrote my own design language to express the outlines. This also guaranteed that the font program could not be accused of reproducing copyright code, since the implementation language was clearly my own.

The implementation started with the letter ‘l’, using the foot-serif subroutine, a head (top of the l) subroutine, the stem widths for lower case and the top at the ascender height. Then lower-case ‘i’, with a ‘dot’ subroutine and upper-case ‘I’. Then ‘n’ and ‘h’ to get the overall character widths about right. I also remember creating “HBMadhilprty” specifically to set “Happy Birthday Milly” in for your birthday that first year that I started the implementation.

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33 [http://casa.colorado.edu/~ajsh/iso8859-1.html](http://casa.colorado.edu/~ajsh/iso8859-1.html).
Then came the launch of our font Bembino\(^{38}\) and the various booklets\(^{39}\) — mostly just following the principles of the Manifesto (now set in Bembino\(^{40}\)). And ShelfMarks.\(^{41}\) Then the illustrated Posters and more booklets.\(^{42}\)

And that’s where we are today.

——— Dr. Leslie J. French

We’ve come a long way.

Thank you. You have taught me much over the years. I admire the clarity, crispness, accuracy, and beauty of your designs. They have progressed according to particular occasions, requirements, opportunities, and visions of design possibilities, on the path toward their distinctive style. We look forward to the next steps.

——— Dr. Mildred O. Budny

38  http://manuscriptevidence.org/wpme/bembino . Years in the making, this multilingual font was issued in Versions from 1.0 in 2006 onward. The upgraded and redesigned website of the Research Group incorporated Bembino as its font (2014–).

39  Setting Posters, booklets, and other materials in Bembino began with some of our and others’ events, for example the 2012 Poster for “In a KnotShell”.

40  The 4-page illustrated version of May 2015, both with Bembino and the polychrome logo = http://manuscriptevidence.org/wpme/download/4660/ .

41  http://manuscriptevidence.org/wpme/shelflife/shelfmarks-newsletter . It appears in 2 formats, in print and email, each appropriately with its own ISSN.


Booklets are available for download for example via http://manuscriptevidence.org/wpme/profile/publications/ .