

The Artificial Uncial fonts*

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Abstract

The `auuncial` bundle provides a PostScript Type1 set of Artificial Uncial bookhands as used for manuscripts in the 6th to the 10th century. This is one in a series of manuscript fonts.

The font is only supplied in the special bookhands B1 encoding.

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1 Introduction

The `auuncial` bundle provides a PostScript Type1 version of a Metafont [Knu92] rendition of the Artificial Uncial manuscript book-hand that was in use between about the sixth and tenth centuries AD. It is part of a project to provide fonts covering the major manuscript hands between the first century AD and the invention of printing. The principal resources used in this project are listed in the Bibliography.

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The font is only supplied in the special bookhands B1 encoding.

This manual is typeset according to the conventions of the \LaTeX `DOCSTRIP` utility which enables the automatic extraction of the \LaTeX macro source files [GMS94]. The `docmfp` package is used for documenting the Metafont portions of the distribution [Wil99].

Section 2 describes the usage of the package.

1.1 Manuscript book-hands

Before the invention of printing all books were written by hand. The book-hands used by the scribes and copyists for the manuscripts changed as time went on. Table 1 lists some of the common book-hands which were used between the 1st and 15th centuries. The later book-hands formed the basis of the fonts used by the early printers, which in turn form the basis of the printing fonts in use today.

The manuscript book-hands were written with a broad nibbed reed or quill pen. Among the distinguishing characteristics of a hand, apart from the actual shape of the letters, are the angle of the pen (which controls the variation between thick and thin strokes) and the height of a letter compared to the width of the nib. The lower the ratio of the letter height to nib width, the more condensed is the script. The scripts also varied in their typical height.

Table 1 gives an ‘average’ x-height for each script, which I obtained by measuring a sample of photographs of manuscripts written in the various hands. About a dozen examples of each book-hand were measured. This figure should not be taken too seriously.

There was not a sharp division between the use of one hand and another. Many manuscripts exhibit a variety of hands in the same document. For example, the scribe writing in an Uncial hand may have used Roman Rustic letters for capitals. Usually the same pen was used for the two different scripts.

Generally speaking, as a hand got older it became more embellished, and therefore took longer to write. As this happened a new hand would appear that was faster, and which would eventually make the earlier one obsolete.

Many of the book-hands were single-cased; that is, they did not have an upper- and lower-case as we do nowadays in Western scripts. On the other hand, a script might be majuscule or minuscule. A *majuscule* script is one, like our upper-case, where the letters are drawn between two lines and are of a uniform height with no ascenders or descenders. A *minuscule* script, like our lower-case, is drawn between four lines and has ascenders and descenders.

During the period under consideration arabic numerals were effectively not used. At the beginning they were unknown and even though some knew of them towards the end, the glyphs used for them are not recognisable — to me they look somewhat like cyrillic letters — and each locality and time had its own highly individualistic rendering. The general rule when using one of these book-hands is to write all numbers using roman numerals.

The Roman alphabet consisted of 23 capital letters — the J, U and W were absent. The book-hands initially used both a ‘u’ and a ‘v’ interchangeably but by the 10th century the practice had become to use the ‘v’ before a vowel and the ‘u’

Table 1: The main manuscript book-hands

Name	Century	x-height (mm)	Height (nib widths)	Pen angle	Normalised height
Roman Rustic	1–6	5.7	4–6	45	1.90
Uncial	3–6	4.1	4–5	30	1.37
Half Uncial	3–9	3.2	3–6	20–30	1.07
Artificial Uncial	6–10	4.2	3–6	10	1.40
Insular majuscule	6–9	4.2	5	0–20	1.40
Insular minuscule	6 onward	4.1	5–6	45–70	1.37
Carolingian minuscule	8–12	3.0	3–5	45	1.00
Early Gothic	11–12	3.8	4–6	20–45	1.27
Gothic Textura	13–15	3.9	3–5	30–45	1.30
Gothic Prescius	13 onward	3.3	4–5	45	1.10
Rotunda	13–15	3.2	4–6	30	1.07
Humanist minuscule	14 onward	3.0	4–5	30–40	1.00

otherwise. The letter corresponding to the W sound appeared in England around the 7th century in the form of the runic *wen* character and by about the 11th century the ‘w’ character was generally used. The ‘J’ is the newest letter of all, not appearing until about the mid 16th century.

In the first century punctuation was virtually unknown, and typically would not even be any additional space between individual words, never mind denoting ends of sentences. Sometimes a dot at mid-height would be used as a word separator, or to mark off the end of a paragraph. Effectively a text was a continuous stream of letters. By the time that printing was invented, though, all of our modern punctuation marks were being used.

Among all these manuscript hands, the Carolingian minuscule is the most important as our modern fonts are based on its letter shapes, and it is also at this point in time where the division occurred between the black letter scripts as used even today in Germany, and the lighter fonts used elsewhere. The Rotunda and Humanist minuscule hands were developed in Italy and were essentially a rediscovery of the Carolingian minuscule. Gutenberg took the Gothic scripts as the model for his types. Later printers, such as Nicholas Jenson of Venice, took the Humanist scripts as their models.

1.2 The Artificial Uncial script

The Artificial Uncial hand, which is a minuscule script, was in use for some five centuries and was, in a sense, the successor to the Uncial book-hand. It was a much more calligraphic script, and as time went on it became even more decorated, until it was too time consuming to use. Usually the lettering in a manuscript was all one size. If the scribe felt the need for ‘capital’ letters then, using the same pen, would either write a larger Artificial Uncial letter or a Roman Capital letter. The capitals were only used at the start of a line, and were either fully or partially in

the margin. The capitals were large, perhaps two to four times the size of a normal letter, and were the start of versals. As versals for use with other book-hands, the script lived on until the end of the Middle Ages.

I have provided a set of ‘capital’ letters that are only a little larger than the normal letters for use in running text. If you want to typeset using versals, then I suggest Daniel Flipo’s `letrine` package [Fli98]. During the time the Artificial Uncial script was used the alphabet only had 24 letters. I have included the missing J.

Arabic numerals were unknown at this time, so all numbers were written using the roman numbering system. I have provided Uncial versions of the arabic digits.

Punctuation was used, but not with the frequency of today. A sentence might be ended with a dot at mid-height or a paragraph ended with a colon, also at mid-height. The start of a paragraph might be marked with a capital letter (as a versal). The comma was a small pointed slash; the semi-colon was known, as was the single quotation mark which was represented by a raised comma.

2 The auncial and allaunc1 packages

The Artificial Uncial font family is called `aunc1`. The font is supplied in only the special bookhands B1 encoding. Thus, to use the font in a document you need to at least have:

```
\usepackage[B1,...]{fontenc}
```

in the preamble. You also need to have installed the files:

```
b1enc.def, b1cmr.fd, and possibly TeXB1.enc.
```

These are available from the CTAN `bookhands` directory as the pair `bhenc.dtx` and `bhenc.ins`.

2.1 The auncial package

This is intended for the occasions when some short pieces of text have to be written in Artificial Uncial while the majority of the document is in another font. The normal `baselineskips` are used.

`\aunc1family` The `\aunc1family` declaration starts typesetting with the Artificial Uncial fonts. Use of the Artificial Uncial font will continue until either there is another `\...family` declaration or the current group (e.g., environment) is closed.

`\textunc1` The command `\textunc1{<text>}` will typeset `<text>` using the Artificial Uncial fonts.

2.2 The allaunc1 package

This package is for when the entire document will be typeset with the Artificial Uncialfont. The `baselineskips` are set to those appropriate to the book-hand.

This is a minimalist package. Apart from declaring Artificial Uncial to be the default font and setting the `baselineskips` appropriately, it makes no other alterations. Vertical spacing before and after section titles and before and after

lists, etc., will be too small as the L^AT_EX design assumes a font comparable in size to normal printing fonts, and the book-hand is much taller. To capture more of the flavour of the time, all numbers should be written using roman numerals. The `romannum` package [Wil99b] can be used so that L^AT_EX will typeset the numbers that it generates, like sectioning or caption numbers, using roman numerals instead of arabic digits.

`\cmrfamily` The `...family` declarations start typesetting with the Computer Modern Roman (`\cmrfamily`), the Computer Modern Sans (`\cmssfamilly`), and the Computer Modern Typewriter (`\cmttfamily`) font families. The `\textcm.⟨text⟩` commands will typeset `⟨text⟩` in the corresponding Computer Modern font.

`\textcmr`
`\cmssfamilly`
`\textcmss`
`\cmttfamily`
`\textcmtt` The `allauncl` package automatically loads the `auncial` package, so its font commands are available if necessary.

Bibliography

- [And69] Donald M. Anderson. *The Art of Written Forms: The Theory and Practice of Calligraphy*. Holt, Rinehart and Winston, 1969.
- [Bol95] Giulia Bologna. *Illuminated Manuscripts: The Book before Gutenberg*. Crescent Books, 1995.
- [Day95] Lewis F. Day. *Alphabets Old & New*. (3rd edition originally published by B. T. Batsford, 1910) Senate, 1995.
- [Dro80] Marc Drogin. *Medieval Calligraphy: Its History and Technique*. Allenheld, Osmun & Co., 1980.
- [Dru95] Johanna Drucker. *The Alphabetic Labyrinth*. Thames & Hudson, 1995.
- [Fir93] Richard A. Firmage. *The Alphabet Abecedarium*. David R Goodine, 1993.
- [Fli98] Daniel Flipo. *The LETTRINE package*. (Available from CTAN in `macros/latex/contrib/supported`). 1998.
- [Har95] David Harris. *The Art of Calligraphy*. DK Publishing, 1995.
- [Jen95] Frank Jensen. *The BETON package*. (Available from CTAN in `macros/latex/contrib/supported`). 1995.
- [Joh71] Edward Johnston (ed. Heather Child). *Formal Penmanship and Other Papers*. Penthalic, 1971.
- [Knu87] Donald E. Knuth. *Computer Modern Typefaces*. Addison-Wesley, 1987.
- [Knu92] Donald E. Knuth. *The METAFONTbook*. Addison-Wesley, 1992.
- [GMS94] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. Addison-Wesley Publishing Company, 1994.

- [Tho75] Alan G. Thomas. *Great Books and Book Collectors*. Weidenfield and Nicholson, 1975.
- [Wil99] Peter R. Wilson. *The DOCMFP Package*. (Available from CTAN in `macros/latex/contrib/supported`). 1999.
- [Wil99b] Peter R. Wilson. *The ROMANUM Package*. (Available from CTAN in `macros/latex/contrib/supported`). 1999.

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Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in **roman** refer to the code lines where the entry is used.

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C	T	
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