

OXREF BUNDLE

OXREF – Biblatex styles inspired by the *Oxford Guide to Style*

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v2.2

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Introduction

This document provides the documented sources for the oxref bibliography styles:

- oxnotes: a style similar to the standard verbose and its variants, intended for use with footnotes;
- oxnum: a style similar to the standard numeric, intended for use with numeric in-text citation labels;
- oxalph: a style similar to the standard alphabetic, intended for use with alphabetic in-text citation labels;
- oxyear: a style similar to the standard authoryear, intended for use with parenthetical in-text citations.

1.1 Quick start

The styles are self-contained, so you can load them with biblatex:

```
1 \usepackage[style=oxnotes]{biblatex} 1 \usepackage[style=oxalph]{biblatex}
1 \usepackage[style=oxnum]{biblatex} 1 \usepackage[style=oxyear]{biblatex}
```

For further information, including some additional options you can set, please refer to the separate documentation files `oxnotes-doc.pdf`, `oxnum-doc.pdf`, `oxalph-doc.pdf`, and `oxyear-doc.pdf` respectively.

1.2 Installation

1.2.1 DEPENDENCIES

To compile the documentation you will need to have the minted package working, which in turn relies on Python 2.6+ and Pygments. See the documentation of that package for details.

1.2.2 MANAGED WAY

The latest stable release of the biblatex-oxref bundle has been packaged for TeX Live and MiKTeX. If you are running TeX Live and have `tlmgr` installed, you can install the bundle simply by running `tlmgr install biblatex-oxref`. If you are running MiKTeX, you can install the bundle

by running `mpm --install=biblatex-oxref`. Both `tlmgr` and `mpm` have GUI versions that you might find friendlier.

1.2.3 AUTOMATED WAY

A makefile is provided which you can use with the Make utility on UNIX-like systems:

- Running `make source` generates the derived files
 - `README.md`
 - `oxref.bbx`, `oxnotes.bbx`, `oxnotes-ibid.bbx`, `oxnotes-note.bbx`, `oxnotes-inote.bbx`, `oxnotes-trad1.bbx`, `oxnotes-trad2.bbx`, `oxnotes-trad3.bbx`, `oxyear.bbx`, `oxnum.bbx`, `oxalph.bbx`
 - `oxnotes.cbx`, `oxnotes-ibid.cbx`, `oxnotes-note.cbx`, `oxnotes-inote.cbx`, `oxnotes-trad1.cbx`, `oxnotes-trad2.cbx`, `oxnotes-trad3.cbx`, `oxyear.cbx`, `oxnum.cbx`, `oxalph.cbx`
 - `american-oxref.lbx`, `british-oxref.lbx`, `english-oxref.lbx`
 - `oxnotes.dbx`, `oxnotes-ibid.dbx`, `oxnotes-note.dbx`, `oxnotes-inote.dbx`, `oxnotes-trad1.dbx`, `oxnotes-trad2.dbx`, `oxnotes-trad3.dbx`, `oxyear.dbx`, `oxnum.dbx`, `oxalph.dbx`
 - `oxref.bib`
 - `oxref.ins`
 - `oxnotes-doc.tex`, `oxyear-doc.tex`, `oxnum-doc.tex`, `oxalph-doc.tex`
- Running `make` generates the above files and also `oxref.pdf`, `oxnotes-doc.pdf`, `oxyear-doc.pdf`, `oxnum-doc.pdf` and `oxalph-doc.pdf`.
- Running `make inst` installs the files in the user's TeX tree. You can undo this with `make uninst`.
- Running `make install` installs the files in the local TeX tree. You can undo this with `make uninstall`.
- Running `make clean` removes auxiliary files from the working directory.
- Running `make distclean` removes the generated files from the working directory as well.

1.2.4 MANUAL WAY

To install the bundle from scratch, follow these instructions. If you have downloaded the zip file from the Releases page on GitHub, you can skip the first two steps.

1. Run `luatex oxref.dtx` to generate the source files. (You can safely skip this step if you are confident about step 2.)
2. Compile `oxref.dtx`, `oxnotes-doc.tex`, `oxyear-doc.tex`, and `oxnum-doc.tex` with LuaLaTeX and Biber to generate the documentation. You will need to enable shell escape so that `minted` can typeset the listings.
3. Move the files to your TeX tree as follows:
 - `source/latex/biblatex-oxref`: `oxref.dtx`, (`oxref.ins`)
 - `tex/latex/biblatex-oxref`: `american-oxref.lbx`, `british-oxref.lbx`, `english-oxref.lbx`, `oxalph.bbx`, `oxalph.cbx`, `oxalph.dbx`, `oxnotes.bbx`, `oxnotes.cbx`, `oxnotes.dbx`, `oxnotes-ibid.bbx`, `oxnotes-ibid.cbx`, `oxnotes-ibid.dbx`, `oxnotes-inote.bbx`, `oxnotes-inote.cbx`, `oxnotes-inote.dbx`, `oxnotes-note.bbx`, `oxnotes-note.cbx`, `oxnotes-note.dbx`, `oxnotes-trad1.bbx`, `oxnotes-trad1.cbx`, `oxnotes-trad1.dbx`, `oxnotes-trad2.bbx`, `oxnotes-trad2.cbx`, `oxnotes-trad2.dbx`, `oxnotes-trad3.bbx`, `oxnotes-trad3.cbx`, `oxnotes-trad3.dbx`, `oxnum.bbx`, `oxnum.cbx`, `oxnum.dbx`, `oxref.bbx`, `oxyear.bbx`, `oxyear.cbx`, `oxyear.dbx`

- doc/latex/biblatex-oxref: README.md, oxalph-doc.pdf, oxalph-doc.tex, oxnotes-doc.pdf, oxnotes-doc.tex, oxnum-doc.pdf, oxnum-doc.tex, oxref.bib, oxref.pdf, oxyyear-doc.pdf, oxyyear-doc.tex
4. You may then have to update your installation's file name database before TeX and friends can see the files.

1.3 Licence

Copyright 2016–2021 Alex Ball.

This work consists of the documented LaTeX file `oxref.dtx` and a Makefile.

The text files contained in this work may be distributed and/or modified under the conditions of the LaTeX Project Public License (LPPL), either version 1.3c of this license or (at your option) any later version.

This work is 'maintained' (as per LPPL maintenance status) by Alex Ball.

Bibliography styles

2.1 Base style: oxref.bbx

2.1.1 LOADING DEPENDENCIES, SETTING UP LANGUAGES, APPLYING OPTIONS

Dependencies:

- For ease of maintenance, we will patch some definitions with xpatch instead of writing out our own in full.
- We will manipulate strings with xstring.
- We will use graphicx for stretching `\bibnamedashes`

```
20 \RequirePackage{etoolbox}
21 \RequirePackage{xpatch}
22 \RequirePackage{xstring}
23 \RequirePackage{graphicx}
```

Language support may be widened in future, but for now we support British and American English. Adapted language files have the following suffix.

```
24 \DeclareLanguageMappingSuffix{-oxref}
```

We provide some additional bibliography strings:

- roles expressed as functions;

```
25 \NewBibliographyString{%
26   director, performer, reader, conductor, serieseditor, holder, editorcm,
27   directors, performers, readers, conductors, serieseditors, holders, editorcms,
```

- roles expressed as actions;

```
28   bydirector, byperformer, byreader, byconductor, byserieseditor, byholder, byeditorcm,
```

- publication details;

```
29   facsimile, revised, revisedenlarged, revisedreprint, suppto, equals, original,
```

- publication state;

30 inpressin,

- pagination;

31 book, books, canto, cantos, stanza, stanzas, act, acts, scene, scenes, folio, folios,
 32 article, articles, clause, clauses, regulation, regulations, rule, rules,
 33 booktotal, booktotals, cantototal, cantototals, stanzatotal, stanzatotals,
 34 acttotal, acttotals, scenetotal, scenetotals, foliototal, foliototals,
 35 articletotal, articletotals, clausetotal, clausetotals, regulationtotal,
 36 regulationtotals, ruletotal, ruletotals,

- types;

37 facebook, tweet, podcast, clip, webcast, poster,

- miscellaneous;

38 nolocation, modified, recorded, uploaded, filed, issued,

- labels;

39 anon, pseudo, urldown,

- country names, patents, and patent requests;

40 countryjp, patentjp, patreqjp,

- borrowed from other styles.

41 1column, 2column, inflayer, suplayer, paper, papyrus, pergament,
 42 eucase, eujoinedcases, commissiondecision, application,
 43 order, bill, draft, opened, signed, adopted, inforce,
 44 }

We base our styles on the standard on the principle of least surprise (and to aid with maintenance in the face of new biblatex versions). We set some defaults different to the standard ones, but the author can still override them.

```
45 \RequireBibliographyStyle{standard}
46 \ExecuteBibliographyOptions{urldate=comp, pagetracker, timezeros=false, time=12h, isbn=false}
```

Here are the new default punctuation conventions. The new `\relatedtypepunct` is for before the relatedtype localization string, while `\recordseriespunct` is used for audiovisual resources.

```
47 \renewcommand*{\labelnamepunct}{\addcomma\space}
48 \renewcommand*{\newunitpunct}{\addcomma\space}
49 \renewcommand*{\subtitlepunct}{\addcolon\space}
50 \renewcommand*{\intitlepunct}{\nopunct\space}
51 \renewcommand*{\bibnamedash}{\resizebox{2em}{\height}{\textendash}\addthinspace}
52 \newcommand*{\recordseriespunct}{\addcomma\space}
53 \newcommand*{\relatedtypepunct}{\addsemicolon\space}
54 \renewcommand*{\relateddelim}{\addsemicolon\space}
```



```

55 \DeclareDelimFormat{revsdnamedelim}{\addcomma}
56 \DeclareDelimFormat{authortypedelim}{\addspace}
57 \DeclareDelimFormat{editortypedelim}{\addspace}
58 \DeclareDelimFormat{translatortypedelim}{\addspace}

```

2.1.2 NAMES

We declare some new name formats so that authors/editors/others who appear mid-reference can be handled differently from those that appear at the head of the reference.

```

59 \DeclareNameAlias{bookauthor}{default}
60 \DeclareNameAlias{bookeditor}{default}

```

Traditionally, Oxford style (for the humanities) prints author names in small capitals in the bibliography, but in normal case in citations. This is falling out of fashion, so we introduce it as an option.

```

61 \newtoggle{blx@ox@scnames}
62 \DeclareBibliographyOption{scnames}[true]{%
63   \settoggle{blx@ox@scnames}{#1}
64 }

```

The style manuals prefer to omit titles but accept they may need to be included in some circumstances. There are some titles that are only used with full names and some that may be used with initials, so we provide an option for manually switching them off.

```

65 \newtoggle{blx@ox@nametitle}\toggletrue{blx@ox@nametitle}%
66 \DeclareBiblatexOption{global,type,entry}{usenametitles}[true]{%
67   \settoggle{blx@ox@nametitle}{#1}}

```

We provide some additional macros for formatting names with titles. Here is the one for natural name order.

```

68 \newbibmacro*{name:title-given-family}[5]{%
69   \usebibmacro{name:delim}{#2#3#1}%
70   \usebibmacro{name:hook}{#2#3#1}%
71   \ifdefvoid{#5}{\iftoggle{blx@ox@nametitle}{\mkbibnametitle{#5}\isdot\bibnamedelimd}{}}%
72   \ifdefvoid{#2}{\mkbibnamegiven{#2}\isdot\bibnamedelimd}%
73   \ifdefvoid{#3}{}%
74   \mkbibnameprefix{#3}\isdot
75   \ifprefchar
76     {}
77     {\ifuseprefix{\bibnamedelimc}{\bibnamedelimd}}%
78   \mkbibnamefamily{#1}\isdot
79   \ifdefvoid{#4}{\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}}

```

Here is the one for inverted name order.

```

80 \newbibmacro*{name:family-title-given}[5]{%
81   \ifuseprefix{%
82     \usebibmacro{name:delim}{#3#1}%
83     \usebibmacro{name:hook}{#3#1}%
84     \ifdefvoid{#3}{}%
85     \ifcapital{%
86       \mkbibnameprefix{\MakeCapital{#3}}\isdot
87     }{%
88       \mkbibnameprefix{#3}\isdot}%

```

```

89     \ifprefchar{}{\bibnamedelimc}}%
90     \mkbibnamefamily{#1}\isdot
91     \ifdefvoid{#4}{\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
92     \ifboolxpe{%
93       (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
94       and
95       test {\ifdefvoid{#2}}%
96     }{}%
97     \revsnamepunct}%
98     \ifdefvoid{#5}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
99     \ifdefvoid{#2}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
100  }{}%
101  \usebibmacro{name:delim}{#1}%
102  \usebibmacro{name:hook}{#1}%
103  \mkbibnamefamily{#1}\isdot
104  \ifdefvoid{#4}{\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
105  \ifboolxpe{%
106    (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
107    and
108    test {\ifdefvoid{#2}}
109    and
110    test {\ifdefvoid{#3}}%
111  }{}%
112  \revsnamepunct}%
113  \ifdefvoid{#5}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
114  \ifdefvoid{#2}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
115  \ifdefvoid{#3}{\bibnamedelimd\mkbibnameprefix{#3}\isdot}}%

```

Oxford style (for the humanities) is to write author names surname first in the bibliography, but in natural order in citations. We implement this, along with the case changing option, in the following name format. We also add a second hash for checking if names (e.g. author and authoraddon) are the same.

```

116  \def\blx@ox@lasthash{}
117  \DeclareNameFormat{bib-family-given/cite-given-family}{%
118    \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}}%
119    \ifitemannotation{inferred}{\bibopenbracket}{}}%
120  \ifbibliography{%
121    \iftoggle{blx@ox@scnames}{%
122      \renewcommand*{\mkbibnamefamily}[1]{\textsc{##1}}%
123      \renewcommand*{\mkbibnamegiven}[1]{\textsc{##1}}%
124      \renewcommand*{\mkbibnameprefix}[1]{\textsc{##1}}%
125      \renewcommand*{\mkbibnamesuffix}[1]{\textsc{##1}}%
126      \renewcommand*{\mkbibnametitle}[1]{##1}%
127    }{}%
128    \ifgiveninits{%
129      \usebibmacro{name:family-title-given}%
130      {\namepartfamily}%
131      {\namepartgiven}%
132      {\namepartprefix}%
133      {\namepartsuffix}%
134      {\nameparttitle}%
135    }{}%
136      \usebibmacro{name:family-title-given}%
137      {\namepartfamily}%
138      {\namepartgiven}%
139      {\namepartprefix}%
140      {\namepartsuffix}%
141      {\nameparttitle}%
142    }{}%
143    \savefield{hash}{\blx@ox@lasthash}%

```

```

144 \ifitemannotation{pseudo}{%
145 \addspace\printtext[parens]{%
146 \iftoggle{blx@ox@scnames}{%
147 \textsc{\bibsstring{pseudo}}%
148 }{%
149 \bibsstring{pseudo}%
150 }}%
151 }{}%
152 \iftoggle{blx@ox@scnames}{%
153 \renewcommand*{\mkbibnamefamily}[1]{##1}%
154 \renewcommand*{\mkbibnamegiven}[1]{##1}%
155 \renewcommand*{\mkbibnameprefix}[1]{##1}%
156 \renewcommand*{\mkbibnamesuffix}[1]{##1}%
157 \renewcommand*{\mkbibnametitle}[1]{##1}%
158 }{}%
159 }{%
160 \ifgiveninits{%
161 \usebibmacro{name:title-given-family}%
162 {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
163 {\namepartgiveni}%
164 {\namepartprefix}%
165 {\namepartsuffix}%
166 {\nameparttitle}%
167 }{%
168 \usebibmacro{name:title-given-family}%
169 {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
170 {\namepartgiven}%
171 {\namepartprefix}%
172 {\namepartsuffix}%
173 {\nameparttitle}%
174 }%
175 \savefield{hash}{\blx@ox@lasthash}%
176 }%
177 \ifitemannotation{inferred}{\bibclosebracket}{}%
178 \usebibmacro{name:andothers}%
179 \iffieldannotation{inferred}{%
180 \ifboolexpr{
181 test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
182 or
183 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
184 or (
185 test {\ifnumequal{\value{listcount}}{\value{minnames}}}
186 and
187 test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
188 )
189 }{\bibclosebracket}{}%
190 }{}%
191 }

```

We change the regular given-family format to include the alternative-name hash and use the title-enhanced name format. We also add a toggle for triggering special formatting if `authoraddon` or `editoraddon` are annotated with `variant`.

```

192 \newtoggle{blx@ox@variantname}
193 \DeclareNameFormat{given-family}{%
194 \ifgiveninits
195 {\usebibmacro{name:title-given-family}
196 {\namepartfamily}
197 {\namepartgiveni}
198 {\namepartprefix}
199 {\namepartsuffix}

```

```

200     {\nameparttitle}}
201     {\usebibmacro{name:title-given-family}
202     {\namepartfamily}
203     {\namepartgiven}
204     {\namepartprefix}
205     {\namepartsuffix}
206     {\nameparttitle}}%
207     \savefield{hash}{\blx@ox@lasthash}%
208     \ifitemannotation{variant}{%
209     \global\settoggle{blx@ox@variantname}{true}%
210     }{%
211     \global\settoggle{blx@ox@variantname}{false}}%
212     \usebibmacro{name:andothers}}

```

We do likewise for the regular family-given format.

```

213     \DeclareNameFormat{family-given}{%
214     \ifgiveninits
215     {\usebibmacro{name:family-title-given}
216     {\namepartfamily}
217     {\namepartgiveni}
218     {\namepartprefix}
219     {\namepartsuffix}
220     {\nameparttitle}}
221     {\usebibmacro{name:family-title-given}
222     {\namepartfamily}
223     {\namepartgiven}
224     {\namepartprefix}
225     {\namepartsuffix}
226     {\nameparttitle}}%
227     \savefield{hash}{\blx@ox@lasthash}%
228     \ifitemannotation{variant}{%
229     \global\settoggle{blx@ox@variantname}{true}%
230     }{%
231     \global\settoggle{blx@ox@variantname}{false}}%
232     \usebibmacro{name:andothers}}

```

There is no comma before numeric suffixes, but there is before textual ones (e.g. ‘junior’).

```

233     \xpatchbibmacro{name:given-family}%
234     {\bibnamedelimd\mkbibnamesuffix{#4}}%
235     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
236     {\wlog{WARNING: biblatex-oxref failed to patch name:given-family}}
237     \xpatchbibmacro{name:family-given}%
238     {\bibnamedelimd\mkbibnamesuffix{#4}}%
239     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
240     {\wlog{WARNING: biblatex-oxref failed to patch name:family-given}}

```

Pseudonyms are printed after the main name, enclosed in parentheses (OGS) or brackets (NHR). Biblatex provides the nameaddon field for this use case, but it is a literal field (it doesn’t format the name provided).

```

241     \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
242     \DeclareFieldFormat{namevariant}{\mkbibparens{\bibstring{equals}\space #1}}

```

We provide an alternative method that uses new name fields authoraddon and editoraddon. To do this, we define a bibmacro that reimplements the loopcode logic of `\printnames`, but operates on two name lists simultaneously; we use saveboxes to extract the hashes, and only print the alternative name if it has a different hash. The same technique is used by `oxyear` below to pair up names with the short form used in references, so this bibmacro is written to handle both cases.

The `namepairs` bibmacro takes two arguments: the data fields holding the main name and alternative name respectively.

```

243 \newcounter{namepairs}
244 \newsavebox{\blx@ox@namebox}
245 \newsavebox{\blx@ox@altnamebox}
246 \newbibmacro*{namepairs}[2]{%
247   \setcounter{namepairs}{0}%
248   \savebibmacro{name:andothers}%
249   \renewbibmacro*{name:andothers}{}%
250   \whileboolexpr{%
251     test {\ifnumless{\value{namepairs}}{\value{#1}}}
252     and (
253       test {\ifdefvoid{\c@maxnames}}
254       or
255       test {\ifnumequal{\c@maxnames}{0}}
256       or
257       test {\ifnumless{\value{#1}}{\c@maxnames}}
258       or
259       test {\ifnumequal{\value{#1}}{\c@maxnames}}
260       or
261       test {\ifdefvoid{\c@minnames}}
262       or
263       test {\ifnumequal{\c@minnames}{0}}
264       or
265       test {\ifnumless{\value{namepairs}}{\c@minnames}}
266     )
267   }{%
268     \stepcounter{namepairs}%
269     \ifnumgreater{\value{namepairs}}{1}{%
270       \ifnumequal{\value{#1}}{2}{%
271         \setunit*{\addspace\bibstring{and}\addspace}%
272       }{%
273         \ifnumequal{\value{namepairs}}{\value{#1}}{%
274           \setunit*{\addcomma\space\bibstring{and}\addspace}%
275         }{%
276           \setunit*{\addcomma\space}%
277         }%
278       }%
279     }%
280     \savebox{\blx@ox@namebox}{%
281       \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
282     }%
283     \let\blx@ox@firsthash=\blx@ox@lasthash

```

This is the part intended for `authoraddon` and `editoraddon`. Note that it contains an additional test for the variant name toggle.

```

284 \IfEndWith{#2}{addon}{%
285   \savebox{\blx@ox@altnamebox}{%
286     \printnames[by#1][\value{namepairs}-\value{namepairs}]{#2}%
287   }%
288   \let\blx@ox@secondhash=\blx@ox@lasthash
289   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
290     \unhbox\blx@ox@namebox
291   }{%
292     \unhbox\blx@ox@namebox\addspace
293     \iftoggle{blx@ox@variantname}{%
294       \ifbibliography{%
295         \printtext[namevariant]{\printnames[#1][\value{namepairs}-
↪ \value{namepairs}]{#2}}%

```

```

296     }{}%
297   }{%
298     \printtext[nameaddon]{\unhbox\blx@ox@altnamebox}%
299   }%
300 }%

```

This is the part intended for `shortauthor` and `shorteditor`. There are differences in the formatting, and the alternative name is actually printed before the main name.

```

301   }{%
302     \savebox{\blx@ox@altnamebox}{%
303       \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
304     }%
305     \let\blx@ox@secondhash=\blx@ox@lasthash
306     \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
307       \unhbox\blx@ox@namebox
308     }{%
309       \unhbox\blx@ox@altnamebox
310       \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
311     }%
312   }%
313 }%

```

Now we return to common code.

```

314 \ifboolexpr{
315   test {\ifnumequal{\value{namepairs}}{\c@minnames}}
316   and
317   test {\ifnumgreater{\value{#1}}{\c@maxnames}}
318 }{%
319   \ifnumgreater{\c@minnames}{1}{%
320     \finalandcomma
321   }{}%
322   \printdelim{andothersdelim}\bibstring{andothers}%
323 }{}%
324 \restorebibmacro{name:andothers}%
325 }

```

We use this now for authors. We provide additional handling to support printing editors or translators promoted to joint authorship status.

```

326 \newbibmacro*{author+altdauthor}{%
327   \ifboolexpr{
328     test {\ifnameundef{authoraddon}}
329     and
330     test {\ifnameundef{jointauthor}}
331   }{%
332     \printnames{author}%
333   }{%
334     \ifnumequal{\value{authoraddon}}{\value{author}}{%
335       \usebibmacro{namepairs}{author}{authoraddon}%
336     }{%
337       \printnames{author}%
338       \ifnameundef{authoraddon}{%
339         \setunit*{\addspace}%
340         \printtext[nameaddon]{\printnames[byauthor]{authoraddon}}%
341       }%
342       \ifnameundef{jointauthor}{%
343         \setunit{\addcomma\space}%
344         \iffieldundef{jointauthortype}{%

```

```

345     \bibstring{byeditor}%
346   }{%
347     \printfield{jointauthortype}}%
348     \setunit{\addspace}%
349     \printnames[author]{jointauthor}%
350   }%
351 }%
352 }
353 \DeclareFieldFormat{jointauthortype}{%
354   \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

355 \newbibmacro*{editor+altditor}{%
356   \ifnameundef{editoraddon}{%
357     \printnames{editor}%
358   }{
359     \ifnumequal{\value{editoraddon}}{\value{editor}}{%
360       \usebibmacro{namepairs}{editor}{editoraddon}%
361     }{%
362       \printnames{editor}%
363       \setunit*\addspace}%
364     \printtext[nameaddon]{\printnames[byeditor]{editoraddon}}%
365   }%
366 }%
367 }

```

Traditional Oxford style is to use dashes instead of repeating author names, but NHR recommends abandoning the practice as it interferes with text mining. We therefore turn this feature off by default, but allow authors to switch it on with `dashed=true`.

```

368 \newbibmacro*{bbx:savehash}{}
369 \DeclareBibliographyOption{dashed}[true]{%
370   \ifstrequal{#1}{true}{%
371     \ExecuteBibliographyOptions{pagetracker}%
372     \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}%
373   }{%
374     \renewbibmacro*{bbx:savehash}{}%
375   }%
376 }
377 \InitializeBibliographyStyle{%
378   \global\undef\bbx@lasthash}
379 \newbibmacro*{bbx:dashcheck}[2]{%
380   \ifboolexpr{
381     test {\iffieldequals{fullhash}{\bbx@lasthash}}
382     and
383     not test \iffirstonpage
384     and
385     (
386       not bool {bbx@inset}
387       or
388       test {\iffieldequalstr{entrysetcount}{1}}
389     )
390   }{#1}{#2}%
391 }

```

The following is used in the `authortitle` and `authoryear` styles to switch off the dash check macro for reference sets.

```

392 \newbool{bbx@inset}
393 \DeclareBibliographyDriver{set}{%
394   \booltrue{bbx@inset}%
395   \entryset{}}}%
396 \newunit\newblock
397 \usebibmacro{setpageref}%
398 \finentry}

```

We provide options for how to handle the author name ‘Anonymous’.

```

399 \newtoggle{blx@ox@autoanon}
400 \newtoggle{blx@ox@abbranon}
401 \DeclareBibliographyOption[string]{anon}[short]{%
402   \ifcsdef{blx@ox@opt@anon@#1}{%
403     \csuse{blx@ox@opt@anon@#1}%
404   }{%
405     \PackageError{biblatex-oxref}
406     {Invalid option 'anon=#1'}
407     {Valid values are 'long', 'short', and 'literal'.}}
408 \csdef{blx@ox@opt@anon@literal}{\togglefalse{blx@ox@autoanon}}
409 \csdef{blx@ox@opt@anon@long}{\toggletrue{blx@ox@autoanon}\togglefalse{blx@ox@abbranon}}
410 \csdef{blx@ox@opt@anon@short}{\toggletrue{blx@ox@autoanon}\toggletrue{blx@ox@abbranon}}

```

We copy the author to rawauthor for easier testing.

```

411 \DeclareStyleSourcemap{
412   \maps[datatype=bibtex]{%
413     \map{%
414       \step[fieldsource=author]%
415       \step[fieldset=rawauthor, origfieldval]%
416     }
417   }%
418 }

```

The author macro is enhanced from the standard version by

- checking if the author name is ‘Anonymous’;
- including a dash check, to see if the name(s) should be replaced with a dash (as in `author title` and `author year`);
- inserting the `nameaddon` field if provided;
- inserting the author type if provided (as in `author year`).

```

419 \newcommand*{\oxrefanon}{Anonymous}
420 \newtoggle{blx@ox@isanon}
421 \renewbibmacro*{author}{%
422   \iffieldequals{rawauthor}{\oxrefanon}{%
423     \toggletrue{blx@ox@isanon}%
424   }{%
425     \togglefalse{blx@ox@isanon}}%
426 \ifboolexpr{
427   test \ifuseauthor
428   and
429   ( not test {\ifnameundef{author}} )
430   and (
431     ( not togl {blx@ox@isanon} )
432     or
433     ( not togl {blx@ox@autoanon} )
434     or

```



```

435     test {\ifbibliography}
436   )
437 }
438 {\usebibmacro{bbx:dashcheck}
439  {\bibnamedash}
440  {\usebibmacro{bbx:savehash}%
441   \ifboolexpr{
442     togl {blx@ox@autoanon}
443     and
444     togl {blx@ox@isanon}
445   }{%
446     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
447   }{%
448     \usebibmacro{author+altauthor}%
449   }%
450   \iffieldundef{nameaddon}
451   {}
452   {\setunit{\addspace}%
453    \printfield{nameaddon}}%
454   \setunit{\printdelim{authortypedelim}}}%
455   \iffieldundef{authortype}
456   {}
457   {\usebibmacro{authorstrg}%
458    \setunit{\addspace}}}%
459   {\global\undef\bbx@lasthash}}
460   \DeclareFieldFormat{authortype}{\mkbibparens{#1}}

```

We make the punctuation between a title and ‘by [author]’ configurable.

```

461   \newcommand{\titlebyauthor delim}{\addspace}

```

Following `authortitle` and `authoryear`, we redefine the `editor` and `editor+others` macros to use a common `bbx:editor` macro. The macro we use is the similar to the normal one except we delegate printing editor names to `editor+altdeditor`, and we don’t yet add the year label.

```

462   \renewbibmacro*{editor}{%
463     \usebibmacro{bbx:editor}{editorstrg}}
464   \renewbibmacro*{editor+others}{%
465     \usebibmacro{bbx:editor}{editor+othersstrg}}
466   \newbibmacro*{bbx:editor}[1]{%
467     \ifboolexpr{
468       test \ifuseeditor
469       and
470       not test {\ifnameundef{editor}}
471     }
472     {\usebibmacro{bbx:dashcheck}
473      {\bibnamedash}
474      {\usebibmacro{editor+altdeditor}%
475       \setunit{\printdelim{editortypedelim}}%
476       \usebibmacro{bbx:savehash}}%
477      \usebibmacro{#1}%
478      \cleurname{editor}}
479     {\global\undef\bbx@lasthash}}
480   \DeclareFieldFormat{editortype}{\mkbibparens{#1}}

```

We do the same for `translator` as well.

```

481   \renewbibmacro*{translator}{%
482     \usebibmacro{bbx:translator}{translatorstrg}}
483   \renewbibmacro*{translator+others}{%

```

```

484 \usebibmacro{bbx:translator}{translator+othersstrg}
485 \newbibmacro*{bbx:translator}[1]{%
486 \ifboolexpr{
487   test \ifusetranslator
488   and
489   not test {\ifnameundef{translator}}
490 }
491 {\usebibmacro{bbx:dashcheck}
492  {\bibnamedash}
493  {\printnames{translator}%
494   \setunit{\printdelim{translatortypedelim}}%
495   \usebibmacro{bbx:savehash}}%
496  \usebibmacro{#1}%
497  \cleurname{translator}%
498  \setunit{\addspace}}%
499  {\global\undef\bbx@lasthash}}
500 \xpatchbibmacro{translatorstrg}%
501  {\bibstring}%
502  {\bibstring[\mkbibparens]}%
503  {\wlog{WARNING: biblatex-oxref failed to patch translatorstrg}}%
504 \xpatchbibmacro{translator+othersstrg}%
505  {\bibstring}%
506  {\bibstring[\mkbibparens]}%
507  {\wlog{WARNING: biblatex-oxref failed to patch translator+othersstrg}}%

```

When referencing one work from a collection by the same author, Oxford style traditionally puts ‘id.’ in the bookauthor position (instead of omitting it as in standard biblatex).

```

508 \renewbibmacro*{bybookauthor}{%
509 \ifnameequal{author}{bookauthor}%
510 {\bibstring{idem\thefield{gender}}}%
511 {\printnames{bookauthor}}}

```

Similarly, with mixed collections, if referencing a work by the editor of the collection, the editor name is replaced with ‘id.’ We insert this logic into a copy of the editor+others macro, which will *not* get a year inserted into it by oyear.

```

512 \newbibmacro*{bookeditor}{%
513 \ifboolexpr{
514   test \ifuseeditor
515   and
516   not test {\ifnameundef{editor}}
517 }{%
518 \ifnameequal{author}{editor}{%
519 \bibstring{idem\thefield{gender}}%
520 \setunit{\addspace}%
521 \usebibmacro{editor+othersstrg}%
522 \cleurname{editor}%
523 }{%
524 \printnames[bookeditor]{editor}%
525 \setunit*{\addspace}%
526 \usebibmacro{editor+othersstrg}%
527 \cleurname{editor}%
528 }%
529 }{}

```

We provide a macro for printing series editors.

```

530 \newbibmacro*{byserieseditor}{%
531 \ifnameundef{serieseditor}
532 {}
533 {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
534 \setunit{\addspace}%
535 \printnames[byeditor]{serieseditor}%
536 \newunit}}

```

2.1.3 TITLES

Title handling is mostly as it is in the standard styles, except that the `titleaddon` is printed in square brackets; it is not preceded by punctuation.

```

537 \renewbibmacro*{title}{%
538 \ifboolexpr{
539 test {\iffieldundef{title}}
540 and
541 test {\iffieldundef{subtitle}}
542 }
543 {}
544 {\printtext[title]{%
545 \printfield[titlecase]{title}%
546 \setunit{\subtitlepunct}%
547 \printfield[titlecase]{subtitle}}%
548 \setunit{\addspace}}%
549 \usebibmacro{origtitle}%
550 \setunit*{\addspace}%
551 \printfield{titleaddon}%
552 \iffieldequalstr{relatedtype}{equals}{%
553 \iftoggle{bbx:related}{%
554 \usebibmacro{related:init}%
555 \usebibmacro{related}%
556 \clearfield{related}%
557 }{}%
558 }{}%
559 }
560 \DeclareFieldFormat{titleaddon}{\mkbibbrackets{#1}}

```

The `origtitle` field is used for translated works. If the cited work is a native language translation of a foreign work, the original title is given in parentheses. If the cited work is foreign translation of a native language work, the original title is printed in square brackets, preceded by the name of the foreign language and ‘translation of’.

```

561 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
562 \newbibmacro*{origtitle}{%
563 \iffieldundef{origtitle}{}{%
564 \iflistundef{language}{%
565 \printtext[parens]{\printfield{origtitle}}%
566 }{%
567 \printtext[brackets]{%
568 \printlist{language}\space
569 \bibstring{translationof}\space
570 \printfield{origtitle}}}}

```

2.1.4 DATES AND TIMES

Year ranges are truncated (e.g. 2012–3). Therefore, we provide a command that compares two years, and outputs a full or truncated version of the second year, depending on how similar it is

to the first. It is adapted from code by Marco Daniel.¹

```
571 \newcommand{\blx@ox@compyear}[2]{%
572   \def\num@one{#1}%
573   \def\num@two{#2}%
574   \StrLen{\num@one}[\num@one@len]%
575   \StrLen{\num@two}[\num@two@len]%
```

The year is only trimmed if it is greater than, but has the same number of digits as, the comparison number.

```
576   \ifboolexpr{
577     test {\ifnumequal{\num@one@len}{\num@two@len}}
578     and
579     test {\ifnumless{\num@one}{\num@two}}
580   }{%
```

For years since 1000, at least two digits must be the same before trimming occurs.

```
581   \StrCompare{\num@one}{\num@two}[\Result]%
582   \ifnum\num@two@len>3%
583     \IfStrEq{\Result}{2}{\def\Result{1}}}%
584   \fi
```

Since `\Result` is the number of digits to trim from the left hand side of the year, plus one, we provide an extra sacrificial zero before trimming.

```
585   \StrGobbleLeft{0\num@two}{\Result}%
586   }{\num@two}}
```

We patch the date range formats from `biblatex.sty` to use the above function.

```
587 \patchcmd{\mkdaterangefull}{%
588   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
589 }{%
590   \iffieldundef{#2endmonth}%
591     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
592     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
593 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefull}}
594 \patchcmd{\mkdaterangefullextra}{%
595   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
596 }{%
597   \iffieldundef{#2endmonth}%
598     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
599     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
600 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}
601 \patchcmd{\mkdaterangetrunc@i}{%
602   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
603 }{%
604   \iffieldundef{#2endmonth}%
605     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
606     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
607 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}
608 \patchcmd{\mkdaterangetruncextra@i}{%
609   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
610 }{%
611   \iffieldundef{#2endmonth}%
612     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
```

¹<http://tex.stackexchange.com/questions/23483/>

```

613     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
614   }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetruncextra@i}}

```

We provide a way of prefacing dates (and times) with a type. This is mainly intended for online resources.

```

615   \DeclareFieldFormat{datetype}{%
616     \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
617   }
618   \newtoggle{blx@ox@timefirst}
619   \DeclareBiblatexOption{global,type,entry}{timefirst}[true]{%
620     \settoggle{blx@ox@timefirst}{#1}}
621   \newbibmacro*{date+time}{%
622     \ifboolexpr{
623       test {\iffieldundef{year}}
624       and
625       test {\iffieldundef{season}}
626       and
627       test {\iffieldundef{month}}
628       and
629       test {\iffieldundef{hour}}
630     }{%
631       \printfield{datetype}%
632       \setunit*{\addspace}%
633       \iftoggle{blx@ox@timefirst}{%
634         \printtime
635         \setunit*{\addcomma\space}}{}%
636       \printdate
637       \iftoggle{blx@ox@timefirst}{}%
638         \setunit*{\addcomma\space}%
639         \printtime}%
640     }
641   \renewbibmacro*{date}{\usebibmacro{date+time}}

```

We provide an equivalent for origdate. This is mainly intended for audiovisual resources (for the date of recording).

```

642   \DeclareFieldFormat{origdatetype}{%
643     \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
644   }
645   \newbibmacro*{origdate+time}{%
646     \ifboolexpr{
647       test {\iffieldundef{origyear}}
648       and
649       test {\iffieldundef{origseason}}
650       and
651       test {\iffieldundef{origmonth}}
652       and
653       test {\iffieldundef{orighour}}
654     }{%
655       \printfield{origdatetype}%
656       \setunit*{\addspace}%
657       \iftoggle{blx@ox@timefirst}{%
658         \printorigtime
659         \setunit*{\addcomma\space}}{}%
660       \printorigdate
661       \iftoggle{blx@ox@timefirst}{}%
662         \setunit*{\addcomma\space}%
663         \printorigtime}%
664     }

```

If a date is inferred, it goes in square brackets.

```

665 \DeclareFieldFormat{date}{%
666   \def\currentfield{date}%
667   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
668   \undef\currentfield}
669 \DeclareFieldFormat{origdate}{%
670   \def\currentfield{origdate}%
671   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
672   \undef\currentfield}
673 \DeclareFieldFormat{eventdate}{%
674   \def\currentfield{eventdate}%
675   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
676   \undef\currentfield}

```

2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

We let edition take a localization key as well as a number.

```

677 \xpatchfieldformat{edition}{%
678   {#1\isdot}%
679   {\iffibstring{#1}{\bibstring{#1}}{#1\isdot}}%
680   {}{\wlog{WARNING: biblatex-oxref failed to patch edition}}

```

Page ranges are compressed, but are not usually marked with ‘pp.’. The exception is if the page numbers are not obviously numbers.

```

681 \DeclareFieldFormat{pages}{%
682   \iffieldundef{bookpagination}%
683   {\mkcomprange{#1}}%
684   {\mkcomprange[{\mkpageprefix[bookpagination]}]{#1}}%
685 }

```

The same is true in citations.

```

686 \DeclareFieldFormat{postnote}{%
687   \iffieldundef{pagination}%
688   {\mkcomprange{#1}}%
689   {\mkcomprange[{\mkpageprefix}]{#1}}%
690 }

```

2.1.6 PUBLISHERS

The *Oxford Guide to Style* says it is fine to omit publisher names uniformly from bibliographic information. This is odd, but we can support it with a simple option.

```

691 \DeclareBibliographyOption{nopublisher}[true]{%
692   \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
693 }

```

The style guides are less forgiving about omitting the place of publication. We provide a bibliography option that fills in such gaps with the `nolocation` localization string for selected entry types. It works using a source map, which is a clean solution but cannot easily be switched off again or used on a per-type basis.

```

694 \DeclareBibliographyOption{noLocation}[true]{%
695   \DeclareStyleSourceMap{
696     \maps[datatype=bibtex]{
697       \map{
698         \pertype{book}
699         \pertype{mvbook}
700         \pertype{bookinbook}
701         \pertype{inbook}
702         \pertype{suppbook}
703         \pertype{collection}
704         \pertype{mvcollection}
705         \pertype{incollection}
706         \pertype{suppcollection}
707         \pertype{reference}
708         \pertype{mvreference}
709         \pertype{inreference}
710         \pertype{proceedings}
711         \pertype{mvproceedings}
712         \pertype{inproceedings}
713         \step[notfield=location, fieldset=location,
        ↪ fieldvalue={\noexpand\bibstring{noLocation}}]
714       }
715     }
716   }%
717 }

```

We also provide an entry option that has the same effect; this works using the `\restorelist` mechanism instead.

```

718 \newtoggle{blx@ox@noLoc}
719 \def\blx@ox@noLoc{{\bibstring{noLocation}}}
720 \DeclareEntryOption{noLocation}[true]{%
721   \settoggle{blx@ox@noLoc}{#1}%
722   \iflistundef{location}{%
723     \iftoggle{blx@ox@noLoc}{\restorelist{location}{\blx@ox@noLoc}}{}%
724   }}

```

2.1.7 URLs

The OGS recommends the ISO convention of enclosing URLs in angle brackets, but NHR recommends leaving URLs bare so as not to interfere with text-mining. The latter is the default.

```

725 \DeclareBibliographyOption{isourls}[true]{%
726   \ifstrequal{#1}{true}
727     {\DeclareFieldFormat{url}{\langl$\url{##1}$\rangl$}}
728     {\DeclareFieldFormat{url}{\url{##1}}}%
729   }
730 \ExecuteBibliographyOptions{isourls=false}

```

NHR specifies that URLs should be broken across lines after slashes and percents, and before other punctuation. They should never break after hyphens.

```

731 \renewcommand*{\biburlsetup}{%
732   \Urlmuskip=0mu plus 2mu\relax
733   \mathchardef\UrlBigBreakPenalty=100\relax
734   \mathchardef\UrlBreakPenalty=200\relax
735   \def\UrlBigBreaks{\do\/\do\:%}
736   \def\UrlNoBreaks{\do\(\do\[\do\{\do\<%}
737   \def\UrlBreaks{%

```

```

738 \do\>\do\}\do\]\do\)\do\|\do\|}%
739 \do\' \do\$ \do* \do^ \do" }%
740 \appto\urlSpecials{%
741 \do!\{\mathbin{} \mskip-\Urlmuskip\mathchar`!\mskip\Urlmuskip}%
742 \do\&\{\mathbin{} \mskip-\Urlmuskip\mathchar`\&\mskip\Urlmuskip}%
743 \do\+\{\mathbin{} \mskip-\Urlmuskip\mathchar`\+\mskip\Urlmuskip}%
744 \do\,\{\mathbin{} \mskip-\Urlmuskip\mathchar`\,\mskip\Urlmuskip}%
745 \do\-\{\mathbin{} \mskip-\Urlmuskip\mathchar`\-\mskip\Urlmuskip}%
746 \do\.\{\mathbin{} \mskip-\Urlmuskip\mathchar`\.\mskip\Urlmuskip}%
747 \do\;\{\mathbin{} \mskip-\Urlmuskip\mathchar`\;\mskip\Urlmuskip}%
748 \do\=\{\mathbin{} \mskip-\Urlmuskip\mathchar`\=\mskip\Urlmuskip}%
749 \do\?\{\mathbin{} \mskip-\Urlmuskip\mathchar`\?\mskip\Urlmuskip}%
750 \do\_ \{\mathbin{} \mskip-\Urlmuskip\_ \mskip\Urlmuskip}%
751 \do\#\{\mathbin{} \mskip-\Urlmuskip\#\mskip\Urlmuskip}%
752 }%
753 \ifnumgreater{\value{biburlnumpenalty}}{0}
754 {\def\do##1{\appto\urlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlnumpenalty}}}}%
755 \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
756 {}%
757 \ifnumgreater{\value{biburlucpenalty}}{0}
758 {\def\do##1{\appto\urlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlucpenalty}}}}%
759 \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
760 \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
761 \do\U\do\V\do\W\do\X\do\Y\do\Z}
762 {}%
763 \ifnumgreater{\value{biburllcpenalty}}{0}
764 {\def\do##1{\appto\urlSpecials{\do##1{\mathchar`##1 \penalty\value{biburllcpenalty}}}}%
765 \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
766 \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
767 \do\U\do\V\do\W\do\X\do\Y\do\Z}
768 {}%
769 \let\do=\noexpand}

```

URL dates are set off with a comma rather than parentheses.

```

770 \DeclareFieldFormat{urldate}{\bibstring{urlseens}\space#1}
771 \xpatchbibmacro{url+urldate}%
772 {\setunit*{\addspace}}%
773 {\setunit*{\addcomma\addspace}}%
774 {\wlog{WARNING: biblatex-oxref failed to patch url+urldate}}

```

The DOI is introduced by ‘doi’ in lowercase.

```

775 \xpatchfieldformat{doi}%
776 {\mkbibacro{DOI}}%
777 {\printtext{doi}}%
778 {\wlog{WARNING: biblatex-oxref failed to patch doi}}

```

Unlike URLs, DOIs are preceded by a full stop.

```

779 \xpatchbibmacro{doi+eprint+url}%
780 {\printfield{doi}}%
781 {\setunit{\addperiod\space}\printfield{doi}}%
782 {\wlog{WARNING: biblatex-oxref failed to patch doi+eprint+url}}

```

2.1.8 ADDENDA

The publication state is given in parentheses. Other addenda are added plain.


```

783 \renewbibmacro*{addendum+pubstate}{%
784 \ifboolexpr{
785   test {\iffieldundef{pubstate}}
786   or
787   test {\iffieldequalstr{labeldatesource}{pubstate}}
788 }{}{%
789   \nopunct
790   \ifbibstring{\thefield{pubstate}}{%
791     \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
792   }{}%
793   \printfield{pubstate}}%
794 \setunit{\addsemicolon\addspace}\newblock
795 \printfield{addendum}}
796 \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}

```

Publication descriptions are printed plain for unpublished works, and in brackets for other entry types.

```

797 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
798 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}

```

2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

```

799 \DeclareFieldFormat[article,periodical,suppperiodical,review]{entrysubtype}{\mkbibbrackets{#1}}

```

We provide a command for testing if a title is abbreviated. We use the traditional \LaTeX accent commands in case a non-Unicode input encoding is being used. Testing for Ç and Ş causes errors when using OT1 encoding.

```

800 \newcommand*{\blx@ox@abbrevstring}{%
801   A\^{A}BCDEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRSTU\^{U}\^{U}VWXYZ.}%
802 \AtBeginDocument{
803   \ifdefstring{\encodingdefault}{OT1}{}{}%
804   \renewcommand*{\blx@ox@abbrevstring}{%
805     A\^{A}BC\c{C}DEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRS\c{S}TU\^{U}\^{U}VWXYZ.}%
806   }%
807 }
808 \newcommand*{\ifabbrev}[3]{%
809   \StrRight{#1}{1}[\blx@ox@lastchar]%
810   \expandafter\IfSubStr*{\blx@ox@abbrevstring}{\blx@ox@lastchar}{#2}{#3}%
811 }

```

We renew the `journal+issuetitle` macro so that if a work takes up a whole issue (signified by using `issuetitle` *instead* of `title`), the title and journal title are separated by ‘=’ instead of the usual punctuation. It also inserts an appropriate localization string if the publication status demands it. We insert a comma after the journal title, regardless of what follows. There is also a comma after numeric (but not textual) series.

```

812 \renewbibmacro*{journal+issuetitle}{%
813 \ifboolexpr{
814   test {\iffieldundef{title}}
815   and
816   not test {\iffieldundef{issuetitle}}
817 }{}%
818 \usebibmacro{issue}%

```

```

819     \setunit{\addspace =\addspace}%
820   }{%
821     \ifboolexpr{
822       ( not test {\iffieldundef{pubstate}} )
823       and
824       test {\ifbibxstring{\thefield{pubstate}in}}
825     }{%
826       \printtext{\bibstring{\thefield{pubstate}in}\space}%
827       \clearfield{pubstate}%
828     }{%
829       \usebibmacro{journal}%
830       \iffieldundef{journalsubtitle}{%
831         \ifabbrev{\strfield{journaltitle}}{\setunit{\addspace}}{\newunit}%
832       }{%
833         \ifabbrev{\strfield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
834       \iffieldundef{series}{%
835         \newunit\newblock
836         \printfield{series}%
837         \ifbibxstring{\thefield{series}}{%
838           \setunit{\addspace}%
839         }{%
840           \newunit}}%
841       \usebibmacro{volume+number+eid}%
842       \setunit{\addspace}%
843       \usebibmacro{issue+date}%
844       \newunit}

```

We renew the title+issuetitle macro (for whole periodical issues) to apply the same punctuation changes after the periodical name and series. At the same time, we delegate handling of volume and issue numbers to the appropriate macro so we can customize it.

```

845   \renewbibmacro*{title+issuetitle}{%
846     \usebibmacro{periodical}%
847     \iffieldundef{subtitle}{%
848       \ifabbrev{\strfield{title}}{\setunit{\addspace}}{\newunit}%
849     }{%
850       \ifabbrev{\strfield{subtitle}}{\setunit{\addspace}}{\newunit}}%
851     \iffieldundef{series}{%
852       \newunit\newblock
853       \printfield{series}%
854       \ifbibxstring{\thefield{series}}{%
855         \setunit{\addspace}%
856       }{%
857         \newunit}}%
858     \usebibmacro{volume+number+eid}%
859     \setunit{\addspace}%
860     \usebibmacro{issue+date}%
861     \newunit}

```

OGS and NHR provide plentiful options for formatting volume and issue numbers. We implement four of them here as options. The default is to use a slash between volume and issue number. Note that we prevent the volume+number+eid macro from actually printing the EID; this is printed by issue+date instead (see below).

```

862   \DeclareBibliographyOption[string]{issuestyle}[slash]{%
863     \ifcsdef{blx@ox@issuestyle@#1}{%
864       \csuse{blx@ox@issuestyle@#1}%
865     }{%
866       \PackageError{biblatex-oxref}
867         {Invalid option 'issuestyle=#1'}

```

```

868     {Valid values are 'slash', 'colon', 'comma', 'parens'}%
869   }%
870 }
871 \csdef{blx@ox@issuestyle@slash}{%
872   \renewbibmacro*{volume+number+eid}{%
873     \printfield{volume}%
874     \setunit*{\addslash}%
875     \printfield{number}%
876   }%
877 }
878 \csdef{blx@ox@issuestyle@colon}{%
879   \renewbibmacro*{volume+number+eid}{%
880     \printfield{volume}%
881     \setunit*{\addcolon\space}%
882     \printfield{number}%
883   }%
884 }
885 \csdef{blx@ox@issuestyle@comma}{%
886   \renewbibmacro*{volume+number+eid}{%
887     \printfield{volume}%
888     \setunit*{\addcomma\space}%
889     \printfield{number}%
890   }%
891 }
892 \csdef{blx@ox@issuestyle@parens}{%
893   \renewbibmacro*{volume+number+eid}{%
894     \printfield{volume}%
895     \setunit*{\addspace}%
896     \printfield[parens]{number}%
897   }%
898 }
899 \ExecuteBibliographyOptions{issuestyle=slash}

```

OGS consistently prints dates of newspapers and magazines bare, but those of academic journals in parentheses. NHR seems to favour printing dates in parentheses regardless, but notes that some publishing houses take the OGS approach.

We provide an option for switching between the two approaches. If active and an issue has no volume or issue numbers (first block), the season and date are printed bare. Otherwise (second block) they are printed in parentheses just as in the standard version of the macro.

```

900 \newtoggle{blx@ox@varissuedate}
901 \DeclareBiblatexOption{global,type,entry}{varissuedate}[true]{%
902   \settoggle{blx@ox@varissuedate}{#1}}
903 \DeclareBiblatexOption{global,type,entry}{issuedate-plain}[true]{%
904   \settoggle{blx@ox@varissuedate}{#1}}
905 \renewbibmacro*{issue+date}{%
906   \ifboolexpr{
907     test {\iffieldundef{issue}}
908     and
909     test {\iffieldundef{year}}
910     and
911     test {\iffieldundef{season}}
912     and
913     test {\iffieldundef{month}}
914   }{}%
915   \ifboolexpr{
916     togl {blx@ox@varissuedate}
917     and
918     test {\iffieldundef{volume}}
919     and

```

```

920     test {\iffieldundef{number}}
921   }{%
922     \newunit
923     \printtext{%
924       \iffieldundef{issue}{%
925         \usebibmacro{date}
926       }{%
927         \printfield{issue}%
928         \setunit*{\addspace}%
929         \usebibmacro{date}}}%
930   }{%
931     \printtext[parens]{%
932       \iffieldundef{issue}{%
933         \usebibmacro{date}%
934       }{%
935         \printfield{issue}%
936         \setunit*{\addspace}%
937         \usebibmacro{date}}}}}%
938   \newunit
939   \printfield{eid}%
940 }

```

Our article driver is like the standard one except

- it has no ‘in’ macro;
- there is a handler for the suppto relation;
- there is no language macro;
- the punctuation before related items is configurable.

```

941 \DeclareBibliographyDriver{article}{%
942   \usebibmacro{bibindex}%
943   \usebibmacro{begentry}%
944   \usebibmacro{author/translator+others}%
945   \setunit{\printdelim{nametitledelim}}\newblock
946   \usebibmacro{title}%
947   \setunit{\titlebyauthordelim}\newblock
948   \usebibmacro{byauthor}%
949   \newunit\newblock
950   \usebibmacro{bytranslator+others}%
951   \newunit\newblock
952   \printfield{version}%
953   \newunit\newblock
954   \usebibmacro{journal+issuetitle}%
955   \newunit
956   \usebibmacro{byeditor+others}%
957   \iffieldequalstr{relatedtype}{suppto}{%
958     \setunit{\addsemicolon\space}%
959     \iftoggle{bbx:related}{%
960       \usebibmacro{related:init}%
961       \usebibmacro{related}%
962       \clearfield{related}%
963     }{}%
964   }{}%
965   \newunit
966   \usebibmacro{note+pages}%
967   \newunit\newblock
968   \iftoggle{bbx:isbn}
969     {\printfield{issn}}
970     {}%
971   \newunit\newblock

```

```

972 \usebibmacro{doi+eprint+url}%
973 \newunit\newblock
974 \usebibmacro{addendum+pubstate}%
975 \iftoggle{bbx:related}
976   {\usebibmacro{related:init}%
977   \usebibmacro{related}}
978   {}%
979 \setunit{\bibpagerefpunct}\newblock
980 \usebibmacro{pageref}%
981 \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

982 \DeclareBibliographyDriver{periodical}{%
983   \usebibmacro{bibindex}%
984   \usebibmacro{begentry}%
985   \usebibmacro{editor}%
986   \setunit{\printdelim{nametitledelim}}\newblock
987   \usebibmacro{title+issuetitle}%
988   \newunit\newblock
989   \usebibmacro{byeditor}%
990   \newunit\newblock
991   \printfield{note}%
992   \newunit\newblock
993   \iftoggle{bbx:isbn}
994     {\printfield{issn}}
995     {}%
996   \newunit\newblock
997   \usebibmacro{doi+eprint+url}%
998   \newunit\newblock
999   \usebibmacro{addendum+pubstate}%
1000   \iftoggle{bbx:related}
1001     {\usebibmacro{related:init}%
1002     \usebibmacro{related}}
1003     {}%
1004   \setunit{\bibpagerefpunct}\newblock
1005   \usebibmacro{pageref}%
1006   \usebibmacro{finentry}}

```

The suppperiodical driver is just like the article one, except the note comes sooner after the title. This is to allow it to be used as a descriptor. Since we're breaking the alias, we need to explicitly replicate the article formatting for the rest of the entry.

```

1007 \DeclareFieldFormat[suppperiodical]{title}{%
1008   \def\currentfield{title}%
1009   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1010   \undef\currentfield}
1011 \DeclareFieldFormat[suppperiodical]{volume}{#1}% volume of a journal
1012 \DeclareFieldFormat[suppperiodical]{number}{#1}% number of a journal
1013 \DeclareFieldFormat[suppperiodical]{series}{% series of a journal
1014   \ifinteger{#1}
1015     {\mkbibordseries{#1}~\bibstring{jourser}}
1016     {\ifbibstring{#1}{\bibstring{#1}}{#1}}}
1017 \DeclareBibliographyDriver{suppperiodical}{%
1018   \usebibmacro{bibindex}%
1019   \usebibmacro{begentry}%
1020   \usebibmacro{author/translator+others}%
1021   \setunit{\printdelim{nametitledelim}}\newblock
1022   \usebibmacro{title}%
1023   \setunit{\titlebyauthordelim}\newblock

```

```

1024 \usebibmacro{byauthor}%
1025 \newunit\newblock
1026 \usebibmacro{bytranslator+others}%
1027 \newunit\newblock
1028 \printfield{note}\clearfield{note}%
1029 \newunit\newblock
1030 \printfield{version}%
1031 \newunit\newblock
1032 \usebibmacro{journal+issuetitle}%
1033 \newunit
1034 \usebibmacro{byeditor+others}%
1035 \iffieldequalstr{relatedtype}{suppto}{%
1036 \setunit{\addsemicolon\space}%
1037 \iftoggle{bbx:related}{%
1038 \usebibmacro{related:init}%
1039 \usebibmacro{related}%
1040 \clearfield{related}%
1041 }{}%
1042 }{}%
1043 \newunit
1044 \usebibmacro{note+pages}%
1045 \newunit\newblock
1046 \iftoggle{bbx:isbn}
1047 {\printfield{issn}}
1048 {}%
1049 \newunit\newblock
1050 \usebibmacro{doi+eprint+url}%
1051 \newunit\newblock
1052 \usebibmacro{addendum+pubstate}%
1053 \iftoggle{bbx:related}
1054 {\usebibmacro{related:init}%
1055 \usebibmacro{related}}
1056 {}%
1057 \setunit{\bibpagerefpunct}\newblock
1058 \usebibmacro{pageref}%
1059 \usebibmacro{finentry}}

```

2.1.10 BOOKS AND WORKS IN BOOKS

By default, editors do not appear before the title in book or reference entries.

```

1060 \ExecuteBibliographyOptions[book,mvbook,reference,mvreference]{useeditor=false,usetranslator=false}

```

The titles of books that have been collected into an anthology are treated like regular chapters and set in quotes. Poems and plays, however, are set in italics.

```

1061 \DeclareFieldFormat[bookinbook]{title}{%
1062 \ifboolexpr{
1063 test {\iffieldequalstr{entrysubtype}{poem}}
1064 or
1065 test {\iffieldequalstr{entrysubtype}{play}}
1066 }{%
1067 \mkbibemph{#1}%
1068 }{%
1069 \mkbibquote{#1\isdot}}

```

Unlike the standard styles, we have a separate driver for `inreference`, so we need to change the title style accordingly.

```
1070 \DeclareFieldFormat[inreference]{title}{\mkbibquote{#1\isdot}}
```

Volume numbers in monograph-style entries are formatted as roman numerals (if they are indeed numbers). We take some care here to support simple ranges (e.g. 1-3, 4–9). Support for more complex ranges may be considered on request.

```
1071 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbook,%
1072 collection,mvcollection,incollection,suppcollection,%
1073 proceedings,mvproceedings,inproceedings,%
1074 reference,mvreference,inreference]{volume}{%
1075 \IfSubStr{#1}{-}{%
1076 \StrCount{#1}{-}[\blx@ox@dashnum]%
1077 \StrBefore{#1}{-}[\blx@ox@volnum]%
1078 \expandafter\ifinteger\blx@ox@volnum{\Rn{\blx@ox@volnum}}{\blx@ox@volnum}\bibrangedash
1079 \StrBehind[\blx@ox@dashnum]{#1}{-}[\blx@ox@volnum]%
1080 \expandafter\ifinteger\blx@ox@volnum{\Rn{\blx@ox@volnum}}{\blx@ox@volnum}%
1081 }{%
1082 \ifinteger{#1}{\Rn{#1}}{#1}}
```

Where a multi-volume work is more like a series, the volume number and main title are put in a bracketted block between the volume title and the usual publication block.

```
1083 \newbibmacro*{maintitle+volume}{%
1084 \ifboolexpr{
1085 test {\iffieldundef{maintitle}}
1086 or
1087 test {\iffieldundef{volume}}
1088 }{%
1089 {\printtext[maintitle+volume]{%
1090 \bibstring{volume}\addspace
1091 \printfield{volume}\printfield{part}\addspace
1092 \bibstring{ofseries}\addspace
1093 \usebibmacro{maintitle}}}
1094 }
1095 \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}
```

The *in* before the booktitle is suppressed for works in yearbooks.

```
1096 \renewbibmacro*{in:}{%
1097 \iffieldequalstr{entrysubtype}{yearbook}}{%
1098 \printtext{\bibstring{in}\intitlepunct}}
```

Oxford style signifies formal publication by putting the relevant details in parentheses.

```
1099 \DeclareFieldFormat{publication}{\mkbibparens{#1}}
```

Standard biblatex puts a space between series name and number. OGS separates them with a comma. It also has an example with a series editor.

```
1100 \renewbibmacro*{series+number}{%
1101 \printfield{series}%
1102 \setunit*{\addcomma\space}%
1103 \usebibmacro{byserieseditor}%
1104 \setunit*{\addcomma\space}%
1105 \printfield{number}}
```

We provide an option for displaying the series information before, instead of within, the publication block.

```

1106 \newtoggle{blx@ox@altbookseries}
1107 \DeclareBibliographyOption[string]{bookseries}[in]{%
1108   \ifstrequal{#1}{out}{%
1109     \toggletrue{blx@ox@altbookseries}%
1110   }{%
1111     \togglefalse{blx@ox@altbookseries}%
1112     \ifstrequal{#1}{in}{%
1113       \PackageError{biblatex-oxref}
1114       {Invalid option 'bookseries=#1'}
1115       {Valid values are 'in' and 'out'.}}}}

```

When citing both the first and a later edition, the first one comes first, and the later one comes after a semicolon. As per standard biblatex, the elements of a single edition are separated by commas except that the publisher is preceded by a colon. The origdate is only printed here if at least one of the edition, the origlocation or the origpublisher is also specified.

```

1116 \newcounter{locpubpairs}
1117 \newbibmacro*{edition+publisher+location+date}{%
1118   \printlist{origlocation}%
1119   \iflistundef{origpublisher}%
1120     {\setunit*{\addcomma\space}}%
1121     {\setunit*{\addcolon\space}}%
1122   \printlist{origpublisher}%
1123   \setunit*{\addcomma\space}%
1124   \ifboolexpr{
1125     test {\iflistundef{origlocation}}
1126     and
1127     test {\iflistundef{origpublisher}}
1128     and
1129     test {\iffieldundef{edition}}
1130   }{%
1131     \printorigdate}%
1132   \setunit{\addsemicolon\space}%
1133   \printfield{edition}%
1134   \setunit*{\addcomma\space}%

```

If there are the same number of locations and publishers, and there are more than one pair, we print them pairwise rather than in two separate lists. This uses the same principle as the namepairs bibmacro, but does not have the list truncation apparatus.

```

1135 \ifboolexpr{%
1136   test {\ifnumcomp{\value{publisher}}{>}{1}}
1137   and
1138   test {\ifnumequal{\value{location}}{\value{publisher}}}
1139 }{%
1140   \setcounter{locpubpairs}{0}%
1141   \savebibmacro{list:andothers}%
1142   \renewbibmacro*{list:andothers}{%
1143     \whileboolexpr{%
1144       test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1145     }{%
1146       \stepcounter{locpubpairs}%
1147       \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1148         \ifnumequal{\value{publisher}}{2}{%
1149           \setunit*{\addspace\bibstring{and}\addspace}%
1150         }{%
1151           \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1152             \setunit*{\addcomma\space\bibstring{and}\addspace}%
1153           }{%
1154             \setunit*{\addcomma\space}%

```



```

1155     }%
1156   }%
1157 }{}%
1158 \printlist[[\value{locpubpairs}-\value{locpubpairs}]{location}%
1159 \setunit*{\addcolon\space}%
1160 \printlist[[\value{locpubpairs}-\value{locpubpairs}]{publisher}%
1161 }%
1162 \restorebibmacro{list:andothers}%
1163 }{%
1164 \printlist{location}%
1165 \iflistundef{publisher}%
1166 {\setunit*{\addcomma\space}}%
1167 {\setunit*{\addcolon\space}}%
1168 \printlist{publisher}%
1169 }%
1170 \setunit*{\addcomma\space}%
1171 \usebibmacro{date}%
1172 }

```

Oxford style is to provide publication details – series name and number, edition, publisher, location, date – in a parenthetical block after the title information.

```

1173 \newbibmacro*{series+number+edition+publisher+location+date}{%
1174 \iftoggle{blx@ox@altbookseries}{%
1175 \usebibmacro{series+number}%
1176 \setunit{\addspace}\newblock}{%
1177 \ifboolexpr{
1178 test {\iffieldundef{series}}
1179 and
1180 test {\iffieldundef{number}}
1181 and
1182 test {\iffieldundef{edition}}
1183 and
1184 test {\iflistundef{publisher}}
1185 and
1186 test {\iflistundef{location}}
1187 and
1188 test {\iffieldundef{year}}
1189 and
1190 test {\iffieldundef{season}}
1191 and
1192 test {\iffieldundef{month}}
1193 }{}{%
1194 \nopunct
1195 \printtext[publication]{%
1196 \iftoggle{blx@ox@altbookseries}{%
1197 \usebibmacro{series+number}%
1198 \setunit{\addsemicolon\addspace}}%
1199 \usebibmacro{edition+publisher+location+date}%
1200 \usebibmacro{copub}}}%
1201 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1202 \setunit{\addspace}\newblock
1203 \usebibmacro{origpub}%
1204 }

```

The edition information for reference works is recorded earlier in the reference, so we provide a variant that excludes it from the publication block.

```

1205 \newbibmacro*{series+number+publisher+location+date}{%
1206 \iftoggle{blx@ox@altbookseries}{%

```

```

1207     \usebibmacro{series+number}%
1208     \setunit{\addspace}\newblock}{}%
1209 \ifboolexpr{
1210   test {\iffieldundef{series}}
1211   and
1212   test {\iffieldundef{number}}
1213   and
1214   test {\iflistundef{publisher}}
1215   and
1216   test {\iflistundef{location}}
1217   and
1218   test {\iffieldundef{year}}
1219   and
1220   test {\iffieldundef{season}}
1221   and
1222   test {\iffieldundef{month}}
1223 }{ }{%
1224   \nopunct
1225   \printtext[publication]{%
1226     \iftoggle{blx@ox@altbookseries}{ }{%
1227       \usebibmacro{series+number}%
1228       \setunit{\addsemicolon\addspace}}%
1229     \usebibmacro{publisher+location+date}%
1230     \usebibmacro{copub}}}%
1231 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1232 \setunit{\addspace}\newblock
1233 \usebibmacro{origpub}%
1234 }

```

The copub macro prints co-publication details.

```

1235 \newbibmacro*{copub}{%
1236   \ifboolexpr{
1237     togl {bbx:related}
1238     and
1239     test {\iffieldequalstr{relatedtype}{copub}}
1240   }{%
1241     \setunit{\addsemicolon\space}%
1242     \usebibmacro{related:init}%
1243     \usebibmacro{related}%
1244   }{ }%
1245 }

```

The origpub macro prints the origdate field if it has not yet been cleared.

```

1246 \newbibmacro*{origpub}{%
1247   \ifboolexpr{
1248     test {\iflistundef{origlocation}}
1249     and
1250     test {\iflistundef{origpublisher}}
1251     and
1252     test {\iffieldundef{edition}}
1253     and
1254     ( not test {\iffieldundef{origyear}} )
1255   }{%
1256     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1257   }{ }%
1258 }

```

The changes to the book driver compared to the standard style are as follows:

- maintitle is processed with volume just before series, instead of with title;

- edition is processed where the standard style processes note, and vice versa;
- volumes is omitted;
- series to date information is delegated to a separate macro;
- support is added for howpublished field;

```

1259 \DeclareBibliographyDriver{book}{%
1260   \usebibmacro{bibindex}%
1261   \usebibmacro{begentry}%
1262   \usebibmacro{author/editor+others/translator+others}%
1263   \setunit{\printdelim{nametitleledelim}}\newblock
1264   \usebibmacro{title}%
1265   \setunit{\titlebyauthordelim}\newblock
1266   \usebibmacro{byauthor}%
1267   \newunit\newblock
1268   \usebibmacro{byeditor+others}%
1269   \newunit\newblock
1270   \printfield{note}%
1271   \newunit\newblock
1272   \usebibmacro{maintitle+volume}%
1273   \newunit
1274   \usebibmacro{series+number+edition+publisher+location+date}%
1275   \setunit{\addspace}%
1276   \printfield{howpublished}%
1277   \newunit\newblock
1278   \usebibmacro{chapter+pages}%
1279   \newunit
1280   \printfield{pagetotal}%
1281   \newunit\newblock
1282   \iftoggle{bbx:isbn}
1283     {\printfield{isbn}}
1284     {}%
1285   \newunit\newblock
1286   \usebibmacro{doi+eprint+url}%
1287   \newunit\newblock
1288   \usebibmacro{addendum+pubstate}%
1289   \iftoggle{bbx:related}
1290     {\usebibmacro{related:init}%
1291      \usebibmacro{related}}
1292     {}%
1293   \setunit{\bibpagerefpunct}\newblock
1294   \usebibmacro{pageref}%
1295   \usebibmacro{finentry}}

```

Unlike the standard styles, we have a separate driver for `mvbook` which behaves slightly differently. It is in fact closer to the standard book driver. The changes are as follows:

- volume/part is processed just after `maintitle+title`;
- edition is processed where the standard style processes note;
- note is processed after volumes;
- series to date information is delegated to a separate macro;

```

1296 \DeclareBibliographyDriver{mvbook}{%
1297   \usebibmacro{bibindex}%
1298   \usebibmacro{begentry}%
1299   \usebibmacro{author/editor+others/translator+others}%
1300   \setunit{\printdelim{nametitleledelim}}\newblock
1301   \usebibmacro{maintitle+title}%
1302   \newunit

```

```

1303 \ifboolexpr{
1304   test {\iffieldequalstr{relatedtype}{multivolume}}
1305   or
1306   ( not test {\iffieldundef{maintitle}} )
1307 }{%
1308   \printfield{volume}%
1309   \printfield{part}%
1310 \setunit{\titlebyauthordelim}\newblock
1311 \usebibmacro{byauthor}%
1312 \newunit\newblock
1313 \usebibmacro{byeditor+others}%
1314 \newunit\newblock
1315 \printfield{volumes}%
1316 \newunit\newblock
1317 \printfield{note}%
1318 \newunit\newblock
1319 \ifboolexpr{
1320   test {\iffieldequalstr{relatedtype}{multivolume}}
1321   and
1322   test {\iffieldundef{maintitle}}
1323 }{%
1324   \printfield{volume}%
1325   \printfield{part}%
1326 }{%
1327 \newunit\newblock
1328 \usebibmacro{series+number+edition+publisher+location+date}%
1329 \newunit\newblock
1330 \usebibmacro{chapter+pages}%
1331 \newunit
1332 \printfield{pagetotal}%
1333 \newunit\newblock
1334 \iftoggle{bbx:isbn}
1335   {\printfield{isbn}}
1336   {}%
1337 \newunit\newblock
1338 \usebibmacro{doi+eprint+url}%
1339 \newunit\newblock
1340 \usebibmacro{addendum+pubstate}%
1341 \iftoggle{bbx:related}
1342   {\usebibmacro{related:init}%
1343     \usebibmacro{related}}
1344   {}%
1345 \setunit{\bibpagerefpunct}\newblock
1346 \usebibmacro{pageref}%
1347 \usebibmacro{finentry}}

```

Our inbook driver modifies the standard one in just the same way as our mvbook driver modifies the standard book.

```

1348 \DeclareBibliographyDriver{inbook}{%
1349   \usebibmacro{bibindex}%
1350   \usebibmacro{begentry}%
1351   \usebibmacro{author/translator+others}%
1352   \setunit{\printdelim{nametitleledelim}}\newblock
1353   \usebibmacro{title}%
1354   \setunit{\titlebyauthordelim}\newblock
1355   \usebibmacro{byauthor}%
1356   \newunit\newblock
1357   \usebibmacro{in:}%
1358   \usebibmacro{bybookauthor}%
1359   \newunit\newblock

```

```

1360 \usebibmacro{maintitle+booktitle}%
1361 \newunit
1362 \iffieldundef{maintitle}
1363   {\printfield{volume}%
1364    \printfield{part}}
1365   {}%
1366 \newunit\newblock
1367 \usebibmacro{byeditor+others}%
1368 \newunit\newblock
1369 \printfield{volumes}%
1370 \newunit\newblock
1371 \printfield{note}%
1372 \newunit\newblock
1373 \usebibmacro{series+number+edition+publisher+location+date}%
1374 \newunit\newblock
1375 \usebibmacro{chapter+pages}%
1376 \newunit\newblock
1377 \iftoggle{bbx:isbn}
1378   {\printfield{isbn}}
1379   {}%
1380 \newunit\newblock
1381 \usebibmacro{doi+eprint+url}%
1382 \newunit\newblock
1383 \usebibmacro{addendum+pubstate}%
1384 \iftoggle{bbx:related}
1385   {\usebibmacro{related:init}%
1386    \usebibmacro{related}}
1387   {}%
1388 \setunit{\bibpagerefunct}\newblock
1389 \usebibmacro{pageref}%
1390 \usebibmacro{finentry}}

```

Our suppbok driver is just like inbook except that the note is moved nearer the title so it can be used as a descriptor.

```

1391 \DeclareFieldFormat[suppbok]{title}{%
1392   \def\currentfield{title}%
1393   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1394   \undef\currentfield}
1395 \DeclareBibliographyDriver{suppbok}{%
1396   \usebibmacro{bibindex}%
1397   \usebibmacro{begentry}%
1398   \usebibmacro{author/translator+others}%
1399   \setunit{\printdelim{nametitledelim}}\newblock
1400   \usebibmacro{title}%
1401   \setunit{\titlebyauthordelim}\newblock
1402   \usebibmacro{byauthor}%
1403   \newunit\newblock
1404   \printfield{note}%
1405   \setunit{\addspace}\newblock
1406   \usebibmacro{in:}%
1407   \usebibmacro{bybookauthor}%
1408   \newunit\newblock
1409   \usebibmacro{maintitle+booktitle}%
1410   \newunit
1411   \iffieldundef{maintitle}
1412     {\printfield{volume}%
1413      \printfield{part}}
1414     {}%
1415   \newunit\newblock
1416   \usebibmacro{byeditor+others}%

```

```

1417 \newunit\newblock
1418 \printfield{volumes}%
1419 \newunit\newblock
1420 \usebibmacro{series+number+edition+publisher+location+date}%
1421 \newunit\newblock
1422 \usebibmacro{chapter+pages}%
1423 \newunit\newblock
1424 \iftoggle{bbx:isbn}
1425   {\printfield{isbn}}
1426   {}%
1427 \newunit\newblock
1428 \usebibmacro{doi+eprint+url}%
1429 \newunit\newblock
1430 \usebibmacro{addendum+pubstate}%
1431 \iftoggle{bbx:related}
1432   {\usebibmacro{related:init}%
1433     \usebibmacro{related}}
1434   {}%
1435 \setunit{\bibpagerefunct}\newblock
1436 \usebibmacro{pageref}%
1437 \usebibmacro{finentry}}

```

We also provide a bookinbook driver that handles origdate differently.

```

1438 \DeclareBibliographyDriver{bookinbook}{%
1439   \usebibmacro{bibindex}%
1440   \usebibmacro{begentry}%
1441   \usebibmacro{author/translator+others}%
1442   \setunit{\printdelim{nametitledelim}}\newblock
1443   \usebibmacro{title}%
1444   \setunit{\titlebyauthordelim}\newblock
1445   \usebibmacro{byauthor}%
1446   \newunit\newblock
1447   \usebibmacro{in:}%
1448   \usebibmacro{bybookauthor}%
1449   \newunit\newblock
1450   \usebibmacro{maintitle+booktitle}%
1451   \newunit
1452   \iffieldundef{maintitle}
1453     {\printfield{volume}%
1454       \printfield{part}}
1455     {}%
1456   \newunit\newblock
1457   \usebibmacro{byeditor+others}%
1458   \newunit\newblock
1459   \printfield{volumes}%
1460   \newunit\newblock
1461   \printfield{note}%
1462   \newunit\newblock
1463   \usebibmacro{series+number+edition+publisher+location+date}%
1464   \newunit\newblock
1465   \usebibmacro{chapter+pages}%
1466   \newunit\newblock
1467   \iftoggle{bbx:isbn}
1468     {\printfield{isbn}}
1469     {}%
1470   \newunit\newblock
1471   \usebibmacro{doi+eprint+url}%
1472   \newunit\newblock
1473   \usebibmacro{addendum+pubstate}%
1474   \iftoggle{bbx:related}

```

```

1475     {\usebibmacro{related:init}}%
1476     \usebibmacro{related}}
1477     {}%
1478     \setunit{\bibpagerefpunct}\newblock
1479     \usebibmacro{pageref}%
1480     \usebibmacro{finentry}}

```

Our collection driver modifies the standard one in just the same way as our book driver.

```

1481 \DeclareBibliographyDriver{collection}{%
1482   \usebibmacro{bibindex}%
1483   \usebibmacro{begentry}%
1484   \usebibmacro{editor+others}%
1485   \setunit{\printdelim{nametitledelim}}\newblock
1486   \usebibmacro{title}%
1487   \newunit\newblock
1488   \usebibmacro{byeditor+others}%
1489   \newunit\newblock
1490   \printfield{note}%
1491   \newunit\newblock
1492   \usebibmacro{maintitle+volume}%
1493   \newunit
1494   \usebibmacro{series+number+edition+publisher+location+date}%
1495   \newunit\newblock
1496   \usebibmacro{chapter+pages}%
1497   \newunit
1498   \printfield{pagetotal}%
1499   \newunit\newblock
1500   \iftoggle{bbx:isbn}
1501     {\printfield{isbn}}
1502     {}%
1503   \newunit\newblock
1504   \usebibmacro{doi+eprint+url}%
1505   \newunit\newblock
1506   \usebibmacro{addendum+pubstate}%
1507   \iftoggle{bbx:related}
1508     {\usebibmacro{related:init}}%
1509     \usebibmacro{related}}
1510     {}%
1511     \setunit{\bibpagerefpunct}\newblock
1512     \usebibmacro{pageref}%
1513     \usebibmacro{finentry}}

```

Our mvcollection driver modifies the standard collection driver in just the same way as our mvbook driver modifies the standard book.

```

1514 \DeclareBibliographyDriver{mvcollection}{%
1515   \usebibmacro{bibindex}%
1516   \usebibmacro{begentry}%
1517   \usebibmacro{editor+others}%
1518   \setunit{\printdelim{nametitledelim}}\newblock
1519   \usebibmacro{maintitle+title}%
1520   \newunit
1521   \ifboolexpr{
1522     test {\iffieldequalstr{relatedtype}{multivolume}}
1523     or
1524     ( not test {\iffieldundef{maintitle}} )
1525   }{}%
1526   \printfield{volume}%
1527   \printfield{part}}%
1528   \newunit\newblock

```

```

1529 \usebibmacro{byeditor+others}%
1530 \newunit\newblock
1531 \printfield{volumes}%
1532 \newunit\newblock
1533 \printfield{note}%
1534 \newunit\newblock
1535 \ifboolexpr{
1536   test {\iffieldequalstr{relatedtype}{multivolume}}
1537   and
1538   test {\iffieldundef{maintitle}}
1539 }{%
1540   \printfield{volume}%
1541   \printfield{part}%
1542 }{%
1543 \newunit\newblock
1544 \usebibmacro{series+number+edition+publisher+location+date}%
1545 \newunit\newblock
1546 \usebibmacro{chapter+pages}%
1547 \newunit
1548 \printfield{pagetotal}%
1549 \newunit\newblock
1550 \iftoggle{bbx:isbn}
1551   {\printfield{isbn}}
1552   {}%
1553 \newunit\newblock
1554 \usebibmacro{doi+eprint+url}%
1555 \newunit\newblock
1556 \usebibmacro{addendum+pubstate}%
1557 \iftoggle{bbx:related}
1558   {\usebibmacro{related:init}%
1559     \usebibmacro{related}}
1560   {}%
1561 \setunit{\bibpagerefunct}\newblock
1562 \usebibmacro{pageref}%
1563 \usebibmacro{finentry}}

```

Our incollection driver modifies the standard one in the same way as our mvbook driver modifies the standard book. In addition, the bookeditor macro precedes maintitle instead of byeditor+others following it.

```

1564 \DeclareBibliographyDriver{incollection}{%
1565   \usebibmacro{bibindex}%
1566   \usebibmacro{begentry}%
1567   \usebibmacro{author/translator+others}%
1568   \setunit{\printdelim{nametitledelim}}\newblock
1569   \usebibmacro{title}%
1570   \setunit{\titlebyauthordelim}\newblock
1571   \usebibmacro{byauthor}%
1572   \newunit\newblock
1573   \usebibmacro{in:}%
1574   \usebibmacro{bookeditor}%
1575   \newunit\newblock
1576   \usebibmacro{maintitle+booktitle}%
1577   \newunit
1578   \iffieldundef{maintitle}
1579     {\printfield{volume}%
1580       \printfield{part}}
1581     {}%
1582   \newunit\newblock
1583   \printfield{volumes}%
1584   \newunit\newblock

```



```

1585 \printfield{note}%
1586 \newunit\newblock%
1587 \usebibmacro{series+number+edition+publisher+location+date}%
1588 \newunit\newblock
1589 \usebibmacro{chapter+pages}%
1590 \newunit\newblock
1591 \iftoggle{bbx:isbn}
1592   {\printfield{isbn}}
1593   {}%
1594 \newunit\newblock
1595 \usebibmacro{doi+eprint+url}%
1596 \newunit\newblock
1597 \usebibmacro{addendum+pubstate}%
1598 \iftoggle{bbx:related}
1599   {\usebibmacro{related:init}%
1600    \usebibmacro{related}}
1601   {}%
1602 \setunit{\bibpagerefunct}\newblock
1603 \usebibmacro{pageref}%
1604 \usebibmacro{finentry}}

```

Our suppcollection driver is just like incollection except that the note is moved nearer the title so it can be used as a descriptor.

```

1605 \DeclareFieldFormat[suppcollection]{title}{%
1606   \def\currentfield{title}%
1607   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1608   \undef\currentfield}
1609 \DeclareBibliographyDriver{suppcollection}{%
1610   \usebibmacro{bibindex}%
1611   \usebibmacro{begentry}%
1612   \usebibmacro{author/translator+others}%
1613   \setunit{\printdelim{nametitledelim}}\newblock
1614   \usebibmacro{title}%
1615   \setunit{\titlebyauthor}\newblock
1616   \usebibmacro{byauthor}%
1617   \newunit\newblock
1618   \printfield{note}%
1619   \setunit{\addspace}\newblock
1620   \usebibmacro{in:}%
1621   \usebibmacro{bookeditor}%
1622   \newunit\newblock
1623   \usebibmacro{maintitle+booktitle}%
1624   \newunit
1625   \iffieldundef{maintitle}
1626     {\printfield{volume}%
1627      \printfield{part}}
1628     {}%
1629   \newunit\newblock
1630   \printfield{volumes}%
1631   \newunit\newblock%
1632   \usebibmacro{series+number+edition+publisher+location+date}%
1633   \newunit\newblock
1634   \usebibmacro{chapter+pages}%
1635   \newunit\newblock
1636   \iftoggle{bbx:isbn}
1637     {\printfield{isbn}}
1638     {}%
1639   \newunit\newblock
1640   \usebibmacro{doi+eprint+url}%
1641   \newunit\newblock

```

```

1642 \usebibmacro{addendum+pubstate}%
1643 \iftoggle{bbx:related}
1644   {\usebibmacro{related:init}%
1645    \usebibmacro{related}}
1646   {}%
1647 \setunit{\bibpagerefunct}\newblock
1648 \usebibmacro{pageref}%
1649 \usebibmacro{finentry}}

```

Unlike the standard styles, we provide a separate driver for reference. It is just like book except that edition is given directly after the title.

```

1650 \DeclareBibliographyDriver{reference}{%
1651   \usebibmacro{bibindex}%
1652   \usebibmacro{begentry}%
1653   \usebibmacro{author/editor+others/translator+others}%
1654   \setunit{\printdelim{nametitledelim}}\newblock
1655   \usebibmacro{title}%
1656   \newunit\newblock
1657   \printfield{edition}%
1658   \setunit{\titlebyauthordelim}\newblock
1659   \usebibmacro{byauthor}%
1660   \newunit\newblock
1661   \usebibmacro{byeditor+others}%
1662   \newunit\newblock
1663   \printfield{note}%
1664   \newunit\newblock
1665   \usebibmacro{maintitle+volume}%
1666   \newunit
1667   \usebibmacro{series+number+publisher+location+date}%
1668   \newunit\newblock
1669   \usebibmacro{chapter+pages}%
1670   \newunit
1671   \printfield{pagetotal}%
1672   \newunit\newblock
1673   \iftoggle{bbx:isbn}
1674     {\printfield{isbn}}
1675     {}%
1676   \newunit\newblock
1677   \usebibmacro{doi+eprint+url}%
1678   \newunit\newblock
1679   \usebibmacro{addendum+pubstate}%
1680   \iftoggle{bbx:related}
1681     {\usebibmacro{related:init}%
1682      \usebibmacro{related}}
1683     {}%
1684   \setunit{\bibpagerefunct}\newblock
1685   \usebibmacro{pageref}%
1686   \usebibmacro{finentry}}

```

Similarly, mvreference is just like mvbook except that edition is given directly after the title.

```

1687 \DeclareBibliographyDriver{mvreference}{%
1688   \usebibmacro{bibindex}%
1689   \usebibmacro{begentry}%
1690   \usebibmacro{author/editor+others/translator+others}%
1691   \setunit{\printdelim{nametitledelim}}\newblock
1692   \usebibmacro{maintitle+title}%
1693   \newunit
1694   \ifboolexpr{
1695     test {\iffieldequalstr{relatedtype}{multivolume}}

```

```

1696     or
1697     ( not test {\iffieldundef{maintitle}} )
1698   }{%
1699     \printfield{volume}%
1700     \printfield{part}%
1701   \newunit\newblock
1702   \printfield{edition}%
1703   \setunit{\titlebyauthordelim}\newblock
1704   \usebibmacro{byauthor}%
1705   \newunit\newblock
1706   \usebibmacro{byeditor+others}%
1707   \newunit\newblock
1708   \printfield{volumes}%
1709   \newunit\newblock
1710   \printfield{note}%
1711   \newunit\newblock
1712   \ifboolexpr{
1713     test {\iffieldequalstr{relatedtype}{multivolume}}
1714     and
1715     test {\iffieldundef{maintitle}}
1716   }{%
1717     \printfield{volume}%
1718     \printfield{part}%
1719   }{%
1720   \newunit\newblock
1721   \usebibmacro{series+number+publisher+location+date}%
1722   \newunit\newblock
1723   \usebibmacro{chapter+pages}%
1724   \newunit
1725   \printfield{pagetotal}%
1726   \newunit\newblock
1727   \iftoggle{bbx:isbn}
1728     {\printfield{isbn}}
1729     {}%
1730   \newunit\newblock
1731   \usebibmacro{doi+eprint+url}%
1732   \newunit\newblock
1733   \usebibmacro{addendum+pubstate}%
1734   \iftoggle{bbx:related}
1735     {\usebibmacro{related:init}%
1736      \usebibmacro{related}}
1737     {}%
1738   \setunit{\bibpagerefpunct}\newblock
1739   \usebibmacro{pageref}%
1740   \usebibmacro{finentry}}

```

Our inference driver is just like inbook except bookeditor replaces bybookauthor and edition is given just before byeditor+others.

```

1741 \DeclareBibliographyDriver{inference}{%
1742   \usebibmacro{bibindex}%
1743   \usebibmacro{begentry}%
1744   \usebibmacro{author/translator+others}%
1745   \setunit{\printdelim{nametitledelim}}\newblock
1746   \usebibmacro{title}%
1747   \setunit{\titlebyauthordelim}\newblock
1748   \usebibmacro{byauthor}%
1749   \newunit\newblock
1750   \iffieldundef{editor}}{%
1751     \usebibmacro{in:}%
1752     \usebibmacro{bookeditor}%

```

```

1753     \newunit\newblock}%
1754     \usebibmacro{maintitle+booktitle}%
1755     \newunit
1756     \iffieldundef{maintitle}
1757       {\printfield{volume}%
1758        \printfield{part}}
1759       {}%
1760     \newunit\newblock
1761     \printfield{edition}%
1762     \newunit
1763     \usebibmacro{byeditor+others}%
1764     \newunit\newblock
1765     \printfield{volumes}%
1766     \newunit\newblock
1767     \printfield{note}%
1768     \newunit\newblock%
1769     \usebibmacro{series+number+publisher+location+date}%
1770     \newunit\newblock
1771     \usebibmacro{chapter+pages}%
1772     \newunit
1773     \printfield{pagetotal}%
1774     \newunit\newblock
1775     \iftoggle{bbx:isbn}
1776       {\printfield{isbn}}
1777       {}%
1778     \newunit\newblock
1779     \usebibmacro{doi+eprint+url}%
1780     \newunit\newblock
1781     \usebibmacro{addendum+pubstate}%
1782     \iftoggle{bbx:related}
1783       {\usebibmacro{related:init}%
1784        \usebibmacro{related}}
1785       {}%
1786     \setunit{\bibpagerefunct}\newblock
1787     \usebibmacro{pageref}%
1788     \usebibmacro{finentry}}

```

2.1.11 WORKS PRESENTED AT MEETINGS

By default, editors do not appear before the title in proceedings entries.

```

1789     \ExecuteBibliographyOptions[proceedings,mvproceedings]{useeditor=false,usetranslator=false}

```

In our version of the event+venue+date macro, the venue and date are set off with commas respectively instead of parentheses.

```

1790     \renewbibmacro*{event+venue+date}{%
1791       \printfield{eventtitle}%
1792       \newunit
1793       \printfield{eventtitleaddon}%
1794       \newunit
1795       \printfield{venue}%
1796       \newunit%
1797       \printeventdate%
1798       \newunit}

```

The changes to the proceedings driver compared to the standard style are as follows:

- We support the concept of an author before the title, which is usually the organization;
- editor comes after the title, not before;

- volume/part is processed just after maintitle+title;
- note is moved to before series;
- series to date information is delegated to a separate macro;

As in the (inherited) standard style, mvproceedings is an alias for this driver, since it is unlikely that the proceedings of a single meeting will be split into long series of independently published volumes!

```

1799 \DeclareBibliographyDriver{proceedings}{%
1800   \usebibmacro{bibindex}%
1801   \usebibmacro{begentry}%
1802   \usebibmacro{author}%
1803   \newunit
1804   \usebibmacro{maintitle+title}%
1805   \newunit
1806   \iffieldundef{maintitle}
1807     {\printfield{volume}%
1808      \printfield{part}}
1809     {}%
1810   \newunit\newblock
1811   \usebibmacro{event+venue+date}%
1812   \newunit\newblock
1813   \usebibmacro{byeditor+others}%
1814   \newunit\newblock
1815   \printfield{volumes}%
1816   \newunit\newblock
1817   \printfield{note}%
1818   \newunit\newblock
1819   \printlist{organization}%
1820   \newunit
1821   \usebibmacro{series+number+edition+publisher+location+date}%
1822   \newunit\newblock
1823   \usebibmacro{chapter+pages}%
1824   \newunit
1825   \printfield{pagetotal}%
1826   \newunit\newblock
1827   \iftoggle{bbx:isbn}
1828     {\printfield{isbn}}
1829     {}%
1830   \newunit\newblock
1831   \usebibmacro{doi+eprint+url}%
1832   \newunit\newblock
1833   \usebibmacro{addendum+pubstate}%
1834   \iftoggle{bbx:related}
1835     {\usebibmacro{related:init}%
1836      \usebibmacro{related}}
1837     {}%
1838   \setunit{\bibpagerefunct}\newblock
1839   \usebibmacro{pageref}%
1840   \usebibmacro{finentry}}

```

Our inproceedings driver modifies the standard one in the same way as our proceedings driver modifies the standard one.

```

1841 \DeclareBibliographyDriver{inproceedings}{%
1842   \usebibmacro{bibindex}%
1843   \usebibmacro{begentry}%
1844   \usebibmacro{author/translator+others}%
1845   \setunit{\printdelim{nametitledelim}}\newblock
1846   \usebibmacro{title}%
1847   \setunit{\titlebyauthor\delim}\newblock

```

```

1848 \usebibmacro{byauthor}%
1849 \newunit\newblock
1850 \usebibmacro{in:}%
1851 \usebibmacro{maintitle+booktitle}%
1852 \newunit
1853 \iffieldundef{maintitle}
1854   {\printfield{volume}%
1855    \printfield{part}}
1856   {}%
1857 \newunit\newblock
1858 \usebibmacro{event+venue+date}%
1859 \newunit\newblock
1860 \usebibmacro{byeditor+others}%
1861 \newunit\newblock
1862 \printfield{volumes}%
1863 \newunit\newblock
1864 \printfield{note}%
1865 \newunit\newblock
1866 \printlist{organization}%
1867 \newunit
1868 \usebibmacro{series+number+publisher+location+date}%
1869 \newunit\newblock
1870 \usebibmacro{chapter+pages}%
1871 \newunit\newblock
1872 \iftoggle{bbx:isbn}
1873   {\printfield{isbn}}
1874   {}%
1875 \newunit\newblock
1876 \usebibmacro{doi+eprint+url}%
1877 \newunit\newblock
1878 \usebibmacro{addendum+pubstate}%
1879 \iftoggle{bbx:related}
1880   {\usebibmacro{related:init}%
1881    \usebibmacro{related}}
1882   {}%
1883 \setunit{\bibpagerefunct}\newblock
1884 \usebibmacro{pageref}%
1885 \usebibmacro{finentry}}

```

2.1.12 GREY LITERATURE

We provide a macro for handling type+number. We provide some extra logic to insert ‘No.’ before the number if there is no type.

```

1886 \newbibmacro*{series+type+number}{%
1887 \ifboolexpr{
1888   test {\iffieldundef{series}}
1889   and
1890   test {\iffieldundef{type}}
1891 }{ }{%
1892   \printfield{series}%
1893   \newunit
1894   \ifboolexpr{
1895     test {\iffieldundef{type}}
1896     and
1897     not test {\iffieldundef{number}}
1898   }{ }%
1899   \bibcpstring{number}
1900 }{ }%
1901   \printfield{type}%

```

```

1902 }%
1903 \setunit*{\addspace}%
1904 \printfield{number}}

```

Our version of the `institution+location+date` macro is just like the standard one except it is wrapped in parentheses, and the preceding punctuation is therefore suppressed. This is used by the report driver.

```

1905 \renewbibmacro*{institution+location+date}{%
1906 \ifboolexpr{
1907 ( test {\iffieldundef{number}}
1908 or
1909 not test {\iffieldundef{type}}
1910 or
1911 not test {\iffieldundef{series}}
1912 )
1913 and
1914 test {\iflistundef{institution}}
1915 and
1916 test {\iflistundef{location}}
1917 and
1918 test {\iffieldundef{year}}
1919 and
1920 test {\iffieldundef{season}}
1921 and
1922 test {\iffieldundef{month}}
1923 }){%
1924 \nopunct
1925 \printtext[publication]{%
1926 \ifboolexpr{
1927 test {\iffieldundef{series}}
1928 and
1929 test {\iffieldundef{type}}
1930 }){%
1931 \printfield{number}%
1932 \setunit*{\addcomma\space}%
1933 }){%
1934 \printlist{location}%
1935 \iflistundef{institution}%
1936 {\setunit*{\addcomma\space}}%
1937 {\setunit*{\addcolon\space}}%
1938 \printlist{institution}%
1939 \setunit*{\addcomma\space}%
1940 \usebibmacro{date}}}}

```

We provide a slightly more complicated version with the type included at the beginning. It is used by the thesis driver. We provide two versions: one with the type outside and one with it inside the parentheses.

```

1941 \newtoggle{blx@ox@altthesis}
1942 \newtoggle{blx@ox@plainthesis}
1943 \DeclareFieldAlias{thesis:publication}{publication}
1944 \DeclareFieldFormat{plain}{#1}
1945 \DeclareBibliographyOption{altthesis}[true]{%
1946 \settoggle{blx@ox@altthesis}{#1}
1947 }
1948 \DeclareBibliographyOption[string]{thesis}[out]{%
1949 \ifstrequal{#1}{plain}{%
1950 \toggletrue{blx@ox@altthesis}%
1951 \toggletrue{blx@ox@plainthesis}%

```

```

1952     \DeclareFieldAlias{thesis:publication}{plain}%
1953   }{%
1954     \togglefalse{blx@ox@plainthesis}%
1955     \DeclareFieldAlias{thesis:publication}{publication}%
1956     \ifstrequal{#1}{in}{%
1957       \toggletrue{blx@ox@altthesis}%
1958     }{%
1959       \togglefalse{blx@ox@altthesis}%
1960       \ifstrequal{#1}{out}{}{%
1961         \PackageError{biblatex-oxref}
1962           {Invalid option 'bookseries=#1'}
1963           {Valid values are 'in', 'out', and 'plain'.}}}}
1964   \newbibmacro*{type+institution+location+date}{%
1965     \iftoggle{blx@ox@altthesis}{%
1966       \ifboolexpr{
1967         test {\iffieldundef{type}}
1968         and
1969         test {\iflistundef{institution}}
1970         and
1971         test {\iflistundef{location}}
1972         and
1973         test {\iffieldundef{year}}
1974         and
1975         test {\iffieldundef{season}}
1976         and
1977         test {\iffieldundef{month}}
1978       }{}{%
1979         \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
1980         \printtext[thesis:publication]{%
1981           \printfield{type}%
1982           \setunit*{\addcomma\space}%
1983           \printlist{location}%
1984           \iflistundef{institution}{%
1985             \setunit*{\addcomma\space}%
1986           }{%
1987             \setunit*{\addcolon\space}}%
1988           \printlist{institution}%
1989           \setunit*{\addcomma\space}%
1990           \usebibmacro{date}}
1991     }{%
1992       \printfield{type}%
1993       \newunit
1994       \usebibmacro{institution+location+date}}

```

We provide an even more convoluted version that also includes series, title and number, and uses the more common publisher in place of institution. We also include some logic that means organization is used instead of publisher if no publisher is provided; otherwise it is printed before location. This is used by the manual driver.

```

1995   \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
1996     \ifboolexpr{
1997       test {\iffieldundef{type}}
1998       and
1999       test {\iffieldundef{series}}
2000       and
2001       test {\iffieldundef{number}}
2002       and
2003       test {\iffieldundef{edition}}
2004       and
2005       test {\iflistundef{organization}}
2006       and

```



```

2007     test {\iflistundef{publisher}}
2008     and
2009     test {\iflistundef{location}}
2010     and
2011     test {\iffieldundef{year}}
2012     and
2013     test {\iffieldundef{season}}
2014     and
2015     test {\iffieldundef{month}}
2016   }}{%
2017     \nopunct
2018     \printtext[publication]{%
2019       \usebibmacro{series+type+number}%
2020       \setunit{\addsemicolon\space}%
2021       \printfield{edition}%
2022       \setunit*{\addcomma\space}%
2023       \iflistundef{publisher}{%
2024         \printlist{organization}%
2025         \setunit*{\addcomma\space}}%
2026       \printlist{location}%
2027       \iflistundef{publisher}{%
2028         \iflistundef{organization}{%
2029           \setunit*{\addcomma\space}%
2030         }%
2031         \setunit*{\addcolon\space}%
2032         \printlist{organization}}%
2033     }{%
2034       \setunit*{\addcolon\space}%
2035       \printlist{publisher}}%
2036     \setunit*{\addcomma\space}%
2037     \usebibmacro{date}}}}

```

The changes to the report driver compared to the standard style are as follows:

- support is added for volume, maintitle and series;
- type and number are moved to just before the publication information block;
- the punctuation is slightly different for the legal entry subtype.

```

2038   \newcommand*{\legreport}{legal}
2039   \DeclareBibliographyDriver{report}{%
2040     \usebibmacro{bibindex}%
2041     \usebibmacro{begentry}%
2042     \usebibmacro{author}%
2043     \setunit{\printdelim{nametitledelim}}\newblock
2044     \usebibmacro{maintitle+title}%
2045     \newunit
2046     \iffieldundef{maintitle}
2047       {\printfield{volume}%
2048        \printfield{part}}
2049     {}%
2050     \setunit{\titlebyauthordelim}\newblock
2051     \usebibmacro{byauthor}%
2052     \newunit\newblock
2053     \printfield{version}%
2054     \newunit\newblock
2055     \printfield{note}%
2056     \newunit\newblock
2057     \usebibmacro{series+type+number}%
2058     \setunit{\addspace}%
2059     \usebibmacro{institution+location+date}%

```

```

2060 \iffieldequals{entrysubtype}{\legreport}
2061   {\setunit{\addspace}\nopunct}
2062   {\newunit\newblock}%
2063 \usebibmacro{chapter+pages}%
2064 \newunit
2065 \printfield{pagetotal}%
2066 \newunit\newblock
2067 \iftoggle{bbx:isbn}
2068   {\printfield{isrn}}
2069   {}%
2070 \newunit\newblock
2071 \usebibmacro{doi+eprint+url}%
2072 \newunit\newblock
2073 \usebibmacro{addendum+pubstate}%
2074 \iftoggle{bbx:related}
2075   {\usebibmacro{related:init}%
2076    \usebibmacro{related}}
2077   {}%
2078 \setunit{\bibpagerefpunct}\newblock
2079 \usebibmacro{pageref}%
2080 \usebibmacro{finentry}}

```

We patch the thesis driver to use our slightly more complex version.

```

2081 \xpatchbibdriver{thesis}{%
2082   \printfield{type}%
2083   \newunit
2084   \usebibmacro{institution+location+date}%
2085 }{%
2086   \usebibmacro{type+institution+location+date}%
2087 }{\wlog{WARNING: biblatex-oxref failed to patch thesis}}

```

We give booklet entries descriptor support.

```

2088 \DeclareFieldFormat[booklet]{title}{%
2089   \def\currentfield{title}%
2090   \iffieldannotation{descriptor}{#1}{%
2091     \mkbibquote{#1\isdot}}%
2092   \undef\currentfield}

```

With patents, the titles are italic and the patent type is not abbreviated.

```

2093 \DeclareFieldFormat[patent]{title}{\mkbibemph{#1}}
2094 \DeclareFieldFormat[patent]{type}{\ifbibstring{#1}{\biblstring{#1}}{#1}}

```

The holder, origdate and date fields have explicit signposting; the latter two use origdatetype and datetype, with some sensible defaults.

```

2095 \DeclareNameAlias{byholder}{default}
2096 \renewbibmacro*{byholder}{%
2097   \ifnameundef{holder}{}{%
2098     \bibstring{byholder}%
2099     \setunit{\addspace}%
2100     \printnames[byholder]{holder}}
2101 \newbibmacro*{location+dates}{%
2102   \ifboolexpr{
2103     test {\iffieldundef{location}}
2104     and
2105     test {\iffieldundef{origyear}}

```

```

2106     and
2107     test {\iffieldundef{origmonth}}
2108     and
2109     test {\iffieldundef{year}}
2110     and
2111     test {\iffieldundef{month}}
2112   }{}{%
2113     \nopunct
2114     \printtext[publication]{%
2115       \printlist[][-\value{listtotal}]{location}%
2116       \setunit*{\addcomma\space}%
2117       \ifboolexpr{
2118         test {\iffieldundef{origyear}}
2119         and
2120         test {\iffieldundef{origmonth}}
2121       }{}{%
2122         \iffieldundef{origdatetype}{%
2123           \bibstring{filed}
2124         }{
2125           \printfield{origdatetype}}%
2126         \setunit*{\addspace}}%
2127       \usebibmacro{origdate+time}%
2128       \setunit*{\addcomma\space}%
2129       \ifboolexpr{
2130         test {\iffieldundef{year}}
2131         and
2132         test {\iffieldundef{month}}
2133       }{}{%
2134         \iffieldundef{datetype}{%
2135           \bibstring{issued}%
2136         }{
2137           \printfield{datetype}}%
2138         \setunit*{\addspace}}%
2139       \usebibmacro{date}}}}

```

The patent driver differs from the regular one by having note moved further forward, and having a publication block consisting of location, origdate and date.

```

2140   \DeclareBibliographyDriver{patent}{%
2141     \usebibmacro{bibindex}%
2142     \usebibmacro{begentry}%
2143     \usebibmacro{author}%
2144     \setunit{\printdelim{nametitledelim}}\newblock
2145     \usebibmacro{title}%
2146     \newunit
2147     \printlist{language}%
2148     \setunit{\titlebyauthor\delim}\newblock
2149     \usebibmacro{byauthor}%
2150     \newunit\newblock
2151     \printfield{note}%
2152     \newunit\newblock
2153     \printfield{type}%
2154     \setunit*{\addspace}%
2155     \printfield{number}%
2156     \newunit\newblock
2157     \usebibmacro{byholder}%
2158     \newunit\newblock
2159     \usebibmacro{location+dates}%
2160     \newunit\newblock
2161     \usebibmacro{doi+eprint+url}%
2162     \newunit\newblock

```

```

2163 \usebibmacro{addendum+pubstate}%
2164 \iftoggle{bbx:related}
2165   {\usebibmacro{related:init}%
2166    \usebibmacro{related}}
2167   {}%
2168 \setunit{\bibpagerefunct}\newblock
2169 \usebibmacro{pageref}%
2170 \usebibmacro{finentry}}

```

Direct use of the manual entry type is not encouraged, but it serves as a basis for other entry types, notably standards, and software. The main change to the manual driver compared to the standard style is that type, series, number, edition and organization are moved into the publication information block with publisher, location and date. Note that standards will put the number field at the head of the reference if there is no author.

```

2171 \DeclareBibliographyDriver{manual}{%
2172   \usebibmacro{bibindex}%
2173   \usebibmacro{begentry}%
2174   \ifboolexpr{
2175     test {\ifentrytype{standard}}
2176     and
2177     ( test {\ifnameundef{author}}
2178       or
2179       not test \ifuseauthor )
2180     and
2181     not test {\iffieldundef{number}}
2182   }{%
2183     \printfield{number}\clearfield{number}%
2184     \newunit\newblock
2185   }{%
2186     \usebibmacro{author/editor}%
2187     \setunit{\printdelim{nametitledelim}}\newblock
2188     \ifentrytype{software}
2189       {\usebibmacro{title+version}}
2190       {\usebibmacro{title}}%
2191     \setunit{\titlebyauthordelim}\newblock
2192     \usebibmacro{byauthor}%
2193     \newunit\newblock
2194     \usebibmacro{byeditor}%
2195     \newunit
2196     \ifentrytype{software}
2197       {}
2198       {\newunit\printfield{version}}%
2199     \newunit
2200     \printfield{note}%
2201     \newunit\newblock
2202     \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2203     \newunit\newblock
2204     \usebibmacro{chapter+pages}%
2205     \newunit
2206     \printfield{pagetotal}%
2207     \newunit\newblock
2208     \iftoggle{bbx:isbn}
2209       {\printfield{isbn}}
2210       {}%
2211     \newunit\newblock
2212     \usebibmacro{doi+eprint+url}%
2213     \newunit\newblock
2214     \usebibmacro{addendum+pubstate}%
2215     \iftoggle{bbx:related}
2216       {\usebibmacro{related:init}}%

```

```

2217     \usebibmacro{related}}
2218     {}%
2219     \setunit{\bibpagerefpunct}\newblock
2220     \usebibmacro{pageref}%
2221     \usebibmacro{finentry}}
2222     \DeclareBibliographyAlias{standard}{manual}
2223     \ExecuteBibliographyOptions[standard]{useeditor=false}

```

2.1.13 AUDIOVISUAL MATERIALS

The publication block for audiovisual resources is quite different from the normal, as the type, series and number come between the publisher and date. The punctuation or otherwise between elements depends on the combination present. The date and time of recording is given before the block if a number is provided (indicating a published recording) but within it otherwise.

```

2224     \newbibmacro*{publisher+type+series+number+date}{%
2225     \iffieldundef{number}}{%
2226     \setunit{\addcomma\space}%
2227     \usebibmacro{origdate+time}%
2228     }%
2229     \ifboolexpr{%
2230     test {\iflistundef{origpublisher}}
2231     and
2232     test {\iflistundef{location}}
2233     and
2234     test {\iflistundef{publisher}}
2235     and
2236     test {\iffieldundef{type}}
2237     and
2238     test {\iffieldundef{series}}
2239     and
2240     test {\iffieldundef{number}}
2241     and
2242     test {\iffieldundef{year}}
2243     and
2244     test {\iffieldundef{season}}
2245     and
2246     test {\iffieldundef{month}}
2247     and
2248     test {\iffieldundef{origyear}}
2249     and
2250     test {\iffieldundef{origseason}}
2251     and
2252     test {\iffieldundef{origmonth}}
2253     and
2254     test {\iffieldundef{hour}}
2255     }{%
2256     \nopunct
2257     \printtext[publication]{%
2258     \printlist{origpublisher}%
2259     \setunit*{\addsemicolon\space}%
2260     \printlist{location}%
2261     \iflistundef{publisher}%
2262     {\setunit*{\addcomma\space}}%
2263     {\setunit*{\addcolon\space}}%
2264     \printlist{publisher}%
2265     \iffieldundef{series}%
2266     {\setunit*{\addspace}}%
2267     {\setunit*{\recordseriespunct}}%
2268     \printfield{series}%

```

```

2269     \setunit*{\addcomma\space}%
2270     \printfield{type}%
2271     \iflistundef{publisher}%
2272         {\setunit*{\addcomma\space}}%
2273         {\setunit*{\addspace}}%
2274     \printfield{number}%
2275     \iffieldundef{number}{%
2276         \setunit{\addcomma\space}%
2277         \usebibmacro{origdate+time}%
2278     }{}%
2279     \setunit{\addcomma\space}%
2280     \usebibmacro{date+time}}}}

```

We provide the `endeditor` option to determine if credits should be placed before or after the publication block.

```

2281     \newtoggle{blx@ox@endeditor}
2282     \DeclareEntryOption{endeditor}[true]{%
2283         \settoggle{blx@ox@endeditor}{#1}}
2284     \newbibmacro*{pre-byeditor+others}{%
2285         \iftoggle{blx@ox@endeditor}{%
2286             \usebibmacro{byeditor+others}%
2287         }%
2288     }
2289     \newbibmacro*{post-byeditor+others}{%
2290         \iftoggle{blx@ox@endeditor}{%
2291             \usebibmacro{byeditor+others}%
2292         }%
2293     }

```

We provide a specialist audio driver. It borrows elements from the book and online drivers, and incorporates the above variations.

```

2292     \DeclareBibliographyDriver{audio}{%
2293         \usebibmacro{bibindex}%
2294         \usebibmacro{begentry}%
2295         \usebibmacro{author}%
2296         \setunit{\printdelim{nametitledelim}}\newblock
2297         \usebibmacro{title}%
2298         \newunit
2299         \usebibmacro{maintitle}%
2300         \iffieldequalstr{relatedtype}{includes}{%
2301             \iftoggle{bbx:related}{%
2302                 \newunit\newblock
2303                 \usebibmacro{related:init}%
2304                 \usebibmacro{related}%
2305                 \clearfield{related}%
2306             }{}%
2307         }{}%
2308         \setunit{\addspace}
2309         \usebibmacro{onlinetype}%
2310         \setunit{\titlebyauthordelim}\newblock
2311         \usebibmacro{byauthor}%
2312         \newunit\newblock
2313         \usebibmacro{pre-byeditor+others}%
2314         \newunit\newblock
2315         \printfield{volumes}%
2316         \newunit\newblock
2317         \printfield{note}%
2318         \newunit\newblock%
2319         \printlist{organization}%
2320         \newunit\newblock%

```

```

2321 \usebibmacro{publisher+type+series+number+date}%
2322 \setunit{\addspace}%
2323 \printfield{howpublished}%
2324 \newunit\newblock
2325 \usebibmacro{post-byeditor+others}%
2326 \newunit\newblock
2327 \iftoggle{bbx:isbn}
2328   {\printfield{isbn}}
2329   {}%
2330 \newunit\newblock
2331 \usebibmacro{doi+eprint+url}%
2332 \newunit\newblock
2333 \usebibmacro{addendum+pubstate}%
2334 \iftoggle{bbx:related}
2335   {\usebibmacro{related:init}%
2336     \usebibmacro{related}}
2337   {}%
2338 \setunit{\bibpagerefunct}\newblock
2339 \usebibmacro{pageref}%
2340 \usebibmacro{finentry}}

```

The same driver will do very well for music, video and movie.

```

2341 \DeclareBibliographyAlias{music}{audio}
2342 \DeclareBibliographyAlias{movie}{audio}
2343 \DeclareBibliographyAlias{video}{audio}

```

In parallel with book-like entries, we provide an inaudio driver for citing tracks from an album.

```

2344 \DeclareBibliographyDriver{inaudio}{%
2345   \usebibmacro{bibindex}%
2346   \usebibmacro{begentry}%
2347   \usebibmacro{author}%
2348   \setunit{\printdelim{nametitledelim}}\newblock
2349   \usebibmacro{title}%
2350   \setunit{\titlebyauthordelim}\newblock
2351   \usebibmacro{byauthor}%
2352   \newunit\newblock
2353   \usebibmacro{in:}%
2354   \usebibmacro{bybookauthor}%
2355   \newunit\newblock
2356   \usebibmacro{maintitle+booktitle}%
2357   \iffieldequalstr{relatedtype}{includes}{%
2358     \iftoggle{bbx:related}{%
2359       \newunit\newblock
2360       \usebibmacro{related:init}%
2361       \usebibmacro{related}%
2362       \clearfield{related}%
2363     }{}%
2364   }{}%
2365   \setunit{\addspace}
2366   \usebibmacro{onlinetype}%
2367   \newunit\newblock
2368   \usebibmacro{pre-byeditor+others}%
2369   \newunit\newblock
2370   \printfield{volumes}%
2371   \newunit\newblock
2372   \printfield{note}%
2373   \newunit\newblock%
2374   \printlist{organization}%
2375   \newunit\newblock%

```

```

2376 \usebibmacro{publisher+type+series+number+date}%
2377 \setunit{\addspace}%
2378 \printfield{howpublished}%
2379 \newunit\newblock
2380 \usebibmacro{post-byeditor+others}%
2381 \newunit\newblock
2382 \iftoggle{bbx:isbn}
2383   {\printfield{isbn}}
2384   {}%
2385 \newunit\newblock
2386 \usebibmacro{doi+eprint+url}%
2387 \newunit\newblock
2388 \usebibmacro{addendum+pubstate}%
2389 \iftoggle{bbx:related}
2390   {\usebibmacro{related:init}%
2391     \usebibmacro{related}}
2392   {}%
2393 \setunit{\bibpagerefunct}\newblock
2394 \usebibmacro{pageref}%
2395 \usebibmacro{finentry}}

```

The same driver will do very well for `inmusic`, `invideo` and `inmovie`. The latter two are for completeness but probably not useful.

```

2396 \DeclareBibliographyAlias{inmusic}{inaudio}
2397 \DeclareBibliographyAlias{inmovie}{inaudio}
2398 \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.

```

2399 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2400   \inherit{title}{booktitle}
2401   \inherit{subtitle}{booksubtitle}
2402   \inherit{titleaddon}{booktitleaddon}
2403   \noinherit{shorttitle}
2404   \noinherit{sorttitle}
2405   \noinherit{indextitle}
2406   \noinherit{indexsorttitle}
2407 }

```

Titles for videos do not have a consistent format, so we define some `entrysubtype`-based variation. We also allow the use of descriptors; note that the title is transformed into a descriptor by means of an annotation, rather than using a dedicated field. This greatly simplifies the code used elsewhere.

```

2408 \DeclareFieldFormat{audio,music}{title}{%
2409   \def\currentfield{title}%
2410   \iffielddescription{descriptor}{#1}{%
2411     \iffieldequalstr{entrysubtype}{podcast}{%
2412       \mkbibquote{#1\isdot}%
2413     }%
2414     \mkbibemph{#1}}}%
2415 \undef\currentfield}
2416 \DeclareFieldFormat{movie,video}{title}{%
2417   \def\currentfield{title}%
2418   \iffielddescription{descriptor}{#1}{%
2419     \ifboolexpr{
2420       test {\iffieldequalstr{entrysubtype}{episode}}
2421       or
2422       test {\iffieldequalstr{entrysubtype}{clip}}

```



```

2423     or
2424     test {\iffieldequalstr{entrysubtype}{webcast}}
2425   }{%
2426     \mkbibquote{#1\isdot}%
2427   }{%
2428     \mkbibemph{#1}}}%
2429   \undef\currentfield}
2430 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2431   \def\currentfield{title}%
2432   \iffieldannotation{descriptor}{#1}{%
2433     \mkbibquote{#1\isdot}%
2434   }%
2435   \undef\currentfield}
2436 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2437   \def\currentfield{booktitle}%
2438   \iffieldannotation{descriptor}{#1}{%
2439     \iffieldequalstr{entrysubtype}{podcast}{%
2440       \mkbibquote{#1\isdot}%
2441     }%
2442     \mkbibemph{#1}}}%
2443   \undef\currentfield}
2444 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2445   \def\currentfield{booktitle}%
2446   \iffieldannotation{descriptor}{#1}{%
2447     \ifboolexpr{
2448       test {\iffieldequalstr{entrysubtype}{episode}}
2449       or
2450       test {\iffieldequalstr{entrysubtype}{clip}}
2451       or
2452       test {\iffieldequalstr{entrysubtype}{webcast}}
2453     }{%
2454       \mkbibquote{#1\isdot}%
2455     }%
2456     \mkbibemph{#1}}}%
2457   \undef\currentfield}

```

The performance driver is similar to the audio driver, but instead of a publication block, it displays a set of event-related fields. With a bit of generosity, it can also work for artworks and images.

```

2458 \DeclareBibliographyDriver{performance}{%
2459   \usebibmacro{bibindex}%
2460   \usebibmacro{begentry}%
2461   \usebibmacro{author}%
2462   \setunit{\printdelim{nametitledelim}}\newblock
2463   \usebibmacro{title}%
2464   \newunit
2465   \usebibmacro{maintitle}%
2466   \iffieldequalstr{relatedtype}{includes}{%
2467     \iftoggle{bbx:related}{%
2468       \newunit\newblock
2469       \usebibmacro{related:init}%
2470       \usebibmacro{related}%
2471       \clearfield{related}%
2472     }{}%
2473   }{}%
2474   \setunit{\addspace}
2475   \usebibmacro{onlinetype}%
2476   \setunit{\titlebyauthor}\newblock
2477   \usebibmacro{byauthor}%
2478   \newunit\newblock
2479   \usebibmacro{pre-byeditor+others}%

```

```

2480 \setunit{\addspace}%
2481 \printfield{howpublished}%
2482 \newunit\newblock
2483 \printfield{type}%
2484 \newunit\newblock
2485 \printfield{note}%
2486 \ifboolexpr{
2487   test {\iffieldundef{origyear}}
2488   and
2489   test {\iffieldundef{origmonth}}
2490 }{}{
2491   \setunit{\addspace}\newblock
2492   \printtext[publication]{\usebibmacro{origdate+time}}
2493 \newunit\newblock
2494 \usebibmacro{event+venue+location+date}%
2495 \newunit\newblock
2496 \usebibmacro{post-byeditor+others}%
2497 \newunit\newblock
2498 \printlist{organization}%
2499 \newunit\newblock
2500 \iftoggle{bbx:isbn}
2501   {\printfield{isbn}}
2502   {}%
2503 \newunit\newblock
2504 \usebibmacro{doi+eprint+url}%
2505 \newunit\newblock
2506 \usebibmacro{addendum+pubstate}%
2507 \iftoggle{bbx:related}
2508   {\usebibmacro{related:init}%
2509     \usebibmacro{related}}
2510   {}%
2511 \setunit{\bibpagerefpunct}\newblock
2512 \usebibmacro{pageref}%
2513 \usebibmacro{finentry}}
2514 \DeclareBibliographyAlias{image}{performance}
2515 \DeclareBibliographyAlias{artwork}{performance}

```

Here is the macro used for printing the event location and date for performances and exhibitions.

```

2516 \newbibmacro*{event+venue+location+date}{%
2517   \printfield{eventtitle}%
2518   \newunit
2519   \printfield{eventtitleaddon}%
2520   \newunit
2521   \printlist{institution}%
2522   \newunit
2523   \printfield{venue}%
2524   \newunit
2525   \printlist{location}%
2526   \newunit%
2527   \ifboolexpr{
2528     test {\iffieldundef{year}}
2529     and
2530     test {\iffieldundef{month}}
2531   }{\printeventdate}{\usebibmacro{date+time}}

```

2.1.14 DIGITAL MEDIA

Website articles and social media

The titles of web pages and similar intrinsically online resources are written in roman text within quotes.

```
2532 \DeclareFieldFormat[online,image]{title}{%
2533 \def\currentfield{title}%
2534 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2535 \undef\currentfield}
```

We provide an onlinetype macro for clarifying the type of online material. It is triggered by appropriate values of entrysubtype.

```
2536 \newbibmacro*{onlinetype}{%
2537 \ifboolexpr{
2538 test {\iffieldundef{url}}
2539 or
2540 test {\iffieldundef{entrysubtype}}
2541 }{}{%
2542 \ifbibxstring{\thefield{entrysubtype}}{%
2543 \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2544 }{}}
```

The changes to the onLine driver compared to the standard style are as follows:

- We support the use of maintitle for, say, the title of the website in which the web page is located. This comes after title.
- We insert the aforementioned onlinetype macro after maintitle.
- The date is wrapped in parentheses if present.
- We support displaying a publisher after the date; this is a legacy feature based on examples that are now deprecated.

```
2545 \DeclareBibliographyDriver{online}{%
2546 \usebibmacro{bibindex}%
2547 \usebibmacro{begentry}%
2548 \usebibmacro{author/editor+others/translator+others}%
2549 \setunit{\printdelim{nametitledelim}}\newblock
2550 \usebibmacro{title}%
2551 \newunit
2552 \usebibmacro{maintitle}
2553 \setunit{\addspace}%
2554 \usebibmacro{onlinetype}%
2555 \setunit{\titlebyauthordelim}\newblock
2556 \usebibmacro{byauthor}%
2557 \newunit\newblock
2558 \usebibmacro{byeditor+others}%
2559 \newunit\newblock
2560 \printfield{version}%
2561 \newunit
2562 \printfield{note}%
2563 \newunit\newblock
2564 \printlist{organization}%
2565 \iffieldundef{year}{}{%
2566 \setunit{\addspace}\newblock
2567 \printtext[parns]{\usebibmacro{date+time}}%
2568 }%
2569 \newunit\newblock}
```

```

2570 \printlist{publisher}%
2571 \newunit\newblock
2572 \iftoggle{bbx:eprint}
2573   {\usebibmacro{eprint}}
2574   {}%
2575 \newunit\newblock
2576 \usebibmacro{url+urldate}%
2577 \newunit\newblock
2578 \usebibmacro{addendum+pubstate}%
2579 \iftoggle{bbx:related}
2580   {\usebibmacro{related:init}}%
2581   \usebibmacro{related}}
2582   {}%
2583 \setunit{\bibpagerefunct}\newblock
2584 \usebibmacro{pageref}%
2585 \usebibmacro{finentry}}

```

Software

The version for software goes between the title and titleaddon.

```

2586 \newbibmacro*{title+version}{%
2587   \ifboolexpr{
2588     test {\iffieldundef{title}}
2589     and
2590     test {\iffieldundef{subtitle}}
2591   }
2592   {}
2593   {\printtext[title]{%
2594     \printfield[titlecase]{title}%
2595     \setunit{\subtitlepunct}%
2596     \printfield[titlecase]{subtitle}}%
2597     \setunit{\addspace}}%
2598   \printfield{version}%
2599   \setunit{\addspace}%
2600   \printfield{titleaddon}%
2601 }
2602 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

The url date string is different for software: ‘downloaded’ rather than ‘accessed’.

```

2603 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is a variant of the manual driver.

```

2604 \DeclareBibliographyAlias{software}{manual}

```

Datasets

The main change to the dataset driver compared to the standard style is that type, series, number, edition and organization are moved into the publication information block with publisher, location and date.

```

2605 \DeclareBibliographyDriver{dataset}{%
2606   \usebibmacro{bibindex}%
2607   \usebibmacro{begentry}%
2608   \usebibmacro{author/editor+others/translator+others}%
2609   \setunit{\printdelim{nametitledelim}}\newblock

```

```

2610 \usebibmacro{title}%
2611 \newunit
2612 \printlist{language}%
2613 \setunit{\titlebyauthor\delim}\newblock
2614 \usebibmacro{byauthor}%
2615 \newunit\newblock
2616 \usebibmacro{byeditor+others}%
2617 \newunit\newblock
2618 \printfield{type}%
2619 \newunit
2620 \printfield{version}%
2621 \newunit\newblock
2622 \printfield{note}%
2623 \newunit\newblock
2624 \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2625 \newunit\newblock
2626 \usebibmacro{doi+eprint+url}%
2627 \newunit\newblock
2628 \usebibmacro{addendum+pubstate}%
2629 \iftoggle{bbx:related}
2630   {\usebibmacro{related:init}%
2631    \usebibmacro{related}}
2632   {}%
2633 \setunit{\bibpageref\punct}\newblock
2634 \usebibmacro{pageref}%
2635 \usebibmacro{finentry}}

```

2.1.15 LEGAL REFERENCES

Legal references are a law unto themselves, and thus require extensive fiddly coding. This entire section is adapted from *oscola* by Paul Stanley.

Entry options

```

2636 \newtoggle{bbx:scotstyle}
2637 \DeclareEntryOption{scottish-style}[true]{%
2638   \settoggle{bbx:scotstyle}{#1}}
2639 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2640 \DeclareEntryOption{year-essential}[true]{%
2641   \setboolean{bbx@year-essential}{#1}}
2642 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2643 \DeclareEntryOption{paryear-essential}[true]{%
2644   \setboolean{bbx@paryear-essential}{#1}}
2645 \newtoggle{blx@ox@nopostnotedelim}
2646 \newtoggle{bbx:altcourt}
2647 \DeclareBiblatexOption{global,type,entry}{court-plain}[true]{%
2648   \settoggle{bbx:altcourt}{#1}}
2649 \newtoggle{bbx@ecliuse}
2650 \newtoggle{bbx@eclionly}
2651 \DeclareBibliographyOption[string]{ecli}[yes]{%
2652   \ifstrequal{#1}{no}{%
2653     \global\togglefalse{bbx@ecliuse}%
2654     \global\togglefalse{bbx@eclionly}%
2655   }{%
2656     \global\toggletrue{bbx@ecliuse}%
2657     \ifstrequal{#1}{only}{%
2658       \global\toggletrue{bbx@eclionly}%
2659     }{}}

```

Field formats

```

2660 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2661 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2662 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2663 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2664 \DeclareFieldFormat{romanvol}{\RN{#1}}
2665 \DeclareListFormat[jurisdiction]{listb}{}
2666 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2667 \DeclareFieldFormat{verba}{#1}
2668
2669 \DeclareListFormat{echrinst}{%
2670 \ifboolexpr{%
2671 test {\ifnumequal{\value{listtotal}}{1}}
2672 or
2673 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2674 }{%
2675 \ifboolexpr{
2676 test {\ifdefstring{\Commission}{#1}}
2677 or
2678 test {\ifdefstring{\commission}{#1}}%
2679 }{%
2680 \bibstring{commissiondecision}%
2681 }{#1}%
2682 }{%
2683 \setcounter{blx@tmpcnt}{\value{listcount}}%
2684 \addtocounter{blx@tmpcnt}{1}%
2685 \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2686 #1\space\bibstring{and}\addspace
2687 }{%
2688 #1\addcomma\space}}%
2689
2690 \newcommand*{\commission}{commission}
2691 \newcommand*{\Commission}{Commission}
2692 \DeclareListFormat{ecthr}{%
2693 \ifboolexpr{
2694 test {\ifdefstring{\Commission}{#1}}
2695 or
2696 test {\ifdefstring{\commission}{#1}}
2697 }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2698
2699 \newcommand*{\pcijrep}{PCIJ Rep}
2700 \DeclareFieldFormat{international}{%
2701 \iffieldequals{journaltitle}{\pcijrep}}{%
2702 \bibcplstring{jourser}\space #1%
2703 }{#1}}
2704
2705 \DeclareListFormat{checkcontains}{%
2706 \bbx@check{#1}}
2707 \newtoggle{bbx@institutiontoggle}
2708 \newcommand\iflistcontains[2]{%
2709 \global\togglefalse{bbx@institutiontoggle}%
2710 \def\bbx@check##1{%
2711 \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2712 \printlist[checkcontains]{#1}%
2713 \iftoggle{bbx@institutiontoggle}}
2714
2715 \DeclareFieldFormat{draftleg}{%
2716 \StrBefore{#1}{ Bill}}
2717
2718 \DeclareListFormat{billprinting}{%
2719 \ifstrequal{#1}{HC}{%

```

```

2720     \mkbibbrackets{\strfield{number}}%
2721     \toggletrue{blx@ox@nopostnotedelim}%
2722   }{%
2723     \strfield{number}%
2724     \togglefalse{blx@ox@nopostnotedelim}}
2725
2726 \newcommand*\treatypartysep{\allowbreak ---\allowbreak}
2727 \DeclareListFormat{treaty}{%
2728   \ifmoreitems{}{%
2729     \ifnumequal{\value{listcount}}{1}{%
2730       \bibopenparen
2731     }{%
2732       \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2733         #1\treatypartysep
2734       }{%
2735         #1\bibcloseparen}}}}
2736
2737 \def\siganddate#1{%
2738   \def\bbx@tempa{#1}%
2739   \expandafter\bbx@signeddatei#1/relax}
2740 \def\bbx@signeddatei#1=#2/relax{%
2741   \def\bbx@tempa{#2-}%
2742   \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2743 \def\makebbx@datei#1-#2-#3-{%
2744   \makebbx@dateii{#1}{#2}{#3}}
2745 \def\makebbx@dateii#1#2#3{%
2746   \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2747   \space
2748   #1}
2749 \DeclareListFormat{treatydates}{%
2750   \ifnumequal{\value{listcount}}{1}{%
2751     \siganddate{#1}%
2752   }{%
2753     \addcomma\space\siganddate{#1}}}

```

Pagination formats

We define an alternative to `\mkpageprefix` that takes a pagination key directly.

```

2754 \newrobustcmd*\mkrawpageprefix[1][none]{%
2755   \begingroup
2756   \def\blx@tempa{\blx@mkpageprefix@i}%
2757   \ifstrequal{#1}{none}{}{%
2758     \ifbibstring{#1}{%
2759       \def\blx@tempa{\blx@mkpageprefix{#1}}%
2760     }{%
2761       \blx@warning@entry{Unknown pagination type '#1'}}%
2762   \ifnextchar[%]
2763     {\blx@tempa}
2764     {\blx@tempa[\@firstofone]}
2765
2766 \newcommand*\paragraphmarkings{[]}
2767 \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2768   \iffieldundef{pagination}{%
2769     \ifboolexpr{
2770       test {\ifkeyword{eu}}
2771       or
2772       test {\ifkeyword{echr}}
2773     }{%
2774       \mkcomprange[\mkrawpageprefix[paragraph]]{#1}%

```

```

2775     }{%
2776         \mkcomprange{#1}}%
2777 }{%
2778     \iffieldequals{pagination}{\paragraphmarkings}{%
2779         \mkcomprange[\mkbibbrackets]{#1}%
2780     }{%
2781         \mkcomprange[\mkpageprefix[pagination]]{#1}}}}

```

Shorthands

With legal references, the introduction of shorthands is less verbose.

```

2782 \renewbibmacro*{shorthandintro}{%
2783     \iffieldundef{shorthandintro}
2784     {\iffieldundef{shorthand}
2785         {}
2786         {\setunit{\addspace}%
2787             \printtext[parens]{%
2788                 \ifboolexpr{
2789                     test {\ifentrytype{jurisdiction}}
2790                     or
2791                     test {\ifentrytype{legal}}
2792                     or
2793                     test {\ifentrytype{legislation}}
2794                 }}{%
2795                     \bibstring{citedas}\space}%
2796                 \printfield{shorthand}}}}
2797     {\setunit{\addspace}%
2798         \printtext[parens]{\printfield{shorthandintro}}}}

```

Common macros

```

2799 \newbibmacro*{issue/volume}{%
2800     \iffieldundef{volume}%
2801     {\iffieldundef{issue}%
2802         {}%
2803         {\printfield{issue}}}%
2804     {\printfield[default]{volume}}}
2805 \newcommand*{\subtypenewsp}{newspaper}
2806 \newbibmacro*{year+vol+report}[1][default]{%
2807     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2808         \setunit{\addcomma\space}%
2809     }{%
2810         \usebibmacro{journaldate}%
2811         \setunit{\addspace}%
2812         \printfield[parens]{origyear}%
2813         \setunit{\addspace}%
2814         \printfield{volume}%
2815         \setunit{\addspace}}%
2816     \printfield{journaltitle}%
2817     \setunit*{\addspace}%
2818     \iffieldundef{series}{%
2819         \setunit{\addspace}%
2820         \printfield[#1]{series}%
2821         \setunit{\addspace}}%
2822     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2823         \setunit{\addcomma\space}%
2824         \printdate%
2825     }}

```



```

2826 \newbibmacro*{journaldate}[1][]{%
2827   \ifboolexpr{
2828     test {\iffieldundef{#1volume}}
2829     or
2830     bool {bbx@#1year-essential}
2831   }{%
2832     \ifboolexpr{
2833       test {\ifkeyword{sc}}
2834       or
2835       test {\iftoggle{bbx:scotstyle}}
2836     }{%
2837       \setunit{\addcomma\space}%
2838       \printfield{#1year}%
2839     }%
2840     \printfield[brackets]{#1year}%
2841   }{%
2842     \printfield[parens]{#1year}}%
2843 \newcommand*\casenote{casenote}
2844 \newcommand\casenotetext{\bibstring{casenote}}
2845 \newbibmacro{journaltitle}{%
2846   \iffieldequals{entrysubtype}{\casenote}{%
2847     \iffieldundef{crossref}{%
2848       \usebibmacro{title}%
2849     }%
2850     \iffieldundef{note}{%
2851       \restorefield{note}{\casenotetext}%
2852     }%
2853     \ifboolexpr{
2854       test {\iffootnote}
2855       and test {\iftoggle{bbx@samefootnote}}
2856       and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2857     }{\printfield[casenotetitle]{title}}%
2858   }%
2859   \usebibmacro{title}}%
2860 \newbibmacro*{unreported}[1][default]{%
2861   \iffieldundef{verba}{%
2862     \ifboolexpr{
2863       test {\iflistundef{institution}}
2864       and
2865       test {\iffieldundef{date}}
2866       and
2867       test {\iffieldundef{year}}
2868     }{%
2869       \ifboolexpr{
2870         test {\iffieldundef{date}}
2871         and
2872         test {\iffieldundef{year}}
2873       }{%
2874         \mkbibparens{\printlist[jurisdiction]{institution}}%
2875       }%
2876       \toggletrue{blx@ox@nopostnotedelim}%
2877       \iflistundef{institution}{%
2878         \mkbibparens{\usebibmacro{date}}%
2879       }%
2880       \printtext[parens]{%
2881         \printlist[#1]{institution}%
2882         \setunit{\addcomma\space}
2883         \usebibmacro{date}}}%
2884     }%
2885     \iftoggle{bbx@ecliuse}{%
2886       \printfield{verba}}%
2887   \newbibmacro{court-note}{%

```

```

2888     \iffielddundef{note}%
2889     {}%
2890     {\printfield{note}%
2891     \toggletrue{blx@ox@nopostnotedelim}}}
2892 \newbibmacro*{jurisdictionpages}{%
2893     \iffieldequals{entrysubtype}{\subtypenewsp}}{%
2894     \setunit{\addspace}%
2895     \printfield{pages}}
2896 \newbibmacro{pcitenote}{%
2897     \iffielddundef{parreporter}}{%
2898     \setunit{\addcomma\space}%
2899     \iffielddundef{postnote}}{%
2900     \printfield{postnote}%
2901     \clearfield{postnote}%
2902     \setunit{\addsemicolon\space}}}
2903 \newbibmacro*{courtid}{%
2904     \iffielddundef{number}}{%
2905     \ifboolexpr{
2906         test {\iflistundef{institution}}
2907         and
2908         test {\iffielddundef{location}}%
2909     }{%
2910         \togglefalse{blx@ox@nopostnotedelim}%
2911     }{%
2912         \ifboolexpr{%
2913             test {\iffielddundef{journaltitle}}
2914             or
2915             not togl {bbx:altcourt}
2916         }{%
2917             \printtext[parens]{%
2918                 \printfield{location}%
2919                 \setunit{\addspace}%
2920                 \printlist{institution}%
2921                 \usebibmacro{unrep:date}}%
2922             \toggletrue{blx@ox@nopostnotedelim}
2923         }{%
2924             \setunit{\addcomma\space}%
2925             \printfield{location}%
2926             \setunit*{\addspace}%
2927             \printlist{institution}}}%
2928     }{%
2929         \togglefalse{blx@ox@nopostnotedelim}}}
2930 \newbibmacro*{unrep:date}{%
2931     \ifboolexpr{
2932         test {\iffielddundef{journaltitle}}%
2933         and
2934         test {\iffielddundef{number}}%
2935     }{%
2936         \setunit{\addcomma\space}%
2937         \usebibmacro{date}%
2938     }{}}

```

Legal cases

There are different formats depending on the jurisdiction.

```

2939 \DeclareBibliographyDriver{jurisdiction}{%
2940     \usebibmacro{bibindex}%
2941     \usebibmacro{begentry}%
2942     \usebibmacro{juriscitation}%

```

```

2943 \usebibmacro{doi+eprint+url}%
2944 \setunit{\addspace}%\newblock
2945 \usebibmacro{addendum+pubstate}%
2946 \setunit{\addspace}%\newblock
2947 \iftoggle{bbx:related}
2948   {\usebibmacro{related:init}%
2949   \usebibmacro{related}}
2950   {}%
2951 \setunit{\bibpagerefpunct}\newblock
2952 \usebibmacro{pageref}%
2953 \usebibmacro{finentry}}
2954 \newtoggle{bbx@juriscitedone}
2955 \newbibmacro{juriscitation}{%
2956 \togglefalse{bbx@juriscitedone}%
2957 \renewcommand{\do}[1]{%
2958   \ifkeyword{##1}{%
2959     \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2960     \listbreak
2961   }}%
2962 \docsvlist{eu,chr,int,ca,us}%
2963 \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
2964 }

```

Here is the format for EU cases.

```

2965 \newtoggle{bbx@commissiondecision}
2966 \newbibmacro*{eujuriscitation}{%
2967   \ifboolexpr{
2968     test {\iflistcontains{institution}{\commission}}
2969     or
2970     test {\iflistcontains{institution}{\Commission}}
2971   }{%
2972     \toggletrue{bbx@commissiondecision}%
2973   }{%
2974     \togglefalse{bbx@commissiondecision}}%
2975 \iftoggle{bbx@commissiondecision}{}{%
2976   \usebibmacro{eucasenumber}}%
2977 \usebibmacro{title}%
2978 \setunit{\addspace}%
2979 \iftoggle{bbx@commissiondecision}{%
2980   \usebibmacro{eucommissiondecision}}{}%
2981 \setunit{\addspace}%
2982 \usebibmacro{eu:reportinfo}%
2983 \iftoggle{bbx@commissiondecision}{%
2984   \setunit{\addcomma\space}%
2985 }{%
2986   \setunit{\addspace}}%
2987 \usebibmacro{altreportdetails}%
2988 \usebibmacro{court-note}%
2989 }
2990 \newcommand*{\oxrefand{ and }}
2991 \newbibmacro{eucasetype}{%
2992   \iffieldundef{type}{%
2993     \ifboolexpr{
2994       test {\IfSubStr{\thefield{number}}{,}}
2995       or
2996       test {\IfSubStr{\thefield{number}}{--}}
2997       or
2998       test {\IfSubStr{\thefield{number}}{\oxrefand}}
2999     }{%
3000       \bibstring{eujoinedcases}%
3001     }%

```

```

3002     \bibstring{eucase}}%
3003   }{%
3004     \printfield{type}}%
3005   }
3006 \newbibmacro{eucasenumber}{%
3007   \usebibmacro{eucasetype}%
3008   \setunit{\addnbspace}%
3009   \printfield{number}%
3010   \setunit{\addspace}}
3011 \newbibmacro{eucommissiondecision}{%
3012   \iffieldundef{userb}{%
3013     \iffieldundef{number}}{%
3014     \printtext[parens]{%
3015       \usebibmacro{eucasetype}%
3016       \setunit{\addnbspace}%
3017       \printfield{number}}}%
3018   }{%
3019     \printtext[parens]{%
3020       \usebibmacro{eucasetype}%
3021       \setunit{\addnbspace}%
3022       \printfield{userb}}%
3023     \setunit{\addspace}%
3024     \iffieldundef{number}}{%
3025     \iffieldundef{type}{%
3026       \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3027     }{%
3028       \setunit{\addspace\printfield{type}\addspace}}%
3029     \printfield{number}}%
3030   }%
3031 }
3032 \newbibmacro*{eu:reportinfo}{%
3033   \iftoggle{bbx@ecliconly}{%
3034     \iffieldundef{verba}{%
3035       \usebibmacro{eu:osreport}
3036     }{%
3037       \printfield{verba}}%
3038   }{%
3039     \usebibmacro{eu:osreport}}
3040 \newbibmacro*{eu:osreport}{%
3041   \iftoggle{bbx@eccliuse}{%
3042     \iffieldundef{verba}}{%
3043     \printfield{verba}%
3044     \setunit{\addcomma\space}}%
3045   }{}%
3046   \iffieldundef{journaltitle}{%
3047     \usebibmacro{unreported}%
3048   }{%
3049     \usebibmacro{eu:year+vol+report}}
3050 \newcommand*{officialjournaltitle{OJ}
3051 \newcommand*{ecrreporttitle{ECR}
3052 \newbibmacro*{eu:year+vol+report}{%
3053   \iffieldequals{journaltitle}{\ecrreporttitle}{%
3054     \printfield[brackets]{year}%
3055     \setunit{\addspace}%
3056     \printfield{journaltitle}%
3057     \setunit{\addspace}%
3058     \printfield{volume}%
3059     \setunit*{\printtext{--\allowbreak}}}%
3060   \printfield{pages}%
3061 }{%
3062   \iffieldequals{journaltitle}{\officialjournaltitle}{%
3063     \printfield[brackets]{year}%

```

```

3064     \setunit{\addspace}%
3065     \printfield{journaltitle}%
3066     \setunit{\addspace}%
3067     \printfield[default]{series}%
3068     \usebibmacro{issue/volume}%
3069     \setunit{\printtext{\slash}}%
3070     \printfield{pages}%
3071   }{%
3072     \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

3073 \newbibmacro*{echrjuriscitation}{%
3074   \usebibmacro{title}%
3075   \setunit{\addspace}\newblock
3076   \iffieldundef{number}{}{%
3077     \printtext[parens]{%
3078       \def\adddot{}%
3079       \bibstring{application}\space
3080       \bibstring{number}\space
3081       \printfield{number}}}%
3082   \setunit{\addspace}\newblock}%
3083 \iffieldundef{journaltitle}{}{%
3084   \usebibmacro{unreported}[echrinst]%
3085 }{%
3086   \usebibmacro{echr:year+vol+report}
3087   \setunit{\addspace}\newblock
3088   \usebibmacro{echr:courtid}}}%
3089 \setunit{\addspace}%
3090 \usebibmacro{court-note}%
3091 \newblock
3092 \setunit{\addspace}}
3093 \newcommand*{\seriesa}{Series A}
3094 \newcommand*{\echrreports}{ECHR}
3095 \newbibmacro*{echr:year+vol+report}{%
3096   \iffieldequals{journaltitle}{\seriesa}{%
3097     \usebibmacro{seriesareport}%
3098   }{%
3099     \iffieldequals{journaltitle}{\echrreports}{%
3100       \usebibmacro{echrreports}%
3101     }{%
3102       \usebibmacro{year+vol+report}
3103       \setunit{\addspace}%
3104       \printfield{pages}}}}
3105 \newbibmacro*{seriesareport}{%
3106   \printfield[parens]{year}%
3107   \setunit{\addspace}%
3108   \printfield{journaltitle}%
3109   \setunit{\addspace}%
3110   \printtext{\def\adddot{}\bibstring{number}\addspace}%
3111   \printfield{pages}}
3112 \newbibmacro*{echrreports}{%
3113   \printfield{journaltitle}%
3114   \setunit{\addspace}%
3115   \printfield{year}%
3116   \iffieldundef{volume}{}{%
3117     \printtext{--}\printfield[romanvol]{volume}}
3118   \setunit{\addspace}%
3119   \printfield{pages}}
3120 \newcommand*{\decisionsandreports}{DR}
3121 \newcommand*{\collectionofdecisions}{CD}

```

```

3122 \newbibmacro*{echr:courtid}{%
3123 \ifboolexpr{
3124 test {\iffieldequals{journaltitle}{\decisionsandreports}}
3125 or
3126 test {\iffieldequals{journaltitle}{\collectionofdecisions}}}%
3127 }{}{%
3128 \printlist[ecthr]{institution}}}
```

Here is the format for international cases.

```

3129 \newbibmacro*{intjuriscitation}{%
3130 \iflistundef{institution}{%
3131 \setunit{}\printtext{}%
3132 }{%
3133 \printlist{institution}%
3134 \setunit{\addcomma\space}}%
3135 \usebibmacro{int:title}%
3136 \setunit{\addspace}\newblock
3137 \iffieldundef{journaltitle}{%
3138 \printfield{number}%
3139 \setunit{\addspace}\newblock
3140 \printtext[parens]{\printdate}%
3141 }{%
3142 \usebibmacro{year+vol+report}[international]%
3143 }%
3144 \setunit{\addspace}%
3145 \usebibmacro{int:jurisdictionpages}%
3146 \setunit{\addspace}\newblock
3147 \usebibmacro{court-note}%
3148 }
3149 \newbibmacro*{int:title}{%
3150 \ifboolexpr{
3151 test {\iffieldundef{title}}
3152 and
3153 test {\iffieldundef{subtitle}}
3154 }{}{%
3155 \printtext[title]{%
3156 \printfield[titlecase]{title}%
3157 \setunit{\addspace}%
3158 \printfield[parens]{subtitle}}}%
3159 \setunit{\addspace}%
3160 \printfield{titleaddon}%
3161 }
3162 \newbibmacro*{int:jurisdictionpages}{%
3163 \iffieldequals{journaltitle}{\pciirep}{%
3164 \printtext{\bibcpstring{number}\addspace}%
3165 \iffieldundef{pages}{%
3166 \printfield{number}%
3167 }{%
3168 \printfield{pages}}}%
3169 }{}%
3170 \printfield{pages}}}
```

Here is the format for Canadian cases.

```

3171 \newbibmacro{canjuriscitation}{%
3172 \usebibmacro{title}%
3173 \setunit{\addspace}\newblock
3174 \printfield{number}%
3175 \setunit{\addcomma\space}%
3176 \iffieldundef{journaltitle}{}{}%
```

```

3177     \usebibmacro{can:year+vol+report}}}%
3178 \usebibmacro{jurisdictionpages}%
3179 \usebibmacro{pcitenote}%
3180 \usebibmacro{altreportdetails}%
3181 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3182 \newunit\newblock
3183 \usebibmacro{courtid}%
3184 \newunit%
3185 \usebibmacro{court-note}%
3186 \newblock%
3187 \newunit}
3188 \newbibmacro*{can:year+vol+report}{%
3189 \iffieldundef{number}{%
3190   \setunit{\addspace}%
3191 }{%
3192   \ifboolexpr{
3193     test {\iffieldundef{volume}}
3194     or
3195     bool {bbx@year-essential}}%
3196   }{%
3197     \clearfield{year}}}%
3198 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3199   \iffieldundef{year}{%
3200     \usebibmacro{journaldate}%
3201     \setunit{\addspace}}}%
3202 \printfield{volume}%
3203 \setunit{\addspace}%
3204 \printfield{journaltitle}%
3205 \setunit*{\addspace}%
3206 \iffieldundef{series}{%
3207   \setunit{\addspace}%
3208   \printtext[parens]{\printfield[usseries]{series}}%
3209   \setunit{\addspace}}}%
3210 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3211   \setunit{\addcomma\space}%
3212   \usebibmacro{newspaperdate}%
3213 }{}}

```

Here is the format for American cases.

```

3214 \newbibmacro{usjuriscitation}{%
3215   \usebibmacro{title}%
3216   \setunit{\addcomma\space}\newblock%
3217   \iffieldundef{journaltitle}{%
3218     \printfield{number}%
3219     \setunit{\addcomma\space}%
3220     \printfield[default]{eprint}%
3221     \clearfield{eprint}%
3222   }{
3223     \usebibmacro{us:vol+report}}}%
3224 \setunit{\addspace}%
3225 \usebibmacro{jurisdictionpages}%
3226 \usebibmacro{us:postnote}%
3227 \usebibmacro{altreportdetails}%
3228 \setunit{\addspace}\newblock
3229 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3230 \setunit{\addspace}%
3231 \usebibmacro{us:courtid+date}%
3232 \setunit{\addspace}%
3233 \usebibmacro{court-note}%
3234 \newblock
3235 \setunit{\addspace}}

```

```

3236 \newbibmacro{us:vol+report}{%
3237 \printfield{volume}%
3238 \setunit{\addspace}%
3239 \printfield{journaltitle}%
3240 \iffieldundef{series}{}{%
3241 \setunit{\addspace}%
3242 \printfield[usseries]{series}}}
3243 \newbibmacro{us:postnote}{%
3244 \iffieldundef{postnote}{}{%
3245 \setunit{\addcomma\space}%
3246 \printfield{postnote}%
3247 \clearfield{postnote}%
3248 }}
3249 \newbibmacro{us:courtid+date}{%
3250 \ifboolexpr{
3251 test {\iflistundef{institution}}
3252 and
3253 test {\iflistundef{location}}
3254 and
3255 test {\iffieldundef{year}}
3256 }{}{%
3257 \printtext[parens]{%
3258 \printlist{location}%
3259 \setunit*\addspace}%
3260 \printlist{institution}%
3261 \setunit{\addspace}%
3262 \printfield{year}%
3263 \nopunct}}}

```

Here is the format for English cases.

```

3264 \newbibmacro{enjuriscitation}{%
3265 \usebibmacro{title}%
3266 \setunit{\addspace}\newblock
3267 \printfield{number}%
3268 \setunit*\addcomma\space}%
3269 \iffieldundef{journaltitle}{}{%
3270 \usebibmacro{year+vol+report}}%
3271 \usebibmacro{jurisdictionpages}%
3272 \usebibmacro{pcitenote}%
3273 \usebibmacro{altreportdetails}%
3274 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
3275 \setunit{\addspace}\newblock
3276 \usebibmacro{courtid}%
3277 \setunit{\addspace}%
3278 \usebibmacro{court-note}}
3279 \newbibmacro{altreportdetails}{%
3280 \restorefield{prenote}{\postnotesecond}%
3281 \iffieldundef{parreporter}{}{%
3282 \usebibmacro{journaldate}[par]%
3283 \setunit{\addspace}\newblock
3284 \usebibmacro{altreportvolume}%
3285 \setunit{\addspace}\newblock
3286 \usebibmacro{altjournaltitle}%
3287 \setunit{\addspace}\newblock
3288 \usebibmacro{altseries}%
3289 \setunit{\addspace}\newblock
3290 \usebibmacro{altjurisdictionpages}%
3291 \iffieldundef{prenote}{}{%
3292 \setunit{\addcomma\space}%
3293 \printfield[postnote]{prenote}}}

```



```

3294 \newbibmacro*{altreportvolume}{%
3295   \iffieldundef{parvolume}{}{}%
3296   \printfield{parvolume}}
3297 \newbibmacro*{altjournaltitle}{%
3298   \iffieldundef{parreporter}{}{}%
3299   \printfield{parreporter}}
3300 \newbibmacro*{altseries}{%
3301   \iffieldundef{parseries}{}{}%
3302   \printfield{parseries}}
3303 \newbibmacro*{altjurisdictionpages}{%
3304   \iffieldundef{parpages}{}{}%
3305   \printfield{parpages}}%

```

Legislation

Legislation tends to have a more consistent format, though European entries need special handling.

```

3306 \newcommand*{\subtypecourtrules}{procedure-rule}
3307 \DeclareBibliographyDriver{legislation}{%
3308   \usebibmacro{bibindex}%
3309   \usebibmacro{begentry}%
3310   \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3311     \usebibmacro{courtrules}%
3312   }{}%
3313   \ifkeyword{draft}{%
3314     \usebibmacro{legislation:bill}%
3315   }{}%
3316   \ifkeyword{eu}{%
3317     \usebibmacro{eulegislation}%
3318   }{}%
3319   \printfield[default]{title}%
3320   \setunit{\addspace}%
3321   \printfield[default]{year}%
3322   \setunit*{\addspace}%
3323   \usebibmacro{legnumber}%
3324   \setunit{\addspace}\newblock
3325   \usebibmacro{legsupp}}}%
3326   \setunit{\addcomma\space}%
3327   \printfield{note}%
3328   \setunit{\bibpagerefunct}\newblock
3329   \usebibmacro{pageref}%
3330   \usebibmacro{finentry}}
3331 \newbibmacro*{courtrules}{%
3332   \restorefield{prenote}{\postnotesecond}%
3333   \iffieldequalstr{shorttitle}{PD}{%
3334     \printfield{postnote}%
3335     \clearfield{postnote}%
3336     \setunit{\addspace}%
3337   }{}%
3338   \iffieldundef{shorttitle}{%
3339     \printfield[default]{title}%
3340   }{}%
3341     \printfield[default]{shorttitle}}%
3342   \setunit{\addspace}\newblock
3343   \iffieldundef{postnote}{%
3344     \toggletrue{blx@ox@nopostnotedelim}%
3345   }{}%
3346     \iffieldequalstr{shorttitle}{CPR}{%
3347       \printfield{postnote}}%

```

```

3348     \setunit{\addspace}%
3349   }{%
3350     \printtext{%
3351       \bibstring{order}\space
3352       \printfield{postnote}%
3353       \setunit{\addcomma\space}}}%
3354   \restorefield{postnote}{\postnotesecond}%
3355   \usebibmacro{postnote}%
3356   \clearfield{postnote}%
3357   \setunit{\addspace}\newblock}
3358 \newcommand*{\subtypeprimarylegislation}{primary}
3359 \newbibmacro*{legislation:bill}{%
3360   \printfield[draftleg]{title}%
3361   \setunit{\addspace}%
3362   \printlist{institution}%
3363   \setunit*{\addspace}%
3364   \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3365     \bibcpstring{bill}%
3366     \setunit{\addspace}%
3367     \printtext[parens]{\usebibmacro{sessionyear}}%
3368     \setunit{\addspace}%
3369     \iffieldundef{number}{}%
3370     \printlist[billprinting]{institution}}%
3371   }{%
3372     \printtext[parens]{%
3373       \bibstring{draft}\space
3374       \printdate}}
3375   \setunit{\addspace}}
3376 \newbibmacro*{sessionyear}{%
3377   \iffieldundef{year}{}%
3378   \printfield{year}%
3379   \iffieldundef{endyear}{}%
3380   \bibdaterangesep
3381   \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}
3382 \newbibmacro{euLegislation}{%
3383   \printfield[default]{title}%
3384   \setunit{\addspace}\newblock%
3385   \usebibmacro{eulegref}}
3386 \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3387 \newbibmacro*{eulegref}{%
3388   \iffieldequals{journaltitle}{\officialjournaltitle}{%
3389     \printfield[brackets]{year}%
3390     \setunit{\addspace}%
3391     \printfield{journaltitle}%
3392     \setunit{\addspace}%
3393     \iffieldundef{series}{%
3394       \printtext{L}}%
3395   }{%
3396     \printfield[default]{series}}%
3397   \usebibmacro{issue/volume}%
3398   \setunit*{\addslash}%
3399   \printfield{pages}%
3400   \togglefalse{blx@ox@nopostnotedelim}%
3401   }{%
3402     \usebibmacro{year+vol+report}%
3403     \setunit*{\addspace}%
3404     \printfield{pages}}}}
3405 \newbibmacro*{legnumber}{%
3406   \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3407     \ifboolexpr{(
3408       test {\iffieldundef{number}}
3409       or

```

```

3410     not test {\iffielddundef{title}} )
3411     and not (
3412         test {\ifkeyword{cy}}
3413         or
3414         test {\ifkeyword{sc}}
3415         or
3416         test {\ifkeyword{ni}} )
3417     }{%
3418         \printtext[parens]{\printfield{number}}%
3419         \toggletrue{blx@ox@nopostnotedelim}}%
3420 }{%
3421     \iffielddundef{number}{}{%
3422         \setunit{\addcomma\addspace}%
3423         \printfield{number}%
3424         \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3425 \newbibmacro*{legsupp}{%
3426     \ifkeyword{cy}
3427     {\iffielddundef{userb}
3428         {}
3429         {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3430     {}

```

Treaties, explanatory notes and Hansard

```

3431 \newcommand*{\explanatorynote}{explanatory note}
3432 \newcommand*{\parliamentarytype}{parliamentary}
3433 \newcommand*{\treatysubtype}{piltreaty}
3434 \DeclareBibliographyDriver{legal}{%
3435     \usebibmacro{bibindex}%
3436     \usebibmacro{begentry}%
3437     \iffieldequals{entrysubtype}{\explanatorynote}{%
3438         \printfield[default]{title}%
3439         \setunit{\addspace}\newblock
3440     }{%
3441         \iffieldequals{entrysubtype}{\parliamentarytype}{%
3442             \usebibmacro{legal:parliamentary}%
3443         }{%
3444             \usebibmacro{treatycitation}}}%
3445     \setunit{\addcomma\space}\newblock
3446     \printfield[default]{note}
3447     \setunit{\addspace}\newblock
3448     \setunit{\bibpagerefpunct}%
3449     \usebibmacro{pageref}%
3450     \usebibmacro{finentry}}
3451 \newbibmacro{legal:parliamentary}{%
3452     \printfield[default]{title}%
3453     \newunit\newblock
3454     \printfield{type}%
3455     \setunit{\addspace}%
3456     \iffielddundef{series}{}{%
3457         \printtext[parens]{%
3458             \bibstring{jourser}\space
3459             \printfield{series}}}%
3460     \setunit{\addspace}%
3461     \printfield{volume}%
3462     \setunit{\addcomma\space}%
3463     \usebibmacro{hansard-ref}%

```

```

3464     \setunit{\addspace}%
3465     \iffieldundef{year}{}{}%
3466     \printtext[parens]{\usebibmacro{date}}}%
3467     \togglefalse{blx@ox@nopostnotedelim}}
3468 \newbibmacro*{hansard-ref}{%
3469     \iffieldundef{postnote}{}%
3470     \iffieldundef{pages}{}{}%
3471     \printfield{pages}}%
3472 }{}%
3473 \newbibmacro{treatycitation}{%
3474     \printfield[default]{title}%
3475     \setunit{\addspace}\newblock%
3476     \printlist[treaty]{institution}
3477     \setunit{\addspace}\newblock
3478     \usebibmacro{treatyinfo}%
3479     \setunit{\addspace}\newblock
3480     \usebibmacro{treaty:year+vol+report}}
3481 \newbibmacro{treatyinfo}{%
3482     \iflistundef{lista}{% execution
3483         \iffieldundef{year}{}{}%
3484         \iffieldundef{volume}{}{}%
3485         \printtext[parens]{\printdate}}}%
3486 }{}%
3487     \printtext[parens]{\printlist[treatydates]{lista}}}}
3488 \newbibmacro{treaty:year+vol+report}{%
3489     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3490         \usebibmacro{eulegref}}%
3491 }{}%
3492     \usebibmacro{treaty:date}%
3493     \setunit{\addspace}%
3494     \printfield[default]{volume}%
3495     \setunit{\addspace}%
3496     \printfield{journaltitle}%
3497     \setunit*{\addspace}%
3498     \iffieldundef{series}{}{}%
3499     \setunit{\addspace}%
3500     \printfield{series}%
3501     \setunit{\addspace}}%
3502     \printfield{pages}}}%
3503 \newbibmacro*{treaty:date}{%
3504     \ifboolexpr{
3505         test {\iffieldundef{volume}}
3506         or
3507         bool {bbx@year-essential}
3508     }{}%
3509     \ifboolexpr{
3510         test {\ifkeyword{sc}}
3511         or
3512         test {\iftoggle{bbx:scotstyle}}
3513     }{}%
3514     \printfield{year}%
3515     }{}%
3516     \printfield[brackets]{year}%
3517     }{}%

```

We don't really deal with commentaries as distinct from books.

```

3518 \DeclareBibliographyAlias{commentary}{book}

```

2.1.16 MANUSCRIPTS

In the spirit of compatibility, this code is adapted from biblatex-manuscripts-philology by Maïeul Rouquette.

Here are the additional punctuation commands.

```
3519 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3520 \newcommand{\collectionshelfmarkpunct}{\addspace}
3521 \newcommand{\datingpagespunct}{\addcomma\addspace}
3522 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3523 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3524 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%
```

Here are the configurable macros for the two sides of a folio.

```
3525 \def\recto{r}
3526 \def\verso{v}
3527 \NumCheckSetup{\def\recto{}\def\verso{}}
```

Here are some special field formats for the manuscript driver. Note that the title is transformed into a descriptor by means of an annotation, rather than using a dedicated field. This greatly simplifies the code used elsewhere.

```
3528 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3529   \def\currentfield{title}%
3530   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3531   \undef\currentfield}
3532 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3533 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3534 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3535 \DeclareFieldFormat{dating}{#1\isdot}%
3536 \DeclareFieldFormat{support}{\ifbibstring{#1}{\bibstring{#1}}{#1}}
```

Here are the unique bibmacros used by the manuscripts driver. We hide the date if there is no author or title to prevent it appearing as the first element in the reference. Similarly, we hide the (vague) dating field if the (exact) date is displayed.

```
3537 \newbibmacro{manuscript:date}{%
3538   \ifboolexpr{
3539     test {\ifnameundef{author}}
3540     and
3541     test {\iffieldundef{title}}
3542     and
3543     test {\iffieldundef{label}}
3544   }{\usebibmacro{date}}
3545 \newbibmacro{dating}{%
3546   \ifboolexpr{(
3547     test {\ifnameundef{author}}
3548     and
3549     test {\iffieldundef{title}}
3550     and
3551     test {\iffieldundef{label}}
3552   ) or
3553     test {\iffieldundef{year}}
3554 }{%
3555   \printfield{dating}%
3556 }}}
```

We follow the structure of the biblatex-manuscripts-philology approach to allow special formatting to be applied to the collection and shelfmark, but we do not actually apply any.

```

3557 \newbibmacro{location+library+collection+shelfmark}{%
3558 \printfield{library}%
3559 \setunit{\locationlibrarypunct}%
3560 \printlist{location}%
3561 \setunit{\librarycollectionpunct}%
3562 \usebibmacro{collection+shelfmark}}
3563 \newbibmacro{collection+shelfmark}{%
3564 \ifboolexpr{
3565 test {\iffieldundef{collection}}
3566 and
3567 test {\iffieldundef{shelfmark}}
3568 }{}{%
3569 \printtext[collection+shelfmark]{%
3570 \printfield{collection}%
3571 \setunit*{\collectionshelfmarkpunct}%
3572 \printfield{shelfmark}}}}

```

Again, following biblatex-manuscripts-philology, we allow different formatting to be applied to columns and layers according to whether they occur adjacently or not, as they might be separated by a page specification.

```

3573 \newbibmacro{manuscript:pages}{%
3574 \printfield{pagetotal}%
3575 \setunit{\addspace}%
3576 \iffieldundef{pages}{%
3577 \usebibmacro{manuscript:columns+layer}%
3578 }{%
3579 \usebibmacro{manuscript:columns}%
3580 \setunit{\pagetotalpagespunct}%
3581 \printfield{pages}%
3582 \setunit{\addspace}%
3583 \usebibmacro{manuscript:layer}}}
3584 \newbibmacro{manuscript:columns}{%
3585 \iffieldundef{columns}{}{%
3586 \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3587 }%
3588 \newbibmacro{manuscript:layer}{%
3589 \iffieldundef{layer}{}{%
3590 \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3591 }%
3592 \newbibmacro{manuscript:columns+layer}{%
3593 \ifboolexpr{
3594 test {\iffieldundef{columns}}
3595 or
3596 test{\iffieldundef{layer}}
3597 }{}%
3598 \usebibmacro{manuscript:columns}%
3599 \usebibmacro{manuscript:layer}%
3600 }{%
3601 \printtext[columns+layer]{%
3602 \bibstring{\strfield{columns}column}%
3603 \setunit*{\columnslayerpunct}%
3604 \bibstring{\strfield{layer}layer}}}}%

```

Putting it all together, here is the manuscript driver.

```

3605 \DeclareBibliographyDriver{manuscript}{%
3606   \usebibmacro{bibindex}%
3607   \usebibmacro{begentry}%
3608   \usebibmacro{author}%
3609   \setunit{\printdelim{nametitledelim}}\newblock
3610   \usebibmacro{title}%
3611   \setunit{\titlebyauthordelim}\newblock
3612   \usebibmacro{byauthor}%
3613   \newunit\newblock
3614   \printfield{howpublished}%
3615   \newunit\newblock
3616   \printfield{note}%
3617   \newunit\newblock
3618   \usebibmacro{manuscript:date}%
3619   \newunit\newblock
3620   \usebibmacro{location+library+collection+shelfmark}%
3621   \newunit
3622   \printfield{support}%
3623   \newunit
3624   \usebibmacro{dating}%
3625   \setunit{\datingpagespunct}
3626   \usebibmacro{manuscript:pages}
3627   \newunit\newblock%
3628   \iftoggle{bbx:url}{%
3629     \usebibmacro{url+urldate}%
3630   }{}%
3631   \iftoggle{bbx:related}{%
3632     \usebibmacro{related:init}%
3633     \usebibmacro{related}%
3634   }{}%
3635   \setunit{\bibpagerefpunct}\newblock
3636   \usebibmacro{pageref}%
3637   \usebibmacro{finentry}}

```

We provide an alternative bibmacro for doing much the same but with the regular biblatex fields.

```

3638 \newbibmacro*{library+location+series+number}{%
3639   \printfield{library}%
3640   \setunit{\locationlibrarypunct}%
3641   \printlist{location}%
3642   \setunit{\librarycollectionpunct}%
3643   \ifboolexpr{
3644     test {\iffieldundef{series}}
3645     and
3646     test {\iffieldundef{number}}
3647   }{}{%
3648     \printtext[collection+shelfmark]{%
3649       \printfield{series}%
3650       \setunit*{\collectionshelfmarkpunct}%
3651       \printfield{number}}}}

```

Lastly, we adapt the unpublished driver to allow it to do a similar thing but with the regular biblatex fields. The presence of the library field is what triggers ‘manuscript mode’.

```

3652 \newtoggle{blx@ox@ms}
3653 \DeclareBibliographyDriver{unpublished}{%
3654   \usebibmacro{bibindex}%
3655   \usebibmacro{begentry}%
3656   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3657   \usebibmacro{author}%
3658   \setunit{\printdelim{nametitledelim}}\newblock

```

```

3659 \usebibmacro{title}%
3660 \setunit{\titlebyauthor\delim}\newblock
3661 \usebibmacro{byauthor}%
3662 \newunit\newblock
3663 \printfield{note}%
3664 \newunit\newblock
3665 \printfield{howpublished}%
3666 \newunit\newblock
3667 \iftoggle{blx@ox@ms}{%
3668 \usebibmacro{manuscript:date}%
3669 \newunit\newblock
3670 \usebibmacro{library+location+series+number}%
3671 \newunit
3672 \printfield{support}%
3673 \newunit
3674 \usebibmacro{dating}%
3675 \setunit{\datingpagespunct}
3676 \usebibmacro{manuscript:pages}
3677 }{%
3678 \usebibmacro{location+date}%
3679 }%
3680 \newunit\newblock
3681 \iftoggle{bbx:url}
3682 { \usebibmacro{url+urldate}}
3683 {}%
3684 \newunit\newblock
3685 \usebibmacro{addendum+pubstate}%
3686 \iftoggle{bbx:related}
3687 { \usebibmacro{related:init}%
3688 \usebibmacro{related}}
3689 {}%
3690 \setunit{\bibpagerefpunct}\newblock
3691 \usebibmacro{pageref}%
3692 \usebibmacro{finentry}}

```

2.1.17 LETTERS

The driver for letters is similar to the one for other unpublished materials.

```

3693 \DeclareBibliographyAlias{letter}{unpublished}
3694 \DeclareFieldFormat[letter]{title}{%
3695 \def\currentfield{title}%
3696 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3697 \undef\currentfield}
3698 \DeclareFieldFormat[letter]{date}{%
3699 \iffieldundef{url}{#1}{\mkbibparens{#1}}}

```

2.1.18 RELATED ENTRIES

We make the punctuation before related items configurable in remaining drivers inherited from the standard style, and move the pageref macro to the end.

```

3700 \xpatchbibdriver{booklet}{%
3701 \setunit{\bibpagerefpunct}\newblock
3702 \usebibmacro{pageref}%
3703 \newunit\newblock
3704 \iftoggle{bbx:related}
3705 { \usebibmacro{related:init}%
3706 \usebibmacro{related}}

```



```

3707     {}%
3708   }{%
3709     \iftoggle{bbx:related}
3710     {\usebibmacro{related:init}%
3711     \usebibmacro{related}}
3712     {}%
3713     \setunit{\bibpagerefpunct}\newblock
3714     \usebibmacro{pageref}%
3715   }{\wlog{WARNING: biblatex-oxref failed to patch booklet}}

```

```

3716 \xpatchbibdriver{misc}{%
3717   \setunit{\bibpagerefpunct}\newblock
3718   \usebibmacro{pageref}%
3719   \newunit\newblock
3720   \iftoggle{bbx:related}
3721   {\usebibmacro{related:init}%
3722   \usebibmacro{related}}
3723   {}%
3724 }{%
3725   \iftoggle{bbx:related}
3726   {\usebibmacro{related:init}%
3727   \usebibmacro{related}}
3728   {}%
3729   \setunit{\bibpagerefpunct}\newblock
3730   \usebibmacro{pageref}%
3731 }{\wlog{WARNING: biblatex-oxref failed to patch misc}}

```

We provide an option for setting the relatedtype punctuation.

```

3732 \DeclareDelimFormat{begrelateddelimequals}{\addspace}
3733 \DeclareDelimFormat{begrelateddelimin}{\addcomma\space}
3734 \DeclareDelimFormat{begrelateddeliminclides}{\addcomma\space}
3735 \DeclareDelimFormat{begrelateddelimreprintfrom}{\addperiod\space}
3736 \DeclareDelimFormat{begrelateddelimreviewof}{\newunitpunct}
3737 \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}
3738 \DeclareDelimFormat{begrelateddelimmultivolume}{\newunitpunct}
3739 \DeclareDelimFormat{relateddelimmultivolume}{\newunitpunct}
3740 \newtoggle{blx@ox@success}
3741 \DeclareBiblatexOption{global,type}[string]{relationpunct}[semicolon]{%
3742   \bgroup\blx@blx@init
3743   \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3744     \global\togglefalse{blx@ox@success}%
3745     \PackageError{biblatex-oxref}{%
3746       Invalid option 'relationpunct=#1'%
3747     }{%
3748       Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3749       'period', 'exclam', 'question', and 'space'.}}%
3750   \egroup
3751   \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}{%
3752     \DeclareDelimFormat{begrelateddelim}{\addspace}%
3753   }{%
3754     \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}}%
3755   }{}
3756 \DeclareEntryOption[string]{relationpunct}[semicolon]{%
3757   \bgroup\blx@blx@init
3758   \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3759     \global\togglefalse{blx@ox@success}%
3760     \PackageError{biblatex-oxref}{%
3761       Invalid option 'relationpunct=#1'%
3762     }{%

```

```

3763     Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3764     'period', 'exclam', 'question', and 'space'.}}%
3765 \egroup
3766 \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}}{%
3767   \DeclareDelimFormat{begrelateddelim}{\addspace}%
3768   \DeclareDelimFormat{begrelateddelimequals}{\addspace}%
3769   \DeclareDelimFormat{begrelateddelimin}{\addspace}%
3770   \DeclareDelimFormat{begrelateddeliminclludes}{\addspace}%
3771   \DeclareDelimFormat{begrelateddelimreprintfrom}{\addspace}%
3772   \DeclareDelimFormat{begrelateddelimreviewof}{\addspace}%
3773   \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}%
3774   \DeclareDelimFormat{begrelateddelimmultivolume}{\addspace}%
3775 }{%
3776   \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}%
3777   \DeclareDelimFormat{begrelateddelimequals}{\csuse{add#1}\space}%
3778   \DeclareDelimFormat{begrelateddelimin}{\csuse{add#1}\space}%
3779   \DeclareDelimFormat{begrelateddeliminclludes}{\csuse{add#1}\space}%
3780   \DeclareDelimFormat{begrelateddelimreprintfrom}{\csuse{add#1}\space}%
3781   \DeclareDelimFormat{begrelateddelimreviewof}{\csuse{add#1}\space}%
3782   \DeclareDelimFormat{begrelateddelimtranslationof}{\csuse{add#1}\space}%
3783   \DeclareDelimFormat{begrelateddelimmultivolume}{\csuse{add#1}\space}}%
3784 }{}
3785 \ExecuteBibliographyOptions{relationpunct}
3786 \newcounter{blx@ox@reliitem}
3787 \xapptobibmacro{begrelated}{%
3788   \setcounter{blx@ox@reliitem}{0}%
3789 }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelated}}

```

We provide an option to prevent a related item beginning with "in".

```

3790 \newtoggle{blx@ox@norelin}
3791 \DeclareBiblatexOption{global,type,entry}{norelatedin}[true]{%
3792   \settoggle{blx@ox@norelin}{#1}}
3793 \xapptobibmacro{begrelatedloop}{%
3794   \iftoggle{blx@ox@norelin}{%
3795     \renewbibmacro*{in}{%
3796       \ifboolexpr{
3797         test {\ifnameundef{author}}
3798         and
3799         test {\ifnameundef{translator}}
3800         and
3801         test {\iffieldundef{title}}
3802       }{}%
3803       \bibstring{in}%
3804       \printunit{\intitlepunct}%
3805     }{}%
3806 }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelatedloop}}

```

Translations

Where related item is the translation, the related string is prefaced with the language.

```

3807 \newbibmacro*{rellanguage}{%
3808   \def\do##1{%
3809     \entrydata{##1}{%
3810       \printlist{language}}}%
3811   \docsvfield{related}%
3812 }
3813 \DeclareFieldFormat{relatedstring:translationof}{%
3814   \usebibmacro{rellanguage}\space

```

```

3815     \bibstring{original}\addcomma\space}
3816
3817     \DeclareFieldFormat{related:translationof}{%
3818     \mkbibbrackets{#1}}

```

Co-publications

This relation simply prints what would go in the publication block.

```

3819     \newbibmacro*{related:copub}[1]{%
3820     \entrydata*{#1}{%
3821     \usebibmacro{publisher+location+date}%
3822     \setunit{\relateddelim}}}

```

Reprints

The standard styles define a special driver for the reprintfrom relation. For oxref, the standard generic driver is sufficient, so this code reverts the specialization.

```

3823     \renewbibmacro*{related:reprintfrom}[1]{%
3824     \entrydata*{#1}{%
3825     \nopunct
3826     \usedriver{%
3827     \ifnameundef{savedauthor}{%
3828     \ifnameundef{savededitor}{%
3829     \ifnamesequal{editor}{savededitor}{%
3830     \clearname{editor}%
3831     }{}%
3832     }{%
3833     \ifnamesequal{author}{savedauthor}{%
3834     \clearname{author}%
3835     }{}%
3836     \iffieldundef{savedtitle}{%
3837     \iffieldsequal{savedtitle}{title}{%
3838     \clearfield{title}%
3839     }{}%
3840     \renewbibmacro*{related:init}{%
3841     \DeclareNameAlias{sortname}{default}%
3842     \ifbibmacroundef{date+extradate}{%
3843     \renewbibmacro*{date+extradate}{%
3844     \renewbibmacro*{date}{\printdate}}%
3845     \renewbibmacro*{pageref}{%
3846     }{%
3847     \thefield{entrytype}}}}

```

Articles that span issues

If an article spans several issues of a journal, we print the second reference after the first, omitting any information in common.

```

3848     \newbibmacro*{related:serialarticle}[1]{%
3849     \entrydata*{#1}{%
3850     \iffieldundef{savedjournaltitle}{%
3851     \iffieldsequal{journaltitle}{savedjournaltitle}{%
3852     \clearfield{journaltitle}%
3853     }{}%
3854     \iffieldundef{savedjournalsubtitle}{%

```

```

3855     \iffieldequal{journalsubtitle}{savedjournalsubtitle}{%
3856       \clearfield{journalsubtitle}%
3857     }{}}%
3858     \iffieldundef{savedseries}{}{%
3859       \iffieldequal{series}{savedseries}{%
3860         \clearfield{series}%
3861       }{}}%
3862     \iffieldundef{savedyear}{\clearfield{year}}{
3863       \iffieldequal{year}{savedyear}{%
3864         \clearfield{year}%
3865       }{}}%
3866     \usebibmacro{journal+issuetitle}%
3867     \newunit
3868     \usebibmacro{note+pages}%
3869     \newunit\newblock
3870     \usebibmacro{doi+eprint+url}%
3871     \newunit\newblock
3872     \usebibmacro{addendum+pubstate}}

```

Reviews

We ensure that the field formatting for review entries matches that for article entries.

```

3873     \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
3874     \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3875     \DeclareFieldFormat[review]{number}{#1}% number of a journal
3876     \DeclareFieldFormat[review]{series}{% series of a journal
3877       \ifinteger{#1}
3878       {\mkbibordseries{#1}~\bibstring{jourser}}
3879       {\ifbibstring{#1}{\bibstring{#1}}{#1}}}

```

We take advantage of the Biber-specific mechanism of relating items in order to handle reviews. Compared to the default code, this is simpler in that we don't check for repeated authors/editors (it would be a rather biased review!), we directly set the author format, and we don't nullify the `date+extradate` macro.

```

3880     \newbibmacro*{related:reviewof}[1]{%
3881       \entrydata*{#1}{%
3882         \usedriver{
3883           \renewbibmacro*{related:init}{}%
3884           \DeclareNameAlias{author}{given-family}%
3885           \renewbibmacro*{pageref}{}%
3886         }{\thefield{entrytype}}%
3887       }%
3888     }

```

Since a review is a special kind of journal article, the review driver is based on the article one, the difference being that the `related` macro comes just before `journal+issuetitle`. Oxford style links the two with 'in'.

```

3889     \DeclareBibliographyDriver{review}{%
3890       \usebibmacro{bibindex}%
3891       \usebibmacro{begentry}%
3892       \usebibmacro{author/translator+others}%
3893       \setunit{\printdelim{nametitledelim}}\newblock
3894       \usebibmacro{title}%
3895       \setunit{\titlebyauthor}\newblock
3896       \usebibmacro{byauthor}%
3897       \newunit\newblock

```

```

3898 \usebibmacro{bytranslator+others}%
3899 \newunit\newblock
3900 \printfield{version}%
3901 \newunit\newblock
3902 \iftoggle{bbx:related}{%
3903   \usebibmacro{related:init}%
3904   \usebibmacro{related}%
3905 }{}%
3906 \newunit\newblock
3907 \usebibmacro{in:}%
3908 \setunit{\addspace}%
3909 \usebibmacro{journal+issuetitle}%
3910 \newunit
3911 \usebibmacro{byeditor+others}%
3912 \iffieldundef{note}%
3913   {\newunit}%
3914   {\setunit{\addsemicolon\addspace}}%
3915 \usebibmacro{note+pages}%
3916 \newunit\newblock
3917 \iftoggle{bbx:isbn}
3918   {\printfield{issn}}
3919   {}%
3920 \newunit\newblock
3921 \usebibmacro{doi+eprint+url}%
3922 \newunit\newblock
3923 \usebibmacro{addendum+pubstate}%
3924 \setunit{\bibpagerefpunct}\newblock
3925 \usebibmacro{pageref}%
3926 \usebibmacro{finentry}}

```

Multiple volumes

Standard biblatex provides the `multivolume` relation for different volumes of the same work that have slightly different publication details, but it doesn't quite work for Oxford style. This works better.

```

3927 \DeclareFieldFormat{related:multivolume}{#1}
3928 \renewbibmacro*{related:multivolume}[1]{%
3929   \entrydata*{#1}{%
3930     \printtext{%
3931       \printfield{volume}%
3932       \printfield{part}%
3933       \iffieldsequal{savedtitle}{title}{}{}%
3934       \setunit{\addcolon\space}%
3935       \usebibmacro{title}}%
3936   }%
3937   \setunit*\addspace}%
3938 \iffieldsequal{savedseries}{series}{\clearfield{series}}{}%
3939 \iffieldsequal{savednumber}{number}{\clearfield{number}}{}%
3940 \iffieldsequal{savededition}{edition}{\clearfield{edition}}{}%
3941 \ifboolexpr{
3942   test {\iflistsequal{savedpublisher}{publisher}}
3943   and
3944   test {\iflistsequal{savedlocation}{location}}
3945 }{\clearlist{publisher}\clearlist{location}}{}%
3946 \iffieldsequal{saveddate}{date}{\clearfield{date}}{}%
3947 \usebibmacro{series+number+edition+publisher+location+date}%
3948 }}

```

Related editions

This macro is based on the ‘bytranslator’ one, but more general. Note that `\mkrelatedstringtext` was introduced in biblatex v3.16, so we backport it if an earlier version is used.

```

3949 \providecommand*\mkrelatedstringtext[1]{\{\mainlang #1\}}
3950 \newbibmacro*{related:editadas}[1]{%
3951   \entrydata{#1}{%
3952     \renewbibmacro*{name:hook}[1]{%
3953       \ifnumequal{\value{listcount}}{1}
3954         {\mkrelatedstringtext{\ltx@initnamehook{#1}}}
3955       }%
3956     \printfield{edition}%
3957     \setunit{\addspace}%
3958     \usebibmacro{byeditor+others}%
3959     \setunit*\addcomma\space\bibstring[\mkrelatedstringtext]{astitle}\space%
3960     \usebibmacro{maintitle+title}%
3961     \setunit{\addspace}%
3962     \printfield{note}%
3963     \newunit\newblock
3964     \printfield{volumes}%
3965     \newunit
3966     \usebibmacro{series+number+publisher+location+date}}%
3967 \renewbibmacro*{related:bytranslator}[1]{%
3968   \entrydata{#1}{%
3969     \renewbibmacro*{name:hook}[1]{%
3970       \ifnumequal{\value{listcount}}{1}
3971         {\mkrelatedstringtext{\ltx@initnamehook{#1}}}
3972       }%
3973     \printnames[bytranslator]{translator}%
3974     \setunit*\addspace\bibstring[\mkrelatedstringtext]{astitle}\space%
3975     \usebibmacro{maintitle+title}%
3976     \setunit{\addspace}%
3977     \printfield{note}%
3978     \newunit\newblock
3979     \printfield{volumes}%
3980     \newunit
3981     \usebibmacro{series+number+publisher+location+date}}%

```

Joint releases

We provide support for CDs (for example) which contain more than one work.

```

3982 \newbibmacro*{related:includes}[1]{%
3983   \stepcounter{blx@ox@relitem}%
3984   \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3985     {\bibstring{and}\addspace}{}%
3986   \entrydata{#1}{%
3987     \ifbibmacroudf{date+extradate}{}%
3988     \renewbibmacro*{date+extradate}{}%
3989     \usebibmacro{author}%
3990     \setunit{\printdelim{nametitledelim}}\newblock
3991     \usebibmacro{title}}%

```

Subitems

We provide support for items in items in items. The outer two layers should be taken care of with an incollection entry or equivalent. The innermost item should be a misc entry. While we’re at it, we provide descriptor support for misc entries.

```

3992 \DeclareFieldFormat[misc]{title}{%
3993 \def\currentfield{title}%
3994 \iffieldannotation{descriptor}{#1}{%
3995 \iffieldequalstr{relatedtype}{in}{%
3996 \mkbibquote{#1\isdot}%
3997 }{%
3998 \mkbibemph{#1}%
3999 }}%
4000 \undef\currentfield}
4001 \newbibmacro*{related:in}[1]{%
4002 \entrydata*{#1}{%
4003 \usedriver
4004 {\ifnameundef{savedauthor}
4005 {\ifnameundef{savededitor}
4006 {}
4007 {\ifnameequal{editor}{savededitor}
4008 {\clearname{editor}}
4009 {}}}
4010 {\ifnameequal{author}{savedauthor}
4011 {\clearname{author}}
4012 {}}}%
4013 \renewbibmacro*{related:init}{}%
4014 \DeclareNameAlias{sortname}{default}%
4015 \ifbibmacroundef{date+extradate}
4016 {}
4017 {\renewbibmacro*{date+extradate}{}%
4018 \renewbibmacro*{date}{\printdate}}%
4019 \renewbibmacro*{pageref}{}
4020 {\thefield{entrytype}}%
4021 \ifboolexpr{
4022 test {\iffieldundef{pages}}
4023 or
4024 test {\iffieldundef{savedpages}}
4025 }{%
4026 \newunit\newblock
4027 }{%
4028 \setunit{\addspace}%
4029 \bibstring{thiscite}%
4030 \printunit{\addspace}%
4031 }%
4032 }%
4033 \usebibmacro{chapter+pages}%
4034 }

```

2.1.19 SOURCE MAPS

We use the source mapping capabilities of Biber to fix the following issues.

```

4035 \DeclareStyleSourcemap{%
4036 \maps[datatype=bibtex]{%

```

Sort order

proceedings and mvproceedings entries allow an organization to be printed in the author position.

```

4037 \map{
4038 \pertype{proceedings}
4039 \pertype{mvproceedings}

```

```

4040     \step[notfield=author,
4041           fieldsource=organization,
4042           fieldtarget=author]
4043   }

```

Descriptors

This map provides a helpful descriptor field that can simplify the provision of descriptors, being notes that can act as titles.

```

4044     \map[overwrite=false]{
4045       \step[fieldsource=descriptor, final]
4046       \step[notfield=title,
4047             fieldset=title+an,
4048             fieldvalue={=descriptor}]
4049       \step[notfield=title,
4050             fieldsource=descriptor,
4051             fieldtarget=title]
4052       \step[fieldsource=descriptor,
4053             fieldtarget=note]
4054     }

```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

4055     \map[overwrite=false]{
4056       \step[fieldsource=realauthor, final]
4057       \step[notfield=author,
4058             fieldset=author+an,
4059             fieldvalue={=inferred}]
4060       \step[notfield=author,
4061             fieldsource=realauthor,
4062             fieldtarget=author]
4063       \step[fieldsource=realauthor,
4064             fieldtarget=authoraddon]
4065     }
4066     \map[overwrite=false]{
4067       \step[fieldsource=realeditor, final]
4068       \step[notfield=editor,
4069             fieldset=editor+an,
4070             fieldvalue={=inferred}]
4071       \step[notfield=editor,
4072             fieldsource=realeditor,
4073             fieldtarget=editor]
4074       \step[fieldsource=realeditor,
4075             fieldtarget=editoraddon]
4076     }

```

Editors as joint authors

This map provides a more portable interface for declaring a translator or revisor to be a joint author.

```

4077     \map[overwrite=false]{
4078       \step[fieldsource=editor+an,
4079             match=\regexp{=jointauthor},
4080             final]

```



```

4081     \step[fieldsource=editor,
4082           fieldtarget=jointauthor]
4083     \step[fieldsource=editortype,
4084           fieldtarget=jointauthortype]
4085   }
4086   \map[overwrite=false]{
4087     \step[fieldsource=translator+an,
4088           match=\regexp{=jointauthor},
4089           final]
4090     \step[fieldsource=translator,
4091           fieldtarget=jointauthor]
4092     \step[fieldset=jointauthortype,
4093           fieldvalue={=translator}]
4094   }

```

Standards

The purpose of this map is to move the number to the head of the reference in the absence of an author, and try to fix the sorting accordingly.

```

4095     \map[overwrite=false]{
4096       \pertype{standard}
4097       \step[notfield=author,
4098             fieldsource=number,
4099             final]
4100       \step[fieldset=sortkey,
4101             origfieldval]
4102     }

```

Audiovisual materials

For audiovisual materials, origdatetype defaults to 'recorded'.

```

4103     \map[overwrite=false]{
4104       \pertype{audio}
4105       \pertype{music}
4106       \pertype{movie}
4107       \pertype{video}
4108       \pertype{inaudio}
4109       \pertype{inmusic}
4110       \pertype{inmovie}
4111       \pertype{invideo}
4112       \step[fieldset=origdatetype, fieldvalue={recorded}]
4113     }

```

Legal references

These help ensure compatibility with oscola.

```

4114     \map[overwrite=false]{
4115       \pertype{jurisdiction}
4116       \step[fieldsource=reporter,
4117             fieldtarget=journaltitle]
4118       \step[fieldsource=court,
4119             fieldtarget=institution]
4120       \step[fieldsource=additionalreports,
4121             fieldtarget=listb]
4122       \step[fieldsource=ecli,

```

```

4123         fieldtarget=verba]
4124     }%
4125     \map[overwrite=false]{
4126         \pertype{legal}
4127         \step[fieldsource=reporter,
4128             fieldtarget=journaltitle]
4129     }
4130     \map[overwrite=true]{
4131         \pertype{legal}
4132         \step[fieldsource=parties,
4133             fieldtarget=institution]
4134         \step[fieldsource=execution,
4135             fieldtarget=lista]
4136     }

```

This is how oscola removes dots from entries.

```

4137     \map[overwrite=true]{
4138         \pertype{jurisdiction}
4139         \pertype{legislation}
4140         \pertype{legal}
4141         \step[fieldsource=title,
4142             match=\regexp{(d)\.(\d)},
4143             replace=\regexp{$1.$2}]
4144         \step[fieldsource=title,
4145             match=\regexp{(D)\.(\d)},
4146             replace=\regexp{$1 $2}]
4147         \step[fieldsource=title,
4148             match=\regexp{\.(\D)},
4149             replace=\regexp{$1}]
4150         \step [fieldsource=title,
4151             match=\regexp{(\D)\.},
4152             replace=\regexp{$1}]
4153         \step[fieldsource=shorttitle,
4154             match=\regexp{(d)\.(\d)},
4155             replace=\regexp{$1.$2}]
4156         \step[fieldsource=shorttitle,
4157             match=\regexp{(D)\.(\d)},
4158             replace=\regexp{$1 $2}]
4159         \step[fieldsource=shorttitle,
4160             match=\regexp{\.(\D)},
4161             replace=\regexp{$1}]
4162         \step [fieldsource=shorttitle,
4163             match=\regexp{(\D)\.},
4164             replace=\regexp{$1}]
4165         \step[fieldsource=parreporter,
4166             match=\regexp{(d)\.(\d)},
4167             replace=\regexp{$1.$2}]
4168         \step[fieldsource=parreporter,
4169             match=\regexp{(D)\.(\d)},
4170             replace=\regexp{$1 $2}]
4171         \step[fieldsource=parreporter,
4172             match=\regexp{\.(\D)},
4173             replace=\regexp{$1}]
4174         \step [fieldsource=parreporter,
4175             match=\regexp{(\D)\.},
4176             replace=\regexp{$1}]
4177         \step[fieldsource=journaltitle,
4178             match=\regexp{(d)\.(\d)},
4179             replace=\regexp{$1.$2}]
4180         \step[fieldsource=journaltitle,

```

```

4181         match=\regexp{(\D)\.(\d)},
4182         replace=\regexp{$1 $2}
4183 \step[fieldsource=journaltitle,
4184       match=\regexp{\.(\D)},
4185       replace=\regexp{$1}]
4186 \step [fieldsource=journaltitle,
4187       match=\regexp{(\D)\.},
4188       replace=\regexp{$1}]
4189 \step[fieldsource=institution,
4190       match=\regexp{(\d)\.(\d)},
4191       replace=\regexp{$1.$2}]
4192 \step[fieldsource=institution,
4193       match=\regexp{(\D)\.(\d)},
4194       replace=\regexp{$1 $2}]
4195 \step[fieldsource=institution,
4196       match=\regexp{\.(\D)},
4197       replace=\regexp{$1}]
4198 \step[fieldsource=institution,
4199       match=\regexp{(\D)\.},
4200       replace=\regexp{$1}]
4201 \step[fieldsource=publisher,
4202       match=\regexp{(\d)\.(\d)},
4203       replace=\regexp{$1.$2}]
4204 \step[fieldsource=publisher,
4205       match=\regexp{(\D)\.(\d)},
4206       replace=\regexp{$1 $2}]
4207 \step[fieldsource=publisher,
4208       match=\regexp{\.(\D)},
4209       replace=\regexp{$1}]
4210 \step [fieldsource=publisher,
4211       match=\regexp{(\D)\.},
4212       replace=\regexp{$1}]
4213 \step[fieldsource=location,
4214       match=\regexp{(\d)\.(\d)},
4215       replace=\regexp{$1.$2}]
4216 \step[fieldsource=location,
4217       match=\regexp{(\D)\.(\d)},
4218       replace=\regexp{$1 $2}]
4219 \step[fieldsource=location,
4220       match=\regexp{\.(\D)},
4221       replace=\regexp{$1}]
4222 \step [fieldsource=location,
4223       match=\regexp{(\D)\.},
4224       replace=\regexp{$1}]
4225 \step[fieldsource=series,
4226       match=\regexp{(\d)\.(\d)},
4227       replace=\regexp{$1.$2}]
4228 \step[fieldsource=series,
4229       match=\regexp{(\D)\.(\d)},
4230       replace=\regexp{$1 $2}]
4231 \step[fieldsource=series,
4232       match=\regexp{\.(\D)},
4233       replace=\regexp{$1}]
4234 \step [fieldsource=series,
4235       match=\regexp{(\D)\.},
4236       replace=\regexp{$1}]
4237 \step[fieldsource=indextitle,
4238       match=\regexp{(\d)\.(\d)},
4239       replace=\regexp{$1.$2}]
4240 \step[fieldsource=indextitle,
4241       match=\regexp{(\D)\.(\d)},
4242       replace=\regexp{$1 $2}]

```

```

4243     \step[fieldsource=indextitle,
4244           match=\regexp{\.(\\D)},
4245           replace=\regexp{$1}]
4246     \step [fieldsource=indextitle,
4247           match=\regexp{(\\D)\\.},
4248           replace=\regexp{$1}]
4249   }

```

If casenumber is given, it is converted to number or, if the number is already set, userb.

```

4250     \map[overwrite=false]{
4251       \step[fieldsource=casenumber, final]
4252       \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
4253       \step[fieldsource=casenumber, fieldtarget=userb]
4254     }
4255   }%
4256 }

```

2.1.20 SORTING SCHEMES

We adjust the sort order to take into account some other fields that might end up at the front (library, collection, series).

```

4257 \DeclareSortingTemplate{nty}{
4258   \sort{
4259     \field{presort}
4260   }
4261   \sort[final]{
4262     \field{sortkey}
4263   }
4264   \sort{
4265     \field{sortname}
4266     \field{author}
4267     \field{editor}
4268     \field{translator}
4269     \field{sorttitle}
4270     \field{title}
4271     \field{library}
4272   }
4273   \sort{
4274     \field{sorttitle}
4275     \field{title}
4276   }
4277   \sort{
4278     \field{sortyear}
4279     \field{year}
4280   }
4281   \sort{
4282     \field{volume}
4283     \literal{0}
4284   }
4285   \sort{
4286     \field{location}
4287   }
4288   \sort{
4289     \field{collection}
4290     \field{series}
4291   }
4292 }
4293

```

```
4294 \DeclareSortingTemplate{nyt}{
4295   \sort{
4296     \field{presort}
4297   }
4298   \sort[final]{
4299     \field{sortkey}
4300   }
4301   \sort{
4302     \field{sortname}
4303     \field{author}
4304     \field{editor}
4305     \field{translator}
4306     \field{sorttitle}
4307     \field{title}
4308     \field{library}
4309   }
4310   \sort{
4311     \field{sortyear}
4312     \field{year}
4313   }
4314   \sort{
4315     \field{sorttitle}
4316     \field{title}
4317   }
4318   \sort{
4319     \field{volume}
4320     \literal{0}
4321   }
4322   \sort{
4323     \field{location}
4324   }
4325   \sort{
4326     \field{collection}
4327     \field{series}
4328   }
4329 }
4330
4331 \DeclareSortingTemplate{anyt}{
4332   \sort{
4333     \field{presort}
4334   }
4335   \sort{
4336     \field{labelalpha}
4337   }
4338   \sort[final]{
4339     \field{sortkey}
4340   }
4341   \sort{
4342     \field{sortname}
4343     \field{author}
4344     \field{editor}
4345     \field{translator}
4346     \field{sorttitle}
4347     \field{title}
4348     \field{library}
4349   }
4350   \sort{
4351     \field{sortyear}
4352     \field{year}
4353   }
4354   \sort{
4355     \field{sorttitle}
```

```

4356     \field{title}
4357   }
4358   \sort{
4359     \field{volume}
4360     \literal{0}
4361   }
4362   \sort{
4363     \field{location}
4364   }
4365   \sort{
4366     \field{collection}
4367     \field{series}
4368   }
4369 }

```

The following entry types never put editors first.

```

4370 \ExecuteBibliographyOptions
4371   [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4372   manuscript,unpublished,review]{useeditor=false}

```

2.2 Notes style: oxnotes.bbx

2.2.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

2.2.2 NAMES

We apply our special name format to names likely to appear at the start of an entry.

```

21 \DeclareNameAlias{author}{bib-family-given/cite-given-family}
22 \DeclareNameAlias[related:reviewof]{author}{given-family}
23 \DeclareNameAlias{editor}{bib-family-given/cite-given-family}
24 \DeclareNameAlias[related:reviewof]{editor}{given-family}

```

We ensure the printing of the anon localization string matches.

```

25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{\wlog{WARNING: biblatex-oxref (oxnotes) failed to patch author}}

```

2.2.3 MULTIVOLUME DATES

For the very particular use case of breaking down multivolume works into their constituent volumes, we remove the overall date, assuming that the individual volume dates will be used instead.

```

34 \xpretobibmacro{series+number+edition+publisher+location+date}{%
35 \iffieldequalstr{relatedtype}{multivolume}{%
36 \clearfield{year}\clearfield{month}\clearfield{day}%
37 }{}{}{}

```

2.2.4 SOURCE MAPS

```

38 \DeclareStyleSourceMap{%
39 \maps[datatype=bibtex]{%

```

Sort order

For entry types that print the maintitle and volume before the title, we need to make sure this is reflected in the sort order.

```

40 \map{
41 \pertype{mvbook}
42 \pertype{mvcollection}
43 \pertype{mvreference}
44 \pertype{proceedings}
45 \pertype{mvproceedings}
46 \pertype{report}
47 \step[fieldsource=maintitle]%
48 \step[fieldset=sorttitle, origfieldval]%
49 \step[fieldsource=volume]%
50 \step[fieldset=sorttitle, append, origfieldval]%
51 \step[fieldsource=title]%
52 \step[fieldset=sorttitle, append, origfieldval]%
53 }%
54 }%
55 }

```

2.3 Numeric style: oxnum.bbx

2.3.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

2.3.2 NAMES

We apply our special name format to names likely to appear at the start of an entry.

```

21 \DeclareNameAlias{author}{bib-family-given/cite-given-family}
22 \DeclareNameAlias[related:reviewof]{author}{given-family}
23 \DeclareNameAlias{editor}{bib-family-given/cite-given-family}
24 \DeclareNameAlias[related:reviewof]{editor}{given-family}

```

We ensure the printing of the anon localization string matches.

```

25 \xpatchbibmacro{author}{%
26 \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28 \iftoggle{blx@ox@abbranon}{%

```

```

29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{\wlog{WARNING: biblatex-oxref (oxnum) failed to patch author}}

```

2.3.3 MULTIVOLUME DATES

For the very particular use case of breaking down multivolume works into their constituent volumes, we remove the overall date, assuming that the individual volume dates will be used instead.

```

34 \xpretobibmacro{series+number+edition+publisher+location+date}{%
35   \iffieldequalstr{relatedtype}{multivolume}{%
36     \clearfield{year}\clearfield{month}\clearfield{day}%
37   }{}{}

```

2.3.4 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```

38 \ExecuteBibliographyOptions{labelnumber}
39
40 \providebool{bbx:subentry}
41
42 \DeclareBibliographyOption{subentry}[true]{%
43   \setbool{bbx:subentry}{#1}}
44
45 \DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
46 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
47 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
48
49 \defbibenvironment{bibliography}
50   {\list
51     {\printtext[labelnumberwidth]{%
52       \printfield{labelprefix}%
53       \printfield{labelnumber}}}
54     {\setlength{\labelwidth}{\labelnumberwidth}%
55       \setlength{\leftmargin}{\labelwidth}%
56       \setlength{\labelsep}{\biblabelsep}%
57       \addtolength{\leftmargin}{\labelsep}%
58       \setlength{\itemsep}{\bibitemsep}%
59       \setlength{\parsep}{\bibparsep}}%
60     \renewcommand*{\makeLabel}[1]{\hss#1}}
61   {\endlist}
62   {\item}
63
64 \defbibenvironment{shorthand}
65   {\list
66     {\printfield[shorthandwidth]{shorthand}}
67     {\setlength{\labelwidth}{\shorthandwidth}%
68       \setlength{\leftmargin}{\labelwidth}%
69       \setlength{\labelsep}{\biblabelsep}%
70       \addtolength{\leftmargin}{\labelsep}%
71       \setlength{\itemsep}{\bibitemsep}%
72       \setlength{\parsep}{\bibparsep}}%
73     \renewcommand*{\makeLabel}[1]{\hss#1}}
74   {\endlist}
75   {\item}

```



```

76
77 \DeclareBibliographyDriver{set}{%
78   \entryset
79   {\ifbool{bbx:subentry}
80     {\printfield[bibentrysetcount]{entrysetcount}%
81       \printunit*{\addnbspace}}
82     {}}
83   {}%
84   \newunit\newblock
85   \usebibmacro{setpageref}%
86   \finentry}

```

2.4 Author–year style: oxyear.bbx

2.4.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

Here we set some defaults different to the standard ones. The author can still override them.

```

21 \ExecuteBibliographyOptions{giveninits,labeldateparts,sorting=nyt,pagetracker,maxcitenames=2}

```

2.4.2 DATE MERGING OPTION

We provide the `mergedate` option from the `authoryear` style. In case it isn't clear from the standard documentation, the purpose of this option is twofold: it determines whether the date printed at the head of the reference is the same as or different from `labeldate` as used in the citations, and to what extent the date information at the head of the reference is repeated later on. The OGS and NHR consistently use a variant that is between the basic and compact options, in that the year is always moved to the head of the reference (matching `labeldate`) but the month and day are never moved; this is implemented as the `year` value.

```

22 \DeclareBiblatexOption{global,type,entry}{mergedate}[true]{%
23   \ifcsdef{bbx@opt@mergedate@#1}
24     {\csuse{bbx@opt@mergedate@#1}}
25     {\PackageError{biblatex-oxref}
26       {Invalid option 'mergedate=#1'}
27       {Valid values are 'maximum', 'compact', 'basic', 'minimum',\MessageBreak
28         'year', 'true' (=year), and 'false'.}}}

```

The various values affect the definition of the following macro, used at the head of the reference, for which we coin the `dateLabel` field format.

```

29 \providebibmacro*{date+extradate}{}
30 \DeclareFieldFormat{dateLabel}{\mkbibparens{#1}}
31 \DeclareFieldFormat{labeldate}{%
32   \iflabeldateisdate{%
33     \def\currentfield{date}%
34   }{%
35     \iflabeldateisanydate{%
36       \def\currentfield{\thefield{labeldatesource}date}%
37     }{%
38       \def\currentfield{\thefield{labeldatesource}}}%
39   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
40   \undef\currentfield}

```

On a related note, the `labeldate` uses the `origdate` if provided in preference to `date`, and falls back to `pubstate` if provided.

```

41 \DeclareLabeldate{%
42   \field{origdate}
43   \field{date}
44   \field{year}
45   \field{eventdate}
46   \field{pubstate}
47   \literal{nodate}
48 }

```

The `extradate` string should be printed bare.

```

49 \DeclareFieldFormat{extradate}{%
50   \iffieldundef{\thefield{labeldatesource}}{%
51     \iffieldnums{\thefield{labeldatesource}year}{}{~}%
52   }{%
53     \iffieldnums{\thefield{labeldatesource}}{~}%
54   }%
55   \mkbibemph{\mknumalph{#1}}}%

```

We provide tests similar to `\labeldateisdate` to tell if the `labeldate` is (a) any type of date, and (b) neither a date nor `pubstate`.

```

56 \def\iflabeldateisanydate{%
57   \ifboolexpr{%
58     togl {blx@labeldateparts}
59     and not test {\iffieldundef{labeldatesource}}
60     and (
61       test {\iffieldequalstr{labeldatesource}{year}}
62       or not test {\iffieldundef{\thefield{labeldatesource}year}}
63     )}
64 \def\iflabeldateispubstate{%
65   \ifboolexpr{%
66     not test {\iffieldundef{labeldatesource}}
67     and test {\iffieldequalstr{labeldatesource}{pubstate}}}

```

We also provide a wrapper around `\printlabeldateextra` that does nothing if the label date is the ‘`nodate`’ literal *and* `sortyear` is defined. Sadly `sortyear` is consumed before we get to this point, so we need a proxy toggle.

```

68 \newtoggle{blx@ox@nonodate}
69 \DeclareBiblatexOption{global,type,entry}{nonodate}[true]{%
70   \settoggle{blx@ox@nonodate}{#1}}
71 \newbibmacro*{labeldate}{%
72   \ifboolexpr{
73     test {\iffieldequalstr{labeldatesource}{nodate}}
74     and
75     togl {blx@ox@nonodate}
76   }{\printtext[datelabel]{\printlabeldateextra}}

```

Here we provide the various possible definitions. The `authoryear` implementation does it by clearing, changing or restoring the normal definitions of the `date` and `issue+date` macros. This is not so great for us as our versions of those macros are quite complex (too much to keep repeating). There are additional complications that arise from us using `origdate` in preference to `date` for the label year, and from our option that requires us to print some dates without years. Conceptually it is more straightforward to clear the data fields instead.

- true is the same as year (see below).

```
77 \def\bbx@opt@mergedate@true{\bbx@opt@mergedate@year}
```

- maximum merges the issue and the whole date with the date label. Therefore, we clear year, month, and day from the date used for the label, as well as the issue field.

```
78 \def\bbx@opt@mergedate@maximum{%
79   \renewbibmacro*{date+extradate}{%
80     \iffieldundef{Labelyear}}{%
81       \iflabeldateisdate{%
82         \printtext[datelabel]{%
83           \printfield{issue}\clearfield{issue}%
84           \setunit*{\addspace}%
85           \printdateextra}%
86         \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
87       }{%
88         \iflabeldateisanydate{%
89           \printtext[datelabel]{%
90             \csuse{print\thefield{labeldatesource}dateextra}}%
91             \clearfield{\thefield{labeldatesource}year}%
92             \clearfield{\thefield{labeldatesource}season}%
93             \clearfield{\thefield{labeldatesource}month}%
94             \clearfield{\thefield{labeldatesource}day}%
95           }{%
96             \usebibmacro{labeldate}%
97             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}}}}
```

- compact merges the whole date (but not issue) with date label. Therefore, we clear year, month, and day from the date used for the label, but leave the issue field alone.

```
98 \def\bbx@opt@mergedate@compact{%
99   \renewbibmacro*{date+extradate}{%
100     \iffieldundef{Labelyear}}{%
101       \iflabeldateisdate{%
102         \printtext[datelabel]{\printdateextra}%
103         \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
104       }{%
105         \iflabeldateisanydate{%
106           \printtext[datelabel]{%
107             \csuse{print\thefield{labeldatesource}dateextra}}%
108             \clearfield{\thefield{labeldatesource}year}%
109             \clearfield{\thefield{labeldatesource}season}%
110             \clearfield{\thefield{labeldatesource}month}%
111             \clearfield{\thefield{labeldatesource}day}%
112           }{%
113             \usebibmacro{labeldate}%
114             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}}}}
```

- year always merges the year, and only the year, with the label date. Other date and time components are displayed later in the reference. Therefore we clear the year from the date used for the label, but leave the month and day alone.

```
115 \def\bbx@opt@mergedate@year{%
116   \renewbibmacro*{date+extradate}{%
117     \iffieldundef{Labelyear}}{%
118     \usebibmacro{labeldate}%
```

```

119     \iflabeldateisdate{%
120       \clearfield{year}
121     }{%
122       \iflabeldateisanydate{%
123         \clearfield{\thefield{labeldatesource}year}%
124       }{%
125         \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
126       }}}}

```

- basic will merge a year-only date with the date label, but will otherwise display the label year at the head of the reference and the full date later. Therefore we clear the year if and only if there is no month component *and* (if this is the regular date) no issue.

```

127 \def\bbx@opt@mergedate@basic{%
128 \renewbibmacro*{date+extradate}{%
129 \iffieldundef{labelyear}}{%
130 \usebibmacro{labeldate}%
131 \iflabeldateisdate{%
132 \ifboolexpr{
133 test {\ifdateshavedifferentprecision{label}}
134 or
135 not test {\iffieldundef{issue}}
136 }{%
137 \clearfield{year}}%
138 }{%
139 \iflabeldateisanydate{%
140 \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{%
141 \clearfield{\thefield{labeldatesource}year}}%
142 }{%
143 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
144 }}}}

```

- minimum will only merge the date with the label date if the two are identical, that is, a bare year with no month or disambiguating suffix. Therefore we clear the year if and only if there is no month component, no extradate, *and* (if this is the regular date) no issue.

```

145 \def\bbx@opt@mergedate@minimum{%
146 \renewbibmacro*{date+extradate}{%
147 \iffieldundef{labelyear}}{%
148 \usebibmacro{labeldate}%
149 \iflabeldateisdate{%
150 \ifboolexpr{
151 test {\ifdateshavedifferentprecision{label}}
152 or
153 not test {\iffieldundef{extradate}}
154 or
155 not test {\iffieldundef{issue}}
156 }{%
157 \clearfield{year}}%
158 }{%
159 \iflabeldateisanydate{%
160 \ifboolexpr{
161 test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
162 or
163 not test {\iffieldundef{extradate}}
164 }{%
165 \clearfield{\thefield{labeldatesource}year}}%
166 }{%
167 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%

```

```
168     }}}
```

- `false` suppresses any merging. We only clear the label date source if it is a non-date field other than `pubstate`.

```
169 \def\bbx@opt@mergedate@false{%
170 \renewbibmacro*{date+extradate}{%
171 \iffieldundef{labelyear}}{%
172 \usebibmacro{labeldate}%
173 \iflabeldateisanydate}{%
174 \iflabeldateispubstate}{\clearfield{\thefield{labeldatesource}}}%
175 }}}
```

We set the default to be `true/year`.

```
176 \ExecuteBibliographyOptions{mergedate}
```

The problem with moving years but leaving months and days behind is that the regular date range macros in `biblatex.sty` do nothing at all if no year is printed. We therefore need to patch the macros with extra routines for printing year-free date ranges: the rather extravagantly named `\mknoyeardaterangefull` and `\mknoyeardaterangetrunc`.

```
177 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
178 \iffieldundef{#2month}}{%
179 \datecircaprint
180 \printtext[#2date]{%
181 \iffieldundef{#2season}}{%
182 \csuse{mkbibdate#1}{#2month}{#2day}%
183 \blx@printtime{#2}{%
184 }{%
185 \csuse{mkbibseasondate#1}{#2season}}%
186 \dateuncertainprint
187 \iffieldundef{#2endmonth}}{%
188 \iffieldequalstr{#2endmonth}}{%
189 \mbox{\bibdaterangesep}%
190 }{%
191 \bibdaterangesep
192 \enddatecircaprint
193 \iffieldundef{#2season}}{%
194 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
195 \blx@printtime{#2}{end}%
196 }{%
197 \csuse{mkbibseasondate#1}{#2endseason}}%
198 \enddateuncertainprint}}}}
```

There is a potential problem for `\mknoyeardaterangetrunc`, in that if the year and endyear are missing, it cannot tell if they are the same, so if the months are the same but the years are different, the range would be erroneously compressed. However, the only reason the year should be missing is that it is in the label, so we test `labelyear` instead.

```
199 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
200 \iffieldundef{#2month}}{%
201 \datecircaprint
202 \printtext[#2date]{%
203 \iffieldundef{#2season}}{%
204 \ifboolexpr{
205 test {\iffieldequal{labelyear}{labelendyear}}
```

```

206     and
207     test {\iffieldsequal{#2month}{#2endmonth}}
208   }{%
209     \csuse{mkbibdate#1}{#2day}%
210   }{%
211     \csuse{mkbibdate#1}{#2month}{#2day}%
212   }{%
213     \csuse{mkbibseasondate#1}{#2season}%
214   \dateuncertainprint
215   \iffieldundef{#2endmonth}{%
216     \iffieldequalstr{#2endmonth}{%
217       \mbox{\bibdaterangesep}%
218     }{%
219       \bibdaterangesep
220     \enddatecircaprint
221     \iffieldundef{#2season}{%
222       \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
223     }{%
224       \csuse{mkbibseasondate#1}{#2endseason}%
225     \enddateuncertainprint}}}}

```

Now we patch the four date range commands. The extra commands, which print disambiguating labels as well, should only print those labels if the year is present, so they can use the same non-year date range functions as the non-extra commands.

```

226 \xpatchcmd{\mkdaterangefull}{%
227   \iffieldundef{#2year} {\blx@nounit}%
228 }{%
229   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
230 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangefull}}
231 \xpatchcmd{\mkdaterangetrunc@i}{%
232   \iffieldundef{#2year} {\blx@nounit}%
233 }{%
234   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
235 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangetrunc@i}}
236 \xpatchcmd{\mkdaterangefullextra}{%
237   \iffieldundef{#2year} {\blx@nounit}%
238 }{%
239   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
240 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangefullextra}}
241 \xpatchcmd{\mkdaterangetruncextra@i}{%
242   \iffieldundef{#2year} {\blx@nounit}%
243 }{%
244   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
245 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangetruncextra@i}}

```

2.4.3 BIBLIOGRAPHY FORMATTING

We let biblatex measure shorthands so we can use `\shorthandwidth` later.

```

246 \DeclareFieldFormat{shorthandwidth}{#1}

```

We enhance the family-given name format to handle the pseudo and inferred annotations.

```

247 \xpretonameformat{family-given}{%
248   \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}{%
249   \ifitemannotation{inferred}{\bibopenbracket}{}}{%
250 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to prepend to family-given}}
251 \xpatchnameformat{family-given}{%

```

```

252   \usebibmacro{name:andothers}%
253 }{%
254   \ifitemannotation{pseudo}{%
255     \addspace\printtext[parens]{\bibsstring{pseudo}}%
256   }{%
257     \ifitemannotation{inferred}{\bibclosebracket}{}%
258     \usebibmacro{name:andothers}%
259     \iffieldannotation{inferred}{%
260       \ifboolexpr{
261         test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
262         or
263         test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
264         or (
265           test {\ifnumequal{\value{listcount}}{\value{minnames}}}
266           and
267           test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
268       }{\bibclosebracket}{}%
269     }{%
270 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch family-given}}
271 \DeclareNameAlias{shortauthor}{family-given}
272 \DeclareNameAlias{shorteditor}{family-given}

```

Names at the head of the reference are family-given, but names elsewhere are given-family.

```

273 \DeclareNameAlias{sortname}{family-given}
274 \DeclareNameAlias{author}{family-given}
275 \DeclareNameAlias{editor}{family-given}
276 \DeclareNameAlias{translator}{family-given}

```

The bibliography formatting is just like authoryear except we do not eliminate item separation by default.

```

277 \defbibenvironment{bibliography}
278   {\list
279     {}
280     {\setlength{\leftmargin}{\bibhang}%
281       \setlength{\itemindent}{-\leftmargin}%
282       \setlength{\itemsep}{\bibitemsep}%
283       \setlength{\parsep}{\bibparsep}}
284   {\endlist}
285   {\item}

```

The shorthand formatting is just like authoryear.

```

286 \defbibenvironment{shorthand}
287   {\list
288     {\printfield[shorthandwidth]{shorthand}}
289     {\setlength{\labelwidth}{\shorthandwidth}%
290       \setlength{\leftmargin}{\labelwidth}%
291       \setlength{\labelsep}{\biblabelsep}%
292       \addtolength{\leftmargin}{\labelsep}%
293       \setlength{\itemsep}{\bibitemsep}%
294       \setlength{\parsep}{\bibparsep}%
295       \renewcommand*\makeatlabel[1]{##1\hss}}
296   {\endlist}
297   {\item}

```

2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in authoryear.

```
298 \InitializeBibliographyStyle{\global\undef\bbx@lasthash}
```

We ensure related entries do not interfere with the hashing.

```
299 \xapptobibmacro{begrelated}{%
300   \booltrue{bbx@inset}}%
301 {}{\wlog{WARNING: biblatex-oxref (oxyyear) failed to append to begrelated}}
302 \xapptobibmacro{endrelated}{%
303   \usebibmacro*{bbx:savehash}}%
304 {}{\wlog{WARNING: biblatex-oxref (oxyyear) failed to append to endrelated}}
```

We patch the author macro so that the date label information appears at the end (as in authoryear).

```
305 \xpatchbibmacro{author}{%
306   \iffieldundef{authortype}%
307 }{%
308   \usebibmacro{date+extradate}%
309   \setunit*{\addspace}%
310   \iffieldundef{authortype}%
311 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch author (authortype)}}%
312 \xpatchbibmacro{author}{%
313   \global\undef\bbx@lasthash
314 }{%
315   \global\undef\bbx@lasthash
316   \usebibmacro{labeltitle}%
317   \setunit*{\addspace}%
318   \usebibmacro{date+extradate}%
319 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch author (lasthash)}}%
```

We patch it further so that, where an author name has a corresponding (different) short author name, the short name is given first and the long name given in parentheses. Note that this only affects cases where `authoraddon` has not been provided.

```
320 \xpatchbibmacro{namepairs}{%
321   \printnames[by#1]%
322 }{%
323   \printnames[#1]%
324 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch namepairs}}
325 \xpatchbibmacro{author+altauthor}{%
326   \printnames{author}%
327 }{%
328   \ifboolexpr{%
329     ( not test {\ifnameundef{shortauthor}} )
330     and
331     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
332 }{%
333   \usebibmacro{namepairs}{author}{shortauthor}%
334 }{%
335   \printnames{author}%
336 }%
337 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch author+altauthor}}%
```

We apply the same patches to `bbx:editor`, but also move the editor string to after the date label.

```
338 \xpatchbibmacro{bbx:editor}{%
339   \usebibmacro{#1}%
340 }{%
341   \usebibmacro{date+extradate}%
342   \setunit*{\addspace}%
```



```

343   \usebibmacro{#1}%
344   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor}}%
345   \xpatchbibmacro{bbx:editor}{%
346     \global\undef\bbx@lasthash
347   }{%
348     \global\undef\bbx@lasthash
349     \usebibmacro{labeltitle}%
350     \setunit*\addspace}%
351   \usebibmacro{date+extradate}%
352   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor (lasthash)}}%
353   \xpatchbibmacro{editor+altditor}{%
354     \printnames[byeditor]%
355   }{%
356     \printnames[editor]%
357   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+altditor}}
358   \xpatchbibmacro{editor+altditor}{%
359     \printnames{editor}%
360   }{%
361     \ifboolexpr{%
362       ( not test {\ifnameundef{shorteditor}} )
363       and
364       test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
365     }{%
366       \usebibmacro{namepairs}{editor}{shorteditor}%
367     }{%
368       \printnames{editor}%
369     }%
370   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+altditor (shorteditor)}}%

```

We apply the same patches to `bbx:translator` as we do for `bbx:editor`, except for the shortening one.

```

371   \xpatchbibmacro{bbx:translator}{%
372     \global\undef\bbx@lasthash
373   }{%
374     \global\undef\bbx@lasthash
375     \usebibmacro{labeltitle}%
376     \setunit*\addspace}%
377   \usebibmacro{date+extradate}%
378   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:translator (lasthash)}}%
379   \xpatchbibmacro{bbx:translator}{%
380     \usebibmacro{#1}%
381   }{%
382     \usebibmacro{date+extradate}%
383     \setunit*\addspace}%
384     \usebibmacro{#1}%
385   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:translator}}%

```

The `labeltitle` macro differs from the one from `authoryear` in that it also includes the subtitle. We record the fact that we have cleared the title.

```

386   \newtoggle{blx@ox@clearedtitle}
387   \newbibmacro*{labeltitle}{%
388     \iffieldundef{label}{%
389       \iffieldundef{shorttitle}{%
390         \ifboolexpr{
391           test {\iffieldundef{title}}
392           and
393           test {\iffieldundef{subtitle}}
394         }{%
395           \printfield{library}%

```

```

396     \clearfield{library}%
397   }{%
398     \printtext[title]{%
399       \printfield[titlecase]{title}%
400       \setunit{\subtitlepunct}%
401       \printfield[titlecase]{subtitle}}%
402   \clearfield{title}%
403   \clearfield{subtitle}%
404   \toggletrue{blx@ox@clearedtitle}%
405   \setunit{\addspace}%
406   }%
407 }{%
408   \printtext[title]{\printfield[titlecase]{shorttitle}}%
409 }%
410 }{%
411   \printfield{label}%
412 }%
413 }

```

If the `labeltitle` pulls the title from a `maintitle+title` macro, we flick a switch to make the driver use `maintitle+volume` instead.

```

414 \xpretobibmacro{maintitle+title}{%
415   \iftoggle{blx@ox@clearedtitle}{%
416     \usebibmacro{maintitle+volume}%
417     \clearfield{maintitle}%
418     \clearfield{volume}%
419   }{%
420     \wlog{WARNING: biblatex-oxref (oxyyear) failed to prepend to maintitle+title}}
421   \DeclareFieldFormat{mvbook,mvcollection,mvreference,proceedings,mvproceedings}{maintitle+volume}{#1}

```

The date of online entries is printed in parentheses; as the year is moved after the author, this can lead to empty parentheses unless a month is printed, so we change the test accordingly.

```

422 \xpatchbibdriver{online}{%
423   \iffieldundef{year}%
424 }{%
425   \ifboolexpr{
426     test {\iffieldundef{season}}
427     and
428     test {\iffieldundef{month}}
429   }%
430 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch online}}

```

We ensure the label title in citations matches the formatting used for the equivalent information in the bibliography entry.

```

431 \DeclareFieldFormat{bookinbook}{citetitle}{%
432   \ifboolexpr{
433     test {\iffieldequalstr{entrysubtype}{poem}}
434     or
435     test {\iffieldequalstr{entrysubtype}{play}}
436   }{%
437     \mkbibemph{#1}%
438   }{%
439     \mkbibquote{#1\isdot}}
440 \DeclareFieldFormat{suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
441   image,manuscript,unpublished}{citetitle}{%
442   \def\currentfield{title}%
443   \ifboolexpr{

```

```

444     test {\iffieldannotation{descriptor}}
445     or (
446         test {\iffieldundef{shorttitle}}
447         and
448         test {\iffieldundef{title}}
449     )
450     }{\#1}{\mkbibquote{\#1\isdot}}%
451     \undef\currentfield}
452 \DeclareFieldFormat[supperiodical,inaudio,inmusic,inmovie,invideo,online,%
453     image,manuscript,unpublished]{citetitle}{%
454     \def\currentfield{title}%
455     \ifboolexpr{
456         test {\iffieldannotation{descriptor}}
457         or (
458             test {\iffieldundef{shorttitle}}
459             and
460             test {\iffieldundef{title}}
461         )
462     }{\#1}{\mkbibquote{\#1\isdot}}%
463     \undef\currentfield}
464 \DeclareFieldFormat[audio,music]{citetitle}{%
465     \def\currentfield{title}%
466     \ifboolexpr{
467         test {\iffieldannotation{descriptor}}
468         or (
469             test {\iffieldundef{shorttitle}}
470             and
471             test {\iffieldundef{title}}
472         )
473     }{\#1}{%
474         \iffieldequalstr{entrysubtype}{podcast}{%
475             \mkbibquote{\#1\isdot}}%
476         }{%
477             \mkbibemph{\#1}}}%
478     \undef\currentfield}
479 \DeclareFieldFormat[movie,video]{citetitle}{%
480     \def\currentfield{title}%
481     \ifboolexpr{
482         test {\iffieldannotation{descriptor}}
483         or (
484             test {\iffieldundef{shorttitle}}
485             and
486             test {\iffieldundef{title}}
487         )
488     }{\#1}{%
489         \ifboolexpr{
490             test {\iffieldequalstr{entrysubtype}{episode}}
491             or
492             test {\iffieldequalstr{entrysubtype}{clip}}
493             or
494             test {\iffieldequalstr{entrysubtype}{webcast}}
495         }{%
496             \mkbibquote{\#1\isdot}}%
497         }{%
498             \mkbibemph{\#1}}}%
499     \undef\currentfield}
500 \DeclareFieldFormat[legislation,legal]{citetitle}{\#1}
501 \DeclareFieldFormat[misc]%
502     {citetitle}{%
503     \def\currentfield{title}%
504     \ifboolexpr{
505         test {\iffieldannotation{descriptor}}

```

```

506     or (
507         test {\iffielddundef{shorttitle}}
508         and
509         test {\iffielddundef{title}}
510     )
511 }{#1}{%
512     \iffieldequalstr{relatedtype}{in}{%
513         \mkbibquote{#1\isdot}%
514     }{%
515         \mkbibemph{#1}%
516     }%
517     \undef\currentfield}

```

2.4.5 JOURNAL DIVISION FORMATTING

Oxyear uses a colon to demarcate page numbers in journal articles.

```

518     \renewcommand*{\bibpagespunct}{%
519         \ifbool{expr{
520             test {\ifentrytype{article}}
521             or
522             test {\ifentrytype{supperperiodical}}
523             or
524             test {\ifentrytype{review}}
525         }}{
526             \addcolon\space
527         }{
528             \addcomma\space
529         }%
530     }

```

2.4.6 MANUSCRIPTS

Since we clear the title, we need a more sophisticated test for whether to suppress the date.

```

531     \renewbibmacro{manuscript:date}{%
532         \ifbool{expr{
533             test {\ifnameundef{author}}
534             and
535             not togl {blx@ox@clearedtitle}
536             and
537             test {\iffielddundef{label}}
538         }}{\usebibmacro{date}}

```

We include the library field as a fallback title.

```

539     \DeclareLabeltitle{%
540         \field{shorttitle}
541         \field{title}
542         \field{maintitle}
543         \field{library}
544     }

```

2.4.7 SOURCE MAPS

We use the source mapping capabilities of Biber to fix the following issues.

```

545 \DeclareStyleSourceMap{%
546   \maps[datatype=bibtex]{%

```

Suppressing a ‘nodate’ label

Unless already set, the `nonodate` option is inserted if `sortyear` is used. We accomplish this with source maps; the first one works where options (not including `nonodate`) have been set, the second where no options have been set.

```

547   \map[overwrite=true]{
548     \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
549     \step[fieldsource=sortyear, final]
550     \step[fieldset=options, append, fieldvalue={,nonodate}]
551   }
552   \map[overwrite=true]{
553     \step[notfield=options, final]
554     \step[fieldsource=sortyear, final]
555     \step[fieldset=options, fieldvalue={nonodate}]
556   }

```

Standards

The purpose of this map is to change the number into a label in the absence of an author, so that the citations come out right and the date is positioned correctly.

```

557   \map[overwrite=false]{
558     \pertype{standard}
559     \step[notfield=author,
560           fieldsource=number,
561           fieldtarget=label]
562   }
563 }}

```

2.5 Alphabetic style: `oxalph.bbx`

2.5.1 PRELIMINARIES

This style is based on `oxyear`.

```

20 \RequireBibliographyStyle{oxyear}

```

2.5.2 SUPPRESSING LABLEXTRA

Since the label codes do all the disambiguation, it is not necessary for the date at the head of the reference to have a disambiguation component.

```

21 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
22   \printdateextra
23 }{%
24   \printdate
25 }{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum
↵ (print)}}
26 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
27   \csuse{print\thefield{labeldatesource}dateextra}%
28 }{%

```

```

29   \csuse{print\thefield{labeldatesource}date}%
30   }{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum
↔ (label)}}
31   \xpatchcmd{\bbx@opt@mergedate@compact}{%
32   \csuse{print\thefield{labeldatesource}dateextra}%
33   }{%
34   \csuse{print\thefield{labeldatesource}date}%
35   }{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@compact}}
36   \xpatchbibmacro{labeldate}{%
37   \printlabeldateextra
38   }{%
39   \printlabeldate
40   }{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch labeldate}}
41   \ExecuteBibliographyOptions{mergedate}

```

2.5.3 LABEL CODES: PRINTING

This next code is extracted from the standard alphabetic style, and among other things ensures the citation labels are printed in the bibliography.

```

42   \ExecuteBibliographyOptions{labelalpha,sorting=anyt}
43
44   \DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{#1}}
45   \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
46
47   \defbibenvironment{bibliography}
48   {
49     \list
50     {
51       \printtext[labelalphawidth]{%
52         \printfield{labelprefix}%
53         \printfield{labelalpha}%
54         \printfield{extraalpha}}
55     {
56       \setlength{\labelwidth}{\labelalphawidth}%
57       \setlength{\leftmargin}{\labelwidth}%
58       \setlength{\labelsep}{\biblabelsep}%
59       \addtolength{\leftmargin}{\labelsep}%
60       \setlength{\itemsep}{\bibitemsep}%
61       \setlength{\parsep}{\bibparsep}%
62       \renewcommand*{\makeatlabel}[1]{##1\hss}
63     }
64   }
65
66   \defbibenvironment{shorthand}
67   {
68     \list
69     {
70       \printfield[shorthandwidth]{shorthand}
71       \setlength{\labelwidth}{\shorthandwidth}%
72       \setlength{\leftmargin}{\labelwidth}%
73       \setlength{\labelsep}{\biblabelsep}%
74       \addtolength{\leftmargin}{\labelsep}%
75       \setlength{\itemsep}{\bibitemsep}%
76       \setlength{\parsep}{\bibparsep}%
77       \renewcommand*{\makeatlabel}[1]{##1\hss}
78     }
79   }

```

2.5.4 LABEL CODES: GENERATING

The standard labels are generated from the `labelname` and year. We widen the net a bit, so that if there is no `labelname`, we fall back to the `shortlabeltitle` or `labeltitle`; also we use `labelyear` in place of year. The `shortlabeltitle` is generated from all the capital letters in the title and subtitle, with the help of a source map.

```
75 \DeclareStyleSourceMap{%
76   \maps[datatype=bibtex]{%
77     \map[overwrite=false]{%
78       \step[fieldsource=title, final]
79       \step[fieldset=shortlabeltitle, origfieldval]
80       \step[fieldsource=subtitle]
81       \step[fieldset=shortlabeltitle, origfieldval, append=true]
82       \step[fieldsource=shortlabeltitle,
83         match=\regexp{[^\p{Lu}]},
84         replace=\regexp{}}
85     }}}
86 \DeclareLabelAlphaTemplate{%
87   \labelelement{
88     \field[final]{shorthand}
89     \field{label}
90     \field[strwidth=3, strside=left, ifnames=1]{labelname}
91     \field[strwidth=1, strside=left]{labelname}
92     \field[strwidth=3, strside=left]{shortlabeltitle}
93     \field[strwidth=4, strside=left]{labeltitle}
94   }
95   \labelelement{
96     \field[strwidth=2, strside=right]{labelyear}
97   }
98 }
```

Citation styles

3.1 Notes style: oxnotes.cbx

The standard verbose style is a close match for what we need.

```
20 \RequireCitationStyle{verbose}
```

Variants are also provided that load the respective variant of verbose at this point.

The main difference is that the `citepages` option from these styles needs to be `separate` by default, and the `\postnotedelim` before the bibliography string `thiscite` ('at') is replaced by a simple space.

```
21 \newbibmacro*{cite:postnote:pages}{%
22   \setunit{\addspace}%
23   \bibstring{thiscite}%
24   \setunit{\addspace}%
25   \printfield{postnote}}
26 \ExecuteBibliographyOptions{citepages=separate}
```

3.2 Numeric style: oxnum.cbx

The standard numeric style works, needing only a little configuration.

```
20 \RequireCitationStyle{numeric-comp}
```

Compressed citations are delimited with a semicolon, just like non-compressed citations.

```
21 \renewcommand*{\multicitedelim}{\addsemicolon\space}
22 \renewcommand*{\compctedelim}{\addsemicolon\space}
```

The page reference postnote is given after a colon.

```
23 \renewcommand*{\postnotedelim}{\addcolon\space}
```

3.3 Author–year style: oxyyear.cbx

The standard authoryear-comp style is a close match for what we need.


```
20 \RequireCitationStyle{authoryear-comp}
```

This sets `uniquename` to `full`, but that conflicts with `giveninits` set by the bibliography style, so we set it to `init` instead. If left alone, biblatex would do this anyway, but if we do it explicitly, we avoid the warning message.

```
21 \ExecuteBibliographyOptions{uniquename=init}
```

We provide a slightly different `labeldate` macro that obeys the `nonodate` option.

```
22 \renewbibmacro*{cite:labeldate+extradate}{%
23   \ifboolexpr{
24     test {\iffielddundef{labelyear}}
25     or
26     ( test {\iffieldequalstr{labeldatesource}{nodate}}
27       and
28       togl {blx@ox@nonodate} )
29   }{\printtext[bibhyperref]{\printlabeldateextra}}
```

We insert anonymous author handling into `cite`.

```
30 \xpatchbibmacro{cite}{%
31   \printnames{labelname}%
32 }{%
33   \ifboolexpr{
34     test {\iffieldequalstr{labelnamesource}{author}}
35     and
36     togl {blx@ox@autoanon}
37     and
38     test {\iffieldequals{rawauthor}{\oxrefanon}}
39   }{%
40     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
41   }{%
42     \printnames{labelname}%
43   }%
44 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch cite}}
```

The name and year are usually separated by a space, but if the date is replaced by a word (e.g. ‘forthcoming’, ‘n.d.’), they are separated by a comma.

```
45 \DeclareDelimFormat{nameyeardelim}{%
46   \iflabeldateisanydate
47   {\addspace}%
48   {\addcomma\space}}
49 \DeclareDelimFormat{nonameyeardelim}{%
50   \iflabeldateisanydate
51   {\addspace}%
52   {\addcomma\space}}
```

Compressed citations are delimited with a semicolon, just like non-compressed citations.

```
53 \renewcommand*{\multicitedelim}{\addsemicolon\space}
54 \renewcommand*{\complicatedelim}{\addsemicolon\space}
```

The page reference postnote is given after a colon.

```
55 \renewcommand*{\postnotedelim}{\addcolon\space}
```

3.4 Alphabetic style: oxalph.cbx

The standard alphabetic style works, needing only a little configuration.

```
20 \RequireCitationStyle{alphabetic}
```

Compressed citations are delimited with a semicolon, just like non-compressed citations.

```
21 \renewcommand*{\multicitedelim}{\addsemicolon\space}
22 \renewcommand*{\complicatedelim}{\addsemicolon\space}
```

The page reference postnote is given after a colon.

```
23 \renewcommand*{\postnotedelim}{\addcolon\space}
```

3.5 Common citation fixes

This code is appended to all the citation style files.

Just in case someone loaded this without loading `oxref.bbx`, we ensure the necessary definitions are in place.

```
1 \RequirePackage{etoolbox}
2 \RequirePackage{xpatch}
3 \providetoggle{blx@ox@autoanon}
4 \providetoggle{blx@ox@abbranon}
```

We fix the `textcite` macro so if the `anon` option is set to `long` or `short`, a value of ‘Anonymous’ is replaced by the bibliography string `anon`.

```
5 \xpatchbibmacro{textcite}{%
6 \printnames{labelname}%
7 }{%
8 \ifboolexpr{
9 test {\iffieldequalstr{labelnamesource}{author}}
10 and
11 togl {blx@ox@autoanon}
12 and
13 test {\iffieldequals{rawauthor}{\oxrefanon}}
14 }{%
15 \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
16 }{%
17 \printnames{labelname}%
18 }%
19 }{\wlog{WARNING: biblatex-oxref failed to patch textcite}}
```

Data model adjustments

4.1 oxnotes.dbx, oxyyear.dbx, oxnum.dbx, and oxalph.dbx

We provide an additional name part for handling titles.

```
20 \DeclareDatamodelConstant[type=list]{nameparts}{prefix,family,suffix,given,title}
```

The datatype and origdatatype fields are used for prefixing the date with a description.

```
21 \DeclareDatamodelFields[type=field,datatype=literal]{datatype,origdatatype}
```

We add the inaudio entry type and friends.

```
22 \DeclareDatamodelEntrytypes{inaudio,inmusic,inmovie,invideo}
```

The authoraddon and editoraddon fields are used for handling pseudonyms. The serieseditor field is used for the editor of a book series, as opposed to the editor of the particular cited work.

```
23 \DeclareDatamodelFields[type=list,datatype=name]{authoraddon,editoraddon,serieseditor}
```

The jointauthor and jointauthortype fields are used for internally for handling editors/translators who can be considered joint authors.

```
24 \DeclareDatamodelFields[type=list,datatype=name]{jointauthor}
25 \DeclareDatamodelFields[type=field,datatype=literal]{jointauthortype}
```

The rawauthor field is used internally for checking whether an the name given in the author field is a keyword meaning ‘anonymous’.

```
26 \DeclareDatamodelFields[type=field,datatype=literal]{rawauthor}
27 \DeclareDatamodelEntryfields{datatype,origdatatype,authoraddon,editoraddon,%
28 serieseditor,jointauthor,jointauthortype,rawauthor}
```

We provide a shortlabeltitle field to contain our custom reduction of the labeltitle.

```
29 \DeclareDatamodelFields[type=field,datatype=literal]{shortlabeltitle}
```

This data model is borrowed from biblatex-manuscripts-philology.

```
30 \DeclareDatamodelEntrytypes{manuscript}
31 \DeclareDatamodelFields[type=field,datatype=literal]{catalog,dating,%
32   shortlibrary,columns, collection,shortcollection,usualtitle,shelfmark,%
33   sortshelfmark,support,columns,layer}
34 \DeclareDatamodelFields[type=list,datatype=name]{scribe,owner}
35 \DeclareDatamodelFields[type=list,datatype=literal]{origin}
36 \DeclareDatamodelEntryfields[manuscript]{catalog,dating,shortlibrary,%
37   shortcollection,columns, languages,collection,usualtitle,shelfmark,%
38   sortshelfmark,support,columns,origin,scribe,owner}
```

This data model helps with legal citations.

```
39 \DeclareDatamodelFields[type=field,datatype=date]{pardate}
40 \DeclareDatamodelFields[type=field,datatype=literal]{parreporter,parseries}
41 \DeclareDatamodelFields[type=field,datatype=integer]{parvolume}
42 \DeclareDatamodelFields[type=field,datatype=range]{parpages}
43 \DeclareDatamodelEntryfields[jurisdiction]{pardate,parreporter,parseries,%
44   parvolume,parpages}
```

Localization modules

5.1 English: english-oxref.lbx

Here we set some language-specific punctuation and date formatting.

```

20 \InheritBibliographyExtras{english}
21 \DeclareBibliographyExtras{%
22   \def\finalandcomma{\addcomma}%
23   \protected\def\mkusbibordinal#1{%
24     \begingroup
25     \@tempcnta0#1\relax\number\@tempcnta
26     \@whilenum\@tempcnta>100\do{\advance\@tempcnta-100\relax}%
27     \ifnum\@tempcnta>20
28       \@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
29     \fi
30     \ifcase\@tempcnta th\or st\or d\or d\else th\fi
31     \endgroup}%
32 }

```

We load the standard set of localization strings, then add our adjustments.

```

33 \DeclareBibliographyStrings{%
34   inherit      = {english},

```

These are new strings defined by oxref:

- Roles expressed as functions

```

35   director      = {{director}{dir\adddot}},
36   directors     = {{directors}{dirs\adddot}},
37   performer     = {{}},
38   performers    = {{}},
39   reader        = {{reader}{reader}},
40   readers       = {{readers}{readers}},
41   conductor      = {{conductor}{cond\adddot}},
42   conductors    = {{conductors}{cond\adddot}},
43   serieseditor  = {{series editor}{ser\adddot\space ed\adddot}},
44   serieseditors = {{series editors}{ser\adddot\space eds\adddot}},
45   holder        = {{holder}{holder}},
46   holders       = {{holders}{holders}},
47   editorcm      = {{editor and compiler}{ed\adddot\space and comp\adddot}},
48   editorcms     = {{editors and compilers}{eds\adddot\space and comp\adddot}},

```

- Roles expressed as actions

```

49 byperformer = {{}},
50 bydirector  = {{directed by}{dir\addot}},
51 byreader    = {{read by}{read by}},
52 byconductor = {{conducted by}{cond\addot}},
53 byserieseditor = {{edited by}{ed\addot}},
54 byholder    = {{held by}{held by}},
55 byeditorcm  = {{edited and compiled by}{ed\addotsspace and comp\addot}},

```

- Publication details

```

56 facsimile    = {{facsimile edition}{facs\addotsspace edn\addot}},
57 revised     = {{revised edition}{rev\addotsspace edn\addot}},
58 revisedenlarged = {{revised and enlarged edition}{rev\addotsspace and enl\addotsspace
↔ edn\addot}},
59 revisedreprint = {{revised reprint}{rev\addotsspace repr\addot}},
60 suppto      = {{Supplement to}{Supplement to}},
61 equals      = {{=}{=}},
62 original    = {{original}{orig\addot}},

```

- Publication state

```

63 impressin   = {{to be published in}{to be published in}},

```

- Pagination

```

64 book        = {{book}{bk\addot}},
65 books       = {{books}{bks\addot}},
66 canto       = {{canto}{canto}},
67 cantos      = {{cantos}{cantos}},
68 stanza      = {{stanza}{stanza}},
69 stanzas     = {{stanzas}{stanzas}},
70 act         = {{Act}{Act}},
71 acts        = {{Acts}{Acts}},
72 scene       = {{Scene}{Scene}},
73 scenes      = {{Scenes}{Scenes}},
74 folio       = {{folio}{fo\addot}},
75 folios      = {{folios}{fos\addot}},
76 article     = {{article}{art\addot}},
77 articles    = {{articles}{arts\addot}},
78 clause      = {{clause}{cl\addot}},
79 clauses     = {{clauses}{cls\addot}},
80 regulation  = {{regulation}{reg\addot}},
81 regulations = {{regulations}{regs\addot}},
82 rule        = {{rule}{r\addot}},
83 rules       = {{rules}{rr\addot}},
84 booktotal   = {{book}{bk\addot}},
85 booktotals  = {{books}{bks\addot}},
86 cantototal  = {{canto}{canto}},
87 cantototals = {{cantos}{cantos}},
88 stanzatotal = {{stanza}{stanza}},
89 stanzatotals = {{stanzas}{stanzas}},
90 acttotal    = {{Act}{Act}},
91 acttotals   = {{Acts}{Acts}},
92 scenetotal  = {{Scene}{Scene}},
93 scenetotals = {{Scenes}{Scenes}},
94 foliototal  = {{folio}{fo\addot}},
95 foliototals = {{folios}{fos\addot}},
96 articletotal = {{article}{art\addot}},
97 articletotals = {{articles}{arts\addot}},

```

```

98 clausetotal      = {{clause}}{cl\addot}},
99 clausetotals     = {{clauses}}{cls\addot}},
100 regulationtotal  = {{regulation}}{reg\addot}},
101 regulationtotals = {{regulations}}{regs\addot}},
102 ruletotal        = {{rule}}{r\addot}},
103 ruletotals       = {{rules}}{rr\addot}},

```

- Types

```

104 facebook        = {{Facebook post}}{Facebook post}},
105 tweet           = {{Twitter post}}{Twitter post}},
106 podcast         = {{podcast}}{podcast}},
107 clip            = {{video}}{video}},
108 webcast         = {{webcast}}{webcast}},
109 poster          = {{poster}}{poster}},

```

- Miscellaneous

```

110 nolocation      = {{no place}}{n\addot p\addot}},
111 modified        = {{last modified}}{last modified}},
112 recorded        = {{recorded}}{recorded}},
113 uploaded        = {{uploaded}}{uploaded}},
114 filed           = {{filed}}{filed}},
115 issued          = {{issued}}{issued}},

```

- Labels

```

116 anon           = {{Anonymous}}{Anon\addot}},
117 pseudo        = {{Pseudo-}}{Ps\addot-}},
118 urldown        = {{downloaded}}{downloaded}},

```

- Country names, patents, and patent requests,

```

119 countryjp      = {{Japan}}{JP}},
120 patentjp       = {{Japanese patent}}{Japanese pat.\addot}},
121 patreqjp       = {{Japanese patent request}}{Japanese pat.\addot req.\addot}},

```

- These are borrowed from other styles.

```

122 1column        = {{one column}}{1\addnbspace col\addot}},
123 2column        = {{two columns}}{2\addnbspace col\addot}},
124 inflayer       = {{inferior layer}}{inf\adddot space lay\addot}},
125 suplayer       = {{superior layer}}{sup\adddot space lay\addot}},
126 paper         = {{paper}}{pap\addot}},
127 papyrus        = {{papyrus}}{papy\addot}},
128 pergament      = {{pergament}}{perg\addot}},
129 eucase         = {{Case}}{Case}},
130 eujoinedcases = {{Joined Cases}}{Joined Cases}},
131 commissiondecision = {{Commission Decision}}{Commission Decision}},
132 application    = {{Application}}{App\addot}},
133 order         = {{Order}}{Ord\addot}},
134 bill          = {{Bill}}{Bill}},
135 draft         = {{draft}}{draft}},
136 opened        = {{opened for signature}}{opened for signature}},
137 signed        = {{signed}}{signed}},
138 adopted       = {{adopted}}{adopted}},

```

```
139   inforce           = {{entered into force}}{entered into force}},
```

The rest of these strings are the standard ones, overridden to match the examples in the *Oxford Guide to Style* and *New Hart's Rules*. Many of these are guesses extrapolated from what is given.

The roles expressed as functions do not need adjusting. The roles expressed as actions do not typically end in 'by' when abbreviated; the 'with' parts go first when abbreviated if there is more than one editorial role (at least, that is one way of interpreting the examples).

```
140   byeditor          = {{edited by}}{ed\addot}},
141   bycompiler        = {{compiled by}}{comp\addot}},
142   byfounder         = {{founded by}}{found\addot}},
143   bycontinuator     = {{continued by}}{cont\addot}},
144   byredactor        = {{redacted by}}{red\addot}},
145   byreviser         = {{revised by}}{rev\addot}},
146   byreviewer        = {{reviewed by}}{rev\addot}},
147   bycollaborator    = {{in collaboration with}}{in collab\addotsspace with}},
148   bytranslator      = {{translated \lbox@lfromlang\ by}}{trans\addot\ \lbox@sfromlang}},
149   bycommentator     = {{commented by}}{comm\addot}},
150   byannotator       = {{annotated by}}{annot\addot}},
151   byeditortr        = {{edited and translated \lbox@lfromlang\ by}}%
152                       {ed\addotsspace and trans\addot\ \lbox@sfromlang}},
153   byeditorco        = {{edited and commented by}}%
154                       {ed\addotsspace and comm\addot}},
155   byeditoran        = {{edited and annotated by}}%
156                       {ed\addotsspace and annot\addot}},
157   byeditorin        = {{edited, with an introduction, by}}%
158                       {ed.\addotsspace with introduction}},
159   byeditorfo        = {{edited, with a foreword, by}}%
160                       {ed.\addotsspace with foreword}},
161   byeditoraf        = {{edited, with an afterword, by}}%
162                       {ed.\addotsspace with afterword}},
163   byeditortrco      = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented by}}%
164                       {ed.,\addabbrvspace trans\addot\ \lbox@sfromlang\finalandcomma\ and
↵   comm\addot}},
165   byeditortran      = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated by}}%
166                       {ed.,\addabbrvspace trans\addot\ \lbox@sfromlang\finalandcomma\ and
↵   annot\addot}},
167   byeditortrin      = {{edited and translated \lbox@lfromlang, with an introduction, by}}%
168                       {with introduction, ed\addotsspace and trans\addot\ \lbox@sfromlang}},
169   byeditortrfo      = {{edited and translated \lbox@lfromlang, with a foreword, by}}%
170                       {with foreword, ed\addotsspace and trans\addot\ \lbox@sfromlang}},
171   byeditortraf      = {{edited and translated \lbox@lfromlang, with an afterword, by}}%
172                       {with afterword, ed\addotsspace and trans\addot\ \lbox@sfromlang}},
173   byeditorcoin      = {{edited and commented, with an introduction, by}}%
174                       {with introduction, ed\addotsspace and comm\addot}},
175   byeditorcofo      = {{edited and commented, with a foreword, by}}%
176                       {with foreword, ed\addotsspace and comm\addot}},
177   byeditorcoaf      = {{edited and commented, with an afterword, by}}%
178                       {with afterword, ed\addotsspace and comm\addot}},
179   byeditoranin      = {{edited and annotated, with an introduction, by}}%
180                       {with introduction, ed\addotsspace and annot\addot}},
181   byeditoranfo      = {{edited and annotated, with a foreword, by}}%
182                       {with foreword, ed\addotsspace and annot\addot}},
183   byeditoranaf      = {{edited and annotated, with an afterword, by}}%
184                       {with afterword, ed\addotsspace and annot\addot}},
185   byeditortrcoin    = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented, with
↵   an introduction, by}}%
186                       {with introduction, ed.,\addabbrvspace trans\addot\
↵   \lbox@sfromlang\finalandcomma\ and comm\addot}},
```



```

187 byeditortrcofo = {{edited, translated \ltx@lfromlang\finalandcomma\ and commented, with a
↳ foreword, by}}%
188     {with foreword, ed.,\addabrvspace trans\adddot\
↳ \ltx@sfromlang\finalandcomma\ and comm\adddot}},
189 byeditortrcoaf = {{edited, translated \ltx@lfromlang\finalandcomma\ and commented, with
↳ an afterword, by}}%
190     {with afterword, ed.,\addabrvspace trans\adddot\
↳ \ltx@sfromlang\finalandcomma\ and comm\adddot}},
191 byeditortranin = {{edited, translated \ltx@lfromlang\finalandcomma\ and annotated, with
↳ an introduction, by}}%
192     {with introduction, ed.,\addabrvspace trans\adddot\
↳ \ltx@sfromlang\finalandcomma\ and annot\adddot}},
193 byeditortranfo = {{edited, translated \ltx@lfromlang\finalandcomma\ and annotated, with a
↳ foreword, by}}%
194     {with foreword, ed.,\addabrvspace trans\adddot\
↳ \ltx@sfromlang\finalandcomma\ and annot\adddot}},
195 byeditortranaf = {{edited, translated \ltx@lfromlang\finalandcomma\ and annotated, with
↳ an afterword, by}}%
196     {with afterword, ed.,\addabrvspace trans\adddot\
↳ \ltx@sfromlang\finalandcomma\ and annot\adddot}},
197 bytranslatorco = {{translated \ltx@lfromlang\ and commented by}}%
198     {trans\adddot\ \ltx@sfromlang\ and comm\adddot}},
199 bytranslatoran = {{translated \ltx@lfromlang\ and annotated by}}%
200     {trans\adddot\ \ltx@sfromlang\ and annot\adddot}},
201 bytranslatorin = {{translated \ltx@lfromlang, with an introduction, by}}%
202     {trans\adddot\ \ltx@sfromlang\ with introduction}},
203 bytranslatorfo = {{translated \ltx@lfromlang, with a foreword, by}}%
204     {trans\adddot\ \ltx@sfromlang\ with foreword}},
205 bytranslatoraf = {{translated \ltx@lfromlang, with an afterword, by}}%
206     {trans\adddot\ \ltx@sfromlang\ with afterword}},
207 bytranslatorcoin = {{translated \ltx@lfromlang\ and commented, with an introduction, by}}%
208     {with introduction, trans\adddot\ \ltx@sfromlang\ and comm\adddot}},
209 bytranslatorcofo = {{translated \ltx@lfromlang\ and commented, with a foreword, by}}%
210     {with foreword, trans\adddot\ \ltx@sfromlang\ and comm\adddot}},
211 bytranslatorcoaf = {{translated \ltx@lfromlang\ and commented, with an afterword, by}}%
212     {with afterword, trans\adddot\ \ltx@sfromlang\ and comm\adddot}},
213 bytranslatoranin = {{translated \ltx@lfromlang\ and annotated, with an introduction, by}}%
214     {with introduction, trans\adddot\ \ltx@sfromlang\ and annot\adddot}},
215 bytranslatoranfo = {{translated \ltx@lfromlang\ and annotated, with a foreword, by}}%
216     {with foreword, trans\adddot\ \ltx@sfromlang\ and annot\adddot}},
217 bytranslatoranaf = {{translated \ltx@lfromlang\ and annotated, with an afterword, by}}%
218     {with afterword, trans\adddot\ \ltx@sfromlang\ and annot\adddot}},

```

The roles expressed as objects and terms for supplementary material are not abbreviated.

```

219 withinroduction = {{with an introduction by}{with an introduction by}},
220 withcommentator = {{with a commentary by}{with a commentary by}},
221 withannotator = {{with annotations by}{with annotations by}},
222 withinroduction = {{with an introduction by}{with an introduction by}},
223 withforeword = {{with a foreword by}{with a foreword by}},
224 withafterword = {{with an afterword by}{with an afterword by}},
225 introduction = {{introduction}{introduction}},

```

The abbreviations for some publication details are different.

```

226 newseries = {{new series}{\mkbibacro{NS}}},
227 oldseries = {{old series}{\mkbibacro{OS}}},
228 edition = {{edition}{edn\adddot}},
229 reprint = {{reprint\nopunct}{repr\adddot\nopunct}},
230 reviewof = {{review of}{review of}},
231 reprintas = {{reprinted as}{repr\adddotsspace as}},

```

```

232 reprintfrom = {{from}}{from}},
233 translationas = {{English translation as}}{Eng\addotsspace trans\addotsspace as}},
234 origpubin = {{originally published in}}{originally pub\addot}},

```

There is also a different abbreviation for ‘paragraph’.

```

235 paragraph = {{paragraph}}{para\addot}},
236 paragraphs = {{paragraphs}}{paras\addot}},

```

New Hart’s Rules uses ‘accessed’ for URL dates.

```

237 urlseen = {{accessed}}{accessed}},

```

Scholarly citation terms are abbreviated. Oxford style is to use ‘henceforth’ for shorthands and ‘at’ to cite a page within a range.

```

238 idem = {{idem}}{id\addot}},
239 idemsm = {{idem}}{id\addot}},
240 idemsf = {{eadem}}{ead\addot}},
241 idemsn = {{idem}}{id\addot}},
242 idempm = {{eidem}}{eid\addot}},
243 idempf = {{eaedem}}{eaed\addot}},
244 idempn = {{eadem}}{ead\addot}},
245 idemp = {{eidem}}{eid\addot}},
246 citedas = {{henceforth}}{henceforth}},
247 thiscite = {{at}}{at}},

```

Languages are abbreviated.

```

248 langamerican = {{English}}{Eng\addot}},
249 langbrazilian = {{Brazilian}}{Braz\addot}},
250 langcatalan = {{Catalan}}{Catal\addot}},
251 langcroatian = {{Croatian}}{Croat\addot}},
252 langczech = {{Czech}}{Czech}},
253 langdanish = {{Danish}}{Dan\addot}},
254 langdutch = {{Dutch}}{Dutch}},
255 langenglish = {{English}}{Eng\addot}},
256 langestonian = {{Estonian}}{Eston\addot}},
257 langfinnish = {{Finnish}}{Finn\addot}},
258 langfrench = {{French}}{Fr\addot}},
259 langgerman = {{German}}{Ger\addot}},
260 langgreek = {{Greek}}{Gr\addot}},
261 langitalian = {{Italian}}{It\addot}},
262 langlatin = {{Latin}}{Lat\addot}},
263 langnorwegian = {{Norwegian}}{Norw\addot}},
264 langpolish = {{Polish}}{Pol\addot}},
265 langportuguese = {{Portuguese}}{Port\addot}},
266 langrussian = {{Russian}}{Russ\addot}},
267 langslovene = {{Slovene}}{Slov\addot}},
268 langspanish = {{Spanish}}{Sp\addot}},
269 langswedish = {{Swedish}}{Swed\addot}},
270 }

```

5.2 British English: british-oxref.lbx

Here we set some language-specific punctuation and date formatting.

```
20 \InheritBibliographyExtras{british}
21 \DeclareBibliographyExtras{%
```

The only difference from the standard British date format is that we print it ‘clean’, with a cardinal instead of an ordinal day.

```
22 \protected\def\mkbibdatelong#1#2#3{%
23   \iffieldundef{#3}
24   {}
25   {\stripzeros{\thefield{#3}}}%
26   \iffieldundef{#2}{\nobreakspace}}%
27 \iffieldundef{#2}
28   {}
29   {\mkbibmonth{\thefield{#2}}}%
30   \iffieldundef{#1}{\space}}%
31 \iffieldbibstring{#1}
32   {\bibstring{\thefield{#1}}}
33   {\dateeraprintpre{#1}\stripzeros{\thefield{#1}}}}%
```

As you’d expect from an Oxford style, we use the Oxford comma, and use a period as the time separator.

```
34 \def\finalandcomma{\addcomma}%
35 \def\bibtimesep{\addperiod}%
36 }
```

We use the British abbreviations for 12-hour clock times.

```
37 \DeclareBibliographyStrings{%
38   inherit      = {english},
39   am           = {{a\adddot m\adddot}{a\adddot m\adddot}},
40   pm           = {{p\adddot m\adddot}{p\adddot m\adddot}},
41 }
```

5.3 American English: american-oxref.lbx

```
20 \InheritBibliographyExtras{english}
21 \DeclareBibliographyExtras{\uspunctuation}
22 \InheritBibliographyStrings{english}
```

5.4 Other languages

Currently oxref only supports British and American English explicitly, but if there is demand more languages may be added. If you would like to contribute support for your language, a list of the non-standard bibliography strings requiring definition may be found in section 2.1.1.