

OXREF BUNDLE

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

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v1.2

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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 2016–2019 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 \DeclareBibliographyOption{usenametitles}[true]{%
67   \settoggle{blx@ox@nametitle}{#1}}
68 \DeclareTypeOption{usenametitles}[true]{%
69   \settoggle{blx@ox@nametitle}{#1}}
70 \DeclareEntryOption{usenametitles}[true]{%
71   \settoggle{blx@ox@nametitle}{#1}}

```

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

```

72 \newbibmacro*{name:title-given-family}[5]{%
73   \usebibmacro{name:delim}{#2#3#1}%
74   \usebibmacro{name:hook}{#2#3#1}%
75   \ifvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\mkbibnametitle{#5}\isdot\bibnamedelimd}{}}%
76   \ifvoid{#2}{}{\mkbibnamegiven{#2}\isdot\bibnamedelimd}%
77   \ifvoid{#3}{}{%
78     \mkbibnameprefix{#3}\isdot
79     \ifprefchar
80     {}
81     {\ifuseprefix{\bibnamedelimc}{\bibnamedelimd}}}%
82   \mkbibnamefamily{#1}\isdot
83   \ifvoid{#4}{}{\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}}

```

Here is the one for inverted name order.

```

84 \newbibmacro*{name:family-title-given}[5]{%
85   \ifuseprefix{%
86     \usebibmacro{name:delim}{#3#1}%
87     \usebibmacro{name:hook}{#3#1}%
88     \ifvoid{#3}{}{%

```

```

89     \ifcapital{%
90         \mkbibnameprefix{\MakeCapital{#3}}\isdot
91     }{%
92         \mkbibnameprefix{#3}\isdot}%
93     \ifprefchar{}\{\bibnamedelimc}\%
94     \mkbibnamefamily{#1}\isdot
95     \ifdefvoid{#4}\{\ifnumeral{#4}\{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
96     \ifboolexpe{%
97         (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
98         and
99         test {\ifdefvoid{#2}}%
100    }{%
101        \revsnamepunct}%
102    \ifdefvoid{#5}\{\iftoggle{blx@ox@nametitle}\{\bibnamedelimd\mkbibnametitle{#5}\isdot}\}\}%
103    \ifdefvoid{#2}\{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
104 }{%
105     \usebibmacro{name:delim}{#1}%
106     \usebibmacro{name:hook}{#1}%
107     \mkbibnamefamily{#1}\isdot
108     \ifdefvoid{#4}\{\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
109     \ifboolexpe{%
110         (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
111         and
112         test {\ifdefvoid{#2}}
113         and
114         test {\ifdefvoid{#3}}%
115     }{%
116         \revsnamepunct}%
117     \ifdefvoid{#5}\{\iftoggle{blx@ox@nametitle}\{\bibnamedelimd\mkbibnametitle{#5}\isdot}\}\}%
118     \ifdefvoid{#2}\{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
119     \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.

```

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

```

```

144     {\namepartsuffix}%
145     {\nameparttitle}%
146   }%
147   \savefield{hash}{\blx@ox@lasthash}%
148   \ifitemannotation{pseudo}{%
149     \addspace\printtext[parens]{%
150       \iftoggle{blx@ox@scnames}{%
151         \textsc{\bibsstring{pseudo}}%
152       }{%
153         \bibsstring{pseudo}%
154       }%
155     }%
156     \iftoggle{blx@ox@scnames}{%
157       \renewcommand*\mkbibnamefamily[1]{##1}%
158       \renewcommand*\mkbibnamegiven[1]{##1}%
159       \renewcommand*\mkbibnameprefix[1]{##1}%
160       \renewcommand*\mkbibnamesuffix[1]{##1}%
161       \renewcommand*\mkbibnametitle[1]{##1}%
162     }%
163   }%
164   \ifgiveninits{%
165     \usebibmacro{name:title-given-family}%
166     {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
167     {\namepartgiveni}%
168     {\namepartprefix}%
169     {\namepartsuffix}%
170     {\nameparttitle}%
171   }%
172     \usebibmacro{name:title-given-family}%
173     {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
174     {\namepartgiven}%
175     {\namepartprefix}%
176     {\namepartsuffix}%
177     {\nameparttitle}%
178   }%
179   \savefield{hash}{\blx@ox@lasthash}%
180 }%
181 \ifitemannotation{inferred}{\bibclosebracket}{}%
182 \usebibmacro{name:andothers}%
183 \iffieldannotation{inferred}{%
184   \ifboolexpr{
185     test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
186     or
187     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
188     or (
189       test {\ifnumequal{\value{listcount}}{\value{minnames}}}
190       and
191       test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
192     )
193   }{\bibclosebracket}{}%
194 }%
195 }

```

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`.

```

196 \newtoggle{blx@ox@variantname}
197 \DeclareNameFormat{given-family}{%
198   \ifgiveninits
199     {\usebibmacro{name:title-given-family}

```

```

200     {\namepartfamily}
201     {\namepartgiveni}
202     {\namepartprefix}
203     {\namepartsuffix}
204     {\nameparttitle}}
205     {\usebibmacro{name:title-given-family}
206     {\namepartfamily}
207     {\namepartgiven}
208     {\namepartprefix}
209     {\namepartsuffix}
210     {\nameparttitle}}%
211     \savefield{hash}{\blx@ox@lasthash}%
212     \ifitemannotation{variant}{%
213     \global\settoggle{blx@ox@variantname}{true}%
214     }{%
215     \global\settoggle{blx@ox@variantname}{false}}%
216     \usebibmacro{name:andothers}}

```

We do likewise for the regular family-given format.

```

217     \DeclareNameFormat{family-given}{%
218     \ifgiveninits
219     {\usebibmacro{name:family-title-given}
220     {\namepartfamily}
221     {\namepartgiveni}
222     {\namepartprefix}
223     {\namepartsuffix}
224     {\nameparttitle}}
225     {\usebibmacro{name:family-title-given}
226     {\namepartfamily}
227     {\namepartgiven}
228     {\namepartprefix}
229     {\namepartsuffix}
230     {\nameparttitle}}%
231     \savefield{hash}{\blx@ox@lasthash}%
232     \ifitemannotation{variant}{%
233     \global\settoggle{blx@ox@variantname}{true}%
234     }{%
235     \global\settoggle{blx@ox@variantname}{false}}%
236     \usebibmacro{name:andothers}}

```

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

```

237     \xpatchbibmacro{name:given-family}%
238     {\bibnamedelimd\mkbibnamesuffix{#4}}%
239     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
240     {}{\wlog{WARNING: biblatex-oxref failed to patch name:given-family}}
241     \xpatchbibmacro{name:family-given}%
242     {\bibnamedelimd\mkbibnamesuffix{#4}}%
243     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
244     {}{\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).

```

245     \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
246     \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.

```

247 \newcounter{namepairs}
248 \newsavebox{\blx@ox@namebox}
249 \newsavebox{\blx@ox@altnamebox}
250 \newbibmacro*{namepairs}[2]{%
251   \setcounter{namepairs}{0}%
252   \savebibmacro{name:andothers}%
253   \renewbibmacro*{name:andothers}{}%
254   \whileboolexpr{%
255     test {\ifnumless{\value{namepairs}}{\value{#1}}}
256     and (
257       test {\ifdefvoid{\c@maxnames}}
258       or
259       test {\ifnumequal{\c@maxnames}{0}}
260       or
261       test {\ifnumless{\value{#1}}{\c@maxnames}}
262       or
263       test {\ifnumequal{\value{#1}}{\c@maxnames}}
264       or
265       test {\ifdefvoid{\c@minnames}}
266       or
267       test {\ifnumequal{\c@minnames}{0}}
268       or
269       test {\ifnumless{\value{namepairs}}{\c@minnames}}
270     )
271   }{%
272     \stepcounter{namepairs}%
273     \ifnumgreater{\value{namepairs}}{1}{%
274       \ifnumequal{\value{#1}}{2}{%
275         \setunit*{\addspace\bibstring{and}\addspace}%
276       }{%
277         \ifnumequal{\value{namepairs}}{\value{#1}}{%
278           \setunit*{\addcomma\space\bibstring{and}\addspace}%
279         }{%
280           \setunit*{\addcomma\space}%
281         }%
282       }%
283     }{%
284       \savebox{\blx@ox@namebox}{%
285         \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
286       }%
287       \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.

```

288 \IfEndWith{#2}{addon}{%
289   \savebox{\blx@ox@altnamebox}{%
290     \printnames[by#1][\value{namepairs}-\value{namepairs}]{#2}%
291   }%
292   \let\blx@ox@secondhash=\blx@ox@lasthash
293   \ifdfstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
294     \unhbox\blx@ox@namebox
295   }{%
296     \unhbox\blx@ox@namebox\addspace

```

```

297     \iftoggle{blx@ox@variantname}{%
298       \ifbibliography{%
299         \printtext[namevariant]{\printnames[#1][\value{namepairs}-
        ↪ \value{namepairs}]{#2}}%
300       }%
301     }%
302     \printtext[nameaddon]{\unhbox\blx@ox@altnamebox}%
303   }%
304 }%

```

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.

```

305   }%
306   \savebox{\blx@ox@altnamebox}{%
307     \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
308   }%
309   \let\blx@ox@secondhash=\blx@ox@lasthash
310   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
311     \unhbox\blx@ox@namebox
312   }%
313   \unhbox\blx@ox@altnamebox
314   \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
315 }%
316 }%
317 }%

```

Now we return to common code.

```

318   \ifboolexpr{
319     test {\ifnumequal{\value{namepairs}}{\c@minnames}}
320     and
321     test {\ifnumgreater{\value{#1}}{\c@maxnames}}
322   }%
323   \ifnumgreater{\c@minnames}{1}{%
324     \finalandcomma
325   }%
326   \printdelim{andothersdelim}\bibstring{andothers}%
327 }%
328 \restorebibmacro{name:andothers}%
329 }

```

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

```

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

```

```

345     }%
346     \ifnameundef{jointauthor}{%
347         \setunit{\addcomma\space}%
348         \iffieldundef{jointauthortype}{%
349             \bibstring{byeditor}%
350         }%
351         \printfield{jointauthortype}%
352         \setunit{\addspace}%
353         \printnames[author]{jointauthor}%
354     }%
355 }%
356 }
357 \DeclareFieldFormat{jointauthortype}{%
358     \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

359 \newbibmacro*{editor+altditor}{%
360     \ifnameundef{editoraddon}{%
361         \printnames{editor}%
362     }{
363         \ifnumequal{\value{editoraddon}}{\value{editor}}{%
364             \usebibmacro{namepairs}{editor}{editoraddon}%
365         }{%
366             \printnames{editor}%
367             \setunit*{\addspace}%
368             \printtext[nameaddon]{\printnames[byeditor]{editoraddon}}%
369         }%
370     }%
371 }

```

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`.

```

372 \newbibmacro*{bbx:savehash}{}
373 \DeclareBibliographyOption{dashed}[true]{%
374     \ifstrequal{#1}{true}{%
375         \ExecuteBibliographyOptions{pagetracker}%
376         \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}%
377     }%
378     \renewbibmacro*{bbx:savehash}{}%
379 }%
380 }
381 \InitializeBibliographyStyle{%
382     \global\undef\bbx@lasthash}
383 \newbibmacro*{bbx:dashcheck}[2]{%
384     \ifboolexpr{
385         test {\iffieldequals{fullhash}{\bbx@lasthash}}
386         and
387         not test \iffirstonpage
388         and
389         (
390             not bool {bbx@inset}
391             or
392             test {\iffieldequalstr{entrysetcount}{1}}
393         )
394     }{#1}{#2}%
395 }

```

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

```

396 \newbool{bbx@inset}
397 \DeclareBibliographyDriver{set}{%
398   \booltrue{bbx@inset}%
399   \entryset{}{}%
400   \newunit\newblock
401   \usebibmacro{setpageref}%
402   \finentry}

```

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

```

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

```

We copy the author to `rawauthor` for easier testing.

```

415 \DeclareStyleSourceMap{
416   \maps[datatype=bibtex]{%
417     \map{%
418       \step[fieldsource=author]%
419       \step[fieldset=rawauthor, origfieldval]%
420     }
421   }%
422 }

```

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 `authortitle` and `authoryear`);
- inserting the `nameaddon` field if provided;
- inserting the author type if provided (as in `authoryear`).

```

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

```



```

436     or
437     ( not togl {blx@ox@autoanon} )
438     or
439     test {\ifbibliography}
440   )
441 }
442 {\usebibmacro{bbx:dashcheck}
443  {\bibnamedash}
444  {\usebibmacro{bbx:savehash}%
445   \ifboolexpr{
446     togl {blx@ox@autoanon}
447     and
448     togl {blx@ox@isanon}
449   }{%
450     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}}%
451   }{%
452     \usebibmacro{author+altauthor}%
453   }%
454   \iffieldundef{nameaddon}
455   {}
456   {\setunit{\addspace}%
457    \printfield{nameaddon}}%
458   \setunit{\printdelim{authortypedelim}}}%
459   \iffieldundef{author type}
460   {}
461   {\usebibmacro{authorstrg}%
462    \setunit{\addspace}}}%
463   {\global\undef\bbx@Lasthash}}
464 \DeclareFieldFormat{author type}{\mkbibparens{#1}}

```

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

```

465 \newcommand{\titlebyauthor delim}{\addspace}

```

Following `author title` and `author year`, 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+altditor`, and we don’t yet add the year label.

```

466 \renewbibmacro*{editor}{%
467   \usebibmacro{bbx:editor}{editorstrg}}
468 \renewbibmacro*{editor+others}{%
469   \usebibmacro{bbx:editor}{editor+othersstrg}}
470 \newbibmacro*{bbx:editor}[1]{%
471   \ifboolexpr{
472     test \ifuseeditor
473     and
474     not test {\ifnameundef{editor}}
475   }
476   {\usebibmacro{bbx:dashcheck}
477    {\bibnamedash}
478    {\usebibmacro{editor+altditor}%
479     \setunit{\printdelim{editor typedelim}}}%
480    \usebibmacro{bbx:savehash}}%
481    \usebibmacro{#1}%
482    \clearname{editor}}
483   {\global\undef\bbx@Lasthash}}
484 \DeclareFieldFormat{editor type}{\mkbibparens{#1}}

```

We do the same for `translator` as well.

```

485 \renewbibmacro*{translator}{%
486   \usebibmacro{bbx:translator}{translatorstrg}}
487 \renewbibmacro*{translator+others}{%
488   \usebibmacro{bbx:translator}{translator+othersstrg}}
489 \newbibmacro*{bbx:translator}[1]{%
490   \ifboolexpr{
491     test \ifusetranslator
492     and
493     not test {\ifnameundef{translator}}
494   }
495   {\usebibmacro{bbx:dashcheck}
496     {\bibnamedash}
497     {\printnames{translator}%
498       \setunit{\printdelim{translatortypedelim}}%
499       \usebibmacro{bbx:savehash}}%
500     \usebibmacro{#1}%
501     \clearname{translator}%
502     \setunit{\addspace}}%
503   {\global\undef\bbx@lasthash}}
504 \xpatchbibmacro{translatorstrg}%
505   {\bibstring}%
506   {\bibstring[\mkbibparens]}%
507   {}{\wlog{WARNING: biblatex-oxref failed to patch translatorstrg}}%
508 \xpatchbibmacro{translator+othersstrg}%
509   {\bibstring}%
510   {\bibstring[\mkbibparens]}%
511   {}{\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).

```

512 \renewbibmacro*{bybookauthor}{%
513   \ifnamesequal{author}{bookauthor}%
514   {\bibstring{idem\thefield{gender}}}%
515   {\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 oxyear.

```

516 \newbibmacro*{bookeditor}{%
517   \global\undef\bbx@lasthash
518   \ifboolexpr{
519     test \ifuseeditor
520     and
521     not test {\ifnameundef{editor}}
522   }{%
523     \ifnamesequal{author}{editor}{%
524       \bibstring{idem\thefield{gender}}%
525       \setunit{\addspace}%
526       \usebibmacro{editor+othersstrg}%
527       \clearname{editor}%
528     }{%
529       \printnames[bookeditor]{editor}%
530       \setunit*{\addspace}%
531       \usebibmacro{editor+othersstrg}%
532       \clearname{editor}%
533     }%
534   }}

```

We provide a macro for printing series editors.

```

535 \newbibmacro*{byserieseditor}{%
536 \ifnameundef{serieseditor}
537 {}
538 {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
539 \setunit{\addspace}%
540 \printnames[byeditor]{serieseditor}%
541 \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.

```

542 \renewbibmacro*{title}{%
543 \ifboolexpr{
544 test {\iffieldundef{title}}
545 and
546 test {\iffieldundef{subtitle}}
547 }
548 {}
549 {\printtext[title]{%
550 \printfield[titlecase]{title}%
551 \setunit{\subtitlepunct}%
552 \printfield[titlecase]{subtitle}%
553 \setunit{\addspace}%
554 \usebibmacro{origtitle}%
555 \setunit*{\addspace}%
556 \printfield{titleaddon}%
557 \iffieldequalstr{relatedtype}{equals}{%
558 \iftoggle{bbx:related}{%
559 \usebibmacro{related:init}%
560 \usebibmacro{related}%
561 \clearfield{related}%
562 }{}%
563 }{}%
564 }
565 \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’.

```

566 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
567 \newbibmacro*{origtitle}{%
568 \iffieldundef{origtitle}{}{%
569 \iflistundef{language}{%
570 \printtext[parens]{\printfield{origtitle}}%
571 }{%
572 \printtext[brackets]{%
573 \printlist{language}\space
574 \bibstring{translationof}\space
575 \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

```
576 \newcommand{\blx@ox@compyear}[2]{%
577   \def\num@one{#1}%
578   \def\num@two{#2}%
579   \StrLen{\num@one}[\num@one@len]%
580   \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.

```
581 \ifboolexpr{
582   test {\ifnumequal{\num@one@len}{\num@two@len}}
583   and
584   test {\ifnumless{\num@one}{\num@two}}
585 }{%
```

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

```
586 \StrCompare{\num@one}{\num@two}[\Result]%
587 \ifnum\num@two@len>3%
588   \IfStrEq{\Result}{2}{\def\Result{1}}{%
589   \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.

```
590 \StrGobbleLeft{0\num@two}{\Result}%
591 }{\num@two}}
```

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

```
592 \patchcmd{\mkdaterangefull}{%
593   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
594 }{%
595   \iffieldundef{#2endmonth}%
596     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
597     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
598 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefull}}
599 \patchcmd{\mkdaterangefullextra}{%
600   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
601 }{%
602   \iffieldundef{#2endmonth}%
603     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
604     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
605 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}
606 \patchcmd{\mkdaterangetrunc@i}{%
607   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
608 }{%
609   \iffieldundef{#2endmonth}%
610     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
611     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
612 }{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}
613 \patchcmd{\mkdaterangetruncextra@i}{%
614   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
615 }{%
616   \iffieldundef{#2endmonth}%
617     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
```

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

```

618     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
619   }{\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.

```

620 \DeclareFieldFormat{datetype}{%
621   \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
622 }
623 \newtoggle{blx@ox@timefirst}
624 \DeclareBibliographyOption{timefirst}[true]{%
625   \settoggle{blx@ox@timefirst}{#1}}
626 \DeclareTypeOption{timefirst}[true]{%
627   \settoggle{blx@ox@timefirst}{#1}}
628 \DeclareEntryOption{timefirst}[true]{%
629   \settoggle{blx@ox@timefirst}{#1}}
630 \newbibmacro*{date+time}{%
631   \ifboolexpr{
632     test {\iffieldundef{year}}
633     and
634     test {\iffieldundef{season}}
635     and
636     test {\iffieldundef{month}}
637     and
638     test {\iffieldundef{hour}}
639   }{}{%
640     \printfield{datetype}}%
641   \setunit*{\addspace}%
642   \iftoggle{blx@ox@timefirst}{%
643     \printtime
644     \setunit*{\addcomma\space}}{}%
645   \printdate
646   \iftoggle{blx@ox@timefirst}{%
647     \setunit*{\addcomma\space}%
648     \printtime}%
649 }
650 \renewbibmacro*{date}{\usebibmacro{date+time}}

```

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

```

651 \DeclareFieldFormat{origdatetype}{%
652   \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
653 }
654 \newbibmacro*{origdate+time}{%
655   \ifboolexpr{
656     test {\iffieldundef{origyear}}
657     and
658     test {\iffieldundef{origseason}}
659     and
660     test {\iffieldundef{origmonth}}
661     and
662     test {\iffieldundef{orighour}}
663   }{}{%
664     \printfield{origdatetype}}%
665   \setunit*{\addspace}%
666   \iftoggle{blx@ox@timefirst}{%
667     \printorigtime
668     \setunit*{\addcomma\space}}{}%
669   \printorigdate
670   \iftoggle{blx@ox@timefirst}{%

```

```

671     \setunit*{\addcomma\space}%
672     \printorigtime}%
673 }

```

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

```

674 \DeclareFieldFormat{date}{%
675   \def\currentfield{date}%
676   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
677   \undef\currentfield}
678 \DeclareFieldFormat{origdate}{%
679   \def\currentfield{origdate}%
680   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
681   \undef\currentfield}
682 \DeclareFieldFormat{eventdate}{%
683   \def\currentfield{eventdate}%
684   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
685   \undef\currentfield}

```

2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

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

```

686 \xpatchfieldformat{edition}%
687   {#1\isdot}%
688   {\ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
689   {\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.

```

690 \DeclareFieldFormat{pages}{%
691   \iffieldundef{bookpagination}%
692     {\mkcomprange{#1}}%
693     {\mkcomprange[{\mkpageprefix[bookpagination]}]{#1}}%
694 }

```

The same is true in citations.

```

695 \DeclareFieldFormat{postnote}{%
696   \iffieldundef{pagination}%
697     {\mkcomprange{#1}}%
698     {\mkcomprange[{\mkpageprefix}]{#1}}%
699 }

```

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.

```

700 \DeclareBibliographyOption{nopublisher}[true]{%
701   \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
702 }

```

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.

```

703 \DeclareBibliographyOption{noLocation}[true]{%
704   \DeclareStyleSourceMap{
705     \maps[datatype=bibtex]{
706       \map{
707         \pertype{book}
708         \pertype{mvbook}
709         \pertype{bookinbook}
710         \pertype{inbook}
711         \pertype{suppbook}
712         \pertype{collection}
713         \pertype{mvcollection}
714         \pertype{incollection}
715         \pertype{suppcollection}
716         \pertype{reference}
717         \pertype{mvreference}
718         \pertype{inreference}
719         \pertype{proceedings}
720         \pertype{mvproceedings}
721         \pertype{inproceedings}
722         \step[notfield=location, fieldset=location,
↪       fieldvalue={\noexpand\bibstring{noLocation}}]
723       }
724     }
725   }%
726 }

```

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

```

727 \newtoggle{blx@ox@noLoc}
728 \def\blx@ox@noLoc{{\bibstring{noLocation}}}
729 \DeclareEntryOption{noLocation}[true]{%
730   \settoggle{blx@ox@noLoc}{#1}%
731   \iflistundef{location}{%
732     \iftoggle{blx@ox@noLoc}{\restorelist{location}{\blx@ox@noLoc}}{}%
733   }{}

```

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.

```

734 \DeclareBibliographyOption{isourls}[true]{%
735   \ifstrequal{#1}{true}
736     {\DeclareFieldFormat{url}{\langl$}\url{##1}\langr$}}
737     {\DeclareFieldFormat{url}{\url{##1}}}%
738   }
739 \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.

```

740 \renewcommand*{\biburlsetup}{%
741   \Urlmuskip=0mu plus 2mu\relax
742   \mathchardef\URLBigBreakPenalty=100\relax
743   \mathchardef\URLBreakPenalty=200\relax

```

```

744 \def\UrlBigBreaks{\do/\do:}%
745 \def\UrlNoBreaks{\do\(\do\[\do\{\do\<%
746 \def\UrlBreaks{%
747 \do\>\do}\do]\do\)\do\\do\|}%
748 \do'\do\$do\$*do\^do\"}%
749 \appto\UrlSpecials{%
750 \do!\{\mathbin}\mskip-\Urlmuskip\mathchar'\!\mskip\Urlmuskip}%
751 \do&\{\mathbin}\mskip-\Urlmuskip\mathchar'\&\mskip\Urlmuskip}%
752 \do+\{\mathbin}\mskip-\Urlmuskip\mathchar'+\mskip\Urlmuskip}%
753 \do\,\{\mathbin}\mskip-\Urlmuskip\mathchar'\,\mskip\Urlmuskip}%
754 \do-\{\mathbin}\mskip-\Urlmuskip\mathchar'\-\mskip\Urlmuskip}%
755 \do.\{\mathbin}\mskip-\Urlmuskip\mathchar'\.\mskip\Urlmuskip}%
756 \do;\{\mathbin}\mskip-\Urlmuskip\mathchar'\;\mskip\Urlmuskip}%
757 \do=\{\mathbin}\mskip-\Urlmuskip\mathchar'\=\mskip\Urlmuskip}%
758 \do\?\{\mathbin}\mskip-\Urlmuskip\mathchar'\?\mskip\Urlmuskip}%
759 \do_\{\mathbin}\mskip-\Urlmuskip\_mskip\Urlmuskip}%
760 \do#\{\mathbin}\mskip-\Urlmuskip#\mskip\Urlmuskip}%
761 }%
762 \ifnumgreater{\value{biburlnumpenalty}}{0}
763 {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar'##1 \penalty\value{biburlnumpenalty}}}}%
764 \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
765 {}%
766 \ifnumgreater{\value{biburlucpenalty}}{0}
767 {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar'##1 \penalty\value{biburlucpenalty}}}}%
768 \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
769 \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
770 \do\U\do\V\do\W\do\X\do\Y\do\Z}
771 {}%
772 \ifnumgreater{\value{biburllcpenalty}}{0}
773 {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar'##1 \penalty\value{biburllcpenalty}}}}%
774 \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
775 \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
776 \do\U\do\V\do\W\do\X\do\Y\do\Z}
777 {}%
778 \let\do=\noexpand}

```

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

```

779 \DeclareFieldFormat{urldate}{\bibstring{urlseen}\space#1}
780 \xpatchbibmacro{url+urldate}%
781 {\setunit*{\addspace}}%
782 {\setunit*{\addcomma\addspace}}%
783 {}{\wlog{WARNING: biblatex-oxref failed to patch url+urldate}}

```

The DOI is introduced by 'doi' in lowercase.

```

784 \xpatchfieldformat{doi}%
785 {\mkbibacro{DOI}}%
786 {\printtext{doi}}%
787 {}{\wlog{WARNING: biblatex-oxref failed to patch doi}}

```

Unlike URLs, DOIs are preceded by a full stop.

```

788 \xpatchbibmacro{doi+eprint+url}%
789 {\printfield{doi}}%
790 {\setunit{\addperiod\space}\printfield{doi}}%
791 {}{\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.

```

792 \renewbibmacro*{addendum+pubstate}{%
793   \ifboolexpr{
794     test {\iffieldundef{pubstate}}
795     or
796     test {\iffieldequalstr{labeldatesource}{pubstate}}
797   }{%
798     \nopunct
799     \ifbibstring{\thefield{pubstate}}{%
800       \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
801     }{%
802       \printfield{pubstate}}%
803     \setunit{\addsemicolon\addspace}\newblock
804     \printfield{addendum}}
805 \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}

```

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

```

806 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
807 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}

```

2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

```

808 \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.

```

809 \newcommand*{\blx@ox@abbrevstring}{%
810   A^{A}BCDEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRSTU\^{U}\^{U}VWXYZ.}%
811 \AtBeginDocument{
812   \ifdefstring{\encodingdefault}{OT1}{}%
813   \renewcommand*{\blx@ox@abbrevstring}{%
814     A^{A}BC\c{C}DEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRS\c{S}TU\^{U}\^{U}VWXYZ.}%
815   }%
816 }
817 \newcommand*{\ifabbrev}[3]{%
818   \StrRight{#1}{1}[\blx@ox@lastchar]%
819   \IfSubStr{\blx@ox@abbrevstring}{\blx@ox@lastchar}{#2}{#3}
820 }

```

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.

```

821 \renewbibmacro*{journal+issuetitle}{%
822   \ifboolexpr{
823     test {\iffieldundef{title}}
824     and

```

```

825     not test {\iffieldundef{issuetitle}}
826   }{%
827     \usebibmacro{issue}%
828     \setunit{\addspace =\addspace}%
829   }{%
830     \ifboolexpr{
831       ( not test {\iffieldundef{pubstate}} )
832       and
833       test {\ifbibxstring{\thefield{pubstate}in}}
834     }{%
835       \printtext{\bibstring{\thefield{pubstate}in}\space}%
836       \clearfield{pubstate}%
837     }{%}
838     \usebibmacro{journal}%
839     \iffieldundef{journalsubtitle}{%
840       \ifabbrev{\thefield{journaltitle}}{\setunit{\addspace}}{\newunit}%
841     }{%
842       \ifabbrev{\thefield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
843     \iffieldundef{series}{%}
844     \newunit\newblock
845     \printfield{series}%
846     \ifbibxstring{\thefield{series}}{%
847       \setunit{\addspace}%
848     }{%
849       \newunit}}%
850     \usebibmacro{volume+number+eid}%
851     \setunit{\addspace}%
852     \usebibmacro{issue+date}%
853     \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.

```

854 \renewbibmacro*{title+issuetitle}{%
855   \usebibmacro{periodical}%
856   \iffieldundef{subtitle}{%
857     \ifabbrev{\thefield{title}}{\setunit{\addspace}}{\newunit}%
858   }{%
859     \ifabbrev{\thefield{subtitle}}{\setunit{\addspace}}{\newunit}}%
860   \iffieldundef{series}{%}
861   \newunit\newblock
862   \printfield{series}%
863   \ifbibxstring{\thefield{series}}{%
864     \setunit{\addspace}%
865   }{%
866     \newunit}}%
867   \usebibmacro{volume+number+eid}%
868   \setunit{\addspace}%
869   \usebibmacro{issue+date}%
870   \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).

```

871 \DeclareBibliographyOption[string]{issuestyle}[slash]{%
872   \ifcsdef{blx@ox@issuestyle@#1}{%
873     \csuse{blx@ox@issuestyle@#1}%

```

```

874 }{%
875   \PackageError{biblatex-oxref}
876     {Invalid option 'issuestyle=#1'}
877     {Valid values are 'slash', 'colon', 'comma', 'parens'}%
878 }%
879 }
880 \csdef{blx@ox@issuestyle@slash}{%
881   \renewbibmacro*{volume+number+eid}{%
882     \printfield{volume}%
883     \setunit*{\addslash}%
884     \printfield{number}%
885   }%
886 }
887 \csdef{blx@ox@issuestyle@colon}{%
888   \renewbibmacro*{volume+number+eid}{%
889     \printfield{volume}%
890     \setunit*{\addcolon\space}%
891     \printfield{number}%
892   }%
893 }
894 \csdef{blx@ox@issuestyle@comma}{%
895   \renewbibmacro*{volume+number+eid}{%
896     \printfield{volume}%
897     \setunit*{\addcomma\space}%
898     \printfield{number}%
899   }%
900 }
901 \csdef{blx@ox@issuestyle@parens}{%
902   \renewbibmacro*{volume+number+eid}{%
903     \printfield{volume}%
904     \setunit*{\addspace}%
905     \printfield[parens]{number}%
906   }%
907 }
908 \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.

```

909 \newtoggle{blx@ox@varissuedate}
910 \DeclareBibliographyOption{varissuedate}[true]{%
911   \settoggle{blx@ox@varissuedate}{#1}}
912 \DeclareTypeOption{varissuedate}[true]{%
913   \settoggle{blx@ox@varissuedate}{#1}}
914 \DeclareEntryOption{varissuedate}[true]{%
915   \settoggle{blx@ox@varissuedate}{#1}}
916 \DeclareBibliographyOption{issuedate-plain}[true]{%
917   \settoggle{blx@ox@varissuedate}{#1}}
918 \DeclareTypeOption{issuedate-plain}[true]{%
919   \settoggle{blx@ox@varissuedate}{#1}}
920 \DeclareEntryOption{issuedate-plain}[true]{%
921   \settoggle{blx@ox@varissuedate}{#1}}
922 \renewbibmacro*{issue+date}{%
923   \ifboolexpr{
924     test {\iffieldundef{issue}}
925     and

```

```

926     test {\iffieldundef{year}}
927     and
928     test {\iffieldundef{season}}
929     and
930     test {\iffieldundef{month}}
931   }{\%
932     \ifboolexpr{
933       togl {blx@ox@varissuedate}
934       and
935       test {\iffieldundef{volume}}
936       and
937       test {\iffieldundef{number}}
938     }{\%
939       \newunit
940       \printtext{%
941         \iffieldundef{issue}{%
942           \usebibmacro{date}
943         }{\%
944           \printfield{issue}%
945           \setunit*{\addspace}%
946           \usebibmacro{date}}}{%
947       }{\%
948         \printtext[parens]{%
949           \iffieldundef{issue}{%
950             \usebibmacro{date}%
951           }{\%
952             \printfield{issue}%
953             \setunit*{\addspace}%
954             \usebibmacro{date}}}{%
955     \newunit
956     \printfield{eid}%
957   }

```

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.

```

958 \DeclareBibliographyDriver{article}{%
959   \usebibmacro{bibindex}%
960   \usebibmacro{begentry}%
961   \usebibmacro{author/translator+others}%
962   \setunit{\printdelim{nametitledelim}}\newblock
963   \usebibmacro{title}%
964   \setunit{\titlebyauthordelim}\newblock
965   \usebibmacro{byauthor}%
966   \newunit\newblock
967   \usebibmacro{bytranslator+others}%
968   \newunit\newblock
969   \printfield{version}%
970   \newunit\newblock
971   \usebibmacro{journal+issuetitle}%
972   \newunit
973   \usebibmacro{byeditor+others}%
974   \iffieldequalstr{relatedtype}{suppto}{%
975     \setunit{\addsemicolon\space}%
976     \iftoggle{bbx:related}{%
977       \usebibmacro{related:init}%

```

```

978     \usebibmacro{related}%
979     \clearfield{related}%
980   }{}%
981 }{}%
982 \newunit
983 \usebibmacro{note+pages}%
984 \newunit\newblock
985 \iftoggle{bbx:isbn}
986   {\printfield{issn}}
987   {}%
988 \newunit\newblock
989 \usebibmacro{doi+eprint+url}%
990 \newunit\newblock
991 \usebibmacro{addendum+pubstate}%
992 \setunit{\bibpagerefpunct}\newblock
993 \usebibmacro{pageref}%
994 \setunit{\relatedtypepunct}\newblock
995 \iftoggle{bbx:related}
996   {\usebibmacro{related:init}%
997     \usebibmacro{related}}
998   {}%
999 \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

1000 \DeclareBibliographyDriver{periodical}{%
1001   \usebibmacro{bibindex}%
1002   \usebibmacro{begentry}%
1003   \usebibmacro{editor}%
1004   \setunit{\printdelim{nametitledelim}}\newblock
1005   \usebibmacro{title+issuetitle}%
1006   \newunit\newblock
1007   \usebibmacro{byeditor}%
1008   \newunit\newblock
1009   \printfield{note}%
1010   \newunit\newblock
1011   \iftoggle{bbx:isbn}
1012     {\printfield{issn}}
1013     {}%
1014   \newunit\newblock
1015   \usebibmacro{doi+eprint+url}%
1016   \newunit\newblock
1017   \usebibmacro{addendum+pubstate}%
1018   \setunit{\bibpagerefpunct}\newblock
1019   \usebibmacro{pageref}%
1020   \setunit{\relatedtypepunct}\newblock
1021   \iftoggle{bbx:related}
1022     {\usebibmacro{related:init}%
1023       \usebibmacro{related}}
1024     {}%
1025   \usebibmacro{finentry}}

```

The supperiodical 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.

```

1026 \DeclareFieldFormat[supperiodical]{title}{%
1027   \def\currentfield{title}%
1028   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1029   \undef\currentfield}

```

```

1030 \DeclareFieldFormat[supperiodical]{volume}{#1}% volume of a journal
1031 \DeclareFieldFormat[supperiodical]{number}{#1}% number of a journal
1032 \DeclareFieldFormat[supperiodical]{series}{% series of a journal
1033   \ifinteger{#1}
1034     {\mkbibordseries{#1}~\bibstring{jourser}}
1035     {\ifbibstring{#1}{\bibstring{#1}}{#1}}
1036 \DeclareBibliographyDriver{supperiodical}{%
1037   \usebibmacro{bibindex}%
1038   \usebibmacro{begentry}%
1039   \usebibmacro{author/translator+others}%
1040   \setunit{\printdelim{nametitle}}\newblock
1041   \usebibmacro{title}%
1042   \setunit{\titlebyauthor}\newblock
1043   \usebibmacro{byauthor}%
1044   \newunit\newblock
1045   \usebibmacro{bytranslator+others}%
1046   \newunit\newblock
1047   \printfield{note}\clearfield{note}%
1048   \newunit\newblock
1049   \printfield{version}%
1050   \newunit\newblock
1051   \usebibmacro{journal+issuetitle}%
1052   \newunit
1053   \usebibmacro{byeditor+others}%
1054   \iffieldequalstr{relatedtype}{suppto}{%
1055     \setunit{\addsemicolon\space}%
1056     \iftoggle{bbx:related}{%
1057       \usebibmacro{related:init}%
1058       \usebibmacro{related}%
1059       \clearfield{related}%
1060     }{}%
1061   }{}%
1062   \newunit
1063   \usebibmacro{note+pages}%
1064   \newunit\newblock
1065   \iftoggle{bbx:isbn}
1066     {\printfield{issn}}
1067     {}%
1068   \newunit\newblock
1069   \usebibmacro{doi+eprint+url}%
1070   \newunit\newblock
1071   \usebibmacro{addendum+pubstate}%
1072   \setunit{\bibpagerefpunct}\newblock
1073   \usebibmacro{pageref}%
1074   \setunit{\relatedtypepunct}\newblock
1075   \iftoggle{bbx:related}
1076     {\usebibmacro{related:init}%
1077      \usebibmacro{related}}
1078     {}%
1079   \usebibmacro{finentry}}

```

2.1.10 BOOKS AND WORKS IN BOOKS

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

```

1080 \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.

```

1081 \DeclareFieldFormat[bookinbook]{title}{%
1082   \ifbool{expr}{
1083     test {\iffieldequalstr{entrysubtype}{poem}}
1084     or
1085     test {\iffieldequalstr{entrysubtype}{play}}
1086   }{%
1087     \mkbibemph{#1}%
1088   }{%
1089     \mkbibquote{#1\isdot}}

```

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

```

1090 \DeclareFieldFormat[inference]{title}{\mkbibquote{#1\isdot}}

```

Volume numbers in monograph-style entries are formatted as roman numerals.

```

1091 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbk,%
1092 collection,mvcollection,incollection,suppcollection,%
1093 proceedings,mvproceedings,inproceedings,%
1094 reference,mvreference,inreference]{volume}{%
1095 \IfSubStr{#1}{-}{%
1096   \StrCount{#1}{-}[\blx@ox@dashnum]%
1097   \StrBefore{#1}{-}[\blx@ox@volnum]%
1098   \Rn{\blx@ox@volnum}\bibbrangedash
1099   \StrBehind{\blx@ox@dashnum}{#1}{-}[\blx@ox@volnum]%
1100   \Rn{\blx@ox@volnum}%
1101 }{%
1102   \Rn{#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.

```

1103 \newbibmacro*{maintitle+volume}{%
1104   \ifbool{expr}{
1105     test {\iffieldundef{maintitle}}
1106     or
1107     test {\iffieldundef{volume}}
1108   }{%
1109     {\printtext[maintitle+volume]{%
1110       \bibstring{volume}\addspace
1111       \printfield{volume}\printfield{part}\addspace
1112       \bibstring{ofseries}\addspace
1113       \usebibmacro{maintitle}}}
1114   }
1115 \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}

```

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

```

1116 \renewbibmacro*{in:}{%
1117   \iffieldequalstr{entrysubtype}{yearbook}{}{%
1118     \printtext{\bibstring{in}\intitlepunct}}

```

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

```

1119 \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.

```

1120 \renewbibmacro*{series+number}{%
1121 \printfield{series}%
1122 \setunit*{\addcomma\space}%
1123 \usebibmacro{byserieseditor}%
1124 \setunit*{\addcomma\space}%
1125 \printfield{number}}

```

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

```

1126 \newtoggle{blx@ox@altbookseries}
1127 \DeclareBibliographyOption[string]{bookseries}[in]{%
1128 \ifstrequal{#1}{out}{%
1129 \toggletrue{blx@ox@altbookseries}%
1130 }{%
1131 \togglefalse{blx@ox@altbookseries}%
1132 \ifstrequal{#1}{in}{%
1133 \PackageError{biblatex-oxref}
1134 {Invalid option 'bookseries=#1'}
1135 {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.

```

1136 \newcounter{locpubpairs}
1137 \newbibmacro*{edition+publisher+location+date}{%
1138 \printlist{origlocation}%
1139 \iflistundef{origpublisher}%
1140 {\setunit*{\addcomma\space}}%
1141 {\setunit*{\addcolon\space}}%
1142 \printlist{origpublisher}%
1143 \setunit*{\addcomma\space}%
1144 \ifboolexpr{
1145 test {\iflistundef{origlocation}}
1146 and
1147 test {\iflistundef{origpublisher}}
1148 and
1149 test {\iffieldundef{edition}}
1150 }{%
1151 \printorigdate}%
1152 \setunit{\addsemicolon\space}%
1153 \printfield{edition}%
1154 \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.

```

1155 \ifboolexpr{%
1156 test {\ifnumcomp{\value{publisher}}{>}{1}}
1157 and
1158 test {\ifnumequal{\value{location}}{\value{publisher}}}
1159 }{%
1160 \setcounter{locpubpairs}{0}%
1161 \savebibmacro{list:andothers}%
1162 \renewbibmacro*{list:andothers}{%
1163 \whileboolexpr{%

```



```

1164     test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}
1165 }{%
1166     \stepcounter{locpubpairs}%
1167     \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1168         \ifnumequal{\value{publisher}}{2}{%
1169             \setunit*{\addspace\bibstring{and}\addspace}%
1170         }{%
1171             \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1172                 \setunit*{\addcomma\space\bibstring{and}\addspace}%
1173             }{%
1174                 \setunit*{\addcomma\space}%
1175             }%
1176         }%
1177     }{%
1178     \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{location}%
1179     \setunit*{\addcolon\space}%
1180     \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{publisher}%
1181 }%
1182 \restorebibmacro{list:andothers}%
1183 }{%
1184     \printlist{location}%
1185     \iflistundef{publisher}%
1186     {\setunit*{\addcomma\space}}%
1187     {\setunit*{\addcolon\space}}%
1188     \printlist{publisher}%
1189 }%
1190 \setunit*{\addcomma\space}%
1191 \usebibmacro{date}%
1192 }

```

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

```

1193 \newbibmacro*{series+number+edition+publisher+location+date}{%
1194 \iftoggle{blx@ox@altbookseries}{%
1195     \usebibmacro{series+number}%
1196     \setunit{\addspace}\newblock{}%
1197 \ifboolexpr{
1198     test {\iffieldundef{series}}
1199     and
1200     test {\iffieldundef{number}}
1201     and
1202     test {\iffieldundef{edition}}
1203     and
1204     test {\iflistundef{publisher}}
1205     and
1206     test {\iflistundef{location}}
1207     and
1208     test {\iffieldundef{year}}
1209     and
1210     test {\iffieldundef{season}}
1211     and
1212     test {\iffieldundef{month}}
1213 }{}%
1214 \nopunct
1215 \printtext[publication]{%
1216 \iftoggle{blx@ox@altbookseries}{%
1217     \usebibmacro{series+number}%
1218     \setunit{\addsemicolon\addspace}}%
1219 \usebibmacro{edition+publisher+location+date}%
1220 \usebibmacro{copub}}%

```

```

1221 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1222 \setunit{\addspace}\newblock
1223 \usebibmacro{origpub}%
1224 }

```

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

```

1225 \newbibmacro*{series+number+publisher+location+date}{%
1226 \iftoggle{blx@ox@altbookseries}{%
1227 \usebibmacro{series+number}%
1228 \setunit{\addspace}\newblock}{%
1229 \ifboolexpr{
1230 test {\iffieldundef{series}}
1231 and
1232 test {\iffieldundef{number}}
1233 and
1234 test {\iflistundef{publisher}}
1235 and
1236 test {\iflistundef{location}}
1237 and
1238 test {\iffieldundef{year}}
1239 and
1240 test {\iffieldundef{season}}
1241 and
1242 test {\iffieldundef{month}}
1243 }{}%
1244 \nopunct
1245 \printtext[publication]{%
1246 \iftoggle{blx@ox@altbookseries}{%
1247 \usebibmacro{series+number}%
1248 \setunit{\addsemicolon\addspace}}%
1249 \usebibmacro{publisher+location+date}%
1250 \usebibmacro{copub}}}%
1251 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1252 \setunit{\addspace}\newblock
1253 \usebibmacro{origpub}%
1254 }

```

The copub macro prints co-publication details.

```

1255 \newbibmacro*{copub}{%
1256 \ifboolexpr{
1257 togl {bbx:related}
1258 and
1259 test {\iffieldequalstr{relatedtype}{copub}}
1260 }{%
1261 \setunit{\addsemicolon\space}%
1262 \usebibmacro{related:init}%
1263 \usebibmacro{related}%
1264 }{}%
1265 }

```

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

```

1266 \newbibmacro*{origpub}{%
1267 \ifboolexpr{
1268 test {\iflistundef{origlocation}}
1269 and
1270 test {\iflistundef{origpublisher}}

```

```

1271     and
1272     test {\iffieldundef{edition}}
1273     and
1274     ( not test {\iffieldundef{origyear}} )
1275   }{%
1276     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1277   }{%
1278 }

```

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;

```

1279 \DeclareBibliographyDriver{book}{%
1280   \usebibmacro{bibindex}%
1281   \usebibmacro{begentry}%
1282   \usebibmacro{author/editor+others/translator+others}%
1283   \setunit{\printdelim{nametitledelim}}\newblock
1284   \usebibmacro{title}%
1285   \setunit{\titlebyauthordelim}\newblock
1286   \usebibmacro{byauthor}%
1287   \newunit\newblock
1288   \usebibmacro{byeditor+others}%
1289   \newunit\newblock
1290   \printfield{note}%
1291   \newunit\newblock
1292   \usebibmacro{maintitle+volume}%
1293   \newunit
1294   \usebibmacro{series+number+edition+publisher+location+date}%
1295   \setunit{\addspace}%
1296   \printfield{howpublished}%
1297   \newunit\newblock
1298   \usebibmacro{chapter+pages}%
1299   \newunit
1300   \printfield{pagetotal}%
1301   \newunit\newblock
1302   \iftoggle{bbx:isbn}
1303     {\printfield{isbn}}
1304     {}%
1305   \newunit\newblock
1306   \usebibmacro{doi+eprint+url}%
1307   \newunit\newblock
1308   \usebibmacro{addendum+pubstate}%
1309   \setunit{\bibpagerefunct}\newblock
1310   \usebibmacro{pageref}%
1311   \setunit{\relatedtypepunct}\newblock
1312   \iftoggle{bbx:related}
1313     {\usebibmacro{related:init}%
1314       \usebibmacro{related}}
1315     {}%
1316   \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;

```

1317 \DeclareBibliographyDriver{mvbook}{%
1318   \usebibmacro{bibindex}%
1319   \usebibmacro{begentry}%
1320   \usebibmacro{author/editor+others/translator+others}%
1321   \setunit{\printdelim{nametitle}}\newblock
1322   \usebibmacro{maintitle+title}%
1323   \newunit
1324   \ifboolexpr{
1325     test {\iffieldequalstr{relatedtype}{multivolume}}
1326     or
1327     ( not test {\iffieldundef{maintitle}} )
1328   }{%
1329     \printfield{volume}%
1330     \printfield{part}%
1331     \setunit{\titlebyauthor}\newblock
1332     \usebibmacro{byauthor}%
1333     \newunit\newblock
1334     \usebibmacro{byeditor+others}%
1335     \newunit\newblock
1336     \printfield{volumes}%
1337     \newunit\newblock
1338     \printfield{note}%
1339     \newunit\newblock
1340     \ifboolexpr{
1341       test {\iffieldequalstr{relatedtype}{multivolume}}
1342       and
1343       test {\iffieldundef{maintitle}}
1344     }{%
1345       \printfield{volume}%
1346       \printfield{part}%
1347     }{%
1348     \newunit\newblock
1349     \usebibmacro{series+number+edition+publisher+location+date}%
1350     \newunit\newblock
1351     \usebibmacro{chapter+pages}%
1352     \newunit
1353     \printfield{pagetotal}%
1354     \newunit\newblock
1355     \iftoggle{bbx:isbn}
1356     {\printfield{isbn}}
1357     {}%
1358     \newunit\newblock
1359     \usebibmacro{doi+eprint+url}%
1360     \newunit\newblock
1361     \usebibmacro{addendum+pubstate}%
1362     \setunit{\bibpagerefpunct}\newblock
1363     \usebibmacro{pageref}%
1364     \setunit{\relatedtypepunct}\newblock
1365     \iftoggle{bbx:related}
1366     {\usebibmacro{related:init}%
1367       \usebibmacro{related}}
1368     {}%
1369     \usebibmacro{finentry}}

```

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

```

1370 \DeclareBibliographyDriver{inbook}{%
1371   \usebibmacro{bibindex}%
1372   \usebibmacro{begentry}%
1373   \usebibmacro{author/translator+others}%
1374   \setunit{\printdelim{nametitle}}\newblock
1375   \usebibmacro{title}%
1376   \setunit{\titlebyauthordelim}\newblock
1377   \usebibmacro{byauthor}%
1378   \newunit\newblock
1379   \usebibmacro{in:}%
1380   \usebibmacro{bybookauthor}%
1381   \newunit\newblock
1382   \usebibmacro{maintitle+booktitle}%
1383   \newunit
1384   \iffielddundef{maintitle}
1385   {\printfield{volume}%
1386     \printfield{part}}
1387   {}%
1388   \newunit\newblock
1389   \usebibmacro{byeditor+others}%
1390   \newunit\newblock
1391   \printfield{volumes}%
1392   \newunit\newblock
1393   \printfield{note}%
1394   \newunit\newblock
1395   \usebibmacro{series+number+edition+publisher+location+date}%
1396   \newunit\newblock
1397   \usebibmacro{chapter+pages}%
1398   \newunit\newblock
1399   \iftoggle{bbx:isbn}
1400   {\printfield{isbn}}
1401   {}%
1402   \newunit\newblock
1403   \usebibmacro{doi+eprint+url}%
1404   \newunit\newblock
1405   \usebibmacro{addendum+pubstate}%
1406   \setunit{\bibpagerefpunct}\newblock
1407   \usebibmacro{pageref}%
1408   \setunit{\relatedtypepunct}\newblock
1409   \iftoggle{bbx:related}
1410   {\usebibmacro{related:init}%
1411     \usebibmacro{related}}
1412   {}%
1413   \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.

```

1414 \DeclareFieldFormat[suppbok]{title}{%
1415   \def\currentfield{title}%
1416   \iffielddannotation{descriptor}{#1}{\mkbibemph{#1}}%
1417   \undef\currentfield}
1418 \DeclareBibliographyDriver{suppbok}{%
1419   \usebibmacro{bibindex}%
1420   \usebibmacro{begentry}%
1421   \usebibmacro{author/translator+others}%
1422   \setunit{\printdelim{nametitle}}\newblock
1423   \usebibmacro{title}%
1424   \setunit{\titlebyauthordelim}\newblock
1425   \usebibmacro{byauthor}%
1426   \newunit\newblock

```

```

1427 \printfield{note}%
1428 \setunit{\addspace}\newblock
1429 \usebibmacro{in:}%
1430 \usebibmacro{bybookauthor}%
1431 \newunit\newblock
1432 \usebibmacro{maintitle+booktitle}%
1433 \newunit
1434 \iffieldundef{maintitle}
1435 {\printfield{volume}%
1436 \printfield{part}}
1437 {}%
1438 \newunit\newblock
1439 \usebibmacro{byeditor+others}%
1440 \newunit\newblock
1441 \printfield{volumes}%
1442 \newunit\newblock
1443 \usebibmacro{series+number+edition+publisher+location+date}%
1444 \newunit\newblock
1445 \usebibmacro{chapter+pages}%
1446 \newunit\newblock
1447 \iftoggle{bbx:isbn}
1448 {\printfield{isbn}}
1449 {}%
1450 \newunit\newblock
1451 \usebibmacro{doi+eprint+url}%
1452 \newunit\newblock
1453 \usebibmacro{addendum+pubstate}%
1454 \setunit{\bibpagerefunct}\newblock
1455 \usebibmacro{pageref}%
1456 \setunit{\relatedtypepunct}\newblock
1457 \iftoggle{bbx:related}
1458 {\usebibmacro{related:init}%
1459 \usebibmacro{related}}
1460 {}%
1461 \usebibmacro{finentry}}

```

We also provide a bookinbook driver that handles origdate differently.

```

1462 \DeclareBibliographyDriver{bookinbook}{%
1463 \usebibmacro{bibindex}%
1464 \usebibmacro{begentry}%
1465 \usebibmacro{author/translator+others}%
1466 \setunit{\printdelim{nametitledelim}}\newblock
1467 \usebibmacro{title}%
1468 \setunit{\titlebyauthordelim}\newblock
1469 \usebibmacro{byauthor}%
1470 \newunit\newblock
1471 \usebibmacro{in:}%
1472 \usebibmacro{bybookauthor}%
1473 \newunit\newblock
1474 \usebibmacro{maintitle+booktitle}%
1475 \newunit
1476 \iffieldundef{maintitle}
1477 {\printfield{volume}%
1478 \printfield{part}}
1479 {}%
1480 \newunit\newblock
1481 \usebibmacro{byeditor+others}%
1482 \newunit\newblock
1483 \printfield{volumes}%
1484 \newunit\newblock

```

```

1485 \printfield{note}%
1486 \newunit\newblock
1487 \usebibmacro{series+number+edition+publisher+location+date}%
1488 \newunit\newblock
1489 \usebibmacro{chapter+pages}%
1490 \newunit\newblock
1491 \iftoggle{bbx:isbn}
1492 {\printfield{isbn}}
1493 {}%
1494 \newunit\newblock
1495 \usebibmacro{doi+eprint+url}%
1496 \newunit\newblock
1497 \usebibmacro{addendum+pubstate}%
1498 \setunit{\bibpagerefunct}\newblock
1499 \usebibmacro{pageref}%
1500 \setunit{\relatedtypepunct}\newblock
1501 \iftoggle{bbx:related}
1502 {\usebibmacro{related:init}%
1503 \usebibmacro{related}}
1504 {}%
1505 \usebibmacro{finentry}}

```

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

```

1506 \DeclareBibliographyDriver{collection}{%
1507 \usebibmacro{bibindex}%
1508 \usebibmacro{begentry}%
1509 \usebibmacro{editor+others}%
1510 \setunit{\printdelim{nametitledelim}}\newblock
1511 \usebibmacro{title}%
1512 \newunit\newblock
1513 \usebibmacro{byeditor+others}%
1514 \newunit\newblock
1515 \printfield{note}%
1516 \newunit\newblock
1517 \usebibmacro{maintitle+volume}%
1518 \newunit
1519 \usebibmacro{series+number+edition+publisher+location+date}%
1520 \newunit\newblock
1521 \usebibmacro{chapter+pages}%
1522 \newunit
1523 \printfield{pagetotal}%
1524 \newunit\newblock
1525 \iftoggle{bbx:isbn}
1526 {\printfield{isbn}}
1527 {}%
1528 \newunit\newblock
1529 \usebibmacro{doi+eprint+url}%
1530 \newunit\newblock
1531 \usebibmacro{addendum+pubstate}%
1532 \setunit{\bibpagerefunct}\newblock
1533 \usebibmacro{pageref}%
1534 \setunit{\relatedtypepunct}\newblock
1535 \iftoggle{bbx:related}
1536 {\usebibmacro{related:init}%
1537 \usebibmacro{related}}
1538 {}%
1539 \usebibmacro{finentry}}

```

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

```

1540 \DeclareBibliographyDriver{mvcollection}{%
1541   \usebibmacro{bibindex}%
1542   \usebibmacro{begentry}%
1543   \usebibmacro{editor+others}%
1544   \setunit{\printdelim{nametitledelim}}\newblock
1545   \usebibmacro{maintitle+title}%
1546   \newunit
1547   \ifboolexpr{
1548     test {\iffieldequalstr{relatedtype}{multivolume}}
1549     or
1550     ( not test {\iffieldundef{maintitle}} )
1551   }{%
1552     \printfield{volume}%
1553     \printfield{part}%
1554   \newunit\newblock
1555   \usebibmacro{byeditor+others}%
1556   \newunit\newblock
1557   \printfield{volumes}%
1558   \newunit\newblock
1559   \printfield{note}%
1560   \newunit\newblock
1561   \ifboolexpr{
1562     test {\iffieldequalstr{relatedtype}{multivolume}}
1563     and
1564     test {\iffieldundef{maintitle}}
1565   }{%
1566     \printfield{volume}%
1567     \printfield{part}%
1568   }{%
1569     \newunit\newblock
1570     \usebibmacro{series+number+edition+publisher+location+date}%
1571     \newunit\newblock
1572     \usebibmacro{chapter+pages}%
1573     \newunit
1574     \printfield{pagetotal}%
1575     \newunit\newblock
1576     \iftoggle{bbx:isbn}
1577     {\printfield{isbn}}
1578     {}%
1579     \newunit\newblock
1580     \usebibmacro{doi+eprint+url}%
1581     \newunit\newblock
1582     \usebibmacro{addendum+pubstate}%
1583     \setunit{\bibpagerefpunct}\newblock
1584     \usebibmacro{pageref}%
1585     \setunit{\relatedtypepunct}\newblock
1586     \iftoggle{bbx:related}
1587     {\usebibmacro{related:init}%
1588       \usebibmacro{related}}
1589     {}%
1590     \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.

```

1591 \DeclareBibliographyDriver{incollection}{%
1592   \usebibmacro{bibindex}%
1593   \usebibmacro{begentry}%
1594   \usebibmacro{author/translator+others}%
1595   \setunit{\printdelim{nametitledelim}}\newblock

```



```

1596 \usebibmacro{title}%
1597 \setunit{\titlebyauthordelim}\newblock
1598 \usebibmacro{byauthor}%
1599 \newunit\newblock
1600 \usebibmacro{in:}%
1601 \usebibmacro{bookeditor}%
1602 \newunit\newblock
1603 \usebibmacro{maintitle+booktitle}%
1604 \newunit
1605 \iffieldundef{maintitle}
1606 {\printfield{volume}%
1607 \printfield{part}}
1608 {}%
1609 \newunit\newblock
1610 \printfield{volumes}%
1611 \newunit\newblock
1612 \printfield{note}%
1613 \newunit\newblock%
1614 \usebibmacro{series+number+edition+publisher+location+date}%
1615 \newunit\newblock
1616 \usebibmacro{chapter+pages}%
1617 \newunit\newblock
1618 \iftoggle{bbx:isbn}
1619 {\printfield{isbn}}
1620 {}%
1621 \newunit\newblock
1622 \usebibmacro{doi+eprint+url}%
1623 \newunit\newblock
1624 \usebibmacro{addendum+pubstate}%
1625 \setunit{\bibpagerefpunct}\newblock
1626 \usebibmacro{pageref}%
1627 \setunit{\relatedtypepunct}\newblock
1628 \iftoggle{bbx:related}
1629 {\usebibmacro{related:init}%
1630 \usebibmacro{related}}
1631 {}%
1632 \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.

```

1633 \DeclareFieldFormat[suppcollection]{title}{%
1634 \def\currentfield{title}%
1635 \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1636 \undef\currentfield}
1637 \DeclareBibliographyDriver{suppcollection}{%
1638 \usebibmacro{bibindex}%
1639 \usebibmacro{begentry}%
1640 \usebibmacro{author/translator+others}%
1641 \setunit{\printdelim{nametitledelim}}\newblock
1642 \usebibmacro{title}%
1643 \setunit{\titlebyauthordelim}\newblock
1644 \usebibmacro{byauthor}%
1645 \newunit\newblock
1646 \printfield{note}%
1647 \setunit{\addspace}\newblock
1648 \usebibmacro{in:}%
1649 \usebibmacro{bookeditor}%
1650 \newunit\newblock
1651 \usebibmacro{maintitle+booktitle}%
1652 \newunit

```

```

1653 \iffielddundef{maintitle}
1654 {\printfield{volume}%
1655 \printfield{part}}
1656 {}%
1657 \newunit\newblock
1658 \printfield{volumes}%
1659 \newunit\newblock%
1660 \usebibmacro{series+number+edition+publisher+location+date}%
1661 \newunit\newblock
1662 \usebibmacro{chapter+pages}%
1663 \newunit\newblock
1664 \iftoggle{bbx:isbn}
1665 {\printfield{isbn}}
1666 {}%
1667 \newunit\newblock
1668 \usebibmacro{doi+eprint+url}%
1669 \newunit\newblock
1670 \usebibmacro{addendum+pubstate}%
1671 \setunit{\bibpagerefpunct}\newblock
1672 \usebibmacro{pageref}%
1673 \setunit{\relatedtypepunct}\newblock
1674 \iftoggle{bbx:related}
1675 {\usebibmacro{related:init}%
1676 \usebibmacro{related}}
1677 {}%
1678 \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.

```

1679 \DeclareBibliographyDriver{reference}{%
1680 \usebibmacro{bibindex}%
1681 \usebibmacro{begentry}%
1682 \usebibmacro{author/editor+others/translator+others}%
1683 \setunit{\printdelim{nametitledelim}}\newblock
1684 \usebibmacro{title}%
1685 \newunit\newblock
1686 \printfield{edition}%
1687 \setunit{\titlebyauthordelim}\newblock
1688 \usebibmacro{byauthor}%
1689 \newunit\newblock
1690 \usebibmacro{byeditor+others}%
1691 \newunit\newblock
1692 \printfield{note}%
1693 \newunit\newblock
1694 \usebibmacro{maintitle+volume}%
1695 \newunit
1696 \usebibmacro{series+number+publisher+location+date}%
1697 \newunit\newblock
1698 \usebibmacro{chapter+pages}%
1699 \newunit
1700 \printfield{pagetotal}%
1701 \newunit\newblock
1702 \iftoggle{bbx:isbn}
1703 {\printfield{isbn}}
1704 {}%
1705 \newunit\newblock
1706 \usebibmacro{doi+eprint+url}%
1707 \newunit\newblock
1708 \usebibmacro{addendum+pubstate}%
1709 \setunit{\bibpagerefpunct}\newblock

```

```

1710 \usebibmacro{pageref}%
1711 \setunit{\relatedtypepunct}\newblock
1712 \iftoggle{bbx:related}
1713 {\usebibmacro{related:init}%
1714 \usebibmacro{related}}
1715 {}%
1716 \usebibmacro{finentry}}

```

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

```

1717 \DeclareBibliographyDriver{mvreference}{%
1718 \usebibmacro{bibindex}%
1719 \usebibmacro{begentry}%
1720 \usebibmacro{author/editor+others/translator+others}%
1721 \setunit{\printdelim[nametitledelim]}\newblock
1722 \usebibmacro{maintitle+title}%
1723 \newunit
1724 \ifboolexpr{
1725 test {\iffieldequalstr{relatedtype}{multivolume}}
1726 or
1727 ( not test {\iffieldundef{maintitle}} )
1728 }{%
1729 \printfield{volume}%
1730 \printfield{part}}%
1731 \newunit\newblock
1732 \printfield{edition}%
1733 \setunit{\titlebyauthordelim}\newblock
1734 \usebibmacro{byauthor}%
1735 \newunit\newblock
1736 \usebibmacro{byeditor+others}%
1737 \newunit\newblock
1738 \printfield{volumes}%
1739 \newunit\newblock
1740 \printfield{note}%
1741 \newunit\newblock
1742 \ifboolexpr{
1743 test {\iffieldequalstr{relatedtype}{multivolume}}
1744 and
1745 test {\iffieldundef{maintitle}}
1746 }{%
1747 \printfield{volume}%
1748 \printfield{part}}%
1749 }{%
1750 \newunit\newblock
1751 \usebibmacro{series+number+publisher+location+date}%
1752 \newunit\newblock
1753 \usebibmacro{chapter+pages}%
1754 \newunit
1755 \printfield{pagetotal}%
1756 \newunit\newblock
1757 \iftoggle{bbx:isbn}
1758 {\printfield{isbn}}
1759 {}%
1760 \newunit\newblock
1761 \usebibmacro{doi+eprint+url}%
1762 \newunit\newblock
1763 \usebibmacro{addendum+pubstate}%
1764 \setunit{\bibpagerefpunct}\newblock
1765 \usebibmacro{pageref}%
1766 \setunit{\relatedtypepunct}\newblock
1767 \iftoggle{bbx:related}

```

```

1768     {\usebibmacro{related:init}%
1769      \usebibmacro{related}}
1770     {}%
1771     \usebibmacro{finentry}}

```

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

```

1772 \DeclareBibliographyDriver{inreference}{%
1773   \usebibmacro{bibindex}%
1774   \usebibmacro{begentry}%
1775   \usebibmacro{author/translator+others}%
1776   \setunit{\printdelim{nametitledelim}}\newblock
1777   \usebibmacro{title}%
1778   \setunit{\titlebyauthordelim}\newblock
1779   \usebibmacro{byauthor}%
1780   \newunit\newblock
1781   \iffieldundef{editor}{}{}%
1782     \usebibmacro{in:}%
1783     \usebibmacro{bookeditor}%
1784     \newunit\newblock}%
1785   \usebibmacro{maintitle+booktitle}%
1786   \newunit
1787   \iffieldundef{maintitle}
1788     {\printfield{volume}%
1789      \printfield{part}}
1790     {}%
1791   \newunit\newblock
1792   \printfield{edition}%
1793   \newunit
1794   \usebibmacro{byeditor+others}%
1795   \newunit\newblock
1796   \printfield{volumes}%
1797   \newunit\newblock
1798   \printfield{note}%
1799   \newunit\newblock%
1800   \usebibmacro{series+number+publisher+location+date}%
1801   \newunit\newblock
1802   \usebibmacro{chapter+pages}%
1803   \newunit
1804   \printfield{pagetotal}%
1805   \newunit\newblock
1806   \iftoggle{bbx:isbn}
1807     {\printfield{isbn}}
1808     {}%
1809   \newunit\newblock
1810   \usebibmacro{doi+eprint+url}%
1811   \newunit\newblock
1812   \usebibmacro{addendum+pubstate}%
1813   \setunit{\bibpagerefpunct}\newblock
1814   \usebibmacro{pageref}%
1815   \setunit{\relatedtypepunct}\newblock
1816   \iftoggle{bbx:related}
1817     {\usebibmacro{related:init}%
1818      \usebibmacro{related}}
1819     {}%
1820     \usebibmacro{finentry}}

```

2.1.11 WORKS PRESENTED AT MEETINGS

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

```
1821 \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.

```
1822 \renewbibmacro*{event+venue+date}{%
1823   \printfield{eventtitle}%
1824   \newunit
1825   \printfield{eventtitleaddon}%
1826   \newunit
1827   \printfield{venue}%
1828   \newunit%
1829   \printeventdate%
1830   \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!

```
1831 \DeclareBibliographyDriver{proceedings}{%
1832   \usebibmacro{bibindex}%
1833   \usebibmacro{begentry}%
1834   \usebibmacro{author}%
1835   \newunit
1836   \usebibmacro{maintitle+title}%
1837   \newunit
1838   \iffielddundef{maintitle}
1839   {\printfield{volume}%
1840    \printfield{part}}
1841   {}%
1842   \newunit\newblock
1843   \usebibmacro{event+venue+date}%
1844   \newunit\newblock
1845   \usebibmacro{byeditor+others}%
1846   \newunit\newblock
1847   \printfield{volumes}%
1848   \newunit\newblock
1849   \printfield{note}%
1850   \newunit\newblock
1851   \printlist{organization}%
1852   \newunit
1853   \usebibmacro{series+number+edition+publisher+location+date}%
1854   \newunit\newblock
1855   \usebibmacro{chapter+pages}%
1856   \newunit
1857   \printfield{pagetotal}%
1858   \newunit\newblock
1859   \iftoggle{bbx:isbn}
1860   {\printfield{isbn}}
1861   {}%
```

```

1862 \newunit\newblock
1863 \usebibmacro{doi+eprint+url}%
1864 \newunit\newblock
1865 \usebibmacro{addendum+pubstate}%
1866 \setunit{\bibpagerefunct}\newblock
1867 \usebibmacro{pageref}%
1868 \setunit{\relatedtypepunct}\newblock
1869 \iftoggle{bbx:related}
1870 {\usebibmacro{related:init}%
1871 \usebibmacro{related}}
1872 {}%
1873 \usebibmacro{finentry}}

```

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

```

1874 \DeclareBibliographyDriver{inproceedings}{%
1875 \usebibmacro{bibindex}%
1876 \usebibmacro{begentry}%
1877 \usebibmacro{author/translator+others}%
1878 \setunit{\printdelim{nametitle}}\newblock
1879 \usebibmacro{title}%
1880 \setunit{\titlebyauthordelim}\newblock
1881 \usebibmacro{byauthor}%
1882 \newunit\newblock
1883 \usebibmacro{in:}%
1884 \usebibmacro{maintitle+booktitle}%
1885 \newunit
1886 \iffieldundef{maintitle}
1887 {\printfield{volume}%
1888 \printfield{part}}
1889 {}%
1890 \newunit\newblock
1891 \usebibmacro{event+venue+date}%
1892 \newunit\newblock
1893 \usebibmacro{byeditor+others}%
1894 \newunit\newblock
1895 \printfield{volumes}%
1896 \newunit\newblock
1897 \printfield{note}%
1898 \newunit\newblock
1899 \printlist{organization}%
1900 \newunit
1901 \usebibmacro{series+number+publisher+location+date}%
1902 \newunit\newblock
1903 \usebibmacro{chapter+pages}%
1904 \newunit\newblock
1905 \iftoggle{bbx:isbn}
1906 {\printfield{isbn}}
1907 {}%
1908 \newunit\newblock
1909 \usebibmacro{doi+eprint+url}%
1910 \newunit\newblock
1911 \usebibmacro{addendum+pubstate}%
1912 \setunit{\bibpagerefunct}\newblock
1913 \usebibmacro{pageref}%
1914 \setunit{\relatedtypepunct}\newblock
1915 \iftoggle{bbx:related}
1916 {\usebibmacro{related:init}%
1917 \usebibmacro{related}}
1918 {}%

```

```
1919 \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.

```
1920 \newbibmacro*{series+type+number}{%
1921 \ifboolexpr{
1922   test {\iffieldundef{series}}
1923   and
1924   test {\iffieldundef{type}}
1925 }{%
1926   \printfield{series}%
1927   \newunit
1928   \ifboolexpr{%
1929     test {\iffieldundef{type}}
1930     and
1931     not test {\iffieldundef{number}}
1932 }{%
1933   \bibcpstring{number}
1934 }{%
1935   \printfield{type}%
1936 }%
1937 \setunit*{\addspace}%
1938 \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.

```
1939 \renewbibmacro*{institution+location+date}{%
1940 \ifboolexpr{
1941   ( test {\iffieldundef{number}}
1942     or
1943     not test {\iffieldundef{type}}
1944     or
1945     not test {\iffieldundef{series}}
1946   )
1947   and
1948   test {\iflistundef{institution}}
1949   and
1950   test {\iflistundef{location}}
1951   and
1952   test {\iffieldundef{year}}
1953   and
1954   test {\iffieldundef{season}}
1955   and
1956   test {\iffieldundef{month}}
1957 }{%
1958   \nopunct
1959   \printtext[publication]{%
1960     \ifboolexpr{
1961       test {\iffieldundef{series}}
1962       and
1963       test {\iffieldundef{type}}
1964     }{%
1965       \printfield{number}%
1966       \setunit*{\addcomma\space}%
```

```

1967     }{}%
1968     \printlist{location}%
1969     \iflistundef{institution}%
1970     {\setunit*{\addcomma\space}}%
1971     {\setunit*{\addcolon\space}}%
1972     \printlist{institution}%
1973     \setunit*{\addcomma\space}%
1974     \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.

```

1975     \newtoggle{blx@ox@altthesis}
1976     \newtoggle{blx@ox@plainthesis}
1977     \DeclareFieldAlias{thesis:publication}{publication}
1978     \DeclareFieldFormat{plain}{#1}
1979     \DeclareBibliographyOption{altthesis}[true]{%
1980       \settoggle{blx@ox@altthesis}{#1}
1981     }
1982     \DeclareBibliographyOption[string]{thesis}[out]{%
1983       \ifstrequal{#1}{plain}{%
1984         \toggletrue{blx@ox@altthesis}%
1985         \toggletrue{blx@ox@plainthesis}%
1986         \DeclareFieldAlias{thesis:publication}{plain}%
1987       }{%
1988         \togglefalse{blx@ox@plainthesis}%
1989         \DeclareFieldAlias{thesis:publication}{publication}%
1990         \ifstrequal{#1}{in}{%
1991           \toggletrue{blx@ox@altthesis}%
1992         }{%
1993           \togglefalse{blx@ox@altthesis}%
1994           \ifstrequal{#1}{out}{}{%
1995             \PackageError{biblatex-oxref}
1996               {Invalid option 'bookseries=#1'}
1997               {Valid values are 'in', 'out', and 'plain'.}}}}
1998     \newbibmacro*{type+institution+location+date}{%
1999       \iftoggle{blx@ox@altthesis}{%
2000         \ifboolexpr{
2001           test {\iffieldundef{type}}
2002           and
2003           test {\iflistundef{institution}}
2004           and
2005           test {\iflistundef{location}}
2006           and
2007           test {\iffieldundef{year}}
2008           and
2009           test {\iffieldundef{season}}
2010           and
2011           test {\iffieldundef{month}}
2012         }{}{%
2013           \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
2014           \printtext[thesis:publication]{%
2015             \printfield{type}%
2016             \setunit*{\addcomma\space}%
2017             \printlist{location}%
2018             \iflistundef{institution}{%
2019               \setunit*{\addcomma\space}%
2020             }{}%
2021             \setunit*{\addcolon\space}}%
2022           \printlist{institution}%

```



```

2023     \setunit*{\addcomma\space}%
2024     \usebibmacro{date}}
2025   }{%
2026     \printfield{type}%
2027     \newunit
2028     \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.

```

2029   \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
2030     \ifboolexpr{
2031       test {\iffieldundef{type}}
2032       and
2033       test {\iffieldundef{series}}
2034       and
2035       test {\iffieldundef{number}}
2036       and
2037       test {\iffieldundef{edition}}
2038       and
2039       test {\iflistundef{organization}}
2040       and
2041       test {\iflistundef{publisher}}
2042       and
2043       test {\iflistundef{location}}
2044       and
2045       test {\iffieldundef{year}}
2046       and
2047       test {\iffieldundef{season}}
2048       and
2049       test {\iffieldundef{month}}
2050     }{%
2051       \nopunct
2052       \printtext[publication]{%
2053         \usebibmacro{series+type+number}%
2054         \setunit{\addsemicolon\space}%
2055         \printfield{edition}%
2056         \setunit*{\addcomma\space}%
2057         \iflistundef{publisher}{%
2058           \printlist{organization}%
2059           \setunit*{\addcomma\space}}%
2060         \printlist{location}%
2061         \iflistundef{publisher}{%
2062           \iflistundef{organization}{%
2063             \setunit*{\addcomma\space}%
2064           }{%
2065             \setunit*{\addcolon\space}%
2066             \printlist{organization}}%
2067         }{%
2068           \setunit*{\addcolon\space}%
2069           \printlist{publisher}}%
2070         \setunit*{\addcomma\space}%
2071         \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.

```

2072 \newcommand*{\legreport}{legal}
2073 \DeclareBibliographyDriver{report}{%
2074   \usebibmacro{bibindex}%
2075   \usebibmacro{begentry}%
2076   \usebibmacro{author}%
2077   \setunit{\printdelim{nametitledelim}}\newblock
2078   \usebibmacro{maintitle+title}%
2079   \newunit
2080   \iffieldundef{maintitle}
2081   {\printfield{volume}%
2082     \printfield{part}}
2083   }%
2084   \setunit{\titlebyauthor\delim}\newblock
2085   \usebibmacro{byauthor}%
2086   \newunit\newblock
2087   \printfield{version}%
2088   \newunit\newblock
2089   \printfield{note}%
2090   \newunit\newblock
2091   \usebibmacro{series+type+number}%
2092   \setunit{\addspace}%
2093   \usebibmacro{institution+location+date}%
2094   \iffieldequals{entrysubtype}{\legreport}{%
2095     \setunit{\addspace}\nopunct
2096   }{%
2097     \newunit\newblock}%
2098   \usebibmacro{chapter+pages}%
2099   \newunit
2100   \printfield{pagetotal}%
2101   \newunit\newblock
2102   \iftoggle{bbx:isbn}
2103   {\printfield{isrn}}
2104   }%
2105   \newunit\newblock
2106   \usebibmacro{doi+eprint+url}%
2107   \newunit\newblock
2108   \usebibmacro{addendum+pubstate}%
2109   \setunit{\bibpagerefpunct}\newblock
2110   \usebibmacro{pageref}%
2111   \setunit{\relatedtypepunct}\newblock
2112   \iftoggle{bbx:related}
2113   {\usebibmacro{related:init}%
2114     \usebibmacro{related}}
2115   }%
2116   \usebibmacro{finentry}}

```

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

```

2117 \xpatchbibdriver{thesis}{%
2118   \printfield{type}%
2119   \newunit
2120   \usebibmacro{institution+location+date}%
2121 }{%
2122   \usebibmacro{type+institution+location+date}%
2123 }{\wlog{WARNING: biblatex-oxref failed to patch thesis}}

```

We give booklet entries descriptor support.

```

2124 \DeclareFieldFormat[booklet]{title}{%
2125 \def\currentfield{title}%
2126 \iffieldannotation{descriptor}{#1}{%
2127 \mkbibquote{#1\isdot}}%
2128 \undef\currentfield}

```

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

```

2129 \DeclareFieldFormat[patent]{title}{\mkbibemph{#1}}
2130 \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.

```

2131 \DeclareNameAlias{byholder}{default}
2132 \renewbibmacro*{byholder}{%
2133 \ifnameundef{holder}{}{%
2134 \bibstring{byholder}%
2135 \setunit{\addspace}%
2136 \printnames[byholder]{holder}}
2137 \newbibmacro*{location+dates}{%
2138 \ifboolexpr{
2139 test {\iffieldundef{location}}
2140 and
2141 test {\iffieldundef{origyear}}
2142 and
2143 test {\iffieldundef{origmonth}}
2144 and
2145 test {\iffieldundef{year}}
2146 and
2147 test {\iffieldundef{month}}
2148 }{}{%
2149 \nopunct
2150 \printtext[publication]{%
2151 \printlist[][-\value{listtotal}]{location}%
2152 \setunit*{\addcomma\space}%
2153 \ifboolexpr{
2154 test {\iffieldundef{origyear}}
2155 and
2156 test {\iffieldundef{origmonth}}
2157 }{}{%
2158 \iffieldundef{origdatetype}{%
2159 \bibstring{filed}
2160 }{
2161 \printfield{origdatetype}}%
2162 \setunit*{\addspace}}%
2163 \usebibmacro{origdate+time}%
2164 \setunit*{\addcomma\space}%
2165 \ifboolexpr{
2166 test {\iffieldundef{year}}
2167 and
2168 test {\iffieldundef{month}}
2169 }{}{%
2170 \iffieldundef{datetype}{%
2171 \bibstring{issued}%
2172 }{
2173 \printfield{datetype}}%
2174 \setunit*{\addspace}}%
2175 \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.

```

2176 \DeclareBibliographyDriver{patent}{%
2177   \usebibmacro{bibindex}%
2178   \usebibmacro{begentry}%
2179   \usebibmacro{author}%
2180   \setunit{\printdelim{nametitle}}\newblock
2181   \usebibmacro{title}%
2182   \newunit
2183   \printlist{language}%
2184   \setunit{\titlebyauthor}\newblock
2185   \usebibmacro{byauthor}%
2186   \newunit\newblock
2187   \printfield{note}%
2188   \newunit\newblock
2189   \printfield{type}%
2190   \setunit*{\addspace}%
2191   \printfield{number}%
2192   \newunit\newblock
2193   \usebibmacro{byholder}%
2194   \newunit\newblock
2195   \usebibmacro{location+dates}%
2196   \newunit\newblock
2197   \usebibmacro{doi+eprint+url}%
2198   \newunit\newblock
2199   \usebibmacro{addendum+pubstate}%
2200   \setunit{\bibpagerefpunct}\newblock
2201   \usebibmacro{pageref}%
2202   \setunit{\relatedtypepunct}\newblock
2203   \iftoggle{bbx:related}
2204     {\usebibmacro{related:init}%
2205      \usebibmacro{related}}
2206     {}%
2207   \usebibmacro{finentry}}

```

Direct use of the manual entry type is not encouraged, but it serves as a basis for other entry types, notably standards, datasets, 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.

```

2208 \DeclareBibliographyDriver{manual}{%
2209   \usebibmacro{bibindex}%
2210   \usebibmacro{begentry}%
2211   \ifboolexpr{
2212     test {\ifentrytype{standard}}
2213     and
2214     ( test {\ifnameundef{author}}
2215       or
2216       not test \ifuseauthor )
2217     and
2218     not test {\iffieldundef{number}}
2219   }{%
2220     \printfield{number}\clearfield{number}%
2221     \newunit\newblock
2222   }{%
2223     \usebibmacro{author/editor}%
2224     \setunit{\printdelim{nametitle}}\newblock
2225     \ifentrytype{software}{%
2226       \usebibmacro{title+version}%

```

```

2227 }{%
2228   \usebibmacro{title}}%
2229 \setunit{\titlebyauthor\delim}\newblock
2230 \usebibmacro{byauthor}%
2231 \newunit\newblock
2232 \usebibmacro{byeditor}%
2233 \newunit
2234 \ifentrytype{software}{}{%
2235   \newunit\printfield{version}}%
2236 \newunit
2237 \printfield{note}%
2238 \newunit\newblock
2239 \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2240 \newunit\newblock
2241 \usebibmacro{chapter+pages}%
2242 \newunit
2243 \printfield{pagetotal}%
2244 \newunit\newblock
2245 \iftoggle{bbx:isbn}
2246   {\printfield{isbn}}
2247   {}%
2248 \newunit\newblock
2249 \usebibmacro{doi+eprint+url}%
2250 \newunit\newblock
2251 \usebibmacro{addendum+pubstate}%
2252 \setunit{\bibpagerefpunct}\newblock
2253 \usebibmacro{pageref}%
2254 \setunit{\relatedtypepunct}\newblock
2255 \iftoggle{bbx:related}
2256   {\usebibmacro{related:init}%
2257     \usebibmacro{related}}
2258   {}%
2259 \usebibmacro{finentry}}
2260 \DeclareBibliographyAlias{standard}{manual}
2261 \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.

```

2262 \newbibmacro*{publisher+type+series+number+date}{%
2263   \iffieldundef{number}{}{%
2264     \setunit{\addcomma\space}%
2265     \usebibmacro{origdate+time}%
2266   }%
2267   \ifboolexpr{%
2268     test {\iflistundef{origpublisher}}
2269     and
2270     test {\iflistundef{location}}
2271     and
2272     test {\iflistundef{publisher}}
2273     and
2274     test {\iffieldundef{type}}
2275     and
2276     test {\iffieldundef{series}}
2277     and
2278     test {\iffieldundef{number}}

```

```

2279     and
2280     test {\iffieldundef{year}}
2281     and
2282     test {\iffieldundef{season}}
2283     and
2284     test {\iffieldundef{month}}
2285     and
2286     test {\iffieldundef{origyear}}
2287     and
2288     test {\iffieldundef{origseason}}
2289     and
2290     test {\iffieldundef{origmonth}}
2291     and
2292     test {\iffieldundef{hour}}
2293   }{}{%
2294     \nopunct
2295     \printtext[publication]{%
2296       \printlist{origpublisher}%
2297       \setunit*{\addsemicolon\space}%
2298       \printlist{location}%
2299       \iflistundef{publisher}%
2300         {\setunit*{\addcomma\space}}%
2301         {\setunit*{\addcolon\space}}%
2302       \printlist{publisher}%
2303       \iffieldundef{series}%
2304         {\setunit*{\addspace}}%
2305         {\setunit*{\recordseriespunct}}%
2306       \printfield{series}%
2307       \setunit*{\addcomma\space}%
2308       \printfield{type}%
2309       \iflistundef{publisher}%
2310         {\setunit*{\addcomma\space}}%
2311         {\setunit*{\addspace}}%
2312       \printfield{number}%
2313       \iffieldundef{number}{%
2314         \setunit{\addcomma\space}%
2315         \usebibmacro{origdate+time}%
2316       }{}%
2317       \setunit{\addcomma\space}%
2318       \usebibmacro{date+time}}}}

```

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

```

2319     \newtoggle{blx@ox@endeditor}
2320     \DeclareEntryOption{endeditor}[true]{%
2321       \settoggle{blx@ox@endeditor}{#1}}
2322     \newbibmacro*{pre-byeditor+others}{%
2323       \iftoggle{blx@ox@endeditor}{%
2324         \usebibmacro{byeditor+others}%
2325       }%
2326     }
2327     \newbibmacro*{post-byeditor+others}{%
2328       \iftoggle{blx@ox@endeditor}{%
2329         \usebibmacro{byeditor+others}%
2330       }%
2331     }

```

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

```

2330 \DeclareBibliographyDriver{audio}{%
2331   \usebibmacro{bibindex}%
2332   \usebibmacro{begentry}%
2333   \usebibmacro{author}%
2334   \setunit{\printdelim{nametitledelim}}\newblock
2335   \usebibmacro{title}%
2336   \newunit
2337   \usebibmacro{maintitle}%
2338   \iffieldequalstr{relatedtype}{includes}{%
2339     \iftoggle{bbx:related}{%
2340       \newunit\newblock
2341       \usebibmacro{related:init}%
2342       \usebibmacro{related}%
2343       \clearfield{related}%
2344     }{}%
2345   }{}%
2346   \setunit{\addspace}
2347   \usebibmacro{onlinetype}%
2348   \setunit{\titlebyauthordelim}\newblock
2349   \usebibmacro{byauthor}%
2350   \newunit\newblock
2351   \usebibmacro{pre-byeditor+others}%
2352   \newunit\newblock
2353   \printfield{volumes}%
2354   \newunit\newblock
2355   \printfield{note}%
2356   \newunit\newblock%
2357   \printlist{organization}%
2358   \newunit\newblock%
2359   \usebibmacro{publisher+type+series+number+date}%
2360   \setunit{\addspace}%
2361   \printfield{howpublished}%
2362   \newunit\newblock
2363   \usebibmacro{post-byeditor+others}%
2364   \newunit\newblock
2365   \iftoggle{bbx:isbn}
2366   {\printfield{isbn}}
2367   {}%
2368   \newunit\newblock
2369   \usebibmacro{doi+eprint+url}%
2370   \newunit\newblock
2371   \usebibmacro{addendum+pubstate}%
2372   \setunit{\bibpagerefpunct}\newblock
2373   \usebibmacro{pageref}%
2374   \setunit{\relatedtypepunct}\newblock
2375   \iftoggle{bbx:related}
2376   {\usebibmacro{related:init}%
2377    \usebibmacro{related}}
2378   {}%
2379   \usebibmacro{finentry}}

```

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

```

2380 \DeclareBibliographyAlias{music}{audio}
2381 \DeclareBibliographyAlias{movie}{audio}
2382 \DeclareBibliographyAlias{video}{audio}

```

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

```

2383 \DeclareBibliographyDriver{inaudio}{%
2384   \usebibmacro{bibindex}%
2385   \usebibmacro{begentry}%
2386   \usebibmacro{author}%
2387   \setunit{\printdelim{nametitledelim}}\newblock
2388   \usebibmacro{title}%
2389   \setunit{\titlebyauthordelim}\newblock
2390   \usebibmacro{byauthor}%
2391   \newunit\newblock
2392   \usebibmacro{in:}%
2393   \usebibmacro{bybookauthor}%
2394   \newunit\newblock
2395   \usebibmacro{maintitle+booktitle}%
2396   \iffieldequalstr{relatedtype}{includes}{%
2397     \iftoggle{bbx:related}{%
2398       \newunit\newblock
2399       \usebibmacro{related:init}%
2400       \usebibmacro{related}%
2401       \clearfield{related}%
2402     }{}%
2403   }{}%
2404   \setunit{\addspace}
2405   \usebibmacro{onlinetype}%
2406   \newunit\newblock
2407   \usebibmacro{pre-byeditor+others}%
2408   \newunit\newblock
2409   \printfield{volumes}%
2410   \newunit\newblock
2411   \printfield{note}%
2412   \newunit\newblock%
2413   \printlist{organization}%
2414   \newunit\newblock%
2415   \usebibmacro{publisher+type+series+number+date}%
2416   \setunit{\addspace}%
2417   \printfield{howpublished}%
2418   \newunit\newblock
2419   \usebibmacro{post-byeditor+others}%
2420   \newunit\newblock
2421   \iftoggle{bbx:isbn}
2422   {\printfield{isbn}}
2423   {}%
2424   \newunit\newblock
2425   \usebibmacro{doi+eprint+url}%
2426   \newunit\newblock
2427   \usebibmacro{addendum+pubstate}%
2428   \setunit{\bibpagerefpunct}\newblock
2429   \usebibmacro{pageref}%
2430   \setunit{\relatedtypepunct}\newblock
2431   \iftoggle{bbx:related}
2432   {\usebibmacro{related:init}%
2433     \usebibmacro{related}}
2434   {}%
2435   \usebibmacro{finentry}}

```

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

```

2436 \DeclareBibliographyAlias{inmusic}{inaudio}
2437 \DeclareBibliographyAlias{inmovie}{inaudio}
2438 \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.


```

2439 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2440   \inherit{title}{booktitle}
2441   \inherit{subtitle}{booksubtitle}
2442   \inherit{titleaddon}{booktitleaddon}
2443   \noinherit{shorttitle}
2444   \noinherit{sorttitle}
2445   \noinherit{indextitle}
2446   \noinherit{indexsorttitle}
2447 }

```

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.

```

2448 \DeclareFieldFormat[audio,music]{title}{%
2449   \def\currentfield{title}%
2450   \iffieldannotation{descriptor}{#1}{%
2451     \iffieldequalstr{entrysubtype}{podcast}{%
2452       \mkbibquote{#1\isdot}%
2453     }{%
2454       \mkbibemph{#1}}}%
2455   \undef\currentfield}
2456 \DeclareFieldFormat[movie,video]{title}{%
2457   \def\currentfield{title}%
2458   \iffieldannotation{descriptor}{#1}{%
2459     \ifboolexpr{
2460       test {\iffieldequalstr{entrysubtype}{episode}}
2461       or
2462       test {\iffieldequalstr{entrysubtype}{clip}}
2463       or
2464       test {\iffieldequalstr{entrysubtype}{webcast}}
2465     }{%
2466       \mkbibquote{#1\isdot}%
2467     }{%
2468       \mkbibemph{#1}}}%
2469   \undef\currentfield}
2470 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2471   \def\currentfield{title}%
2472   \iffieldannotation{descriptor}{#1}{%
2473     \mkbibquote{#1\isdot}%
2474   }%
2475   \undef\currentfield}
2476 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2477   \def\currentfield{booktitle}%
2478   \iffieldannotation{descriptor}{#1}{%
2479     \iffieldequalstr{entrysubtype}{podcast}{%
2480       \mkbibquote{#1\isdot}%
2481     }{%
2482       \mkbibemph{#1}}}%
2483   \undef\currentfield}
2484 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2485   \def\currentfield{booktitle}%
2486   \iffieldannotation{descriptor}{#1}{%
2487     \ifboolexpr{
2488       test {\iffieldequalstr{entrysubtype}{episode}}
2489       or
2490       test {\iffieldequalstr{entrysubtype}{clip}}
2491       or
2492       test {\iffieldequalstr{entrysubtype}{webcast}}
2493     }{%

```

```

2494     \mkbibquote{#1\isdot}%
2495   }{%
2496     \mkbibemph{#1}}}%
2497   \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.

```

2498   \DeclareBibliographyDriver{performance}{%
2499     \usebibmacro{bibindex}%
2500     \usebibmacro{begentry}%
2501     \usebibmacro{author}%
2502     \setunit{\printdelim{nametitledelim}}\newblock
2503     \usebibmacro{title}%
2504     \newunit
2505     \usebibmacro{maintitle}%
2506     \iffieldequalstr{relatedtype}{includes}{%
2507       \iftoggle{bbx:related}{%
2508         \newunit\newblock
2509         \usebibmacro{related:init}%
2510         \usebibmacro{related}%
2511         \clearfield{related}%
2512       }{}%
2513     }{}%
2514     \setunit{\addspace}
2515     \usebibmacro{onlinetype}%
2516     \setunit{\titlebyauthor\delim}\newblock
2517     \usebibmacro{byauthor}%
2518     \newunit\newblock
2519     \usebibmacro{pre-byeditor+others}%
2520     \setunit{\addspace}%
2521     \printfield{howpublished}%
2522     \newunit\newblock
2523     \printfield{type}%
2524     \newunit\newblock
2525     \printfield{note}%
2526     \ifboolexpr{
2527       test {\iffieldundef{origyear}}
2528       and
2529       test {\iffieldundef{origmonth}}
2530     }{}{%
2531       \setunit{\addspace}\newblock
2532       \printtext[publication]{\usebibmacro{origdate+time}}
2533     \newunit\newblock
2534     \usebibmacro{event+venue+location+date}%
2535     \newunit\newblock
2536     \usebibmacro{post-byeditor+others}%
2537     \newunit\newblock
2538     \printlist{organization}%
2539     \newunit\newblock
2540     \iftoggle{bbx:isbn}
2541     {\printfield{isbn}}
2542     {}%
2543     \newunit\newblock
2544     \usebibmacro{doi+eprint+url}%
2545     \newunit\newblock
2546     \usebibmacro{addendum+pubstate}%
2547     \setunit{\bibpagerefunct}\newblock
2548     \usebibmacro{pageref}%
2549     \setunit{\relatedtypepunct}\newblock
2550     \iftoggle{bbx:related}

```

```

2551     {\usebibmacro{related:init}%
2552      \usebibmacro{related}}
2553     {}%
2554     \usebibmacro{finentry}}
2555 \DeclareBibliographyAlias{image}{performance}
2556 \DeclareBibliographyAlias{artwork}{performance}

```

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

```

2557 \newbibmacro*{event+venue+location+date}{%
2558   \printfield{eventtitle}%
2559   \newunit
2560   \printfield{eventtitleaddon}%
2561   \newunit
2562   \printlist{institution}%
2563   \newunit
2564   \printfield{venue}%
2565   \newunit
2566   \printlist{location}%
2567   \newunit%
2568   \ifboolexpr{
2569     test {\iffieldundef{year}}
2570     and
2571     test {\iffieldundef{month}}
2572   }{\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.

```

2573 \DeclareFieldFormat[online,image]{title}{%
2574   \def\currentfield{title}%
2575   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2576   \undef\currentfield}

```

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

```

2577 \newbibmacro*{onlinetype}{%
2578   \ifboolexpr{
2579     test {\iffieldundef{url}}
2580     or
2581     test {\iffieldundef{entrysubtype}}
2582   }{}%
2583   \ifbibxstring{\thefield{entrysubtype}}{%
2584     \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2585   }{}}

```

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.

```

2586 \DeclareBibliographyDriver{online}{%
2587 \usebibmacro{bibindex}%
2588 \usebibmacro{begentry}%
2589 \usebibmacro{author/editor+others/translator+others}%
2590 \setunit{\printdelim{nametitledelim}}\newblock
2591 \usebibmacro{title}%
2592 \newunit
2593 \usebibmacro{maintitle}
2594 \setunit{\addspace}%
2595 \usebibmacro{onlinetype}%
2596 \setunit{\titlebyauthordelim}\newblock
2597 \usebibmacro{byauthor}%
2598 \newunit\newblock
2599 \usebibmacro{byeditor+others}%
2600 \newunit\newblock
2601 \printfield{version}%
2602 \newunit
2603 \printfield{note}%
2604 \newunit\newblock
2605 \printlist{organization}%
2606 \iffieldundef{year}{}{%
2607 \setunit{\addspace}\newblock
2608 \printtext[parens]{\usebibmacro{date+time}}%
2609 }%
2610 \newunit\newblock
2611 \printlist{publisher}%
2612 \newunit\newblock
2613 \iftoggle{bbx:eprint}
2614 {\usebibmacro{eprint}}
2615 {}%
2616 \newunit\newblock
2617 \usebibmacro{url+urldate}%
2618 \newunit\newblock
2619 \usebibmacro{addendum+pubstate}%
2620 \setunit{\bibpagerefpunct}\newblock
2621 \usebibmacro{pageref}%
2622 \setunit{\relatedtypepunct}\newblock
2623 \iftoggle{bbx:related}
2624 {\usebibmacro{related:init}%
2625 \usebibmacro{related}}
2626 {}%
2627 \usebibmacro{finentry}}

```

Software

The version for software goes between the title and titleaddon.

```

2628 \newbibmacro*{title+version}{%
2629 \ifboolexpr{
2630 test {\iffieldundef{title}}
2631 and
2632 test {\iffieldundef{subtitle}}
2633 }
2634 {}
2635 {\printtext[title]{%
2636 \printfield[titlcase]{title}%
2637 \setunit{\subtitlepunct}%
2638 \printfield[titlcase]{subtitle}}%

```

```

2639     \setunit{\addspace}}%
2640     \printfield{version}%
2641     \setunit{\addspace}}%
2642     \printfield{titleaddon}%
2643   }
2644   \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

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

```

2645   \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is a variant of the manual driver.

```

2646   \DeclareBibliographyAlias{software}{manual}

```

Datasets

Datasets are currently treated like manuals

```

2647   \DeclareBibliographyAlias{dataset}{manual}

```

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

```

2648   \newtoggle{bbx:scotstyle}
2649   \DeclareEntryOption{scottish-style}[true]{%
2650     \settoggle{bbx:scotstyle}{#1}}
2651   \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2652   \DeclareEntryOption{year-essential}[true]{%
2653     \setboolean{bbx@year-essential}{#1}}
2654   \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2655   \DeclareEntryOption{paryear-essential}[true]{%
2656     \setboolean{bbx@paryear-essential}{#1}}
2657   \newtoggle{blx@ox@nopostnotedelim}
2658   \newtoggle{bbx:altcourt}
2659   \DeclareBibliographyOption{court-plain}[true]{%
2660     \settoggle{bbx:altcourt}{#1}}
2661   \DeclareEntryOption{court-plain}[true]{%
2662     \settoggle{bbx:altcourt}{#1}}
2663   \newtoggle{bbx@ecliuse}
2664   \newtoggle{bbx@eclionly}
2665   \DeclareBibliographyOption[string]{ecli}[yes]{%
2666     \ifstrequal{#1}{no}{%
2667       \global\togglefalse{bbx@ecliuse}%
2668       \global\togglefalse{bbx@eclionly}%
2669     }{%
2670       \global\toggletrue{bbx@ecliuse}%
2671       \ifstrequal{#1}{only}{%
2672         \global\toggletrue{bbx@eclionly}%
2673       }{}}

```

Field formats

```

2674 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2675 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2676 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2677 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2678 \DeclareFieldFormat{romanvol}{\RN{#1}}
2679 \DeclareListFormat[jurisdiction]{listb}{}
2680 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2681 \DeclareFieldFormat{verba}{#1}
2682
2683 \DeclareListFormat{echrinst}{%
2684   \ifboolexpr{%
2685     test {\ifnumequal{\value{listtotal}}{1}}
2686     or
2687     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2688   }{%
2689     \ifboolexpr{
2690       test {\ifdefstring{\Commission}{#1}}
2691       or
2692       test {\ifdefstring{\commission}{#1}}%
2693     }{%
2694       \bibstring{commissiondecision}%
2695     }{#1}%
2696   }{%
2697     \setcounter{blx@tmpcnt}{\value{listcount}}%
2698     \addtocounter{blx@tmpcnt}{1}%
2699     \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2700       #1\space\bibstring{and}\addspace
2701     }{%
2702       #1\addcomma\space}}}%
2703
2704 \newcommand*{\commission}{commission}
2705 \newcommand*{\Commission}{Commission}
2706 \DeclareListFormat{ecthr}{%
2707   \ifboolexpr{
2708     test {\ifdefstring{\Commission}{#1}}
2709     or
2710     test {\ifdefstring{\commission}{#1}}
2711   }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2712
2713 \newcommand*{\pcijrep}{PCIJ Rep}
2714 \DeclareFieldFormat{international}{%
2715   \iffieldequals{journaltitle}{\pcijrep}{%
2716     \bibcplstring{jourser}\space #1%
2717   }{#1}}
2718
2719 \DeclareListFormat{checkcontains}{%
2720   \bbx@check{#1}}
2721 \newtoggle{bbx@institutiontoggle}
2722 \newcommand\iflistcontains[2]{%
2723   \global\togglefalse{bbx@institutiontoggle}%
2724   \def\bbx@check##1{%
2725     \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2726   \printlist[checkcontains]{#1}%
2727   \iftoggle{bbx@institutiontoggle}}
2728
2729 \DeclareFieldFormat{draftleg}{%
2730   \StrBefore{#1}{ Bill}}
2731
2732 \DeclareListFormat{billprinting}{%
2733   \ifstrequal{#1}{HC}{%

```

```

2734     \mkbibbrackets{\strfield{number}}%
2735     \toggletrue{blx@ox@nopostnotedelim}%
2736   }{%
2737     \strfield{number}%
2738     \togglefalse{blx@ox@nopostnotedelim}}
2739
2740 \newcommand*\treatypartysep{\allowbreak ---\allowbreak}
2741 \DeclareListFormat{treaty}{%
2742   \ifmoreitems{}{%
2743     \ifnumequal{\value{listcount}}{1}{%
2744       \bibopenparen
2745     }{%
2746       \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2747         #1\treatypartysep
2748       }{%
2749         #1\bibcloseparen}}}}
2750
2751 \def\siganddate#1{%
2752   \def\bbx@tempa{#1}%
2753   \expandafter\bbx@signeddatei#1/relax}
2754 \def\bbx@signeddatei#1=#2/relax{%
2755   \def\bbx@tempa{#2-}%
2756   \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2757 \def\makebbx@datei#1-#2-#3-{%
2758   \makebbx@dateii{#1}{#2}{#3}}
2759 \def\makebbx@dateii#1#2#3{%
2760   \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2761   \space
2762   #1}
2763 \DeclareListFormat{treatydates}{%
2764   \ifnumequal{\value{listcount}}{1}{%
2765     \siganddate{#1}%
2766   }{%
2767     \addcomma\space\siganddate{#1}}}

```

Pagination formats

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

```

2768 \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2769   \begingroup
2770   \def\blx@tempa{\blx@mkpageprefix@i}%
2771   \ifstrequal{#1}{none}{}{%
2772     \ifbibstring{#1}{%
2773       \def\blx@tempa{\blx@mkpageprefix{#1}}%
2774     }{%
2775       \blx@warning@entry{Unknown pagination type '#1'}}%
2776   \ifnextchar[%]
2777     {\blx@tempa}
2778     {\blx@tempa[\@firstofone]}}
2779
2780 \newcommand*\paragraphmarkings{[]}
2781 \DeclareFieldFormat{jurisdiction,legislation,legal}{postnote}{%
2782   \iffieldundef{pagination}{%
2783     \ifboolexpr{
2784       test {\ifkeyword{eu}}
2785       or
2786       test {\ifkeyword{echr}}
2787     }{%
2788       \mkcomprange[\mkrawpageprefix[paragraph]]{#1}%

```

```

2789     }{%
2790         \mkcomprange{#1}}%
2791 }{%
2792     \iffieldequals{pagination}{\paragraphmarkings}{%
2793         \mkcomprange[\mkbibbrackets]{#1}%
2794     }{%
2795         \mkcomprange[\mkpageprefix{pagination}]{#1}}}}

```

Shorthands

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

```

2796 \renewbibmacro*{shorthandintro}{%
2797     \iffieldundef{shorthandintro}
2798     {\iffieldundef{shorthand}
2799         {}
2800         {\setunit{\addspace}%
2801             \printtext[parens]{%
2802                 \ifboolexpr{
2803                     test {\ifentrytype{jurisdiction}}
2804                     or
2805                     test {\ifentrytype{legal}}
2806                     or
2807                     test {\ifentrytype{legislation}}
2808                 }{}%
2809                 \bibstring{citedas}\space}%
2810             \printfield{shorthand}}}}
2811     {\setunit{\addspace}%
2812         \printtext[parens]{\printfield{shorthandintro}}}}

```

Common macros

```

2813 \newbibmacro*{issue/volume}{%
2814     \iffieldundef{volume}%
2815     {\iffieldundef{issue}%
2816         {}%
2817         {\printfield{issue}}}%
2818     {\printfield[default]{volume}}}
2819 \newcommand*{\subtypenewsp}{newspaper}
2820 \newbibmacro*{year+vol+report}[1][default]{%
2821     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2822         \setunit{\addcomma\space}%
2823     }{%
2824         \usebibmacro{journaldate}%
2825         \setunit{\addspace}%
2826         \printfield[parens]{origyear}%
2827         \setunit{\addspace}%
2828         \printfield{volume}%
2829         \setunit{\addspace}}%
2830     \printfield{journaltitle}%
2831     \setunit*{\addspace}%
2832     \iffieldundef{series}{}{%
2833         \setunit{\addspace}%
2834         \printfield[#1]{series}%
2835         \setunit{\addspace}}%
2836     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2837         \setunit{\addcomma\space}%
2838         \printdate%
2839     }}

```



```

2840 \newbibmacro*{journaldate}[1][1]{%
2841 \ifboolexpr{
2842   test {\iffieldundef{#1volume}}
2843   or
2844   bool {bbx@#1year-essential}
2845 }{%
2846 \ifboolexpr{
2847   test {\ifkeyword{sc}}
2848   or
2849   test {\iftoggle{bbx:scotstyle}}
2850 }{%
2851 \setunit{\addcomma\space}%
2852 \printfield{#1year}%
2853 }{%
2854 \printfield[brackets]{#1year}}%
2855 }{%
2856 \printfield[parens]{#1year}}}}
2857 \newcommand*\casenote}{casenote}
2858 \newcommand\casenotetext}{\bibstring{casenote}}
2859 \newbibmacro{journaltitle}{%
2860 \iffieldequals{entrysubtype}{\casenote}}{%
2861 \iffieldundef{crossref}}{%
2862 \usebibmacro{title}}%
2863 }{%
2864 \iffieldundef{note}}{%
2865 \restorefield{note}{\casenotetext}}%
2866 }{%
2867 \ifboolexpr{
2868   test {\iffootnote}
2869   and test {\iftoggle{bbx@samefootnote}}
2870   and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2871 }{\printfield[casenotetitle]{title}}}%
2872 }{%
2873 \usebibmacro{title}}}}
2874 \newbibmacro*{unreported}[1][default]{%
2875 \iffieldundef{verba}}{%
2876 \ifboolexpr{
2877   test {\iflistundef{institution}}
2878   and
2879   test {\iffieldundef{date}}
2880   and
2881   test {\iffieldundef{year}}
2882 }{\%
2883 \ifboolexpr{
2884   test {\iffieldundef{date}}
2885   and
2886   test {\iffieldundef{year}}
2887 }{\%
2888 \mkbibparens{\printlist[jurisdiction]{institution}}%
2889 }{\%
2890 \toggletrue{blx@ox@nopostnotedelim}%
2891 \iflistundef{institution}}{\%
2892 \mkbibparens{\usebibmacro{date}}}%
2893 }{\%
2894 \printtext[parens]{%
2895 \printlist[#1]{institution}}%
2896 \setunit{\addcomma\space}
2897 \usebibmacro{date}}}}}%
2898 }{%
2899 \iftoggle{bbx@ecliuse}}{\%
2900 \printfield{verba}}}}
2901 \newbibmacro{court-note}{%

```

```

2902     \iffielddundef{note}%
2903     {}%
2904     {\printfield{note}%
2905     \toggletrue{blx@ox@nopostnotedelim}}}
2906 \newbibmacro*{jurisdictionpages}{%
2907     \iffieldequals{entrysubtype}{\subtypenewsp}}{%
2908     \setunit{\addspace}%
2909     \printfield{pages}}
2910 \newbibmacro{pcitenote}{%
2911     \iffielddundef{parreporter}}{%
2912     \setunit{\addcomma\space}%
2913     \iffielddundef{postnote}}{%
2914     \printfield{postnote}%
2915     \clearfield{postnote}%
2916     \setunit{\addsemicolon\space}}}}
2917 \newbibmacro*{courtid}{%
2918     \iffielddundef{number}}{%
2919     \ifboolexpr{
2920         test {\iflistundef{institution}}
2921         and
2922         test {\iffielddundef{location}}%
2923     }{%
2924         \togglefalse{blx@ox@nopostnotedelim}%
2925     }{%
2926         \ifboolexpr{%
2927             test {\iffielddundef{journaltitle}}
2928             or
2929             not togl {bbx:altcourt}
2930         }{%
2931             \printtext[parens]{%
2932                 \printfield{location}%
2933                 \setunit{\addspace}%
2934                 \printlist{institution}%
2935                 \usebibmacro{unrep:date}}%
2936             \toggletrue{blx@ox@nopostnotedelim}
2937         }{%
2938             \setunit{\addcomma\space}%
2939             \printfield{location}%
2940             \setunit*{\addspace}%
2941             \printlist{institution}}}%
2942     }{%
2943         \togglefalse{blx@ox@nopostnotedelim}}}
2944 \newbibmacro*{unrep:date}{%
2945     \ifboolexpr{
2946         test {\iffielddundef{journaltitle}}%
2947         and
2948         test {\iffielddundef{number}}%
2949     }{%
2950         \setunit{\addcomma\space}%
2951         \usebibmacro{date}%
2952     }{}}

```

Legal cases

There are different formats depending on the jurisdiction.

```

2953 \DeclareBibliographyDriver{jurisdiction}{%
2954     \usebibmacro{bibindex}%
2955     \usebibmacro{begentry}%
2956     \usebibmacro{juriscitation}%

```

```

2957 \usebibmacro{doi+eprint+url}%
2958 \setunit{\addspace}%\newblock
2959 \usebibmacro{addendum+pubstate}%
2960 \setunit{\bibpagerefpunct}\newblock
2961 \usebibmacro{pageref}%
2962 \setunit{\addspace}%\newblock
2963 \iftoggle{bbx:related}
2964   {\usebibmacro{related:init}%
2965   \usebibmacro{related}}
2966   {}%
2967 \usebibmacro{finentry}}
2968 \newtoggle{bbx@juriscitedone}
2969 \newbibmacro{juriscitation}{%
2970 \togglefalse{bbx@juriscitedone}%
2971 \renewcommand{\do}[1]{%
2972   \ifkeyword{##1}{%
2973     \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2974     \listbreak
2975   }}%
2976 \docsvlist{eu,chr,int,ca,us}%
2977 \iftoggle{bbx@juriscitedone}{\usebibmacro{enjuriscitation}}%
2978 }

```

Here is the format for EU cases.

```

2979 \newtoggle{bbx@commissiondecision}
2980 \newbibmacro*{eujuriscitation}{%
2981 \ifboolexpr{
2982   test {\iflistcontains{institution}{\commission}}
2983   or
2984   test {\iflistcontains{institution}{\Commission}}
2985 }{%
2986   \toggletrue{bbx@commissiondecision}%
2987 }{%
2988   \togglefalse{bbx@commissiondecision}}%
2989 \iftoggle{bbx@commissiondecision}{%
2990   \usebibmacro{eucasenumber}}%
2991 \usebibmacro{title}%
2992 \setunit{\addspace}%
2993 \iftoggle{bbx@commissiondecision}{%
2994   \usebibmacro{eucommissiondecision}}{%
2995 \setunit{\addspace}%
2996 \usebibmacro{eu:reportinfo}%
2997 \iftoggle{bbx@commissiondecision}{%
2998   \setunit{\addcomma\space}%
2999 }{%
3000   \setunit{\addspace}}%
3001 \usebibmacro{altreportdetails}%
3002 \usebibmacro{court-note}%
3003 }
3004 \newcommand*{\oxrefand{ and }}
3005 \newbibmacro{eucasetype}{%
3006 \iffieldundef{type}{%
3007   \ifboolexpr{
3008     test {\IfSubStr{\thefield{number}}{,}}
3009     or
3010     test {\IfSubStr{\thefield{number}}{--}}
3011     or
3012     test {\IfSubStr{\thefield{number}}{\oxrefand}}
3013   }{%
3014     \bibstring{eujoinedcases}%
3015   }%

```

```

3016     \bibstring{eucase}}%
3017   }{%
3018     \printfield{type}}%
3019 }
3020 \newbibmacro{eucasenumber}{%
3021   \usebibmacro{eucasetype}%
3022   \setunit{\addnbspace}%
3023   \printfield{number}%
3024   \setunit{\addspace}}
3025 \newbibmacro{eucommissiondecision}{%
3026   \iffieldundef{userb}{%
3027     \iffieldundef{number}{}%
3028     \printtext[parens]{%
3029       \usebibmacro{eucasetype}%
3030       \setunit{\addnbspace}%
3031       \printfield{number}}}%
3032   }{%
3033     \printtext[parens]{%
3034       \usebibmacro{eucasetype}%
3035       \setunit{\addnbspace}%
3036       \printfield{userb}}%
3037     \setunit{\addspace}%
3038     \iffieldundef{number}{}%
3039     \iffieldundef{type}{%
3040       \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3041     }{%
3042       \setunit{\addspace\printfield{type}\addspace}}%
3043     \printfield{number}}%
3044   }%
3045 }
3046 \newbibmacro*{eu:reportinfo}{%
3047   \iftoggle{bbx@ecLionly}{%
3048     \iffieldundef{verba}{%
3049       \usebibmacro{eu:osreport}
3050     }{%
3051       \printfield{verba}}%
3052   }{%
3053     \usebibmacro{eu:osreport}}}
3054 \newbibmacro*{eu:osreport}{%
3055   \iftoggle{bbx@ecLiuse}{%
3056     \iffieldundef{verba}{}%
3057     \printfield{verba}%
3058     \setunit{\addcomma\space}}%
3059   }{}%
3060   \iffieldundef{journaltitle}{%
3061     \usebibmacro{unreported}%
3062   }{%
3063     \usebibmacro{eu:year+vol+report}}}
3064 \newcommand*{\officialjournaltitle{OJ}}
3065 \newcommand*{\ecrreporttitle{ECR}}
3066 \newbibmacro*{eu:year+vol+report}{%
3067   \iffieldequals{journaltitle}{\ecrreporttitle}{%
3068     \printfield[brackets]{year}%
3069     \setunit{\addspace}%
3070     \printfield{journaltitle}%
3071     \setunit{\addspace}%
3072     \printfield{volume}%
3073     \setunit*{\printtext{--\allowbreak}}}%
3074     \printfield{pages}}%
3075   }{%
3076     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3077     \printfield[brackets]{year}}%

```

```

3078     \setunit{\addspace}%
3079     \printfield{journaltitle}%
3080     \setunit{\addspace}%
3081     \printfield[default]{series}%
3082     \usebibmacro{issue/volume}%
3083     \setunit{\printtext{\slash}}%
3084     \printfield{pages}%
3085   }{%
3086     \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

3087 \newbibmacro*{echrjuriscitation}{%
3088   \usebibmacro{title}%
3089   \setunit{\addspace}\newblock
3090   \iffieldundef{number}{}{%
3091     \printtext[parens]{%
3092       \def\adddot{}%
3093       \bibstring{application}\space
3094       \bibstring{number}\space
3095       \printfield{number}}%
3096     \setunit{\addspace}\newblock}%
3097   \iffieldundef{journaltitle}{%
3098     \usebibmacro{unreported}[echrinst]%
3099   }{%
3100     \usebibmacro{echr:year+vol+report}
3101     \setunit{\addspace}\newblock
3102     \usebibmacro{echr:courtid}}%
3103   \setunit{\addspace}%
3104   \usebibmacro{court-note}%
3105   \newblock
3106   \setunit{\addspace}}
3107 \newcommand*{\seriesa}{Series A}
3108 \newcommand*{\echrreports}{ECHR}
3109 \newbibmacro*{echr:year+vol+report}{%
3110   \iffieldequals{journaltitle}{\seriesa}{%
3111     \usebibmacro{seriesareport}%
3112   }{%
3113     \iffieldequals{journaltitle}{\echrreports}{%
3114       \usebibmacro{echrreports}%
3115     }{%
3116       \usebibmacro{year+vol+report}
3117       \setunit{\addspace}%
3118       \printfield{pages}}}}
3119 \newbibmacro*{seriesareport}{%
3120   \printfield[parens]{year}%
3121   \setunit{\addspace}%
3122   \printfield{journaltitle}%
3123   \setunit{\addspace}%
3124   \printtext{\def\adddot{} \bibstring{number}\addspace}%
3125   \printfield{pages}}
3126 \newbibmacro*{echrreports}{%
3127   \printfield{journaltitle}%
3128   \setunit{\addspace}%
3129   \printfield{year}%
3130   \iffieldundef{volume}{}{%
3131     \printtext{--}\printfield[romanvol]{volume}}
3132   \setunit{\addspace}%
3133   \printfield{pages}}
3134 \newcommand*{\decisionsandreports}{DR}
3135 \newcommand*{\collectionofdecisions}{CD}

```

```

3136 \newbibmacro*{echr:courtid}{%
3137 \ifboolexpr{
3138 test {\iffieldequals{journaltitle}{\decisionsandreports}}
3139 or
3140 test {\iffieldequals{journaltitle}{\collectionofdecisions}}%
3141 }{}{%
3142 \printlist[ecthr]{institution}}}

```

Here is the format for international cases.

```

3143 \newbibmacro*{intjuriscitation}{%
3144 \iflistundef{institution}{%
3145 \setunit{}\printtext{}%
3146 }{%
3147 \printlist{institution}%
3148 \setunit{\addcomma\space}}%
3149 \usebibmacro{int:title}%
3150 \setunit{\addspace}\newblock
3151 \iffieldundef{journaltitle}{%
3152 \printfield{number}%
3153 \setunit{\addspace}\newblock
3154 \printtext[parens]{\printdate}%
3155 }{%
3156 \usebibmacro{year+vol+report}[international]%
3157 }%
3158 \setunit{\addspace}%
3159 \usebibmacro{int:jurisdictionpages}%
3160 \setunit{\addspace}\newblock
3161 \usebibmacro{court-note}%
3162 }
3163 \newbibmacro*{int:title}{%
3164 \ifboolexpr{
3165 test {\iffieldundef{title}}
3166 and
3167 test {\iffieldundef{subtitle}}
3168 }{}{%
3169 \printtext[title]{%
3170 \printfield[titlecase]{title}%
3171 \setunit{\addspace}%
3172 \printfield[parens]{subtitle}}}%
3173 \setunit{\addspace}%
3174 \printfield{titleaddon}%
3175 }
3176 \newbibmacro*{int:jurisdictionpages}{%
3177 \iffieldequals{journaltitle}{\pcijrep}{%
3178 \printtext{\bibcpstring{number}\addspace}%
3179 \iffieldundef{pages}{%
3180 \printfield{number}%
3181 }{%
3182 \printfield{pages}}}%
3183 }{%
3184 \printfield{pages}}}

```

Here is the format for Canadian cases.

```

3185 \newbibmacro{canjuriscitation}{%
3186 \usebibmacro{title}%
3187 \setunit{\addspace}\newblock
3188 \printfield{number}%
3189 \setunit{\addcomma\space}%
3190 \iffieldundef{journaltitle}{}{%

```

```

3191     \usebibmacro{can:year+vol+report}}}%
3192 \usebibmacro{jurisdictionpages}%
3193 \usebibmacro{pcitenote}%
3194 \usebibmacro{altreportdetails}%
3195 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3196 \newunit\newblock
3197 \usebibmacro{courtid}%
3198 \newunit%
3199 \usebibmacro{court-note}%
3200 \newblock%
3201 \newunit}
3202 \newbibmacro*{can:year+vol+report}{%
3203 \iffieldundef{number}}{%
3204   \setunit{\addspace}%
3205 }{%
3206   \ifboolexpr{
3207     test {\iffieldundef{volume}}
3208     or
3209     bool {bbx@year-essential}}%
3210   }{%
3211     \clearfield{year}}}%
3212 \iffieldequals{entrysubtype}{\subtypenewsp}}{%
3213   \iffieldundef{year}}{%
3214     \usebibmacro{journaldate}%
3215     \setunit{\addspace}}
3216 \printfield{volume}%
3217 \setunit{\addspace}%
3218 \printfield{journaltitle}%
3219 \setunit*{\addspace}%
3220 \iffieldundef{series}}{%
3221   \setunit{\addspace}%
3222   \printtext[parens]{\printfield[usseries]{series}}%
3223   \setunit{\addspace}}%
3224 \iffieldequals{entrysubtype}{\subtypenewsp}}{%
3225   \setunit{\addcomma\space}%
3226   \usebibmacro{newspaperdate}%
3227 }{}}

```

Here is the format for American cases.

```

3228 \newbibmacro{usjuriscitation}{%
3229   \usebibmacro{title}%
3230   \setunit{\addcomma\space}\newblock%
3231   \iffieldundef{journaltitle}}{%
3232     \printfield{number}%
3233     \setunit{\addcomma\space}%
3234     \printfield[default]{eprint}%
3235     \clearfield{eprint}%
3236   }{
3237     \usebibmacro{us:vol+report}}}%
3238 \setunit{\addspace}%
3239 \usebibmacro{jurisdictionpages}%
3240 \usebibmacro{us:postnote}%
3241 \usebibmacro{altreportdetails}%
3242 \setunit{\addspace}\newblock
3243 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3244 \setunit{\addspace}%
3245 \usebibmacro{us:courtid+date}%
3246 \setunit{\addspace}%
3247 \usebibmacro{court-note}%
3248 \newblock
3249 \setunit{\addspace}}

```

```

3250 \newbibmacro{us:vol+report}{%
3251 \printfield{volume}%
3252 \setunit{\addspace}%
3253 \printfield{journaltitle}%
3254 \iffieldundef{series}{}{%
3255 \setunit{\addspace}%
3256 \printfield[usseries]{series}}}
3257 \newbibmacro{us:postnote}{%
3258 \iffieldundef{postnote}{}{%
3259 \setunit{\addcomma\space}%
3260 \printfield{postnote}%
3261 \clearfield{postnote}%
3262 }}
3263 \newbibmacro{us:courtid+date}{%
3264 \ifboolexpr{
3265 test {\iflistundef{institution}}
3266 and
3267 test {\iflistundef{location}}
3268 and
3269 test {\iffieldundef{year}}
3270 }{}{%
3271 \printtext[parens]{%
3272 \printlist{location}%
3273 \setunit*\addspace}%
3274 \printlist{institution}%
3275 \setunit{\addspace}%
3276 \printfield{year}%
3277 \nopunct}}}

```

Here is the format for English cases.

```

3278 \newbibmacro{enjuristicitation}{%
3279 \usebibmacro{title}%
3280 \setunit{\addspace}\newblock
3281 \printfield{number}%
3282 \setunit*\addcomma\space}%
3283 \iffieldundef{journaltitle}{}{%
3284 \usebibmacro{year+vol+report}}%
3285 \usebibmacro{jurisdictionpages}%
3286 \usebibmacro{pcitenote}%
3287 \usebibmacro{altreportdetails}%
3288 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
3289 \setunit{\addspace}\newblock
3290 \usebibmacro{courtid}%
3291 \setunit{\addspace}%
3292 \usebibmacro{court-note}}
3293 \newbibmacro{altreportdetails}{%
3294 \restorefield{prenote}{\postnotesecond}%
3295 \iffieldundef{parreporter}{}{%
3296 \usebibmacro{journaldate}[par]%
3297 \setunit{\addspace}\newblock
3298 \usebibmacro{altreportvolume}%
3299 \setunit{\addspace}\newblock
3300 \usebibmacro{altjournaltitle}%
3301 \setunit{\addspace}\newblock
3302 \usebibmacro{altseries}%
3303 \setunit{\addspace}\newblock
3304 \usebibmacro{altjurisdictionpages}%
3305 \iffieldundef{prenote}{}{%
3306 \setunit{\addcomma\space}%
3307 \printfield[postnote]{prenote}}}}

```



```

3308 \newbibmacro*{altreportvolume}{%
3309 \iffieldundef{parvolume}{}{%
3310 \printfield{parvolume}}
3311 \newbibmacro*{altjournaltitle}{%
3312 \iffieldundef{parreporter}{}{
3313 \printfield{parreporter}}
3314 \newbibmacro*{altseries}{%
3315 \iffieldundef{parseries}{}{%
3316 \printfield{parseries}}
3317 \newbibmacro*{altjurisdictionpages}{%
3318 \iffieldundef{parpages}{}{%
3319 \printfield{parpages}}}%

```

Legislation

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

```

3320 \newcommand*{\subtypecourtrules}{procedure-rule}
3321 \DeclareBibliographyDriver{legislation}{%
3322 \usebibmacro{bibindex}%
3323 \usebibmacro{begentry}%
3324 \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3325 \usebibmacro{courtrules}%
3326 }{%
3327 \ifkeyword{draft}{%
3328 \usebibmacro{legislation:bill}%
3329 }{%
3330 \ifkeyword{eu}{%
3331 \usebibmacro{eulegislation}%
3332 }{%
3333 \printfield[default]{title}%
3334 \setunit{\addspace}%
3335 \printfield[default]{year}%
3336 \setunit*{\addspace}%
3337 \usebibmacro{legnumber}%
3338 \setunit{\addspace}\newblock
3339 \usebibmacro{legsupp}}}}}%
3340 \setunit{\addcomma\space}%
3341 \printfield{note}%
3342 \setunit{\addspace}%
3343 \usebibmacro{finentry}}
3344 \newbibmacro*{courtrules}{%
3345 \restorefield{prenote}{\postnotesecond}%
3346 \iffieldequalstr{shorttitle}{PD}{%
3347 \printfield{postnote}%
3348 \clearfield{postnote}%
3349 \setunit{\addspace}%
3350 }{}%
3351 \iffieldundef{shorttitle}{%
3352 \printfield[default]{title}%
3353 }{%
3354 \printfield[default]{shorttitle}}%
3355 \setunit{\addspace}\newblock
3356 \iffieldundef{postnote}{%
3357 \toggletrue{blx@ox@nopostnotedelim}%
3358 }{%
3359 \iffieldequalstr{shorttitle}{CPR}{%
3360 \printfield{postnote}%
3361 \setunit{\addspace}%

```

```

3362     }{%
3363     \printtext{%
3364     \bibstring{order}\space
3365     \printfield{postnote}%
3366     \setunit{\addcomma\space}}}%
3367 \restorefield{postnote}{\postnotesecond}%
3368 \usebibmacro{postnote}%
3369 \clearfield{postnote}%
3370 \setunit{\addspace}\newblock}
3371 \newcommand*{\subtypeprimarylegislation}{primary}
3372 \newbibmacro*{legislation:bill}{%
3373 \printfield[draftleg]{title}%
3374 \setunit{\addspace}%
3375 \printlist{institution}%
3376 \setunit*{\addspace}%
3377 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3378 \bibcpstring{bill}%
3379 \setunit{\addspace}%
3380 \printtext[parens]{\usebibmacro{sessionyear}}%
3381 \setunit{\addspace}%
3382 \iffieldundef{number}{}%
3383 \printlist[billprinting]{institution}}%
3384 }{%
3385 \printtext[parens]{%
3386 \bibstring{draft}\space
3387 \printdate}}
3388 \setunit{\addspace}}
3389 \newbibmacro*{sessionyear}{%
3390 \iffieldundef{year}{}%
3391 \printfield{year}%
3392 \iffieldundef{endyear}{}%
3393 \bibdaterangesep
3394 \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}
3395 \newbibmacro{eulegislation}{%
3396 \printfield[default]{title}%
3397 \setunit{\addspace}\newblock%
3398 \usebibmacro{eulegref}}
3399 \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3400 \newbibmacro*{eulegref}{%
3401 \iffieldequals{journaltitle}{\officialjournaltitle}{%
3402 \printfield[brackets]{year}%
3403 \setunit{\addspace}%
3404 \printfield{journaltitle}%
3405 \setunit{\addspace}%
3406 \iffieldundef{series}{%
3407 \printtext{L}%
3408 }{%
3409 \printfield[default]{series}}%
3410 \usebibmacro{issue/volume}%
3411 \setunit*{\addslash}%
3412 \printfield{pages}%
3413 \togglefalse{blx@ox@nopostnotedelim}%
3414 }{%
3415 \usebibmacro{year+vol+report}%
3416 \setunit*{\addspace}%
3417 \printfield{pages}}}
3418 \newbibmacro*{legnumber}{%
3419 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3420 \ifboolexpr{(
3421 test {\iffieldundef{number}}
3422 or
3423 not test {\iffieldundef{title}} )

```

```

3424     and not (
3425         test {\ifkeyword{cy}}
3426         or
3427         test {\ifkeyword{sc}}
3428         or
3429         test {\ifkeyword{ni}} )
3430     }{\%
3431     \printtext[parens]{\printfield{number}}%
3432     \toggletrue{blx@ox@nopostnotedelim}}%
3433 }{\%
3434     \iffieldundef{number}}{\%
3435     \setunit{\addcomma\addspace}%
3436     \printfield{number}%
3437     \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3438 \newbibmacro*{legsupp}{\%
3439     \ifkeyword{cy}
3440     {\iffieldundef{userb}
3441         {}
3442         {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3443     {}

```

Treaties, explanatory notes and Hansard

```

3444 \newcommand*\explanatorynote{explanatory note}
3445 \newcommand*\parliamentarytype{parliamentary}
3446 \newcommand*\treatysubtype{piltreaty}
3447 \DeclareBibliographyDriver{legal}{\%
3448     \usebibmacro{bibindex}%
3449     \usebibmacro{begentry}%
3450     \iffieldequals{entrysubtype}{\explanatorynote}{\%
3451         \printfield[default]{title}%
3452         \setunit{\addspace}\newblock
3453     }{\%
3454         \iffieldequals{entrysubtype}{\parliamentarytype}{\%
3455             \usebibmacro{legal:parliamentary}%
3456         }{\%
3457             \usebibmacro{treatycitation}}}%
3458     \setunit{\addcomma\space}\newblock
3459     \printfield[default]{note}
3460     \setunit{\addspace}\newblock
3461     \setunit{\bibpagerefpunct}%
3462     \usebibmacro{pageref}%
3463     \usebibmacro{finentry}}
3464 \newbibmacro{legal:parliamentary}{\%
3465     \printfield[default]{title}%
3466     \newunit\newblock
3467     \printfield{type}%
3468     \setunit{\addspace}%
3469     \iffieldundef{series}}{\%
3470     \printtext[parens]{\%
3471         \bibstring{jourser}\space
3472         \printfield{series}}}%
3473     \setunit{\addspace}%
3474     \printfield{volume}%
3475     \setunit{\addcomma\space}%
3476     \usebibmacro{hansard-ref}%
3477     \setunit{\addspace}%

```

```

3478     \iffielddundef{year}}{}{%
3479         \printtext[parens]{\usebibmacro{date}}}%
3480     \togglefalse{blx@ox@nopostnotedelim}}
3481 \newbibmacro*{hansard-ref}{%
3482     \iffielddundef{postnote}}{}{%
3483     \iffielddundef{pages}}{}{%
3484         \printfield{pages}}%
3485     }{}%
3486 \newbibmacro{treatycitation}{%
3487     \printfield[default]{title}%
3488     \setunit{\addspace}\newblock%
3489     \printlist[treaty]{institution}
3490     \setunit{\addspace}\newblock
3491     \usebibmacro{treatyinfo}%
3492     \setunit{\addspace}\newblock
3493     \usebibmacro{treaty:year+vol+report}}
3494 \newbibmacro{treatyinfo}{%
3495     \iflistundef{lista}{% execution
3496         \iffielddundef{year}}{}{%
3497         \iffielddundef{volume}}{}{%
3498             \printtext[parens]{\printdate}}}%
3499     }{%
3500         \printtext[parens]{\printlist[treatydates]{lista}}}}
3501 \newbibmacro{treaty:year+vol+report}{%
3502     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3503         \usebibmacro{eulegref}}%
3504     }{%
3505         \usebibmacro{treaty:date}%
3506         \setunit{\addspace}%
3507         \printfield[default]{volume}%
3508         \setunit{\addspace}%
3509         \printfield{journaltitle}%
3510         \setunit*{\addspace}%
3511         \iffielddundef{series}}{}{%
3512             \setunit{\addspace}%
3513             \printfield{series}}%
3514         \setunit{\addspace}}%
3515         \printfield{pages}}}%
3516 \newbibmacro*{treaty:date}{%
3517     \ifboolexpr{
3518         test {\iffielddundef{volume}}
3519         or
3520         bool {bbx@year-essential}
3521     }{%
3522         \ifboolexpr{
3523             test {\ifkeyword{sc}}
3524             or
3525             test {\iftoggle{bbx:scotstyle}}
3526         }{%
3527             \printfield{year}%
3528         }{%
3529             \printfield[brackets]{year}%
3530         }}}}

```

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

```

3531 \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.

```

3532 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3533 \newcommand{\collectionshelfmarkpunct}{\addspace}
3534 \newcommand{\datingpagespunct}{\addcomma\addspace}
3535 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3536 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3537 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%

```

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

```

3538 \def\recto{r}
3539 \def\verso{v}
3540 \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.

```

3541 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3542   \def\currentfield{title}%
3543   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3544   \undef\currentfield}
3545 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3546 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3547 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3548 \DeclareFieldFormat{dating}{#1\isdot}%
3549 \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.

```

3550 \newbibmacro{manuscript:date}{%
3551   \ifboolexpr{
3552     test {\ifnameundef{author}}
3553     and
3554     test {\iffieldundef{title}}
3555     and
3556     test {\iffieldundef{label}}
3557   }{\usebibmacro{date}}
3558 \newbibmacro{dating}{%
3559   \ifboolexpr{(
3560     test {\ifnameundef{author}}
3561     and
3562     test {\iffieldundef{title}}
3563     and
3564     test {\iffieldundef{label}}
3565   ) or
3566     test {\iffieldundef{year}}
3567 }{%
3568   \printfield{dating}%
3569 }}

```

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.

```

3570 \newbibmacro{location+library+collection+shelfmark}{%
3571 \printfield{library}%
3572 \setunit{\locationlibrarypunct}%
3573 \printlist{location}%
3574 \setunit{\librarycollectionpunct}%
3575 \usebibmacro{collection+shelfmark}}
3576 \newbibmacro{collection+shelfmark}{%
3577 \ifboolexpr{
3578 test {\iffieldundef{collection}}
3579 and
3580 test {\iffieldundef{shelfmark}}
3581 }{ }{%
3582 \printtext[collection+shelfmark]{%
3583 \printfield{collection}%
3584 \setunit*{\collectionshelfmarkpunct}%
3585 \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.

```

3586 \newbibmacro{manuscript:pages}{%
3587 \printfield{pagetotal}%
3588 \setunit{\addspace}%
3589 \iffieldundef{pages}{%
3590 \usebibmacro{manuscript:columns+layer}%
3591 }{%
3592 \usebibmacro{manuscript:columns}%
3593 \setunit{\pagetotalpagespunct}%
3594 \printfield{pages}%
3595 \setunit{\addspace}%
3596 \usebibmacro{manuscript:layer}}}
3597 \newbibmacro{manuscript:columns}{%
3598 \iffieldundef{columns}{ }{%
3599 \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3600 }%
3601 \newbibmacro{manuscript:layer}{%
3602 \iffieldundef{layer}{ }{%
3603 \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3604 }%
3605 \newbibmacro{manuscript:columns+layer}{%
3606 \ifboolexpr{
3607 test {\iffieldundef{columns}}
3608 or
3609 test{\iffieldundef{layer}}
3610 }{ }%
3611 \usebibmacro{manuscript:columns}%
3612 \usebibmacro{manuscript:layer}%
3613 }{%
3614 \printtext[columns+layer]{%
3615 \bibstring{\strfield{columns}column}%
3616 \setunit*{\columnslayerpunct}%
3617 \bibstring{\strfield{layer}layer}}}}%

```

Putting it all together, here is the manuscript driver.

```

3618 \DeclareBibliographyDriver{manuscript}{%
3619   \usebibmacro{bibindex}%
3620   \usebibmacro{begentry}%
3621   \usebibmacro{author}%
3622   \setunit{\printdelim{nametitledelim}}\newblock
3623   \usebibmacro{title}%
3624   \setunit{\titlebyauthordelim}\newblock
3625   \usebibmacro{byauthor}%
3626   \newunit\newblock
3627   \printfield{howpublished}%
3628   \newunit\newblock
3629   \printfield{note}%
3630   \newunit\newblock
3631   \usebibmacro{manuscript:date}%
3632   \newunit\newblock
3633   \usebibmacro{location+library+collection+shelfmark}%
3634   \newunit
3635   \printfield{support}%
3636   \newunit
3637   \usebibmacro{dating}%
3638   \setunit{\datingpagespunct}
3639   \usebibmacro{manuscript:pages}
3640   \newunit\newblock%
3641   \iftoggle{bbx:url}{%
3642     \usebibmacro{url+urldate}%
3643   }{}%
3644   \setunit{\relatedtypespunct}\newblock
3645   \iftoggle{bbx:related}{%
3646     \usebibmacro{related:init}%
3647     \usebibmacro{related}%
3648   }{}%
3649   \usebibmacro{finentry}}

```

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

```

3650 \newbibmacro*{library+location+series+number}{%
3651   \printfield{library}%
3652   \setunit{\locationlibrarypunct}%
3653   \printlist{location}%
3654   \setunit{\librarycollectionpunct}%
3655   \ifboolexpr{
3656     test {\iffieldundef{series}}
3657     and
3658     test {\iffieldundef{number}}
3659   }{}%
3660   \printtext[collection+shelfmark]{%
3661     \printfield{series}%
3662     \setunit*\collectionshelfmarkpunct}%
3663   \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’.

```

3664 \newtoggle{blx@ox@ms}
3665 \DeclareBibliographyDriver{unpublished}{%
3666   \usebibmacro{bibindex}%
3667   \usebibmacro{begentry}%
3668   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3669   \usebibmacro{author}%
3670   \setunit{\printdelim{nametitledelim}}\newblock
3671   \usebibmacro{title}%

```

```

3672 \setunit{\titlebyauthor\delim}\newblock
3673 \usebibmacro{byauthor}%
3674 \newunit\newblock
3675 \printfield{note}%
3676 \newunit\newblock
3677 \printfield{howpublished}%
3678 \newunit\newblock
3679 \iftoggle{blx@ox@ms}{%
3680 \usebibmacro{manuscript:date}%
3681 \newunit\newblock
3682 \usebibmacro{library+location+series+number}%
3683 \newunit
3684 \printfield{support}%
3685 \newunit
3686 \usebibmacro{dating}%
3687 \setunit{\datingpagespunct}
3688 \usebibmacro{manuscript:pages}
3689 }{%
3690 \usebibmacro{location+date}%
3691 }%
3692 \newunit\newblock
3693 \iftoggle{bbx:url}
3694 { \usebibmacro{url+urldate}}
3695 {}%
3696 \newunit\newblock
3697 \usebibmacro{addendum+pubstate}%
3698 \setunit{\bibpagerefpunct}\newblock
3699 \usebibmacro{pageref}%
3700 \setunit{\relatedtypepunct}\newblock
3701 \iftoggle{bbx:related}
3702 { \usebibmacro{related:init}%
3703 \usebibmacro{related}}
3704 {}%
3705 \usebibmacro{finentry}}

```

2.1.17 LETTERS

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

```

3706 \DeclareBibliographyAlias{letter}{unpublished}
3707 \DeclareFieldFormat[letter]{title}{%
3708 \def\currentfield{title}%
3709 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3710 \undef\currentfield}
3711 \DeclareFieldFormat[letter]{date}{%
3712 \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.

```

3713 \xpatchbibdriver{booklet}{%
3714 \newunit\newblock
3715 \iftoggle{bbx:related}
3716 }{%
3717 \setunit{\relatedtypepunct}\newblock
3718 \iftoggle{bbx:related}
3719 }{\wlog{WARNING: biblatex-oxref failed to patch booklet}}

```



```

3720 \xpatchbibdriver{misc}{%
3721   \newunit\newblock
3722   \iftoggle{bbx:related}
3723 }{%
3724   \setunit{\relatedtypepunct}\newblock
3725   \iftoggle{bbx:related}
3726 }{\wlog{WARNING: biblatex-oxref failed to patch misc}}

```

We provide an option for setting the relatedtype punctuation.

```

3727 \DeclareBibliographyOption[string]{relationpunct}[semicolon]{%
3728   \ifcsdef{add#1}{%
3729     \ifstrequal{#1}{space}{%
3730       \renewcommand*{\relatedtypepunct}{\addspace}%
3731     }{%
3732       \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3733 }{%
3734   \PackageError{biblatex-oxref}{%
3735     Invalid option 'relationpunct=#1'%
3736   }{%
3737     Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3738     'period', 'exclam', 'question', and 'space'.}}%
3739 \DeclareTypeOption[string]{relationpunct}[semicolon]{%
3740   \ifcsdef{add#1}{%
3741     \ifstrequal{#1}{space}{%
3742       \renewcommand*{\relatedtypepunct}{\addspace}%
3743     }{%
3744       \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3745 }{%
3746   \PackageError{biblatex-oxref}{%
3747     Invalid option 'relationpunct=#1'%
3748   }{%
3749     Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3750     'period', 'exclam', 'question', and 'space'.}}%
3751 \newtoggle{blx@ox@relpunctset}
3752 \DeclareEntryOption[string]{relationpunct}[semicolon]{%
3753   \ifcsdef{add#1}{%
3754     \ifstrequal{#1}{space}{%
3755       \renewcommand*{\relatedtypepunct}{\addspace}%
3756     }{%
3757       \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3758   \toggletrue{blx@ox@relpunctset}
3759 }{%
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 \newcounter{blx@ox@relitem}
3766 \xapptobibmacro{begrelated}{%
3767   \setcounter{blx@ox@relitem}{0}%
3768   \iftoggle{blx@ox@relpunctset}{%
3769     \iffieldequalstr{relatedtype}{in}{%
3770       \setunit{\addcomma\space}}{%
3771     \iffieldequalstr{relatedtype}{reprintfrom}{%
3772       \setunit{\addperiod\space}}{%
3773     \iffieldequalstr{relatedtype}{translationof}{%
3774       \setunit{\addspace}}{%
3775     \iffieldequalstr{relatedtype}{multivolume}{%
3776       \setunit{\addcomma\space}}{%
3777   }}}{\wlog{WARNING: biblatex-oxref failed to append to begrelated}}

```

```
3778 \renewcommand*{\begrelateddelimmultivolume}{\newunitpunct}
```

Translations

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

```
3779 \newbibmacro*{rellanguage}{%
3780 \def\do##1{%
3781 \entrydata{##1}{%
3782 \printlist{language}}}%
3783 \docsvfield{related}%
3784 }
3785 \DeclareFieldFormat{relatedstring:translationof}{%
3786 \usebibmacro{rellanguage}\space
3787 \bibstring{original}\addcomma\space}
3788
3789 \DeclareFieldFormat{related:translationof}{%
3790 \mkbibbrackets{##1}}
```

Co-publications

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

```
3791 \newbibmacro*{related:copub}[1]{%
3792 \entrydata*{##1}{%
3793 \usebibmacro{publisher+location+date}%
3794 \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.

```
3795 \renewbibmacro*{related:reprintfrom}[1]{%
3796 \entrydata*{##1}{%
3797 \nopunct
3798 \usedriver{%
3799 \ifnameundef{savedauthor}{%
3800 \ifnameundef{savededitor}}{%
3801 \ifnameequal{editor}{savededitor}{%
3802 \clearname{editor}%
3803 }{}%
3804 }{}%
3805 \ifnameequal{author}{savedauthor}{%
3806 \clearname{author}%
3807 }{}%
3808 \iffieldundef{savedtitle}}{%
3809 \iffieldsequal{savedtitle}{title}{%
3810 \clearfield{title}%
3811 }{}%
3812 \renewbibmacro*{related:init}}{%
3813 \DeclareNameAlias{sortname}{default}%
3814 \ifbibmacroundef{date+extradate}}{%
3815 \renewbibmacro*{date+extradate}}{%
3816 \renewbibmacro*{date}{\printdate}}%
3817 \renewbibmacro*{pageref}}{%
3818 }{}%
3819 \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.

```

3820 \newbibmacro*{related:serialarticle}[1]{%
3821   \entrydata*{#1}{%
3822     \iffieldundef{savedjournaltitle}{}{%
3823       \iffieldsequal{journaltitle}{savedjournaltitle}{%
3824         \clearfield{journaltitle}%
3825       }{}%
3826     \iffieldundef{savedjournalsubtitle}{}{%
3827       \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
3828         \clearfield{journalsubtitle}%
3829       }{}%
3830     \iffieldundef{savedseries}{}{%
3831       \iffieldsequal{series}{savedseries}{%
3832         \clearfield{series}%
3833       }{}%
3834     \iffieldundef{savedyear}{\clearfield{year}}{
3835       \iffieldsequal{year}{savedyear}{%
3836         \clearfield{year}%
3837       }{}%
3838     \usebibmacro{journal+issuetitle}%
3839     \newunit
3840     \usebibmacro{note+pages}%
3841     \newunit\newblock
3842     \usebibmacro{doi+eprint+url}%
3843     \newunit\newblock
3844     \usebibmacro{addendum+pubstate}}}
```

Reviews

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

```

3845 \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
3846 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3847 \DeclareFieldFormat[review]{number}{#1}% number of a journal
3848 \DeclareFieldFormat[review]{series}{#1}% series of a journal
3849 \ifinteger{#1}
3850   {\mkbibordseries{#1}~\bibstring{jourser}}
3851   {\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.

```

3852 \newbibmacro*{related:reviewof}[1]{%
3853   \entrydata*{#1}{%
3854     \usedriver{%
3855       \renewbibmacro*{related:init}{}%
3856       \DeclareNameAlias{author}{given-family}%
3857       \renewbibmacro*{pageref}{}%
3858     }{\thefield{entrytype}}%
3859   }%
3860 }
```

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’.

```

3861 \DeclareBibliographyDriver{review}{%
3862   \usebibmacro{bibindex}%
3863   \usebibmacro{begentry}%
3864   \usebibmacro{author/translator+others}%
3865   \setunit{\printdelim{nametitledelim}}\newblock
3866   \usebibmacro{title}%
3867   \setunit{\titlebyauthordelim}\newblock
3868   \usebibmacro{byauthor}%
3869   \newunit\newblock
3870   \usebibmacro{bytranslator+others}%
3871   \newunit\newblock
3872   \printfield{version}%
3873   \newunit\newblock
3874   \iftoggle{bbx:related}{%
3875     \usebibmacro{related:init}%
3876     \usebibmacro{related}%
3877   }{%
3878     \newunit\newblock
3879     \usebibmacro{in:}%
3880     \setunit{\addspace}%
3881     \usebibmacro{journal+issuetitle}%
3882     \newunit
3883     \usebibmacro{byeditor+others}%
3884     \iffieldundef{note}%
3885       {\newunit}%
3886       {\setunit{\addsemicolon\addspace}}%
3887     \usebibmacro{note+pages}%
3888     \newunit\newblock
3889     \iftoggle{bbx:isbn}
3890       {\printfield{issn}}
3891       {}%
3892     \newunit\newblock
3893     \usebibmacro{doi+eprint+url}%
3894     \newunit\newblock
3895     \usebibmacro{addendum+pubstate}%
3896     \setunit{\bibpagerefunct}\newblock
3897     \usebibmacro{pageref}%
3898     \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.

```

3899 \DeclareFieldFormat{related:multivolume}{#1}
3900 \renewbibmacro*{related:multivolume}[1]{%
3901   \entrydata*{#1}{%
3902     \printtext{%
3903       \printfield{volume}%
3904       \printfield{part}}%
3905     \setunit*{\addspace}%
3906     \usebibmacro{series+number+edition+publisher+location+date}}

```

Related editions

This macro is based on the ‘bytranslator’ one, but more general.

```

3907 \newbibmacro*{related:editedas}[1]{%
3908   \entrydata{#1}{%
3909     \renewbibmacro*{name:hook}[1]{%
3910       \ifnumequal{\value{listcount}}{1}{%
3911         \begingroup
3912         \mkrelatedstring%
3913         \ltx@initnamehook{#1}%
3914         \endgroup
3915       }{}%
3916       \printfield{edition}%
3917       \setunit{\addspace}%
3918       \usebibmacro{byeditor+others}%
3919       \setunit*{\addcomma\space\bibstring[\mkrelatedstring]{astitle}\space}%
3920       \usebibmacro{maintitle+title}%
3921       \setunit{\addspace}%
3922       \printfield{note}%
3923       \newunit\newblock
3924       \printfield{volumes}%
3925       \newunit
3926       \usebibmacro{series+number+publisher+location+date}}%
3927 \renewbibmacro*{related:bytranslator}[1]{%
3928   \entrydata{#1}{%
3929     \renewbibmacro*{name:hook}[1]{%
3930       \ifnumequal{\value{listcount}}{1}
3931       {\begingroup
3932         \mkrelatedstring%
3933         \ltx@initnamehook{#1}%
3934         \endgroup}
3935       {}%
3936       \printnames[bytranslator]{translator}%
3937       \setunit*{\addspace\bibstring[\mkrelatedstring]{astitle}\space}%
3938       \usebibmacro{maintitle+title}%
3939       \setunit{\addspace}%
3940       \printfield{note}%
3941       \newunit\newblock
3942       \printfield{volumes}%
3943       \newunit
3944       \usebibmacro{series+number+publisher+location+date}}%

```

Joint releases

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

```

3945 \newbibmacro*{related:includes}[1]{%
3946   \stepcounter{blx@ox@relitem}%
3947   \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3948   {\bibstring{and}\addspace}{}%
3949   \entrydata{#1}{%
3950     \ifbibmacroundef{date+extradate}{}{%
3951       \renewbibmacro*{date+extradate}{}%
3952       \usebibmacro{author}%
3953       \setunit{\printdelim{nametitledelim}}\newblock
3954       \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.

```

3955 \DeclareFieldFormat[misc]{title}{%
3956   \def\currentfield{title}%
3957   \iffieldannotation{descriptor}{#1}{%
3958     \iffieldequalstr{relatedtype}{in}{%
3959       \mkbibquote{#\isdot}%
3960     }{%
3961       \mkbibemph{#1}%
3962     }}%
3963 \undef\currentfield}
3964 \newbibmacro*{related:in}[1]{%
3965   \entrydata*{#1}{%
3966     \usedriver
3967     {\ifnameundef{savedauthor}
3968      {\ifnameundef{savededitor}
3969       {}
3970       {\ifnameequal{editor}{savededitor}
3971        {\clearname{editor}}
3972       }}}
3973     {\ifnameequal{author}{savedauthor}
3974      {\clearname{author}}
3975     }}%
3976   \renewbibmacro*{related:init}{}%
3977   \DeclareNameAlias{sortname}{default}%
3978   \ifbibmacroundef{date+extradate}
3979     {}
3980     {\renewbibmacro*{date+extradate}{}%
3981      \renewbibmacro*{date}{\printdate}}%
3982   \renewbibmacro*{pageref}{}
3983   {\thefield{entrytype}}%
3984   \ifboolexpr{
3985     test {\iffieldundef{pages}}
3986     or
3987     test {\iffieldundef{savedpages}}
3988   }{%
3989     \newunit\newblock
3990   }{%
3991     \setunit{\addspace}%
3992     \bibstring{thiscite}%
3993     \printunit{\addspace}%
3994   }%
3995 }%
3996 \usebibmacro{chapter+pages}%
3997 }

```

2.1.19 SOURCE MAPS

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

```

3998 \DeclareStyleSourcemap{%
3999   \maps[datatype=bibtex]{%

```

Sort order

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

```

4000     \map{
4001         \pertype{proceedings}
4002         \pertype{mvproceedings}
4003         \step[notfield=author,
4004             fieldsource=organization,
4005             fieldtarget=author]
4006     }
```

Descriptors

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

```

4007     \map[overwrite=false]{
4008         \step[fieldsource=descriptor, final]
4009         \step[notfield=title,
4010             fieldset=title+an,
4011             fieldvalue={=descriptor}]
4012         \step[notfield=title,
4013             fieldsource=descriptor,
4014             fieldtarget=title]
4015         \step[fieldsource=descriptor,
4016             fieldtarget=note]
4017     }
```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

4018     \map[overwrite=false]{
4019         \step[fieldsource=realauthor, final]
4020         \step[notfield=author,
4021             fieldset=author+an,
4022             fieldvalue={=inferred}]
4023         \step[notfield=author,
4024             fieldsource=realauthor,
4025             fieldtarget=author]
4026         \step[fieldsource=realauthor,
4027             fieldtarget=authoraddon]
4028     }
4029     \map[overwrite=false]{
4030         \step[fieldsource=reaeditor, final]
4031         \step[notfield=editor,
4032             fieldset=editor+an,
4033             fieldvalue={=inferred}]
4034         \step[notfield=editor,
4035             fieldsource=reaeditor,
4036             fieldtarget=editor]
4037         \step[fieldsource=reaeditor,
4038             fieldtarget=editoraddon]
4039     }
```

Editors as joint authors

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

```

4040     \map[overwrite=false]{
4041         \step[fieldsource=editor+an,
4042             match=\regexp{=jointauthor},
4043             final]
4044         \step[fieldsource=editor,
4045             fieldtarget=jointauthor]
4046         \step[fieldsource=editortype,
4047             fieldtarget=jointauthortype]
4048     }
4049     \map[overwrite=false]{
4050         \step[fieldsource=translator+an,
4051             match=\regexp{=jointauthor},
4052             final]
4053         \step[fieldsource=translator,
4054             fieldtarget=jointauthor]
4055         \step[fieldset=jointauthortype,
4056             fieldvalue={=translator}]
4057     }

```

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.

```

4058     \map[overwrite=false]{
4059         \pertype{standard}
4060         \step[notfield=author,
4061             fieldsource=number,
4062             final]
4063         \step[fieldset=sortkey,
4064             origfieldval]
4065     }

```

Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```

4066     \map[overwrite=false]{
4067         \pertype{audio}
4068         \pertype{music}
4069         \pertype{movie}
4070         \pertype{video}
4071         \pertype{inaudio}
4072         \pertype{inmusic}
4073         \pertype{inmovie}
4074         \pertype{invideo}
4075         \step[fieldset=origdatetype,fieldvalue={recorded}]
4076     }

```

Legal references

These help ensure compatibility with oscola.


```

4077 \map[overwrite=false]{
4078   \pertype{jurisdiction}
4079   \step[fieldsource=reporter,
4080         fieldtarget=journaltitle]
4081   \step[fieldsource=court,
4082         fieldtarget=institution]
4083   \step[fieldsource=additionalreports,
4084         fieldtarget=listb]
4085   \step[fieldsource=ecli,
4086         fieldtarget=verba]
4087 }%
4088 \map[overwrite=false]{
4089   \pertype{legal}
4090   \step[fieldsource=reporter,
4091         fieldtarget=journaltitle]
4092 }
4093 \map[overwrite=true]{
4094   \pertype{legal}
4095   \step[fieldsource=parties,
4096         fieldtarget=institution]
4097   \step[fieldsource=execution,
4098         fieldtarget=lista]
4099 }

```

This is how oscola removes dots from entries.

```

4100 \map[overwrite=true]{
4101   \pertype{jurisdiction}
4102   \pertype{legislation}
4103   \pertype{legal}
4104   \step[fieldsource=title,
4105         match=\regexp{(\d)\.(\d)},
4106         replace=\regexp{$1.$2}]
4107   \step[fieldsource=title,
4108         match=\regexp{(\D)\.(\d)},
4109         replace=\regexp{$1 $2}]
4110   \step[fieldsource=title,
4111         match=\regexp{\.(\D)},
4112         replace=\regexp{$1}]
4113   \step [fieldsource=title,
4114         match=\regexp{(\D)\.},
4115         replace=\regexp{$1}]
4116   \step[fieldsource=shorttitle,
4117         match=\regexp{(\d)\.(\d)},
4118         replace=\regexp{$1.$2}]
4119   \step[fieldsource=shorttitle,
4120         match=\regexp{(\D)\.(\d)},
4121         replace=\regexp{$1 $2}]
4122   \step[fieldsource=shorttitle,
4123         match=\regexp{\.(\D)},
4124         replace=\regexp{$1}]
4125   \step [fieldsource=shorttitle,
4126         match=\regexp{(\D)\.},
4127         replace=\regexp{$1}]
4128   \step[fieldsource=parreporter,
4129         match=\regexp{(\d)\.(\d)},
4130         replace=\regexp{$1.$2}]
4131   \step[fieldsource=parreporter,
4132         match=\regexp{(\D)\.(\d)},
4133         replace=\regexp{$1 $2}]
4134   \step[fieldsource=parreporter,

```

```

4135         match=\regexp{\.(\D)},
4136         replace=\regexp{$1}]
4137 \step [fieldsource=parreporter,
4138       match=\regexp{(\D)\.},
4139       replace=\regexp{$1}]
4140 \step[fieldsource=journaltitle,
4141       match=\regexp{(\d)\.(\d)},
4142       replace=\regexp{$1.$2}]
4143 \step[fieldsource=journaltitle,
4144       match=\regexp{(\D)\.(\d)},
4145       replace=\regexp{$1 $2}]
4146 \step[fieldsource=journaltitle,
4147       match=\regexp{\.(\D)},
4148       replace=\regexp{$1}]
4149 \step [fieldsource=journaltitle,
4150       match=\regexp{(\D)\.},
4151       replace=\regexp{$1}]
4152 \step[fieldsource=institution,
4153       match=\regexp{(\d)\.(\d)},
4154       replace=\regexp{$1.$2}]
4155 \step[fieldsource=institution,
4156       match=\regexp{(\D)\.(\d)},
4157       replace=\regexp{$1 $2}]
4158 \step[fieldsource=institution,
4159       match=\regexp{\.(\D)},
4160       replace=\regexp{$1}]
4161 \step[fieldsource=institution,
4162       match=\regexp{(\D)\.},
4163       replace=\regexp{$1}]
4164 \step[fieldsource=publisher,
4165       match=\regexp{(\d)\.(\d)},
4166       replace=\regexp{$1.$2}]
4167 \step[fieldsource=publisher,
4168       match=\regexp{(\D)\.(\d)},
4169       replace=\regexp{$1 $2}]
4170 \step[fieldsource=publisher,
4171       match=\regexp{\.(\D)},
4172       replace=\regexp{$1}]
4173 \step [fieldsource=publisher,
4174       match=\regexp{(\D)\.},
4175       replace=\regexp{$1}]
4176 \step[fieldsource=location,
4177       match=\regexp{(\d)\.(\d)},
4178       replace=\regexp{$1.$2}]
4179 \step[fieldsource=location,
4180       match=\regexp{(\D)\.(\d)},
4181       replace=\regexp{$1 $2}]
4182 \step[fieldsource=location,
4183       match=\regexp{\.(\D)},
4184       replace=\regexp{$1}]
4185 \step [fieldsource=location,
4186       match=\regexp{(\D)\.},
4187       replace=\regexp{$1}]
4188 \step[fieldsource=series,
4189       match=\regexp{(\d)\.(\d)},
4190       replace=\regexp{$1.$2}]
4191 \step[fieldsource=series,
4192       match=\regexp{(\D)\.(\d)},
4193       replace=\regexp{$1 $2}]
4194 \step[fieldsource=series,
4195       match=\regexp{\.(\D)},
4196       replace=\regexp{$1}]

```

```

4197     \step [fieldsource=series,
4198           match=\regexp{(\D)\.},
4199           replace=\regexp{$1}]
4200     \step[fieldsource=indextitle,
4201           match=\regexp{(\d)\.(\d)},
4202           replace=\regexp{$1.$2}]
4203     \step[fieldsource=indextitle,
4204           match=\regexp{(\D)\.(\d)},
4205           replace=\regexp{$1 $2}]
4206     \step[fieldsource=indextitle,
4207           match=\regexp{\.(\D)},
4208           replace=\regexp{$1}]
4209     \step [fieldsource=indextitle,
4210           match=\regexp{(\D)\.},
4211           replace=\regexp{$1}]
4212   }

```

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

```

4213     \map[overwrite=false]{
4214       \step[fieldsource=casenumber, final]
4215       \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
4216       \step[fieldsource=casenumber, fieldtarget=userb]
4217     }
4218   }%
4219 }

```

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).

```

4220   \DeclareSortingTemplate{nty}{
4221     \sort{
4222       \field{presort}
4223     }
4224     \sort[final]{
4225       \field{sortkey}
4226     }
4227     \sort{
4228       \field{sortname}
4229       \field{author}
4230       \field{editor}
4231       \field{translator}
4232       \field{sorttitle}
4233       \field{title}
4234       \field{library}
4235     }
4236     \sort{
4237       \field{sorttitle}
4238       \field{title}
4239     }
4240     \sort{
4241       \field{sortyear}
4242       \field{year}
4243     }
4244     \sort{
4245       \field{volume}
4246       \literal{0}
4247     }

```

```
4248     \sort{
4249       \field{location}
4250     }
4251     \sort{
4252       \field{collection}
4253       \field{series}
4254     }
4255   }
4256
4257   \DeclareSortingTemplate{nyt}{
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{sortyear}
4275       \field{year}
4276     }
4277     \sort{
4278       \field{sorttitle}
4279       \field{title}
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{anyt}{
4295     \sort{
4296       \field{presort}
4297     }
4298     \sort{
4299       \field{labelalpha}
4300     }
4301     \sort[final]{
4302       \field{sortkey}
4303     }
4304     \sort{
4305       \field{sortname}
4306       \field{author}
4307       \field{editor}
4308       \field{translator}
4309       \field{sorttitle}
```

```

4310     \field{title}
4311     \field{library}
4312   }
4313   \sort{
4314     \field{sortyear}
4315     \field{year}
4316   }
4317   \sort{
4318     \field{sorttitle}
4319     \field{title}
4320   }
4321   \sort{
4322     \field{volume}
4323     \literal{0}
4324   }
4325   \sort{
4326     \field{location}
4327   }
4328   \sort{
4329     \field{collection}
4330     \field{series}
4331   }
4332 }

```

The following entry types never put editors first.

```

4333 \ExecuteBibliographyOptions
4334   [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4335   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}

```

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}}

```

2.2.2 SOURCE MAPS

```
34 \DeclareStyleSourceMap{%
35   \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.

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

2.3 Numeric style: oxnum.bbx

2.3.1 PRELIMINARIES

First we load the common oxref features.

```
20 \RequireBibliographyStyle{oxref}
```

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}}
```

2.3.2 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```

34 \ExecuteBibliographyOptions{labelnumber}
35
36 \providebool{bbx:subentry}
37
38 \DeclareBibliographyOption{subentry}[true]{%
39   \setbool{bbx:subentry}{#1}}
40
41 \DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
42 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
43 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
44
45 \defbibenvironment{bibliography}
46   {\list
47     {\printtext[labelnumberwidth]{%
48       \printfield[labelprefix]{%
49         \printfield[labelnumber]}}
50       {\setlength{\labelwidth}{\labelnumberwidth}%
51         \setlength{\leftmargin}{\labelwidth}%
52         \setlength{\labelsep}{\biblabelsep}%
53         \addtolength{\leftmargin}{\labelsep}%
54         \setlength{\itemsep}{\bibitemsep}%
55         \setlength{\parsep}{\bibparsep}}%
56         \renewcommand*{\makeLabel}[1]{\hss#1}}
57     {\endlist}
58     {\item}
59
60 \defbibenvironment{shorthand}
61   {\list
62     {\printfield[shorthandwidth]{shorthand}}
63     {\setlength{\labelwidth}{\shorthandwidth}%
64       \setlength{\leftmargin}{\labelwidth}%
65       \setlength{\labelsep}{\biblabelsep}%
66       \addtolength{\leftmargin}{\labelsep}%
67       \setlength{\itemsep}{\bibitemsep}%
68       \setlength{\parsep}{\bibparsep}}%
69     {\renewcommand*{\makeLabel}[1]{\hss#1}}}
70   {\endlist}
71   {\item}
72
73 \DeclareBibliographyDriver{set}{%
74   \entryset
75     {\ifbool{bbx:subentry}
76       {\printfield[bibentrysetcount]{entrysetcount}}%
77   \printunit*{\adddnbspace}}
78   {}
79   {}%
80   \newunit\newblock
81   \usebibmacro{setpageref}%
82   \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,page tracker,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 `date label` field format.

```
29 \providebibmacro*{date+extradate}{}
30 \DeclareFieldFormat{date label}{\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 \DeclareBibliographyOption{nonodate}[true]{%
70   \settoggle{blx@ox@nonodate}{#1}}
71 \DeclareTypeOption{nonodate}[true]{%
72   \settoggle{blx@ox@nonodate}{#1}}
73 \DeclareEntryOption{nonodate}[true]{%
74   \settoggle{blx@ox@nonodate}{#1}}
75 \newbibmacro*{labeldate}{%
76   \ifboolexpr{
77     test {\iffieldequalstr{labeldatesource}{nodate}}
78     and
79     togl {blx@ox@nonodate}
80   }{\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 or `igdate` 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).

```

81 \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.

```

82 \def\bbx@opt@mergedate@maximum{%
83   \renewbibmacro*{date+extradate}{%
84     \iffieldundef{labelyear}}{%
85     \iflabeldateisdate{%
86       \printtext[datelabel]{%
87         \printfield{issue}\clearfield{issue}%
88         \setunit*{\addspace}%
89         \printdateextra}%
90     \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}}%

```

```

91     }{%
92     \iflabeldateisanydate{%
93     \printtext[datelabel]{%
94     \csuse{print\thefield{labeldatesource}dateextra}}%
95     \clearfield{\thefield{labeldatesource}year}%
96     \clearfield{\thefield{labeldatesource}season}%
97     \clearfield{\thefield{labeldatesource}month}%
98     \clearfield{\thefield{labeldatesource}day}%
99     }{%
100    \usebibmacro{labeldate}%
101    \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.

```

102 \def\bbx@opt@mergedate@compact{%
103 \renewbibmacro*{date+extradate}{%
104 \iffieldundef{labelyear}}{}{%
105 \iflabeldateisdate{%
106 \printtext[datelabel]{\printdateextra}%
107 \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
108 }{%
109 \iflabeldateisanydate{%
110 \printtext[datelabel]{%
111 \csuse{print\thefield{labeldatesource}dateextra}}%
112 \clearfield{\thefield{labeldatesource}year}%
113 \clearfield{\thefield{labeldatesource}season}%
114 \clearfield{\thefield{labeldatesource}month}%
115 \clearfield{\thefield{labeldatesource}day}%
116 }{%
117 \usebibmacro{labeldate}%
118 \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.

```

119 \def\bbx@opt@mergedate@year{%
120 \renewbibmacro*{date+extradate}{%
121 \iffieldundef{labelyear}}{}{%
122 \usebibmacro{labeldate}%
123 \iflabeldateisdate{%
124 \clearfield{year}
125 }{%
126 \iflabeldateisanydate{%
127 \clearfield{\thefield{labeldatesource}year}%
128 }{%
129 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}
130 }}}}

```

- 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.

```

131 \def\bbx@opt@mergedate@basic{%
132 \renewbibmacro*{date+extradate}{%
133 \iffieldundef{labelyear}}{}{%

```

```

134 \usebibmacro{labeldate}%
135 \iflabeldateisdate{%
136   \ifboolexpr{
137     test {\ifdateshavedifferentprecision{label}}{}
138     or
139     not test {\iffieldundef{issue}}
140   }{}{%
141     \clearfield{year}}%
142 }{%
143   \iflabeldateisanydate{%
144     \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{}{%
145       \clearfield{\thefield{labeldatesource}year}}%
146   }{}%
147   \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
148 }}}}

```

- `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.

```

149 \def\bbx@opt@mergedate@minimum{%
150   \renewbibmacro*{date+extradate}{%
151     \iffieldundef{labelyear}}{}{%
152       \usebibmacro{labeldate}%
153       \iflabeldateisdate{%
154         \ifboolexpr{
155           test {\ifdateshavedifferentprecision{label}}{}
156           or
157           not test {\iffieldundef{extradate}}
158           or
159           not test {\iffieldundef{issue}}
160         }{}{%
161           \clearfield{year}}%
162       }{%
163         \iflabeldateisanydate{%
164           \ifboolexpr{
165             test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}%
166             or
167             not test {\iffieldundef{extradate}}
168           }{}{%
169             \clearfield{\thefield{labeldatesource}year}}%
170         }{}%
171         \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
172       }}}}

```

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

```

173 \def\bbx@opt@mergedate@false{%
174   \renewbibmacro*{date+extradate}{%
175     \iffieldundef{labelyear}}{}{%
176       \usebibmacro{labeldate}%
177       \iflabeldateisanydate{}{}%
178       \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
179     }}}}

```

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

```
180 \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`.

```
181 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
182 \iffieldundef{#2month}}{%
183 \datecircaprint
184 \printtext[#2date]{%
185 \iffieldundef{#2season}}{%
186 \csuse{mkbibdate#1}{#2month}{#2day}%
187 \blx@printtime{#2}{%
188 }{%
189 \csuse{mkbibseasondate#1}{#2season}}%
190 \dateuncertainprint
191 \iffieldundef{#2endmonth}}{%
192 \iffieldequalstr{#2endmonth}}{%
193 \mbox{\bibdaterangesep}%
194 }{%
195 \bibdaterangesep
196 \enddatecircaprint
197 \iffieldundef{#2season}}{%
198 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
199 \blx@printtime{#2}{end}%
200 }{%
201 \csuse{mkbibseasondate#1}{#2endseason}}%
202 \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.

```
203 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
204 \iffieldundef{#2month}}{%
205 \datecircaprint
206 \printtext[#2date]{%
207 \iffieldundef{#2season}}{%
208 \ifboolexpr{
209 test {\iffieldsequal{labelyear}{labelendyear}}
210 and
211 test {\iffieldsequal{#2month}{#2endmonth}}
212 }{%
213 \csuse{mkbibdate#1}{#2}{#2day}%
214 }{%
215 \csuse{mkbibdate#1}{#2month}{#2day}%
216 }{%
217 \csuse{mkbibseasondate#1}{#2season}}%
218 \dateuncertainprint
219 \iffieldundef{#2endmonth}}{%
220 \iffieldequalstr{#2endmonth}}{%
221 \mbox{\bibdaterangesep}%
222 }{%
223 \bibdaterangesep
224 \enddatecircaprint
225 \iffieldundef{#2season}}{%
226 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
```

```

227 }{%
228   \csuse{mkbibseasondate#1}{#2endseason}}%
229   \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.

```

230 \xpatchcmd{\mkdaterangefull}{%
231   \iffieldundef{#2year} {\blx@nunit}}%
232 }{%
233   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
234 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangefull}}
235 \xpatchcmd{\mkdaterangetrunc@i}{%
236   \iffieldundef{#2year} {\blx@nunit}}%
237 }{%
238   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
239 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangetrunc@i}}
240 \xpatchcmd{\mkdaterangefullextra}{%
241   \iffieldundef{#2year} {\blx@nunit}}%
242 }{%
243   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
244 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangefullextra}}
245 \xpatchcmd{\mkdaterangetruncextra@i}{%
246   \iffieldundef{#2year} {\blx@nunit}}%
247 }{%
248   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
249 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangetruncextra@i}}

```

2.4.3 BIBLIOGRAPHY FORMATTING

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

```

250 \DeclareFieldFormat{shorthandwidth}{#1}

```

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

```

251 \xpretonameformat{family-given}{%
252   \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}}%
253   \ifitemannotation{inferred}{\bibopenbracket}}}%
254 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to family-given}}
255 \xpatchnameformat{family-given}{%
256   \usebibmacro{name:andothers}}%
257 }{%
258   \ifitemannotation{pseudo}{%
259     \addspace\printtext[parens]{\bibsstring{pseudo}}%
260   }%
261   \ifitemannotation{inferred}{\bibclosebracket}}}%
262   \usebibmacro{name:andothers}}%
263   \iffieldannotation{inferred}{%
264     \ifboolexpr{
265       test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
266       or
267       test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
268       or (
269         test {\ifnumequal{\value{listcount}}{\value{minnames}}}
270         and
271         test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
272     }{\bibclosebracket}}}%

```

```

273   }{}%
274   }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch family-given}}
275   \DeclareNameAlias{shortauthor}{family-given}
276   \DeclareNameAlias{shorteditor}{family-given}

```

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

```

277   \DeclareNameAlias{sortname}{family-given}
278   \DeclareNameAlias{author}{family-given}
279   \DeclareNameAlias{editor}{family-given}
280   \DeclareNameAlias{translator}{family-given}

```

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

```

281   \defbibenvironment{bibliography}
282     {\list
283       {}
284       {\setlength{\leftmargin}{\bibhang}%
285         \setlength{\itemindent}{-\leftmargin}%
286         \setlength{\itemsep}{\bibitemsep}%
287         \setlength{\parsep}{\bibparsep}}
288     {\endlist}
289     {\item}

```

The shorthand formatting is just like authoryear.

```

290   \defbibenvironment{shorthand}
291     {\list
292       {\printfield[shorthandwidth]{shorthand}}
293       {\setlength{\labelwidth}{\shorthandwidth}%
294         \setlength{\leftmargin}{\labelwidth}%
295         \setlength{\labelsep}{\biblabelsep}%
296         \addtolength{\leftmargin}{\labelsep}%
297         \setlength{\itemsep}{\bibitemsep}%
298         \setlength{\parsep}{\bibparsep}%
299         \renewcommand*{\makelabel}[1]{##1\hss}}
300     {\endlist}
301     {\item}

```

2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in authoryear.

```

302   \InitializeBibliographyStyle{\global\undef\bbx@lasthash}

```

We ensure related entries do not interfere with the hashing.

```

303   \xapptobibmacro{begrelated}{%
304     \booltrue{bbx@inset}}%
305   }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to append to begrelated}}
306   \xapptobibmacro{endrelated}{%
307     \usebibmacro*{bbx:savehash}}%
308   }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to append to endrelated}}

```

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

```

309 \xpatchbibmacro{author}{%
310   \iffieldundef{authortype}%
311 }{%
312   \usebibmacro{date+extradate}%
313   \setunit*{\addspace}%
314   \iffieldundef{authortype}%
315 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch author (authortype)}}%
316 \xpatchbibmacro{author}{%
317   \global\undef\bbx@lasthash
318 }{%
319   \global\undef\bbx@lasthash
320   \usebibmacro{labeltitle}%
321   \setunit*{\addspace}%
322   \usebibmacro{date+extradate}%
323 }{\wlog{WARNING: biblatex-oxref (oxyear) 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.

```

324 \xpatchbibmacro{namepairs}{%
325   \printnames[by#1]%
326 }{%
327   \printnames[#1]%
328 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch namepairs}}
329 \xpatchbibmacro{author+altauthor}{%
330   \printnames{author}%
331 }{%
332   \ifboolexpr{%
333     ( not test {\ifnameundef{shortauthor}} )
334     and
335     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
336   }{%
337     \usebibmacro{namepairs}{author}{shortauthor}%
338   }{%
339     \printnames{author}%
340   }%
341 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch author+altauthor}}%

```

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

```

342 \xpatchbibmacro{bbx:editor}{%
343   \usebibmacro{#1}%
344 }{%
345   \usebibmacro{date+extradate}%
346   \setunit*{\addspace}%
347   \usebibmacro{#1}%
348 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor}}%
349 \xpatchbibmacro{bbx:editor}{%
350   \global\undef\bbx@lasthash
351 }{%
352   \global\undef\bbx@lasthash
353   \usebibmacro{labeltitle}%
354   \setunit*{\addspace}%
355   \usebibmacro{date+extradate}%
356 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor (lasthash)}}%
357 \xpatchbibmacro{editor+altditor}{%
358   \printnames[byeditor]%
359 }{%
360   \printnames[editor]%

```

```

361 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+altditor}}
362 \xpatchbibmacro{editor+altditor}{%
363   \printnames{editor}%
364 }{%
365   \ifboolexpr{%
366     ( not test {\ifnameundef{shorteditor}} )
367     and
368     test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
369   }{%
370     \usebibmacro{namepairs}{editor}{shorteditor}%
371   }{%
372     \printnames{editor}%
373   }%
374 }{\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.

```

375 \xpatchbibmacro{bbx:translator}{%
376   \global\undef\bbx@lasthash
377 }{%
378   \global\undef\bbx@lasthash
379   \usebibmacro{labeltitle}%
380   \setunit*\addspace}%
381 \usebibmacro{date+extradate}%
382 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:translator (lasthash)}}%
383 \xpatchbibmacro{bbx:translator}{%
384   \usebibmacro{#1}%
385 }{%
386   \usebibmacro{date+extradate}%
387   \setunit*\addspace}%
388 \usebibmacro{#1}%
389 }{\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.

```

390 \newtoggle{blx@ox@clearedtitle}
391 \newbibmacro*{labeltitle}{%
392   \iffieldundef{label}{%
393     \iffieldundef{shorttitle}{%
394       \ifboolexpr{
395         test {\iffieldundef{title}}
396         and
397         test {\iffieldundef{subtitle}}
398       }{%
399         \printfield{library}%
400         \clearfield{library}%
401       }{%
402         \printtext[title]{%
403           \printfield[titlecase]{title}%
404           \setunit{\subtitlepunct}%
405           \printfield[titlecase]{subtitle}}%
406         \clearfield{title}%
407         \clearfield{subtitle}%
408         \toggletrue{blx@ox@clearedtitle}%
409         \setunit{\addspace}%
410       }%
411     }%
412     \printtext[title]{\printfield[titlecase]{shorttitle}}%
413   }%

```



```

414   }{%
415     \printfield{label}%
416   }%
417 }

```

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

```

418 \xpretobibmacro{maintitle+title}{%
419   \iftoggle{blx@ox@clearedtitle}{%
420     \usebibmacro{maintitle+volume}%
421     \clearfield{maintitle}%
422     \clearfield{volume}%
423   }{%
424   }{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to maintitle+title}}
425 \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.

```

426 \xpatchbibdriver{online}{%
427   \iffieldundef{year}%
428 }{%
429   \ifboolexpr{
430     test {\iffieldundef{season}}
431     and
432     test {\iffieldundef{month}}
433   }%
434 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch online}}

```

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

```

435 \DeclareFieldFormat[bookinbook]{citetitle}{%
436   \ifboolexpr{
437     test {\iffieldequalstr{entrysubtype}{poem}}
438     or
439     test {\iffieldequalstr{entrysubtype}{play}}
440   }{%
441     \mkbibemph{#1}%
442   }{%
443     \mkbibquote{#1\isdot}}
444 \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
445   image,manuscript,unpublished]{citetitle}{%
446   \def\currentfield{title}%
447   \ifboolexpr{
448     test {\iffieldannotation{descriptor}}
449     or (
450       test {\iffieldundef{shorttitle}}
451       and
452       test {\iffieldundef{title}}
453     )
454   }{#1}{\mkbibquote{#1\isdot}}%
455   \undef\currentfield}
456 \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
457   image,manuscript,unpublished]{citetitle}{%
458   \def\currentfield{title}%
459   \ifboolexpr{
460     test {\iffieldannotation{descriptor}}
461     or (

```

```

462     test {\iffieldundef{shorttitle}}
463     and
464     test {\iffieldundef{title}}
465   )
466 }{#1}{\mkbibquote{#1\isdot}}%
467 \undef\currentfield}
468 \DeclareFieldFormat[audio,music]{citetitle}{%
469 \def\currentfield{title}%
470 \ifboolexpr{
471   test {\iffieldannotation{descriptor}}
472   or (
473     test {\iffieldundef{shorttitle}}
474     and
475     test {\iffieldundef{title}}
476   )
477 }{#1}{%
478   \iffieldequalstr{entrysubtype}{podcast}{%
479   \mkbibquote{#1\isdot}}%
480 }{%
481   \mkbibemph{#1}}}%
482 \undef\currentfield}
483 \DeclareFieldFormat[movie,video]{citetitle}{%
484 \def\currentfield{title}%
485 \ifboolexpr{
486   test {\iffieldannotation{descriptor}}
487   or (
488     test {\iffieldundef{shorttitle}}
489     and
490     test {\iffieldundef{title}}
491   )
492 }{#1}{%
493   \ifboolexpr{
494     test {\iffieldequalstr{entrysubtype}{episode}}
495     or
496     test {\iffieldequalstr{entrysubtype}{clip}}
497     or
498     test {\iffieldequalstr{entrysubtype}{webcast}}
499   }{%
500     \mkbibquote{#1\isdot}}%
501 }{%
502     \mkbibemph{#1}}}%
503 \undef\currentfield}
504 \DeclareFieldFormat[legislation,legal]{citetitle}{#1}
505 \DeclareFieldFormat[misc]%
506   {citetitle}{%
507 \def\currentfield{title}%
508 \ifboolexpr{
509   test {\iffieldannotation{descriptor}}
510   or (
511     test {\iffieldundef{shorttitle}}
512     and
513     test {\iffieldundef{title}}
514   )
515 }{#1}{%
516   \iffieldequalstr{relatedtype}{in}{%
517   \mkbibquote{#1\isdot}}%
518 }{%
519   \mkbibemph{#1}}%
520 }}%
521 \undef\currentfield}

```

2.4.5 JOURNAL DIVISION FORMATTING

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

```

522 \renewcommand*{\bibpagespunct}{%
523   \ifboolexpr{
524     test {\ifentrytype{article}}
525     or
526     test {\ifentrytype{supperiodical}}
527     or
528     test {\ifentrytype{review}}
529   }{%
530     \addcolon\space
531   }{%
532     \addcomma\space
533   }%
534 }

```

2.4.6 MANUSCRIPTS

We include the library field as a fallback title.

```

535 \DeclareLabeltitle{%
536   \field{shorttitle}
537   \field{title}
538   \field{maintitle}
539   \field{library}
540 }

```

2.4.7 SOURCE MAPS

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

```

541 \DeclareStyleSourcemap{%
542   \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.

```

543   \map[overwrite=true]{
544     \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
545     \step[fieldsource=sortyear, final]
546     \step[fieldset=options, append, fieldvalue={,nonodate}]
547   }
548   \map[overwrite=true]{
549     \step[notfield=options, final]
550     \step[fieldsource=sortyear, final]
551     \step[fieldset=options, fieldvalue={nonodate}]
552   }

```

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.

```

553     \map[overwrite=false]{
554         \pertype{standard}
555         \step[notfield=author,
556             fieldsource=number,
557             fieldtarget=label]
558     }
559 }}

```

2.5 Alphabetic style: oxalph.bbx

2.5.1 PRELIMINARIES

This style is based on oxyear.

```

20 \RequireBibliographyStyle{oxyear}

```

2.5.2 SUPPRESSING LABELEXTRA

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

```

```

49     {\printtext[labelalphawidth]{%
50       \printfield{labelprefix}%
51 \printfield{labelalpha}%
52       \printfield{extraalpha}}}
53     {\setlength\labelwidth{\labelalphawidth}%
54     \setlength\leftmargin{\labelwidth}%
55     \setlength\labelsep{\biblabelsep}%
56     \addtolength\leftmargin{\labelsep}%
57     \setlength\itemsep{\bibitemsep}%
58     \setlength\parsep{\bibparsep}}%
59     \renewcommand*\makeLabel[1]{##1\hss}}
60 {\endlist}
61 {\item}
62
63 \defbibenvironment{shorthand}
64 {\list
65   {\printfield[shorthandwidth]{shorthand}}
66   {\setlength\labelwidth{\shorthandwidth}%
67   \setlength\leftmargin{\labelwidth}%
68   \setlength\labelsep{\biblabelsep}%
69   \addtolength\leftmargin{\labelsep}%
70   \setlength\itemsep{\bibitemsep}%
71   \setlength\parsep{\bibparsep}}%
72   \renewcommand*\makeLabel[1]{##1\hss}}}
73 {\endlist}
74 {\item}

```

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 \newbibmacro*{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 (oxyyear) 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*{\compcitedelim}{\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*{\compcitedelim}{\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}
```

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.

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

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

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

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

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

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

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

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

```
29 \DeclareDatamodelEntrytypes{manuscript}
30 \DeclareDatamodelFields[type=field,datatype=literal]{catalog, dating,%
31 shortlibrary, columns, collection, shortcollection, usualtitle, shelfmark,%
32 sortshelfmark, support, columns, layer}
33 \DeclareDatamodelFields[type=list,datatype=name]{scribe, owner}
```

```
34 \DeclareDatamodelFields[type=list,datatype=literal]{origin}  
35 \DeclareDatamodelEntryfields[manuscript]{catalog,dating,shortlibrary,%  
36 shortcollection,columns,languages,collection,usualtitle,shelfmark,%  
37 sortshelfmark,support,columns,origin,scribe,owner}
```

This data model helps with legal citations.

```
38 \DeclareDatamodelFields[type=field,datatype=date]{pardate}  
39 \DeclareDatamodelFields[type=field,datatype=literal]{parreporter,parseries}  
40 \DeclareDatamodelFields[type=field,datatype=integer]{parvolume}  
41 \DeclareDatamodelFields[type=field,datatype=range]{parpages}  
42 \DeclareDatamodelEntryfields[jurisdiction]{pardate,parreporter,parseries,%  
43 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\adddotsspace ed\adddot}},
44   serieseditors = {{series editors}{ser\adddotsspace eds\adddot}},
45   holder        = {{holder}{holder}},
46   holders       = {{holders}{holders}},
47   editorcm      = {{editor and compiler}{ed\adddotsspace and comp\adddot}},
48   editorcms     = {{editors and compilers}{eds\adddotsspace 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\addotsspace lay\addot}},
125  suplayer         = {{superior layer}}{sup\addotsspace lay\addot}},
126  paper            = {{paper}}{pap\addot}},
127  papyrus          = {{papyrus}}{papy\addot}},
128  parchment        = {{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\adddot}},
141   bycompiler        = {{compiled by}}{comp\adddot}},
142   byfounder         = {{founded by}}{found\adddot}},
143   bycontinuator     = {{continued by}}{cont\adddot}},
144   byredactor        = {{redacted by}}{red\adddot}},
145   byreviser         = {{revised by}}{rev\adddot}},
146   byreviewer        = {{reviewed by}}{rev\adddot}},
147   bycollaborator    = {{in collaboration with}}{in collab\adddotsspace with}},
148   bytranslator      = {{translated \lbox@lfromlang\ by}}{trans\adddot\ \lbox@sfromlang}},
149   bycommentator     = {{commented by}}{comm\adddot}},
150   byannotator       = {{annotated by}}{annot\adddot}},
151   byeditortr        = {{edited and translated \lbox@lfromlang\ by}}%
152                       {ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
153   byeditorco        = {{edited and commented by}}%
154                       {ed\adddotsspace and comm\adddot}},
155   byeditoran        = {{edited and annotated by}}%
156                       {ed\adddotsspace and annot\adddot}},
157   byeditorin        = {{edited, with an introduction, by}}%
158                       {ed.\adddotsspace with introduction}},
159   byeditorfo        = {{edited, with a foreword, by}}%
160                       {ed.\adddotsspace with foreword}},
161   byeditoraf        = {{edited, with an afterword, by}}%
162                       {ed.\adddotsspace with afterword}},
163   byeditortrco      = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented by}}%
164                       {ed.,\addabbrvspace trans\adddot\ \lbox@sfromlang\finalandcomma\ and
165                       ↪ comm\adddot}},
165   byeditortran      = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated by}}%
166                       {ed.,\addabbrvspace trans\adddot\ \lbox@sfromlang\finalandcomma\ and
167                       ↪ annot\adddot}},
167   byeditortrin      = {{edited and translated \lbox@lfromlang, with an introduction, by}}%
168                       {with introduction, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
169   byeditortrfo      = {{edited and translated \lbox@lfromlang, with a foreword, by}}%
170                       {with foreword, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
171   byeditortraf      = {{edited and translated \lbox@lfromlang, with an afterword, by}}%
172                       {with afterword, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
173   byeditorcoin      = {{edited and commented, with an introduction, by}}%
174                       {with introduction, ed\adddotsspace and comm\adddot}},
175   byeditorcofo      = {{edited and commented, with a foreword, by}}%
176                       {with foreword, ed\adddotsspace and comm\adddot}},
177   byeditorcoaf      = {{edited and commented, with an afterword, by}}%
178                       {with afterword, ed\adddotsspace and comm\adddot}},
179   byeditoranin      = {{edited and annotated, with an introduction, by}}%
180                       {with introduction, ed\adddotsspace and annot\adddot}},
181   byeditoranfo      = {{edited and annotated, with a foreword, by}}%
182                       {with foreword, ed\adddotsspace and annot\adddot}},
183   byeditoranaf      = {{edited and annotated, with an afterword, by}}%
184                       {with afterword, ed\adddotsspace and annot\adddot}},
185   byeditortrcoin    = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented, with
186                       ↪ an introduction, by}}%
187                       {with introduction, ed.,\addabbrvspace trans\adddot\
188                       ↪ \lbox@sfromlang\finalandcomma\ and comm\adddot}},
```

```

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\addotspace trans\addotspace 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.