

OXREF BUNDLE

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

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v3.0

Contents

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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 2016–2023 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, amendedby,
```

- 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, parchment,
 42 eucase, eujoinedcases, commissiondecision, application,
 43 order, bill, draft, opened, signed, adopted, inforce,
 44 }

The `\blx@ox@langbibstring` utility is used to prefix a bibstring with one or more language names, but since this only works in certain languages, by default it discards the language names (first argument) and just prints the bibstring (second argument). This is overridden in `english-oxref.lbx` and `friends`.

45 `\def\blx@ox@langbibstring#1#2{\bibstring{#2}}`

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.

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

Here are the new default punctuation conventions. The new `\recordseriespunct` is used for audiovisual resources, while `\cacasetitlepunct` and `\uscasetitlepunct` are for punctuation following the case title in Canadian and American cases respectively.

```

48 \renewcommand*\labelnamepunct}{\addcomma\space}
49 \renewcommand*\newunitpunct}{\addcomma\space}
50 \renewcommand*\subtitlepunct}{\addcolon\space}
51 \renewcommand*\intitlepunct}{\nopunct\space}
52 \renewcommand*\bibnamedash{\resizebox{2em}{\height}{\textendash}\addthinspace}
53 \newcommand*\recordseriespunct}{\addcomma\space}
54 \newcommand*\cacasetitlepunct}{\addcomma\space}
55 \newcommand*\uscasetitlepunct}{\addcomma\space}
56 \renewcommand*\relateddelim}{\addsemicolon\space}
57 \DeclareDelimFormat{revsdnamedelim}{\addcomma}
58 \DeclareDelimFormat{authortypedelim}{\addspace}
59 \DeclareDelimFormat{editortypedelim}{\addspace}
60 \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.

```

61 \DeclareNameAlias{bookauthor}{default}
62 \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.

```

63 \newtoggle{blx@ox@scnames}
64 \DeclareBibliographyOption{scnames}[true]{%
65   \settoggle{blx@ox@scnames}{#1}
66 }

```

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.

```

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

```

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

```

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

```

Here is the one for inverted name order.


```

82 \newbibmacro*{name:family-title-given}[5]{%
83   \ifuseprefix{%
84     \usebibmacro{name:delim}{#3#1}%
85     \usebibmacro{name:hook}{#3#1}%
86     \ifdefvoid{#3}{}{%
87       \ifcapital{%
88         \mkbibnameprefix{\MakeCapital{#3}}\isdot
89       }{%
90         \mkbibnameprefix{#3}\isdot}%
91     \ifprefchar{}{\bibnamedelimc}}%
92   \mkbibnamefamily{#1}\isdot
93   \ifdefvoid{#4}{}{\ifnumeral{#4}{\addcomma}\bibnamedelim\mkbibnamesuffix{#4}\isdot}%
94   \ifboolexpe{%
95     (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
96     and
97     test {\ifdefvoid{#2}}%
98   }{}{%
99     \printdelim{revsdnamedelim}}%
100  \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelim\mkbibnametitle{#5}\isdot}{}}%
101  \ifdefvoid{#2}{}{\bibnamedelim\mkbibnamegiven{#2}\isdot}%
102 }{}%
103   \usebibmacro{name:delim}{#1}%
104   \usebibmacro{name:hook}{#1}%
105   \mkbibnamefamily{#1}\isdot
106   \ifdefvoid{#4}{}{\ifnumeral{#4}{\addcomma}\bibnamedelim\mkbibnamesuffix{#4}\isdot}%
107   \ifboolexpe{%
108     (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
109     and
110     test {\ifdefvoid{#2}}
111     and
112     test {\ifdefvoid{#3}}%
113   }{}{%
114     \printdelim{revsdnamedelim}}%
115   \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelim\mkbibnametitle{#5}\isdot}{}}%
116   \ifdefvoid{#2}{}{\bibnamedelim\mkbibnamegiven{#2}\isdot}%
117   \ifdefvoid{#3}{}{\bibnamedelim\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.

```

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

```

```

137 }{%
138   \usebibmacro{name:family-title-given}%
139     {\namepartfamily}%
140     {\namepartgiven}%
141     {\namepartprefix}%
142     {\namepartsuffix}%
143     {\nameparttitle}%
144 }%
145 \savefield[hash]{\blx@ox@lasthash}%
146 \ifitemannotation{pseudo}{%
147   \addspace\printtext[parens]{%
148     \iftoggle{blx@ox@scnames}{%
149       \textsc{\bibsstring{pseudo}}%
150     }{%
151       \bibsstring{pseudo}%
152     }}%
153 }{}%
154 \iftoggle{blx@ox@scnames}{%
155   \renewcommand*{\mkbibnamefamily}[1]{##1}%
156   \renewcommand*{\mkbibnamegiven}[1]{##1}%
157   \renewcommand*{\mkbibnameprefix}[1]{##1}%
158   \renewcommand*{\mkbibnamesuffix}[1]{##1}%
159   \renewcommand*{\mkbibnametitle}[1]{##1}%
160 }{}%
161 \ifboolexpe{%
162   test {\ifnumgreater{\value{listcount}}{1}}
163   or (
164     test {\ifdefvoid\namepartgiven}
165     and
166     test {\ifdefvoid\namepartprefix}
167   )
168 }{}{\usebibmacro{name:revsdelim}}%
169 }{%
170   \ifgiveninits{%
171     \usebibmacro{name:title-given-family}%
172       {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}}%
173       {\namepartgiveni}%
174       {\namepartprefix}%
175       {\namepartsuffix}%
176       {\nameparttitle}%
177   }{%
178     \usebibmacro{name:title-given-family}%
179       {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}}%
180       {\namepartgiven}%
181       {\namepartprefix}%
182       {\namepartsuffix}%
183       {\nameparttitle}%
184   }%
185   \savefield[hash]{\blx@ox@lasthash}%
186 }%
187 \ifitemannotation{inferred}{\bibclosebracket}{}%
188 \usebibmacro{name:andothers}%
189 \iffieldannotation{inferred}{%
190   \ifboolexpr{
191     test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
192     or
193     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
194     or (
195       test {\ifnumequal{\value{listcount}}{\value{minnames}}}
196       and
197       test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
198     )

```

```

199     }\bibclosebracket}{}%
200   }{}%
201 }

```

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`.

```

202 \newtoggle{blx@ox@variantname}
203 \DeclareNameFormat{given-family}{%
204   \ifgiveninits
205     {\usebibmacro{name:title-given-family}
206       {\namepartfamily}
207       {\namepartgiveni}
208       {\namepartprefix}
209       {\namepartsuffix}
210       {\nameparttitle}}
211     {\usebibmacro{name:title-given-family}
212       {\namepartfamily}
213       {\namepartgiven}
214       {\namepartprefix}
215       {\namepartsuffix}
216       {\nameparttitle}}%
217   \savefield{hash}{\blx@ox@lasthash}%
218   \ifitemannotation{variant}{%
219     \global\settoggle{blx@ox@variantname}{true}%
220   }{%
221     \global\settoggle{blx@ox@variantname}{false}%
222   \usebibmacro{name:andothers}}

```

We do likewise for the regular family-given format.

```

223 \DeclareNameFormat{family-given}{%
224   \ifgiveninits
225     {\usebibmacro{name:family-title-given}
226       {\namepartfamily}
227       {\namepartgiveni}
228       {\namepartprefix}
229       {\namepartsuffix}
230       {\nameparttitle}}
231     {\usebibmacro{name:family-title-given}
232       {\namepartfamily}
233       {\namepartgiven}
234       {\namepartprefix}
235       {\namepartsuffix}
236       {\nameparttitle}}%
237   \savefield{hash}{\blx@ox@lasthash}%
238   \ifitemannotation{variant}{%
239     \global\settoggle{blx@ox@variantname}{true}%
240   }{%
241     \global\settoggle{blx@ox@variantname}{false}%
242   \ifboolexpe{%
243     test {\ifnumgreater{\value{listcount}}{1}}
244     or (
245       test {\ifdefvoid\namepartgiven}
246       and
247       test {\ifdefvoid\namepartprefix}
248     )
249   }{\usebibmacro{name:revsdelim}}%
250   \usebibmacro{name:andothers}}

```

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

```

251 \xpatchbibmacro{name:given-family}%
252   {\bibnamedelimd\mkbibnamesuffix{#4}}%
253   {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
254   {\wlog{WARNING: biblatex-oxref failed to patch name:given-family}}
255 \xpatchbibmacro{name:family-given}%
256   {\bibnamedelimd\mkbibnamesuffix{#4}}%
257   {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
258   {\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).

```

259 \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
260 \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.

```

261 \newcounter{namepairs}
262 \newsavebox{\blx@ox@namebox}
263 \newsavebox{\blx@ox@altnamebox}
264 \newbibmacro*{namepairs}[2]{%
265   \setcounter{namepairs}{0}%
266   \savebibmacro{name:andothers}%
267   \renewbibmacro*{name:andothers}{}%
268   \whileboolexpr{%
269     test {\ifnumless{\value{namepairs}}{\value{#1}}}
270     and (
271       test {\ifdefvoid{\c@maxnames}}
272       or
273       test {\ifnumequal{\c@maxnames}{0}}
274       or
275       test {\ifnumless{\value{#1}}{\c@maxnames}}
276       or
277       test {\ifnumequal{\value{#1}}{\c@maxnames}}
278       or
279       test {\ifdefvoid{\c@minnames}}
280       or
281       test {\ifnumequal{\c@minnames}{0}}
282       or
283       test {\ifnumless{\value{namepairs}}{\c@minnames}}
284     )
285   }{%
286     \stepcounter{namepairs}%
287     \ifnumgreater{\value{namepairs}}{1}{%
288       \ifnumequal{\value{#1}}{2}{%
289         \setunit*{\addspace\bibstring{and}\addspace}%
290       }{%
291         \ifnumequal{\value{namepairs}}{\value{#1}}{%
292           \setunit*{\addcomma\space\bibstring{and}\addspace}%
293         }{%

```

```

294     \setunit*{\addcomma\space}%
295     }%
296   }%
297 }{}%
298 \savebox{\blx@ox@namebox}{%
299   \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
300 }%
301 \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.

```

302 \IfEndWith{#2}{addon}{%
303   \savebox{\blx@ox@altnamebox}{%
304     \printnames[by#1][\value{namepairs}-\value{namepairs}]{#2}%
305   }%
306   \let\blx@ox@secondhash=\blx@ox@lasthash
307   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
308     \unhbox\blx@ox@namebox
309   }{%
310     \unhbox\blx@ox@namebox\addspace
311     \iftoggle{blx@ox@variantname}{%
312       \ifbibliography{%
313         ↪ \printtext[namevariant]{\printnames[#1][\value{namepairs}-\value{namepairs}]{#2}}%
314       }{}%
315     }{}%
316     \printtext[nameaddon]{\unhbox\blx@ox@altnamebox}%
317   }%
318 }%

```

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.

```

319 }{}%
320 \savebox{\blx@ox@altnamebox}{%
321   \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
322 }%
323 \let\blx@ox@secondhash=\blx@ox@lasthash
324 \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
325   \unhbox\blx@ox@namebox
326 }{%
327   \unhbox\blx@ox@altnamebox
328   \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
329 }%
330 }%
331 }%

```

Now we return to common code.

```

332 \ifboolexpr{
333   test {\ifnumequal{\value{namepairs}}{\c@minnames}}
334   and
335   test {\ifnumgreater{\value{#1}}{\c@maxnames}}
336 }{%
337   \ifnumgreater{\c@minnames}{1}{%
338     \finalandcomma
339   }{}%
340   \printdelim{andothersdelim}\bibstring{andothers}%
341 }{}%

```

```

342 \restorebibmacro{name:andothers}%
343 }

```

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

```

344 \newbibmacro*{author+altauthor}{%
345   \ifbool{expr}{
346     test {\ifnameundef{authoraddon}}
347     and
348     test {\ifnameundef{jointauthor}}
349   }{%
350     \printnames{author}%
351   }{%
352     \ifnumequal{\value{authoraddon}}{\value{author}}{%
353       \usebibmacro{namepairs}{author}{authoraddon}%
354     }{%
355       \printnames{author}%
356       \ifnameundef{authoraddon}{%
357         \setunit*{\addspace}%
358         \printtext[nameaddon]{\printnames[byauthor]{authoraddon}}%
359       }%
360       \ifnameundef{jointauthor}{%
361         \setunit{\addcomma\space}%
362         \iffieldundef{jointauthortype}{%
363           \bibstring{byeditor}%
364         }{%
365           \printfield{jointauthortype}%
366           \setunit{\addspace}%
367           \printnames[author]{jointauthor}%
368         }%
369       }%
370     }
371 \DeclareFieldFormat{jointauthortype}{%
372   \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

373 \newbibmacro*{editor+altditor}{%
374   \ifnameundef{editoraddon}{%
375     \printnames{editor}%
376   }{
377     \ifnumequal{\value{editoraddon}}{\value{editor}}{%
378       \usebibmacro{namepairs}{editor}{editoraddon}%
379     }{%
380       \printnames{editor}%
381       \setunit*{\addspace}%
382       \printtext[nameaddon]{\printnames[byeditor]{editoraddon}}%
383     }%
384   }%
385 }

```

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`.

```

386 \newbibmacro*{bbx:savehash}{}
387 \DeclareBibliographyOption{dashed}[true]{%
388   \ifstrequal{#1}{true}{%
389     \ExecuteBibliographyOptions{pagetracker}%

```

```

390     \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}%
391   }{%
392     \renewbibmacro*{bbx:savehash}{}%
393   }%
394 }
395 \InitializeBibliographyStyle{%
396   \global\undef\bbx@lasthash}
397 \newbibmacro*{bbx:dashcheck}[2]{%
398   \ifboolexpr{
399     test {\iffieldequals{fullhash}{\bbx@lasthash}}
400     and
401     not test \iffirstonpage
402     and
403     (
404       not bool {bbx@inset}
405       or
406       test {\iffieldequalstr{entrysetcount}{1}}
407     )
408   }{#1}{#2}%
409 }

```

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

```

410 \newbool{bbx@inset}
411 \DeclareBibliographyDriver{set}{%
412   \booltrue{bbx@inset}%
413   \entryset{}{}%
414   \newunit\newblock
415   \usebibmacro{setpageref}%
416   \finentry}

```

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

```

417 \newtoggle{blx@ox@autoanon}
418 \newtoggle{blx@ox@abbranon}
419 \DeclareBibliographyOption[string]{anon}[short]{%
420   \ifcsdef{blx@ox@opt@anon@#1}{%
421     \csuse{blx@ox@opt@anon@#1}%
422   }{%
423     \PackageError{biblatex-oxref}
424     {Invalid option 'anon=#1'}
425     {Valid values are 'long', 'short', and 'literal'.}}%
426 \csdef{blx@ox@opt@anon@literal}{\togglefalse{blx@ox@autoanon}}
427 \csdef{blx@ox@opt@anon@long}{\toggletrue{blx@ox@autoanon}\togglefalse{blx@ox@abbranon}}
428 \csdef{blx@ox@opt@anon@short}{\toggletrue{blx@ox@autoanon}\toggletrue{blx@ox@abbranon}}

```

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

```

429 \DeclareStyleSourceMap{
430   \maps[datatype=bibtex]{%
431     \map{%
432       \step[fieldsource=author]%
433       \step[fieldset=rawauthor, origfieldval]%
434     }
435   }%
436 }

```

The author macro is enhanced from the standard version by

- checking if the author name is ‘Anonymous’;

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

```

437 \newcommand*\oxrefanon}{Anonymous}
438 \newtoggle{blx@ox@isanon}
439 \renewbibmacro*{author}{%
440   \iffieldequals{rawauthor}{\oxrefanon}{%
441     \toggletrue{blx@ox@isanon}%
442   }{%
443     \togglefalse{blx@ox@isanon}}%
444   \ifboolexpr{
445     test \ifuseauthor
446     and
447     ( not test {\ifnameundef{author}} )
448     and (
449       ( not togl {blx@ox@isanon} )
450       or
451       ( not togl {blx@ox@autoanon} )
452       or
453       test {\ifbibliography}
454     )
455   }
456   {\usebibmacro{bbx:dashcheck}
457     {\bibnamedash}
458     {\usebibmacro{bbx:savehash}%
459       \ifboolexpr{
460         togl {blx@ox@autoanon}
461         and
462         togl {blx@ox@isanon}
463       }{%
464         \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
465       }{%
466         \usebibmacro{author+altauthor}%
467       }%
468       \iffieldundef{nameaddon}
469       {}
470       {\setunit{\addspace}%
471         \printfield{nameaddon}}%
472       \setunit{\printdelim{author typedelim}}}%
473     \iffieldundef{author type}
474     {}
475     {\usebibmacro{authorstrg}%
476       \setunit{\addspace}}}%
477     {\global\undef\bbx@lasthash}}
478   \DeclareFieldFormat{author type}{\mkbibparens{#1}}

```

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

```

479 \newcommand{\titlebyauthor delim}{\addcomma\space}

```

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 similar to the normal one except we delegate printing editor names to `editor+alt editor`, and we don’t yet add the year label.

```

480 \renewbibmacro*{editor}{%
481   \usebibmacro{bbx:editor}{editorstrg}}
482 \renewbibmacro*{editor+others}{%

```



```

483 \usebibmacro{bbx:editor}{editor+othersstrg}}
484 \newbibmacro*{bbx:editor}[1]{%
485 \ifboolexpr{
486   test \ifuseeditor
487   and
488   not test {\ifnameundef{editor}}
489 }
490 {\usebibmacro{bbx:dashcheck}
491   {\bibnamedash}
492   {\usebibmacro{editor+altdeditor}}%
493   \setunit{\printdelim{editortypedelim}}}%
494   \usebibmacro{bbx:savehash}}%
495   \usebibmacro{#1}%
496   \clearname{editor}}
497   {\global\undef\bbx@lasthash}}
498 \DeclareFieldFormat{editortype}{\mkbibparens{#1}}

```

We do the same for translator as well.

```

499 \renewbibmacro*{translator}{%
500   \usebibmacro{bbx:translator}{translatorstrg}}
501 \renewbibmacro*{translator+others}{%
502   \usebibmacro{bbx:translator}{translator+othersstrg}}
503 \newbibmacro*{bbx:translator}[1]{%
504   \ifboolexpr{
505     test \ifusetranslator
506     and
507     not test {\ifnameundef{translator}}
508   }
509   {\usebibmacro{bbx:dashcheck}
510     {\bibnamedash}
511     {\printnames{translator}}%
512     \setunit{\printdelim{translatortypedelim}}}%
513     \usebibmacro{bbx:savehash}}%
514     \usebibmacro{#1}%
515     \clearname{translator}}%
516     \setunit{\addspace}}%
517     {\global\undef\bbx@lasthash}}
518 \xpatchbibmacro{translatorstrg}%
519   {\bibstring}%
520   {\bibstring[\mkbibparens]}%
521   {}{\wlog{WARNING: biblatex-oxref failed to patch translatorstrg}}}%
522 \xpatchbibmacro{translator+othersstrg}%
523   {\bibstring}%
524   {\bibstring[\mkbibparens]}%
525   {}{\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).

```

526 \renewbibmacro*{bybookauthor}{%
527   \ifnameequal{author}{bookauthor}%
528   {\bibstring{idem\thefield{gender}}}%
529   {\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 oxyer.

```

530 \newbibmacro*{bookeditor}{%
531   \ifboolexpr{
532     test \ifuseeditor
533     and
534     not test {\ifnameundef{editor}}
535   }{%
536     \ifnameequal{author}{editor}{%
537       \bibstring{idem\thefield{gender}}%
538       \setunit{\addspace}%
539       \usebibmacro{editor+othersstrg}%
540       \clearname{editor}%
541     }{%
542       \printnames[bookeditor]{editor}%
543       \setunit*{\addspace}%
544       \usebibmacro{editor+othersstrg}%
545       \clearname{editor}%
546     }%
547   }{}}

```

We provide a macro for printing series editors.

```

548 \newbibmacro*{byserieseditor}{%
549   \ifnameundef{serieseditor}
550   {}
551   {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
552     \setunit{\addspace}%
553     \printnames[byeditor]{serieseditor}%
554     \newunit}}
555

```

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.

```

556 \renewbibmacro*{title}{%
557   \ifboolexpr{
558     test {\iffieldundef{title}}
559     and
560     test {\iffieldundef{subtitle}}
561   }
562   {}
563   {\printtext[title]{%
564     \printfield[titlecase]{title}%
565     \setunit{\subtitlepunct}%
566     \printfield[titlecase]{subtitle}}%
567     \setunit{\addspace}}%
568   \usebibmacro{origtitle}%
569   \setunit*{\addspace}%
570   \printfield{titleaddon}%
571   \iffieldequalstr{relatedtype}{equals}{%
572     \iftoggle{bbx:related}{%
573       \usebibmacro{related:init}%
574       \usebibmacro{related}%
575       \clearfield{related}%
576     }{}%
577   }{}%
578 }
579 \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 (if appropriate) and ‘translation of’.

```

580 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
581 \newbibmacro*{origtitle}{%
582   \iffieldundef{origtitle}{}%
583   \iflistundef{language}{%
584     \printtext[parens]{\printfield{origtitle}}%
585   }{%
586     \printtext[brackets]{%
587       \blx@ox@langbibstring{\printlist{language}}{translationof}\addspace
588       \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

```

589 \newcommand{\blx@ox@compyear}[2]{%
590   \def\num@one{#1}%
591   \def\num@two{#2}%
592   \StrLen{\num@one}[\num@one@len]%
593   \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.

```

594 \ifboolexpr{
595   test {\ifnumequal{\num@one@len}{\num@two@len}}
596   and
597   test {\ifnumless{\num@one}{\num@two}}
598 }{%

```

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

```

599 \StrCompare{\num@one}{\num@two}[\Result]%
600 \ifnum\num@two@len>3%
601   \IfStrEq{\Result}{2}{\def\Result{1}}}%
602 \fi

```

In legal references, the truncated year is at least two digits.

```

603 \ifboolexpr{
604   (
605     test {\ifentrytype{jurisdiction}}
606     or
607     test {\ifentrytype{legislation}}
608   )
609   and
610   test {\IfStrEq{\Result}{4}}
611 }{\def\Result{3}}}%

```

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.

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

```
612 \StrGobbleLeft{0\#num@two}{\Result}%
613 }{\#num@two}}
```

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

```
614 \patchcmd{\mkdaterangefull}{%
615 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
616 }{%
617 \iffieldundef{#2endmonth}%
618 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
619 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
620 }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefull}}
621 \patchcmd{\mkdaterangefullextra}{%
622 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
623 }{%
624 \iffieldundef{#2endmonth}%
625 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
626 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
627 }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}
628 \patchcmd{\mkdaterangetrunc@i}{%
629 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
630 }{%
631 \iffieldundef{#2endmonth}%
632 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
633 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
634 }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}
635 \patchcmd{\mkdaterangetruncextra@i}{%
636 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
637 }{%
638 \iffieldundef{#2endmonth}%
639 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
640 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
641 }{}{\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.

```
642 \DeclareFieldFormat{datetype}{%
643 \ifbibstring{#1}{\bibstring{#1}}{#1\visdot}%
644 }
645 \newtoggle{blx@ox@timefirst}
646 \DeclareBiblatexOption{global,type,entry}{timefirst}[true]{%
647 \settoggle{blx@ox@timefirst}{#1}}
648 \newbibmacro*{date+time}{%
649 \ifboolexpr{
650 test {\iffieldundef{year}}
651 and
652 test {\iffieldundef{yeardivision}}
653 and
654 test {\iffieldundef{month}}
655 and
656 test {\iffieldundef{hour}}
657 }{}{%
658 \printfield{datetype}}%
659 \setunit*{\addspace}%
660 \iftoggle{blx@ox@timefirst}{%
661 \printtime
662 \setunit*{\addcomma\space}}{}%
663 \printdate
664 \iftoggle{blx@ox@timefirst}{%
665 \setunit*{\addcomma\space}}%
```

```

666     \printtime}%
667   }
668   \renewbibmacro*{date}{\usebibmacro{date+time}}

```

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

```

669   \DeclareFieldFormat{origdatetype}{%
670     \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
671   }
672   \newbibmacro*{origdate+time}{%
673     \ifboolexpr{
674       test {\iffieldundef{origyear}}
675       and
676       test {\iffieldundef{origyeardivision}}
677       and
678       test {\iffieldundef{origmonth}}
679       and
680       test {\iffieldundef{orighour}}
681     }{%
682       \printfield{origdatetype}%
683       \setunit*{\addspace}%
684       \iftoggle{blx@ox@timefirst}{%
685         \printorigtime
686         \setunit*{\addcomma\space}}{%
687         \printorigdate
688         \iftoggle{blx@ox@timefirst}{%
689           \setunit*{\addcomma\space}%
690           \printorigtime}%
691       }

```

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

```

692   \DeclareFieldFormat{date}{%
693     \def\currentfield{date}%
694     \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
695     \undef\currentfield}
696   \DeclareFieldFormat{origdate}{%
697     \def\currentfield{origdate}%
698     \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
699     \undef\currentfield}
700   \DeclareFieldFormat{eventdate}{%
701     \def\currentfield{eventdate}%
702     \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
703     \undef\currentfield}

```

2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

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

```

704   \xpatchfieldformat{edition}{%
705     {#1\isdot}%
706     {\ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
707   }{\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.

```

708 \DeclareFieldFormat{pages}{%
709 \iffieldundef{bookpagination}%
710 {\mkcomprange{#1}}%
711 {\mkcomprange[{\mkpageprefix[bookpagination]}]{#1}}%
712 }

```

The same is true in citations.

```

713 \DeclareFieldFormat{postnote}{%
714 \iffieldundef{pagination}%
715 {\mkcomprange{#1}}%
716 {\mkcomprange[{\mkpageprefix}]{#1}}%
717 }
718

```

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.

```

719 \DeclareBibliographyOption{nopublisher}[true]{%
720 \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
721 }

```

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.

```

722 \DeclareBibliographyOption{nolocation}[true]{%
723 \DeclareStyleSourceMap{
724 \maps[datatype=bibtex]{
725 \map{
726 \pertype{book}
727 \pertype{mvbook}
728 \pertype{bookinbook}
729 \pertype{inbook}
730 \pertype{suppbook}
731 \pertype{collection}
732 \pertype{mvcollection}
733 \pertype{incollection}
734 \pertype{suppcollection}
735 \pertype{reference}
736 \pertype{mvreference}
737 \pertype{inreference}
738 \pertype{proceedings}
739 \pertype{mvproceedings}
740 \pertype{inproceedings}
741 \step[notfield=location, fieldset=location,
↔ fieldvalue={\noexpand\bibstring{nolocation}}]
742 }
743 }
744 }%
745 }

```

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

```

746 \newtoggle{blx@ox@enoloc}
747 \def\blx@ox@enoloc{{\bibstring{no location}}}
748 \DeclareEntryOption{no location}[true]{%
749   \settoggle{blx@ox@enoloc}{#1}%
750   \iflistundef{location}{%
751     \iftoggle{blx@ox@enoloc}{\restorelist{location}{\blx@ox@enoloc}}}%
752   }{}}

```

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.

```

753 \DeclareBibliographyOption{isourls}[true]{%
754   \ifstrequal{#1}{true}
755     {\DeclareFieldFormat{url}{$\angle$\url{##1}$\rangle$}}
756     {\DeclareFieldFormat{url}{\url{##1}}}%
757   }
758 \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.

```

759 \renewcommand*{\biburlsetup}{%
760   \Urlmuskip=0mu plus 2mu\relax
761   \mathchardef\UrbigBreakPenalty=100\relax
762   \mathchardef\UrbreakPenalty=200\relax
763   \def\UrbigBreaks{\do\/\do\:%}
764   \def\UrbNoBreaks{\do\(\do\[\do\{\do\<%}
765   \def\UrbBreaks{%
766     \do\>\do\]\do\)\do\\\do\|}%
767   \do\'\do\$\do\*\do\^\do\""}%
768 \appto\UrbSpecials{%
769   \do\!\\mathbin{\}\mskip-\Urbmuskip\mathchar`\!\mskip\Urbmuskip}%
770   \do\&\mathbin{\}\mskip-\Urbmuskip\mathchar`\&\mskip\Urbmuskip}%
771   \do\+\mathbin{\}\mskip-\Urbmuskip\mathchar`\+\mskip\Urbmuskip}%
772   \do\,\mathbin{\}\mskip-\Urbmuskip\mathchar`\,\mskip\Urbmuskip}%
773   \do\-\mathbin{\}\mskip-\Urbmuskip\mathchar`\-\mskip\Urbmuskip}%
774   \do\.\mathbin{\}\mskip-\Urbmuskip\mathchar`\.\mskip\Urbmuskip}%
775   \do\;\mathbin{\}\mskip-\Urbmuskip\mathchar`\;\mskip\Urbmuskip}%
776   \do\=\mathbin{\}\mskip-\Urbmuskip\mathchar`\=\mskip\Urbmuskip}%
777   \do\?\mathbin{\}\mskip-\Urbmuskip\mathchar`\?\mskip\Urbmuskip}%
778   \do\_ \mathbin{\}\mskip-\Urbmuskip\_ \mskip\Urbmuskip}%
779   \do\#\mathbin{\}\mskip-\Urbmuskip\#\mskip\Urbmuskip}%
780 }%
781 \ifnumgreater{\value{biburlnumpenalty}}{0}{
782   {\def\do##1{\appto\UrbSpecials{\do##1{\mathchar`##1 \penalty\value{biburlnumpenalty}}}}%
783   \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
784   {}%
785 \ifnumgreater{\value{biburlucpenalty}}{0}{
786   {\def\do##1{\appto\UrbSpecials{\do##1{\mathchar`##1 \penalty\value{biburlucpenalty}}}}%
787   \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
788   \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
789   \do\U\do\V\do\W\do\X\do\Y\do\Z}
790   {}%
791 \ifnumgreater{\value{biburllcpenalty}}{0}{
792   {\def\do##1{\appto\UrbSpecials{\do##1{\mathchar`##1 \penalty\value{biburllcpenalty}}}}%
793   \do\a\do\b\do\c\do\d\do\e\do\f\do\g\do\h\do\i\do\j
794   \do\k\do\l\do\m\do\n\do\o\do\p\do\q\do\r\do\s\do\t

```

```

795 \do\u\do\v\do\w\do\x\do\y\do\z}
796 {}%
797 \let\do=\noexpand}

```

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

```

798 \DeclareFieldFormat{urldate}{\bibstring{urlseen}\space#1}
799 \xpatchbibmacro{url+urldate}%
800 {\setunit*{\addspace}}%
801 {\setunit*{\addcomma\addspace}}%
802 {}{\wlog{WARNING: biblatex-oxref failed to patch url+urldate}}

```

The DOI is introduced by ‘doi’ in lowercase.

```

803 \xpatchfieldformat{doi}%
804 {\mkbibacro{DOI}}%
805 {\printtext{doi}}%
806 {}{\wlog{WARNING: biblatex-oxref failed to patch doi}}

```

Unlike URLs, DOIs are preceded by a full stop.

```

807 \xpatchbibmacro{doi+eprint+url}%
808 {\printfield{doi}}%
809 {\setunit{\addperiod\space}\printfield{doi}}%
810 {}{\wlog{WARNING: biblatex-oxref failed to patch doi+eprint+url}}
811

```

2.1.8 ADDENDA

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

```

812 \renewbibmacro*{addendum+pubstate}{%
813 \ifboolexpr{
814 test {\iffielddundef{pubstate}}
815 or
816 test {\iffieldequalstr{Labeldatesource}{pubstate}}
817 }{}{%
818 \nopunct
819 \ifbibstring{\thefield{pubstate}}{%
820 \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
821 }{%
822 \printfield{pubstate}}}%
823 \setunit{\addsemicolon\addspace}\newblock
824 \printfield{addendum}}
825 \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}

```

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

```

826 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
827 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}

```

2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.


```
828 \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.

```
829 \newcommand*\blx@ox@abbrevstring{%
830   A\^{A}BCDEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRSTU\^{U}\^{U}VWXYZ.}%
831 \AtBeginDocument{
832   \ifdefstring{\encodingdefault}{OT1}{}{%
833     \renewcommand*\blx@ox@abbrevstring{%
834       A\^{A}BC\c{C}DEFG\u{G}HI\.{I}\^{I}JKLMNO\^{O}\^{O}PQRS\c{S}TU\^{U}\^{U}VWXYZ.}%
835     }%
836   }
837 \newcommand*\ifabbrev}[3]{%
838   \StrRight{#1}{1}[\blx@ox@lastchar]%
839   \expandafter\IfSubStr*\blx@ox@abbrevstring{\blx@ox@lastchar}{#2}{#3}%
840 }
```

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.

```
841 \renewbibmacro*{journal+issuetitle}{%
842   \ifboolexpr{
843     test {\iffieldundef{title}}
844     and
845     not test {\iffieldundef{issuetitle}}
846   }{%
847     \usebibmacro{issue}%
848     \setunit{\addspace =\addspace}%
849   }{%
850     \ifboolexpr{
851       ( not test {\iffieldundef{pubstate}} )
852       and
853       test {\ifbibxstring{\thefield{pubstate}in}}
854     }{%
855       \printtext{\bibstring{\thefield{pubstate}in}\space}%
856       \clearfield{pubstate}%
857     }{}%
858   \usebibmacro{journal}%
859   \iffieldundef{journalsubtitle}{%
860     \ifabbrev{\strfield{journaltitle}}{\setunit{\addspace}}{\newunit}%
861   }{%
862     \ifabbrev{\strfield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
863   \iffieldundef{series}{%
864     \newunit\newblock
865     \printfield{series}%
866     \ifbibxstring{\thefield{series}}{%
867       \setunit{\addspace}%
868     }{}%
869     \newunit}}%
870   \usebibmacro{volume+number+eid}%
871   \setunit{\addspace}%
872   \usebibmacro{issue+date}%
873   \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.

```

874 \renewbibmacro*{title+issuetitle}{%
875 \usebibmacro{periodical}%
876 \iffieldundef{subtitle}{%
877 \ifabbrev{\strfield{title}}{\setunit{\addspace}}{\newunit}%
878 }{%
879 \ifabbrev{\strfield{subtitle}}{\setunit{\addspace}}{\newunit}}%
880 \iffieldundef{series}{}%
881 \newunit\newblock
882 \printfield{series}%
883 \ifbibxstring{\thefield{series}}{%
884 \setunit{\addspace}%
885 }{%
886 \newunit}}%
887 \usebibmacro{volume+number+eid}%
888 \setunit{\addspace}%
889 \usebibmacro{issue+date}%
890 \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).

```

901 \DeclareBibliographyOption[string]{issuestyle}[slash]{%
902 \ifcsdef{blx@ox@issuestyle@#1}{%
903 \csuse{blx@ox@issuestyle@#1}%
904 }{%
905 \PackageError{biblatex-oxref}
906 {Invalid option 'issuestyle=#1'}
907 {Valid values are 'slash', 'colon', 'comma', 'parens'}%
908 }%
909 }
910 \csdef{blx@ox@issuestyle@slash}{%
911 \renewbibmacro*{volume+number+eid}{%
912 \printfield{volume}%
913 \setunit*{\addslash}%
914 \printfield{number}%
915 }%
916 }
917 \csdef{blx@ox@issuestyle@colon}{%
918 \renewbibmacro*{volume+number+eid}{%
919 \printfield{volume}%
920 \setunit*{\addcolon\space}%
921 \printfield{number}%
922 }%
923 }
924 \csdef{blx@ox@issuestyle@comma}{%
925 \renewbibmacro*{volume+number+eid}{%
926 \printfield{volume}%
927 \setunit*{\addcomma\space}%
928 \printfield{number}%
929 }%
930 }
931 \csdef{blx@ox@issuestyle@parens}{%
932 \renewbibmacro*{volume+number+eid}{%
933 \printfield{volume}%
934 \setunit*{\addspace}%

```

```

925     \printfield[parens]{number}%
926   }%
927 }
928 \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 year division and date are printed bare. Otherwise (second block) they are printed in parentheses just as in the standard version of the macro.

```

929 \newtoggle{blx@ox@varissuedate}
930 \DeclareBiblatexOption{global,type,entry}{varissuedate}[true]{%
931   \settoggle{blx@ox@varissuedate}{#1}}
932 \DeclareBiblatexOption{global,type,entry}{issuedate-plain}[true]{%
933   \settoggle{blx@ox@varissuedate}{#1}}
934 \renewbibmacro*{issue+date}{%
935   \ifboolexpr{
936     test {\iffieldundef{issue}}
937     and
938     test {\iffieldundef{year}}
939     and
940     test {\iffieldundef{yeardivision}}
941     and
942     test {\iffieldundef{month}}
943   }{%
944     \ifboolexpr{
945       togl {blx@ox@varissuedate}
946       and
947       test {\iffieldundef{volume}}
948       and
949       test {\iffieldundef{number}}
950     }{%
951       \newunit
952       \printtext{%
953         \iffieldundef{issue}{%
954           \usebibmacro{date}
955         }%
956         \printfield{issue}%
957         \setunit*{\addspace}%
958         \usebibmacro{date}}}%
959     }{%
960       \printtext[parens]{%
961         \iffieldundef{issue}{%
962           \usebibmacro{date}%
963         }%
964         \printfield{issue}%
965         \setunit*{\addspace}%
966         \usebibmacro{date}}}}}%
967 \newunit
968 \printfield{eid}%
969 }

```

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.

```

970 \DeclareBibliographyDriver{article}{%
971   \usebibmacro{bibindex}%
972   \usebibmacro{begentry}%
973   \usebibmacro{author/translator+others}%
974   \setunit{\printdelim{nametitle}}\newblock
975   \usebibmacro{title}%
976   \setunit{\titlebyauthor}\newblock
977   \usebibmacro{byauthor}%
978   \newunit\newblock
979   \usebibmacro{bytranslator+others}%
980   \newunit\newblock
981   \printfield{version}%
982   \newunit\newblock
983   \usebibmacro{journal+issuetitle}%
984   \newunit
985   \usebibmacro{byeditor+others}%
986   \iffieldequalstr{relatedtype}{suppto}{%
987     \setunit{\addsemicolon\space}%
988     \iftoggle{bbx:related}{%
989       \usebibmacro{related:init}%
990       \usebibmacro{related}%
991       \clearfield{related}%
992     }{}%
993   }{}%
994   \newunit
995   \usebibmacro{note+pages}%
996   \newunit\newblock
997   \iftoggle{bbx:isbn}
998     {\printfield{issn}}
999     {}%
1000   \newunit\newblock
1001   \usebibmacro{doi+eprint+url}%
1002   \newunit\newblock
1003   \usebibmacro{addendum+pubstate}%
1004   \iftoggle{bbx:related}
1005     {\usebibmacro{related:init}%
1006      \usebibmacro{related}}
1007     {}%
1008   \setunit{\bibpagerefpunct}\newblock
1009   \usebibmacro{pageref}%
1010   \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

1011 \DeclareBibliographyDriver{periodical}{%
1012   \usebibmacro{bibindex}%
1013   \usebibmacro{begentry}%
1014   \usebibmacro{editor}%
1015   \setunit{\printdelim{nametitle}}\newblock
1016   \usebibmacro{title+issuetitle}%
1017   \newunit\newblock
1018   \usebibmacro{byeditor}%
1019   \newunit\newblock
1020   \printfield{note}%
1021   \newunit\newblock
1022   \iftoggle{bbx:isbn}
1023     {\printfield{issn}}
1024     {}%
1025   \newunit\newblock
1026   \usebibmacro{doi+eprint+url}%

```

```

1027 \newunit\newblock
1028 \usebibmacro{addendum+pubstate}%
1029 \iftoggle{bbx:related}
1030   {\usebibmacro{related:init}%
1031    \usebibmacro{related}}
1032   {}%
1033 \setunit{\bibpagerefpunct}\newblock
1034 \usebibmacro{pageref}%
1035 \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.

```

1036 \DeclareFieldFormat[supperiodical]{title}{%
1037   \def\currentfield{title}%
1038   \iffielddannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1039   \undef\currentfield}
1040 \DeclareFieldFormat[supperiodical]{volume}{#1}% volume of a journal
1041 \DeclareFieldFormat[supperiodical]{number}{#1}% number of a journal
1042 \DeclareFieldFormat[supperiodical]{series}{% series of a journal
1043   \ifinteger{#1}
1044   {\mkbibordseries{#1}~\bibstring{jourser}}
1045   {\ifbibstring{#1}{\bibstring{#1}}{#1}}}
1046 \DeclareBibliographyDriver{supperiodical}{%
1047   \usebibmacro{bibindex}%
1048   \usebibmacro{begentry}%
1049   \usebibmacro{author/translator+others}%
1050   \setunit{\printdelim{nametitlelim}}\newblock
1051   \usebibmacro{title}%
1052   \setunit{\titlebyauthordelim}\newblock
1053   \usebibmacro{byauthor}%
1054   \newunit\newblock
1055   \usebibmacro{bytranslator+others}%
1056   \newunit\newblock
1057   \printfield{note}\clearfield{note}%
1058   \newunit\newblock
1059   \printfield{version}%
1060   \newunit\newblock
1061   \usebibmacro{journal+issuetitle}%
1062   \newunit
1063   \usebibmacro{byeditor+others}%
1064   \iffieldequalstr{relatedtype}{suppto}{%
1065     \setunit{\addsemicolon\space}%
1066     \iftoggle{bbx:related}{%
1067       \usebibmacro{related:init}%
1068       \usebibmacro{related}%
1069       \clearfield{related}%
1070     }{}%
1071   }{}%
1072   \newunit
1073   \usebibmacro{note+pages}%
1074   \newunit\newblock
1075   \iftoggle{bbx:isbn}
1076     {\printfield{issn}}
1077     {}%
1078   \newunit\newblock
1079   \usebibmacro{doi+eprint+url}%
1080   \newunit\newblock
1081   \usebibmacro{addendum+pubstate}%
1082   \iftoggle{bbx:related}

```

```

1083     {\usebibmacro{related:init}}%
1084     \usebibmacro{related}}
1085     }%
1086     \setunit{\bibpagerefpunct}\newblock
1087     \usebibmacro{pageref}%
1088     \usebibmacro{finentry}}

```

2.1.10 BOOKS AND WORKS IN BOOKS

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

```

1089     \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.

```

1090     \DeclareFieldFormat[bookinbook]{title}{%
1091     \ifbool{expr{
1092     test {\iffieldequalstr{entrysubtype}{poem}}
1093     or
1094     test {\iffieldequalstr{entrysubtype}{play}}
1095     }}{
1096     \mkbibemph{#1}}%
1097     }{
1098     \mkbibquote{#1\isdot}}

```

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

```

1099     \DeclareFieldFormat[inreference]{title}{\mkbibquote{#1\isdot}}

```

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

```

1100     \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbook,%
1101     collection,mvcollection,incollection,suppcollection,%
1102     proceedings,mvproceedings,inproceedings,%
1103     reference,mvreference,inreference]{volume}{%
1104     \IfSubStr{#1}{-}{%
1105     \StrCount{#1}{-}[\blx@ox@dashnum]%
1106     \StrBefore{#1}{-}[\blx@ox@volnum]%
1107     \expandafter\ifinteger\blx@ox@volnum{\Rn{\blx@ox@volnum}}{\blx@ox@volnum}\bibbrangedash
1108     \StrBehind[\blx@ox@dashnum]{#1}{-}[\blx@ox@volnum]%
1109     \expandafter\ifinteger\blx@ox@volnum{\Rn{\blx@ox@volnum}}{\blx@ox@volnum}%
1110     }{
1111     \ifinteger{#1}{\Rn{#1}}{#1}}

```

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

```

1112     \newbibmacro*{maintitle+volume}{%
1113     \ifbool{expr{
1114     test {\iffieldundef{maintitle}}
1115     or
1116     test {\iffieldundef{volume}}
1117     }}{

```

```

1118   {\printtext[maintitle+volume]{%
1119     \bibstring{volume}\addspace
1120     \printfield{volume}\printfield{part}\addspace
1121     \bibstring{ofseries}\addspace
1122     \usebibmacro{maintitle}}}
1123   }
1124   \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}

```

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

```

1125   \renewbibmacro*{in:}{%
1126     \iffieldequalstr{entrysubtype}{yearbook}{}{%
1127       \bibstring{in}%
1128       \printunit{\intitlepunct}}}

```

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

```

1129   \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.

```

1130   \renewbibmacro*{series+number}{%
1131     \printfield{series}%
1132     \setunit*{\addcomma\space}%
1133     \usebibmacro{byserieseditor}%
1134     \setunit*{\addcomma\space}%
1135     \printfield{number}}

```

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

```

1136   \newtoggle{blx@ox@altbookseries}
1137   \DeclareBibliographyOption[string]{bookseries}[in]{%
1138     \ifstrequal{#1}{out}{%
1139       \toggletrue{blx@ox@altbookseries}%
1140     }{%
1141       \togglefalse{blx@ox@altbookseries}%
1142     }
1143     \ifstrequal{#1}{in}{}{%
1144       \PackageError{biblatex-oxref}
1145       {Invalid option 'bookseries=#1'}
1146       {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.

```

1146   \newcounter{locpubpairs}
1147   \newbibmacro*{edition+publisher+location+date}{%
1148     \printlist{origlocation}%
1149     \iflistundef{origpublisher}%
1150     {\setunit*{\addcomma\space}}%
1151     {\setunit*{\addcolon\space}}%
1152     \printlist{origpublisher}%
1153     \setunit*{\addcomma\space}%
1154     \ifboolexpr{
1155       test {\iflistundef{origlocation}}

```

```

1156     and
1157     test {\iflistundef{origpublisher}}
1158     and
1159     test {\iffieldundef{edition}}
1160   }){%
1161     \printorigdate}%
1162   \setunit{\addsemicolon\space}%
1163   \printfield{edition}%
1164   \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.

```

1165   \ifboolexpr{%
1166     test {\ifnumcomp{\value{publisher}}{>}{1}}
1167     and
1168     test {\ifnumequal{\value{location}}{\value{publisher}}}
1169   }{%
1170     \setcounter{locpubpairs}{0}%
1171     \savebibmacro{list:andothers}%
1172     \renewbibmacro*{list:andothers}{}%
1173     \whileboolexpr{%
1174       test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1175     }{%
1176       \stepcounter{locpubpairs}%
1177       \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1178         \ifnumequal{\value{publisher}}{2}{%
1179           \setunit*\addspace\bibstring{and}\addspace}%
1180         }{%
1181           \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1182             \setunit*\addcomma\space\bibstring{and}\addspace}%
1183           }{%
1184             \setunit*\addcomma\space}%
1185           }%
1186         }%
1187       }){%
1188         \printlist[][{\value{locpubpairs}-\value{locpubpairs}}{location}%
1189           \setunit*\addcolon\space}%
1190         \printlist[][{\value{locpubpairs}-\value{locpubpairs}}{publisher}%
1191           ]%
1192         \restorebibmacro{list:andothers}%
1193       }){%
1194         \printlist{location}%
1195         \iflistundef{publisher}%
1196           {\setunit*\addcomma\space}%
1197           {\setunit*\addcolon\space}%
1198         \printlist{publisher}%
1199       }%
1200     \setunit*\addcomma\space}%
1201     \usebibmacro{date}%
1202   }

```

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

```

1203   \newbibmacro*{series+number+edition+publisher+location+date}{%
1204     \iftoggle{blx@ox@altbookseries}{%
1205       \usebibmacro{series+number}%
1206       \setunit{\addspace}\newblock}{%

```



```

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

```

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

```

1235 \newbibmacro*{series+number+publisher+location+date}{%
1236 \iftoggle{blx@ox@altbookseries}{%
1237   \usebibmacro{series+number}%
1238   \setunit{\addspace}\newblock}{}%
1239 \ifboolexpr{
1240   test {\iffieldundef{series}}
1241   and
1242   test {\iffieldundef{number}}
1243   and
1244   test {\iflistundef{publisher}}
1245   and
1246   test {\iflistundef{location}}
1247   and
1248   test {\iffieldundef{year}}
1249   and
1250   test {\iffieldundef{yeardivision}}
1251   and
1252   test {\iffieldundef{month}}
1253 }){}%
1254 \nopunct
1255 \printtext[publication]{%
1256 \iftoggle{blx@ox@altbookseries}{}{%
1257   \usebibmacro{series+number}%
1258   \setunit{\addsemicolon\addspace}}%
1259 \usebibmacro{publisher+location+date}%
1260 \usebibmacro{copub}}}%
1261 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}}%
1262 \setunit{\addspace}\newblock
1263 \usebibmacro{origpub}%

```

```
1264 }
```

The copub macro prints co-publication details.

```
1265 \newbibmacro*{copub}{%
1266   \ifbool{expr}{
1267     togl {bbx:related}
1268     and
1269     test {\iffieldequalstr{relatedtype}{copub}}
1270   }{%
1271     \setunit{\addsemicolon\space}%
1272     \usebibmacro{related:init}%
1273     \usebibmacro{related}%
1274   }{%
1275 }
```

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

```
1276 \newbibmacro*{origpub}{%
1277   \ifbool{expr}{
1278     test {\iflistundef{origlocation}}
1279     and
1280     test {\iflistundef{origpublisher}}
1281     and
1282     test {\iffieldundef{edition}}
1283     and
1284     ( not test {\iffieldundef{origyear}} )
1285   }{%
1286     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1287   }{%
1288 }
```

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;

```
1289 \DeclareBibliographyDriver{book}{%
1290   \usebibmacro{bibindex}%
1291   \usebibmacro{begentry}%
1292   \usebibmacro{author/editor+others/translator+others}%
1293   \setunit{\printdelim{nametitledelim}}\newblock
1294   \usebibmacro{title}%
1295   \setunit{\titlebyauthordelim}\newblock
1296   \usebibmacro{byauthor}%
1297   \newunit\newblock
1298   \usebibmacro{byeditor+others}%
1299   \newunit\newblock
1300   \printfield{note}%
1301   \newunit\newblock
1302   \usebibmacro{maintitle+volume}%
1303   \newunit
1304   \usebibmacro{series+number+edition+publisher+location+date}%
1305   \setunit{\addspace}%
1306   \printfield{howpublished}%
```

```

1307 \newunit\newblock
1308 \usebibmacro{chapter+pages}%
1309 \newunit
1310 \printfield{pagetotal}%
1311 \newunit\newblock
1312 \iftoggle{bbx:isbn}
1313   {\printfield{isbn}}
1314   {}%
1315 \newunit\newblock
1316 \usebibmacro{doi+eprint+url}%
1317 \newunit\newblock
1318 \usebibmacro{addendum+pubstate}%
1319 \iftoggle{bbx:related}
1320   {\usebibmacro{related:init}%
1321    \usebibmacro{related}}
1322   {}%
1323 \setunit{\bibpagerefpunct}\newblock
1324 \usebibmacro{pageref}%
1325 \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;

```

1326 \DeclareBibliographyDriver{mvbook}{%
1327   \usebibmacro{bibindex}%
1328   \usebibmacro{begentry}%
1329   \usebibmacro{author/editor+others/translator+others}%
1330   \setunit{\printdelim{nametitledelim}}\newblock
1331   \usebibmacro{maintitle+title}%
1332   \newunit
1333   \ifboolexpr{
1334     test {\iffieldequalstr{relatedtype}{multivolume}}
1335     or
1336     ( not test {\iffieldundef{maintitle}} )
1337   }{%
1338     \printfield{volume}%
1339     \printfield{part}%
1340     \setunit{\titlebyauthordelim}\newblock
1341     \usebibmacro{byauthor}%
1342     \newunit\newblock
1343     \usebibmacro{byeditor+others}%
1344     \newunit\newblock
1345     \printfield{volumes}%
1346     \newunit\newblock
1347     \printfield{note}%
1348     \newunit\newblock
1349     \ifboolexpr{
1350       test {\iffieldequalstr{relatedtype}{multivolume}}
1351       and
1352       test {\iffieldundef{maintitle}}
1353     }{%
1354       \printfield{volume}%
1355       \printfield{part}%
1356     }{%
1357     \newunit\newblock

```

```

1358 \usebibmacro{series+number+edition+publisher+location+date}%
1359 \newunit\newblock
1360 \usebibmacro{chapter+pages}%
1361 \newunit
1362 \printfield{pagetotal}%
1363 \newunit\newblock
1364 \iftoggle{bbx:isbn}
1365   {\printfield{isbn}}
1366   {}%
1367 \newunit\newblock
1368 \usebibmacro{doi+eprint+url}%
1369 \newunit\newblock
1370 \usebibmacro{addendum+pubstate}%
1371 \iftoggle{bbx:related}
1372   {\usebibmacro{related:init}%
1373   \usebibmacro{related}}
1374   {}%
1375 \setunit{\bibpagerefpunct}\newblock
1376 \usebibmacro{pageref}%
1377 \usebibmacro{finentry}}

```

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

```

1378 \DeclareBibliographyDriver{inbook}{%
1379   \usebibmacro{bibindex}%
1380   \usebibmacro{begentry}%
1381   \usebibmacro{author/translator+others}%
1382   \setunit{\printdelim{nametitledelim}}\newblock
1383   \usebibmacro{title}%
1384   \setunit{\titlebyauthordelim}\newblock
1385   \usebibmacro{byauthor}%
1386   \newunit\newblock
1387   \usebibmacro{in:}%
1388   \usebibmacro{bybookauthor}%
1389   \newunit\newblock
1390   \usebibmacro{maintitle+booktitle}%
1391   \newunit
1392   \iffieldundef{maintitle}
1393     {\printfield{volume}%
1394     \printfield{part}}
1395     {}%
1396   \newunit\newblock
1397   \usebibmacro{byeditor+others}%
1398   \newunit\newblock
1399   \printfield{volumes}%
1400   \newunit\newblock
1401   \printfield{note}%
1402   \newunit\newblock
1403   \usebibmacro{series+number+edition+publisher+location+date}%
1404   \newunit\newblock
1405   \usebibmacro{chapter+pages}%
1406   \newunit\newblock
1407   \iftoggle{bbx:isbn}
1408     {\printfield{isbn}}
1409     {}%
1410   \newunit\newblock
1411   \usebibmacro{doi+eprint+url}%
1412   \newunit\newblock
1413   \usebibmacro{addendum+pubstate}%
1414   \iftoggle{bbx:related}

```

```

1415     {\usebibmacro{related:init}}%
1416     \usebibmacro{related}}
1417     {}%
1418 \setunit{\bibpagerefpunct}\newblock
1419 \usebibmacro{pageref}%
1420 \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.

```

1421 \DeclareFieldFormat[suppbok]{title}{%
1422   \def\currentfield{title}%
1423   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1424   \undef\currentfield}
1425 \DeclareBibliographyDriver{suppbok}{%
1426   \usebibmacro{bibindex}%
1427   \usebibmacro{begentry}%
1428   \usebibmacro{author/translator+others}%
1429   \setunit{\printdelim{nametitledelim}}\newblock
1430   \usebibmacro{title}%
1431   \setunit{\titlebyauthordelim}\newblock
1432   \usebibmacro{byauthor}%
1433   \newunit\newblock
1434   \printfield{note}%
1435   \setunit{\addspace}\newblock
1436   \usebibmacro{in:}%
1437   \usebibmacro{bybookauthor}%
1438   \newunit\newblock
1439   \usebibmacro{maintitle+booktitle}%
1440   \newunit
1441   \iffieldundef{maintitle}
1442     {\printfield{volume}%
1443     \printfield{part}}
1444     {}%
1445   \newunit\newblock
1446   \usebibmacro{byeditor+others}%
1447   \newunit\newblock
1448   \printfield{volumes}%
1449   \newunit\newblock
1450   \usebibmacro{series+number+edition+publisher+location+date}%
1451   \newunit\newblock
1452   \usebibmacro{chapter+pages}%
1453   \newunit\newblock
1454   \iftoggle{bbx:isbn}
1455     {\printfield{isbn}}
1456     {}%
1457   \newunit\newblock
1458   \usebibmacro{doi+eprint+url}%
1459   \newunit\newblock
1460   \usebibmacro{addendum+pubstate}%
1461   \iftoggle{bbx:related}
1462     {\usebibmacro{related:init}%
1463     \usebibmacro{related}}
1464     {}%
1465   \setunit{\bibpagerefpunct}\newblock
1466   \usebibmacro{pageref}%
1467   \usebibmacro{finentry}}

```

We also provide a bookinbook driver that handles origdate differently.

```

1468 \DeclareBibliographyDriver{bookinbook}{%
1469   \usebibmacro{bibindex}%
1470   \usebibmacro{begentry}%
1471   \usebibmacro{author/translator+others}%
1472   \setunit{\printdelim{nametitle delim}}\newblock
1473   \usebibmacro{title}%
1474   \setunit{\titlebyauthor delim}\newblock
1475   \usebibmacro{byauthor}%
1476   \newunit\newblock
1477   \usebibmacro{in:}%
1478   \usebibmacro{bybookauthor}%
1479   \newunit\newblock
1480   \usebibmacro{maintitle+booktitle}%
1481   \newunit
1482   \iffieldundef{maintitle}
1483     {\printfield{volume}%
1484     \printfield{part}}
1485     {}%
1486   \newunit\newblock
1487   \usebibmacro{byeditor+others}%
1488   \newunit\newblock
1489   \printfield{volumes}%
1490   \newunit\newblock
1491   \printfield{note}%
1492   \newunit\newblock
1493   \usebibmacro{series+number+edition+publisher+location+date}%
1494   \newunit\newblock
1495   \usebibmacro{chapter+pages}%
1496   \newunit\newblock
1497   \iftoggle{bbx:isbn}
1498     {\printfield{isbn}}
1499     {}%
1500   \newunit\newblock
1501   \usebibmacro{doi+eprint+url}%
1502   \newunit\newblock
1503   \usebibmacro{addendum+pubstate}%
1504   \iftoggle{bbx:related}
1505     {\usebibmacro{related:init}%
1506     \usebibmacro{related}}
1507     {}%
1508   \setunit{\bibpagerefpunct}\newblock
1509   \usebibmacro{pageref}%
1510   \usebibmacro{finentry}}

```

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

```

1511 \DeclareBibliographyDriver{collection}{%
1512   \usebibmacro{bibindex}%
1513   \usebibmacro{begentry}%
1514   \usebibmacro{editor+others}%
1515   \setunit{\printdelim{nametitle delim}}\newblock
1516   \usebibmacro{title}%
1517   \newunit\newblock
1518   \usebibmacro{byeditor+others}%
1519   \newunit\newblock
1520   \printfield{note}%
1521   \newunit\newblock
1522   \usebibmacro{maintitle+volume}%
1523   \newunit
1524   \usebibmacro{series+number+edition+publisher+location+date}%
1525   \newunit\newblock

```

```

1526 \usebibmacro{chapter+pages}%
1527 \newunit
1528 \printfield{pagetotal}%
1529 \newunit\newblock
1530 \iftoggle{bbx:isbn}
1531   {\printfield{isbn}}
1532   {}%
1533 \newunit\newblock
1534 \usebibmacro{doi+eprint+url}%
1535 \newunit\newblock
1536 \usebibmacro{addendum+pubstate}%
1537 \iftoggle{bbx:related}
1538   {\usebibmacro{related:init}%
1539    \usebibmacro{related}}
1540   {}%
1541 \setunit{\bibpagerefunct}\newblock
1542 \usebibmacro{pageref}%
1543 \usebibmacro{finentry}}

```

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

```

1544 \DeclareBibliographyDriver{mvcollection}{%
1545   \usebibmacro{bibindex}%
1546   \usebibmacro{begentry}%
1547   \usebibmacro{editor+others}%
1548   \setunit{\printdelim{nametitle}}\newblock
1549   \usebibmacro{maintitle+title}%
1550   \newunit
1551   \ifboolexpr{
1552     test {\iffieldequalstr{relatedtype}{multivolume}}
1553     or
1554     ( not test {\iffieldundef{maintitle}} )
1555   }{%
1556     \printfield{volume}%
1557     \printfield{part}%
1558   \newunit\newblock
1559   \usebibmacro{byeditor+others}%
1560   \newunit\newblock
1561   \printfield{volumes}%
1562   \newunit\newblock
1563   \printfield{note}%
1564   \newunit\newblock
1565   \ifboolexpr{
1566     test {\iffieldequalstr{relatedtype}{multivolume}}
1567     and
1568     test {\iffieldundef{maintitle}}
1569   }{%
1570     \printfield{volume}%
1571     \printfield{part}%
1572   }{%
1573   \newunit\newblock
1574   \usebibmacro{series+number+edition+publisher+location+date}%
1575   \newunit\newblock
1576   \usebibmacro{chapter+pages}%
1577   \newunit
1578   \printfield{pagetotal}%
1579   \newunit\newblock
1580   \iftoggle{bbx:isbn}
1581     {\printfield{isbn}}
1582     {}%

```

```

1583 \newunit\newblock
1584 \usebibmacro{doi+eprint+url}%
1585 \newunit\newblock
1586 \usebibmacro{addendum+pubstate}%
1587 \iftoggle{bbx:related}
1588   {\usebibmacro{related:init}%
1589   \usebibmacro{related}}
1590 {}%
1591 \setunit{\bibpagerefpunct}\newblock
1592 \usebibmacro{pageref}%
1593 \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.

```

1594 \DeclareBibliographyDriver{incollection}{%
1595   \usebibmacro{bibindex}%
1596   \usebibmacro{begentry}%
1597   \usebibmacro{author/translator+others}%
1598   \setunit{\printdelim{nametitledelim}}\newblock
1599   \usebibmacro{title}%
1600   \setunit{\titlebyauthordelim}\newblock
1601   \usebibmacro{byauthor}%
1602   \newunit\newblock
1603   \usebibmacro{in:}%
1604   \usebibmacro{bookeditor}%
1605   \newunit\newblock
1606   \usebibmacro{maintitle+booktitle}%
1607   \newunit
1608   \iffieldundef{maintitle}
1609     {\printfield{volume}%
1610     \printfield{part}}
1611     {}%
1612   \newunit\newblock
1613   \printfield{volumes}%
1614   \newunit\newblock
1615   \printfield{note}%
1616   \newunit\newblock%
1617   \usebibmacro{series+number+edition+publisher+location+date}%
1618   \newunit\newblock
1619   \usebibmacro{chapter+pages}%
1620   \newunit\newblock
1621   \iftoggle{bbx:isbn}
1622     {\printfield{isbn}}
1623     {}%
1624   \newunit\newblock
1625   \usebibmacro{doi+eprint+url}%
1626   \newunit\newblock
1627   \usebibmacro{addendum+pubstate}%
1628   \iftoggle{bbx:related}
1629     {\usebibmacro{related:init}%
1630     \usebibmacro{related}}
1631     {}%
1632   \setunit{\bibpagerefpunct}\newblock
1633   \usebibmacro{pageref}%
1634   \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.


```

1635 \DeclareFieldFormat[suppcollection]{title}{%
1636   \def\currentfield{title}%
1637   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1638   \undef\currentfield}
1639 \DeclareBibliographyDriver{suppcollection}{%
1640   \usebibmacro{bibindex}%
1641   \usebibmacro{begentry}%
1642   \usebibmacro{author/translator+others}%
1643   \setunit{\printdelim{nametitleledelim}}\newblock
1644   \usebibmacro{title}%
1645   \setunit{\titlebyauthordelim}\newblock
1646   \usebibmacro{byauthor}%
1647   \newunit\newblock
1648   \printfield{note}%
1649   \setunit{\addspace}\newblock
1650   \usebibmacro{in:}%
1651   \usebibmacro{bookeditor}%
1652   \newunit\newblock
1653   \usebibmacro{maintitle+booktitle}%
1654   \newunit
1655   \iffieldundef{maintitle}
1656     {\printfield{volume}%
1657     \printfield{part}}
1658     {}%
1659   \newunit\newblock
1660   \printfield{volumes}%
1661   \newunit\newblock%
1662   \usebibmacro{series+number+edition+publisher+location+date}%
1663   \newunit\newblock
1664   \usebibmacro{chapter+pages}%
1665   \newunit\newblock
1666   \iftoggle{bbx:isbn}
1667     {\printfield{isbn}}
1668     {}%
1669   \newunit\newblock
1670   \usebibmacro{doi+eprint+url}%
1671   \newunit\newblock
1672   \usebibmacro{addendum+pubstate}%
1673   \iftoggle{bbx:related}
1674     {\usebibmacro{related:init}%
1675     \usebibmacro{related}}
1676     {}%
1677   \setunit{\bibpagerefpunct}\newblock
1678   \usebibmacro{pageref}%
1679   \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.

```

1680 \DeclareBibliographyDriver{reference}{%
1681   \usebibmacro{bibindex}%
1682   \usebibmacro{begentry}%
1683   \usebibmacro{author/editor+others/translator+others}%
1684   \setunit{\printdelim{nametitleledelim}}\newblock
1685   \usebibmacro{title}%
1686   \newunit\newblock
1687   \printfield{edition}%
1688   \setunit{\titlebyauthordelim}\newblock
1689   \usebibmacro{byauthor}%
1690   \newunit\newblock
1691   \usebibmacro{byeditor+others}%

```

```

1692 \newunit\newblock
1693 \printfield{note}%
1694 \newunit\newblock
1695 \usebibmacro{maintitle+volume}%
1696 \newunit
1697 \usebibmacro{series+number+publisher+location+date}%
1698 \newunit\newblock
1699 \usebibmacro{chapter+pages}%
1700 \newunit
1701 \printfield{pagetotal}%
1702 \newunit\newblock
1703 \iftoggle{bbx:isbn}
1704   {\printfield{isbn}}
1705   {}%
1706 \newunit\newblock
1707 \usebibmacro{doi+eprint+url}%
1708 \newunit\newblock
1709 \usebibmacro{addendum+pubstate}%
1710 \iftoggle{bbx:related}
1711   {\usebibmacro{related:init}%
1712     \usebibmacro{related}}
1713   {}%
1714 \setunit{\bibpagerefunct}\newblock
1715 \usebibmacro{pageref}%
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 \iftoggle{bbx:related}
1765   {\usebibmacro{related:init}%
1766     \usebibmacro{related}}
1767   {}%
1768 \setunit{\bibpagerefpunct}\newblock
1769 \usebibmacro{pageref}%
1770 \usebibmacro{finentry}}

```

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

```

1771 \DeclareBibliographyDriver{inference}{%
1772   \usebibmacro{bibindex}%
1773   \usebibmacro{begentry}%
1774   \usebibmacro{author/translator+others}%
1775   \setunit{\printdelim{nametitledelim}}\newblock
1776   \usebibmacro{title}%
1777   \setunit{\titlebyauthordelim}\newblock
1778   \usebibmacro{byauthor}%
1779   \newunit\newblock
1780   \iffieldundef{editor}{}{}%
1781     \usebibmacro{in:}%
1782     \usebibmacro{bookeditor}%
1783     \newunit\newblock}%
1784   \usebibmacro{maintitle+booktitle}%
1785   \newunit
1786   \iffieldundef{maintitle}
1787     {\printfield{volume}%
1788       \printfield{part}}
1789     {}%
1790   \newunit\newblock
1791   \printfield{edition}%
1792   \newunit
1793   \usebibmacro{byeditor+others}%
1794   \newunit\newblock
1795   \printfield{volumes}%
1796   \newunit\newblock
1797   \printfield{note}%
1798   \newunit\newblock%
1799   \usebibmacro{series+number+publisher+location+date}%
1800   \newunit\newblock
1801   \usebibmacro{chapter+pages}%
1802   \newunit
1803   \printfield{pagetotal}%
1804   \newunit\newblock
1805   \iftoggle{bbx:isbn}
1806     {\printfield{isbn}}

```

```

1807     {}%
1808     \newunit\newblock
1809     \usebibmacro{doi+eprint+url}%
1810     \newunit\newblock
1811     \usebibmacro{addendum+pubstate}%
1812     \iftoggle{bbx:related}
1813       {\usebibmacro{related:init}%
1814         \usebibmacro{related}}
1815     {}%
1816     \setunit{\bibpagerefpunct}\newblock
1817     \usebibmacro{pageref}%
1818     \usebibmacro{finentry}}

```

2.1.11 WORKS PRESENTED AT MEETINGS

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

```

1819     \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.

```

1820     \renewbibmacro*{event+venue+date}{%
1821       \printfield{eventtitle}%
1822       \newunit
1823       \printfield{eventtitleaddon}%
1824       \newunit
1825       \printfield{venue}%
1826       \newunit%
1827       \printeventdate%
1828       \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!

```

1829     \DeclareBibliographyDriver{proceedings}{%
1830       \usebibmacro{bibindex}%
1831       \usebibmacro{begentry}%
1832       \usebibmacro{author}%
1833       \newunit
1834       \usebibmacro{maintitle+title}%
1835       \newunit
1836       \iffieldundef{maintitle}
1837         {\printfield{volume}%
1838           \printfield{part}}
1839       {}%
1840       \newunit\newblock
1841       \usebibmacro{event+venue+date}%

```

```

1842 \newunit\newblock
1843 \usebibmacro{byeditor+others}%
1844 \newunit\newblock
1845 \printfield{volumes}%
1846 \newunit\newblock
1847 \printfield{note}%
1848 \newunit\newblock
1849 \printlist{organization}%
1850 \newunit
1851 \usebibmacro{series+number+edition+publisher+location+date}%
1852 \newunit\newblock
1853 \usebibmacro{chapter+pages}%
1854 \newunit
1855 \printfield{pagetotal}%
1856 \newunit\newblock
1857 \iftoggle{bbx:isbn}
1858   {\printfield{isbn}}
1859   {}%
1860 \newunit\newblock
1861 \usebibmacro{doi+eprint+url}%
1862 \newunit\newblock
1863 \usebibmacro{addendum+pubstate}%
1864 \iftoggle{bbx:related}
1865   {\usebibmacro{related:init}%
1866     \usebibmacro{related}}
1867   {}%
1868 \setunit{\bibpagerefpunct}\newblock
1869 \usebibmacro{pageref}%
1870 \usebibmacro{finentry}}

```

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

```

1871 \DeclareBibliographyDriver{inproceedings}{%
1872   \usebibmacro{bibindex}%
1873   \usebibmacro{begentry}%
1874   \usebibmacro{author/translator+others}%
1875   \setunit{\printdelim{nametitle}}\newblock
1876   \usebibmacro{title}%
1877   \setunit{\titlebyauthor}\newblock
1878   \usebibmacro{byauthor}%
1879   \newunit\newblock
1880   \usebibmacro{in:}%
1881   \usebibmacro{maintitle+booktitle}%
1882   \newunit
1883   \iffieldundef{maintitle}
1884     {\printfield{volume}%
1885       \printfield{part}}
1886     {}%
1887   \newunit\newblock
1888   \usebibmacro{event+venue+date}%
1889   \newunit\newblock
1890   \usebibmacro{byeditor+others}%
1891   \newunit\newblock
1892   \printfield{volumes}%
1893   \newunit\newblock
1894   \printfield{note}%
1895   \newunit\newblock
1896   \printlist{organization}%
1897   \newunit
1898   \usebibmacro{series+number+publisher+location+date}%

```

```

1899 \newunit\newblock
1900 \usebibmacro{chapter+pages}%
1901 \newunit\newblock
1902 \iftoggle{bbx:isbn}
1903   {\printfield{isbn}}
1904   {}%
1905 \newunit\newblock
1906 \usebibmacro{doi+eprint+url}%
1907 \newunit\newblock
1908 \usebibmacro{addendum+pubstate}%
1909 \iftoggle{bbx:related}
1910   {\usebibmacro{related:init}%
1911   \usebibmacro{related}}
1912   {}%
1913 \setunit{\bibpagerefpunct}\newblock
1914 \usebibmacro{pageref}%
1915 \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.

```

1916 \newbibmacro*{series+type+number}{%
1917   \ifboolexpr{
1918     test {\iffieldundef{series}}
1919     and
1920     test {\iffieldundef{type}}
1921   }{%
1922     \printfield{series}%
1923     \newunit
1924     \ifboolexpr{%
1925       test {\iffieldundef{type}}
1926       and
1927       not test {\iffieldundef{number}}
1928     }{%
1929       \bibcpstring{number}
1930     }%
1931     \printfield{type}%
1932   }%
1933   \setunit*{\addspace}%
1934   \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.

```

1935 \renewbibmacro*{institution+location+date}{%
1936   \ifboolexpr{
1937     ( test {\iffieldundef{number}}
1938     or
1939     not test {\iffieldundef{type}}
1940     or
1941     not test {\iffieldundef{series}}
1942   )
1943   and
1944   test {\iflistundef{institution}}
1945   and
1946   test {\iflistundef{location}}

```

```

1947     and
1948     test {\iffieldundef{year}}
1949     and
1950     test {\iffieldundef{yeardivision}}
1951     and
1952     test {\iffieldundef{month}}
1953   }{}{%
1954     \nopunct
1955     \printtext[publication]{%
1956       \ifboolexpr{
1957         test {\iffieldundef{series}}
1958         and
1959         test {\iffieldundef{type}}
1960       }{%
1961         \printfield{number}%
1962         \setunit*{\addcomma\space}%
1963       }{}%
1964     \printlist{location}%
1965     \iflistundef{institution}%
1966     {\setunit*{\addcomma\space}}%
1967     {\setunit*{\addcolon\space}}%
1968     \printlist{institution}%
1969     \setunit*{\addcomma\space}%
1970     \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.

```

1971 \newtoggle{blx@ox@altthesis}
1972 \newtoggle{blx@ox@plainthesis}
1973 \DeclareFieldAlias{thesis:publication}{publication}
1974 \DeclareFieldFormat{plain}{#1}
1975 \DeclareBibliographyOption{altthesis}[true]{%
1976   \settoggle{blx@ox@altthesis}{#1}
1977 }
1978 \DeclareBibliographyOption[string]{thesis}[out]{%
1979   \ifstrequal{#1}{plain}{%
1980     \toggletrue{blx@ox@altthesis}%
1981     \toggletrue{blx@ox@plainthesis}%
1982     \DeclareFieldAlias{thesis:publication}{plain}%
1983   }{%
1984     \togglefalse{blx@ox@plainthesis}%
1985     \DeclareFieldAlias{thesis:publication}{publication}%
1986     \ifstrequal{#1}{in}{%
1987       \toggletrue{blx@ox@altthesis}%
1988     }{%
1989       \togglefalse{blx@ox@altthesis}%
1990       \ifstrequal{#1}{out}{}{}%
1991       \PackageError{biblatex-oxref}
1992         {Invalid option 'bookseries=#1'}
1993         {Valid values are 'in', 'out', and 'plain'.}}}}
1994 \newbibmacro*{type+institution+location+date}{%
1995   \iftoggle{blx@ox@altthesis}{%
1996     \ifboolexpr{
1997       test {\iffieldundef{type}}
1998       and
1999       test {\iflistundef{institution}}
2000       and
2001       test {\iflistundef{location}}
2002       and

```

```

2003     test {\iffieldundef{year}}
2004     and
2005     test {\iffieldundef{yeardivision}}
2006     and
2007     test {\iffieldundef{month}}
2008   }{}{%
2009     \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
2010     \printtext[thesis:publication]{%
2011       \printfield{type}%
2012       \setunit*{\addcomma\space}%
2013       \printlist{location}%
2014       \iflistundef{institution}{%
2015         \setunit*{\addcomma\space}%
2016       }{%
2017         \setunit*{\addcolon\space}}%
2018       \printlist{institution}%
2019       \setunit*{\addcomma\space}%
2020       \usebibmacro{date}}}}
2021 }{}{%
2022   \printfield{type}%
2023   \newunit
2024   \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.

```

2025 \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
2026   \ifboolexpr{
2027     test {\iffieldundef{type}}
2028     and
2029     test {\iffieldundef{series}}
2030     and
2031     test {\iffieldundef{number}}
2032     and
2033     test {\iffieldundef{edition}}
2034     and
2035     test {\iflistundef{organization}}
2036     and
2037     test {\iflistundef{publisher}}
2038     and
2039     test {\iflistundef{location}}
2040     and
2041     test {\iffieldundef{year}}
2042     and
2043     test {\iffieldundef{yeardivision}}
2044     and
2045     test {\iffieldundef{month}}
2046   }{}{%
2047     \nopunct
2048     \printtext[publication]{%
2049       \usebibmacro{series+type+number}%
2050       \setunit{\addsemicolon\space}%
2051       \printfield{edition}%
2052       \setunit*{\addcomma\space}%
2053       \iflistundef{publisher}{}{%
2054         \printlist{organization}%
2055         \setunit*{\addcomma\space}}%
2056       \printlist{location}%
2057       \iflistundef{publisher}{%

```



```

2058     \iflistundef{organization}{%
2059         \setunit*{\addcomma\space}%
2060     }{%
2061         \setunit*{\addcolon\space}%
2062         \printlist{organization}}%
2063     }{%
2064         \setunit*{\addcolon\space}%
2065         \printlist{publisher}}}%
2066     \setunit*{\addcomma\space}%
2067     \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.

```

2068 \newcommand*{\legreport}{legal}
2069 \DeclareBibliographyDriver{report}{%
2070     \usebibmacro{bibindex}%
2071     \usebibmacro{begentry}%
2072     \usebibmacro{author}%
2073     \setunit{\printdelim{nametitledelim}}\newblock
2074     \usebibmacro{maintitle+title}%
2075     \newunit
2076     \iffieldundef{maintitle}
2077         {\printfield{volume}%
2078          \printfield{part}}
2079     {}%
2080     \setunit{\titlebyauthor\delim}\newblock
2081     \usebibmacro{byauthor}%
2082     \newunit\newblock
2083     \printfield{version}%
2084     \newunit\newblock
2085     \printfield{note}%
2086     \newunit\newblock
2087     \usebibmacro{series+type+number}%
2088     \setunit{\addspace}%
2089     \usebibmacro{institution+location+date}%
2090     \iffieldequals{entrysubtype}{\legreport}{%
2091         \setunit{\addspace}\nopunct
2092         \let\origadddot\adddot
2093         \def\adddot{}%
2094         \usebibmacro{chapter+pages}%
2095         \let\adddot\origadddot
2096     }{%
2097         \newunit\newblock
2098         \usebibmacro{chapter+pages}%
2099     }%
2100     \newunit
2101     \printfield{pagetotal}%
2102     \newunit\newblock
2103     \iftoggle{bbx:isbn}
2104         {\printfield{isrn}}
2105         {}%
2106     \newunit\newblock
2107     \usebibmacro{doi+eprint+url}%
2108     \newunit\newblock
2109     \usebibmacro{addendum+pubstate}%
2110     \iftoggle{bbx:related}

```

```

2111     {\usebibmacro{related:init}}%
2112     \usebibmacro{related}}
2113     {}%
2114     \setunit{\bibpagerefpunct}\newblock
2115     \usebibmacro{pageref}%
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     }{}{\log{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}{\bibstring{#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{origdatatype}{%
2159       \bibstring{filed}
2160     }{
2161       \printfield{origdatatype}}}%
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{datatype}{%
2171   \bibstring{issued}%
2172 }{
2173   \printfield{datatype}}}%
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{nametitledelim}}\newblock
2181   \usebibmacro{title}%
2182   \newunit
2183   \printlist{language}%
2184   \setunit{\titlebyauthordelim}\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   \iftoggle{bbx:related}
2201     {\usebibmacro{related:init}%
2202      \usebibmacro{related}}
2203     {}%
2204   \setunit{\bibpagerefpunct}\newblock
2205   \usebibmacro{pageref}%
2206   \usebibmacro{finentry}}

```

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

```

2207 \DeclareBibliographyDriver{manual}{%
2208   \usebibmacro{bibindex}%
2209   \usebibmacro{begentry}%
2210   \ifboolexpr{
2211     test {\ifentrytype{standard}}
2212     and
2213     ( test {\ifnameundef{author}}
2214       or
2215       not test \ifuseauthor )
2216     and
2217     not test {\iffieldundef{number}}
2218   }{%
2219     \printfield{number}\clearfield{number}%
2220     \newunit\newblock
2221   }{%
2222     \usebibmacro{author/editor}%
2223     \setunit{\printdelim{nametitlelim}}\newblock
2224     \ifentrytype{software}
2225       {\usebibmacro{title+version}}
2226       {\usebibmacro{title}}%
2227     \setunit{\titlebyauthordelim}\newblock
2228     \usebibmacro{byauthor}%
2229     \newunit\newblock
2230     \usebibmacro{byeditor}%
2231     \newunit
2232     \ifentrytype{software}
2233       {}
2234       {\newunit\printfield{version}}%
2235     \newunit
2236     \printfield{note}%
2237     \newunit\newblock
2238     \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2239     \newunit\newblock
2240     \usebibmacro{chapter+pages}%
2241     \newunit
2242     \printfield{pagetotal}%
2243     \newunit\newblock
2244     \iftoggle{bbx:isbn}
2245       {\printfield{isbn}}
2246       {}%
2247     \newunit\newblock
2248     \usebibmacro{doi+eprint+url}%
2249     \newunit\newblock
2250     \usebibmacro{addendum+pubstate}%
2251     \iftoggle{bbx:related}
2252       {\usebibmacro{related:init}}%
2253       {\usebibmacro{related}}
2254     {}%
2255     \setunit{\bibpagerefpunct}\newblock
2256     \usebibmacro{pageref}%
2257     \usebibmacro{finentry}}
2258 \DeclareBibliographyAlias{standard}{manual}
2259 \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.

```

2260 \newbibmacro*{publisher+type+series+number+date}{%
2261   \iffieldundef{number}{}{%
2262     \setunit{\addcomma\space}%
2263     \usebibmacro{origdate+time}%
2264   }%
2265   \ifboolexpr{%
2266     test {\iflistundef{origpublisher}}
2267     and
2268     test {\iflistundef{location}}
2269     and
2270     test {\iflistundef{publisher}}
2271     and
2272     test {\iffieldundef{type}}
2273     and
2274     test {\iffieldundef{series}}
2275     and
2276     test {\iffieldundef{number}}
2277     and
2278     test {\iffieldundef{year}}
2279     and
2280     test {\iffieldundef{yeardivision}}
2281     and
2282     test {\iffieldundef{month}}
2283     and
2284     test {\iffieldundef{origyear}}
2285     and
2286     test {\iffieldundef{origyeardivision}}
2287     and
2288     test {\iffieldundef{origmonth}}
2289     and
2290     test {\iffieldundef{hour}}
2291   }{}{%
2292     \nopunct
2293     \printtext[publication]{%
2294       \printlist{origpublisher}%
2295       \setunit*{\addsemicolon\space}%
2296       \printlist{location}%
2297       \iflistundef{publisher}%
2298         {\setunit*{\addcomma\space}}%
2299         {\setunit*{\addcolon\space}}%
2300       \printlist{publisher}%
2301       \iffieldundef{series}%
2302         {\setunit*{\addspace}}%
2303         {\setunit*{\recordseriespunct}}%
2304       \printfield{series}%
2305       \setunit*{\addcomma\space}%
2306       \printfield{type}%
2307       \iflistundef{publisher}%
2308         {\setunit*{\addcomma\space}}%
2309         {\setunit*{\addspace}}%
2310       \printfield{number}%
2311       \iffieldundef{number}{%
2312         \setunit{\addcomma\space}%
2313         \usebibmacro{origdate+time}%
2314       }{}%
2315       \setunit{\addcomma\space}%
2316       \usebibmacro{date+time}}}}

```

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

```

2317 \newtoggle{blx@ox@endeditor}
2318 \DeclareEntryOption{endeditor}[true]{%
2319   \settoggle{blx@ox@endeditor}{#1}}
2320 \newbibmacro*{pre-byeditor+others}{%
2321   \iftoggle{blx@ox@endeditor}{}{%
2322     \usebibmacro{byeditor+others}%
2323   }}
2324 \newbibmacro*{post-byeditor+others}{%
2325   \iftoggle{blx@ox@endeditor}{}{%
2326     \usebibmacro{byeditor+others}%
2327   }}

```

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

```

2328 \DeclareBibliographyDriver{audio}{%
2329   \usebibmacro{bibindex}%
2330   \usebibmacro{begentry}%
2331   \usebibmacro{author}%
2332   \setunit{\printdelim{nametitledelim}}\newblock
2333   \usebibmacro{title}%
2334   \newunit
2335   \usebibmacro{maintitle}%
2336   \iffieldequalstr{relatedtype}{includes}{%
2337     \iftoggle{bbx:related}{%
2338       \newunit\newblock
2339       \usebibmacro{related:init}%
2340       \usebibmacro{related}%
2341       \clearfield{related}%
2342     }{}%
2343   }{}%
2344   \setunit{\addspace}
2345   \usebibmacro{onlinetype}%
2346   \setunit{\titlebyauthor\delim}\newblock
2347   \usebibmacro{byauthor}%
2348   \newunit\newblock
2349   \usebibmacro{pre-byeditor+others}%
2350   \newunit\newblock
2351   \printfield{volumes}%
2352   \newunit\newblock
2353   \printfield{note}%
2354   \newunit\newblock%
2355   \printlist{organization}%
2356   \newunit\newblock%
2357   \usebibmacro{publisher+type+series+number+date}%
2358   \setunit{\addspace}%
2359   \printfield{howpublished}%
2360   \newunit\newblock
2361   \usebibmacro{post-byeditor+others}%
2362   \newunit\newblock
2363   \iftoggle{bbx:isbn}
2364     {\printfield{isbn}}
2365     {}%
2366   \newunit\newblock
2367   \usebibmacro{doi+eprint+url}%
2368   \newunit\newblock
2369   \usebibmacro{addendum+pubstate}%
2370   \iftoggle{bbx:related}
2371     {\usebibmacro{related:init}%
2372     \usebibmacro{related}}
2373     {}%

```

```

2374 \setunit{\bibpagerefunct}\newblock
2375 \usebibmacro{pageref}%
2376 \usebibmacro{finentry}}

```

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

```

2377 \DeclareBibliographyAlias{music}{audio}
2378 \DeclareBibliographyAlias{movie}{audio}
2379 \DeclareBibliographyAlias{video}{audio}

```

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

```

2380 \DeclareBibliographyDriver{inaudio}{%
2381 \usebibmacro{bibindex}%
2382 \usebibmacro{begentry}%
2383 \usebibmacro{author}%
2384 \setunit{\printdelim{nametitledelim}}\newblock
2385 \usebibmacro{title}%
2386 \setunit{\titlebyauthordelim}\newblock
2387 \usebibmacro{byauthor}%
2388 \newunit\newblock
2389 \usebibmacro{in:}%
2390 \usebibmacro{bybookauthor}%
2391 \newunit\newblock
2392 \usebibmacro{maintitle+booktitle}%
2393 \iffieldequalstr{relatedtype}{includes}{%
2394 \iftoggle{bbx:related}{%
2395 \newunit\newblock
2396 \usebibmacro{related:init}%
2397 \usebibmacro{related}%
2398 \clearfield{related}%
2399 }{}%
2400 }{}%
2401 \setunit{\addspace}
2402 \usebibmacro{onlinetype}%
2403 \newunit\newblock
2404 \usebibmacro{pre-byeditor+others}%
2405 \newunit\newblock
2406 \printfield{volumes}%
2407 \newunit\newblock
2408 \printfield{note}%
2409 \newunit\newblock%
2410 \printlist{organization}%
2411 \newunit\newblock%
2412 \usebibmacro{publisher+type+series+number+date}%
2413 \setunit{\addspace}%
2414 \printfield{howpublished}%
2415 \newunit\newblock
2416 \usebibmacro{post-byeditor+others}%
2417 \newunit\newblock
2418 \iftoggle{bbx:isbn}
2419 {\printfield{isbn}}
2420 {}%
2421 \newunit\newblock
2422 \usebibmacro{doi+eprint+url}%
2423 \newunit\newblock
2424 \usebibmacro{addendum+pubstate}%
2425 \iftoggle{bbx:related}
2426 {\usebibmacro{related:init}%
2427 \usebibmacro{related}}
2428 {}%

```

```

2429 \setunit{\bibpagerefunct}\newblock
2430 \usebibmacro{pageref}%
2431 \usebibmacro{finentry}}

```

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

```

2432 \DeclareBibliographyAlias{inmusic}{inaudio}
2433 \DeclareBibliographyAlias{inmovie}{inaudio}
2434 \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.

```

2435 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2436 \inherit{title}{booktitle}
2437 \inherit{subtitle}{booksubtitle}
2438 \inherit{titleaddon}{booktitleaddon}
2439 \noinherit{shorttitle}
2440 \noinherit{sorttitle}
2441 \noinherit{indextitle}
2442 \noinherit{indexsorttitle}
2443 }

```

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.

```

2444 \DeclareFieldFormat[audio,music]{title}{%
2445 \def\currentfield{title}%
2446 \iffieldannotation{descriptor}{#1}{%
2447 \iffieldequalstr{entrysubtype}{podcast}{%
2448 \mkbibquote{#1\isdot}%
2449 }{%
2450 \mkbibemph{#1}}}%
2451 \undef\currentfield}
2452 \DeclareFieldFormat[movie,video]{title}{%
2453 \def\currentfield{title}%
2454 \iffieldannotation{descriptor}{#1}{%
2455 \ifboolexpr{
2456 test {\iffieldequalstr{entrysubtype}{episode}}
2457 or
2458 test {\iffieldequalstr{entrysubtype}{clip}}
2459 or
2460 test {\iffieldequalstr{entrysubtype}{webcast}}
2461 }{%
2462 \mkbibquote{#1\isdot}%
2463 }{%
2464 \mkbibemph{#1}}}%
2465 \undef\currentfield}
2466 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2467 \def\currentfield{title}%
2468 \iffieldannotation{descriptor}{#1}{%
2469 \mkbibquote{#1\isdot}%
2470 }%
2471 \undef\currentfield}
2472 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2473 \def\currentfield{booktitle}%
2474 \iffieldannotation{descriptor}{#1}{%
2475 \iffieldequalstr{entrysubtype}{podcast}{%

```



```

2476     \mkbibquote{#1\isdot}%
2477   }{%
2478     \mkbibemph{#1}}}%
2479 \undef\currentfield}
2480 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2481 \def\currentfield{booktitle}%
2482 \iffieldannotation{descriptor}{#1}{%
2483   \ifboolexpr{
2484     test {\iffieldequalstr{entrysubtype}{episode}}
2485     or
2486     test {\iffieldequalstr{entrysubtype}{clip}}
2487     or
2488     test {\iffieldequalstr{entrysubtype}{webcast}}
2489   }{%
2490     \mkbibquote{#1\isdot}%
2491   }{%
2492     \mkbibemph{#1}}}%
2493 \undef\currentfield}
2494

```

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.

```

2495 \DeclareBibliographyDriver{performance}{%
2496   \usebibmacro{bibindex}%
2497   \usebibmacro{begentry}%
2498   \usebibmacro{author}%
2499   \setunit{\printdelim{nametitledelim}}\newblock
2500   \usebibmacro{title}%
2501   \newunit
2502   \usebibmacro{maintitle}%
2503   \iffieldequalstr{relatedtype}{includes}{%
2504     \iftoggle{bbx:related}{%
2505       \newunit\newblock
2506       \usebibmacro{related:init}%
2507       \usebibmacro{related}%
2508       \clearfield{related}%
2509     }{}%
2510   }{}%
2511   \setunit{\addspace}
2512   \usebibmacro{onlinetype}%
2513   \setunit{\titlebyauthor\delim}\newblock
2514   \usebibmacro{byauthor}%
2515   \newunit\newblock
2516   \usebibmacro{pre-byeditor+others}%
2517   \setunit{\addspace}%
2518   \printfield{howpublished}%
2519   \newunit\newblock
2520   \printfield{type}%
2521   \newunit\newblock
2522   \printfield{note}%
2523   \ifboolexpr{
2524     test {\iffieldundef{origyear}}
2525     and
2526     test {\iffieldundef{origmonth}}
2527   }{}{%
2528     \setunit{\addspace}\newblock
2529     \printtext[publication]{\usebibmacro{origdate+time}}
2530   \newunit\newblock
2531   \usebibmacro{event+venue+location+date}%
2532   \newunit\newblock

```

```

2533 \usebibmacro{post-byeditor+others}%
2534 \newunit\newblock
2535 \printlist{organization}%
2536 \newunit\newblock
2537 \iftoggle{bbx:isbn}
2538   {\printfield{isbn}}
2539   {}%
2540 \newunit\newblock
2541 \usebibmacro{doi+eprint+url}%
2542 \newunit\newblock
2543 \usebibmacro{addendum+pubstate}%
2544 \iftoggle{bbx:related}
2545   {\usebibmacro{related:init}%
2546    \usebibmacro{related}}
2547   {}%
2548 \setunit{\bibpagerefpunct}\newblock
2549 \usebibmacro{pageref}%
2550 \usebibmacro{finentry}}
2551 \DeclareBibliographyAlias{image}{performance}
2552 \DeclareBibliographyAlias{artwork}{performance}

```

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

```

2553 \newbibmacro*{event+venue+location+date}{%
2554   \printfield{eventtitle}%
2555   \newunit
2556   \printfield{eventtitleaddon}%
2557   \newunit
2558   \printlist{institution}%
2559   \newunit
2560   \printfield{venue}%
2561   \newunit
2562   \printlist{location}%
2563   \newunit%
2564   \ifboolexpr{
2565     test {\iffieldundef{year}}
2566     and
2567     test {\iffieldundef{month}}
2568   }{\printeventdate}{\usebibmacro{date+time}}}
2569

```

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.

```

2570 \DeclareFieldFormat[online,image]{title}{%
2571   \def\currentfield{title}%
2572   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2573   \undef\currentfield}
2574

```

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

```

2575 \newbibmacro*{onlinetype}{%
2576   \ifboolexpr{

```

```

2577     test {\iffieldundef{url}}
2578     or
2579     test {\iffieldundef{entrysubtype}}
2580   }{}%
2581   \ifbibxstring{\thefield{entrysubtype}}{%
2582     \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2583   }{}}

```

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.

```

2584 \DeclareBibliographyDriver{online}{%
2585   \usebibmacro{bibindex}%
2586   \usebibmacro{begentry}%
2587   \usebibmacro{author/editor+others/translator+others}%
2588   \setunit{\printdelim{nametitledelim}}\newblock
2589   \usebibmacro{title}%
2590   \newunit
2591   \usebibmacro{maintitle}
2592   \setunit{\addspace}%
2593   \usebibmacro{onlinetype}%
2594   \setunit{\titlebyauthordelim}\newblock
2595   \usebibmacro{byauthor}%
2596   \newunit\newblock
2597   \usebibmacro{byeditor+others}%
2598   \newunit\newblock
2599   \printfield{version}%
2600   \newunit
2601   \printfield{note}%
2602   \newunit\newblock
2603   \printlist{organization}%
2604   \iffieldundef{year}{}{}%
2605     \setunit{\addspace}\newblock
2606     \printtext[parens]{\usebibmacro{date+time}}%
2607   }%
2608   \newunit\newblock
2609   \printlist{publisher}%
2610   \newunit\newblock
2611   \iftoggle{bbx:eprint}
2612     {\usebibmacro{eprint}}
2613     {}%
2614   \newunit\newblock
2615   \usebibmacro{url+urldate}%
2616   \newunit\newblock
2617   \usebibmacro{addendum+pubstate}%
2618   \iftoggle{bbx:related}
2619     {\usebibmacro{related:init}}%
2620     \usebibmacro{related}}
2621   {}%
2622   \setunit{\bibpagerefpunct}\newblock
2623   \usebibmacro{pageref}%
2624   \usebibmacro{finentry}}

```

Software

The version for software goes between the title and titleaddon.

```

2625 \newbibmacro*{title+version}{%
2626   \ifboolexpr{
2627     test {\iffieldundef{title}}
2628     and
2629     test {\iffieldundef{subtitle}}
2630   }
2631   {}
2632   {\printtext[title]{%
2633     \printfield[titlecase]{title}%
2634     \setunit{\subtitlepunct}%
2635     \printfield[titlecase]{subtitle}}%
2636     \setunit{\addspace}}%
2637   \printfield{version}%
2638   \setunit{\addspace}%
2639   \printfield{titleaddon}%
2640 }
2641 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

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

```

2642 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is a variant of the manual driver.

```

2643 \DeclareBibliographyAlias{software}{manual}

```

Datasets

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

```

2644 \DeclareBibliographyDriver{dataset}{%
2645   \usebibmacro{bibindex}%
2646   \usebibmacro{begentry}%
2647   \usebibmacro{author/editor+others/translator+others}%
2648   \setunit{\printdelim{nametitledelim}}\newblock
2649   \usebibmacro{title}%
2650   \newunit
2651   \printlist{language}%
2652   \setunit{\titlebyauthordelim}\newblock
2653   \usebibmacro{byauthor}%
2654   \newunit\newblock
2655   \usebibmacro{byeditor+others}%
2656   \newunit\newblock
2657   \printfield{type}%
2658   \newunit
2659   \printfield{version}%
2660   \newunit\newblock
2661   \printfield{note}%
2662   \newunit\newblock
2663   \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2664   \newunit\newblock
2665   \usebibmacro{doi+eprint+url}%
2666   \newunit\newblock
2667   \usebibmacro{addendum+pubstate}%

```

```

2668 \iftoggle{bbx:related}
2669   {\usebibmacro{related:init}}%
2670   \usebibmacro{related}}
2671   {}%
2672 \setunit{\bibpagerefpunct}\newblock
2673 \usebibmacro{pageref}%
2674 \usebibmacro{finentry}}

```

2.1.15 LEGAL REFERENCES

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

Entry options

```

2675 \newtoggle{bbx:scotstyle}
2676 \DeclareEntryOption{scottish-style}[true]{%
2677   \settoggle{bbx:scotstyle}{#1}}
2678 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2679 \DeclareEntryOption{year-essential}[true]{%
2680   \setboolean{bbx@year-essential}{#1}}
2681 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2682 \DeclareEntryOption{paryear-essential}[true]{%
2683   \setboolean{bbx@paryear-essential}{#1}}
2684 \newtoggle{blx@ox@nopostnotedelim}
2685 \newtoggle{bbx:altcourt}
2686 \DeclareBiblatexOption{global,type,entry}{court-plain}[true]{%
2687   \settoggle{bbx:altcourt}{#1}}
2688 \newtoggle{bbx@ecliuse}
2689 \newtoggle{bbx@eclionly}
2690 \DeclareBibliographyOption[string]{ecli}[yes]{%
2691   \ifstrequal{#1}{no}{%
2692     \global\togglefalse{bbx@ecliuse}%
2693     \global\togglefalse{bbx@eclionly}%
2694   }{%
2695     \global\toggletrue{bbx@ecliuse}%
2696     \ifstrequal{#1}{only}{%
2697       \global\toggletrue{bbx@eclionly}%
2698     }{}}

```

Field formats

```

2699 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2700 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2701 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2702 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2703 \DeclareFieldFormat{romanvol}{\RN{#1}}
2704 \DeclareListFormat[jurisdiction]{listb}{}
2705 \protected\def\mkusbibordinal#1{%
2706   \begingroup
2707   \@tempcnta0#1\relax\number\@tempcnta
2708   \@whilenum\@tempcnta>100\do{\advance\@tempcnta-100\relax}%
2709   \ifnum\@tempcnta>20
2710     \@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
2711   \fi
2712   \ifcase\@tempcnta th\or st\or d\or d\else th\fi
2713   \endgroup}%
2714 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}

```

```

2715 \DeclareFieldFormat{verba}{#1}
2716
2717 \DeclareListFormat{echrinst}{%
2718   \ifboolexpr{%
2719     test {\ifnumequal{\value{listtotal}}{1}}
2720     or
2721     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2722   }{%
2723     \ifboolexpr{
2724       test {\ifdefstring{\Commission}{#1}}
2725       or
2726       test {\ifdefstring{\commission}{#1}}%
2727     }{%
2728       \bibstring{commissiondecision}%
2729     }{#1}%
2730   }{%
2731     \setcounter{blx@tmpcnt}{\value{listcount}}%
2732     \addtocounter{blx@tmpcnt}{1}%
2733     \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2734       #1\space\bibstring{and}\addspace
2735     }{%
2736       #1\addcomma\space}}%
2737
2738 \newcommand*{\commission}{commission}
2739 \newcommand*{\Commission}{Commission}
2740 \DeclareListFormat{ecthr}{%
2741   \ifboolexpr{
2742     test {\ifdefstring{\Commission}{#1}}
2743     or
2744     test {\ifdefstring{\commission}{#1}}
2745   }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2746
2747 \newcommand*{\pcijrep}{PCIJ Rep}
2748 \DeclareFieldFormat{international}{%
2749   \iffieldequals{journaltitle}{\pcijrep}{%
2750     \bibcplstring{jourser}\space #1%
2751   }{#1}}
2752
2753 \DeclareListFormat{checkcontains}{%
2754   \bbx@check{#1}}
2755 \newtoggle{bbx@institutiontoggle}
2756 \newcommand\iflistcontains[2]{%
2757   \global\togglefalse{bbx@institutiontoggle}%
2758   \def\bbx@check##1{%
2759     \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2760 \printlist[checkcontains]{#1}%
2761 \iftoggle{bbx@institutiontoggle}}
2762
2763 \DeclareFieldFormat{draftleg}{%
2764   \StrBefore{#1}{ Bill}}
2765
2766 \DeclareListFormat{billprinting}{%
2767   \ifstrequal{#1}{HC}{%
2768     \mkbibbrackets{\strfield{number}}%
2769     \toggletrue{blx@ox@nopostnotedelim}%
2770   }{%
2771     \strfield{number}%
2772     \togglefalse{blx@ox@nopostnotedelim}}
2773
2774 \newcommand*{\treatypartysep}{\allowbreak ---\allowbreak}
2775 \DeclareListFormat{treaty}{%
2776   \ifmoreitems}{%

```

```

2777     \ifnumequal{\value{listcount}}{1}{%
2778       \bibopenparen
2779     }{%
2780     \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2781       #1\treatypartysep
2782     }{%
2783       #1\bibcloseparen}}
2784
2785 \def\siganddate#1{%
2786   \def\bbx@tempa{#1}%
2787   \expandafter\bbx@signeddatei#1/relax}
2788 \def\bbx@signeddatei#1=#2/relax{%
2789   \def\bbx@tempa{#2-}%
2790   \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2791 \def\makebbx@datei#1-#2-#3-{%
2792   \makebbx@dateii{#1}{#2}{#3}}
2793 \def\makebbx@dateii#1#2#3{%
2794   \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2795   \space
2796   #1}
2797 \DeclareListFormat{treatydates}{%
2798   \ifnumequal{\value{listcount}}{1}{%
2799     \siganddate{#1}%
2800   }{%
2801     \addcomma\space\siganddate{#1}}
2802

```

Pagination formats

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

```

2803 \newrobustcmd*\mkrawpageprefix[1][none]{%
2804   \begingroup
2805   \def\blx@tempa{\blx@mkpageprefix@i}%
2806   \ifstrequal{#1}{none}{}{%
2807     \ifbibstring{#1}{%
2808       \def\blx@tempa{\blx@mkpageprefix{#1}}%
2809     }{%
2810       \blx@warning@entry{Unknown pagination type '#1'}}%
2811   \@ifnextchar[%
2812     {\blx@tempa}
2813     {\blx@tempa[\@firstofone]}
2814
2815 \newcommand*\paragraphmarkings{[]}
2816 \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2817   \iffielddundef{pagination}{%
2818     \ifboolexpr{
2819       test {\ifkeyword{eu}}
2820       or
2821       test {\ifkeyword{echr}}
2822     }{%
2823       \mkcomprange[\mkrawpageprefix[paragraph]][#1]%
2824     }{%
2825       \mkcomprange{#1}}%
2826   }{%
2827     \iffieldequals{pagination}{\paragraphmarkings}{%
2828       \mkcomprange[\mkbibbrackets]{#1}%
2829     }{%
2830       \mkcomprange[\mkpageprefix[pagination]][#1]}%

```

Shorthands

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

```

2831 \renewbibmacro*{shorthandintro}{%
2832   \iffieldundef{shorthandintro}
2833   {\iffieldundef{shorthand}
2834    {}
2835    {\setunit{\addspace}%
2836     \printtext[parens]{%
2837      \ifboolexpr{
2838        test {\ifentrytype{jurisdiction}}
2839        or
2840        test {\ifentrytype{legal}}
2841        or
2842        test {\ifentrytype{legislation}}
2843      }{}%
2844      \bibstring{citedas}\space}%
2845      \printfield{shorthand}}}}
2846 {\setunit{\addspace}%
2847  \printtext[parens]{\printfield{shorthandintro}}}}
2848

```

Common macros

```

2849 \newbibmacro*{issue/volume}{%
2850   \iffieldundef{volume}%
2851   {\iffieldundef{issue}%
2852    {}%
2853    {\printfield{issue}}}%
2854   {\printfield[default]{volume}}}
2855 \newcommand*{\subtypenewsp}{newspaper}
2856 \newbibmacro*{year+vol+report}[1][default]{%
2857   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2858     \setunit{\addcomma\space}%
2859   }{}%
2860   \usebibmacro{journaldate}%
2861   \setunit{\addspace}%
2862   \printfield[parens]{origyear}%
2863   \setunit{\addspace}%
2864   \printfield{volume}%
2865   \setunit{\addspace}}%
2866   \printfield{journaltitle}%
2867   \setunit*\addspace}%
2868   \iffieldundef{series}{}{%
2869     \setunit{\addspace}%
2870     \printfield[#1]{series}%
2871     \setunit{\addspace}}%
2872   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2873     \setunit{\addcomma\space}%
2874     \printdate%
2875   }{}}
2876 \newbibmacro*{journaldate}[1][{}]{%
2877   \ifboolexpr{
2878     test {\iffieldundef{#1volume}}
2879     or
2880     bool {bbx@#1year-essential}
2881   }{}%
2882   \ifboolexpr{
2883     test {\ifkeyword{sc}}
2884     or

```



```

2885     test {\iftoggle{bbx:scotstyle}}
2886   }{%
2887     \setunit{\addcomma\space}%
2888     \printfield{#1year}%
2889   }{%
2890     \printfield[brackets]{#1year}}%
2891 }{%
2892   \printfield[parens]{#1year}}
2893 \newcommand*\casenote{casenote}
2894 \newcommand*\casenotetext{\bibstring{casenote}}
2895 \newbibmacro{journaltitle}{%
2896   \iffieldequals{entrysubtype}{\casenote}{%
2897     \iffieldundef{crossref}{%
2898       \usebibmacro{title}%
2899     }{%
2900       \iffieldundef{note}{%
2901         \restorefield{note}{\casenotetext}%
2902       }{%
2903         \ifboolexpr{
2904           test {\iffootnote}
2905           and test {\iftoggle{bbx@samefootnote}}
2906           and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2907         }{\printfield[casenotetitle]{title}}}%
2908   }{%
2909     \usebibmacro{title}}}
2910 \newbibmacro*{unreported}[1][default]{%
2911   \iffieldundef{verba}{%
2912     \ifboolexpr{
2913       test {\iflistundef{institution}}
2914       and
2915       test {\iffieldundef{date}}
2916       and
2917       test {\iffieldundef{year}}
2918     }{%
2919       \ifboolexpr{
2920         test {\iffieldundef{date}}
2921         and
2922         test {\iffieldundef{year}}
2923       }{%
2924         \mkbibparens{\printlist[jurisdiction]{institution}}%
2925       }{%
2926         \toggletrue{blx@ox@nopostnotedelim}%
2927         \iflistundef{institution}{%
2928           \mkbibparens{\usebibmacro{date}}%
2929         }{%
2930           \printtext[parens]{%
2931             \printlist[#1]{institution}%
2932             \setunit{\addcomma\space}
2933             \usebibmacro{date}}}%
2934     }{%
2935       \iftoggle{bbx@ecliuse}{%
2936         \printfield{verba}}}%
2937 \newbibmacro{court-note}{%
2938   \iffieldundef{note}%
2939   }{%
2940     {\printfield{note}%
2941     \toggletrue{blx@ox@nopostnotedelim}}}
2942 \newbibmacro*{jurisdictionpages}{%
2943   \let\origadddot\adddot
2944   \def\adddot{}%
2945   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2946     \setunit{\addspace}%

```

```

2947     \printfield{pages}}%
2948     \let\adddot\origadddot
2949   }
2950   \newbibmacro{pcitenote}{%
2951     \iffieldundef{parreporter}}{%
2952     \setunit{\addcomma\space}%
2953     \iffieldundef{postnote}}{%
2954     \printfield{postnote}%
2955     \clearfield{postnote}%
2956     \setunit{\addsemicolon\space}}}}
2957   \newbibmacro*{courtid}{%
2958     \iffieldundef{number}}{%
2959     \ifboolexpr{
2960       test {\iflistundef{institution}}
2961       and
2962       test {\iffieldundef{location}}}%
2963     }{%
2964       \togglefalse{blx@ox@nopostnotedelim}%
2965     }{%
2966       \ifboolexpr{%
2967         test {\iffieldundef{journaltitle}}
2968         or
2969         not togl {bbx:altcourt}}
2970     }{%
2971       \printtext[parens]{%
2972         \printfield{location}%
2973         \setunit{\addspace}%
2974         \printlist{institution}%
2975         \usebibmacro{unrep:date}}%
2976       \toggletrue{blx@ox@nopostnotedelim}}
2977     }{%
2978       \setunit{\addcomma\space}%
2979       \printfield{location}%
2980       \setunit*\addspace}%
2981     \printlist{institution}}}%
2982   }{%
2983     \togglefalse{blx@ox@nopostnotedelim}}}}
2984   \newbibmacro*{unrep:date}{%
2985     \ifboolexpr{
2986       test {\iffieldundef{journaltitle}}%
2987       and
2988       test {\iffieldundef{number}}%
2989       and
2990       test {\iffieldundef{neutralcite}}%
2991     }{%
2992       \setunit{\addcomma\space}%
2993       \usebibmacro{date}%
2994     }{}}
2995

```

Legal cases

There are different formats depending on the jurisdiction.

```

2996   \DeclareBibliographyDriver{jurisdiction}{%
2997     \usebibmacro{bibindex}%
2998     \usebibmacro{begentry}%
2999     \usebibmacro{juriscitation}%
3000     \usebibmacro{doi+eprint+url}%
3001     \setunit{\addspace}%\newblock

```

```

3002 \usebibmacro{addendum+pubstate}%
3003 \setunit{\addspace}%\newblock
3004 \iftoggle{bbx:related}
3005   {\usebibmacro{related:init}%
3006    \usebibmacro{related}}
3007   {}%
3008 \setunit{\bibpagerefpunct}\newblock
3009 \usebibmacro{pageref}%
3010 \usebibmacro{finentry}}
3011 \newtoggle{bbx@juriscitedone}
3012 \newbibmacro{juriscitation}{%
3013   \togglefalse{bbx@juriscitedone}%
3014   \renewcommand{\do}[1]{%
3015     \ifkeyword{##1}%
3016       \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
3017       \listbreak
3018     }{}%
3019   \docsvlist{eu,echr,int,ca,us}%
3020   \iftoggle{bbx@juriscitedone}{\usebibmacro{enjuriscitation}}%
3021 }

```

Here is the format for EU cases.

```

3022 \newtoggle{bbx@commissiondecision}
3023 \newbibmacro*{eujuriscitation}{%
3024   \ifboolexpr{
3025     test {\iflistcontains{institution}{\commission}}
3026     or
3027     test {\iflistcontains{institution}{\Commission}}
3028   }{%
3029     \toggletrue{bbx@commissiondecision}%
3030   }{%
3031     \togglefalse{bbx@commissiondecision}}%
3032 \iftoggle{bbx@commissiondecision}{%
3033   \usebibmacro{eucasenumber}}%
3034 \usebibmacro{title}%
3035 \setunit{\addspace}%
3036 \iftoggle{bbx@commissiondecision}{%
3037   \usebibmacro{eucommissiondecision}}%
3038 \setunit{\addspace}%
3039 \usebibmacro{eu:reportinfo}%
3040 \iftoggle{bbx@commissiondecision}{%
3041   \setunit{\addcomma\space}%
3042 }{%
3043   \setunit{\addspace}}%
3044 \usebibmacro{altreportdetails}%
3045 \usebibmacro{court-note}%
3046 }
3047 \newcommand*\oxrefand{ and }
3048 \newbibmacro{eucasetype}{%
3049   \iffieldundef{type}{%
3050     \ifboolexpr{
3051       test {\IfSubStr{\thefield{number}}{,}}
3052       or
3053       test {\IfSubStr{\thefield{number}}{--}}
3054       or
3055       test {\IfSubStr{\thefield{number}}{\oxrefand}}
3056     }{%
3057       \bibstring{eujoinedcases}%
3058     }{%
3059       \bibstring{eucase}}%
3060   }%

```

```

3061     \printfield{type}}%
3062 }
3063 \newbibmacro{eucasenumber}{%
3064   \usebibmacro{eucasetype}%
3065   \setunit{\addnbspace}%
3066   \printfield{number}%
3067   \setunit{\addspace}}
3068 \newbibmacro{eucommissiondecision}{%
3069   \iffieldundef{userb}{%
3070     \iffieldundef{number}{}{%
3071       \printtext[parens]{%
3072         \usebibmacro{eucasetype}%
3073         \setunit{\addnbspace}%
3074         \printfield{number}}}%
3075     }{%
3076       \printtext[parens]{%
3077         \printfield{userb}}%
3078         \setunit{\addspace}%
3079         \iffieldundef{number}{}{%
3080           \iffieldundef{type}{%
3081             \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3082             }{%
3083               \setunit{\addspace\printfield{type}\addspace}}%
3084             \printfield{number}}}%
3085           }%
3086         }
3087 \newbibmacro*{eu:reportinfo}{%
3088   \iftoggle{bbx@eclionly}{%
3089     \iffieldundef{verba}{%
3090       \usebibmacro{eu:osreport}
3091     }{%
3092       \printfield{verba}}%
3093   }{%
3094     \usebibmacro{eu:osreport}}
3095 \newbibmacro*{eu:osreport}{%
3096   \iftoggle{bbx@ecliuse}{%
3097     \iffieldundef{verba}{}{%
3098       \printfield{verba}%
3099       \setunit{\addcomma\space}}%
3100   }{}%
3101   \iffieldundef{journaltitle}{%
3102     \usebibmacro{unreported}%
3103   }{%
3104     \usebibmacro{eu:year+vol+report}}
3105 \newcommand*\officialjournaltitle{OJ}
3106 \newcommand*\ecrreporttitle{ECR}
3107 \newbibmacro*{eu:year+vol+report}{%
3108   \iffieldequals{journaltitle}{\ecrreporttitle}{%
3109     \printfield[brackets]{year}%
3110     \setunit{\addspace}%
3111     \printfield{journaltitle}%
3112     \setunit{\addspace}%
3113     \printfield{volume}%
3114     \setunit*{\printtext{--\allowbreak}}%
3115     \printfield{pages}%
3116   }{%
3117     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3118       \printfield[brackets]{year}%
3119       \setunit{\addspace}%
3120       \printfield{journaltitle}%
3121       \setunit{\addspace}%
3122       \printfield[default]{series}%

```

```

3123     \usebibmacro{issue/volume}%
3124     \setunit{\printtext{\slash}}%
3125     \printfield{pages}%
3126   }{%
3127     \usebibmacro{year+vol+report}}}}
3128

```

Here is the format for European Human Rights cases.

```

3129 \newbibmacro*{echrjuriscitation}{%
3130   \usebibmacro{title}%
3131   \setunit{\addspace}\newblock
3132   \iffieldundef{number}{}{%
3133     \printtext[parens]{%
3134       \def\adddot{}%
3135       \bibstring{application}\space
3136       \bibstring{number}\space
3137       \printfield{number}}}%
3138   \setunit{\addspace}\newblock}%
3139 \iffieldundef{journaltitle}{%
3140   \usebibmacro{unreported}[echrinst]%
3141 }{%
3142   \usebibmacro{echr:year+vol+report}
3143   \setunit{\addspace}\newblock
3144   \usebibmacro{echr:courtid}}%
3145 \setunit{\addspace}%
3146 \usebibmacro{court-note}%
3147 \newblock
3148 \setunit{\addspace}}
3149 \newcommand*{\seriesa}{Series A}
3150 \newcommand*{\echrreports}{ECHR}
3151 \newbibmacro*{echr:year+vol+report}{%
3152   \iffieldequals{journaltitle}{\seriesa}{%
3153     \usebibmacro{seriesareport}}%
3154 }{%
3155   \iffieldequals{journaltitle}{\echrreports}{%
3156     \usebibmacro{echrreports}}%
3157 }{%
3158   \usebibmacro{year+vol+report}
3159   \setunit{\addspace}%
3160   \printfield{pages}}}}
3161 \newbibmacro*{seriesareport}{%
3162   \printfield[parens]{year}%
3163   \setunit{\addspace}%
3164   \printfield{journaltitle}%
3165   \setunit{\addspace}%
3166   \printtext{\def\adddot{}\bibstring{number}\addspace}%
3167   \printfield{pages}}
3168 \newbibmacro*{echrreports}{%
3169   \printfield{journaltitle}%
3170   \setunit{\addspace}%
3171   \printfield{year}%
3172   \iffieldundef{volume}{}{%
3173     \printtext{--}\printfield[romanvol]{volume}}
3174   \setunit{\addspace}%
3175   \printfield{pages}}
3176 \newcommand*{\decisionsandreports}{DR}
3177 \newcommand*{\collectionofdecisions}{CD}
3178 \newbibmacro*{echr:courtid}{%
3179   \ifboolexpr{
3180     test {\iffieldequals{journaltitle}{\decisionsandreports}}

```

```

3181     or
3182     test {\iffieldequals{journaltitle}{\collectionofdecisions}}%
3183   }{}{%
3184     \printlist[ecthr]{institution}}
3185

```

Here is the format for international cases.

```

3186 \newbibmacro*{intjuriscitation}{%
3187   \iflistundef{institution}{%
3188     \setunit{}\printtext{}%
3189   }{%
3190     \printlist{institution}%
3191     \setunit{\addcomma\space}}%
3192 \usebibmacro{int:title}%
3193 \setunit{\addspace}\newblock
3194 \iffieldundef{journaltitle}{%
3195   \printfield{number}%
3196   \setunit{\addspace}\newblock
3197   \printtext[parens]{\printdate}%
3198 }{%
3199   \usebibmacro{year+vol+report}[international]%
3200 }%
3201 \setunit{\addspace}%
3202 \usebibmacro{int:jurisdictionpages}%
3203 \setunit{\addspace}\newblock
3204 \usebibmacro{court-note}%
3205 }
3206 \newbibmacro*{int:title}{%
3207   \ifboolexpr{
3208     test {\iffieldundef{title}}
3209     and
3210     test {\iffieldundef{subtitle}}
3211   }{}{%
3212     \printtext[title]{%
3213       \printfield[titlecase]{title}%
3214       \setunit{\addspace}%
3215       \printfield[parens]{subtitle}}}%
3216   \setunit{\addspace}%
3217   \printfield{titleaddon}%
3218 }
3219 \newbibmacro*{int:jurisdictionpages}{%
3220   \let\origaddot\adddot
3221   \def\addot{}%
3222   \iffieldequals{journaltitle}{\pcijrep}{%
3223     \printtext{\bibcpstring{number}\addspace}%
3224     \iffieldundef{pages}{%
3225       \printfield{number}%
3226     }{%
3227       \printfield{pages}}%
3228   }{%
3229     \printfield{pages}}%
3230   \let\addot\origaddot
3231 }
3232

```

Here is the format for Canadian cases.

```

3233 \newbibmacro{cajuriscitation}{%
3234   \usebibmacro{title}%
3235   \setunit{\cacasetitlepunct}\newblock

```

```

3236 \printfield{number}%
3237 \setunit{\addcomma\space}%
3238 \iffieldundef{journaltitle}{}{%
3239 \usebibmacro{can:year+vol+report}}%
3240 \usebibmacro{jurisdictionpages}%
3241 \usebibmacro{pcitenote}%
3242 \usebibmacro{altreportdetails}%
3243 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3244 \newunit\newblock
3245 \usebibmacro{courtid}%
3246 \newunit%
3247 \usebibmacro{court-note}%
3248 \newblock%
3249 \newunit}
3250 \newbibmacro*{can:year+vol+report}{%
3251 \iffieldundef{number}{%
3252 \setunit{\addspace}%
3253 }{%
3254 \ifboolexpr{
3255 test {\iffieldundef{volume}}
3256 or
3257 bool {bbx@year-essential}}%
3258 }{%
3259 \clearfield{year}}%
3260 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3261 \iffieldundef{year}{%
3262 \usebibmacro{journaldate}%
3263 \setunit{\addspace}}
3264 \printfield{volume}%
3265 \setunit{\addspace}%
3266 \printfield{journaltitle}%
3267 \setunit*{\addspace}%
3268 \iffieldundef{series}{%
3269 \setunit{\addspace}%
3270 \printtext[parens]{\printfield[usseries]{series}}%
3271 \setunit{\addspace}}%
3272 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3273 \setunit{\addcomma\space}%
3274 \usebibmacro{newspaperdate}%
3275 }{}}

```

Here is the format for American cases.

```

3276 \newbibmacro{usjuriscitation}{%
3277 \usebibmacro{title}%
3278 \setunit{\uscasetitlepunct}\newblock%
3279 \iffieldundef{journaltitle}{%
3280 \printfield{number}%
3281 \setunit{\addcomma\space}%
3282 \printfield[default]{eprint}%
3283 \clearfield{eprint}%
3284 }{
3285 \usebibmacro{us:vol+report}}%
3286 \setunit{\addspace}%
3287 \usebibmacro{jurisdictionpages}%
3288 \usebibmacro{us:postnote}%
3289 \usebibmacro{altreportdetails}%
3290 \setunit{\addspace}\newblock
3291 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3292 \setunit{\addspace}%
3293 \usebibmacro{us:courtid+date}%
3294 \setunit{\addspace}%

```

```

3295     \usebibmacro{court-note}%
3296     \newblock
3297     \setunit{\addspace}}
3298 \newbibmacro{us:vol+report}{%
3299   \printfield{volume}%
3300   \setunit{\addspace}%
3301   \printfield{journaltitle}%
3302   \iffieldundef{series}{}{%
3303     \setunit{\addspace}%
3304     \printfield[usseries]{series}}
3305 \newbibmacro{us:postnote}{%
3306   \iffieldundef{postnote}{}{%
3307     \setunit{\addcomma\space}%
3308     \printfield{postnote}%
3309     \clearfield{postnote}%
3310   }}
3311 \newbibmacro{us:courtid+date}{%
3312   \ifboolexpr{
3313     test {\iflistundef{institution}}
3314     and
3315     test {\iflistundef{location}}
3316     and
3317     test {\iffieldundef{year}}
3318   }{){%
3319     \printtext[parens]{%
3320       \printlist{location}%
3321       \setunit*\addspace}%
3322     \printlist{institution}%
3323     \setunit{\addspace}%
3324     \printfield{year}%
3325     \nopunct}}
3326

```

Here is the format for English cases.

```

3327 \newbibmacro{enjuriscitation}{%
3328   \usebibmacro{title}%
3329   \setunit{\addspace}\newblock
3330   \printfield{neutralcite}%
3331   \setunit*\addcomma\space}%
3332   \printfield{number}%
3333   \setunit*\addcomma\space}%
3334   \iffieldundef{journaltitle}{}{%
3335     \usebibmacro{year+vol+report}}}%
3336   \usebibmacro{jurisdictionpages}%
3337   \usebibmacro{pcitenote}%
3338   \usebibmacro{altreportdetails}%
3339   \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
3340   \setunit{\addspace}\newblock
3341   \usebibmacro{courtid}%
3342   \setunit{\addspace}%
3343   \usebibmacro{court-note}}
3344 \newbibmacro{altreportdetails}{%
3345   \restorefield{prenote}{\postnotesecond}%
3346   \iffieldundef{parreporter}{}{%
3347     \usebibmacro{journaldate}[par}%
3348     \setunit{\addspace}\newblock
3349     \usebibmacro{altreportvolume}%
3350     \setunit{\addspace}\newblock
3351     \usebibmacro{altjournaltitle}%
3352     \setunit{\addspace}\newblock

```



```

3353     \usebibmacro{altseries}%
3354     \setunit{\addspace}\newblock
3355     \usebibmacro{altjurisdictionpages}%
3356     \iffieldundef{prenote}}{%
3357         \setunit{\addcomma\space}%
3358         \printfield[postnote]{prenote}}}}
3359 \newbibmacro*{altreportvolume}{%
3360     \iffieldundef{parvolume}}{%
3361         \printfield{parvolume}}
3362 \newbibmacro*{altjournaltitle}{%
3363     \iffieldundef{parreporter}}{%
3364         \printfield{parreporter}}
3365 \newbibmacro*{altseries}{%
3366     \iffieldundef{parseries}}{%
3367         \printfield{parseries}}
3368 \newbibmacro*{altjurisdictionpages}{%
3369     \iffieldundef{parpages}}{%
3370         \printfield{parpages}}%
3371

```

Legislation

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

```

3372 \newcommand*{\subtypecourtrules}{procedure-rule}
3373 \DeclareBibliographyDriver{legislation}{%
3374     \usebibmacro{bibindex}%
3375     \usebibmacro{begentry}%
3376     \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3377         \usebibmacro{courtrules}%
3378     }{%
3379         \ifkeyword{draft}{%
3380             \usebibmacro{legislation:bill}%
3381         }{%
3382             \ifkeyword{eu}{%
3383                 \usebibmacro{eulegislation}%
3384             }{%
3385                 \printfield[default]{title}%
3386                 \setunit{\addspace}%
3387                 \printfield[default]{year}%
3388                 \setunit*{\addspace}%
3389                 \usebibmacro{legnumber}%
3390                 \setunit{\addspace}\newblock
3391                 \usebibmacro{legsupp}}}}%
3392     \setunit{\addcomma\space}%
3393     \printfield{note}%
3394     \setunit{\bibpageref punct}\newblock
3395     \usebibmacro{pageref}%
3396     \usebibmacro{finentry}}
3397 \newbibmacro*{courtrules}{%
3398     \restorefield{prenote}{\postnotesecond}%
3399     \iffieldequalstr{shorttitle}{PD}{%
3400         \printfield{postnote}%
3401         \clearfield{postnote}%
3402         \setunit{\addspace}%
3403     }{%
3404         \iffieldundef{shorttitle}{%
3405             \printfield[default]{title}%
3406         }%

```

```

3407     \printfield[default]{shorttitle}%
3408     \setunit{\addspace}\newblock
3409     \iffielddundef{postnote}{%
3410         \toggletrue{blx@ox@nopostnotedelim}%
3411     }{%
3412         \iffieldequalstr{shorttitle}{CPR}{%
3413             \printfield{postnote}%
3414             \setunit{\addspace}%
3415         }{%
3416             \printtext{%
3417                 \bibstring{order}\space
3418                 \printfield{postnote}%
3419                 \setunit{\addcomma\space}}}%
3420     \restorefield{postnote}{\postnotesecond}%
3421     \usebibmacro{postnote}%
3422     \clearfield{postnote}%
3423     \setunit{\addspace}\newblock}
3424 \newcommand*\subtypeprimarylegislation{primary}
3425 \newbibmacro*{legislation:bill}{%
3426     \printfield[draftleg]{title}%
3427     \setunit{\addspace}%
3428     \printlist{institution}%
3429     \setunit*\addspace}%
3430 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3431     \bibcpstring{bill}%
3432     \setunit{\addspace}%
3433     \printtext[parens]{\usebibmacro{sessionyear}}%
3434     \setunit{\addspace}%
3435     \iffielddundef{number}{}%
3436     \printlist[billprinting]{institution}}%
3437 }{%
3438     \printtext[parens]{%
3439         \bibstring{draft}\space
3440         \printdate}}
3441 \setunit{\addspace}}
3442 \newbibmacro*{sessionyear}{%
3443     \iffielddundef{year}{}%
3444     \printfield{year}%
3445     \iffielddundef{endyear}{}%
3446     \bibdaterangesep
3447     \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}
3448 \newbibmacro{eulegislation}{%
3449     \printfield[default]{title}%
3450     \setunit{\addspace}\newblock%
3451     \usebibmacro{eulegref}}
3452 \newcommand*\ojsspecedtitle{OJ Spec Ed}
3453 \newbibmacro*{eulegref}{%
3454     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3455         \printfield[brackets]{year}%
3456         \setunit{\addspace}%
3457         \printfield{journaltitle}%
3458         \setunit{\addspace}%
3459         \iffielddundef{series}{%
3460             \printtext{L}%
3461         }{%
3462             \printfield[default]{series}}%
3463         \usebibmacro{issue/volume}%
3464         \setunit*\addslash}%
3465         \printfield{pages}%
3466         \togglefalse{blx@ox@nopostnotedelim}%
3467     }{%
3468         \usebibmacro{year+vol+report}%

```

```

3469     \setunit*{\addspace}%
3470     \printfield{pages}}
3471 \newbibmacro*{Legnumber}{%
3472   \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3473     \ifboolexpr{(
3474       test {\iffieldundef{number}}
3475       or
3476       not test {\iffieldundef{title}} )
3477     and not (
3478       test {\ifkeyword{cy}}
3479       or
3480       test {\ifkeyword{sc}}
3481       or
3482       test {\ifkeyword{ni}} )
3483   )}{%
3484     \printtext[parens]{\printfield{number}}%
3485     \toggletrue{blx@ox@nopostnotedelim}}%
3486 }{%
3487   \iffieldundef{number}}{%
3488   \setunit{\addcomma\addspace}%
3489   \printfield{number}%
3490   \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3491 \newbibmacro*{Legsupp}{%
3492   \ifkeyword{cy}
3493   {\iffieldundef{userb}
3494     {}
3495     {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3496   {}
3497 }

```

Treaties, explanatory notes and Hansard

```

3498 \newcommand*{\explanatorynote}{explanatory note}
3499 \newcommand*{\parliamentarytype}{parliamentary}
3500 \newcommand*{\treatysubtype}{piltreaty}
3501 \DeclareBibliographyDriver{Legal}{%
3502   \usebibmacro{bibindex}%
3503   \usebibmacro{begentry}%
3504   \iffieldequals{entrysubtype}{\explanatorynote}{%
3505     \printfield[default]{title}%
3506     \setunit{\addspace}\newblock
3507   }{%
3508     \iffieldequals{entrysubtype}{\parliamentarytype}{%
3509       \usebibmacro{legal:parliamentary}%
3510     }{%
3511       \usebibmacro{treatycitation}}}%
3512   \setunit{\addcomma\space}\newblock
3513   \printfield[default]{note}
3514   \setunit{\addspace}\newblock
3515   \iftoggle{bbx:related}
3516   {\usebibmacro{related:init}%
3517     \usebibmacro{related}}
3518   {}%
3519   \setunit{\bibpageref punct}%
3520   \usebibmacro{pageref}%
3521   \usebibmacro{finentry}}
3522 \newbibmacro{legal:parliamentary}{%

```

```

3523 \printfield[default]{title}%
3524 \newunit\newblock
3525 \printfield{type}%
3526 \setunit{\addspace}%
3527 \iffieldundef{series}{}{%
3528 \printtext[parens]{%
3529 \biblstring{jourser}\space
3530 \printfield{series}}}%
3531 \setunit{\addspace}%
3532 \printfield{volume}%
3533 \setunit{\addcomma\space}%
3534 \usebibmacro{hansard-ref}%
3535 \setunit{\addspace}%
3536 \iffieldundef{year}{}{%
3537 \printtext[parens]{\usebibmacro{date}}}%
3538 \togglefalse{blx@ox@nopostnotedelim}}
3539 \newbibmacro*{hansard-ref}{%
3540 \iffieldundef{postnote}{%
3541 \iffieldundef{pages}{}{%
3542 \printfield{pages}}%
3543 }}}%
3544 \newbibmacro{treatycitation}{%
3545 \printfield[default]{title}%
3546 \setunit{\addspace}\newblock%
3547 \printlist[treaty]{institution}
3548 \setunit{\addspace}\newblock
3549 \usebibmacro{treatyinfo}%
3550 \setunit{\addspace}\newblock
3551 \usebibmacro{treaty:year+vol+report}}
3552 \newbibmacro{treatyinfo}{%
3553 \iflistundef{lista}{% execution
3554 \iffieldundef{year}{}{%
3555 \iffieldundef{volume}{}{%
3556 \printtext[parens]{\printdate}}}%
3557 }{%
3558 \printtext[parens]{\printlist[treatydates]{lista}}}}
3559 \newbibmacro{treaty:year+vol+report}{%
3560 \iffieldequals{journaltitle}{\officialjournaltitle}{%
3561 \usebibmacro{eulegref}%
3562 }{%
3563 \usebibmacro{treaty:date}%
3564 \setunit{\addspace}%
3565 \printfield[default]{volume}%
3566 \setunit{\addspace}%
3567 \printfield{journaltitle}%
3568 \setunit*{\addspace}%
3569 \iffieldundef{series}{%
3570 \printfield{type}%
3571 \setunit*{\addspace}%
3572 }{%
3573 \printfield{series}%
3574 \iffieldundef{type}{%
3575 \setunit{\addspace}%
3576 \bibcpstring{number}
3577 \setunit{\addspace}%
3578 }{%
3579 \setunit{\addcomma\space}%
3580 }}
3581 \printfield{number}
3582 \setunit*{\addspace}%
3583 \printfield{pages}}}%
3584 \newbibmacro*{treaty:date}{%

```

```

3585 \ifboolexpr{
3586   test {\iffieldundef{volume}}
3587   or
3588   bool {bbx@year-essential}
3589 }{%
3590   \ifboolexpr{
3591     test {\ifkeyword{sc}}
3592     or
3593     test {\iftoggle{bbx:scotstyle}}
3594   }{%
3595     \printfield{year}%
3596   }{%
3597     \printfield[brackets]{year}%
3598   }}}}
3599

```

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

```

3600 \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.

```

3601 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3602 \newcommand{\collectionshelfmarkpunct}{\addspace}
3603 \newcommand{\datingpagespunct}{\addcomma\addspace}
3604 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3605 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3606 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%

```

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

```

3607 \def\recto{r}
3608 \def\verso{v}
3609 \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.

```

3610 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3611   \def\currentfield{title}%
3612   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3613   \undef\currentfield}
3614 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3615 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3616 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3617 \DeclareFieldFormat{dating}{#1\isdot}%
3618 \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.

```

3619 \newbibmacro{manuscript:date}{%
3620   \ifboolexpr{
3621     test {\ifnameundef{author}}
3622     and
3623     test {\iffieldundef{title}}
3624     and
3625     test {\iffieldundef{label}}
3626   }{\usebibmacro{date}}
3627 \newbibmacro{dating}{%
3628   \ifboolexpr{(
3629     test {\ifnameundef{author}}
3630     and
3631     test {\iffieldundef{title}}
3632     and
3633     test {\iffieldundef{label}}
3634   ) or
3635     test {\iffieldundef{year}}
3636 }{%
3637   \printfield{dating}%
3638 }{}}

```

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.

```

3639 \newbibmacro{location+library+collection+shelfmark}{%
3640   \printfield{library}%
3641   \setunit{\locationlibrarypunct}%
3642   \printlist{location}%
3643   \setunit{\librarycollectionpunct}%
3644   \usebibmacro{collection+shelfmark}}
3645 \newbibmacro{collection+shelfmark}{%
3646   \ifboolexpr{
3647     test {\iffieldundef{collection}}
3648     and
3649     test {\iffieldundef{shelfmark}}
3650   }{%
3651     \printtext[collection+shelfmark]{%
3652       \printfield{collection}%
3653       \setunit*{\collectionshelfmarkpunct}%
3654       \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.

```

3655 \newbibmacro{manuscript:pages}{%
3656   \printfield{pagetotal}%
3657   \setunit{\addspace}%
3658   \iffieldundef{pages}{%
3659     \usebibmacro{manuscript:columns+layer}%
3660   }{%
3661     \usebibmacro{manuscript:columns}%
3662     \setunit{\pagetotalpagespunct}%
3663     \printfield{pages}%
3664     \setunit{\addspace}%
3665     \usebibmacro{manuscript:layer}}}
3666 \newbibmacro{manuscript:columns}{%
3667   \iffieldundef{columns}{%
3668     \printtext[columns]{\bibstring{\strfield{columns}column}}%
3669   }%

```

```

3670 \newbibmacro{manuscript:layer}{%
3671   \iffieldundef{layer}{}{%
3672     \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3673   }%
3674 \newbibmacro{manuscript:columns+layer}{%
3675   \ifboolexpr{
3676     test {\iffieldundef{columns}}
3677     or
3678     test{\iffieldundef{layer}}
3679   }{%
3680     \usebibmacro{manuscript:columns}%
3681     \usebibmacro{manuscript:layer}%
3682   }{%
3683     \printtext[columns+layer]{%
3684       \bibstring{\strfield{columns}column}%
3685       \setunit*{\columnslayerpunct}%
3686       \bibstring{\strfield{layer}layer}}}%

```

Putting it all together, here is the manuscript driver.

```

3687 \DeclareBibliographyDriver{manuscript}{%
3688   \usebibmacro{bibindex}%
3689   \usebibmacro{begentry}%
3690   \usebibmacro{author}%
3691   \setunit{\printdelim{nametitledelim}}\newblock
3692   \usebibmacro{title}%
3693   \setunit{\titlebyauthordelim}\newblock
3694   \usebibmacro{byauthor}%
3695   \newunit\newblock
3696   \printfield{howpublished}%
3697   \newunit\newblock
3698   \printfield{note}%
3699   \newunit\newblock
3700   \usebibmacro{manuscript:date}%
3701   \newunit\newblock
3702   \usebibmacro{location+library+collection+shelfmark}%
3703   \newunit
3704   \printfield{support}%
3705   \newunit
3706   \usebibmacro{dating}%
3707   \setunit{\datingpagespunct}
3708   \usebibmacro{manuscript:pages}
3709   \newunit\newblock%
3710   \iftoggle{bbx:url}{%
3711     \usebibmacro{url+urldate}%
3712   }{}%
3713   \iftoggle{bbx:related}{%
3714     \usebibmacro{related:init}%
3715     \usebibmacro{related}%
3716   }{}%
3717   \setunit{\bibpagerefpunct}\newblock
3718   \usebibmacro{pageref}%
3719   \usebibmacro{finentry}}

```

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

```

3720 \newbibmacro*{library+location+series+number}{%
3721   \printfield{library}%
3722   \setunit{\locationlibrarypunct}%
3723   \printlist{location}%
3724   \setunit{\librarycollectionpunct}%

```

```

3725 \ifboolexpr{
3726   test {\iffieldundef{series}}
3727   and
3728   test {\iffieldundef{number}}
3729 }{}{%
3730   \printtext[collection+shelfmark]{%
3731     \printfield{series}%
3732     \setunit*{\collectionshelfmarkpunct}%
3733     \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’.

```

3734 \newtoggle{blx@ox@ms}
3735 \DeclareBibliographyDriver{unpublished}{%
3736   \usebibmacro{bibindex}%
3737   \usebibmacro{begentry}%
3738   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3739   \usebibmacro{author}%
3740   \setunit{\printdelim{nametitledelim}}\newblock
3741   \usebibmacro{title}%
3742   \setunit{\titlebyauthordelim}\newblock
3743   \usebibmacro{byauthor}%
3744   \newunit\newblock
3745   \printfield{note}%
3746   \newunit\newblock
3747   \printfield{howpublished}%
3748   \newunit\newblock
3749   \iftoggle{blx@ox@ms}{%
3750     \usebibmacro{manuscript:date}%
3751     \newunit\newblock
3752     \usebibmacro{library+location+series+number}%
3753     \newunit
3754     \printfield{support}%
3755     \newunit
3756     \usebibmacro{dating}%
3757     \setunit{\datingpagespunct}
3758     \usebibmacro{manuscript:pages}
3759   }{%
3760     \usebibmacro{location+date}%
3761   }%
3762   \newunit\newblock
3763   \iftoggle{bbx:url}
3764     {\usebibmacro{url+urldate}}
3765     {}%
3766   \newunit\newblock
3767   \usebibmacro{addendum+pubstate}%
3768   \iftoggle{bbx:related}
3769     {\usebibmacro{related:init}%
3770     \usebibmacro{related}}
3771     {}%
3772   \setunit{\bibpagerefpunct}\newblock
3773   \usebibmacro{pageref}%
3774   \usebibmacro{finentry}}

```

2.1.17 LETTERS

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


```

3775 \DeclareBibliographyDriver{letter}{%
3776   \usebibmacro{bibindex}%
3777   \usebibmacro{begentry}%
3778   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3779   \usebibmacro{author}%
3780   \setunit{\printdelim{nametitleledelim}}\newblock
3781   \usebibmacro{title}%
3782   \setunit{\titlebyauthorledelim}\newblock
3783   \usebibmacro{byauthor}%
3784   \newunit\newblock
3785   \printfield{note}%
3786   \iffieldundef{howpublished}{\nopunct\printfield{howpublished}}%
3787   \newunit\newblock
3788   \iftoggle{blx@ox@ms}{%
3789     \usebibmacro{manuscript:date}%
3790     \newunit\newblock
3791     \usebibmacro{library+location+series+number}%
3792     \newunit
3793     \printfield{support}%
3794     \newunit
3795     \usebibmacro{dating}%
3796     \setunit{\datingpagespunct}
3797     \usebibmacro{manuscript:pages}
3798   }{%
3799     \usebibmacro{location+date}%
3800   }%
3801   \newunit\newblock
3802   \iftoggle{bbx:url}
3803     {\usebibmacro{url+urldate}}
3804     {}%
3805   \newunit\newblock
3806   \usebibmacro{addendum+pubstate}%
3807   \iftoggle{bbx:related}
3808     {\usebibmacro{related:init}%
3809     \usebibmacro{related}}
3810     {}%
3811   \setunit{\bibpagerefpunct}\newblock
3812   \usebibmacro{pageref}%
3813   \usebibmacro{finentry}}
3814 \DeclareFieldFormat[letter]{title}{%
3815   \def\currentfield{title}%
3816   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3817   \undef\currentfield}
3818 \DeclareFieldFormat[letter]{date}{%
3819   \iffieldundef{url}{#1}{\mkbibparens{#1}}}

```

2.1.18 RELATED ENTRIES

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

```

3820 \xpatchbibdriver{booklet}{%
3821   \setunit{\bibpagerefpunct}\newblock
3822   \usebibmacro{pageref}%
3823   \newunit\newblock
3824   \iftoggle{bbx:related}
3825     {\usebibmacro{related:init}%
3826     \usebibmacro{related}}
3827     {}%
3828   }{%

```

```

3829 \iftoggle{bbx:related}
3830   {\usebibmacro{related:init}}%
3831   \usebibmacro{related}}
3832   {}%
3833 \setunit{\bibpagerefunct}\newblock
3834 \usebibmacro{pageref}%
3835 }{\wlog{WARNING: biblatex-oxref failed to patch booklet}}

```

```

3836 \xpatchbibdriver{misc}{%
3837   \setunit{\bibpagerefunct}\newblock
3838   \usebibmacro{pageref}%
3839   \newunit\newblock
3840   \iftoggle{bbx:related}
3841     {\usebibmacro{related:init}}%
3842     \usebibmacro{related}}
3843   {}%
3844 }{%
3845   \iftoggle{bbx:related}
3846     {\usebibmacro{related:init}}%
3847     \usebibmacro{related}}
3848   {}%
3849   \setunit{\bibpagerefunct}\newblock
3850   \usebibmacro{pageref}%
3851 }{\wlog{WARNING: biblatex-oxref failed to patch misc}}

```

We provide an option for setting the relatedtype punctuation.

```

3852 \DeclareDelimFormat{begrelateddelimamendedby}{\addcomma\space}
3853 \DeclareDelimFormat{begrelateddelimequals}{\addspace}
3854 \DeclareDelimFormat{begrelateddelimin}{\addcomma\space}
3855 \DeclareDelimFormat{begrelateddeliminclides}{\addcomma\space}
3856 \DeclareDelimFormat{begrelateddelimreprintfrom}{\addperiod\space}
3857 \DeclareDelimFormat{begrelateddelimreviewof}{\newunitpunct}
3858 \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}
3859 \DeclareDelimFormat{begrelateddelimmultivolume}{\newunitpunct}
3860 \DeclareDelimFormat{relateddelimmultivolume}{\newunitpunct}
3861 \newtoggle{blx@ox@success}
3862 \DeclareBiblatexOption{global,type}[string]{relationpunct}[semicolon]{%
3863   \bgroup\blx@blx@init
3864   \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3865     \global\togglefalse{blx@ox@success}}%
3866   \PackageError{biblatex-oxref}{%
3867     Invalid option 'relationpunct=#1'%
3868   }{%
3869     Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3870     'period', 'exclam', 'question', and 'space'.}}%
3871   \egroup
3872   \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}}{%
3873     \DeclareDelimFormat{begrelateddelim}{\addspace}%
3874   }{%
3875     \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}}%
3876   }{}}
3877 \DeclareEntryOption[string]{relationpunct}[semicolon]{%
3878   \bgroup\blx@blx@init
3879   \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3880     \global\togglefalse{blx@ox@success}}%
3881   \PackageError{biblatex-oxref}{%
3882     Invalid option 'relationpunct=#1'%
3883   }{%
3884     Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak

```

```

3885     'period', 'exclam', 'question', and 'space'.}}%
3886 \egroup
3887 \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}}{%
3888   \DeclareDelimFormat{begrelateddelim}{\addspace}%
3889   \DeclareDelimFormat{begrelateddelimamendedby}{\addspace}
3890   \DeclareDelimFormat{begrelateddelimequals}{\addspace}%
3891   \DeclareDelimFormat{begrelateddelimin}{\addspace}%
3892   \DeclareDelimFormat{begrelateddelimincludes}{\addspace}%
3893   \DeclareDelimFormat{begrelateddelimreprintfrom}{\addspace}%
3894   \DeclareDelimFormat{begrelateddelimreviewof}{\addspace}%
3895   \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}%
3896   \DeclareDelimFormat{begrelateddelimmultivolume}{\addspace}%
3897 }{%
3898   \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}%
3899   \DeclareDelimFormat{begrelateddelimamendedby}{\csuse{add#1}\space}
3900   \DeclareDelimFormat{begrelateddelimequals}{\csuse{add#1}\space}%
3901   \DeclareDelimFormat{begrelateddelimin}{\csuse{add#1}\space}%
3902   \DeclareDelimFormat{begrelateddelimincludes}{\csuse{add#1}\space}%
3903   \DeclareDelimFormat{begrelateddelimreprintfrom}{\csuse{add#1}\space}%
3904   \DeclareDelimFormat{begrelateddelimreviewof}{\csuse{add#1}\space}%
3905   \DeclareDelimFormat{begrelateddelimtranslationof}{\csuse{add#1}\space}%
3906   \DeclareDelimFormat{begrelateddelimmultivolume}{\csuse{add#1}\space}}%
3907 }{}
3908 \ExecuteBibliographyOptions{relationpunct}
3909 \newcounter{blx@ox@relitem}
3910 \xapptobibmacro{begrelated}{%
3911   \setcounter{blx@ox@relitem}{0}}%
3912 }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelated}}

```

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

```

3913 \newtoggle{blx@ox@norelin}
3914 \DeclareBiblatexOption{global,type,entry}{norelatedin}[true]{%
3915   \settoggle{blx@ox@norelin}{#1}}
3916 \xapptobibmacro{begrelatedloop}{%
3917   \iftoggle{blx@ox@norelin}{%
3918     \renewbibmacro*{in:}{%
3919       \ifboolexpr{
3920         test {\iffieldequalstr{entrysubtype}{yearbook}}
3921         or (
3922           test {\ifnameundef{author}}
3923           and
3924           test {\ifnameundef{translator}}
3925           and
3926           test {\iffieldundef{title}}
3927         )}{%
3928           \bibstring{in}%
3929           \printunit{\intitlepunct}%
3930         }{}%
3931       }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelatedloop}}
3932     }

```

Translations

Where the related item is the translation, the related string is (by default, in English at least) prefaced with the language.

```

3933 \newbibmacro*{rellanguage}{%
3934   \def\do#1{%
3935     \entrydata{#1}}%

```

```

3936     \printlist{language}}}%
3937     \docsvfield{related}%
3938   }
3939   \DeclareFieldFormat{relatedstring:translationof}{%
3940     \iffieldundef{relatedstring}{%
3941       \blx@ox@langbibstring{\usebibmacro{relanguage}}{original}%
3942       \printunit{\addcomma\space}
3943     }{%
3944       \thefield{relatedstring}\printunit{\relatedpunct}}}}
3945
3946   \DeclareFieldFormat{related:translationof}{%
3947     \mkbibbrackets{#1}}

```

Co-publications

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

```

3948   \newbibmacro*{related:copub}[1]{%
3949     \entrydata*{#1}{%
3950       \usebibmacro{publisher+location+date}%
3951       \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.

```

3952   \renewbibmacro*{related:reprintfrom}[1]{%
3953     \entrydata*{#1}{%
3954       \nopunct
3955       \usedriver{%
3956         \ifnameundef{savedauthor}{%
3957           \ifnameundef{savededitor}{}{%
3958             \ifnameequal{editor}{savededitor}{%
3959               \clearname{editor}%
3960             }{}%
3961           }{%
3962             \ifnameequal{author}{savedauthor}{%
3963               \clearname{author}%
3964             }{}%
3965           }
3966         \iffieldundef{savedtitle}{}{%
3967           \iffieldsequal{savedtitle}{title}{%
3968             \clearfield{title}%
3969           }{}%
3970         }
3971         \renewbibmacro*{related:init}{}%
3972         \DeclareNameAlias{sortname}{default}%
3973         \ifbibmacroundef{date+extradate}{}{%
3974           \renewbibmacro*{date+extradate}{}%
3975           \renewbibmacro*{date}{\printdate}}%
3976         \renewbibmacro*{pageref}{}%
3977       }{%
3978         \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.

```

3977 \newbibmacro*{related:serialarticle}[1]{%
3978 \entrydata*{#1}{%
3979 \iffieldundef{savedjournaltitle}}{%
3980 \iffieldsequal{journaltitle}{savedjournaltitle}{%
3981 \clearfield{journaltitle}%
3982 }}{%
3983 \iffieldundef{savedjournalsubtitle}}{%
3984 \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
3985 \clearfield{journalsubtitle}%
3986 }}{%
3987 \iffieldundef{savedseries}}{%
3988 \iffieldsequal{series}{savedseries}{%
3989 \clearfield{series}%
3990 }}{%
3991 \iffieldundef{savedyear}}{\clearfield{year}}{
3992 \iffieldsequal{year}{savedyear}{%
3993 \clearfield{year}%
3994 }}{%
3995 \usebibmacro{journal+issuetitle}%
3996 \newunit
3997 \usebibmacro{note+pages}%
3998 \newunit\newblock
3999 \usebibmacro{doi+eprint+url}%
4000 \newunit\newblock
4001 \usebibmacro{addendum+pubstate}}

```

Reviews

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

```

4002 \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
4003 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
4004 \DeclareFieldFormat[review]{number}{#1}% number of a journal
4005 \DeclareFieldFormat[review]{series}{% series of a journal
4006 \ifinteger{#1}
4007 {\mkbibordseries{#1}~\bibstring{jourser}}
4008 {\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.

```

4009 \newbibmacro*{related:reviewof}[1]{%
4010 \entrydata*{#1}{%
4011 \usedriver{%
4012 \renewbibmacro*{related:init}}{%
4013 \DeclareNameAlias{author}{given-family}%
4014 \renewbibmacro*{pageref}}{%
4015 }{\thefield{entrytype}}%
4016 }%
4017 }

```

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'.

```

4018 \DeclareBibliographyDriver{review}{%
4019   \usebibmacro{bibindex}%
4020   \usebibmacro{begentry}%
4021   \usebibmacro{author/translator+others}%
4022   \setunit{\printdelim{nametitledelim}}\newblock
4023   \usebibmacro{title}%
4024   \setunit{\titlebyauthor\delim}\newblock
4025   \usebibmacro{byauthor}%
4026   \newunit\newblock
4027   \usebibmacro{bytranslator+others}%
4028   \newunit\newblock
4029   \printfield{version}%
4030   \newunit\newblock
4031   \iftoggle{bbx:related}{%
4032     \usebibmacro{related:init}%
4033     \usebibmacro{related}%
4034   }{}%
4035   \newunit\newblock
4036   \usebibmacro{in:}%
4037   \setunit{\addspace}%
4038   \usebibmacro{journal+issuetitle}%
4039   \newunit
4040   \usebibmacro{byeditor+others}%
4041   \iffieldundef{note}%
4042     {\newunit}%
4043     {\setunit{\addsemicolon\addspace}}%
4044   \usebibmacro{note+pages}%
4045   \newunit\newblock
4046   \iftoggle{bbx:isbn}
4047     {\printfield{issn}}
4048     {}%
4049   \newunit\newblock
4050   \usebibmacro{doi+eprint+url}%
4051   \newunit\newblock
4052   \usebibmacro{addendum+pubstate}%
4053   \setunit{\bibpagerefpunct}\newblock
4054   \usebibmacro{pageref}%
4055   \usebibmacro{finentry}}
4056

```

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.

```

4057 \DeclareFieldFormat{related:multivolume}{#1}
4058 \renewbibmacro*{related:multivolume}[1]{%
4059   \entrydata*{#1}{%
4060     \printtext{%
4061       \printfield{volume}%
4062       \printfield{part}%
4063       \iffieldsequal{savedtitle}{title}{}{}%
4064       \setunit{\addcolon\space}%
4065       \usebibmacro{title}}%
4066     }%
4067     \setunit*\addspace}%
4068   \iffieldsequal{savedseries}{series}{\clearfield{series}}{}%
4069   \iffieldsequal{savednumber}{number}{\clearfield{number}}{}%
4070   \iffieldsequal{savededition}{edition}{\clearfield{edition}}{}%

```

```

4071 \ifboolexpr{
4072   test {\iflistsequal{savedpublisher}{publisher}}
4073   and
4074   test {\iflistsequal{savedlocation}{location}}
4075 }{\clearlist{publisher}\clearlist{location}}{}%
4076 \iffieldsequal{saveddate}{date}{\clearfield{date}}{}%
4077 \usebibmacro{series+number+edition+publisher+location+date}%
4078 }}
4079

```

Related editions

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

```

4080 \providecommand*{\mkrelatedstringtext}[1][{\mainlang #1}]{}
4081 \newbibmacro*{related:editadas}[1]{%
4082   \entrydata{#1}{%
4083     \renewbibmacro*{name:hook}[1]{%
4084       \ifnumequal{\value{listcount}}{1}
4085       {\mkrelatedstringtext{\ltx@initnamehook{#1}}}
4086       {}}%
4087     \printfield{edition}%
4088     \setunit{\addspace}%
4089     \usebibmacro{byeditor+others}%
4090     \setunit*{\addcomma\space\bibstring[\mkrelatedstringtext]{astitle}\space}%
4091     \usebibmacro{maintitle+title}%
4092     \setunit{\addspace}%
4093     \printfield{note}%
4094     \newunit\newblock
4095     \printfield{volumes}%
4096     \newunit
4097     \usebibmacro{series+number+publisher+location+date}}}
4098 \renewbibmacro*{related:bytranslator}[1]{%
4099   \entrydata{#1}{%
4100     \renewbibmacro*{name:hook}[1]{%
4101       \ifnumequal{\value{listcount}}{1}
4102       {\mkrelatedstringtext{\ltx@initnamehook{#1}}}
4103       {}}%
4104     \printnames[bytranslator]{translator}%
4105     \setunit*{\addspace\bibstring[\mkrelatedstringtext]{astitle}\space}%
4106     \usebibmacro{maintitle+title}%
4107     \setunit{\addspace}%
4108     \printfield{note}%
4109     \newunit\newblock
4110     \printfield{volumes}%
4111     \newunit
4112     \usebibmacro{series+number+publisher+location+date}}}
4113

```

Joint releases

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

```

4114 \newbibmacro*{related:includes}[1]{%
4115   \stepcounter{blx@ox@relitem}%
4116   \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
4117   {\bibstring{and}\addspace}{}%
4118   \entrydata{#1}{%

```

```

4119 \ifbibmacroundef{date+extradate}{}{%
4120 \renewbibmacro*{date+extradate}{}}%
4121 \usebibmacro{author}%
4122 \setunit{\printdelim{nametitledelim}}\newblock
4123 \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.

```

4124 \DeclareFieldFormat[misc]{title}{%
4125 \def\currentfield{title}%
4126 \iffieldannotation{descriptor}{#1}{%
4127 \iffieldequalstr{relatedtype}{in}{%
4128 \mkbibquote{#1\isdot}%
4129 }{%
4130 \mkbibemph{#1}%
4131 }}%
4132 \undef\currentfield}
4133 \newbibmacro*{related:in}[1]{%
4134 \entrydata*{#1}{%
4135 \usedriver
4136 {\ifnameundef{savedauthor}
4137 {\ifnameundef{savededitor}
4138 {}
4139 {\ifnameequal{editor}{savededitor}
4140 {\clearname{editor}}
4141 {}}}}
4142 {\ifnameequal{author}{savedauthor}
4143 {\clearname{author}}
4144 {}}}%
4145 \renewbibmacro*{related:init}{}%
4146 \DeclareNameAlias{sortname}{default}%
4147 \ifbibmacroundef{date+extradate}
4148 {}
4149 {\renewbibmacro*{date+extradate}{}%
4150 \renewbibmacro*{date}{\printdate}}%
4151 \renewbibmacro*{pageref}{}%
4152 {\thefield{entrytype}}%
4153 \ifboolexpr{
4154 test {\iffieldundef{pages}}
4155 or
4156 test {\iffieldundef{savedpages}}}
4157 }{%
4158 \newunit\newblock
4159 }{%
4160 \setunit{\addspace}%
4161 \bibstring{thiscite}%
4162 \printunit{\addspace}%
4163 }%
4164 }%
4165 \usebibmacro{chapter+pages}%
4166 }
4167

```

2.1.19 SOURCE MAPS

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


```
4168 \DeclareStyleSourceMap{%
4169 \maps[datatype=bibtex]{%
```

Sort order

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

```
4170 \map{
4171 \pertype{proceedings}
4172 \pertype{mvproceedings}
4173 \step[notfield=author,
4174 fieldsource=organization,
4175 fieldtarget=author]
4176 }
```

Descriptors

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

```
4177 \map[overwrite=false]{
4178 \step[fieldsource=descriptor, final]
4179 \step[notfield=title,
4180 fieldset=title+an,
4181 fieldvalue={=descriptor}]
4182 \step[notfield=title,
4183 fieldsource=descriptor,
4184 fieldtarget=title]
4185 \step[fieldsource=descriptor,
4186 fieldtarget=note]
4187 }
```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```
4188 \map[overwrite=false]{
4189 \step[fieldsource=realauthor, final]
4190 \step[notfield=author,
4191 fieldset=author+an,
4192 fieldvalue={=inferred}]
4193 \step[notfield=author,
4194 fieldsource=realauthor,
4195 fieldtarget=author]
4196 \step[fieldsource=realauthor,
4197 fieldtarget=authoraddon]
4198 }
4199 \map[overwrite=false]{
4200 \step[fieldsource=realeditor, final]
4201 \step[notfield=editor,
4202 fieldset=editor+an,
4203 fieldvalue={=inferred}]
4204 \step[notfield=editor,
4205 fieldsource=realeditor,
4206 fieldtarget=editor]
4207 \step[fieldsource=realeditor,
4208 fieldtarget=editoraddon]
```

```
4209     }
```

Editors as joint authors

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

```
4210     \map[overwrite=false]{
4211       \step[fieldsource=editor+an,
4212         match=\regexp{=jointauthor},
4213         final]
4214       \step[fieldsource=editor,
4215         fieldtarget=jointauthor]
4216       \step[fieldsource=editortype,
4217         fieldtarget=jointauthortype]
4218     }
4219     \map[overwrite=false]{
4220       \step[fieldsource=translator+an,
4221         match=\regexp{=jointauthor},
4222         final]
4223       \step[fieldsource=translator,
4224         fieldtarget=jointauthor]
4225       \step[fieldset=jointauthortype,
4226         fieldvalue={=translator}]
4227     }
```

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.

```
4228     \map[overwrite=false]{
4229       \pertype{standard}
4230       \step[notfield=author,
4231         fieldsource=number,
4232         final]
4233       \step[fieldset=sortkey,
4234         origfieldval]
4235     }
```

Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```
4236     \map[overwrite=false]{
4237       \pertype{audio}
4238       \pertype{music}
4239       \pertype{movie}
4240       \pertype{video}
4241       \pertype{inaudio}
4242       \pertype{inmusic}
4243       \pertype{inmovie}
4244       \pertype{invideo}
4245       \step[fieldset=origdatetype, fieldvalue={recorded}]
4246     }
```

Legal references

These help ensure compatibility with *oscola*.

```

4247 \map[overwrite=false]{
4248   \pertype{jurisdiction}
4249   \step[fieldsource=reporter,
4250         fieldtarget=journaltitle]
4251   \step[fieldsource=court,
4252         fieldtarget=institution]
4253   \step[fieldsource=additionalreports,
4254         fieldtarget=listb]
4255   \step[fieldsource=ecli,
4256         fieldtarget=verba]
4257 }%
4258 \map[overwrite=false]{
4259   \pertype{legal}
4260   \step[fieldsource=reporter,
4261         fieldtarget=journaltitle]
4262 }
4263 \map[overwrite=true]{
4264   \pertype{legal}
4265   \step[fieldsource=parties,
4266         fieldtarget=institution]
4267   \step[fieldsource=execution,
4268         fieldtarget=lista]
4269 }
```

This is how *oscola* removes dots from entries.

```

4270 \map[overwrite=true]{
4271   \pertype{jurisdiction}
4272   \pertype{legislation}
4273   \pertype{legal}
4274   \step[fieldsource=title,
4275         match=\regexp{(\d)\.(\d)},
4276         replace=\regexp{$1.$2}]
4277   \step[fieldsource=title,
4278         match=\regexp{(\D)\.(\d)},
4279         replace=\regexp{$1 $2}]
4280   \step[fieldsource=title,
4281         match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4282         replace=\regexp{$1}]
4283   \step [fieldsource=title,
4284         match=\regexp{([\^{}]\.?![{}])},
4285         replace=\regexp{$1}]
4286   \step[fieldsource=shorttitle,
4287         match=\regexp{(\d)\.(\d)},
4288         replace=\regexp{$1.$2}]
4289   \step[fieldsource=shorttitle,
4290         match=\regexp{(\D)\.(\d)},
4291         replace=\regexp{$1 $2}]
4292   \step[fieldsource=shorttitle,
4293         match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4294         replace=\regexp{$1}]
4295   \step [fieldsource=shorttitle,
4296         match=\regexp{([\^{}]\.?![{}])},
4297         replace=\regexp{$1}]
4298   \step[fieldsource=parreporter,
4299         match=\regexp{(\d)\.(\d)},
4300         replace=\regexp{$1.$2}]
4301   \step[fieldsource=parreporter,
```

```

4302         match=\regexp{(\D)\.(\d)},
4303         replace=\regexp{$1 $2}]
4304 \step[fieldsource=parreporter,
4305       match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4306       replace=\regexp{$1}]
4307 \step [fieldsource=parreporter,
4308       match=\regexp{([\^{}]\.?![])}},
4309       replace=\regexp{$1}]
4310 \step[fieldsource=journaltitle,
4311       match=\regexp{(\d)\.(\d)},
4312       replace=\regexp{$1.$2}]
4313 \step[fieldsource=journaltitle,
4314       match=\regexp{(\D)\.(\d)},
4315       replace=\regexp{$1 $2}]
4316 \step[fieldsource=journaltitle,
4317       match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4318       replace=\regexp{$1}]
4319 \step [fieldsource=journaltitle,
4320       match=\regexp{([\^{}]\.?![])}},
4321       replace=\regexp{$1}]
4322 \step[fieldsource=institution,
4323       match=\regexp{(\d)\.(\d)},
4324       replace=\regexp{$1.$2}]
4325 \step[fieldsource=institution,
4326       match=\regexp{(\D)\.(\d)},
4327       replace=\regexp{$1 $2}]
4328 \step[fieldsource=institution,
4329       match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4330       replace=\regexp{$1}]
4331 \step[fieldsource=institution,
4332       match=\regexp{([\^{}]\.?![])}},
4333       replace=\regexp{$1}]
4334 \step[fieldsource=publisher,
4335       match=\regexp{(\d)\.(\d)},
4336       replace=\regexp{$1.$2}]
4337 \step[fieldsource=publisher,
4338       match=\regexp{(\D)\.(\d)},
4339       replace=\regexp{$1 $2}]
4340 \step[fieldsource=publisher,
4341       match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4342       replace=\regexp{$1}]
4343 \step [fieldsource=publisher,
4344       match=\regexp{([\^{}]\.?![])}},
4345       replace=\regexp{$1}]
4346 \step[fieldsource=location,
4347       match=\regexp{(\d)\.(\d)},
4348       replace=\regexp{$1.$2}]
4349 \step[fieldsource=location,
4350       match=\regexp{(\D)\.(\d)},
4351       replace=\regexp{$1 $2}]
4352 \step[fieldsource=location,
4353       match=\regexp{(?:\A|[\^{}]\K\.[\^{}]}},
4354       replace=\regexp{$1}]
4355 \step [fieldsource=location,
4356       match=\regexp{([\^{}]\.?![])}},
4357       replace=\regexp{$1}]
4358 \step[fieldsource=series,
4359       match=\regexp{(\d)\.(\d)},
4360       replace=\regexp{$1.$2}]
4361 \step[fieldsource=series,
4362       match=\regexp{(\D)\.(\d)},
4363       replace=\regexp{$1 $2}]

```

```

4364     \step[fieldsource=series,
4365           match=\regexp{(?:\A|[^{}]\K\.[^{}]}},
4366           replace=\regexp{$1}]
4367   \step [fieldsource=series,
4368         match=\regexp{([^\d])\.(?![ ])},
4369         replace=\regexp{$1}]
4370   \step[fieldsource=indextitle,
4371         match=\regexp{(\d)\.(\d)},
4372         replace=\regexp{$1.$2}]
4373   \step[fieldsource=indextitle,
4374         match=\regexp{(\D)\.(\D)},
4375         replace=\regexp{$1 $2}]
4376   \step[fieldsource=indextitle,
4377         match=\regexp{(?:\A|[^{}]\K\.[^{}]}},
4378         replace=\regexp{$1}]
4379   \step [fieldsource=indextitle,
4380         match=\regexp{([^\d])\.(?![ ])},
4381         replace=\regexp{$1}]
4382   }

```

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

```

4383     \map[overwrite=false]{
4384       \step[fieldsource=casenumber, final]
4385       \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
4386       \step[fieldsource=casenumber, fieldtarget=userb]
4387     }
4388   }%
4389 }
4390

```

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). The 'nty' scheme is used by oxnotes.

```

4391   \DeclareSortingTemplate{nty}{
4392     \sort{
4393       \field{presort}
4394     }
4395     \sort[final]{
4396       \field{sortkey}
4397     }
4398     \sort{
4399       \field{sortname}
4400       \field{author}
4401       \field{editor}
4402       \field{translator}
4403       \field{sorttitle}
4404       \field{title}
4405       \field{library}
4406     }
4407     \sort{
4408       \field{sorttitle}
4409       \field{title}
4410     }
4411     \sort{
4412       \field{sortyear}
4413       \field{year}
4414     }

```

```

4415   \sort{
4416     \field{volume}
4417     \literal{0}
4418   }
4419   \sort{
4420     \field{location}
4421   }
4422   \sort{
4423     \field{collection}
4424     \field{series}
4425   }
4426 }

```

The ‘nyt’ scheme is used by oxyear.

```

4427 \DeclareSortingTemplate{nyt}{
4428   \sort{
4429     \field{presort}
4430   }
4431   \sort[final]{
4432     \field{sortkey}
4433   }
4434   \sort{
4435     \field{sortname}
4436     \field{author}
4437     \field{editor}
4438     \field{translator}
4439     \field{sorttitle}
4440     \field{title}
4441     \field{library}
4442   }
4443   \sort{
4444     \field{sortyear}
4445     \field{labelyear}
4446     \field{year}
4447   }
4448   \sort{
4449     \field{sorttitle}
4450     \field{title}
4451   }
4452   \sort{
4453     \field{volume}
4454     \literal{0}
4455   }
4456   \sort{
4457     \field{location}
4458   }
4459   \sort{
4460     \field{collection}
4461     \field{series}
4462   }
4463 }

```

The ‘anyt’ scheme is used by oxalph.

```

4464 \DeclareSortingTemplate{anyt}{
4465   \sort{
4466     \field{presort}
4467   }
4468   \sort{
4469     \field{labelalpha}

```

```

4470     }
4471     \sort[final]{
4472       \field{sortkey}
4473     }
4474     \sort{
4475       \field{sortname}
4476       \field{author}
4477       \field{editor}
4478       \field{translator}
4479       \field{sorttitle}
4480       \field{title}
4481       \field{library}
4482     }
4483     \sort{
4484       \field{sortyear}
4485       \field{labelyear}
4486       \field{year}
4487     }
4488     \sort{
4489       \field{sorttitle}
4490       \field{title}
4491     }
4492     \sort{
4493       \field{volume}
4494       \literal{0}
4495     }
4496     \sort{
4497       \field{location}
4498     }
4499     \sort{
4500       \field{collection}
4501       \field{series}
4502     }
4503   }

```

The following entry types never put editors first.

```

4504   \ExecuteBibliographyOptions
4505     [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4506     manuscript,unpublished,review]{useeditor=false}

```

2.2 Notes style: oxnotes.bbx

2.2.1 PRELIMINARIES

First we load the common `oxref` features.

```

20   \RequireBibliographyStyle{oxref}

```

2.2.2 NAMES

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

```

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

```

We ensure the printing of the anon localization string matches.

```

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

```

2.2.3 MULTIVOLUME DATES

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

```

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

```

2.2.4 SOURCE MAPS

```

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

```

Sort order

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

```

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

```

2.3 Numeric style: oxnum.bbx

2.3.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```


2.3.2 NAMES

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

```

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

```

We ensure the printing of the anon localization string matches.

```

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

```

2.3.3 MULTIVOLUME DATES

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

```

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

```

2.3.4 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```

38 \ExecuteBibliographyOptions{labelnumber}
39
40 \providebool{bbx:subentry}
41
42 \DeclareBibliographyOption{subentry}[true]{%
43   \setbool{bbx:subentry}{#1}}
44
45 \DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
46 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
47 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
48
49 \defbibenvironment{bibliography}
50   {\list
51     {\printtext[labelnumberwidth]{%
52       \printfield{labelprefix}%
53       \printfield{labelnumber}}}
54     {\setlength{\labelwidth}{\labelnumberwidth}%
55       \setlength{\leftmargin}{\labelwidth}%
56       \setlength{\labelsep}{\biblabelsep}%
57       \addtolength{\leftmargin}{\labelsep}%
58       \setlength{\itemsep}{\bibitemsep}%
59       \setlength{\parsep}{\bibparsep}}%
60     \renewcommand*{\makeLabel}[1]{\hss##1}}

```

```

61   {\endlist}
62   {\item}
63
64   \defbibenvironment{shorthand}
65     {\list
66       {\printfield[shorthandwidth]{shorthand}}
67       {\setlength{\labelwidth}{\shorthandwidth}%
68        \setlength{\leftmargin}{\labelwidth}%
69        \setlength{\labelsep}{\biblabelsep}%
70        \addtolength{\leftmargin}{\labelsep}%
71        \setlength{\itemsep}{\bibitemsep}%
72        \setlength{\parsep}{\bibparsep}%
73        \renewcommand*{\makeLabel}[1]{\hss##1}}}
74   {\endlist}
75   {\item}
76
77   \DeclareBibliographyDriver{set}{%
78     \entryset
79       {\ifbool{bbx:subentry}
80        {\printfield[bibentrysetcount]{entrysetcount}%
81         \printunit*{\addnbspace}}
82        {}}
83     {}}
84   \newunit\newblock
85   \usebibmacro{setpageref}%
86   \finentry}

```

2.4 Author–year style: oxyear.bbx

2.4.1 PRELIMINARIES

First we load the common `oxref` features.

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

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

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

2.4.2 DATE MERGING OPTION

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

```

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

```

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

```

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

```

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

```

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

```

The `extradate` string should be printed bare.

```

49 \DeclareFieldFormat{extradate}{%
50   \iffieldundef{\thefield{Labeldatesource}}{%
51     \iffieldnums{\thefield{Labeldatesource}year}{~}%
52   }{%
53     \iffieldnums{\thefield{Labeldatesource}}{~}%
54   }%
55   \mkbibemph{\mknumalph{#1}}}%
56

```

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

```

57 \def\ifLabeldateisanydate{%
58   \ifboolexpr{%
59     togl {blx@labeldateparts}
60     and not test {\iffieldundef{labeldatesource}}
61     and (
62       test {\iffieldequalstr{labeldatesource}{year}}
63       or not test {\iffieldundef{\thefield{labeldatesource}year}}
64     )}}
65 \def\ifLabeldateispubstate{%
66   \ifboolexpr{%
67     not test {\iffieldundef{labeldatesource}}
68     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.

```

69 \newtoggle{blx@ox@nonodate}
70 \DeclareBiblatexOption{global,type,entry}{nonodate}[true]{%
71   \settoggle{blx@ox@nonodate}{#1}}
72 \newbibmacro*{labeldate}{%
73   \ifbool{expr}{
74     test {\iffieldequalstr{labeldatesource}{nodate}}
75     and
76     togl {blx@ox@nonodate}
77   }{\printtext[dateLabel]{\printlabeldateextra}}
78

```

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 `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).

```

79 \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.

```

80 \def\bbx@opt@mergedate@maximum{%
81   \renewbibmacro*{date+extradate}{%
82     \iffieldundef{labelyear}{}%
83     \iflabeldateisdate{%
84       \printtext[dateLabel]{%
85         \printfield{issue}\clearfield{issue}%
86         \setunit*{\addspace}%
87         \printdateextra}%
88       \clearfield{year}\clearfield{yeardivision}\clearfield{month}\clearfield{day}%
89     }{%
90       \iflabeldateisanydate{%
91         \printtext[dateLabel]{%
92           \csuse{print\thefield{labeldatesource}dateextra}}%
93         \clearfield{\thefield{labeldatesource}year}%
94         \clearfield{\thefield{labeldatesource}yeardivision}%
95         \clearfield{\thefield{labeldatesource}month}%
96         \clearfield{\thefield{labeldatesource}day}%
97       }{%
98         \usebibmacro{labeldate}%
99       }

```

- `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.

```

100 \def\bbx@opt@mergedate@compact{%
101   \renewbibmacro*{date+extradate}{%
102     \iffieldundef{labelyear}{}%
103     \iflabeldateisdate{%
104       \printtext[dateLabel]{\printdateextra}%
105       \clearfield{year}\clearfield{yeardivision}\clearfield{month}\clearfield{day}%
106     }{%
107       \iflabeldateisanydate{%

```

```

108     \printtext[dateLabel]{%
109         \csuse{print\thefield{labeldatesource}dateextra}}%
110     \clearfield{\thefield{labeldatesource}year}%
111     \clearfield{\thefield{labeldatesource}yeardivision}%
112     \clearfield{\thefield{labeldatesource}month}%
113     \clearfield{\thefield{labeldatesource}day}%
114 }{%
115     \usebibmacro{labeldate}%
116     \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.

```

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

```

- 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.

```

129 \def\bbx@opt@mergedate@basic{%
130 \renewbibmacro*{date+extradate}{%
131     \iffieldundef{labelyear}}{%
132     \usebibmacro{labeldate}%
133     \iflabeldateisdate{%
134         \ifboolexpr{
135             test {\ifdateshavedifferentprecision{label}}
136             or
137             not test {\iffieldundef{issue}}
138         }{%
139             \clearfield{year}}%
140     }{%
141         \iflabeldateisanydate{%
142             \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{%
143                 \clearfield{\thefield{labeldatesource}year}}%
144         }{%
145             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
146         }}}}

```

- 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.

```

147 \def\bbx@opt@mergedate@minimum{%
148 \renewbibmacro*{date+extradate}{%
149     \iffieldundef{labelyear}}{%

```

```

150 \usebibmacro{labeldate}%
151 \iflabeldateisdate{%
152   \ifboolexpr{
153     test {\ifdateshavedifferentprecision{Label}}{}
154     or
155     not test {\iffieldundef{extradate}}
156     or
157     not test {\iffieldundef{issue}}
158   }{}{%
159     \clearfield{year}}%
160 }{%
161   \iflabeldateisanydate{%
162     \ifboolexpr{
163       test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
164       or
165       not test {\iffieldundef{extradate}}
166     }{}{%
167       \clearfield{\thefield{labeldatesource}year}}%
168   }{%
169     \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
170   }}}

```

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

```

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

```

We set the default to be true/year.

```

178 \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`.

```

179 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
180   \iffieldundef{#2month}}{}{%
181     \printtext[#2date]}{}%
182     \datecircaprint
183     \iffieldundef{#2yeardivision}{%
184       \cuse{mkbibdate#1}{#2month}{#2day}%
185       \blx@printtime{#2}}{}%
186   }{%
187     \cuse{mkbibyeardivisiondate#1}{#2yeardivision}}%
188   \dateuncertainprint
189   \iffieldundef{#2endmonth}}{}{%
190     \iffieldequalstr{#2endmonth}}{}{%
191       \mbox{\bibdaterangesep}%
192     }{}%
193     \bibdaterangesep
194     \enddatecircaprint
195     \iffieldundef{#2yeardivision}}{}%

```

```

196     \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
197     \blx@printtime{#2}{end}%
198   }{%
199     \csuse{mkbibyyeardivisiondate#1}{#2endyeardivision}}%
200   \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.

```

201 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
202   \iffieldundef{#2month}{}%
203   \printtext[#2date]{%
204     \datecircaprint
205     \iffieldundef{#2yeardivision}{%
206       \ifboolexpr{
207         test {\ifdateyearsequal{Label}{Labelend}}
208         and
209         test {\iffieldsequal{#2month}{#2endmonth}}
210       }{%
211         \csuse{mkbibdate#1}{#2day}%
212       }{%
213         \csuse{mkbibdate#1}{#2month}{#2day}}%
214     }{%
215       \csuse{mkbibyyeardivisiondate#1}{#2yeardivision}}%
216     \dateuncertainprint
217     \iffieldundef{#2endmonth}{}%
218     \iffieldequalstr{#2endmonth}{}%
219     \mbox{\bibdaterangesep}%
220   }{%
221     \bibdaterangesep
222     \enddatecircaprint
223     \iffieldundef{#2yeardivision}{%
224       \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
225     }{%
226       \csuse{mkbibyyeardivisiondate#1}{#2endyeardivision}}%
227     \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.

```

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

```

```

245 }{%
246   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
247 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangetruncextra@i}}
248

```

2.4.3 BIBLIOGRAPHY FORMATTING

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

```

249 \DeclareFieldFormat{shorthandwidth}{#1}

```

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

```

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

```

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

```

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

```

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

```

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

```


The shorthand formatting is just like authoryear.

```

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

```

2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in authoryear.

```

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

```

We ensure related entries do not interfere with the hashing.

```

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

```

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

```

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

```

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

```

323 \xpatchbibmacro{namepairs}{%
324   \printnames[by#1]%
325   }{%
326   \printnames[#1]%
327   }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch namepairs}}
328 \xpatchbibmacro{author+altauthor}{%
329   \printnames{author}%

```

```

330 }{%
331   \ifboolexpr{%
332     ( not test {\ifnameundef{shortauthor}} )
333     and
334     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
335   }{%
336     \usebibmacro{namepairs}{author}{shortauthor}%
337   }{%
338     \printnames{author}%
339   }%
340 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch author+altauthor}}%

```

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

```

341 \xpatchbibmacro{bbx:editor}{%
342   \usebibmacro{#1}%
343 }{%
344   \usebibmacro{date+extradate}%
345   \setunit*{\addspace}%
346   \usebibmacro{#1}%
347 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch bbx:editor}}%
348 \xpatchbibmacro{bbx:editor}{%
349   \global\undef\bbx@lasthash
350 }{%
351   \global\undef\bbx@lasthash
352   \usebibmacro{labeltitle}%
353   \setunit*{\addspace}%
354   \usebibmacro{date+extradate}%
355 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch bbx:editor (lasthash)}}%
356 \xpatchbibmacro{editor+altditor}{%
357   \printnames[byeditor]%
358 }{%
359   \printnames[editor]%
360 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch editor+altditor}}%
361 \xpatchbibmacro{editor+altditor}{%
362   \printnames{editor}%
363 }{%
364   \ifboolexpr{%
365     ( not test {\ifnameundef{shorteditor}} )
366     and
367     test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
368   }{%
369     \usebibmacro{namepairs}{editor}{shorteditor}%
370   }{%
371     \printnames{editor}%
372   }%
373 }{\wlog{WARNING: biblatex-oxref (oxyyear) 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.

```

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

```

```

384 }{%
385   \usebibmacro{date+extradate}%
386   \setunit*{\addspace}%
387   \usebibmacro{#1}%
388 }{}{\wlog{WARNING: biblatex-oxref (oxyyear) 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.

```

389 \newtoggle{blx@ox@clearedtitle}
390 \newbibmacro*{labeltitle}{%
391   \iffieldundef{label}{%
392     \iffieldundef{shorttitle}{%
393       \ifboolexpr{
394         test {\iffieldundef{title}}
395         and
396         test {\iffieldundef{subtitle}}
397       }{%
398         \printfield{library}%
399         \clearfield{library}%
400       }{%
401         \printtext[title]{%
402           \printfield[titlecase]{title}%
403           \setunit{\subtitlepunct}%
404           \printfield[titlecase]{subtitle}}%
405         \clearfield{title}%
406         \clearfield{subtitle}%
407         \toggletrue{blx@ox@clearedtitle}%
408         \setunit{\addspace}%
409       }%
410     }{%
411       \printtext[title]{\printfield[titlecase]{shorttitle}}%
412     }%
413   }{%
414     \printfield{label}%
415   }%
416 }

```

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

```

417 \xpretobibmacro{maintitle+title}{%
418   \iftoggle{blx@ox@clearedtitle}{%
419     \usebibmacro{maintitle+volume}%
420     \clearfield{maintitle}%
421     \clearfield{volume}%
422   }{}%
423 }{}{\wlog{WARNING: biblatex-oxref (oxyyear) failed to prepend to maintitle+title}}
424 \DeclareFieldFormat[mvbook,mvcollection,mvreference,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.

```

425 \xpatchbibdriver{online}{%
426   \iffieldundef{year}%
427 }{%
428   \ifboolexpr{
429     test {\iffieldundef{yeardivision}}
430     and
431     test {\iffieldundef{month}}

```

```

432 }%
433 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch online}}

```

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

```

434 \DeclareFieldFormat[bookinbook]{citetitle}{%
435   \ifboolexpr{
436     test {\iffieldequalstr{entrysubtype}{poem}}
437     or
438     test {\iffieldequalstr{entrysubtype}{play}}
439   }{%
440     \mkbibemph{#1}%
441   }{%
442     \mkbibquote{#1\isdot}}
443 \DeclareFieldFormat[supperiodical,inaudio,inmusic,inmovie,invideo,online,%
444   image,manuscript,unpublished]{citetitle}{%
445   \def\currentfield{title}%
446   \ifboolexpr{
447     test {\iffieldannotation{descriptor}}
448     or (
449       test {\iffieldundef{shorttitle}}
450       and
451       test {\iffieldundef{title}}
452     )
453   }{#1}{\mkbibquote{#1\isdot}}%
454   \undef\currentfield}
455 \DeclareFieldFormat[supperiodical,inaudio,inmusic,inmovie,invideo,online,%
456   image,manuscript,unpublished]{citetitle}{%
457   \def\currentfield{title}%
458   \ifboolexpr{
459     test {\iffieldannotation{descriptor}}
460     or (
461       test {\iffieldundef{shorttitle}}
462       and
463       test {\iffieldundef{title}}
464     )
465   }{#1}{\mkbibquote{#1\isdot}}%
466   \undef\currentfield}
467 \DeclareFieldFormat[audio,music]{citetitle}{%
468   \def\currentfield{title}%
469   \ifboolexpr{
470     test {\iffieldannotation{descriptor}}
471     or (
472       test {\iffieldundef{shorttitle}}
473       and
474       test {\iffieldundef{title}}
475     )
476   }{#1}{%
477     \iffieldequalstr{entrysubtype}{podcast}{%
478       \mkbibquote{#1\isdot}}%
479     }{%
480       \mkbibemph{#1}}}%
481   \undef\currentfield}
482 \DeclareFieldFormat[movie,video]{citetitle}{%
483   \def\currentfield{title}%
484   \ifboolexpr{
485     test {\iffieldannotation{descriptor}}
486     or (
487       test {\iffieldundef{shorttitle}}
488       and

```

```

489     test {\iffieldundef{title}}
490   )
491 }{\#1}{%
492   \ifboolexpr{
493     test {\iffieldequalstr{entrysubtype}{episode}}
494     or
495     test {\iffieldequalstr{entrysubtype}{clip}}
496     or
497     test {\iffieldequalstr{entrysubtype}{webcast}}
498   }{%
499     \mkbibquote{\#1\isdot}%
500   }{%
501     \mkbibemph{\#1}}}%
502 \undef\currentfield}
503 \DeclareFieldFormat[legislation,legal]{citetitle}{\#1}
504 \DeclareFieldFormat[misc]{
505   {citetitle}{%
506     \def\currentfield{title}%
507     \ifboolexpr{
508       test {\iffieldannotation{descriptor}}
509       or (
510         test {\iffieldundef{shorttitle}}
511         and
512         test {\iffieldundef{title}}
513       )
514     }{\#1}{%
515       \iffieldequalstr{relatedtype}{in}{%
516         \mkbibquote{\#1\isdot}%
517       }{%
518         \mkbibemph{\#1}%
519       }}}}
520 \undef\currentfield}
521

```

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{supperperiodical}}
527     or
528     test {\ifentrytype{review}}
529   }{%
530     \addcolon\space
531   }{%
532     \addcomma\space
533   }%
534 }

```

2.4.6 MANUSCRIPTS

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

```

535 \renewbibmacro{manuscript:date}{%
536   \ifboolexpr{
537     test {\ifnameundef{author}}

```

```

538     and
539     not togl {blx@ox@clearedtitle}
540     and
541     test {\iffieldundef{Label}}
542   }{\usebibmacro{date}}

```

We include the library field as a fallback title.

```

543   \DeclareLabeltitle{%
544     \field{shorttitle}
545     \field{title}
546     \field{maintitle}
547     \field{library}
548   }

```

2.4.7 SOURCE MAPS

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

```

549   \DeclareStyleSourceMap{%
550     \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.

```

551     \map[overwrite=true]{
552       \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
553       \step[fieldsource=sortyear, final]
554       \step[fieldset=options, append, fieldvalue={,nonodate}]
555     }
556     \map[overwrite=true]{
557       \step[notfield=options, final]
558       \step[fieldsource=sortyear, final]
559       \step[fieldset=options, fieldvalue={nonodate}]
560     }

```

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.

```

561     \map[overwrite=false]{
562       \pertype{standard}
563       \step[notfield=author,
564         fieldsource=number,
565         fieldtarget=label]
566     }
567   }}
568

```

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

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.

```
43 \ExecuteBibliographyOptions{labelalpha,sorting=anyt}
44
45 \DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{#1}}
46 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
47
48 \defbibenvironment{bibliography}
49   {\list
50     {\printtext[labelalphawidth]{%
51       \printfield{labelprefix}%
52       \printfield{labelalpha}%
53       \printfield{extraalpha}}}
54     {\setlength{\labelwidth}{\labelalphawidth}%
55      \setlength{\leftmargin}{\labelwidth}%
56      \setlength{\labelsep}{\biblabelsep}%
57      \addtolength{\leftmargin}{\labelsep}%
58      \setlength{\itemsep}{\bibitemsep}}%
```

```

59     \setlength{\parsep}{\bibparsep}}%
60     \renewcommand*{\makeLabel}[1]{##1\hss}}
61   {\endlist}
62   {\item}
63
64   \defbibenvironment{shorthand}
65     {\list
66       {\printfield[shorthandwidth]{shorthand}}
67       {\setlength{\labelwidth}{\shorthandwidth}}%
68       \setlength{\leftmargin}{\labelwidth}%
69       \setlength{\labelsep}{\biblabelsep}%
70       \addtolength{\leftmargin}{\labelsep}%
71       \setlength{\itemsep}{\bibitemsep}%
72       \setlength{\parsep}{\bibparsep}}%
73       \renewcommand*{\makeLabel}[1]{##1\hss}}
74   {\endlist}
75   {\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.

```

76   \DeclareStyleSourceMap{%
77     \maps[datatype=bibtex]{%
78       \map[overwrite=false]{%
79         \step[fieldsource=title, final]
80         \step[fieldset=shortlabeltitle, origfieldval]
81         \step[fieldsource=subtitle]
82         \step[fieldset=shortlabeltitle, origfieldval, append=true]
83         \step[fieldsource=shortlabeltitle,
84             match=\regexp{[^\p{Lu}]},
85             replace=\regexp{}}
86       }}}
87   \DeclareLabelAlphaTemplate{%
88     \labelElement{
89       \field[final]{shorthand}
90       \field{label}
91       \field[strwidth=3, strside=left, ifnames=1]{labelname}
92       \field[strwidth=1, strside=left]{labelname}
93       \field[strwidth=3, strside=left]{shortlabeltitle}
94       \field[strwidth=4, strside=left]{labeltitle}
95     }
96     \labelElement{
97       \field[strwidth=2, strside=right]{labelyear}
98     }
99   }

```


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*{\compcitedelim}{\addsemicolon\space}
```

The page reference postnote is given after a colon.

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

3.3 Author–year style: oxyyear.cbx

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

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

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

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

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

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

We insert anonymous author handling into `cite`.

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

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

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

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

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

The page reference postnote is given after a colon.

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

3.5 Common citation fixes

This code is appended to all the citation style files.

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

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

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

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

Data model adjustments

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

We provide an additional name part for handling titles.

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

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

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

We add the inaudio entry type and friends.

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

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

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

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

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

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

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

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

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

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

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

This data model helps with legal citations.

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

Localization modules

5.1 English: english-oxref.lbx

Here we set some language-specific punctuation and date formatting. In particular, we set `\blx@ox@langbibstring` to use its first argument.

```

20 \InheritBibliographyExtras{english}
21 \DeclareBibliographyExtras{%
22   \def\finalandcomma{\addcomma}%
23   \def\blx@ox@langbibstring#1#2{#1\addspace\bibstring{#2}}%
24 }
25 \UndeclareBibliographyExtras{%
26   \def\blx@ox@langbibstring#1#2{\bibstring{#2}}%
27 }

```

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

```

28 \DeclareBibliographyStrings{%
29   inherit      = {english},

```

These are new strings defined by `oxref`:

- Roles expressed as functions

```

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

```

- Roles expressed as actions

```

44 byperformer = {{}},
45 bydirector = {{directed by}{dir\addot}},
46 byreader = {{read by}{read by}},
47 byconductor = {{conducted by}{cond\addot}},
48 byserieseditor = {{edited by}{ed\addot}},
49 byholder = {{held by}{held by}},
50 byeditorcm = {{edited and compiled by}{ed\addot\space and comp\addot}},

```

- Publication details

```

51 facsimile = {{facsimile edition}{facs\addot\space edn\addot}},
52 revised = {{revised edition}{rev\addot\space edn\addot}},
53 revisedenlarged = {{revised and enlarged edition}{rev\addot\space and enl\addot\space
↔ edn\addot}},
54 revisedreprint = {{revised reprint}{rev\addot\space repr\addot}},
55 suppto = {{Supplement to}{Supplement to}},
56 equals = {{=}{=}},
57 original = {{original}{orig\addot}},
58 amendedby = {{as amended by}{as amended by}},

```

- Publication state

```

59 inpressin = {{to be published in}{to be published in}},

```

- Pagination

```

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

```

```

93  articletotals = {{articles}}{arts\addot}},
94  clausetotal  = {{clause}}{cl\addot}},
95  clausetotals = {{clauses}}{cls\addot}},
96  regulationtotal = {{regulation}}{reg\addot}},
97  regulationtotals = {{regulations}}{regs\addot}},
98  ruletotal    = {{rule}}{r\addot}},
99  ruletotals   = {{rules}}{rr\addot}},

```

- Types

```

100 facebook     = {{Facebook post}}{Facebook post}},
101 tweet        = {{Twitter post}}{Twitter post}},
102 podcast      = {{podcast}}{podcast}},
103 clip         = {{video}}{video}},
104 webcast      = {{webcast}}{webcast}},
105 poster       = {{poster}}{poster}},

```

- Miscellaneous

```

106 nolocation    = {{no place}}{n\addot p\addot}},
107 modified      = {{last modified}}{last modified}},
108 recorded      = {{recorded}}{recorded}},
109 uploaded      = {{uploaded}}{uploaded}},
110 filed         = {{filed}}{filed}},
111 issued        = {{issued}}{issued}},

```

- Labels

```

112 anon          = {{Anonymous}}{Anon\addot}},
113 pseudo        = {{Pseudo-}}{Ps\addot-}},
114 urldown       = {{downloaded}}{downloaded}},

```

- Country names, patents, and patent requests,

```

115 countryjp     = {{Japan}}{JP}},
116 patentjp     = {{Japanese patent}}{Japanese pat.\addot}},
117 patreqjp     = {{Japanese patent request}}{Japanese pat.\addot req.\addot}},

```

- These are borrowed from other styles.

```

118 1column       = {{one column}}{1\addnbspace col\addot}},
119 2column       = {{two columns}}{2\addnbspace col\addot}},
120 inflayer      = {{inferior layer}}{inf\addotsspace lay\addot}},
121 suplayer      = {{superior layer}}{sup\addotsspace lay\addot}},
122 paper         = {{paper}}{pap\addot}},
123 papyrus       = {{papyrus}}{papy\addot}},
124 parchment     = {{parchment}}{parch\addot}},
125 eucase        = {{Case}}{Case}},
126 eujoinedcases = {{Joined Cases}}{Joined Cases}},
127 commissiondecision = {{Commission Decision}}{Commission Decision}},
128 application    = {{Application}}{App\addot}},
129 order         = {{Order}}{Ord\addot}},
130 bill          = {{Bill}}{Bill}},
131 draft         = {{draft}}{draft}},
132 opened        = {{opened for signature}}{opened for signature}},
133 signed        = {{signed}}{signed}},

```



```

134     adopted      = {{adopted}}{adopted}},
135     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).

```

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

```

```

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

```

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

```

215 withinroduction = {{with an introduction by}{with an introduction by}},
216 withcommentator = {{with a commentary by}{with a commentary by}},
217 withannotator = {{with annotations by}{with annotations by}},
218 withinroduction = {{with an introduction by}{with an introduction by}},
219 withforeword = {{with a foreword by}{with a foreword by}},
220 withafterword = {{with an afterword by}{with an afterword by}},
221 introduction = {{introduction}{introduction}},

```

The abbreviations for some publication details are different.

```

222 newseries = {{new series}{\mkbibacro{NS}}},
223 oldseries = {{old series}{\mkbibacro{OS}}},
224 edition = {{edition}{edn\adddot}},
225 reprint = {{reprint\nopunct}{repr\adddot\nopunct}},
226 reviewof = {{review of}{review of}},
227 reprintas = {{reprinted as}{repr\adddotsspace as}},

```

```

228 reprintfrom = {{from}{from}},
229 translationas = {{English translation as}{Eng\addotsspace trans\addotsspace as}},
230 origpubin = {{originally published in}{originally pub\addot}},

```

There is also a different abbreviation for ‘paragraph’.

```

231 paragraph = {{paragraph}{para\addot}},
232 paragraphs = {{paragraphs}{paras\addot}},

```

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

```

233 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.

```

234 idem = {{idem}{id\addot}},
235 idemsm = {{idem}{id\addot}},
236 idemsf = {{eadem}{ead\addot}},
237 idemsn = {{idem}{id\addot}},
238 idempm = {{eidem}{eid\addot}},
239 idempf = {{eaedem}{eaed\addot}},
240 idempn = {{eadem}{ead\addot}},
241 idemp = {{eidem}{eid\addot}},
242 citedas = {{henceforth}{henceforth}},
243 thiscite = {{at}{at}},

```

Languages are abbreviated.

```

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

```

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. The redefinition of `\blx@ox@langbibstring` is given here as well.

```

34 \def\finalandcomma{\addcomma}%
35 \def\bibtimesep{\addperiod}%
36 \def\blx@ox@langbibstring#1#2{#1\addspace\bibstring{#2}}%
37 }
38 \UndeclareBibliographyExtras{%
39   \def\blx@ox@langbibstring#1#2{\bibstring{#2}}%
40 }

```

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

```

41 \DeclareBibliographyStrings{%
42   inherit      = {english},
43   am           = {{a\adddot m\adddot}{a\adddot m\adddot}},
44   pm           = {{p\adddot m\adddot}{p\adddot m\adddot}},
45 }

```

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 ??.