

OXREF BUNDLE

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

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v1.0

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Introduction

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

- oxnotes: a style similar to the standard verbose, 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, oxyyear.bbx, oxnum.bbx, oxalph.bbx
 - oxnotes.cbx, oxyyear.cbx, oxnum.cbx, oxalph.cbx
 - american-oxref.lbx, british-oxref.lbx, english-oxref.lbx
 - oxnotes.dbx, oxyyear.dbx, oxnum.dbx, oxalph.dbx
 - oxref.bib
 - oxref.ins
 - oxnotes-doc.tex, oxyyear-doc.tex, oxnum-doc.tex, oxalph-doc.tex
- Running `make` generates the above files and also `oxref.pdf`, `oxnotes-doc.pdf`, `oxyyear-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`, `oxyyear-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`, `oxnum.bbx`, `oxnum.cbx`, `oxnum.dbx`, `oxref.bbx`, `oxyyear.bbx`, `oxyyear.cbx`, `oxyyear.dbx`
 - `doc/latex/biblatex-oxref`: `README.md`, `oxalph-doc.pdf`, `oxalph-doc.tex`, `oxnotes-doc.pdf`, `oxnotes-doc.tex`, `oxnum-doc.pdf`, `oxnum-doc.tex`, `oxref.bib`, `oxref.pdf`, `oxyyear-doc.pdf`, `oxyyear-doc.tex`
4. You may then have to update your installation's file name database before TeX and friends can see the files.

1.3 Licence

Copyright 2016–2019 Alex Ball.

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

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

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

Bibliography styles

2.1 Base style: oxref.bbx

2.1.1 LOADING DEPENDENCIES, SETTING UP LANGUAGES, APPLYING OPTIONS

Dependencies:

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

```
20 \RequirePackage{xpatch}
21 \RequirePackage{xstring}
22 \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.

```
23 \DeclareLanguageMappingSuffix{-oxref}
```

We provide some additional bibliography strings:

- roles expressed as functions;

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

- roles expressed as actions;

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

- publication details;

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

- publication state;

29 `inpressin,`

- pagination;

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

- types;

36 `facebook, tweet, podcast, clip, webcast, poster,`

- miscellaneous;

37 `nolocation, modified, recorded, uploaded, filed, issued,`

- labels;

38 `anon, pseudo, urldown,`

- country names, patents, and patent requests;

39 `countryjp, patentjp, patreqjp,`

- borrowed from other styles.

40 `1column, 2column, inflayer, suplayer, paper, papyrus, parchment,`
 41 `eucase, eujoinedcases, commissiondecision, application,`
 42 `order, bill, draft, opened, signed, adopted, inforce,`
 43 `}`

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.

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

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

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


```

54 \DeclareDelimFormat{revsdnamedelim}{\addcomma}
55 \DeclareDelimFormat{authortypedelim}{\addspace}
56 \DeclareDelimFormat{editortypedelim}{\addspace}
57 \DeclareDelimFormat{translortypedelim}{\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.

```

58 \DeclareNameAlias{bookauthor}{default}
59 \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.

```

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

```

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.

```

64 \newtoggle{blx@ox@nametitle}\toggletrue{blx@ox@nametitle}%
65 \DeclareBibliographyOption[boolean]{usenametitles}[true]{%
66   \settoggle{blx@ox@nametitle}{#1}
67 \DeclareTypeOption[boolean]{usenametitles}[true]{%
68   \settoggle{blx@ox@nametitle}{#1}
69 \DeclareEntryOption[boolean]{usenametitles}[true]{%
70   \settoggle{blx@ox@nametitle}{#1}

```

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

```

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

```

Here is the one for inverted name order.

```

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

```

```

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

```

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

```

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

```

```

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

```

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`.

```

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

```

```

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

```

We do likewise for the regular family-given format.

```

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

```

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

```

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

```

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

```

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

```

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

```

```

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

```

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.

```

304 }{%
305 \savebox{\blx@ox@altnamebox}{%
306 \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
307 }%
308 \let\blx@ox@secondhash=\blx@ox@lasthash
309 \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
310 \unhbox\blx@ox@namebox
311 }{%
312 \unhbox\blx@ox@altnamebox
313 \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
314 }%
315 }%
316 }%

```

Now we return to common code.

```

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

```

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

```

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

```

```

344 }%
345 \ifnameundef{jointauthor}{}%
346 \setunit{\addcomma\space}%
347 \iffielddundef{jointauthortype}{%
348 \bibstring{byeditor}%
349 }%
350 \printfield{jointauthortype}%
351 \setunit{\addspace}%
352 \printnames[author]{jointauthor}%
353 }%
354 }%
355 }
356 \DeclareFieldFormat{jointauthortype}{%
357 \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

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

```

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`.

```

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

```

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

```

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

```

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

```

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

```

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

```

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

```

The author macro is enhanced from the standard version by

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

```

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

```



```

435     or
436     ( not tog1 {blx@ox@autoanon} )
437     or
438     test {\ifbibliography}
439   )
440 }
441 {\usebibmacro{bbx:dashcheck}
442  {\bibnamedash}
443  {\usebibmacro{bbx:savehash}%
444   \ifbool{expr{
445     tog1 {blx@ox@autoanon}
446     and
447     tog1 {blx@ox@isanon}
448   }}{
449     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
450   }{
451     \usebibmacro{author+altauthor}%
452   }%
453   \iffieldundef{nameaddon}
454   {}
455   {\setunit{\addspace}%
456    \printfield{nameaddon}}%
457   \setunit{\printdelim{authortypedelim}}}%
458   \iffieldundef{authortype}
459   {}
460   {\usebibmacro{authorstrg}%
461    \setunit{\addspace}}}%
462   {\global\undef\bbx@lasthash}}
463 \DeclareFieldFormat{authortype}{\mkbibparens{#1}}

```

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

```

464 \newcommand{\titlebyauthor{delim}}{\addspace}

```

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

```

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

```

We do the same for `translator` as well.

```

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

```

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).

```

510 \renewbibmacro*{bybookauthor}{%
511   \ifnamesequal{author}{bookauthor}%
512   {\bibstring{idem\thefield{gender}}}%
513   {\printnames{bookauthor}}}

```

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

```

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

```

We provide a macro for printing series editors.

```

533 \newbibmacro*{byserieseditor}{%
534 \ifnameundef{serieseditor}
535 {}
536 {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
537 \setunit{\addspace}%
538 \printnames[byeditor]{serieseditor}%
539 \newunit}}

```

2.1.3 TITLES

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

```

540 \renewbibmacro*{title}{%
541 \ifboolexpr{
542   test {\iffieldundef{title}}
543   and
544   test {\iffieldundef{subtitle}}
545 }
546 {}
547 {\printtext[title]{%
548   \printfield[titlecase]{title}%
549   \setunit{\subtitlepunct}%
550   \printfield[titlecase]{subtitle}}%
551   \setunit{\addspace}%
552   \usebibmacro{origtitle}%
553   \setunit*\addspace}%
554   \printfield{titleaddon}%
555   \iffieldequalstr{relatedtype}{equals}{%
556     \iftoggle{bbx:related}{%
557       \usebibmacro{related:init}%
558       \usebibmacro{related}%
559       \clearfield{related}%
560     }{}%
561   }{}%
562 }
563 \DeclareFieldFormat{titleaddon}{\mkbibbrackets{#1}}

```

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

```

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

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

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

```

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

```
584 \StrCompare{\num@one}{\num@two}[\Result]%
585 \ifnum\num@two@len>3%
586   \IfStrEq{\Result}{2}{\def\Result{1}}{%
587   \fi

```

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

```
588 \StrGobbleLeft{0\num@two}{\Result}%
589 }{\num@two}}

```

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

```
590 \patchcmd{\mkdaterangefull}{%
591   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
592 }{%
593   \iffieldundef{#2endmonth}%
594     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
595     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
596   }{}%
597 \patchcmd{\mkdaterangefullexta}{%
598   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
599 }{%
600   \iffieldundef{#2endmonth}%
601     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
602     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
603   }{}%
604 \patchcmd{\mkdaterangetrunc}{%
605   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
606 }{%
607   \iffieldundef{#2endmonth}%
608     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
609     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
610   }{}%
611 \patchcmd{\mkdaterangetruncextra}{%
612   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
613 }{%
614   \iffieldundef{#2endmonth}%
615     {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%

```

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

```

616     {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
617 }{}

```

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

```

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

```

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

```

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

```

```

669     \setunit*{\addcomma\space}%
670     \printorigtime}%
671 }

```

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

```

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

```

2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

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

```

684 \xpatchfieldformat{edition}%
685   {#1\isdot}%
686   {\iffibstring{#1}{\bibstring{#1}}{#1\isdot}}%
687   {\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.

```

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

```

The same is true in citations.

```

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

```

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.

```

698 \DeclareBibliographyOption{nopublisher}[true]{%
699   \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
700 }

```

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.

```

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

```

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

```

725 \newtoggle{blx@ox@noloc}
726 \def\blx@ox@noloc{{\bibstring{olocation}}}
727 \DeclareEntryOption{olocation}[true]{%
728   \settoggle{blx@ox@noloc}{#1}%
729   \iflistundef{location}{%
730     \iftoggle{blx@ox@noloc}{\restorelist{location}{\blx@ox@noloc}}{}%
731   }{}

```

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.

```

732 \DeclareBibliographyOption{isourls}[true]{%
733   \ifstrequal{#1}{true}
734     {\DeclareFieldFormat{url}{\langle$\url{##1}$\rangle$}}
735     {\DeclareFieldFormat{url}{\url{##1}}}%
736   }
737 \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.

```

738 \renewcommand*{\biburlsetup}{%
739   \Urlmuskip=0mu plus 2mu\relax
740   \mathchardef\UrlBigBreakPenalty=100\relax
741   \mathchardef\UrlBreakPenalty=200\relax

```

```

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

```

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

```

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

```

The DOI is introduced by ‘doi’ in lowercase.

```

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

```

Unlike URLs, DOIs are preceded by a full stop.

```

786 \xpatchbibmacro{doi+eprint+url}%
787   {\printfield{doi}}%
788   {\setunit{\addperiod\space}\printfield{doi}}%
789   {}{\wlog{WARNING: biblatex-oxref failed to patch doi+eprint+url}}

```


2.1.8 ADDENDA

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

```

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

```

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

```

804 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
805 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}

```

2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

```

806 \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.

```

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

```

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.

```

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

```

```

823     not test {\iffieldundef{issuetitle}}
824 }{%
825     \usebibmacro{issue}%
826     \setunit{\addspace =\addspace}%
827 }{%
828     \ifboolexpr{
829         ( not test {\iffieldundef{pubstate}} )
830         and
831         test {\ifbibtstring{\thefield{pubstate}in}}
832     }{%
833         \printtext{\bibstring{\thefield{pubstate}in}\space}%
834         \clearfield{pubstate}%
835     }{}%
836     \usebibmacro{journal}%
837     \iffieldundef{journalsubtitle}{%
838         \ifabbrev{\thefield{journaltitle}}{\setunit{\addspace}}{\newunit}%
839     }{%
840         \ifabbrev{\thefield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
841     \iffieldundef{series}{%
842         \newunit\newblock
843         \printfield{series}%
844         \ifbibtstring{\thefield{series}}{%
845             \setunit{\addspace}%
846         }{%
847             \newunit}}%
848     \usebibmacro{volume+number+eid}%
849     \setunit{\addspace}%
850     \usebibmacro{issue+date}%
851     \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.

```

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

```

869 \DeclareBibliographyOption{issuestyle}[slash]{%
870     \ifcsdef{blx@ox@issuestyle@#1}{%
871         \csuse{blx@ox@issuestyle@#1}%

```

```

872 }{%
873   \PackageError{biblatex}
874     {Invalid option 'issuestyle=#1'}
875     {Valid values are 'slash', 'colon', 'comma', 'parens'}%
876 }%
877 }
878 \csdef{blx@ox@issuestyle@slash}{%
879   \renewbibmacro*{volume+number+eid}{%
880     \printfield{volume}%
881     \setunit*{\addslash}%
882     \printfield{number}%
883   }%
884 }
885 \csdef{blx@ox@issuestyle@colon}{%
886   \renewbibmacro*{volume+number+eid}{%
887     \printfield{volume}%
888     \setunit*{\addcolon\space}%
889     \printfield{number}%
890   }%
891 }
892 \csdef{blx@ox@issuestyle@comma}{%
893   \renewbibmacro*{volume+number+eid}{%
894     \printfield{volume}%
895     \setunit*{\addcomma\space}%
896     \printfield{number}%
897   }%
898 }
899 \csdef{blx@ox@issuestyle@parens}{%
900   \renewbibmacro*{volume+number+eid}{%
901     \printfield{volume}%
902     \setunit*{\addspace}%
903     \printfield[parens]{number}%
904   }%
905 }
906 \ExecuteBibliographyOptions{issuestyle=slash}

```

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

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

```

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

```

```

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

```

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.

```

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

```

```

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

```

Similar changes are made to the periodical driver.

```

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

```

1024 \DeclareFieldFormat{supperiodical}{title}{%
1025   \def\currentfield{title}%
1026   \iffielddannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1027   \undef\currentfield}

```

```

1028 \DeclareFieldFormat[supperperiodical]{volume}{#1}% volume of a journal
1029 \DeclareFieldFormat[supperperiodical]{number}{#1}% number of a journal
1030 \DeclareFieldFormat[supperperiodical]{series}{% series of a journal
1031   \ifinteger{#1}
1032     {\mkbibordseries{#1}~\bibstring{jourser}}
1033     {\ifbibstring{#1}{\bibstring{#1}}{#1}}
1034 \DeclareBibliographyDriver{supperperiodical}{%
1035   \usebibmacro{bibindex}%
1036   \usebibmacro{begentry}%
1037   \usebibmacro{author/translator+others}%
1038   \setunit{\printdelim{nametitleledelim}}\newblock
1039   \usebibmacro{title}%
1040   \setunit{\titlebyauthordelim}\newblock
1041   \usebibmacro{byauthor}%
1042   \newunit\newblock
1043   \usebibmacro{bytranslator+others}%
1044   \newunit\newblock
1045   \printfield{note}\clearfield{note}%
1046   \newunit\newblock
1047   \printfield{version}%
1048   \newunit\newblock
1049   \usebibmacro{journal+issuetitle}%
1050   \newunit
1051   \usebibmacro{byeditor+others}%
1052   \iffieldequalstr{relatedtype}{suppto}{%
1053     \setunit{\addsemicolon\space}%
1054     \iftoggle{bbx:related}{%
1055       \usebibmacro{related:init}%
1056       \usebibmacro{related}%
1057       \clearfield{related}%
1058     }{}%
1059   }{}%
1060   \newunit
1061   \usebibmacro{note+pages}%
1062   \newunit\newblock
1063   \iftoggle{bbx:isbn}
1064     {\printfield{issn}}
1065     {}%
1066   \newunit\newblock
1067   \usebibmacro{doi+eprint+url}%
1068   \newunit\newblock
1069   \usebibmacro{addendum+pubstate}%
1070   \setunit{\bibpagerefpunct}\newblock
1071   \usebibmacro{pageref}%
1072   \setunit{\relatedtypepunct}\newblock
1073   \iftoggle{bbx:related}
1074     {\usebibmacro{related:init}%
1075      \usebibmacro{related}}
1076     {}%
1077   \usebibmacro{finentry}}

```

2.1.10 BOOKS AND WORKS IN BOOKS

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

```

1078 \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.

```

1079 \DeclareFieldFormat[bookinbook]{title}{%
1080   \ifbool{expr{
1081     test {\iffieldequalstr{entrysubtype}{poem}}
1082     or
1083     test {\iffieldequalstr{entrysubtype}{play}}
1084   }}{
1085     \mkbibemph{#1}%
1086   }{
1087     \mkbibquote{#1\isdot}}

```

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

```

1088 \DeclareFieldFormat[inference]{title}{\mkbibquote{#1\isdot}}

```

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

```

1089 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbk,%
1090 collection,mvcollection,incollection,suppcollection,%
1091 proceedings,mvproceedings,inproceedings,%
1092 reference,mvreference,inreference]{volume}{%
1093   \IfSubStr{#1}{-}{%
1094     \StrCount{#1}{-}[\blx@ox@dashnum]%
1095     \StrBefore{#1}{-}[\blx@ox@volnum]%
1096     \Rn{\blx@ox@volnum}\bibrangedash
1097     \StrBehind{\blx@ox@dashnum}{#1}{-}[\blx@ox@volnum]%
1098     \Rn{\blx@ox@volnum}%
1099   }{
1100     \Rn{#1}}

```

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

```

1101 \newbibmacro*{maintitle+volume}{%
1102   \ifbool{expr{
1103     test {\iffieldundef{maintitle}}
1104     or
1105     test {\iffieldundef{volume}}
1106   }}{
1107     {\printtext[maintitle+volume]{%
1108       \bibstring{volume}\addspace
1109       \printfield{volume}\printfield{part}\addspace
1110       \bibstring{ofseries}\addspace
1111       \usebibmacro{maintitle}}}
1112   }
1113   \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}

```

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

```

1114 \renewbibmacro*{in:}{%
1115   \iffieldequalstr{entrysubtype}{yearbook}{%
1116     \printtext{\bibstring{in}\intitlepunct}}

```

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

```

1117 \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.

```

1118 \renewbibmacro*{series+number}{%
1119     \printfield{series}%
1120     \setunit*{\addcomma\space}%
1121     \usebibmacro{byserieseditor}%
1122     \setunit*{\addcomma\space}%
1123     \printfield{number}}

```

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

```

1124 \newtoggle{blx@ox@altbookseries}
1125 \DeclareBibliographyOption[string]{bookseries}[in]{%
1126     \ifstrequal{#1}{out}{%
1127         \toggletrue{blx@ox@altbookseries}%
1128     }{%
1129         \togglefalse{blx@ox@altbookseries}%
1130     }%
1131     \ifstrequal{#1}{in}{%
1132         \PackageError{oxref}
1133         {Invalid option 'bookseries=#1'}
1134         {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.

```

1134 \newcounter{locpubpairs}
1135 \newbibmacro*{edition+publisher+location+date}{%
1136     \printlist{origlocation}%
1137     \iflistundef{origpublisher}%
1138     {\setunit*{\addcomma\space}}%
1139     {\setunit*{\addcolon\space}}%
1140     \printlist{origpublisher}%
1141     \setunit*{\addcomma\space}%
1142     \ifboolexpr{
1143         test {\iflistundef{origlocation}}
1144         and
1145         test {\iflistundef{origpublisher}}
1146         and
1147         test {\iffieldundef{edition}}
1148     }{%
1149         \printorigdate}%
1150     \setunit{\addsemicolon\space}%
1151     \printfield{edition}%
1152     \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.

```

1153 \ifboolexpr{%
1154     test {\ifnumcomp{\value{publisher}}{>}{1}}
1155     and
1156     test {\ifnumequal{\value{location}}{\value{publisher}}}
1157 }{%
1158     \setcounter{locpubpairs}{0}%
1159     \savebibmacro{list:andothers}%
1160     \renewbibmacro*{list:andothers}{%
1161         \whileboolexpr{%

```



```

1162     test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1163   }{%
1164     \stepcounter{locpubpairs}%
1165     \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1166       \ifnumequal{\value{publisher}}{2}{%
1167         \setunit*{\addspace\bibstring{and}\addspace}%
1168       }{%
1169         \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1170           \setunit*{\addcomma\space\bibstring{and}\addspace}%
1171         }{%
1172           \setunit*{\addcomma\space}%
1173         }%
1174       }%
1175     }{%
1176       \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{location}%
1177       \setunit*{\addcolon\space}%
1178       \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{publisher}%
1179     }%
1180     \restorebibmacro{list:andothers}%
1181   }{%
1182     \printlist{location}%
1183     \iflistundef{publisher}%
1184     {\setunit*{\addcomma\space}}%
1185     {\setunit*{\addcolon\space}}%
1186     \printlist{publisher}%
1187   }%
1188   \setunit*{\addcomma\space}%
1189   \usebibmacro{date}%
1190 }

```

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

```

1191 \newbibmacro*{series+number+edition+publisher+location+date}{%
1192   \iftoggle{blx@ox@altbookseries}{%
1193     \usebibmacro{series+number}%
1194     \setunit{\addspace}\newblock{}%
1195   \ifboolexpr{
1196     test {\iffieldundef{series}}
1197     and
1198     test {\iffieldundef{number}}
1199     and
1200     test {\iffieldundef{edition}}
1201     and
1202     test {\iflistundef{publisher}}
1203     and
1204     test {\iflistundef{location}}
1205     and
1206     test {\iffieldundef{year}}
1207     and
1208     test {\iffieldundef{season}}
1209     and
1210     test {\iffieldundef{month}}
1211   }{}{%
1212     \nopunct
1213     \printtext[publication]{%
1214       \iftoggle{blx@ox@altbookseries}{%
1215         \usebibmacro{series+number}%
1216         \setunit{\addsemicolon\addspace}%
1217       \usebibmacro{edition+publisher+location+date}%
1218       \usebibmacro{copub}}}%

```

```

1219 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1220 \setunit{\addspace}\newblock
1221 \usebibmacro{origpub}%
1222 }

```

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

```

1223 \newbibmacro*{series+number+publisher+location+date}{%
1224 \iftoggle{blx@ox@altbookseries}{%
1225 \usebibmacro{series+number}%
1226 \setunit{\addspace}\newblock}{}%
1227 \ifboolexpr{
1228 test {\iffieldundef{series}}
1229 and
1230 test {\iffieldundef{number}}
1231 and
1232 test {\iflistundef{publisher}}
1233 and
1234 test {\iflistundef{location}}
1235 and
1236 test {\iffieldundef{year}}
1237 and
1238 test {\iffieldundef{season}}
1239 and
1240 test {\iffieldundef{month}}
1241 }{}%
1242 \nopunct
1243 \printtext[publication]{%
1244 \iftoggle{blx@ox@altbookseries}{}%
1245 \usebibmacro{series+number}%
1246 \setunit{\addsemicolon\addspace}}%
1247 \usebibmacro{publisher+location+date}%
1248 \usebibmacro{copub}}}%
1249 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1250 \setunit{\addspace}\newblock
1251 \usebibmacro{origpub}%
1252 }

```

The copub macro prints co-publication details.

```

1253 \newbibmacro*{copub}{%
1254 \ifboolexpr{
1255 togl {bbx:related}
1256 and
1257 test {\iffieldequalstr{relatedtype}{copub}}
1258 }{%
1259 \setunit{\addsemicolon\space}%
1260 \usebibmacro{related:init}%
1261 \usebibmacro{related}%
1262 }{}%
1263 }

```

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

```

1264 \newbibmacro*{origpub}{%
1265 \ifboolexpr{
1266 test {\iflistundef{origlocation}}
1267 and
1268 test {\iflistundef{origpublisher}}

```

```

1269     and
1270     test {\iffielddundef{edition}}
1271     and
1272     ( not test {\iffielddundef{origyear}} )
1273   }{%
1274     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1275   }{%
1276   }

```

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;

```

1277 \DeclareBibliographyDriver{book}{%
1278   \usebibmacro{bibindex}%
1279   \usebibmacro{begentry}%
1280   \usebibmacro{author/editor+others/translator+others}%
1281   \setunit{\printdelim{nametitledelim}}\newblock
1282   \usebibmacro{title}%
1283   \setunit{\titlebyauthordelim}\newblock
1284   \usebibmacro{byauthor}%
1285   \newunit\newblock
1286   \usebibmacro{byeditor+others}%
1287   \newunit\newblock
1288   \printfield{note}%
1289   \newunit\newblock
1290   \usebibmacro{maintitle+volume}%
1291   \newunit
1292   \usebibmacro{series+number+edition+publisher+location+date}%
1293   \setunit{\addspace}%
1294   \printfield{howpublished}%
1295   \newunit\newblock
1296   \usebibmacro{chapter+pages}%
1297   \newunit
1298   \printfield{pagetotal}%
1299   \newunit\newblock
1300   \iftoggle{bbx:isbn}
1301     {\printfield{isbn}}
1302     {}%
1303   \newunit\newblock
1304   \usebibmacro{doi+eprint+url}%
1305   \newunit\newblock
1306   \usebibmacro{addendum+pubstate}%
1307   \setunit{\bibpagerefpunct}\newblock
1308   \usebibmacro{pageref}%
1309   \setunit{\relatedtypepunct}\newblock
1310   \iftoggle{bbx:related}
1311     {\usebibmacro{related:init}%
1312       \usebibmacro{related}}
1313     {}%
1314   \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;

```

1315 \DeclareBibliographyDriver{mvbook}{%
1316   \usebibmacro{bibindex}%
1317   \usebibmacro{begentry}%
1318   \usebibmacro{author/editor+others/translator+others}%
1319   \setunit{\printdelim{nametitledelim}}\newblock
1320   \usebibmacro{maintitle+title}%
1321   \newunit
1322   \ifboolexpr{
1323     test {\iffieldequalstr{relatedtype}{multivolume}}
1324     or
1325     ( not test {\iffieldundef{maintitle}} )
1326   }{%
1327     \printfield{volume}%
1328     \printfield{part}%
1329     \setunit{\titlebyauthordelim}\newblock
1330     \usebibmacro{byauthor}%
1331     \newunit\newblock
1332     \usebibmacro{byeditor+others}%
1333     \newunit\newblock
1334     \printfield{volumes}%
1335     \newunit\newblock
1336     \printfield{note}%
1337     \newunit\newblock
1338     \ifboolexpr{
1339       test {\iffieldequalstr{relatedtype}{multivolume}}
1340       and
1341       test {\iffieldundef{maintitle}}
1342     }{%
1343       \printfield{volume}%
1344       \printfield{part}%
1345     }{%
1346       \newunit\newblock
1347       \usebibmacro{series+number+edition+publisher+location+date}%
1348       \newunit\newblock
1349       \usebibmacro{chapter+pages}%
1350       \newunit
1351       \printfield{pagetotal}%
1352       \newunit\newblock
1353       \iftoggle{bbx:isbn}
1354       {\printfield{isbn}}
1355       {}%
1356       \newunit\newblock
1357       \usebibmacro{doi+eprint+url}%
1358       \newunit\newblock
1359       \usebibmacro{addendum+pubstate}%
1360       \setunit{\bibpagerefpunct}\newblock
1361       \usebibmacro{pageref}%
1362       \setunit{\relatedtypepunct}\newblock
1363       \iftoggle{bbx:related}
1364       {\usebibmacro{related:init}%
1365        \usebibmacro{related}}
1366       {}%
1367       \usebibmacro{finentry}}

```

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

```

1368 \DeclareBibliographyDriver{inbook}{%
1369   \usebibmacro{bibindex}%
1370   \usebibmacro{begentry}%
1371   \usebibmacro{author/translator+others}%
1372   \setunit{\printdelim{nametitledelim}}\newblock
1373   \usebibmacro{title}%
1374   \setunit{\titlebyauthordelim}\newblock
1375   \usebibmacro{byauthor}%
1376   \newunit\newblock
1377   \usebibmacro{in:}%
1378   \usebibmacro{bybookauthor}%
1379   \newunit\newblock
1380   \usebibmacro{maintitle+booktitle}%
1381   \newunit
1382   \iffieldundef{maintitle}
1383   {\printfield{volume}%
1384     \printfield{part}}
1385   {}%
1386   \newunit\newblock
1387   \usebibmacro{byeditor+others}%
1388   \newunit\newblock
1389   \printfield{volumes}%
1390   \newunit\newblock
1391   \printfield{note}%
1392   \newunit\newblock
1393   \usebibmacro{series+number+edition+publisher+location+date}%
1394   \newunit\newblock
1395   \usebibmacro{chapter+pages}%
1396   \newunit\newblock
1397   \iftoggle{bbx:isbn}
1398   {\printfield{isbn}}
1399   {}%
1400   \newunit\newblock
1401   \usebibmacro{doi+eprint+url}%
1402   \newunit\newblock
1403   \usebibmacro{addendum+pubstate}%
1404   \setunit{\bibpagerefpunct}\newblock
1405   \usebibmacro{pageref}%
1406   \setunit{\relatedtypepunct}\newblock
1407   \iftoggle{bbx:related}
1408   {\usebibmacro{related:init}%
1409     \usebibmacro{related}}
1410   {}%
1411   \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.

```

1412 \DeclareFieldFormat{suppbok}{title}{%
1413   \def\currentfield{title}%
1414   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1415   \undef\currentfield}
1416 \DeclareBibliographyDriver{suppbok}{%
1417   \usebibmacro{bibindex}%
1418   \usebibmacro{begentry}%
1419   \usebibmacro{author/translator+others}%
1420   \setunit{\printdelim{nametitledelim}}\newblock
1421   \usebibmacro{title}%
1422   \setunit{\titlebyauthordelim}\newblock
1423   \usebibmacro{byauthor}%
1424   \newunit\newblock

```

```

1425 \printfield{note}%
1426 \setunit{\addspace}\newblock
1427 \usebibmacro{in:}%
1428 \usebibmacro{bybookauthor}%
1429 \newunit\newblock
1430 \usebibmacro{maintitle+booktitle}%
1431 \newunit
1432 \iffieldundef{maintitle}
1433 {\printfield{volume}%
1434 \printfield{part}}
1435 {}%
1436 \newunit\newblock
1437 \usebibmacro{byeditor+others}%
1438 \newunit\newblock
1439 \printfield{volumes}%
1440 \newunit\newblock
1441 \usebibmacro{series+number+edition+publisher+location+date}%
1442 \newunit\newblock
1443 \usebibmacro{chapter+pages}%
1444 \newunit\newblock
1445 \iftoggle{bbx:isbn}
1446 {\printfield{isbn}}
1447 {}%
1448 \newunit\newblock
1449 \usebibmacro{doi+eprint+url}%
1450 \newunit\newblock
1451 \usebibmacro{addendum+pubstate}%
1452 \setunit{\bibpagerefunct}\newblock
1453 \usebibmacro{pageref}%
1454 \setunit{\relatedtypepunct}\newblock
1455 \iftoggle{bbx:related}
1456 {\usebibmacro{related:init}%
1457 \usebibmacro{related}}
1458 {}%
1459 \usebibmacro{finentry}}

```

We also provide a bookinbook driver that handles origdate differently.

```

1460 \DeclareBibliographyDriver{bookinbook}{%
1461 \usebibmacro{bibindex}%
1462 \usebibmacro{begentry}%
1463 \usebibmacro{author/translator+others}%
1464 \setunit{\printdelim{nametitledelim}}\newblock
1465 \usebibmacro{title}%
1466 \setunit{\titlebyauthordelim}\newblock
1467 \usebibmacro{byauthor}%
1468 \newunit\newblock
1469 \usebibmacro{in:}%
1470 \usebibmacro{bybookauthor}%
1471 \newunit\newblock
1472 \usebibmacro{maintitle+booktitle}%
1473 \newunit
1474 \iffieldundef{maintitle}
1475 {\printfield{volume}%
1476 \printfield{part}}
1477 {}%
1478 \newunit\newblock
1479 \usebibmacro{byeditor+others}%
1480 \newunit\newblock
1481 \printfield{volumes}%
1482 \newunit\newblock

```

```

1483 \printfield{note}%
1484 \newunit\newblock
1485 \usebibmacro{series+number+edition+publisher+location+date}%
1486 \newunit\newblock
1487 \usebibmacro{chapter+pages}%
1488 \newunit\newblock
1489 \iftoggle{bbx:isbn}
1490 {\printfield{isbn}}
1491 {}%
1492 \newunit\newblock
1493 \usebibmacro{doi+eprint+url}%
1494 \newunit\newblock
1495 \usebibmacro{addendum+pubstate}%
1496 \setunit{\bibpagerefpunct}\newblock
1497 \usebibmacro{pageref}%
1498 \setunit{\relatedtypepunct}\newblock
1499 \iftoggle{bbx:related}
1500 {\usebibmacro{related:init}%
1501 \usebibmacro{related}}
1502 {}%
1503 \usebibmacro{finentry}}

```

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

```

1504 \DeclareBibliographyDriver{collection}{%
1505 \usebibmacro{bibindex}%
1506 \usebibmacro{begentry}%
1507 \usebibmacro{editor+others}%
1508 \setunit{\printdelim{nametitledelim}}\newblock
1509 \usebibmacro{title}%
1510 \newunit\newblock
1511 \usebibmacro{byeditor+others}%
1512 \newunit\newblock
1513 \printfield{note}%
1514 \newunit\newblock
1515 \usebibmacro{maintitle+volume}%
1516 \newunit
1517 \usebibmacro{series+number+edition+publisher+location+date}%
1518 \newunit\newblock
1519 \usebibmacro{chapter+pages}%
1520 \newunit
1521 \printfield{pagetotal}%
1522 \newunit\newblock
1523 \iftoggle{bbx:isbn}
1524 {\printfield{isbn}}
1525 {}%
1526 \newunit\newblock
1527 \usebibmacro{doi+eprint+url}%
1528 \newunit\newblock
1529 \usebibmacro{addendum+pubstate}%
1530 \setunit{\bibpagerefpunct}\newblock
1531 \usebibmacro{pageref}%
1532 \setunit{\relatedtypepunct}\newblock
1533 \iftoggle{bbx:related}
1534 {\usebibmacro{related:init}%
1535 \usebibmacro{related}}
1536 {}%
1537 \usebibmacro{finentry}}

```

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

```

1538 \DeclareBibliographyDriver{mvcollection}{%
1539   \usebibmacro{bibindex}%
1540   \usebibmacro{begentry}%
1541   \usebibmacro{editor+others}%
1542   \setunit{\printdelim{nametitle}}\newblock
1543   \usebibmacro{maintitle+title}%
1544   \newunit
1545   \ifboolexpr{
1546     test {\iffieldequalstr{relatedtype}{multivolume}}
1547     or
1548     ( not test {\iffieldundef{maintitle}} )
1549   }{%
1550     \printfield{volume}%
1551     \printfield{part}%
1552   \newunit\newblock
1553   \usebibmacro{byeditor+others}%
1554   \newunit\newblock
1555   \printfield{volumes}%
1556   \newunit\newblock
1557   \printfield{note}%
1558   \newunit\newblock
1559   \ifboolexpr{
1560     test {\iffieldequalstr{relatedtype}{multivolume}}
1561     and
1562     test {\iffieldundef{maintitle}}
1563   }{%
1564     \printfield{volume}%
1565     \printfield{part}%
1566   }{%
1567     \newunit\newblock
1568     \usebibmacro{series+number+edition+publisher+location+date}%
1569     \newunit\newblock
1570     \usebibmacro{chapter+pages}%
1571     \newunit
1572     \printfield{pagetotal}%
1573     \newunit\newblock
1574     \iftoggle{bbx:isbn}
1575     {\printfield{isbn}}
1576     {}%
1577     \newunit\newblock
1578     \usebibmacro{doi+eprint+url}%
1579     \newunit\newblock
1580     \usebibmacro{addendum+pubstate}%
1581     \setunit{\bibpagerefpunct}\newblock
1582     \usebibmacro{pageref}%
1583     \setunit{\relatedtypepunct}\newblock
1584     \iftoggle{bbx:related}
1585     {\usebibmacro{related:init}%
1586       \usebibmacro{related}}
1587     {}%
1588     \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.

```

1589 \DeclareBibliographyDriver{incollection}{%
1590   \usebibmacro{bibindex}%
1591   \usebibmacro{begentry}%
1592   \usebibmacro{author/translator+others}%
1593   \setunit{\printdelim{nametitle}}\newblock

```



```

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

```

1631 \DeclareFieldFormat[suppcollection]{title}{%
1632   \def\currentfield{title}%
1633   \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1634   \undef\currentfield}
1635 \DeclareBibliographyDriver{suppcollection}{%
1636   \usebibmacro{bibindex}%
1637   \usebibmacro{begentry}%
1638   \usebibmacro{author/translator+others}%
1639   \setunit{\printdelim{nametitledelim}}\newblock
1640   \usebibmacro{title}%
1641   \setunit{\titlebyauthordelim}\newblock
1642   \usebibmacro{byauthor}%
1643   \newunit\newblock
1644   \printfield{note}%
1645   \setunit{\addspace}\newblock
1646   \usebibmacro{in:}%
1647   \usebibmacro{bookeditor}%
1648   \newunit\newblock
1649   \usebibmacro{maintitle+booktitle}%
1650   \newunit

```

```

1651 \iffielddundef{maintitle}
1652 {\printfield{volume}%
1653 \printfield{part}}
1654 {}%
1655 \newunit\newblock
1656 \printfield{volumes}%
1657 \newunit\newblock%
1658 \usebibmacro{series+number+edition+publisher+location+date}%
1659 \newunit\newblock
1660 \usebibmacro{chapter+pages}%
1661 \newunit\newblock
1662 \iftoggle{bbx:isbn}
1663 {\printfield{isbn}}
1664 {}%
1665 \newunit\newblock
1666 \usebibmacro{doi+eprint+url}%
1667 \newunit\newblock
1668 \usebibmacro{addendum+pubstate}%
1669 \setunit{\bibpagerefpunct}\newblock
1670 \usebibmacro{pageref}%
1671 \setunit{\relatedtypepunct}\newblock
1672 \iftoggle{bbx:related}
1673 {\usebibmacro{related:init}%
1674 \usebibmacro{related}}
1675 {}%
1676 \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.

```

1677 \DeclareBibliographyDriver{reference}{%
1678 \usebibmacro{bibindex}%
1679 \usebibmacro{begentry}%
1680 \usebibmacro{author/editor+others/translator+others}%
1681 \setunit{\printdelim{nametitledelim}}\newblock
1682 \usebibmacro{title}%
1683 \newunit\newblock
1684 \printfield{edition}%
1685 \setunit{\titlebyauthordelim}\newblock
1686 \usebibmacro{byauthor}%
1687 \newunit\newblock
1688 \usebibmacro{byeditor+others}%
1689 \newunit\newblock
1690 \printfield{note}%
1691 \newunit\newblock
1692 \usebibmacro{maintitle+volume}%
1693 \newunit
1694 \usebibmacro{series+number+publisher+location+date}%
1695 \newunit\newblock
1696 \usebibmacro{chapter+pages}%
1697 \newunit
1698 \printfield{pagetotal}%
1699 \newunit\newblock
1700 \iftoggle{bbx:isbn}
1701 {\printfield{isbn}}
1702 {}%
1703 \newunit\newblock
1704 \usebibmacro{doi+eprint+url}%
1705 \newunit\newblock
1706 \usebibmacro{addendum+pubstate}%
1707 \setunit{\bibpagerefpunct}\newblock

```

```

1708 \usebibmacro{pageref}%
1709 \setunit{\relatedtypepunct}\newblock
1710 \iftoggle{bbx:related}
1711 {\usebibmacro{related:init}%
1712 \usebibmacro{related}}
1713 {}%
1714 \usebibmacro{finentry}}

```

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

```

1715 \DeclareBibliographyDriver{mvreference}{%
1716 \usebibmacro{bibindex}%
1717 \usebibmacro{begentry}%
1718 \usebibmacro{author/editor+others/translator+others}%
1719 \setunit{\printdelim{nametitledelim}}\newblock
1720 \usebibmacro{maintitle+title}%
1721 \newunit
1722 \ifboolexpr{
1723 test {\iffieldequalstr{relatedtype}{multivolume}}
1724 or
1725 ( not test {\iffieldundef{maintitle}} )
1726 }{%
1727 \printfield{volume}%
1728 \printfield{part}%
1729 \newunit\newblock
1730 \printfield{edition}%
1731 \setunit{\titlebyauthordelim}\newblock
1732 \usebibmacro{byauthor}%
1733 \newunit\newblock
1734 \usebibmacro{byeditor+others}%
1735 \newunit\newblock
1736 \printfield{volumes}%
1737 \newunit\newblock
1738 \printfield{note}%
1739 \newunit\newblock
1740 \ifboolexpr{
1741 test {\iffieldequalstr{relatedtype}{multivolume}}
1742 and
1743 test {\iffieldundef{maintitle}}
1744 }{%
1745 \printfield{volume}%
1746 \printfield{part}%
1747 }{%
1748 \newunit\newblock
1749 \usebibmacro{series+number+publisher+location+date}%
1750 \newunit\newblock
1751 \usebibmacro{chapter+pages}%
1752 \newunit
1753 \printfield{pagetotal}%
1754 \newunit\newblock
1755 \iftoggle{bbx:isbn}
1756 {\printfield{isbn}}
1757 {}%
1758 \newunit\newblock
1759 \usebibmacro{doi+eprint+url}%
1760 \newunit\newblock
1761 \usebibmacro{addendum+pubstate}%
1762 \setunit{\bibpagerefpunct}\newblock
1763 \usebibmacro{pageref}%
1764 \setunit{\relatedtypepunct}\newblock
1765 \iftoggle{bbx:related}

```

```

1766     {\usebibmacro{related:init}}%
1767     \usebibmacro{related}}
1768 {}%
1769 \usebibmacro{finentry}}

```

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

```

1770 \DeclareBibliographyDriver{inference}{%
1771   \usebibmacro{bibindex}%
1772   \usebibmacro{begentry}%
1773   \usebibmacro{author/translator+others}%
1774   \setunit{\printdelim{nametitle}}\newblock
1775   \usebibmacro{title}%
1776   \setunit{\titlebyauthor}\newblock
1777   \usebibmacro{byauthor}%
1778   \newunit\newblock
1779   \iffieldundef{editor}{%
1780     \usebibmacro{in:}%
1781     \usebibmacro{bookeditor}%
1782     \newunit\newblock}%
1783   \usebibmacro{maintitle+booktitle}%
1784   \newunit
1785   \iffieldundef{maintitle}
1786   {\printfield{volume}%
1787     \printfield{part}}
1788 {}%
1789 \newunit\newblock
1790 \printfield{edition}%
1791 \newunit
1792 \usebibmacro{byeditor+others}%
1793 \newunit\newblock
1794 \printfield{volumes}%
1795 \newunit\newblock
1796 \printfield{note}%
1797 \newunit\newblock%
1798 \usebibmacro{series+number+publisher+location+date}%
1799 \newunit\newblock
1800 \usebibmacro{chapter+pages}%
1801 \newunit
1802 \printfield{pagetotal}%
1803 \newunit\newblock
1804 \iftoggle{bbx:isbn}
1805 {\printfield{isbn}}
1806 {}%
1807 \newunit\newblock
1808 \usebibmacro{doi+eprint+url}%
1809 \newunit\newblock
1810 \usebibmacro{addendum+pubstate}%
1811 \setunit{\bibpagerefpunct}\newblock
1812 \usebibmacro{pageref}%
1813 \setunit{\relatedtypepunct}\newblock
1814 \iftoggle{bbx:related}
1815 {\usebibmacro{related:init}%
1816   \usebibmacro{related}}
1817 {}%
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 \setunit{\bibpagerefpunct}\newblock
1865 \usebibmacro{pageref}%
1866 \setunit{\relatedtypepunct}\newblock
1867 \iftoggle{bbx:related}
1868 {\usebibmacro{related:init}%
1869 \usebibmacro{related}}
1870 {}%
1871 \usebibmacro{finentry}}

```

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

```

1872 \DeclareBibliographyDriver{inproceedings}{%
1873 \usebibmacro{bibindex}%
1874 \usebibmacro{begentry}%
1875 \usebibmacro{author/translator+others}%
1876 \setunit{\printdelim{nametitledelim}}\newblock
1877 \usebibmacro{title}%
1878 \setunit{\titlebyauthordelim}\newblock
1879 \usebibmacro{byauthor}%
1880 \newunit\newblock
1881 \usebibmacro{in:}%
1882 \usebibmacro{maintitle+booktitle}%
1883 \newunit
1884 \iffieldundef{maintitle}
1885 {\printfield{volume}%
1886 \printfield{part}}
1887 {}%
1888 \newunit\newblock
1889 \usebibmacro{event+venue+date}%
1890 \newunit\newblock
1891 \usebibmacro{byeditor+others}%
1892 \newunit\newblock
1893 \printfield{volumes}%
1894 \newunit\newblock
1895 \printfield{note}%
1896 \newunit\newblock
1897 \printlist{organization}%
1898 \newunit
1899 \usebibmacro{series+number+publisher+location+date}%
1900 \newunit\newblock
1901 \usebibmacro{chapter+pages}%
1902 \newunit\newblock
1903 \iftoggle{bbx:isbn}
1904 {\printfield{isbn}}
1905 {}%
1906 \newunit\newblock
1907 \usebibmacro{doi+eprint+url}%
1908 \newunit\newblock
1909 \usebibmacro{addendum+pubstate}%
1910 \setunit{\bibpagerefpunct}\newblock
1911 \usebibmacro{pageref}%
1912 \setunit{\relatedtypepunct}\newblock
1913 \iftoggle{bbx:related}
1914 {\usebibmacro{related:init}%
1915 \usebibmacro{related}}
1916 {}%

```

```
1917 \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.

```
1918 \newbibmacro*{series+type+number}{%
1919 \ifboolexpr{
1920   test {\iffieldundef{series}}
1921   and
1922   test {\iffieldundef{type}}
1923 }{%
1924   \printfield{series}%
1925   \newunit
1926   \ifboolexpr{%
1927     test {\iffieldundef{type}}
1928     and
1929     not test {\iffieldundef{number}}
1930 }{%
1931   \bibcpstring{number}
1932 }{%
1933   \printfield{type}%
1934 }%
1935 \setunit*{\addspace}%
1936 \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.

```
1937 \renewbibmacro*{institution+location+date}{%
1938 \ifboolexpr{
1939   ( test {\iffieldundef{number}}
1940     or
1941     not test {\iffieldundef{type}}
1942     or
1943     not test {\iffieldundef{series}}
1944   )
1945   and
1946   test {\iflistundef{institution}}
1947   and
1948   test {\iflistundef{location}}
1949   and
1950   test {\iffieldundef{year}}
1951   and
1952   test {\iffieldundef{season}}
1953   and
1954   test {\iffieldundef{month}}
1955 }{%
1956   \nopunct
1957   \printtext[publication]{%
1958     \ifboolexpr{
1959       test {\iffieldundef{series}}
1960       and
1961       test {\iffieldundef{type}}
1962     }{%
1963       \printfield{number}%
1964       \setunit*{\addcomma\space}%

```

```

1965     }{}%
1966     \printlist{location}%
1967     \iflistundef{institution}%
1968     {\setunit*{\addcomma\space}}%
1969     {\setunit*{\addcolon\space}}%
1970     \printlist{institution}%
1971     \setunit*{\addcomma\space}%
1972     \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.

```

1973 \newtoggle{blx@ox@altthesis}
1974 \newtoggle{blx@ox@plainthesis}
1975 \DeclareFieldAlias{thesis:publication}{publication}
1976 \DeclareFieldFormat{plain}{#1}
1977 \DeclareBibliographyOption[boolean]{altthesis}[true]{%
1978   \settoggle{blx@ox@altthesis}{#1}
1979 }
1980 \DeclareBibliographyOption[string]{thesis}[out]{%
1981   \ifstrequal{#1}{plain}{%
1982     \toggletrue{blx@ox@altthesis}%
1983     \toggletrue{blx@ox@plainthesis}%
1984   } \DeclareFieldAlias{thesis:publication}{plain}%
1985 }{%
1986   \togglefalse{blx@ox@plainthesis}%
1987   \DeclareFieldAlias{thesis:publication}{publication}%
1988   \ifstrequal{#1}{in}{%
1989     \toggletrue{blx@ox@altthesis}%
1990   }{%
1991     \togglefalse{blx@ox@altthesis}%
1992     \ifstrequal{#1}{out}{}{%
1993       \PackageError{biblatex-oxref}
1994       {Invalid option 'bookseries=#1'}
1995       {Valid values are 'in', 'out', and 'plain'.}}}}
1996 \newbibmacro*{type+institution+location+date}{%
1997   \iftoggle{blx@ox@altthesis}{%
1998     \ifboolexpr{
1999       test {\iffieldundef{type}}
2000       and
2001       test {\iflistundef{institution}}
2002       and
2003       test {\iflistundef{location}}
2004       and
2005       test {\iffieldundef{year}}
2006       and
2007       test {\iffieldundef{season}}
2008       and
2009       test {\iffieldundef{month}}
2010     }{}{%
2011       \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
2012       \printtext[thesis:publication]{%
2013         \printfield{type}%
2014         \setunit*{\addcomma\space}%
2015         \printlist{location}%
2016         \iflistundef{institution}{%
2017           \setunit*{\addcomma\space}%
2018         }{}%
2019         \setunit*{\addcolon\space}}%
2020       \printlist{institution}%

```



```

2021      \setunit*{\addcomma\space}%
2022      \usebibmacro{date}}}%
2023  }{%
2024      \printfield{type}%
2025      \newunit
2026      \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.

```

2027  \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
2028  \ifboolexpr{
2029    test {\iffieldundef{type}}
2030    and
2031    test {\iffieldundef{series}}
2032    and
2033    test {\iffieldundef{number}}
2034    and
2035    test {\iffieldundef{edition}}
2036    and
2037    test {\iflistundef{organization}}
2038    and
2039    test {\iflistundef{publisher}}
2040    and
2041    test {\iflistundef{location}}
2042    and
2043    test {\iffieldundef{year}}
2044    and
2045    test {\iffieldundef{season}}
2046    and
2047    test {\iffieldundef{month}}
2048  }{%
2049    \nopunct
2050    \printtext[publication]{%
2051      \usebibmacro{series+type+number}%
2052      \setunit{\addsemicolon\space}%
2053      \printfield{edition}%
2054      \setunit*{\addcomma\space}%
2055      \iflistundef{publisher}{%
2056        \printlist{organization}%
2057        \setunit*{\addcomma\space}%
2058        \printlist{location}%
2059        \iflistundef{publisher}{%
2060          \iflistundef{organization}{%
2061            \setunit*{\addcomma\space}%
2062          }{%
2063            \setunit*{\addcolon\space}%
2064            \printlist{organization}}%
2065        }{%
2066          \setunit*{\addcolon\space}%
2067          \printlist{publisher}}%
2068        \setunit*{\addcomma\space}%
2069        \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.

```

2070 \newcommand*{\legreport}{legal}
2071 \DeclareBibliographyDriver{report}{%
2072   \usebibmacro{bibindex}%
2073   \usebibmacro{begentry}%
2074   \usebibmacro{author}%
2075   \setunit{\printdelim{nametitledelim}}\newblock
2076   \usebibmacro{maintitle+title}%
2077   \newunit
2078   \iffielddundef{maintitle}
2079   {\printfield{volume}%
2080    \printfield{part}}
2081   {}%
2082   \setunit{\titlebyauthordelim}\newblock
2083   \usebibmacro{byauthor}%
2084   \newunit\newblock
2085   \printfield{version}%
2086   \newunit\newblock
2087   \printfield{note}%
2088   \newunit\newblock
2089   \usebibmacro{series+type+number}%
2090   \setunit{\addspace}%
2091   \usebibmacro{institution+location+date}%
2092   \iffieldequals{entrysubtype}{\legreport}{%
2093     \setunit{\addspace}\nopunct
2094   }{%
2095     \newunit\newblock}%
2096   \usebibmacro{chapter+pages}%
2097   \newunit
2098   \printfield{pagetotal}%
2099   \newunit\newblock
2100   \iftoggle{bbx:isbn}
2101   {\printfield{isrn}}
2102   {}%
2103   \newunit\newblock
2104   \usebibmacro{doi+eprint+url}%
2105   \newunit\newblock
2106   \usebibmacro{addendum+pubstate}%
2107   \setunit{\bibpageref punct}\newblock
2108   \usebibmacro{pageref}%
2109   \setunit{\relatedtype punct}\newblock
2110   \iftoggle{bbx:related}
2111   {\usebibmacro{related:init}%
2112    \usebibmacro{related}}
2113   {}%
2114   \usebibmacro{finentry}}

```

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

```

2115 \xpatchbibdriver{thesis}{%
2116   \printfield{type}%
2117   \newunit
2118   \usebibmacro{institution+location+date}%
2119 }{%
2120   \usebibmacro{type+institution+location+date}%
2121 }{\wlog{WARNING: biblatex-oxref failed to patch thesis}}

```

We give booklet entries descriptor support.

```

2122 \DeclareFieldFormat[booklet]{title}{%
2123 \def\currentfield{title}%
2124 \iffieldannotation{descriptor}{#1}{%
2125 \mkbibquote{#1\isdot}}}%
2126 \undef\currentfield}

```

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

```

2127 \DeclareFieldFormat[patent]{title}{\mkbibemph{#1}}
2128 \DeclareFieldFormat[patent]{type}{\ifbibstring{#1}{\biblstring{#1}}{#1}}

```

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

```

2129 \DeclareNameAlias{byholder}{default}
2130 \renewbibmacro*{byholder}{%
2131 \ifnameundef{holder}{}{%
2132 \bibstring{byholder}%
2133 \setunit{\addspace}%
2134 \printnames[byholder]{holder}}}
2135 \newbibmacro*{location+dates}{%
2136 \ifboolexpr{
2137 test {\iffieldundef{location}}
2138 and
2139 test {\iffieldundef{origyear}}
2140 and
2141 test {\iffieldundef{origmonth}}
2142 and
2143 test {\iffieldundef{year}}
2144 and
2145 test {\iffieldundef{month}}}
2146 {}{%
2147 \nopunct
2148 \printtext[publication]{%
2149 \printlist[][-\value{listtotal}]{location}%
2150 \setunit*{\addcomma\space}%
2151 \ifboolexpr{
2152 test {\iffieldundef{origyear}}
2153 and
2154 test {\iffieldundef{origmonth}}}
2155 }{}%
2156 \iffieldundef{origdatetype}{%
2157 \bibstring{filed}
2158 }{
2159 \printfield{origdatetype}}%
2160 \setunit*{\addspace}%
2161 \usebibmacro{origdate+time}%
2162 \setunit*{\addcomma\space}%
2163 \ifboolexpr{
2164 test {\iffieldundef{year}}
2165 and
2166 test {\iffieldundef{month}}}
2167 }{}%
2168 \iffieldundef{datetype}{%
2169 \bibstring{issued}%
2170 }{
2171 \printfield{datetype}}%
2172 \setunit*{\addspace}%
2173 \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.

```

2174 \DeclareBibliographyDriver{patent}{%
2175   \usebibmacro{bibindex}%
2176   \usebibmacro{begentry}%
2177   \usebibmacro{author}%
2178   \setunit{\printdelim{nametitledelim}}\newblock
2179   \usebibmacro{title}%
2180   \newunit
2181   \printlist{language}%
2182   \setunit{\titlebyauthordelim}\newblock
2183   \usebibmacro{byauthor}%
2184   \newunit\newblock
2185   \printfield{note}%
2186   \newunit\newblock
2187   \printfield{type}%
2188   \setunit*\addspace%
2189   \printfield{number}%
2190   \newunit\newblock
2191   \usebibmacro{byholder}%
2192   \newunit\newblock
2193   \usebibmacro{location+dates}%
2194   \newunit\newblock
2195   \usebibmacro{doi+eprint+url}%
2196   \newunit\newblock
2197   \usebibmacro{addendum+pubstate}%
2198   \setunit{\bibpagerefunct}\newblock
2199   \usebibmacro{pageref}%
2200   \setunit{\relatedtypepunct}\newblock
2201   \iftoggle{bbx:related}
2202     {\usebibmacro{related:init}%
2203      \usebibmacro{related}}
2204     {}%
2205   \usebibmacro{finentry}}

```

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

```

2206 \DeclareBibliographyDriver{manual}{%
2207   \usebibmacro{bibindex}%
2208   \usebibmacro{begentry}%
2209   \ifboolexpr{
2210     test {\ifentrytype{standard}}
2211     and
2212     ( test {\ifnameundef{author}}
2213       or
2214       not test \ifuseauthor )
2215     and
2216     not test {\iffieldundef{number}}
2217   }{%
2218     \printfield{number}\clearfield{number}%
2219     \newunit\newblock
2220   }{%
2221     \usebibmacro{author/editor}%
2222     \setunit{\printdelim{nametitledelim}}\newblock
2223     \ifentrytype{software}{%
2224       \usebibmacro{title+version}%

```

```

2225 }{%
2226   \usebibmacro{title}}%
2227 \setunit{\titlebyauthor\delim}\newblock
2228 \usebibmacro{byauthor}%
2229 \newunit\newblock
2230 \usebibmacro{byeditor}%
2231 \newunit
2232 \ifentrytype{software}{}{%
2233   \newunit\printfield{version}}%
2234 \newunit
2235 \printfield{note}%
2236 \newunit\newblock
2237 \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2238 \newunit\newblock
2239 \usebibmacro{chapter+pages}%
2240 \newunit
2241 \printfield{pagetotal}%
2242 \newunit\newblock
2243 \iftoggle{bbx:isbn}
2244 {\printfield{isbn}}
2245 {}%
2246 \newunit\newblock
2247 \usebibmacro{doi+eprint+url}%
2248 \newunit\newblock
2249 \usebibmacro{addendum+pubstate}%
2250 \setunit{\bibpagerefpunct}\newblock
2251 \usebibmacro{pageref}%
2252 \setunit{\relatedtypepunct}\newblock
2253 \iftoggle{bbx:related}
2254 {\usebibmacro{related:init}%
2255   \usebibmacro{related}}
2256 {}%
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   \iffielddundef{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 {\iffielddundef{type}}
2273     and
2274     test {\iffielddundef{series}}
2275     and
2276     test {\iffielddundef{number}}

```

```

2277     and
2278     test {\iffieldundef{year}}
2279     and
2280     test {\iffieldundef{season}}
2281     and
2282     test {\iffieldundef{month}}
2283     and
2284     test {\iffieldundef{origyear}}
2285     and
2286     test {\iffieldundef{origseason}}
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[boolean]{endeditor}[true]{%
2319     \settoggle{blx@ox@endeditor}{#1}}
2320   \newbibmacro*{pre-byeditor+others}{%
2321     \iftoggle{blx@ox@endeditor}{%
2322       \usebibmacro{byeditor+others}%
2323     }%
2324   }
2325   \newbibmacro*{post-byeditor+others}{%
2326     \iftoggle{blx@ox@endeditor}{%
2327       \usebibmacro{byeditor+others}%
2328     }%
2329   }

```

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{nametitle}}\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{\titlebyauthordelim}\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   \setunit{\bibpagerefpunct}\newblock
2371   \usebibmacro{pageref}%
2372   \setunit{\relatedtypepunct}\newblock
2373   \iftoggle{bbx:related}
2374   {\usebibmacro{related:init}%
2375    \usebibmacro{related}}
2376   {}%
2377   \usebibmacro{finentry}}

```

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

```

2378 \DeclareBibliographyAlias{music}{audio}
2379 \DeclareBibliographyAlias{movie}{audio}
2380 \DeclareBibliographyAlias{video}{audio}

```

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

```

2381 \DeclareBibliographyDriver{inaudio}{%
2382   \usebibmacro{bibindex}%
2383   \usebibmacro{begentry}%
2384   \usebibmacro{author}%
2385   \setunit{\printdelim{nametitledelim}}\newblock
2386   \usebibmacro{title}%
2387   \setunit{\titlebyauthordelim}\newblock
2388   \usebibmacro{byauthor}%
2389   \newunit\newblock
2390   \usebibmacro{in:}%
2391   \usebibmacro{bybookauthor}%
2392   \newunit\newblock
2393   \usebibmacro{maintitle+booktitle}%
2394   \iffieldequalstr{relatedtype}{includes}{%
2395     \iftoggle{bbx:related}{%
2396       \newunit\newblock
2397       \usebibmacro{related:init}%
2398       \usebibmacro{related}%
2399       \clearfield{related}%
2400     }{}%
2401   }{}%
2402   \setunit{\addspace}
2403   \usebibmacro{onlinetype}%
2404   \newunit\newblock
2405   \usebibmacro{pre-byeditor+others}%
2406   \newunit\newblock
2407   \printfield{volumes}%
2408   \newunit\newblock
2409   \printfield{note}%
2410   \newunit\newblock%
2411   \printlist{organization}%
2412   \newunit\newblock%
2413   \usebibmacro{publisher+type+series+number+date}%
2414   \setunit{\addspace}%
2415   \printfield{howpublished}%
2416   \newunit\newblock
2417   \usebibmacro{post-byeditor+others}%
2418   \newunit\newblock
2419   \iftoggle{bbx:isbn}
2420   {\printfield{isbn}}
2421   {}%
2422   \newunit\newblock
2423   \usebibmacro{doi+eprint+url}%
2424   \newunit\newblock
2425   \usebibmacro{addendum+pubstate}%
2426   \setunit{\bibpagerefpunct}\newblock
2427   \usebibmacro{pageref}%
2428   \setunit{\relatedtypepunct}\newblock
2429   \iftoggle{bbx:related}
2430   {\usebibmacro{related:init}%
2431     \usebibmacro{related}}
2432   {}%
2433   \usebibmacro{finentry}}

```

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

```

2434 \DeclareBibliographyAlias{inmusic}{inaudio}
2435 \DeclareBibliographyAlias{inmovie}{inaudio}
2436 \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.


```

2437 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2438   \inherit{title}{booktitle}
2439   \inherit{subtitle}{booksubtitle}
2440   \inherit{titleaddon}{booktitleaddon}
2441   \noinherit{shorttitle}
2442   \noinherit{sorttitle}
2443   \noinherit{indextitle}
2444   \noinherit{indexsorttitle}
2445 }

```

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.

```

2446 \DeclareFieldFormat[audio,music]{title}{%
2447   \def\currentfield{title}%
2448   \iffielddannotation{descriptor}{#1}{%
2449     \iffieldequalstr{entrysubtype}{podcast}{%
2450       \mkbibquote{#1\isdot}%
2451     }{%
2452       \mkbibemph{#1}}}%
2453   \undef\currentfield}
2454 \DeclareFieldFormat[movie,video]{title}{%
2455   \def\currentfield{title}%
2456   \iffielddannotation{descriptor}{#1}{%
2457     \ifboolexpr{
2458       test {\iffieldequalstr{entrysubtype}{episode}}
2459       or
2460       test {\iffieldequalstr{entrysubtype}{clip}}
2461       or
2462       test {\iffieldequalstr{entrysubtype}{webcast}}
2463     }{%
2464       \mkbibquote{#1\isdot}%
2465     }{%
2466       \mkbibemph{#1}}}%
2467   \undef\currentfield}
2468 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2469   \def\currentfield{title}%
2470   \iffielddannotation{descriptor}{#1}{%
2471     \mkbibquote{#1\isdot}%
2472   }%
2473   \undef\currentfield}
2474 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2475   \def\currentfield{booktitle}%
2476   \iffielddannotation{descriptor}{#1}{%
2477     \iffieldequalstr{entrysubtype}{podcast}{%
2478       \mkbibquote{#1\isdot}%
2479     }{%
2480       \mkbibemph{#1}}}%
2481   \undef\currentfield}
2482 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2483   \def\currentfield{booktitle}%
2484   \iffielddannotation{descriptor}{#1}{%
2485     \ifboolexpr{
2486       test {\iffieldequalstr{entrysubtype}{episode}}
2487       or
2488       test {\iffieldequalstr{entrysubtype}{clip}}
2489       or
2490       test {\iffieldequalstr{entrysubtype}{webcast}}
2491     }{%

```

```

2492 \mkbibquote{#1\isdot}%
2493 }{%
2494 \mkbibemph{#1}}}%
2495 \undef\currentfield}

```

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

```

2496 \DeclareBibliographyDriver{performance}{%
2497 \usebibmacro{bibindex}%
2498 \usebibmacro{begentry}%
2499 \usebibmacro{author}%
2500 \setunit{\printdelim{nametitledelim}}\newblock
2501 \usebibmacro{title}%
2502 \newunit
2503 \usebibmacro{maintitle}%
2504 \iffieldequalstr{relatedtype}{includes}{%
2505 \iftoggle{bbx:related}{%
2506 \newunit\newblock
2507 \usebibmacro{related:init}%
2508 \usebibmacro{related}%
2509 \clearfield{related}%
2510 }{}%
2511 }{}%
2512 \setunit{\addspace}
2513 \usebibmacro{onlinetype}%
2514 \setunit{\titlebyauthordelim}\newblock
2515 \usebibmacro{byauthor}%
2516 \newunit\newblock
2517 \usebibmacro{pre-byeditor+others}%
2518 \setunit{\addspace}%
2519 \printfield{howpublished}%
2520 \newunit\newblock
2521 \printfield{type}%
2522 \newunit\newblock
2523 \printfield{note}%
2524 \ifboolexpr{
2525 test {\iffieldundef{origyear}}
2526 and
2527 test {\iffieldundef{origmonth}}
2528 }{}{%
2529 \setunit{\addspace}\newblock
2530 \printtext[publication]{\usebibmacro{origdate+time}}%
2531 \newunit\newblock
2532 \usebibmacro{event+venue+location+date}%
2533 \newunit\newblock
2534 \usebibmacro{post-byeditor+others}%
2535 \newunit\newblock
2536 \printlist{organization}%
2537 \newunit\newblock
2538 \iftoggle{bbx:isbn}
2539 {\printfield{isbn}}
2540 }{}%
2541 \newunit\newblock
2542 \usebibmacro{doi+eprint+url}%
2543 \newunit\newblock
2544 \usebibmacro{addendum+pubstate}%
2545 \setunit{\bibpagerefpunct}\newblock
2546 \usebibmacro{pageref}%
2547 \setunit{\relatedtypepunct}\newblock
2548 \iftoggle{bbx:related}

```

```

2549     {\usebibmacro{related:init}}%
2550     \usebibmacro{related}}
2551   {}%
2552   \usebibmacro{finentry}}
2553 \DeclareBibliographyAlias{image}{performance}
2554 \DeclareBibliographyAlias{artwork}{performance}

```

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

```

2555 \newbibmacro*{event+venue+location+date}{%
2556   \printfield{eventtitle}%
2557   \newunit
2558   \printfield{eventtitleaddon}%
2559   \newunit
2560   \printlist{institution}%
2561   \newunit
2562   \printfield{venue}%
2563   \newunit
2564   \printlist{location}%
2565   \newunit%
2566   \ifboolexpr{
2567     test {\iffieldundef{year}}
2568     and
2569     test {\iffieldundef{month}}
2570   }{\printeventdate}{\usebibmacro{date+time}}}

```

2.1.14 DIGITAL MEDIA

Website articles and social media

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

```

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

```

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[pars]{\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   \setunit{\bibpagerefunct}\newblock
2619   \usebibmacro{pageref}%
2620   \setunit{\relatedtypepunct}\newblock
2621   \iftoggle{bbx:related}
2622   {\usebibmacro{related:init}%
2623     \usebibmacro{related}}
2624   {}%
2625   \usebibmacro{finentry}}

```

Software

The version for software goes between the title and titleaddon.

```

2626 \newbibmacro*{title+version}{%
2627   \ifboolexpr{
2628     test {\iffieldundef{title}}
2629     and
2630     test {\iffieldundef{subtitle}}
2631   }
2632   {}
2633   {\printtext[title]{%
2634     \printfield[titlecase]{title}%
2635     \setunit{\subtitlepunct}%
2636     \printfield[titlecase]{subtitle}}%

```

```

2637 \setunit{\addspace}}%
2638 \printfield{version}%
2639 \setunit{\addspace}%
2640 \printfield{titleaddon}%
2641 }
2642 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

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

```

2643 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is a variant of the manual driver.

```

2644 \DeclareBibliographyAlias{software}{manual}

```

Datasets

Datasets are currently treated like manuals

```

2645 \DeclareBibliographyAlias{dataset}{manual}

```

2.1.15 LEGAL REFERENCES

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

Entry options

```

2646 \newtoggle{bbx:scotstyle}
2647 \DeclareEntryOption{scottish-style}[true]{%
2648 \settoggle{bbx:scotstyle}{#1}}
2649 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2650 \DeclareEntryOption{year-essential}[true]{%
2651 \setboolean{bbx@year-essential}{#1}}
2652 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2653 \DeclareEntryOption{paryear-essential}[true]{%
2654 \setboolean{bbx@paryear-essential}{#1}}
2655 \newtoggle{blx@ox@nopostnotedelim}
2656 \newtoggle{bbx:altcourt}
2657 \DeclareBibliographyOption{court-plain}[true]{%
2658 \settoggle{bbx:altcourt}{#1}}
2659 \DeclareEntryOption{court-plain}[true]{%
2660 \settoggle{bbx:altcourt}{#1}}
2661 \newtoggle{bbx@ecliuse}
2662 \newtoggle{bbx@eclionly}
2663 \DeclareBibliographyOption{ecli}[yes]{%
2664 \ifstrequal{#1}{no}{%
2665 \global\togglefalse{bbx@ecliuse}%
2666 \global\togglefalse{bbx@eclionly}%
2667 }{%
2668 \global\toggletrue{bbx@ecliuse}%
2669 \ifstrequal{#1}{only}{%
2670 \global\toggletrue{bbx@eclionly}%
2671 }{}}

```

Field formats

```

2672 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2673 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2674 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2675 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2676 \DeclareFieldFormat{romanvol}{\RN{#1}}
2677 \DeclareListFormat[jurisdiction]{listb}{}
2678 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2679 \DeclareFieldFormat{verba}{#1}
2680
2681 \DeclareListFormat{echrinst}{%
2682   \ifboolexpr{%
2683     test {\ifnumequal{\value{listtotal}}{1}}
2684     or
2685     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2686   }{%
2687     \ifboolexpr{
2688       test {\ifdefstring{\Commission}{#1}}
2689       or
2690       test {\ifdefstring{\commission}{#1}}%
2691     }{%
2692       \bibstring{commissiondecision}%
2693     }{#1}%
2694   }{%
2695     \setcounter{blx@tmpcnt}{\value{listcount}}%
2696     \addtocounter{blx@tmpcnt}{1}%
2697     \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2698       #1\space\bibstring{and}\addspace
2699     }{%
2700       #1\addcomma\space}}%
2701
2702 \newcommand*{\commission}{commission}
2703 \newcommand*{\Commission}{Commission}
2704 \DeclareListFormat{ecthr}{%
2705   \ifboolexpr{
2706     test {\ifdefstring{\Commission}{#1}}
2707     or
2708     test {\ifdefstring{\commission}{#1}}
2709   }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2710
2711 \newcommand*{\pcijrep}{PCIJ Rep}
2712 \DeclareFieldFormat{international}{%
2713   \iffieldequals{journaltitle}{\pcijrep}{%
2714     \bibcplstring{jourser}\space #1%
2715   }{#1}}
2716
2717 \DeclareListFormat{checkcontains}{%
2718   \bbx@check{#1}}
2719 \newtoggle{bbx@institutiontoggle}
2720 \newcommand\iflistcontains[2]{%
2721   \global\togglefalse{bbx@institutiontoggle}%
2722   \def\bbx@check##1{%
2723     \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2724   \printlist[checkcontains]{#1}%
2725   \iftoggle{bbx@institutiontoggle}}
2726
2727 \DeclareFieldFormat{draftleg}{%
2728   \StrBefore{#1}{ Bill}}
2729
2730 \DeclareListFormat{billprinting}{%
2731   \ifstrequal{#1}{HC}{%

```

```

2732     \mkbibbrackets{\strfield{number}}%
2733     \toggletrue{blx@ox@nopostnotedelim}%
2734   }{%
2735     \strfield{number}%
2736     \togglefalse{blx@ox@nopostnotedelim}}
2737
2738   \newcommand*{\treatypartysep}{\allowbreak ---\allowbreak}
2739   \DeclareListFormat{treaty}{%
2740     \ifmoreitems{%
2741       \ifnumequal{\value{listcount}}{1}{%
2742         \bibopenparen
2743       }{%
2744         \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2745           #1\treatypartysep
2746         }{%
2747           #1\bibcloseparen}}
2748
2749   \def\siganddate#1{%
2750     \def\bbx@tempa{#1}%
2751     \expandafter\bbx@signeddatei#1/relax}
2752   \def\bbx@signeddatei#1=#2/relax{%
2753     \def\bbx@tempa{#2}%
2754     \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2755   \def\makebbx@datei#1-#2-#3-{%
2756     \makebbx@dateii{#1}{#2}{#3}}
2757   \def\makebbx@dateii#1#2#3{%
2758     \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2759     \space
2760     #1}
2761   \DeclareListFormat{treatydates}{%
2762     \ifnumequal{\value{listcount}}{1}{%
2763       \siganddate{#1}%
2764     }{%
2765       \addcomma\space\siganddate{#1}}}

```

Pagination formats

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

```

2766   \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2767     \begingroup
2768     \def\blx@tempa{\blx@mkpageprefix@i}%
2769     \ifstrequal{#1}{none}{}{}%
2770     \ifbibstring{#1}{%
2771       \def\blx@tempa{\blx@mkpageprefix{#1}}%
2772     }{%
2773       \blx@warning@entry{Unknown pagination type '#1'}}%
2774     \@ifnextchar[%]
2775       {\blx@tempa}
2776       {\blx@tempa[\@firstofone]}
2777
2778   \newcommand*{\paragraphmarkings}[]{}
2779   \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2780     \iffieldundef{pagination}{%
2781       \ifboolexpr{
2782         test {\ifkeyword{eu}}
2783         or
2784         test {\ifkeyword{echr}}
2785       }{%
2786         \mkcomprange[\mkrawpageprefix[paragraph]]{#1}%

```

```

2787     }{%
2788         \mkcomprange{#1}}%
2789 }{%
2790     \iffieldequals{pagination}{\paragraphmarkings}{%
2791         \mkcomprange[\mkbibbrackets]{#1}%
2792     }{%
2793         \mkcomprange[\mkpageprefix[pagination]]{#1}}}%

```

Shorthands

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

```

2794 \renewbibmacro*{shorthandintro}{%
2795     \iffieldundef{shorthandintro}
2796     {\iffieldundef{shorthand}
2797         {}
2798         {\setunit{\addspace}%
2799             \printtext[parens]{%
2800                 \ifboolexpr{
2801                     test {\ifentrytype{jurisdiction}}
2802                     or
2803                     test {\ifentrytype{legal}}
2804                     or
2805                     test {\ifentrytype{legislation}}
2806                 }{}{%
2807                     \bibstring{citedas}\space}%
2808                 \printfield{shorthand}}}%
2809     }\setunit{\addspace}%
2810     \printtext[parens]{\printfield{shorthandintro}}}%

```

Common macros

```

2811 \newbibmacro*{issue/volume}{%
2812     \iffieldundef{volume}%
2813     {\iffieldundef{issue}%
2814         {}%
2815         {\printfield{issue}}}%
2816     {\printfield[default]{volume}}}
2817 \newcommand*{\subtypenewsp}{newspaper}
2818 \newbibmacro*{year+vol+report}[1][default]{%
2819     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2820         \setunit{\addcomma\space}%
2821     }{%
2822         \usebibmacro{journaldate}%
2823         \setunit{\addspace}%
2824         \printfield[parens]{origyear}%
2825         \setunit{\addspace}%
2826         \printfield{volume}%
2827         \setunit{\addspace}}}%
2828 \printfield{journaltitle}%
2829 \setunit*{\addspace}%
2830 \iffieldundef{series}{}{%
2831     \setunit{\addspace}%
2832     \printfield[#1]{series}%
2833     \setunit{\addspace}}}%
2834 \iffieldequals{entrysubtype}{\subtypenewsp}{%
2835     \setunit{\addcomma\space}%
2836     \printdate%
2837 }{}%

```



```

2838 \newbibmacro*{journaldate}[1][]{%
2839 \ifboolexpr{
2840 test {\iffieldundef{#1volume}}
2841 or
2842 bool {bbx@#1year-essential}
2843 }{%
2844 \ifboolexpr{
2845 test {\ifkeyword{sc}}
2846 or
2847 test {\iftoggle{bbx:scotstyle}}
2848 }{%
2849 \setunit{\addcomma\space}%
2850 \printfield{#1year}%
2851 }%
2852 \printfield[brackets]{#1year}}%
2853 }{%
2854 \printfield[parens]{#1year}}}
2855 \newcommand*\casenote{casenote}
2856 \newcommand*\casenotetext{\bibstring{casenote}}
2857 \newbibmacro{journaltitle}{%
2858 \iffieldequals{entrysubtype}{\casenote}{%
2859 \iffieldundef{crossref}{%
2860 \usebibmacro{title}%
2861 }{%
2862 \iffieldundef{note}{%
2863 \restorefield{note}{\casenotetext}%
2864 }{%
2865 \ifboolexpr{
2866 test {\iffootnote}
2867 and test {\iftoggle{bbx@samefootnote}}
2868 and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2869 }{\printfield[casenotetitle]{title}}}%
2870 }{%
2871 \usebibmacro{title}}}
2872 \newbibmacro*{unreported}[1][default]{%
2873 \iffieldundef{verba}{%
2874 \ifboolexpr{
2875 test {\iflistundef{institution}}
2876 and
2877 test {\iffieldundef{date}}
2878 and
2879 test {\iffieldundef{year}}
2880 }{%
2881 \ifboolexpr{
2882 test {\iffieldundef{date}}
2883 and
2884 test {\iffieldundef{year}}
2885 }{%
2886 \mkbibparens{\printlist[jurisdiction]{institution}}%
2887 }{%
2888 \toggletrue{blx@ox@nopostnotedelim}%
2889 \iflistundef{institution}{%
2890 \mkbibparens{\usebibmacro{date}}}%
2891 }{%
2892 \printtext[parens]{%
2893 \printlist[#1]{institution}%
2894 \setunit{\addcomma\space}
2895 \usebibmacro{date}}}%
2896 }%
2897 \iftoggle{bbx@ecliuse}{%
2898 \printfield{verba}}%
2899 \newbibmacro{court-note}{%

```

```

2900 \iffielddundef{note}%
2901 {}%
2902 {\printfield{note}%
2903 \toggletrue{blx@ox@nopostnotedelim}}}
2904 \newbibmacro*{jurisdictionpages}{%
2905 \iffieldequals{entrysubtype}{\subtypenewsp}}{%
2906 \setunit{\addspace}%
2907 \printfield{pages}}
2908 \newbibmacro{pcitenote}{%
2909 \iffielddundef{parreporter}}{%
2910 \setunit{\addcomma\space}%
2911 \iffielddundef{postnote}}{%
2912 \printfield{postnote}%
2913 \clearfield{postnote}%
2914 \setunit{\addsemicolon\space}}}}
2915 \newbibmacro*{courtid}{%
2916 \iffielddundef{number}}{%
2917 \ifboolexpr{
2918 test {\iflistundef{institution}}
2919 and
2920 test {\iffielddundef{location}}}%
2921 }{%
2922 \togglefalse{blx@ox@nopostnotedelim}%
2923 }{%
2924 \ifboolexpr{
2925 test {\iffielddundef{journaltitle}}
2926 or
2927 not togl {bbx:altcourt}}
2928 }{%
2929 \printtext[parens]{%
2930 \printfield{location}%
2931 \setunit{\addspace}%
2932 \printlist{institution}%
2933 \usebibmacro{unrep:date}}%
2934 \toggletrue{blx@ox@nopostnotedelim}}
2935 }{%
2936 \setunit{\addcomma\space}%
2937 \printfield{location}%
2938 \setunit*\addspace}%
2939 \printlist{institution}}}%
2940 }{%
2941 \togglefalse{blx@ox@nopostnotedelim}}}
2942 \newbibmacro*{unrep:date}{%
2943 \ifboolexpr{
2944 test {\iffielddundef{journaltitle}}%
2945 and
2946 test {\iffielddundef{number}}}%
2947 }{%
2948 \setunit{\addcomma\space}%
2949 \usebibmacro{date}%
2950 }{}}

```

Legal cases

There are different formats depending on the jurisdiction.

```

2951 \DeclareBibliographyDriver{jurisdiction}{%
2952 \usebibmacro{bibindex}%
2953 \usebibmacro{begentry}%
2954 \usebibmacro{juriscitation}%

```

```

2955 \usebibmacro{doi+eprint+url}%
2956 \setunit{\addspace}%\newblock
2957 \usebibmacro{addendum+pubstate}%
2958 \setunit{\bibpagerefpunct}\newblock
2959 \usebibmacro{pageref}%
2960 \setunit{\addspace}%\newblock
2961 \iftoggle{bbx:related}
2962 { \usebibmacro{related:init}%
2963   \usebibmacro{related}}
2964 {}%
2965 \usebibmacro{finentry}}
2966 \newtoggle{bbx@juriscitedone}
2967 \newbibmacro{juriscitation}{%
2968   \togglefalse{bbx@juriscitedone}%
2969   \renewcommand{\do}[1]{%
2970     \ifkeyword{##1}{%
2971       \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2972       \listbreak
2973     }{}%
2974   \docsvlist{eu, echr, int, ca, us}%
2975   \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
2976 }

```

Here is the format for EU cases.

```

2977 \newtoggle{bbx@commissiondecision}
2978 \newbibmacro*{eujuriscitation}{%
2979   \ifboolexpr{
2980     test {\iflistcontains{institution}{\commission}}
2981     or
2982     test {\iflistcontains{institution}{\Commission}}
2983   }{%
2984     \toggletrue{bbx@commissiondecision}%
2985   }{%
2986     \togglefalse{bbx@commissiondecision}}%
2987   \iftoggle{bbx@commissiondecision}{}{%
2988     \usebibmacro{eucasenumber}}%
2989   \usebibmacro{title}%
2990   \setunit{\addspace}%
2991   \iftoggle{bbx@commissiondecision}{%
2992     \usebibmacro{eucommissiondecision}}{}%
2993   \setunit{\addspace}%
2994   \usebibmacro{eu:reportinfo}%
2995   \iftoggle{bbx@commissiondecision}{%
2996     \setunit{\addcomma\space}%
2997   }{%
2998     \setunit{\addspace}}%
2999   \usebibmacro{altreportdetails}%
3000   \usebibmacro{court-note}%
3001 }
3002 \newbibmacro{eucasetype}{%
3003   \iffieldundef{type}{%
3004     \ifboolexpr{
3005       test {\IfSubStr{\thefield{number}}{,}}
3006       or
3007       test {\IfSubStr{\thefield{number}}{--}}
3008       or
3009       test {\IfSubStr{\thefield{number}}{ and }}
3010     }{%
3011       \bibstring{eujoinedcases}%
3012     }{%
3013       \bibstring{eucase}}%

```

```

3014     }{%
3015         \printfield{type}}%
3016     }
3017 \newbibmacro{eucasenumber}{%
3018     \usebibmacro{eucasetype}%
3019     \setunit{\addnbspace}%
3020     \printfield{number}%
3021     \setunit{\addspace}}
3022 \newbibmacro{eucommissiondecision}{%
3023     \iffieldundef{userb}{%
3024         \iffieldundef{number}{}%
3025         \printtext[parens]{%
3026             \usebibmacro{eucasetype}%
3027             \setunit{\addnbspace}%
3028             \printfield{number}}}%
3029     }{%
3030         \printtext[parens]{%
3031             \usebibmacro{eucasetype}%
3032             \setunit{\addnbspace}%
3033             \printfield{userb}}%
3034         \setunit{\addspace}%
3035         \iffieldundef{number}{}%
3036         \iffieldundef{type}{%
3037             \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3038         }{%
3039             \setunit{\addspace\printfield{type}\addspace}}%
3040         \printfield{number}}%
3041     }%
3042 }
3043 \newbibmacro*{eu:reportinfo}{%
3044     \iftoggle{bbx@ecliconly}{%
3045         \iffieldundef{verba}{%
3046             \usebibmacro{eu:osreport}
3047         }{%
3048             \printfield{verba}}%
3049     }{%
3050         \usebibmacro{eu:osreport}}
3051 \newbibmacro*{eu:osreport}{%
3052     \iftoggle{bbx@eccliuse}{%
3053         \iffieldundef{verba}{}%
3054         \printfield{verba}%
3055         \setunit{\addcomma\space}}%
3056     }{}%
3057 \iffieldundef{journaltitle}{%
3058     \usebibmacro{unreported}%
3059 }{%
3060     \usebibmacro{eu:year+vol+report}}
3061 \newcommand*{\officialjournaltitle}{OJ}
3062 \newcommand*{\ecrreporttitle}{ECR}
3063 \newbibmacro*{eu:year+vol+report}{%
3064     \iffieldequals{journaltitle}{\ecrreporttitle}{%
3065         \printfield[brackets]{year}%
3066         \setunit{\addspace}%
3067         \printfield{journaltitle}%
3068         \setunit{\addspace}%
3069         \printfield{volume}%
3070         \setunit*{\printtext{--\allowbreak}}%
3071         \printfield{pages}}%
3072     }{%
3073         \iffieldequals{journaltitle}{\officialjournaltitle}{%
3074             \printfield[brackets]{year}%
3075             \setunit{\addspace}%

```

```

3076 \printfield{journaltitle}%
3077 \setunit{\addspace}%
3078 \printfield[default]{series}%
3079 \usebibmacro{issue/volume}%
3080 \setunit{\printtext{/}}%
3081 \printfield{pages}%
3082 }{%
3083 \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

3084 \newbibmacro*{echrjuriscitation}{%
3085 \usebibmacro{title}%
3086 \setunit{\addspace}\newblock
3087 \iffielddundef{number}{}%
3088 \printtext[pars]{%
3089 \def\adddot{}%
3090 \bibstring{application}\space
3091 \bibstring{number}\space
3092 \printfield{number}}%
3093 \setunit{\addspace}\newblock}%
3094 \iffielddundef{journaltitle}{%
3095 \usebibmacro{unreported}[echrinst]%
3096 }{%
3097 \usebibmacro{echr:year+vol+report}
3098 \setunit{\addspace}\newblock
3099 \usebibmacro{echr:courtid}}%
3100 \setunit{\addspace}%
3101 \usebibmacro{court-note}%
3102 \newblock
3103 \setunit{\addspace}}
3104 \newcommand*{\seriesa}{Series A}
3105 \newcommand*{\echrreports}{ECHR}
3106 \newbibmacro*{echr:year+vol+report}{%
3107 \iffieldequals{journaltitle}{\seriesa}{%
3108 \usebibmacro{seriesareport}%
3109 }{%
3110 \iffieldequals{journaltitle}{\echrreports}{%
3111 \usebibmacro{echrreports}%
3112 }{%
3113 \usebibmacro{year+vol+report}
3114 \setunit{\addspace}%
3115 \printfield{pages}}}}
3116 \newbibmacro*{seriesareport}{%
3117 \printfield[pars]{year}%
3118 \setunit{\addspace}%
3119 \printfield{journaltitle}%
3120 \setunit{\addspace}%
3121 \printtext{\def\adddot{}\bibstring{number}\addspace}%
3122 \printfield{pages}}
3123 \newbibmacro*{echrreports}{%
3124 \printfield{journaltitle}%
3125 \setunit{\addspace}%
3126 \printfield{year}%
3127 \iffielddundef{volume}{}%
3128 \printtext{--}\printfield[romanvol]{volume}}
3129 \setunit{\addspace}%
3130 \printfield{pages}}
3131 \newcommand*{\decisionsandreports}{DR}
3132 \newcommand*{\collectionofdecisions}{CD}
3133 \newbibmacro*{echr:courtid}{%

```

```

3134 \ifbool{expr{
3135     test {\iffieldequals{journaltitle}{\decisionsandreports}}
3136     or
3137     test {\iffieldequals{journaltitle}{\collectionofdecisions}}}%
3138 {}{%
3139     \printlist[ecthr]{institution}}}
```

Here is the format for international cases.

```

3140 \newbibmacro*{intjuriscitation}{%
3141     \iflistundef{institution}{%
3142         \setunit{}\printtext{}%
3143     }{%
3144         \printlist{institution}%
3145         \setunit{\addcomma\space}%
3146     }%
3147     \usebibmacro{int:title}%
3148     \setunit{\addspace}\newblock
3149     \iffieldundef{journaltitle}{%
3150         \printfield{number}%
3151         \setunit{\addspace}\newblock
3152         \printtext[parens]{\printdate}%
3153     }{%
3154         \usebibmacro{year+vol+report}[international]%
3155     }%
3156     \setunit{\addspace}%
3157     \usebibmacro{int:jurisdictionpages}%
3158     \setunit{\addspace}\newblock
3159     \usebibmacro{court-note}%
3160 }
3161 \newbibmacro*{int:title}{%
3162     \ifbool{expr{
3163         test {\iffieldundef{title}}
3164         and
3165         test {\iffieldundef{subtitle}}
3166     }}{%
3167         \printtext[title]{%
3168             \printfield[titlecase]{title}%
3169             \setunit{\addspace}%
3170             \printfield[parens]{subtitle}}}%
3171     \setunit{\addspace}%
3172     \printfield{titleaddon}%
3173 }
3174 \newbibmacro*{int:jurisdictionpages}{%
3175     \iffieldequals{journaltitle}{\pcijrep}{%
3176         \printtext{\bibcpstring{number}\addspace}%
3177         \iffieldundef{pages}{%
3178             \printfield{number}%
3179         }{%
3180             \printfield{pages}%
3181         }%
3182     }%
3183     \printfield{pages}}}
```

Here is the format for Canadian cases.

```

3182 \newbibmacro{canjuriscitation}{%
3183     \usebibmacro{title}%
3184     \setunit{\addspace}\newblock
3185     \printfield{number}%
3186     \setunit{\addcomma\space}%
3187     \iffieldundef{journaltitle}{%
3188         \usebibmacro{can:year+vol+report}}%
```

```

3189 \usebibmacro{jurisdictionpages}%
3190 \usebibmacro{pcitenote}%
3191 \usebibmacro{altreportdetails}%
3192 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3193 \newunit\newblock
3194 \usebibmacro{courtid}%
3195 \newunit%
3196 \usebibmacro{court-note}%
3197 \newblock%
3198 \newunit}
3199 \newbibmacro*{can:year+vol+report}{%
3200 \iffieldundef{number}{%
3201 \setunit{\addspace}%
3202 }{%
3203 \ifboolexpr{
3204 test {\iffieldundef{volume}}
3205 or
3206 bool {bbx@year-essential}}%
3207 }{%
3208 \clearfield{year}}}%
3209 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3210 \iffieldundef{year}{%
3211 \usebibmacro{journaldate}%
3212 \setunit{\addspace}}}%
3213 \printfield{volume}%
3214 \setunit{\addspace}%
3215 \printfield{journaltitle}%
3216 \setunit*{\addspace}%
3217 \iffieldundef{series}{%
3218 \setunit{\addspace}%
3219 \printtext[parens]{\printfield[usseries]{series}}%
3220 \setunit{\addspace}}}%
3221 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3222 \setunit{\addcomma\space}%
3223 \usebibmacro{newspaperdate}%
3224 }{}%

```

Here is the format for American cases.

```

3225 \newbibmacro{usjuriscitation}{%
3226 \usebibmacro{title}%
3227 \setunit{\addcomma\space}\newblock%
3228 \iffieldundef{journaltitle}{%
3229 \printfield{number}%
3230 \setunit{\addcomma\space}%
3231 \printfield[default]{eprint}%
3232 \clearfield{eprint}%
3233 }{
3234 \usebibmacro{us:vol+report}}%
3235 \setunit{\addspace}%
3236 \usebibmacro{jurisdictionpages}%
3237 \usebibmacro{us:postnote}%
3238 \usebibmacro{altreportdetails}%
3239 \setunit{\addspace}\newblock
3240 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3241 \setunit{\addspace}%
3242 \usebibmacro{us:courtid+date}%
3243 \setunit{\addspace}%
3244 \usebibmacro{court-note}%
3245 \newblock
3246 \setunit{\addspace}}
3247 \newbibmacro{us:vol+report}{%

```

```

3248 \printfield{volume}%
3249 \setunit{\addspace}%
3250 \printfield{journaltitle}%
3251 \iffieldundef{series}{}{%
3252 \setunit{\addspace}%
3253 \printfield[usseries]{series}}
3254 \newbibmacro{us:postnote}{%
3255 \iffieldundef{postnote}{}{%
3256 \setunit{\addcomma\space}%
3257 \printfield{postnote}%
3258 \clearfield{postnote}%
3259 }}
3260 \newbibmacro{us:courtid+date}{%
3261 \ifboolexpr{
3262 test {\iflistundef{institution}}
3263 and
3264 test {\iflistundef{location}}
3265 and
3266 test {\iffieldundef{year}}
3267 }{}{%
3268 \printtext[parens]{%
3269 \printlist{location}%
3270 \setunit*\addspace}%
3271 \printlist{institution}%
3272 \setunit{\addspace}%
3273 \printfield{year}%
3274 \nopunct}}}

```

Here is the format for English cases.

```

3275 \newbibmacro{enjuriscitation}{%
3276 \usebibmacro{title}%
3277 \setunit{\addspace}\newblock
3278 \printfield{number}%
3279 \setunit*\addcomma\space}%
3280 \iffieldundef{journaltitle}{}{%
3281 \usebibmacro{year+vol+report}}%
3282 \usebibmacro{jurisdictionpages}%
3283 \usebibmacro{pcitenote}%
3284 \usebibmacro{altreportdetails}%
3285 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
3286 \setunit{\addspace}\newblock
3287 \usebibmacro{courtid}%
3288 \setunit{\addspace}%
3289 \usebibmacro{court-note}}
3290 \newbibmacro{altreportdetails}{%
3291 \restorefield{prenote}{\postnotesecond}%
3292 \iffieldundef{parreporter}{}{%
3293 \usebibmacro{journaldate}[par]%
3294 \setunit{\addspace}\newblock
3295 \usebibmacro{altreportvolume}%
3296 \setunit{\addspace}\newblock
3297 \usebibmacro{altjournaltitle}%
3298 \setunit{\addspace}\newblock
3299 \usebibmacro{altseries}%
3300 \setunit{\addspace}\newblock
3301 \usebibmacro{altjurisdictionpages}%
3302 \iffieldundef{prenote}{}{%
3303 \setunit{\addcomma\space}%
3304 \printfield[postnote]{prenote}}}}
3305 \newbibmacro*{altreportvolume}{%

```



```

3306 \iffielddundef{parvolume}{}{%
3307 \printfield{parvolume}}%
3308 \newbibmacro*{altjournaltitle}{%
3309 \iffielddundef{parreporter}{}{
3310 \printfield{parreporter}}%
3311 \newbibmacro*{altseries}{%
3312 \iffielddundef{parseries}{}{%
3313 \printfield{parseries}}%
3314 \newbibmacro*{altjurisdictionpages}{%
3315 \iffielddundef{parpages}{}{%
3316 \printfield{parpages}}%

```

Legislation

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

```

3317 \newcommand*{\subtypecourtrules}{procedure-rule}
3318 \DeclareBibliographyDriver{legislation}{%
3319 \usebibmacro{bibindex}%
3320 \usebibmacro{begentry}%
3321 \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3322 \usebibmacro{courtrules}%
3323 }{%
3324 \ifkeyword{draft}{%
3325 \usebibmacro{legislation:bill}%
3326 }{%
3327 \ifkeyword{eu}{%
3328 \usebibmacro{eulegislation}%
3329 }{%
3330 \printfield[default]{title}%
3331 \setunit{\addspace}%
3332 \printfield[default]{year}%
3333 \setunit*{\addspace}%
3334 \usebibmacro{Legnumber}%
3335 \setunit{\addspace}\newblock
3336 \usebibmacro{legsupp}}}%%
3337 \setunit{\addcomma\space}%
3338 \printfield{note}%
3339 \setunit{\addspace}%
3340 \usebibmacro{finentry}}
3341 \newbibmacro*{courtrules}{%
3342 \restorefield{prenote}{\postnotesecond}%
3343 \iffieldequalstr{shorttitle}{PD}{%
3344 \printfield{postnote}%
3345 \clearfield{postnote}%
3346 \setunit{\addspace}%
3347 }{%
3348 \iffielddundef{shorttitle}{%
3349 \printfield[default]{title}%
3350 }{%
3351 \printfield[default]{shorttitle}}%
3352 \setunit{\addspace}\newblock
3353 \iffielddundef{postnote}{%
3354 \toggletrue{blx@ox@nopostnotedelim}%
3355 }{%
3356 \iffieldequalstr{shorttitle}{CPR}{%
3357 \printfield{postnote}%
3358 \setunit{\addspace}%
3359 }{%

```

```

3360     \printtext{%
3361     \bibstring{order}\space
3362     \printfield{postnote}%
3363     \setunit{\addcomma\space}}}%
3364 \restorefield{postnote}{\postnotesecond}%
3365 \usebibmacro{postnote}%
3366 \clearfield{postnote}%
3367 \setunit{\addspace}\newblock}
3368 \newcommand*{\subtypeprimarylegislation}{primary}
3369 \newbibmacro*{legislation:bill}{%
3370 \printfield[draftleg]{title}%
3371 \setunit{\addspace}%
3372 \printlist{institution}%
3373 \setunit*{\addspace}%
3374 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3375 \bibcpstring{bill}%
3376 \setunit{\addspace}%
3377 \printtext[parens]{\usebibmacro{sessionyear}}%
3378 \setunit{\addspace}%
3379 \iffieldundef{number}{}%
3380 \printlist[billprinting]{institution}}%
3381 }{%
3382 \printtext[parens]{%
3383 \bibstring{draft}\space
3384 \printdate}}
3385 \setunit{\addspace}}
3386 \newbibmacro*{sessionyear}{%
3387 \iffieldundef{year}{}%
3388 \printfield{year}%
3389 \iffieldundef{endyear}{}%
3390 \bibdaterangesep
3391 \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}
3392 \newbibmacro{eulegislation}{%
3393 \printfield[default]{title}%
3394 \setunit{\addspace}\newblock%
3395 \usebibmacro{eulegref}}
3396 \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3397 \newbibmacro*{eulegref}{%
3398 \iffieldequals{journaltitle}{\officialjournaltitle}{%
3399 \printfield[brackets]{year}%
3400 \setunit{\addspace}%
3401 \printfield{journaltitle}%
3402 \setunit{\addspace}%
3403 \iffieldundef{series}{%
3404 \printtext{L}%
3405 }{%
3406 \printfield[default]{series}}%
3407 \usebibmacro{issue/volume}%
3408 \setunit*{\addslash}%
3409 \printfield{pages}%
3410 \togglefalse{blx@ox@nopostnotedelim}%
3411 }{%
3412 \usebibmacro{year+vol+report}%
3413 \setunit*{\addspace}%
3414 \printfield{pages}}}
3415 \newbibmacro*{legnumber}{%
3416 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3417 \ifboolexpr{(
3418 test {\iffieldundef{number}}
3419 or
3420 not test {\iffieldundef{title}} )
3421 and not (

```

```

3422     test {\ifkeyword{cy}}
3423     or
3424     test {\ifkeyword{sc}}
3425     or
3426     test {\ifkeyword{ni}} )
3427   }{}{%
3428     \printtext[parens]{\printfield{number}}%
3429     \toggletrue{blx@ox@nopostnotedelim}%
3430   }{%
3431     \iffielddundef{number}{}{%
3432       \setunit{\addcomma\addspace}%
3433       \printfield{number}%
3434       \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3435 \newbibmacro*{legsupp}{%
3436   \ifkeyword{cy}
3437   {\iffielddundef{userb}
3438     {}
3439     {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3440   {}

```

Treaties, explanatory notes and Hansard

```

3441 \newcommand*{\explanatorynote}{explanatory note}
3442 \newcommand*{\parliamentarytype}{parliamentary}
3443 \newcommand*{\treatysubtype}{piltreaty}
3444 \DeclareBibliographyDriver{legal}{%
3445   \usebibmacro{bibindex}%
3446   \usebibmacro{begentry}%
3447   \iffieldequals{entrysubtype}{\explanatorynote}{%
3448     \printfield[default]{title}%
3449     \setunit{\addspace}\newblock
3450   }{%
3451     \iffieldequals{entrysubtype}{\parliamentarytype}{%
3452       \usebibmacro{legal:parliamentary}%
3453     }{%
3454       \usebibmacro{treatycitation}}}%
3455   \setunit{\addcomma\space}\newblock
3456   \printfield[default]{note}
3457   \setunit{\addspace}\newblock
3458   \setunit{\bibpageref punct}%
3459   \usebibmacro{pageref}%
3460   \usebibmacro{finentry}}
3461 \newbibmacro{legal:parliamentary}{%
3462   \printfield[default]{title}%
3463   \newunit\newblock
3464   \printfield{type}%
3465   \setunit{\addspace}%
3466   \iffielddundef{series}{}{%
3467     \printtext[parens]{%
3468       \bibstring{jourser}\space
3469       \printfield{series}}}%
3470   \setunit{\addspace}%
3471   \printfield{volume}%
3472   \setunit{\addcomma\space}%
3473   \usebibmacro{hansard-ref}%
3474   \setunit{\addspace}%
3475   \iffielddundef{year}{}{%

```

```

3476     \printtext[parens]{\usebibmacro{date}}}%
3477     \togglefalse{blx@ox@nopostnotedelim}}
3478 \newbibmacro*{hansard-ref}{%
3479     \iffieldundef{postnote}{%
3480         \iffieldundef{pages}{}%
3481         \printfield{pages}}%
3482     }{}%
3483 \newbibmacro{treatycitation}{%
3484     \printfield[default]{title}%
3485     \setunit{\addspace}\newblock%
3486     \printlist[treaty]{institution}%
3487     \setunit{\addspace}\newblock
3488     \usebibmacro{treatyinfo}%
3489     \setunit{\addspace}\newblock
3490     \usebibmacro{treaty:year+vol+report}}
3491 \newbibmacro{treatyinfo}{%
3492     \iflistundef{lista}{% execution
3493         \iffieldundef{year}{}%
3494         \iffieldundef{volume}{}%
3495         \printtext[parens]{\printdate}}}%
3496     }{%
3497         \printtext[parens]{\printlist[treatydates]{lista}}}%
3498 \newbibmacro{treaty:year+vol+report}{%
3499     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3500         \usebibmacro{eulegref}%
3501     }{%
3502         \usebibmacro{treaty:date}%
3503         \setunit{\addspace}%
3504         \printfield[default]{volume}%
3505         \setunit{\addspace}%
3506         \printfield{journaltitle}%
3507         \setunit*\addspace}%
3508         \iffieldundef{series}{}%
3509         \setunit{\addspace}%
3510         \printfield{series}%
3511         \setunit{\addspace}}%
3512         \printfield{pages}}}%
3513 \newbibmacro*{treaty:date}{%
3514     \ifboolexpr{
3515         test {\iffieldundef{volume}}
3516         or
3517         bool {bbx@year-essential}}
3518     }{%
3519         \ifboolexpr{
3520             test {\ifkeyword{sc}}
3521             or
3522             test {\iftoggle{bbx:scotstyle}}
3523         }{%
3524             \printfield{year}%
3525         }{%
3526             \printfield[brackets]{year}%
3527         }}%

```

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

```

3528 \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.

```

3529 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3530 \newcommand{\collectionshelfmarkpunct}{\addspace}
3531 \newcommand{\datingpagespunct}{\addcomma\addspace}
3532 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3533 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3534 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%

```

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

```

3535 \def\recto{r}
3536 \def\verso{v}
3537 \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.

```

3538 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3539 \def\currentfield{title}%
3540 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3541 \undef\currentfield}
3542 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3543 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3544 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3545 \DeclareFieldFormat{dating}{#1\isdot}%
3546 \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.

```

3547 \newbibmacro{manuscript:date}{%
3548 \ifboolexpr{
3549 test {\ifnameundef{author}}
3550 and
3551 test {\iffieldundef{title}}
3552 and
3553 test {\iffieldundef{label}}
3554 }{\usebibmacro{date}}}
3555 \newbibmacro{dating}{%
3556 \ifboolexpr{(
3557 test {\ifnameundef{author}}
3558 and
3559 test {\iffieldundef{title}}
3560 and
3561 test {\iffieldundef{label}}
3562 ) or
3563 test {\iffieldundef{year}}}
3564 }{%
3565 \printfield{dating}%
3566 }{}

```

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.

```

3567 \newbibmacro{location+library+collection+shelfmark}{%
3568   \printfield{library}%
3569   \setunit{\locationlibrarypunct}%
3570   \printlist{location}%
3571   \setunit{\librarycollectionpunct}%
3572   \usebibmacro{collection+shelfmark}}
3573 \newbibmacro{collection+shelfmark}{%
3574   \ifboolexpr{
3575     test {\iffieldundef{collection}}
3576     and
3577     test {\iffieldundef{shelfmark}}
3578   }{%
3579     \printtext[collection+shelfmark]{%
3580       \printfield{collection}%
3581       \setunit*{\collectionshelfmarkpunct}%
3582       \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.

```

3583 \newbibmacro{manuscript:pages}{%
3584   \printfield{pagetotal}%
3585   \setunit{\addspace}%
3586   \iffieldundef{pages}{%
3587     \usebibmacro{manuscript:columns+layer}%
3588   }{%
3589     \usebibmacro{manuscript:columns}%
3590     \setunit{\pagetotalpagespunct}%
3591     \printfield{pages}%
3592     \setunit{\addspace}%
3593     \usebibmacro{manuscript:layer}}}
3594 \newbibmacro{manuscript:columns}{%
3595   \iffieldundef{columns}{}%
3596   \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3597 }%
3598 \newbibmacro{manuscript:layer}{%
3599   \iffieldundef{layer}{}%
3600   \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3601 }%
3602 \newbibmacro{manuscript:columns+layer}{%
3603   \ifboolexpr{
3604     test {\iffieldundef{columns}}
3605     or
3606     test {\iffieldundef{layer}}
3607   }{%
3608     \usebibmacro{manuscript:columns}%
3609     \usebibmacro{manuscript:layer}%
3610   }{%
3611     \printtext[columns+layer]{%
3612       \bibstring{\strfield{columns}column}%
3613       \setunit*{\columnslayerpunct}%
3614       \bibstring{\strfield{layer}layer}}}}%

```

Putting it all together, here is the manuscript driver.

```

3615 \DeclareBibliographyDriver{manuscript}{%
3616   \usebibmacro{bibindex}%
3617   \usebibmacro{begentry}%
3618   \usebibmacro{author}%

```

```

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

```

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

```

3647 \newbibmacro*{library+location+series+number}{%
3648   \printfield{library}%
3649   \setunit{\locationlibrarypunct}%
3650   \printlist{location}%
3651   \setunit{\librarycollectionpunct}%
3652   \ifboolexpr{
3653     test {\iffieldundef{series}}
3654     and
3655     test {\iffieldundef{number}}
3656   }{}{%
3657     \printtext[collection+shelfmark]{%
3658       \printfield{series}%
3659       \setunit*{\collectionshelfmarkpunct}%
3660       \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’.

```

3661 \newtoggle{blx@ox@ms}
3662 \DeclareBibliographyDriver{unpublished}{%
3663   \usebibmacro{bibindex}%
3664   \usebibmacro{begentry}%
3665   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3666   \usebibmacro{author}%
3667   \setunit{\printdelim{nametitledelim}}\newblock
3668   \usebibmacro{title}%
3669   \setunit{\titlebyauthordelim}\newblock
3670   \usebibmacro{byauthor}%
3671   \newunit\newblock
3672   \printfield{note}%

```

```

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

```

2.1.17 LETTERS

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

```

3703 \DeclareBibliographyAlias{letter}{unpublished}
3704 \DeclareFieldFormat[letter]{title}{%
3705   \def\currentfield{title}%
3706   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3707   \undef\currentfield}
3708 \DeclareFieldFormat[letter]{date}{%
3709   \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.

```

3710 \xpatchbibdriver{booklet}{%
3711   \newunit\newblock
3712   \iftoggle{bbx:related}
3713 }{%
3714   \setunit{\relatedtypepunct}\newblock
3715   \iftoggle{bbx:related}
3716 }{\wlog{WARNING: biblatex-oxref failed to patch booklet}}
3717 \xpatchbibdriver{misc}{%
3718   \newunit\newblock
3719   \iftoggle{bbx:related}
3720 }{%

```



```

3721 \setunit{\relatedtypepunct}\newblock
3722 \iftoggle{bbx:related}
3723 {}{\wlog{WARNING: biblatex-oxref failed to patch misc}}

```

We provide an option for setting the relatedtype punctuation.

```

3724 \DeclareBibliographyOption{relationpunct}[semicolon]{%
3725 \ifcsdef{add#1}{%
3726 \ifstrequal{#1}{space}{%
3727 \renewcommand*{\relatedtypepunct}{\addspace}%
3728 }{%
3729 \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3730 }{%
3731 \PackageError{biblatex-oxref}{%
3732 Invalid option 'relationpunct=#1'%
3733 }{%
3734 Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3735 'period', 'exclam', 'question', and 'space'.}}}
3736 \DeclareTypeOption{relationpunct}[semicolon]{%
3737 \ifcsdef{add#1}{%
3738 \ifstrequal{#1}{space}{%
3739 \renewcommand*{\relatedtypepunct}{\addspace}%
3740 }{%
3741 \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3742 }{%
3743 \PackageError{biblatex-oxref}{%
3744 Invalid option 'relationpunct=#1'%
3745 }{%
3746 Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3747 'period', 'exclam', 'question', and 'space'.}}}
3748 \newtoggle{blx@ox@relpunctset}
3749 \DeclareEntryOption{relationpunct}[semicolon]{%
3750 \ifcsdef{add#1}{%
3751 \ifstrequal{#1}{space}{%
3752 \renewcommand*{\relatedtypepunct}{\addspace}%
3753 }{%
3754 \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3755 \toggletrue{blx@ox@relpunctset}
3756 }{%
3757 \PackageError{biblatex-oxref}{%
3758 Invalid option 'relationpunct=#1'%
3759 }{%
3760 Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3761 'period', 'exclam', 'question', and 'space'.}}}
3762 \newcounter{blx@ox@relitem}
3763 \xapptobibmacro{begrelated}{%
3764 \setcounter{blx@ox@relitem}{0}%
3765 \iftoggle{blx@ox@relpunctset}{%
3766 \iffieldequalstr{relatedtype}{in}{%
3767 \setunit{\addcomma\space}}{%
3768 \iffieldequalstr{relatedtype}{reprintfrom}{%
3769 \setunit{\addperiod\space}}{%
3770 \iffieldequalstr{relatedtype}{translationof}{%
3771 \setunit{\addspace}}{%
3772 \iffieldequalstr{relatedtype}{multivolume}{%
3773 \setunit{\addcomma\space}}{%
3774 }}{\wlog{WARNING: biblatex-oxref failed to append to begrelated}}

```

Translations

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

```

3775 \newbibmacro*{rellanguage}{%
3776   \def\do##1{%
3777     \entrydata{##1}{%
3778       \printlist{language}}}%
3779   \docsvfield{related}%
3780 }
3781 \DeclareFieldFormat{relatedstring:translationof}{%
3782   \usebibmacro{rellanguage}\space
3783   \bibstring{original}\addcomma\space}
3784
3785 \DeclareFieldFormat{related:translationof}{%
3786   \mkbibbrackets{#1}}

```

Co-publications

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

```

3787 \newbibmacro*{related:copub}[1]{%
3788   \entrydata*{#1}{%
3789     \usebibmacro{publisher+location+date}%
3790     \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.

```

3791 \renewbibmacro*{related:reprintfrom}[1]{%
3792   \entrydata*{#1}{%
3793     \nopunct
3794     \usedriver{%
3795       \ifnameundef{savedauthor}{%
3796         \ifnameundef{savededitor}{}{%
3797           \ifnameequal{editor}{savededitor}{%
3798             \clearname{editor}%
3799             }{}%
3800       }{%
3801         \ifnameequal{author}{savedauthor}{%
3802           \clearname{author}%
3803         }{}%
3804       \iffieldundef{savedtitle}{}{%
3805         \iffieldequal{savedtitle}{title}{%
3806           \clearfield{title}%
3807         }{}%
3808       \renewbibmacro*{related:init}{}%
3809       \DeclareNameAlias{sortname}{default}%
3810       \ifbibmacroundef{date+extradate}{}{%
3811         \renewbibmacro*{date+extradate}{}%
3812         \renewbibmacro*{date}{\printdate}%
3813       \renewbibmacro*{pageref}{}%
3814     }%
3815     \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.

```

3816 \newbibmacro*{related:serialarticle}[1]{%
3817 \entrydata*{#1}{%
3818 \iffieldundef{savedjournaltitle}{}{}%
3819 \iffieldsequal{journaltitle}{savedjournaltitle}{%
3820 \clearfield{journaltitle}%
3821 }{}%
3822 \iffieldundef{savedjournalsubtitle}{}{}%
3823 \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
3824 \clearfield{journalsubtitle}%
3825 }{}%
3826 \iffieldundef{savedseries}{}{}%
3827 \iffieldsequal{series}{savedseries}{%
3828 \clearfield{series}%
3829 }{}%
3830 \iffieldundef{savedyear}{\clearfield{year}}{
3831 \iffieldsequal{year}{savedyear}{%
3832 \clearfield{year}%
3833 }{}%
3834 \usebibmacro{journal+issuetitle}%
3835 \newunit
3836 \usebibmacro{note+pages}%
3837 \newunit\newblock
3838 \usebibmacro{doi+eprint+url}%
3839 \newunit\newblock
3840 \usebibmacro{addendum+pubstate}}}

```

Reviews

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

```

3841 \DeclareFieldFormat[review]{title}{\mkbibquote{#1}\isdot}
3842 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3843 \DeclareFieldFormat[review]{number}{#1}% number of a journal
3844 \DeclareFieldFormat[review]{series}{% series of a journal
3845 \ifinteger{#1}
3846 {\mkbibordseries{#1}~\bibstring{jourser}}
3847 {\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.

```

3848 \newbibmacro*{related:reviewof}[1]{%
3849 \entrydata*{#1}{%
3850 \usedriver{%
3851 \renewbibmacro*{related:init}{}%
3852 \DeclareNameAlias{author}{given-family}%
3853 \renewbibmacro*{pageref}{}%
3854 }{\thefield{entrytype}}%
3855 }%
3856 }

```

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'.

```

3857 \DeclareBibliographyDriver{review}{%
3858   \usebibmacro{bibindex}%
3859   \usebibmacro{begentry}%
3860   \usebibmacro{author/translator+others}%
3861   \setunit{\printdelim{nametitledelim}}\newblock
3862   \usebibmacro{title}%
3863   \setunit{\titlebyauthordelim}\newblock
3864   \usebibmacro{byauthor}%
3865   \newunit\newblock
3866   \usebibmacro{bytranslator+others}%
3867   \newunit\newblock
3868   \printfield{version}%
3869   \newunit\newblock
3870   \iftoggle{bbx:related}{%
3871     \usebibmacro{related:init}%
3872     \usebibmacro{related}%
3873   }{}%
3874   \newunit\newblock
3875   \usebibmacro{in:}%
3876   \setunit{\addspace}%
3877   \usebibmacro{journal+issuetitle}%
3878   \newunit
3879   \usebibmacro{byeditor+others}%
3880   \iffielddundef{note}%
3881     {\newunit}%
3882     {\setunit{\addsemicolon\addspace}}%
3883   \usebibmacro{note+pages}%
3884   \newunit\newblock
3885   \iftoggle{bbx:isbn}
3886     {\printfield{issn}}
3887     {}%
3888   \newunit\newblock
3889   \usebibmacro{doi+eprint+url}%
3890   \newunit\newblock
3891   \usebibmacro{addendum+pubstate}%
3892   \setunit{\bibpagerefpunct}\newblock
3893   \usebibmacro{pageref}%
3894   \usebibmacro{finentry}}

```

Multiple volumes

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

```

3895 \DeclareFieldFormat{related:multivolume}{#1}
3896 \renewbibmacro*{related:multivolume}[1]{%
3897   \entrydata*{#1}{%
3898     \printtext{%
3899       \printfield{volume}%
3900       \printfield{part}}%
3901     \setunit*{\addspace}%
3902     \usebibmacro{series+number+edition+publisher+location+date}}}

```

Related editions

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

```

3903 \newbibmacro*{related:editedas}[1]{%
3904 \entrydata{#1}{%
3905 \renewbibmacro*{name:hook}[1]{%
3906 \ifnumequal{\value{listcount}}{1}{%
3907 \begingroup
3908 \mkrelatedstring%
3909 \ltx@initnamehook{#1}%
3910 \endgroup
3911 }{}%
3912 \printfield{edition}%
3913 \setunit{\addspace}%
3914 \usebibmacro{byeditor+others}%
3915 \setunit*{\addcomma\space\bibstring[\mkrelatedstring]{astitle}\space}%
3916 \usebibmacro{maintitle+title}%
3917 \setunit{\addspace}%
3918 \printfield{note}%
3919 \newunit\newblock
3920 \printfield{volumes}%
3921 \newunit
3922 \usebibmacro{series+number+publisher+location+date}}}
3923 \renewbibmacro*{related:bytranslator}[1]{%
3924 \entrydata{#1}{%
3925 \renewbibmacro*{name:hook}[1]{%
3926 \ifnumequal{\value{listcount}}{1}
3927 {\begingroup
3928 \mkrelatedstring%
3929 \ltx@initnamehook{#1}%
3930 \endgroup}
3931 {}%
3932 \printnames[bytranslator]{translator}%
3933 \setunit*{\addspace\bibstring[\mkrelatedstring]{astitle}\space}%
3934 \usebibmacro{maintitle+title}%
3935 \setunit{\addspace}%
3936 \printfield{note}%
3937 \newunit\newblock
3938 \printfield{volumes}%
3939 \newunit
3940 \usebibmacro{series+number+publisher+location+date}}}

```

Joint releases

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

```

3941 \newbibmacro*{related:includes}[1]{%
3942 \stepcounter{blx@ox@relitem}%
3943 \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3944 {\bibstring{and}\addspace}%
3945 \entrydata{#1}{%
3946 \ifbibmacroundef{date+extradate}{}{%
3947 \renewbibmacro*{date+extradate}{}%
3948 \usebibmacro{author}%
3949 \setunit{\printdelim{nametitledelim}}\newblock
3950 \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.

```

3951 \DeclareFieldFormat[misc]{title}{%
3952 \def\currentfield{title}%
3953 \iffielddannotation{descriptor}{#1}{%
3954 \iffieldequalstr{relatedtype}{in}{%
3955 \mkbibquote{#1\isdot}%
3956 }{%
3957 \mkbibemph{#1}%
3958 }}%
3959 \undef\currentfield}
3960 \newbibmacro*{related:in}[1]{%
3961 \entrydata*{#1}{%
3962 \usedriver
3963 {\ifnameundef{savedauthor}
3964 {\ifnameundef{savededitor}
3965 {}
3966 {\ifnameequal{editor}{savededitor}
3967 {\clearname{editor}}
3968 {}}}
3969 {\ifnameequal{author}{savedauthor}
3970 {\clearname{author}}
3971 {}}}%
3972 \renewbibmacro*{related:init}{}%
3973 \DeclareNameAlias{sortname}{default}%
3974 \ifbibmacroundef{date+extradate}
3975 {}
3976 {\renewbibmacro*{date+extradate}{}%
3977 \renewbibmacro*{date}{\printdate}}%
3978 \renewbibmacro*{pageref}{}%
3979 {\thefield{entrytype}}%
3980 \ifboolexpr{
3981 test {\iffielddundef{pages}}
3982 or
3983 test {\iffielddundef{savedpages}}}
3984 ){%
3985 \newunit\newblock
3986 }{%
3987 \setunit{\addspace}%
3988 \bibstring{thiscite}%
3989 \printunit{\addspace}%
3990 }%
3991 }%
3992 \usebibmacro{chapter+pages}%
3993 }

```

2.1.19 SOURCE MAPS

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

```

3994 \DeclareStyleSourcemap{%
3995 \maps[datatype=bibtex]{%

```

Sort order

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

```

3996 \map{
3997 \pertype{proceedings}
3998 \pertype{mvproceedings}

```

```

3999     \step[notfield=author,
4000           fieldsource=organization,
4001           fieldtarget=author]
4002   }

```

Descriptors

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

```

4003     \map[overwrite=false]{
4004       \step[fieldsource=descriptor, final]
4005       \step[notfield=title,
4006             fieldset=title+an,
4007             fieldvalue={=descriptor}]
4008       \step[notfield=title,
4009             fieldsource=descriptor,
4010             fieldtarget=title]
4011       \step[fieldsource=descriptor,
4012             fieldtarget=note]
4013     }

```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

4014     \map[overwrite=false]{
4015       \step[fieldsource=realauthor, final]
4016       \step[notfield=author,
4017             fieldset=author+an,
4018             fieldvalue={=inferred}]
4019       \step[notfield=author,
4020             fieldsource=realauthor,
4021             fieldtarget=author]
4022       \step[fieldsource=realauthor,
4023             fieldtarget=authoraddon]
4024     }
4025     \map[overwrite=false]{
4026       \step[fieldsource=realeditor, final]
4027       \step[notfield=editor,
4028             fieldset=editor+an,
4029             fieldvalue={=inferred}]
4030       \step[notfield=editor,
4031             fieldsource=realeditor,
4032             fieldtarget=editor]
4033       \step[fieldsource=realeditor,
4034             fieldtarget=editoraddon]
4035     }

```

Editors as joint authors

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

```

4036     \map[overwrite=false]{
4037       \step[fieldsource=editor+an,
4038             match=\regexp{=jointauthor},
4039             final]

```

```

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

```

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.

```

4054     \map[overwrite=false]{
4055       \pertype{standard}
4056       \step[notfield=author,
4057             fieldsource=number,
4058             final]
4059       \step[fieldset=sortkey,
4060             origfieldval]
4061     }

```

Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```

4062     \map[overwrite=false]{
4063       \pertype{audio}
4064       \pertype{music}
4065       \pertype{movie}
4066       \pertype{video}
4067       \pertype{inaudio}
4068       \pertype{inmusic}
4069       \pertype{inmovie}
4070       \pertype{invideo}
4071       \step[fieldset=origdatetype, fieldvalue={recorded}]
4072     }

```

Legal references

These help ensure compatibility with oscola.

```

4073     \map[overwrite=false]{
4074       \pertype{jurisdiction}
4075       \step[fieldsource=reporter,
4076             fieldtarget=journaltitle]
4077       \step[fieldsource=court,
4078             fieldtarget=institution]
4079       \step[fieldsource=additionalreports,
4080             fieldtarget=listb]
4081       \step[fieldsource=ecli,

```



```

4082         fieldtarget=verba]
4083     }%
4084     \map[overwrite=false]{
4085         \pertype{legal}
4086         \step[fieldsource=reporter,
4087             fieldtarget=journaltitle]
4088     }
4089     \map[overwrite=true]{
4090         \pertype{legal}
4091         \step[fieldsource=parties,
4092             fieldtarget=institution]
4093         \step[fieldsource=execution,
4094             fieldtarget=lista]
4095     }

```

This is how oscola removes dots from entries.

```

4096     \map[overwrite=true]{
4097         \pertype{jurisdiction}
4098         \pertype{legislation}
4099         \pertype{legal}
4100         \step[fieldsource=title,
4101             match=\regexp{(\\d)\\.(\\d)},
4102             replace=\regexp{$1.$2}]
4103         \step[fieldsource=title,
4104             match=\regexp{(\\D)\\.(\\d)},
4105             replace=\regexp{$1 $2}]
4106         \step[fieldsource=title,
4107             match=\regexp{\\.(\\D)},
4108             replace=\regexp{$1}]
4109         \step [fieldsource=title,
4110             match=\regexp{(\\D)\\.(\\d)},
4111             replace=\regexp{$1}]
4112         \step[fieldsource=shorttitle,
4113             match=\regexp{(\\d)\\.(\\d)},
4114             replace=\regexp{$1.$2}]
4115         \step[fieldsource=shorttitle,
4116             match=\regexp{(\\D)\\.(\\d)},
4117             replace=\regexp{$1 $2}]
4118         \step[fieldsource=shorttitle,
4119             match=\regexp{\\.(\\D)},
4120             replace=\regexp{$1}]
4121         \step [fieldsource=shorttitle,
4122             match=\regexp{(\\D)\\.(\\d)},
4123             replace=\regexp{$1}]
4124         \step[fieldsource=parreporter,
4125             match=\regexp{(\\d)\\.(\\d)},
4126             replace=\regexp{$1.$2}]
4127         \step[fieldsource=parreporter,
4128             match=\regexp{(\\D)\\.(\\d)},
4129             replace=\regexp{$1 $2}]
4130         \step[fieldsource=parreporter,
4131             match=\regexp{\\.(\\D)},
4132             replace=\regexp{$1}]
4133         \step [fieldsource=parreporter,
4134             match=\regexp{(\\D)\\.(\\d)},
4135             replace=\regexp{$1}]
4136         \step[fieldsource=journaltitle,
4137             match=\regexp{(\\d)\\.(\\d)},
4138             replace=\regexp{$1.$2}]
4139         \step[fieldsource=journaltitle,

```

```

4140         match=\regexp{(\D)\.(\d)},
4141         replace=\regexp{$1 $2}]
4142 \step[fieldsource=journaltitle,
4143       match=\regexp{(\D)\.(\d)},
4144       replace=\regexp{$1}]
4145 \step [fieldsource=journaltitle,
4146       match=\regexp{(\D)\.},
4147       replace=\regexp{$1}]
4148 \step[fieldsource=institution,
4149       match=\regexp{(\d)\.(\d)},
4150       replace=\regexp{$1.$2}]
4151 \step[fieldsource=institution,
4152       match=\regexp{(\D)\.(\d)},
4153       replace=\regexp{$1 $2}]
4154 \step[fieldsource=institution,
4155       match=\regexp{\.(\D)},
4156       replace=\regexp{$1}]
4157 \step[fieldsource=institution,
4158       match=\regexp{(\D)\.},
4159       replace=\regexp{$1}]
4160 \step[fieldsource=publisher,
4161       match=\regexp{(\d)\.(\d)},
4162       replace=\regexp{$1.$2}]
4163 \step[fieldsource=publisher,
4164       match=\regexp{(\D)\.(\d)},
4165       replace=\regexp{$1 $2}]
4166 \step[fieldsource=publisher,
4167       match=\regexp{\.(\D)},
4168       replace=\regexp{$1}]
4169 \step [fieldsource=publisher,
4170       match=\regexp{(\D)\.},
4171       replace=\regexp{$1}]
4172 \step[fieldsource=location,
4173       match=\regexp{(\d)\.(\d)},
4174       replace=\regexp{$1.$2}]
4175 \step[fieldsource=location,
4176       match=\regexp{(\D)\.(\d)},
4177       replace=\regexp{$1 $2}]
4178 \step[fieldsource=location,
4179       match=\regexp{\.(\D)},
4180       replace=\regexp{$1}]
4181 \step [fieldsource=location,
4182       match=\regexp{(\D)\.},
4183       replace=\regexp{$1}]
4184 \step[fieldsource=series,
4185       match=\regexp{(\d)\.(\d)},
4186       replace=\regexp{$1.$2}]
4187 \step[fieldsource=series,
4188       match=\regexp{(\D)\.(\d)},
4189       replace=\regexp{$1 $2}]
4190 \step[fieldsource=series,
4191       match=\regexp{\.(\D)},
4192       replace=\regexp{$1}]
4193 \step [fieldsource=series,
4194       match=\regexp{(\D)\.},
4195       replace=\regexp{$1}]
4196 \step[fieldsource=indextitle,
4197       match=\regexp{(\d)\.(\d)},
4198       replace=\regexp{$1.$2}]
4199 \step[fieldsource=indextitle,
4200       match=\regexp{(\D)\.(\d)},
4201       replace=\regexp{$1 $2}]

```

```

4202     \step[fieldsource=indextitle,
4203           match=\regexp{\.(\D)},
4204           replace=\regexp{$1}]
4205     \step [fieldsource=indextitle,
4206           match=\regexp{(\D)\.},
4207           replace=\regexp{$1}]
4208   }

```

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

```

4209     \map[overwrite=false]{
4210       \step[fieldsource=casenumber, final]
4211       \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
4212       \step[fieldsource=casenumber, fieldtarget=userb]
4213     }
4214   }%
4215 }

```

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).

```

4216 \DeclareSortingTemplate{nty}{
4217   \sort{
4218     \field{presort}
4219   }
4220   \sort[final]{
4221     \field{sortkey}
4222   }
4223   \sort{
4224     \field{sortname}
4225     \field{author}
4226     \field{editor}
4227     \field{translator}
4228     \field{sorttitle}
4229     \field{title}
4230     \field{library}
4231   }
4232   \sort{
4233     \field{sorttitle}
4234     \field{title}
4235   }
4236   \sort{
4237     \field{sortyear}
4238     \field{year}
4239   }
4240   \sort{
4241     \field{volume}
4242     \literal{0}
4243   }
4244   \sort{
4245     \field{location}
4246   }
4247   \sort{
4248     \field{collection}
4249     \field{series}
4250   }
4251 }
4252

```

```

4253 \DeclareSortingTemplate{nyt}{
4254   \sort{
4255     \field{presort}
4256   }
4257   \sort[final]{
4258     \field{sortkey}
4259   }
4260   \sort{
4261     \field{sortname}
4262     \field{author}
4263     \field{editor}
4264     \field{translator}
4265     \field{sorttitle}
4266     \field{title}
4267     \field{library}
4268   }
4269   \sort{
4270     \field{sortyear}
4271     \field{year}
4272   }
4273   \sort{
4274     \field{sorttitle}
4275     \field{title}
4276   }
4277   \sort{
4278     \field{volume}
4279     \literal{0}
4280   }
4281   \sort{
4282     \field{location}
4283   }
4284   \sort{
4285     \field{collection}
4286     \field{series}
4287   }
4288 }
4289
4290 \DeclareSortingTemplate{anyt}{
4291   \sort{
4292     \field{presort}
4293   }
4294   \sort{
4295     \field{labelalpha}
4296   }
4297   \sort[final]{
4298     \field{sortkey}
4299   }
4300   \sort{
4301     \field{sortname}
4302     \field{author}
4303     \field{editor}
4304     \field{translator}
4305     \field{sorttitle}
4306     \field{title}
4307     \field{library}
4308   }
4309   \sort{
4310     \field{sortyear}
4311     \field{year}
4312   }
4313   \sort{
4314     \field{sorttitle}

```

```

4315     \field{title}
4316   }
4317   \sort{
4318     \field{volume}
4319     \literal{0}
4320   }
4321   \sort{
4322     \field{location}
4323   }
4324   \sort{
4325     \field{collection}
4326     \field{series}
4327   }
4328 }

```

The following entry types never put editors first.

```

4329 \ExecuteBibliographyOptions
4330 [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4331 manuscript,unpublished,review]{useeditor=false}

```

2.2 Notes style: oxnotes.bbx

2.2.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

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

```

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

```

We ensure the printing of the anon localization string matches.

```

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

```

2.2.2 PAGE RANGES IN CITATIONS

If specifying a page within a range in the course of a citation note, Oxford style is to format that as ‘*range at page*’; if no page range is specified, the page is printed as normal.

```

34 \renewbibmacro*{postnote}{%
35   \iffieldundef{postnote}{}{}%
36   \iffieldundef{pages}{}%
37   \setunit{\postnotedelim}%

```

```

38     \printfield{postnote}%
39   }{%
40     \printtext{\addspace\bibstring{thiscite}\space}%
41     \printfield{postnote}}}}

```

2.2.3 SOURCE MAPS

```

42 \DeclareStyleSourceMap{%
43   \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.

```

44   \map{
45     \pertype{mvbook}
46     \pertype{mvcollection}
47     \pertype{mvreference}
48     \pertype{proceedings}
49     \pertype{mvproceedings}
50     \pertype{report}
51     \step[fieldsource=maintitle]%
52     \step[fieldset=sorttitle, origfieldval]%
53     \step[fieldsource=volume]%
54     \step[fieldset=sorttitle, append, origfieldval]%
55     \step[fieldsource=title]%
56     \step[fieldset=sorttitle, append, origfieldval]%
57   }%
58 }%
59 }

```

2.3 Numeric style: oxnum.bbx

2.3.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

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

```

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

```

We ensure the printing of the anon localization string matches.

```

25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%

```

```

32 }%
33 }{\wlog{WARNING: biblatex-oxref (oxnum) failed to patch author}}

```

2.3.2 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```

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

```

2.4 Author–year style: oxyear.bbx

2.4.1 PRELIMINARIES

First we load the common oxref features.

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

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

```
21 \ExecuteBibliographyOptions{giveninits,labeldateparts,sorting=nyt,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 \DeclareBibliographyOption{mergedate}[true]{%
23   \ifcsdef{bbx@opt@mergedate@#1}%
24     {\csuse{bbx@opt@mergedate@#1}}
25     {\PackageError{biblatex}
26       {Invalid option 'mergedate=#1'}
27       {Valid values are 'maximum', 'compact', 'basic', 'minimum',\MessageBreak
28        'year', 'true' (=year), and 'false'.}}
29 \DeclareTypeOption{mergedate}[true]{%
30   \ifcsdef{bbx@opt@mergedate@#1}%
31     {\csuse{bbx@opt@mergedate@#1}}
32     {\PackageError{biblatex}
33       {Invalid option 'mergedate=#1'}
34       {Valid values are 'maximum', 'compact', 'basic', 'minimum',\MessageBreak
35        '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.

```
36 \providebibmacro*{date+extradate}{}
37 \DeclareFieldFormat{datelabel}{\mkbibparens{#1}}
38 \DeclareFieldFormat{labeldate}{%
39   \iflabeldateisdate{%
40     \def\currentfield{date}%
41   }{%
42     \iflabeldateisanydate{%
43       \def\currentfield{\thefield{labeldatesource}date}%
44     }{%
45       \def\currentfield{\thefield{labeldatesource}}}%
46   \iffielddannotation{inferred}{\mkbibbrackets{#1}}{#1}%
47   \undef\currentfield}
```

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


```

48 \DeclareLabeldate{%
49   \field{origdate}
50   \field{date}
51   \field{year}
52   \field{eventdate}
53   \field{pubstate}
54   \literal{nodate}
55 }

```

The extradate string should be printed bare.

```

56 \DeclareFieldFormat{extradate}{%
57   \iffieldundef{\thefield{labeldatesource}}{%
58     \iffieldnums{\thefield{labeldatesource}year}}{~}%
59   }{%
60     \iffieldnums{\thefield{labeldatesource}}{~}%
61   }%
62   \mkbibemph{\mknumalph{#1}}}%

```

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

```

63 \def\iflabeldateisanydate{%
64   \ifboolexpr{%
65     togl {blx@labeldateparts}
66     and not test {\iffieldundef{labeldatesource}}
67     and (
68       test {\iffieldequalstr{labeldatesource}{year}}
69       or not test {\iffieldundef{\thefield{labeldatesource}year}}
70     )}}
71 \def\iflabeldateispubstate{%
72   \ifboolexpr{%
73     not test {\iffieldundef{labeldatesource}}
74     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.

```

75 \newtoggle{blx@ox@nonodate}
76 \DeclareBibliographyOption[boolean]{nonodate}[true]{%
77   \settoggle{blx@ox@nonodate}{#1}}
78 \DeclareTypeOption[boolean]{nonodate}[true]{%
79   \settoggle{blx@ox@nonodate}{#1}}
80 \DeclareEntryOption[boolean]{nonodate}[true]{%
81   \settoggle{blx@ox@nonodate}{#1}}
82 \newbibmacro*{labeldate}{%
83   \ifboolexpr{
84     test {\iffieldequalstr{labeldatesource}{nodate}}
85     and
86     togl {blx@ox@nonodate}
87   }{\printtext[dateLabel]{\printlabeldateextra}}

```

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

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

```
88 \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.

```
89 \def\bbx@opt@mergedate@maximum{%
90   \renewbibmacro*{date+extradate}{%
91     \iffieldundef{labelyear}}{%
92       \iflabeldateisdate{%
93         \printtext[datelabel]{%
94           \printfield{issue}\clearfield{issue}%
95           \setunit*{\addspace}%
96           \printdateextra}%
97         \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
98       }{%
99         \iflabeldateisanydate{%
100           \printtext[datelabel]{%
101             \csuse{print\thefield{labeldatesource}dateextra}}%
102           \clearfield{\thefield{labeldatesource}year}%
103           \clearfield{\thefield{labeldatesource}season}%
104           \clearfield{\thefield{labeldatesource}month}%
105           \clearfield{\thefield{labeldatesource}day}%
106         }{%
107           \usebibmacro{labeldate}%
108           \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}}
```

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

```
109 \def\bbx@opt@mergedate@compact{%
110   \renewbibmacro*{date+extradate}{%
111     \iffieldundef{labelyear}}{%
112       \iflabeldateisdate{%
113         \printtext[datelabel]{\printdateextra}%
114         \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
115       }{%
116         \iflabeldateisanydate{%
117           \printtext[datelabel]{%
118             \csuse{print\thefield{labeldatesource}dateextra}}%
119           \clearfield{\thefield{labeldatesource}year}%
120           \clearfield{\thefield{labeldatesource}season}%
121           \clearfield{\thefield{labeldatesource}month}%
122           \clearfield{\thefield{labeldatesource}day}%
123         }{%
124           \usebibmacro{labeldate}%
125           \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.

```
126 \def\bbx@opt@mergedate@year{%
127   \renewbibmacro*{date+extradate}{%
128     \iffieldundef{labelyear}}{%
129     \usebibmacro{labeldate}%
```

```

130 \iflabeldateisdate{%
131 \clearfield{year}%
132 }{%
133 \iflabeldateisanydate{%
134 \clearfield{\thefield{labeldatesource}year}%
135 }{%
136 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
137 }}}}

```

- 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.

```

138 \def\bbx@opt@mergedate@basic{%
139 \renewbibmacro*{date+extradate}{%
140 \iffieldundef{labelyear}}{%
141 \usebibmacro{labeldate}%
142 \iflabeldateisdate{%
143 \ifboolexpr{
144 test {\ifdateshavedifferentprecision{label}}{}
145 or
146 not test {\iffieldundef{issue}}
147 }{}{%
148 \clearfield{year}}%
149 }{%
150 \iflabeldateisanydate{%
151 \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{}{%
152 \clearfield{\thefield{labeldatesource}year}}%
153 }{%
154 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
155 }}}}

```

- 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.

```

156 \def\bbx@opt@mergedate@minimum{%
157 \renewbibmacro*{date+extradate}{%
158 \iffieldundef{labelyear}}{%
159 \usebibmacro{labeldate}%
160 \iflabeldateisdate{%
161 \ifboolexpr{
162 test {\ifdateshavedifferentprecision{label}}{}
163 or
164 not test {\iffieldundef{extradate}}
165 or
166 not test {\iffieldundef{issue}}
167 }{}{%
168 \clearfield{year}}%
169 }{%
170 \iflabeldateisanydate{%
171 \ifboolexpr{
172 test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
173 or
174 not test {\iffieldundef{extradate}}
175 }{}{%
176 \clearfield{\thefield{labeldatesource}year}}%
177 }{%
178 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%

```

```
179 }}}
```

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

```
180 \def\bbx@opt@mergedate@false{%
181   \renewbibmacro*{date+extradate}{%
182     \iffieldundef{labelyear}{}%
183     \usebibmacro{labeldate}%
184     \iflabeldateisanydate{}{%
185       \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
186     }}}
```

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

```
187 \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`.

```
188 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
189   \iffieldundef{#2month}{}%
190   \datecircaprint
191   \printtext[#2date]{%
192     \iffieldundef{#2season}{%
193       \csuse{mkbibdate#1}{#2month}{#2day}%
194       \blx@printtime{#2}{%
195         }%
196       \csuse{mkbibseasondate#1}{#2season}%
197       \dateuncertainprint
198       \iffieldundef{#2endmonth}{}%
199       \iffieldequalstr{#2endmonth}{}%
200       \mbox{\bibdaterangesep}%
201     }%
202     \bibdaterangesep
203     \enddatecircaprint
204     \iffieldundef{#2season}{%
205       \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
206       \blx@printtime{#2}{end}%
207     }%
208     \csuse{mkbibseasondate#1}{#2endseason}%
209     \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.

```
210 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
211   \iffieldundef{#2month}{}%
212   \datecircaprint
213   \printtext[#2date]{%
214     \iffieldundef{#2season}{%
215       \ifboolexpr{
216         test {\iffieldequal{labelyear}{labelendyear}}
```

```

217         and
218         test {\iffieldequal{#2month}{#2endmonth}}
219     }{%
220         \csuse{mkbibdate#1}{#2day}%
221     }{%
222         \csuse{mkbibdate#1}{#2month}{#2day}%
223     }{%
224         \csuse{mkbibseasondate#1}{#2season}%
225     \dateuncertainprint
226     \iffieldundef{#2endmonth}{#2}%
227     \iffieldequalstr{#2endmonth}{#2}%
228     \mbox{\bibdaterangesep}%
229     }{%
230         \bibdaterangesep
231         \enddatecircaprint
232         \iffieldundef{#2season}{#2}%
233         \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
234     }{%
235         \csuse{mkbibseasondate#1}{#2endseason}%
236         \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.

```

237 \xpatchcmd{\mkdaterangefull}{%
238     \iffieldundef{#2year}{\blx@nunit}%
239 }{%
240     \iffieldundef{#2year}{\mknoyeardaterangefull{#1}{#2}}%
241 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangefull}}
242 \xpatchcmd{\mkdaterangetrunc}{%
243     \iffieldundef{#2year}{\blx@nunit}%
244 }{%
245     \iffieldundef{#2year}{\mknoyeardaterangetrunc{#1}{#2}}%
246 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangetrunc}}
247 \xpatchcmd{\mkdaterangefullextra}{%
248     \iffieldundef{#2year}{\blx@nunit}%
249 }{%
250     \iffieldundef{#2year}{\mknoyeardaterangefull{#1}{#2}}%
251 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangefullextra}}
252 \xpatchcmd{\mkdaterangetruncextra}{%
253     \iffieldundef{#2year}{\blx@nunit}%
254 }{%
255     \iffieldundef{#2year}{\mknoyeardaterangetrunc{#1}{#2}}%
256 }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch mkdaterangetruncextra}}

```

2.4.3 BIBLIOGRAPHY FORMATTING

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

```

257 \DeclareFieldFormat{shorthandwidth}{#1}

```

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

```

258 \xpretonameformat{family-given}{%
259     \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}{%
260     \ifitemannotation{inferred}{\bibopenbracket}{}}{%
261     }{\wlog{WARNING: biblatex-oxref (oxyyear) failed to prepend to family-given}}
262 \xpatchnameformat{family-given}{%

```

```

263 \usebibmacro{name:andothers}%
264 }{%
265 \ifitemannotation{pseudo}{%
266 \addspace\printtext[parens]{\bibsstring{pseudo}}%
267 }{%
268 \ifitemannotation{inferred}{\bibclosebracket}{}%
269 \usebibmacro{name:andothers}%
270 \iffieldannotation{inferred}{%
271 \ifboolexpr{
272 test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
273 or
274 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
275 or (
276 test {\ifnumequal{\value{listcount}}{\value{minnames}}}
277 and
278 test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
279 }\bibclosebracket}{}%
280 }{%
281 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch family-given}}
282 \DeclareNameAlias{shortauthor}{family-given}
283 \DeclareNameAlias{shorteditor}{family-given}

```

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

```

284 \DeclareNameAlias{sortname}{family-given}
285 \DeclareNameAlias{author}{family-given}
286 \DeclareNameAlias{editor}{family-given}
287 \DeclareNameAlias{translator}{family-given}

```

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

```

288 \defbibenvironment{bibliography}
289 {\list
290 {}
291 {\setlength{\leftmargin}{\bibhang}%
292 \setlength{\itemindent}{-\leftmargin}%
293 \setlength{\itemsep}{\bibitemsep}%
294 \setlength{\parsep}{\bibparsep}}
295 {\endlist}
296 {\item}

```

The shorthand formatting is just like authoryear.

```

297 \defbibenvironment{shorthand}
298 {\list
299 {\printfield[shorthandwidth]{shorthand}}
300 {\setlength{\labelwidth}{\shorthandwidth}%
301 \setlength{\leftmargin}{\labelwidth}%
302 \setlength{\labelsep}{\biblabelsep}%
303 \addtolength{\leftmargin}{\labelsep}%
304 \setlength{\itemsep}{\bibitemsep}%
305 \setlength{\parsep}{\bibparsep}%
306 \renewcommand*{\makelabel}[1]{\hss}}
307 {\endlist}
308 {\item}

```

2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in authoryear.

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

We ensure related entries do not interfere with the hashing.

```
310 \xapptobibmacro{begrelated}{%
311   \booltrue{bbx@inset}}%
312 {}{\wlog{WARNING: biblatex-oxref (oxyear) failed to append to begrelated}}
313 \xapptobibmacro{endrelated}{%
314   \usebibmacro*{bbx:savehash}}%
315 {}{\wlog{WARNING: biblatex-oxref (oxyear) failed to append to endrelated}}
```

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

```
316 \xpatchbibmacro{author}{%
317   \iffieldundef{authortype}%
318 }{%
319   \usebibmacro{date+extradate}%
320   \setunit*{\addspace}%
321   \iffieldundef{authortype}%
322 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch author (authortype)}}%
323 \xpatchbibmacro{author}{%
324   \global\undef\bbx@lasthash
325 }{%
326   \global\undef\bbx@lasthash
327   \usebibmacro{labeltitle}%
328   \setunit*{\addspace}%
329   \usebibmacro{date+extradate}%
330 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch author (lasthash)}}%
```

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

```
331 \xpatchbibmacro{namepairs}{%
332   \printnames[by#1]%
333 }{%
334   \printnames[#1]%
335 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch namepairs}}
336 \xpatchbibmacro{author+altauthor}{%
337   \printnames{author}%
338 }{%
339   \ifboolexpr{%
340     ( not test {\ifnameundef{shortauthor}} )
341     and
342     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
343 }{%
344   \usebibmacro{namepairs}{author}{shortauthor}%
345 }{%
346   \printnames{author}%
347 }%
348 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch author+altauthor}}%
```

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

```
349 \xpatchbibmacro{bbx:editor}{%
350   \usebibmacro{#1}%
351 }{%
352   \usebibmacro{date+extradate}%
353 }
```

```

353     \setunit*{\addspace}%
354     \usebibmacro{#1}%
355 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor}}%
356 \xpatchbibmacro{bbx:editor}{%
357     \global\undef\bbx@lasthash
358 }{%
359     \global\undef\bbx@lasthash
360     \usebibmacro{labeltitle}%
361     \setunit*{\addspace}%
362     \usebibmacro{date+extradate}%
363 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor (lasthash)}}%
364 \xpatchbibmacro{editor+altditor}{%
365     \printnames[byeditor]%
366 }{%
367     \printnames[editor]%
368 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+altditor}}
369 \xpatchbibmacro{editor+altditor}{%
370     \printnames{editor}%
371 }{%
372     \ifboolexpr{
373         ( not test {\ifnameundef{shorteditor}} )
374         and
375         test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
376     }{%
377         \usebibmacro{namepairs}{editor}{shorteditor}%
378     }{%
379         \printnames{editor}%
380     }%
381 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+altditor (shorteditor)}}%

```

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

```

382 \xpatchbibmacro{bbx:translator}{%
383     \global\undef\bbx@lasthash
384 }{%
385     \global\undef\bbx@lasthash
386     \usebibmacro{labeltitle}%
387     \setunit*{\addspace}%
388     \usebibmacro{date+extradate}%
389 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:translator (lasthash)}}%
390 \xpatchbibmacro{bbx:translator}{%
391     \usebibmacro{#1}%
392 }{%
393     \usebibmacro{date+extradate}%
394     \setunit*{\addspace}%
395     \usebibmacro{#1}%
396 }{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:translator}}%

```

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

```

397 \newtoggle{blx@ox@clearedtitle}
398 \newbibmacro*{labeltitle}{%
399     \iffieldundef{label}{%
400         \iffieldundef{shorttitle}{%
401             \ifboolexpr{
402                 test {\iffieldundef{title}}
403                 and
404                 test {\iffieldundef{subtitle}}
405             }{%

```



```

406     \printfield{library}%
407     \clearfield{library}%
408   }{%
409     \printtext[title]{%
410       \printfield[titlecase]{title}%
411       \setunit{\subtitlepunct}%
412       \printfield[titlecase]{subtitle}}%
413     \clearfield{title}%
414     \clearfield{subtitle}%
415     \toggletrue{blx@ox@clearedtitle}%
416     \setunit{\addspace}%
417   }%
418 }{%
419   \printtext[title]{\printfield[titlecase]{shorttitle}}%
420 }%
421 }{%
422   \printfield{label}%
423 }%
424 }

```

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

```

425 \xpretobibmacro{maintitle+title}{%
426   \iftoggle{blx@ox@clearedtitle}{%
427     \usebibmacro{maintitle+volume}%
428     \clearfield{maintitle}%
429     \clearfield{volume}%
430   }{}%
431 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to maintitle+title}}
432 \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.

```

433 \xpatchbibdriver{online}{%
434   \iffielddundef{year}%
435 }{%
436   \ifboolexpr{
437     test {\iffielddundef{season}}
438     and
439     test {\iffielddundef{month}}
440   }%
441 }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch online}}

```

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

```

442 \DeclareFieldFormat{bookinbook}{citetitle}{%
443   \ifboolexpr{
444     test {\iffieldequalstr{entrysubtype}{poem}}
445     or
446     test {\iffieldequalstr{entrysubtype}{play}}
447   }{%
448     \mkbibemph{#1}%
449   }{%
450     \mkbibquote{#1\isdot}}
451 \DeclareFieldFormat{supperperiodical,inaudio,inmusic,inmovie,invideo,online,%
452   image,manuscript,unpublished}{citetitle}{%
453   \def\currentfield{title}%

```

```

454 \ifboolexpr{
455   test {\iffieldannotation{descriptor}}
456   or (
457     test {\iffieldundef{shorttitle}}
458     and
459     test {\iffieldundef{title}}
460   )
461 }{#1}{\mkbibquote{#1\isdot}}%
462 \undef\currentfield}
463 \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
464   image,manuscript,unpublished]{citetitle}{%
465   \def\currentfield{title}%
466   \ifboolexpr{
467     test {\iffieldannotation{descriptor}}
468     or (
469       test {\iffieldundef{shorttitle}}
470       and
471       test {\iffieldundef{title}}
472     )
473 }{#1}{\mkbibquote{#1\isdot}}%
474 \undef\currentfield}
475 \DeclareFieldFormat[audio,music]{citetitle}{%
476   \def\currentfield{title}%
477   \ifboolexpr{
478     test {\iffieldannotation{descriptor}}
479     or (
480       test {\iffieldundef{shorttitle}}
481       and
482       test {\iffieldundef{title}}
483     )
484 }{#1}{%
485   \iffieldequalstr{entrysubtype}{podcast}{%
486     \mkbibquote{#1\isdot}}%
487   }{%
488     \mkbibemph{#1}}}%
489 \undef\currentfield}
490 \DeclareFieldFormat[movie,video]{citetitle}{%
491   \def\currentfield{title}%
492   \ifboolexpr{
493     test {\iffieldannotation{descriptor}}
494     or (
495       test {\iffieldundef{shorttitle}}
496       and
497       test {\iffieldundef{title}}
498     )
499 }{#1}{%
500   \ifboolexpr{
501     test {\iffieldequalstr{entrysubtype}{episode}}
502     or
503     test {\iffieldequalstr{entrysubtype}{clip}}
504     or
505     test {\iffieldequalstr{entrysubtype}{webcast}}
506   }{%
507     \mkbibquote{#1\isdot}}%
508   }{%
509     \mkbibemph{#1}}}%
510 \undef\currentfield}
511 \DeclareFieldFormat[legislation,legal]{citetitle}{#1}
512 \DeclareFieldFormat[misc]{%
513   {citetitle}{%
514     \def\currentfield{title}%
515     \ifboolexpr{

```

```

516     test {\iffielddannotation{descriptor}}
517   or (
518     test {\iffieldundef{shorttitle}}
519     and
520     test {\iffieldundef{title}}
521   )
522   }{#1}{%
523     \iffieldequalstr{relatedtype}{in}{%
524       \mkbibquote{#1\isdot}%
525     }{%
526       \mkbibemph{#1}%
527     }%
528     \undef\currentfield}

```

2.4.5 JOURNAL DIVISION FORMATTING

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

```

529   \renewcommand*{\bibpagespunct}{%
530     \ifboolexpr{
531       test {\ifentrytype{article}}
532       or
533       test {\ifentrytype{supperperiodical}}
534       or
535       test {\ifentrytype{review}}
536     }{%
537       \addcolon\space
538     }{%
539       \addcomma\space
540     }%
541   }

```

2.4.6 MANUSCRIPTS

We include the library field as a fallback title.

```

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

```

2.4.7 SOURCE MAPS

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

```

548   \DeclareStyleSourcemap{%
549     \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.

```

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

```

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.

```

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

```

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 (oxaliph) failed to patch labeldate}}
41 \ExecuteBibliographyOptions{mergedate}

```

2.5.3 LABEL CODES: PRINTING

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

```

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

```

2.5.4 LABEL CODES: GENERATING

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

```

75 \DeclareStyleSourceMap{%
76   \maps[datatype=bibtex]{%
77     \map[overwrite=false]{%
78       \step[fieldsource=title, final]
79       \step[fieldset=shortlabeltitle, origfieldval]
80       \step[fieldsource=subtitle]
81       \step[fieldset=shortlabeltitle, origfieldval, append=true]
82       \step[fieldsource=shortlabeltitle,

```

```
83         match=\regexp{[^\p{Lu}]},
84         replace=\regexp{}}
85     }}}
86     \DeclareLabelalphaTemplate{%
87         \labelelement{
88             \field[final]{shorthand}
89             \field{label}
90             \field[strwidth=3, strside=left, ifnames=1]{labelname}
91             \field[strwidth=1, strside=left]{labelname}
92             \field[strwidth=3, strside=left]{shortlabeltitle}
93             \field[strwidth=4, strside=left]{labeltitle}
94         }
95         \labelelement{
96             \field[strwidth=2, strside=right]{labelyear}
97         }
98     }
```

Citation styles

3.1 Notes style: oxnotes.cbx

The standard verbose style works without further adjustment.

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

3.2 Author–year style: oxyear.cbx

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

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

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

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

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

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

We insert anonymous author handling into `cite`.

```
30 \xpatchbibmacro{cite}{%
31   \printnames{labelname}%
32 }{%
33   \ifboolexpr{
34     test {\iffieldequalstr{labelnamesource}{author}}
35     and
36     togl {blx@ox@autoanon}
37     and
38     test {\iffieldequals{rawauthor}{\oxrefanon}}
```

```

39   }{%
40     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}}%
41   }{%
42     \printnames{labelname}%
43   }%
44   }{}{\wlog{WARNING: biblatex-oxref (oxyyear) failed to patch cite}}

```

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

```

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

```

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

```

53   \renewcommand*{\multicitedelim}{\addsemicolon\space}
54   \renewcommand*{\compitedelim}{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

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

```

3.3 Notes 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*{\compitedelim}{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

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

```

3.4 Notes 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*{\compitedelim}{\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.

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

```
1 \xpatchbibmacro{textcite}{%
2 \printnames{labelname}%
3 }{%
4 \ifboolexpr{
5 test {\iffieldequalstr{labelnamesource}{author}}
6 and
7 togl {blx@ox@autoanon}
8 and
9 test {\iffieldequals{rawauthor}{\oxrefanon}}
10 }{%
11 \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
12 }%
13 \printnames{labelname}%
14 }%
15 }{\wlog{WARNING: biblatex-oxref failed to patch textcite}}
```

Data model adjustments

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

We provide an additional name part for handling titles.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

This data model helps with legal citations.

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

Localization modules

5.1 English: english-oxref.lbx

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

```

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

```

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

```

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

```

These are new strings defined by oxref:

- Roles expressed as functions

```

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

```

- Roles expressed as actions

```

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

```

• Publication details

```

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

```

• Publication state

```

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

```

• Pagination

```

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

```

```

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

```

- Types

```

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

```

- Miscellaneous

```

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

```

- Labels

```

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

```

- Country names, patents, and patent requests,

```

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

```

- These are borrowed from other styles.

```

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

```

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

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

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

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

```

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

```

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

```

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

```

The abbreviations for some publication details are different.

```

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

```



```

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

```

There is also a different abbreviation for ‘paragraph’.

```

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

```

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

```

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

```

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

```

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

```

Languages are abbreviated.

```

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

```

5.2 British English: british-oxref.lbx

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

```

20 \InheritBibliographyExtras{british}
21 \DeclareBibliographyExtras{

```

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

```

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

```

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

```

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

```

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

```

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

```

5.3 American English: american-oxref.lbx

```

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

```