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

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Introduction

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

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

1.1 Quick start

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

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

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

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

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

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

1.2 Installation

1.2.1 Dependencies

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

1.2.2 Managed way

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

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

1.2.3 AUTOMATED WAY

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

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

1.2.4 MANUAL WAY

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

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

- `doc/latex/biblatex-oxref`: README.md, oxalph-doc.pdf, oxalph-doc.tex, oxnotes-doc.pdf, oxnotes-doc.tex, oxnum-doc.pdf, oxnum-doc.tex, oxref.bib, oxref.pdf, oxyear-doc.pdf, oxyear-doc.tex

4. You may then have to update your installation's file name database before TeX and friends can see the files.

1.3 Licence

Copyright 2016–2023 Alex Ball.

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

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

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

Bibliography styles

2.1 Base style: oxref.bbx

2.1.1 LOADING DEPENDENCIES, SETTING UP LANGUAGES, APPLYING OPTIONS

Dependencies:

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

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

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

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

We provide some additional bibliography strings:

- roles expressed as functions;

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

- roles expressed as actions;

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

- publication details;

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

- publication state;

```
30        inpressin,
```

- pagination;

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

- types;

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

- miscellaneous;

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

- labels;

```
39        anon, pseudo, urldown,
```

- country names, patents, and patent requests;

```
40        countryjp, patentjp, patreqjp,
```

- borrowed from other styles.

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

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

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

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

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

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

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

2.1.2 Names

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

```
62    \DeclareNameAlias{bookauthor}{default}
63    \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.

```
64    \newtoggle{blx@ox@scnames}
65    \DeclareBibliographyOption{scnames}[true]{%
66      \settoggle{blx@ox@scnames}{#1}
67    }
```

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.

```
68    \newtoggle{blx@ox@nametitle}\toggletrue{blx@ox@nametitle}%
69    \DeclareBiblatexOption{global,type,entry}{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        \ifboolexpe{%
96          (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
97          and
98          test {\ifdefvoid{#2}}%
99        }{}{%
100         \printdelim{revsdnamepunct}}%
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}{}{\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
108       \ifboolexpe{%
109         (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
110         and
111         test {\ifdefvoid{#2}}
112         and
113         test {\ifdefvoid{#3}}%
114       }{}{%
115         \printdelim{revsdnamepunct}}%
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. We only need name:revsdelim on the first item, and only if it will be followed by something else.

```
119   \renewbibmacro*{name:revsdelim}{%
120     \ifboolexpr{
121       (
122         test {\ifnumequal{\value{liststop}}{1}}
123         and
124         test \ifmorenames
125       )
126       or
127       test {\ifnumequal{\value{liststop}}{2}}
128     }
129     {\printdelim{revsdnamedelim}}
130     {}}
131   \def\blx@ox@lasthash{}
132   \DeclareNameFormat{bib-family-given/cite-given-family}{%
133     \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}{}%
134     \ifitemannotation{inferred}{\bibopenbracket}{}%
135     \ifbibliography{%
```

```
136        \iftoggle{blx@ox@scnames}{%
137          \renewcommand*{\mkbibnamefamily}[1]{\textsc{##1}}%
138          \renewcommand*{\mkbibnamegiven}[1]{\textsc{##1}}%
139          \renewcommand*{\mkbibnameprefix}[1]{\textsc{##1}}%
140          \renewcommand*{\mkbibnamesuffix}[1]{\textsc{##1}}%
141          \renewcommand*{\mkbibnametitle}[1]{##1}%
142        }{}%
143        \ifgiveninits{%
144          \usebibmacro{name:family-title-given}%
145            {\namepartfamily}%
146            {\namepartgiveni}%
147            {\namepartprefix}%
148            {\namepartsuffix}%
149            {\nameparttitle}%
150        }{%
151          \usebibmacro{name:family-title-given}%
152            {\namepartfamily}%
153            {\namepartgiven}%
154            {\namepartprefix}%
155            {\namepartsuffix}%
156            {\nameparttitle}%
157        }%
158        \savefield{hash}{\blx@ox@lasthash}%
159        \ifitemannotation{pseudo}{%
160          \addspace\printtext[parens]{%
161            \iftoggle{blx@ox@scnames}{%
162              \textsc{\bibsstring{pseudo}}%
163            }{%
164              \bibsstring{pseudo}%
165            }}%
166        }{}%
167        \iftoggle{blx@ox@scnames}{%
168          \renewcommand*{\mkbibnamefamily}[1]{##1}%
169          \renewcommand*{\mkbibnamegiven}[1]{##1}%
170          \renewcommand*{\mkbibnameprefix}[1]{##1}%
171          \renewcommand*{\mkbibnamesuffix}[1]{##1}%
172          \renewcommand*{\mkbibnametitle}[1]{##1}%
173        }{}%
174        \ifboolexpe{%
175          test {\ifnumequal{\value{listcount}}{\@ne}}
176          and
177          (
178            test {\ifnumless{\value{listcount}}{\value{liststop}}}
179            or
180            test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
181            or
182            test {\ifandothers{\currentname}}
183          )
184          and not
185          (
186            test {\ifdefvoid\namepartgiven}
187            and
188            test {\ifdefvoid\namepartprefix}
189          )
190        }{\usebibmacro{name:revsdelim}}{}%
191      }{%
```

Some implementations of \lbx@finalnamedelim do not allow logical tests to be included in the argument, so we need to spell out all these alternatives longhand.

```
192        \ifgiveninits{%
193          \ifitemannotation{pseudo}{%
194            \usebibmacro{name:title-given-family}%
195              {\biblstring{pseudo}\namepartfamily}%
196              {\namepartgiveni}%
197              {\namepartprefix}%
198              {\namepartsuffix}%
199              {\nameparttitle}%
200          }{%
201            \usebibmacro{name:title-given-family}%
202              {\namepartfamily}%
203              {\namepartgiveni}%
204              {\namepartprefix}%
205              {\namepartsuffix}%
206              {\nameparttitle}}%
207        }{%
208          \ifitemannotation{pseudo}{%
209            \usebibmacro{name:title-given-family}%
210              {\biblstring{pseudo}\namepartfamily}%
211              {\namepartgiven}%
212              {\namepartprefix}%
213              {\namepartsuffix}%
214              {\nameparttitle}%
215          }{%
216            \usebibmacro{name:title-given-family}%
217              {\namepartfamily}%
218              {\namepartgiven}%
219              {\namepartprefix}%
220              {\namepartsuffix}%
221              {\nameparttitle}}%
222        }%
223        \savefield{hash}{\blx@ox@lasthash}%
224      }%
225      \ifitemannotation{inferred}{\bibclosebracket}{}%
226      \ifitemannotation{variant}{%
227        \global\settoggle{blx@ox@variantname}{true}%
228      }{%
229        \global\settoggle{blx@ox@variantname}{false}}%
230      \usebibmacro{name:andothers}%
231      \iffieldannotation{inferred}{%
232        \ifboolexpr{
233          test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
234          or
235          test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
236          or (
237            test {\ifnumequal{\value{listcount}}{\value{minnames}}}
238            and
239            test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
240          )
241        }{\bibclosebracket}{}%
242      }{}%
243    }
```

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.

```
244      \newtoggle{blx@ox@variantname}
245      \DeclareNameFormat{given-family}{%
246        \ifgiveninits
247          {\usebibmacro{name:title-given-family}
```

```
248          {\namepartfamily}
249          {\namepartgiveni}
250          {\namepartprefix}
251          {\namepartsuffix}
252          {\nameparttitle}}
253        {\usebibmacro{name:title-given-family}
254          {\namepartfamily}
255          {\namepartgiven}
256          {\namepartprefix}
257          {\namepartsuffix}
258          {\nameparttitle}}%
259      \savefield{hash}{\blx@ox@lasthash}%
260      \ifitemannotation{variant}{%
261        \global\settoggle{blx@ox@variantname}{true}%
262      }{%
263        \global\settoggle{blx@ox@variantname}{false}}%
264      \usebibmacro{name:andothers}}
```

We do likewise for the regular `family-given` format. Also, we only want to use the `name:revsdelim` on the last name in the list if it will be followed by 'et al.'.

```
265      \DeclareNameFormat{family-given}{%
266        \ifgiveninits
267          {\usebibmacro{name:family-title-given}
268            {\namepartfamily}
269            {\namepartgiveni}
270            {\namepartprefix}
271            {\namepartsuffix}
272            {\nameparttitle}}
273          {\usebibmacro{name:family-title-given}
274            {\namepartfamily}
275            {\namepartgiven}
276            {\namepartprefix}
277            {\namepartsuffix}
278            {\nameparttitle}}%
279      \savefield{hash}{\blx@ox@lasthash}%
280      \ifitemannotation{variant}{%
281        \global\settoggle{blx@ox@variantname}{true}%
282      }{%
283        \global\settoggle{blx@ox@variantname}{false}}%
284      \ifboolexpe{%
285        (
286          test {\ifnumless{\value{listcount}}{\value{liststop}}}
287          or
288          test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
289          or
290          test {\ifandothers{\currentname}}
291        )
292        and not
293        (
294          test {\ifdefvoid\namepartgiven}
295          and
296          test {\ifdefvoid\namepartprefix}
297        )
298      }{\usebibmacro{name:revsdelim}}{}%
299      \usebibmacro{name:andothers}}
```

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

```
300    \xpatchbibmacro{name:given-family}%
301      {\bibnamedelimd\mkbibnamesuffix{#4}}%
302      {\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
303    {}{\wlog{WARNING: biblatex-oxref failed to patch name:given-family}}
304    \xpatchbibmacro{name:family-given}%
305      {\bibnamedelimd\mkbibnamesuffix{#4}}%
306      {\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}%
307    {}{\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).

```
308    \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
309    \DeclareFieldFormat{namevariant}{\mkbibparens{\bibstring{equals}\space #1}}
```

We have two use cases for a bibmacro that reimplements the loopcode logic of \printnames, but operates on two name lists simultaneously. One is to support the new name fields authoraddon and editoraddon; the other is to pair up names with the short form used in references, as required by oxyear below.

We need to do this in a way that doesn't break the patterns used for configuring and adapting the punctuation that delimits the list items, so the namepair:delim macro does the same as name:delim but instead of reading the current counters, takes two extra arguments (in addition to the current name): the number of the current name pair and the total number of name pairs. The regular finallistdelim delimiter format looks up the value of the liststop counter, so we need to give it the right value.

```
310    \newbibmacro*{namepair:delim}[3]{%
311      \ifnumgreater{#2}{\@ne}{%
312        \ifnumless{#2}{#3}{%
313          \printdelim{multinamedelim}%
314        }{%
315          \ifnumgreater{#3}{\c@maxnames}{%
316            \c@liststop\c@minnames
317          }{%
318            \c@liststop#3}%
319          \lbx@finalnamedelim{#1}}%
320      }{}}
```

The namepairs bibmacro takes two arguments: the data fields holding the main name and alternative name respectively. When rendering the names, we use saveboxes to extract the hashes, and only print the alternative name if it has a different hash. In this case, we also switch to the 'pair' delimiter context, where the revsdnamedelim (if any) is suppressed.

```
321    \DeclareFieldFormat{expanded}{\mkbibparens{#1}}
322    \newcounter{namepairs}
323    \newsavebox{\blx@ox@namebox}
324    \newsavebox{\blx@ox@altnamebox}
325    \newtoggle{blx@ox@thispairvariant}%
326    \newbibmacro*{namepairs}[2]{%
327      \setcounter{namepairs}{0}%
328      \savebibmacro{name:andothers}%
329      \renewbibmacro*{name:andothers}{}%
330      \whileboolexpr{%
331        test {\ifnumless{\value{namepairs}}{\value{#1}}}
332        and (
333          test {\ifdefvoid{\c@maxnames}}
```

```
334            or
335            test {\ifnumequal{\c@maxnames}{0}}
336            or
337            test {\ifnumless{\value{#1}}{\c@maxnames}}
338            or
339            test {\ifnumequal{\value{#1}}{\c@maxnames}}
340            or
341            test {\ifdefvoid{\c@minnames}}
342            or
343            test {\ifnumequal{\c@minnames}{0}}
344            or
345            test {\ifnumless{\value{namepairs}}{\c@minnames}}
346          )
347        }{%
348          \stepcounter{namepairs}%
349          \savebox{\blx@ox@namebox}{%
350            \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
351          }%
352          \let\blx@ox@firsthash=\blx@ox@lasthash
353          \savebox{\blx@ox@altnamebox}{%
354            \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
355          }%
356          \let\blx@ox@secondhash=\blx@ox@lasthash
357          \iftoggle{blx@ox@variantname}{%
358            \toggletrue{blx@ox@thispairvariant}%
359          }{%
360            \togglefalse{blx@ox@thispairvariant}%
361          }%
```

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

```
362        \IfEndWith{#2}{addon}{%
363          \usebibmacro{namepair:delim}%
364            {\unhbox\blx@ox@namebox}{\value{namepairs}}{\value{#1}}%
365          \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
366            \hbox{}\unhbox\blx@ox@namebox
367          }{%
368            \iftoggle{blx@ox@thispairvariant}{%
369              \ifbibliography{%
370                \delimcontext{pair}%
371                \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
372                \setunit{\addspace}%
373                \printtext[namevariant]{%
374                  \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}}%
375              }{%
376                \hbox{}\unhbox\blx@ox@namebox
377              }%
378            }{%
379              \delimcontext{pair}%
380              \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
381              \setunit{\addspace}%
382              \printtext[nameaddon]{%
383                \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
384              }%
385            }%
386          }%
```

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.

```
387        }{%
388          \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
389            \usebibmacro{namepair:delim}%
390              {\unhbox\blx@ox@namebox}{\value{namepairs}}{\value{#1}}%
391            \hbox{}\unhbox\blx@ox@namebox
392          }{%
393            \usebibmacro{namepair:delim}%
394              {\unhbox\blx@ox@altnamebox}{\value{namepairs}}{\value{#1}}%
395            \delimcontext{pair}%
396            \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
397            \setunit{\addspace}%
398            \printtext[expanded]{%
399              \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
400            }%
401          }%
402        }%
403      }%
```

Now we return to common code.

```
404      \ifboolexpr{
405        test {\ifnumequal{\value{namepairs}}{\c@minnames}}
406        and
407        test {\ifnumgreater{\value{#1}}{\c@maxnames}}
408      }{%
409        \ifnumgreater{\c@minnames}{1}{%
410          \finalandcomma
411        }{}%
412        \printdelim{andothersdelim}\bibstring{andothers}%
413      }{}%
414      \restorebibmacro{name:andothers}%
415    }
```

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

```
416    \newbibmacro*{author+altauthor}{%
417      \ifboolexpr{
418        test {\ifnameundef{authoraddon}}
419        and
420        test {\ifnameundef{jointauthor}}
421      }{%
422        \printnames{author}%
423      }{%
424        \ifnumequal{\value{authoraddon}}{\value{author}}{%
425          \usebibmacro{namepairs}{author}{authoraddon}%
426        }{%
427          \printnames{author}%
428          \ifnameundef{authoraddon}{}{%
429            \setunit*{\addspace}%
430            \printtext[nameaddon]{\printnames[byauthor]{authoraddon}}}%
431        }%
432        \ifnameundef{jointauthor}{}{%
433          \setunit{\addcomma\space}%
434          \iffieldundef{jointauthortype}{%
435            \bibstring{byeditor}%
436          }{%
437            \printfield{jointauthortype}}%
438          \setunit{\addspace}%
439          \printnames[author]{jointauthor}%
440        }%
```

```
441        }%
442      }
443      \DeclareFieldFormat{jointauthortype}{%
444        \ifbibstring{by#1}{\bibstring{by#1}}{#1}}
```

This is the (simpler) implementation for editors.

```
445      \newbibmacro*{editor+alteditor}{%
446        \ifnameundef{editoraddon}{%
447          \printnames{editor}%
448        }{
449          \ifnumequal{\value{editoraddon}}{\value{editor}}{%
450            \usebibmacro{namepairs}{editor}{editoraddon}%
451          }{%
452            \printnames{editor}%
453            \setunit*{\addspace}%
454            \printtext[nameaddon]{\printnames[byeditor]{editoraddon}}%
455          }%
456        }%
457      }
```

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.

```
458      \newbibmacro*{bbx:savehash}{}
459      \DeclareBibliographyOption{dashed}[true]{%
460        \ifstrequal{#1}{true}{%
461          \ExecuteBibliographyOptions{pagetracker}%
462          \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}%
463        }{%
464          \renewbibmacro*{bbx:savehash}{}%
465        }%
466      }
467      \InitializeBibliographyStyle{%
468        \global\undef\bbx@lasthash}
469      \newbibmacro*{bbx:dashcheck}[2]{%
470        \ifboolexpr{
471          test {\iffieldequals{fullhash}{\bbx@lasthash}}
472          and
473          not test \iffirstonpage
474          and
475          (
476            not bool {bbx@inset}
477            or
478            test {\iffieldequalstr{entrysetcount}{1}}
479          )
480        }{#1}{#2}%
481      }
```

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

```
482      \newbool{bbx@inset}
483      \DeclareBibliographyDriver{set}{%
484        \booltrue{bbx@inset}%
485        \entryset{}{}%
486        \newunit\newblock
487        \usebibmacro{setpageref}%
488        \finentry}
```

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

```
489    \newtoggle{blx@ox@autoanon}
490    \newtoggle{blx@ox@abbranon}
491    \DeclareBibliographyOption[string]{anon}[short]{%
492      \ifcsdef{blx@ox@opt@anon@#1}{%
493        \csuse{blx@ox@opt@anon@#1}%
494      }{%
495        \PackageError{biblatex-oxref}
496        {Invalid option 'anon=#1'}
497        {Valid values are 'long', 'short', and 'literal'.}}}
498    \csdef{blx@ox@opt@anon@literal}{\togglefalse{blx@ox@autoanon}}
499    \csdef{blx@ox@opt@anon@long}{\toggletrue{blx@ox@autoanon}\togglefalse{blx@ox@abbranon}}
500    \csdef{blx@ox@opt@anon@short}{\toggletrue{blx@ox@autoanon}\toggletrue{blx@ox@abbranon}}
```

We copy the author to rawauthor for easier testing.

```
501    \DeclareStyleSourcemap{
502      \maps[datatype=bibtex]{%
503        \map{%
504          \step[fieldsource=author]%
505          \step[fieldset=rawauthor, origfieldval]%
506        }
507      }%
508    }
```

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).

```
509    \newcommand*{\oxrefanon}{Anonymous}
510    \newtoggle{blx@ox@isanon}
511    \renewbibmacro*{author}{%
512      \iffieldequals{rawauthor}{\oxrefanon}{%
513        \toggletrue{blx@ox@isanon}%
514      }{%
515        \togglefalse{blx@ox@isanon}}%
516      \ifboolexpr{
517        test \ifuseauthor
518        and
519        ( not test {\ifnameundef{author}} )
520        and (
521          ( not togl {blx@ox@isanon} )
522          or
523          ( not togl {blx@ox@autoanon} )
524          or
525          test {\ifbibliography}
526        )
527      }
528      {\usebibmacro{bbx:dashcheck}
529        {\bibnamedash}
530        {\usebibmacro{bbx:savehash}%
531          \ifboolexpr{
532            togl {blx@ox@autoanon}
533              and
```

```
534          togl {blx@ox@isanon}
535        }{%
536          \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
537        }{%
538          \usebibmacro{author+altauthor}%
539        }%
540        \iffieldundef{nameaddon}
541        {}
542        {\setunit{\addspace}%
543          \printfield{nameaddon}}%
544        \setunit{\printdelim{authortypedelim}}}%
545      \iffieldundef{authortype}
546      {}
547      {\usebibmacro{authorstrg}%
548        \setunit{\addspace}}}%
549    {\global\undef\bbx@lasthash}}
550  \DeclareFieldFormat{authortype}{\mkbibparens{#1}}
```

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

```
551    \newcommand{\titlebyauthordelim}{\addcomma\space}
```

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.

```
552  \renewbibmacro*{editor}{%
553    \usebibmacro{bbx:editor}{editorstrg}}
554  \renewbibmacro*{editor+others}{%
555    \usebibmacro{bbx:editor}{editor+othersstrg}}
556  \newbibmacro*{bbx:editor}[1]{%
557    \ifboolexpr{
558      test \ifuseeditor
559      and
560      not test {\ifnameundef{editor}}
561    }
562    {\usebibmacro{bbx:dashcheck}
563      {\bibnamedash}
564      {\usebibmacro{editor+alteditor}%
565       \setunit{\printdelim{editortypedelim}}%
566       \usebibmacro{bbx:savehash}}%
567      \usebibmacro{#1}%
568      \clearname{editor}}
569    {\global\undef\bbx@lasthash}}
570  \DeclareFieldFormat{editortype}{\mkbibparens{#1}}
```

We do the same for translator as well.

```
571  \renewbibmacro*{translator}{%
572    \usebibmacro{bbx:translator}{translatorstrg}}
573  \renewbibmacro*{translator+others}{%
574    \usebibmacro{bbx:translator}{translator+othersstrg}}
575  \newbibmacro*{bbx:translator}[1]{%
576    \ifboolexpr{
577      test \ifusetranslator
578      and
579      not test {\ifnameundef{translator}}
580    }
581    {\usebibmacro{bbx:dashcheck}
582      {\bibnamedash}
```

```
583        {\printnames{translator}%
584          \setunit{\printdelim{translatortypedelim}}%
585          \usebibmacro{bbx:savehash}}%
586        \usebibmacro{#1}%
587        \clearname{translator}%
588        \setunit{\addspace}}%
589      {\global\undef\bbx@lasthash}}
590    \xpatchbibmacro{translatorstrg}%
591      {\bibstring}%
592      {\bibstring[\mkbibparens]}%
593    {}{\wlog{WARNING: biblatex-oxref failed to patch translatorstrg}}%
594    \xpatchbibmacro{translator+othersstrg}%
595      {\bibstring}%
596      {\bibstring[\mkbibparens]}%
597    {}{\wlog{WARNING: biblatex-oxref failed to patch translator+othersstrg}}%
```

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

```
598    \renewbibmacro*{bybookauthor}{%
599      \ifnamesequal{author}{bookauthor}%
600      {\bibstring{idem\thefield{gender}}}%
601      {\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.

```
602    \newbibmacro*{bookeditor}{%
603      \ifboolexpr{
604        test \ifuseeditor
605        and
606        not test {\ifnameundef{editor}}
607      }{%
608        \ifnamesequal{author}{editor}{%
609          \bibstring{idem\thefield{gender}}%
610          \setunit{\addspace}%
611          \usebibmacro{editor+othersstrg}%
612          \clearname{editor}%
613        }{%
614          \printnames[bookeditor]{editor}%
615          \setunit*{\addspace}%
616          \usebibmacro{editor+othersstrg}%
617          \clearname{editor}%
618        }%
619      }{}}
```

We provide a macro for printing series editors.

```
620    \newbibmacro*{byserieseditor}{%
621      \ifnameundef{serieseditor}
622        {}
623        {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
624         \setunit{\addspace}%
625         \printnames[byeditor]{serieseditor}%
626         \newunit}}
627
```

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 preceeded by punctuation.

```
628    \renewbibmacro*{title}{%
629      \ifboolexpr{
630        test {\iffieldundef{title}}
631        and
632        test {\iffieldundef{subtitle}}
633      }
634      {}
635      {\printtext[title]{%
636          \printfield[titlecase]{title}%
637          \setunit{\subtitlepunct}%
638          \printfield[titlecase]{subtitle}}%
639        \setunit{\addspace}}%
640      \usebibmacro{origtitle}%
641      \setunit*{\addspace}%
642      \printfield{titleaddon}%
643      \iffieldequalstr{relatedtype}{equals}{%
644        \iftoggle{bbx:related}{%
645          \usebibmacro{related:init}%
646          \usebibmacro{related}%
647          \clearfield{related}%
648        }{}%
649      }{}%
650    }
651    \DeclareFieldFormat{titleaddon}{\mkbibbrackets{#1}}
```

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

```
652    \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
653    \newbibmacro*{origtitle}{%
654      \iffieldundef{origtitle}{}{%
655        \iflistundef{language}{%
656          \printtext[parens]{\printfield{origtitle}}%
657        }{%
658          \printtext[brackets]{%
659            \blx@ox@langbibstring{\printlist{language}}{translationof}\addspace
660            \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]

```
661    \newcommand{\blx@ox@compyear}[2]{%
662      \def\num@one{#1}%
663      \def\num@two{#2}%
664      \StrLen{\num@one}[\num@one@len]%
665      \StrLen{\num@two}[\num@two@len]%
```

---

[1] http://tex.stackexchange.com/questions/23483/

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

```
666    \ifboolexpr{
667      test {\ifnumequal{\num@one@len}{\num@two@len}}
668      and
669      test {\ifnumless{\num@one}{\num@two}}
670    }{%
```

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

```
671        \StrCompare{\num@one}{\num@two}[\Result]%
672        \ifnum\num@two@len>3%
673          \IfStrEq{\Result}{2}{\def\Result{1}}{}%
674        \fi
```

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

```
675        \ifboolexpr{
676          (
677            test {\ifentrytype{jurisdiction}}
678            or
679            test {\ifentrytype{legislation}}
680          )
681          and
682          test {\IfStrEq{\Result}{4}}
683        }{\def\Result{3}}{}%
```

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

```
684        \StrGobbleLeft{0\num@two}{\Result}%
685    }{\num@two}}
```

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

```
686    \patchcmd{\mkdaterangefull}{%
687      \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
688    }{%
689      \iffieldundef{#2endmonth}%
690        {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
691        {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
692    }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefull}}
693    \patchcmd{\mkdaterangefullextra}{%
694      \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
695    }{%
696      \iffieldundef{#2endmonth}%
697        {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
698        {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
699    }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}
700    \patchcmd{\mkdaterangetrunc@i}{%
701      \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
702    }{%
703      \iffieldundef{#2endmonth}%
704        {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
705        {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
706    }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}
707    \patchcmd{\mkdaterangetruncextra@i}{%
708      \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
709    }{%
```

```
710    \iffieldundef{#2endmonth}%
711      {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
712      {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
713  }{}{\wlog{WARNING: biblatex-oxref failed to patch mkdaterangetruncextra@i}}
```

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

```
714    \DeclareFieldFormat{datetype}{%
715      \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
716    }
717    \newtoggle{blx@ox@timefirst}
718    \DeclareBiblatexOption{global,type,entry}{timefirst}[true]{%
719      \settoggle{blx@ox@timefirst}{#1}}
720    \newbibmacro*{date+time}{%
721      \ifboolexpr{
722        test {\iffieldundef{year}}
723        and
724        test {\iffieldundef{yeardivision}}
725        and
726        test {\iffieldundef{month}}
727        and
728        test {\iffieldundef{hour}}
729      }{}{%
730        \printfield{datetype}}%
731      \setunit*{\addspace}%
732      \iftoggle{blx@ox@timefirst}{%
733        \printtime
734        \setunit*{\addcomma\space}}{}%
735      \printdate
736      \iftoggle{blx@ox@timefirst}{}{%
737        \setunit*{\addcomma\space}%
738        \printtime}%
739    }
740    \renewbibmacro*{date}{\usebibmacro{date+time}}
```

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

```
741    \DeclareFieldFormat{origdatetype}{%
742      \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
743    }
744    \newbibmacro*{origdate+time}{%
745      \ifboolexpr{
746        test {\iffieldundef{origyear}}
747        and
748        test {\iffieldundef{origyeardivision}}
749        and
750        test {\iffieldundef{origmonth}}
751        and
752        test {\iffieldundef{orighour}}
753      }{}{%
754        \printfield{origdatetype}}%
755      \setunit*{\addspace}%
756      \iftoggle{blx@ox@timefirst}{%
757        \printorigtime
758        \setunit*{\addcomma\space}}{}%
759      \printorigdate
760      \iftoggle{blx@ox@timefirst}{}{%
761        \setunit*{\addcomma\space}%
762        \printorigtime}%
```

```
763        }
```

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

```
764    \DeclareFieldFormat{date}{%
765      \def\currentfield{date}%
766      \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
767      \undef\currentfield}
768    \DeclareFieldFormat{origdate}{%
769      \def\currentfield{origdate}%
770      \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
771      \undef\currentfield}
772    \DeclareFieldFormat{eventdate}{%
773      \def\currentfield{eventdate}%
774      \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
775      \undef\currentfield}
```

2.1.5 Editions, pages, and other number-like fields

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

```
776    \xpatchfieldformat{edition}%
777      {#1\isdot}%
778      {\ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
779    {}{\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.

```
780    \DeclareFieldFormat{pages}{%
781      \iffieldundef{bookpagination}%
782        {\mkcomprange{#1}}%
783        {\mkpageprefix[bookpagination][\mkcomprange]{#1}}%
784    }
```

The same is true in citations.

```
785    \DeclareFieldFormat{postnote}{%
786      \iffieldundef{pagination}%
787      {\mkcomprange{#1}}%
788      {\mkpageprefix[pagination][\mkcomprange]{#1}}%
789    }
790
```

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.

```
791    \DeclareBibliographyOption{nopublisher}[true]{%
792      \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
793    }
```

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.

```
794  \DeclareBibliographyOption{nolocation}[true]{%
795    \DeclareStyleSourcemap{
796      \maps[datatype=bibtex]{
797        \map{
798          \pertype{book}
799          \pertype{mvbook}
800          \pertype{bookinbook}
801          \pertype{inbook}
802          \pertype{suppbook}
803          \pertype{collection}
804          \pertype{mvcollection}
805          \pertype{incollection}
806          \pertype{suppcollection}
807          \pertype{reference}
808          \pertype{mvreference}
809          \pertype{inreference}
810          \pertype{proceedings}
811          \pertype{mvproceedings}
812          \pertype{inproceedings}
813          \step[notfield=location, fieldset=location,
             ↪  fieldvalue={\noexpand\bibstring{nolocation}}]
814        }
815      }
816    }%
817  }
```

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

```
818  \newtoggle{blx@ox@noloc}
819  \def\blx@ox@noloc{{\bibstring{nolocation}}}
820  \DeclareEntryOption{nolocation}[true]{%
821    \settoggle{blx@ox@noloc}{#1}%
822    \iflistundef{location}{%
823      \iftoggle{blx@ox@noloc}{\restorelist{location}{\blx@ox@noloc}}{}%
824    }{}}
```

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.

```
825  \DeclareBibliographyOption{isourls}[true]{%
826    \ifstrequal{#1}{true}
827      {\DeclareFieldFormat{url}{$\langle$\url{##1}$\rangle$}}
828      {\DeclareFieldFormat{url}{\url{##1}}}%
829  }
830  \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.

```
831  \renewcommand*{\biburlsetup}{%
832    \Urlmuskip=0mu plus 2mu\relax
833    \mathchardef\UrlBigBreakPenalty=100\relax
834    \mathchardef\UrlBreakPenalty=200\relax
835    \def\UrlBigBreaks{\do\/\do\:}%
836    \def\UrlNoBreaks{\do\(\do\[\do\{\do\<}%
837    \def\UrlBreaks{%
```

```
838        \do\>\do\}\do\]\do\)\do\\\do\|%
839        \do\'\do\$\do\*\do\^\do\"}%
840      \appto\UrlSpecials{%
841        \do\!{\mathbin{}\mskip-\Urlmuskip\mathchar`\!\mskip\Urlmuskip}%
842        \do\&{\mathbin{}\mskip-\Urlmuskip\mathchar`\&\mskip\Urlmuskip}%
843        \do\+{\mathbin{}\mskip-\Urlmuskip\mathchar`\+\mskip\Urlmuskip}%
844        \do\,{\mathbin{}\mskip-\Urlmuskip\mathchar`\,\mskip\Urlmuskip}%
845        \do\-{\mathbin{}\mskip-\Urlmuskip\mathchar`\-\mskip\Urlmuskip}%
846        \do\.{\mathbin{}\mskip-\Urlmuskip\mathchar`\.\mskip\Urlmuskip}%
847        \do\;{\mathbin{}\mskip-\Urlmuskip\mathchar`\;\mskip\Urlmuskip}%
848        \do\={\mathbin{}\mskip-\Urlmuskip\mathchar`\=\mskip\Urlmuskip}%
849        \do\?{\mathbin{}\mskip-\Urlmuskip\mathchar`\?\mskip\Urlmuskip}%
850        \do\_{\mathbin{}\mskip-\Urlmuskip\_\mskip\Urlmuskip}%
851        \do\#{\mathbin{}\mskip-\Urlmuskip\#\mskip\Urlmuskip}%
852      }%
853      \ifnumgreater{\value{biburlnumpenalty}}{0}
854        {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlnumpenalty}}}}%
855         \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
856        {}%
857      \ifnumgreater{\value{biburlucpenalty}}{0}
858        {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlucpenalty}}}}%
859         \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
860         \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
861         \do\U\do\V\do\W\do\X\do\Y\do\Z}
862        {}%
863      \ifnumgreater{\value{biburllcpenalty}}{0}
864        {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburllcpenalty}}}}%
865         \do\a\do\b\do\c\do\d\do\e\do\f\do\g\do\h\do\i\do\j
866         \do\k\do\l\do\m\do\n\do\o\do\p\do\q\do\r\do\s\do\t
867         \do\u\do\v\do\w\do\x\do\y\do\z}
868        {}%
869      \let\do=\noexpand}
```

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

```
870      \DeclareFieldFormat{urldate}{\bibstring{urlseen}\space#1}
871      \xpatchbibmacro{url+urldate}%
872        {\setunit*{\addspace}}%
873        {\setunit*{\addcomma\addspace}}%
874      {}{\wlog{WARNING: biblatex-oxref failed to patch url+urldate}}
```

The DOI is introduced by 'doi' in lowercase.

```
875      \xpatchfieldformat{doi}%
876        {\mkbibacro{DOI}}%
877        {\printtext{doi}}%
878      {}{\wlog{WARNING: biblatex-oxref failed to patch doi}}
```

Unlike URLs, DOIs are preceded by a full stop.

```
879      \xpatchbibmacro{doi+eprint+url}%
880        {\printfield{doi}}%
881        {\setunit{\addperiod\space}\printfield{doi}}%
882      {}{\wlog{WARNING: biblatex-oxref failed to patch doi+eprint+url}}
883
```

2.1.8 Addenda

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

```
884    \renewbibmacro*{addendum+pubstate}{%
885      \ifboolexpr{
886        test {\iffieldundef{pubstate}}
887        or
888        test {\iffieldequalstr{labeldatesource}{pubstate}}
889      }{}{%
890        \nopunct
891        \ifbibstring{\thefield{pubstate}}{%
892          \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
893        }{%
894          \printfield{pubstate}}}%
895      \setunit{\addsemicolon\addspace}\newblock
896      \printfield{addendum}}
897    \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}
```

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

```
898    \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
899    \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}
```

2.1.9 Articles and periodicals

Subtypes for articles and similar are in square brackets.

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

We provide a configurable command for testing if a title is abbreviated. We test for ASCII capitals
and a limited number of accented capitals by default, but users can extend or replace the list if it
causes problems.

```
901    \global\let\blx@ox@abbrevstring\@empty
902    \newrobustcmd*{\DeclareAbbrEndChars}{%
903      \@ifstar{%
904        \blx@ox@apptoabbrevstring
905      }{%
906        \global\let\blx@ox@abbrevstring\@empty
907        \blx@ox@apptoabbrevstring}}
908    \def\blx@ox@apptoabbrevstring#1{
909      \xdef\blx@ox@abbrevstring{\blx@ox@abbrevstring#1}}
910    \DeclareAbbrEndChars{%
911      A\^{A}BCDEFG\u{G}HI\^{I}JKLMNO\"{O}\^{O}PQRSTU\"{U}\^{U}VWXYZ.}%
912    \newcommand*{\ifabbrev}[3]{%
913      \StrRight{#1}{1}[\blx@ox@lastchar]%
914      \expandafter\IfSubStr*{\blx@ox@abbrevstring}{\blx@ox@lastchar}{#2}{#3}%
915    }
```

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.

```
916    \renewbibmacro*{journal+issuetitle}{%
917      \ifboolexpr{
918        test {\iffieldundef{title}}
919        and
```

```
920        not test {\iffieldundef{issuetitle}}
921      }{%
922        \usebibmacro{issue}%
923        \setunit{\addspace =\addspace}%
924      }{%
925        \ifboolexpr{
926          ( not test {\iffieldundef{pubstate}} )
927          and
928          test {\ifbibxstring{\thefield{pubstate}in}}
929        }{%
930          \printtext{\bibstring{\thefield{pubstate}in}\space}%
931          \clearfield{pubstate}%
932        }{}}%
933      \usebibmacro{journal}%
934      \iffieldundef{journalsubtitle}{%
935        \ifabbrev{\strfield{journaltitle}}{\setunit{\addspace}}{\newunit}%
936      }{%
937        \ifabbrev{\strfield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
938      \iffieldundef{series}{}{%
939        \newunit\newblock
940        \printfield{series}%
941        \ifbibxstring{\thefield{series}}{%
942          \setunit{\addspace}%
943        }{%
944          \newunit}}%
945      \usebibmacro{volume+number+eid}%
946      \setunit{\addspace}%
947      \usebibmacro{issue+date}%
948      \newunit}
```

We renew the title+issuetitle macro (for whole periodical issues) to apply the same punctu-
ation 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.

```
949    \renewbibmacro*{title+issuetitle}{%
950      \usebibmacro{periodical}%
951      \iffieldundef{subtitle}{%
952        \ifabbrev{\strfield{title}}{\setunit{\addspace}}{\newunit}%
953      }{%
954        \ifabbrev{\strfield{subtitle}}{\setunit{\addspace}}{\newunit}}%
955      \iffieldundef{series}{}{%
956        \newunit\newblock
957        \printfield{series}%
958        \ifbibxstring{\thefield{series}}{%
959          \setunit{\addspace}%
960        }{%
961          \newunit}}%
962      \usebibmacro{volume+number+eid}%
963      \setunit{\addspace}%
964      \usebibmacro{issue+date}%
965      \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).

```
966    \DeclareBibliographyOption[string]{issuestyle}[slash]{%
967      \ifcsdef{blx@ox@issuestyle@#1}{%
968        \csuse{blx@ox@issuestyle@#1}%
```

```
969        }{%
970          \PackageError{biblatex-oxref}
971            {Invalid option 'issuestyle=#1'}
972            {Valid values are 'slash', 'colon', 'comma', 'parens'}%
973        }%
974      }
975      \csdef{blx@ox@issuestyle@slash}{%
976        \renewbibmacro*{volume+number+eid}{%
977          \printfield{volume}%
978          \setunit*{\addslash}%
979          \printfield{number}%
980        }%
981      }
982      \csdef{blx@ox@issuestyle@colon}{%
983        \renewbibmacro*{volume+number+eid}{%
984          \printfield{volume}%
985          \setunit*{\addcolon\space}%
986          \printfield{number}%
987        }%
988      }
989      \csdef{blx@ox@issuestyle@comma}{%
990        \renewbibmacro*{volume+number+eid}{%
991          \printfield{volume}%
992          \setunit*{\addcomma\space}%
993          \printfield{number}%
994        }%
995      }
996      \csdef{blx@ox@issuestyle@parens}{%
997        \renewbibmacro*{volume+number+eid}{%
998          \printfield{volume}%
999          \setunit*{\addspace}%
1000          \printfield[parens]{number}%
1001        }%
1002      }
1003      \ExecuteBibliographyOptions{issuestyle=slash}
```

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

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

```
1004      \newtoggle{blx@ox@varissuedate}
1005      \DeclareBiblatexOption{global,type,entry}{varissuedate}[true]{%
1006        \settoggle{blx@ox@varissuedate}{#1}}
1007      \DeclareBiblatexOption{global,type,entry}{issuedate-plain}[true]{%
1008        \settoggle{blx@ox@varissuedate}{#1}}
1009      \renewbibmacro*{issue+date}{%
1010        \ifboolexpr{
1011          test {\iffieldundef{issue}}
1012          and
1013          test {\iffieldundef{year}}
1014          and
1015          test {\iffieldundef{yeardivision}}
1016          and
1017          test {\iffieldundef{month}}
1018        }{}{%
1019          \ifboolexpr{
1020            togl {blx@ox@varissuedate}
```

```
1021            and
1022            test {\iffieldundef{volume}}
1023            and
1024            test {\iffieldundef{number}}
1025          }{%
1026            \newunit
1027            \printtext{%
1028              \iffieldundef{issue}{%
1029                \usebibmacro{date}
1030              }{%
1031                \printfield{issue}%
1032                \setunit*{\addspace}%
1033                \usebibmacro{date}}}%
1034          }{%
1035            \printtext[parens]{%
1036              \iffieldundef{issue}{%
1037                \usebibmacro{date}%
1038              }{%
1039                \printfield{issue}%
1040                \setunit*{\addspace}%
1041                \usebibmacro{date}}}}}%
1042        \newunit
1043        \printfield{eid}%
1044      }
```

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.

```
1045    \DeclareBibliographyDriver{article}{%
1046      \usebibmacro{bibindex}%
1047      \usebibmacro{begentry}%
1048      \usebibmacro{author/translator+others}%
1049      \setunit{\printdelim{nametitledelim}}\newblock
1050      \usebibmacro{title}%
1051      \setunit{\titlebyauthordelim}\newblock
1052      \usebibmacro{byauthor}%
1053      \newunit\newblock
1054      \usebibmacro{bytranslator+others}%
1055      \newunit\newblock
1056      \printfield{version}%
1057      \newunit\newblock
1058      \usebibmacro{journal+issuetitle}%
1059      \newunit
1060      \usebibmacro{byeditor+others}%
1061      \iffieldequalstr{relatedtype}{suppto}{%
1062        \setunit{\addsemicolon\space}%
1063        \iftoggle{bbx:related}{%
1064          \usebibmacro{related:init}%
1065          \usebibmacro{related}%
1066          \clearfield{related}%
1067        }{}%
1068      }{}%
1069      \newunit
1070      \usebibmacro{note+pages}%
1071      \newunit\newblock
1072      \iftoggle{bbx:isbn}
```

```
1073        {\printfield{issn}}
1074        {}%
1075      \newunit\newblock
1076      \usebibmacro{doi+eprint+url}%
1077      \newunit\newblock
1078      \usebibmacro{addendum+pubstate}%
1079      \iftoggle{bbx:related}
1080        {\usebibmacro{related:init}%
1081         \usebibmacro{related}}
1082        {}%
1083      \setunit{\bibpagerefpunct}\newblock
1084      \usebibmacro{pageref}%
1085      \usebibmacro{finentry}}
```

Similar changes are made to the `periodical` driver.

```
1086    \DeclareBibliographyDriver{periodical}{%
1087      \usebibmacro{bibindex}%
1088      \usebibmacro{begentry}%
1089      \usebibmacro{editor}%
1090      \setunit{\printdelim{nametitledelim}}\newblock
1091      \usebibmacro{title+issuetitle}%
1092      \newunit\newblock
1093      \usebibmacro{byeditor}%
1094      \newunit\newblock
1095      \printfield{note}%
1096      \newunit\newblock
1097      \iftoggle{bbx:isbn}
1098        {\printfield{issn}}
1099        {}%
1100      \newunit\newblock
1101      \usebibmacro{doi+eprint+url}%
1102      \newunit\newblock
1103      \usebibmacro{addendum+pubstate}%
1104      \iftoggle{bbx:related}
1105        {\usebibmacro{related:init}%
1106         \usebibmacro{related}}
1107        {}%
1108      \setunit{\bibpagerefpunct}\newblock
1109      \usebibmacro{pageref}%
1110      \usebibmacro{finentry}}
```

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

```
1111    \DeclareFieldFormat[suppperiodical]{title}{%
1112      \def\currentfield{title}%
1113      \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1114      \undef\currentfield}
1115    \DeclareFieldFormat[suppperiodical]{volume}{#1}% volume of a journal
1116    \DeclareFieldFormat[suppperiodical]{number}{#1}% number of a journal
1117    \DeclareFieldFormat[suppperiodical]{series}{% series of a journal
1118      \ifinteger{#1}
1119      {\mkbibordseries{#1}~\bibstring{jourser}}
1120      {\ifbibstring{#1}{\bibstring{#1}}{#1}}}
1121    \DeclareBibliographyDriver{suppperiodical}{%
1122      \usebibmacro{bibindex}%
1123      \usebibmacro{begentry}%
1124      \usebibmacro{author/translator+others}%
```

```
1125        \setunit{\printdelim{nametitledelim}}\newblock
1126        \usebibmacro{title}%
1127        \setunit{\titlebyauthordelim}\newblock
1128        \usebibmacro{byauthor}%
1129        \newunit\newblock
1130        \usebibmacro{bytranslator+others}%
1131        \newunit\newblock
1132        \printfield{note}\clearfield{note}%
1133        \newunit\newblock
1134        \printfield{version}%
1135        \newunit\newblock
1136        \usebibmacro{journal+issuetitle}%
1137        \newunit
1138        \usebibmacro{byeditor+others}%
1139        \iffieldequalstr{relatedtype}{suppto}{%
1140          \setunit{\addsemicolon\space}%
1141          \iftoggle{bbx:related}{%
1142            \usebibmacro{related:init}%
1143            \usebibmacro{related}%
1144            \clearfield{related}%
1145          }{}%
1146        }{}%
1147        \newunit
1148        \usebibmacro{note+pages}%
1149        \newunit\newblock
1150        \iftoggle{bbx:isbn}
1151          {\printfield{issn}}
1152          {}%
1153        \newunit\newblock
1154        \usebibmacro{doi+eprint+url}%
1155        \newunit\newblock
1156        \usebibmacro{addendum+pubstate}%
1157        \iftoggle{bbx:related}
1158          {\usebibmacro{related:init}%
1159           \usebibmacro{related}}
1160          {}%
1161        \setunit{\bibpagerefpunct}\newblock
1162        \usebibmacro{pageref}%
1163        \usebibmacro{finentry}}
```

2.1.10   Books and works in books

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

```
1164    \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.

```
1165    \DeclareFieldFormat[bookinbook]{title}{%
1166      \ifboolexpr{
1167        test {\iffieldequalstr{entrysubtype}{poem}}
1168        or
1169        test {\iffieldequalstr{entrysubtype}{play}}
1170      }{%
1171        \mkbibemph{#1}%
1172      }{%
1173        \mkbibquote{#1\isdot}}}
```

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

```
1174    \DeclareFieldFormat[inreference]{title}{\mkbibquote{#1\isdot}}
```

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

```
1175    \newcommand*{\mkvolroman}[1]{\Rn{#1}}
1176    \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbook,%
1177    collection,mvcollection,incollection,suppcollection,%
1178    proceedings,mvproceedings,inproceedings,%
1179    reference,mvreference,inreference]{volume}{%
1180    \IfSubStr{#1}{-}{%
1181      \StrCount{#1}{-}[\blx@ox@dashnum]%
1182      \StrBefore{#1}{-}[\blx@ox@volnum]%
1183
       ↪  \expandafter\ifinteger\blx@ox@volnum{\mkvolroman{\blx@ox@volnum}}{\blx@ox@volnum}\bibrangedash
1184      \StrBehind[\blx@ox@dashnum]{#1}{-}[\blx@ox@volnum]%
1185      \expandafter\ifinteger\blx@ox@volnum{\mkvolroman{\blx@ox@volnum}}{\blx@ox@volnum}%
1186    }{%
1187      \ifinteger{#1}{\mkvolroman{#1}}{#1}}}
```

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

```
1188    \newbibmacro*{maintitle+volume}{%
1189      \ifboolexpr{
1190        test {\iffieldundef{maintitle}}
1191        or
1192        test {\iffieldundef{volume}}
1193      }{}%
1194      {\printtext[maintitle+volume]{%
1195        \bibstring{volume}\addspace
1196        \printfield{volume}\printfield{part}\addspace
1197        \bibstring{ofseries}\addspace
1198        \usebibmacro{maintitle}}}
1199    }
1200    \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}
```

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

```
1201    \renewbibmacro*{in:}{%
1202      \iffieldequalstr{entrysubtype}{yearbook}{}{%
1203        \bibstring{in}%
1204        \printunit{\intitlepunct}}}
```

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

```
1205    \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.

```
1206    \renewbibmacro*{series+number}{%
1207        \printfield{series}%
1208        \setunit*{\addcomma\space}%
```

```
1209          \usebibmacro{byserieseditor}%
1210          \setunit*{\addcomma\space}%
1211          \printfield{number}}
```

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

```
1212     \newtoggle{blx@ox@altbookseries}
1213     \DeclareBibliographyOption[string]{bookseries}[in]{%
1214       \ifstrequal{#1}{out}{%
1215         \toggletrue{blx@ox@altbookseries}%
1216       }{%
1217         \togglefalse{blx@ox@altbookseries}%
1218         \ifstrequal{#1}{in}{}{%
1219           \PackageError{biblatex-oxref}
1220           {Invalid option 'bookseries=#1'}
1221           {Valid values are 'in' and 'out'.}}}}
```

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. In order to do this while retaining the normal mechanisms for punctuating the list, we need a `listpair:delim` macro similar to `namepair:delim` (above) that uses the generic list punctuation. Again, the three arguments are the item being printed, the number of the current item pair and the total number of item pairs.

```
1222     \newbibmacro*{listpair:delim}[3]{%
1223       \ifnumgreater{#2}{\@ne}{%
1224         \ifnumless{#2}{#3}{%
1225           \printdelim{multilistdelim}%
1226         }{%
1227           \c@liststop#3%
1228           \lbx@finallistdelim{#1}}%
1229       }{}}
```

We use this as the basis of a list format that will be applied to the location element of a location–publisher pair.

```
1230     \newcounter{locpubpairs}
1231     \DeclareListFormat{locpub}{%
1232       \usebibmacro{listpair:delim}%
1233         {#1}{\value{locpubpairs}}{\value{location}}%
1234       #1\isdot
1235     }
```

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.

```
1236     \newsavebox{\blx@ox@locbox}
1237     \newbibmacro*{edition+publisher+location+date}{%
1238       \printlist{origlocation}%
1239       \iflistundef{origpublisher}%
1240         {\setunit*{\addcomma\space}}%
1241         {\setunit*{\addcolon\space}}%
1242       \printlist{origpublisher}%
1243       \setunit*{\addcomma\space}%
1244       \ifboolexpr{
1245         test {\iflistundef{origlocation}}
```

```
1246        and
1247        test {\iflistundef{origpublisher}}
1248        and
1249        test {\iffieldundef{edition}}
1250    }{}{%
1251        \printorigdate}%
1252    \setunit{\addsemicolon\space}%
1253    \printfield{edition}%
1254    \setunit*{\addcomma\space}%
```

As mentioned, if there are the same number of locations and publishers, and there are more than one pair, we print them pairwaise rather than in two separate lists. This uses the same principle as the namepairs bibmacro, but does not have the list truncation apparatus. This time we use a savebox just for efficiency.

```
1255    \ifboolexpr{%
1256        test {\ifnumcomp{\value{publisher}}{>}{1}}
1257        and
1258        test {\ifnumequal{\value{location}}{\value{publisher}}}
1259    }{%
1260        \setcounter{locpubpairs}{0}%
1261        \savebibmacro{list:andothers}%
1262        \renewbibmacro*{list:andothers}{}%
1263        \whileboolexpr{%
1264            test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1265        }{%
1266            \stepcounter{locpubpairs}%
1267            \printlist[locpub][\value{locpubpairs}-\value{locpubpairs}]{location}%
1268            \setunit{\addcolon\space}%
1269            \printlist[][\value{locpubpairs}-\value{locpubpairs}]{publisher}%
1270        }%
1271        \restorebibmacro{list:andothers}%
1272    }{%
1273        \printlist{location}%
1274        \iflistundef{publisher}%
1275        {\setunit*{\addcomma\space}}%
1276        {\setunit*{\addcolon\space}}%
1277        \printlist{publisher}%
1278    }%
1279    \setunit*{\addcomma\space}%
1280    \usebibmacro{date}%
1281    }
```

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

```
1282    \newbibmacro*{series+number+edition+publisher+location+date}{%
1283        \iftoggle{blx@ox@altbookseries}{%
1284            \usebibmacro{series+number}%
1285            \setunit{\addspace}\newblock}{}%
1286        \ifboolexpr{
1287            test {\iffieldundef{series}}
1288            and
1289            test {\iffieldundef{number}}
1290            and
1291            test {\iffieldundef{edition}}
1292            and
1293            test {\iflistundef{publisher}}
1294            and
1295            test {\iflistundef{location}}
```

```
1296        and
1297        test {\iffieldundef{year}}
1298        and
1299        test {\iffieldundef{yeardivision}}
1300        and
1301        test {\iffieldundef{month}}
1302      }{}{%
1303        \nopunct
1304        \printtext[publication]{%
1305        \iftoggle{blx@ox@altbookseries}{}{%
1306          \usebibmacro{series+number}%
1307          \setunit{\addsemicolon\addspace}}%
1308        \usebibmacro{edition+publisher+location+date}%
1309        \usebibmacro{copub}}}%
1310      \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1311      \setunit{\addspace}\newblock
1312      \usebibmacro{origpub}%
1313    }
```

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

```
1314    \newbibmacro*{series+number+publisher+location+date}{%
1315      \iftoggle{blx@ox@altbookseries}{%
1316        \usebibmacro{series+number}%
1317        \setunit{\addspace}\newblock}{}%
1318      \ifboolexpr{
1319        test {\iffieldundef{series}}
1320        and
1321        test {\iffieldundef{number}}
1322        and
1323        test {\iflistundef{publisher}}
1324        and
1325        test {\iflistundef{location}}
1326        and
1327        test {\iffieldundef{year}}
1328        and
1329        test {\iffieldundef{yeardivision}}
1330        and
1331        test {\iffieldundef{month}}
1332      }{}{%
1333        \nopunct
1334        \printtext[publication]{%
1335        \iftoggle{blx@ox@altbookseries}{}{%
1336          \usebibmacro{series+number}%
1337          \setunit{\addsemicolon\addspace}}%
1338        \usebibmacro{publisher+location+date}%
1339        \usebibmacro{copub}}}%
1340      \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1341      \setunit{\addspace}\newblock
1342      \usebibmacro{origpub}%
1343    }
```

The copub macro prints co-publication details.

```
1344    \newbibmacro*{copub}{%
1345      \ifboolexpr{
1346        togl {bbx:related}
1347        and
1348        test {\iffieldequalstr{relatedtype}{copub}}
1349      }{%
```

```
1350        \setunit{\addsemicolon\space}%
1351        \usebibmacro{related:init}%
1352        \usebibmacro{related}%
1353      }{}%
1354    }
```

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

```
1355    \newbibmacro*{origpub}{%
1356      \ifboolexpr{
1357        test {\iflistundef{origlocation}}
1358        and
1359        test {\iflistundef{origpublisher}}
1360        and
1361        test {\iffieldundef{edition}}
1362        and
1363        ( not test {\iffieldundef{origyear}} )
1364      }{%
1365        \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1366      }{}%
1367    }
```

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;

```
1368    \DeclareBibliographyDriver{book}{%
1369      \usebibmacro{bibindex}%
1370      \usebibmacro{begentry}%
1371      \usebibmacro{author/editor+others/translator+others}%
1372      \setunit{\printdelim{nametitledelim}}\newblock
1373      \usebibmacro{title}%
1374      \setunit{\titlebyauthordelim}\newblock
1375      \usebibmacro{byauthor}%
1376      \newunit\newblock
1377      \usebibmacro{byeditor+others}%
1378      \newunit\newblock
1379      \printfield{note}%
1380      \newunit\newblock
1381      \usebibmacro{maintitle+volume}%
1382      \newunit
1383      \usebibmacro{series+number+edition+publisher+location+date}%
1384      \setunit{\addspace}%
1385      \printfield{howpublished}%
1386      \newunit\newblock
1387      \usebibmacro{chapter+pages}%
1388      \newunit
1389      \printfield{pagetotal}%
1390      \newunit\newblock
1391      \iftoggle{bbx:isbn}
1392        {\printfield{isbn}}
1393        {}%
1394      \newunit\newblock
1395      \usebibmacro{doi+eprint+url}%
```

```
1396        \newunit\newblock
1397        \usebibmacro{addendum+pubstate}%
1398        \iftoggle{bbx:related}
1399          {\usebibmacro{related:init}%
1400           \usebibmacro{related}}
1401          {}%
1402        \setunit{\bibpagerefpunct}\newblock
1403        \usebibmacro{pageref}%
1404        \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;

```
1405    \DeclareBibliographyDriver{mvbook}{%
1406      \usebibmacro{bibindex}%
1407      \usebibmacro{begentry}%
1408      \usebibmacro{author/editor+others/translator+others}%
1409      \setunit{\printdelim{nametitledelim}}\newblock
1410      \usebibmacro{maintitle+title}%
1411      \newunit
1412      \ifboolexpr{
1413        test {\iffieldequalstr{relatedtype}{multivolume}}
1414        or
1415        ( not test {\iffieldundef{maintitle}} )
1416      }{}{%
1417        \printfield{volume}%
1418        \printfield{part}}%
1419      \setunit{\titlebyauthordelim}\newblock
1420      \usebibmacro{byauthor}%
1421      \newunit\newblock
1422      \usebibmacro{byeditor+others}%
1423      \newunit\newblock
1424      \printfield{volumes}%
1425      \newunit\newblock
1426      \printfield{note}%
1427      \newunit\newblock
1428      \ifboolexpr{
1429        test {\iffieldequalstr{relatedtype}{multivolume}}
1430        and
1431        test {\iffieldundef{maintitle}}
1432      }{%
1433        \printfield{volume}%
1434        \printfield{part}%
1435      }{}%
1436      \newunit\newblock
1437      \usebibmacro{series+number+edition+publisher+location+date}%
1438      \newunit\newblock
1439      \usebibmacro{chapter+pages}%
1440      \newunit
1441      \printfield{pagetotal}%
1442      \newunit\newblock
1443      \iftoggle{bbx:isbn}
1444        {\printfield{isbn}}
1445        {}%
1446      \newunit\newblock
```

```
1447        \usebibmacro{doi+eprint+url}%
1448      \newunit\newblock
1449      \usebibmacro{addendum+pubstate}%
1450      \iftoggle{bbx:related}
1451        {\usebibmacro{related:init}%
1452         \usebibmacro{related}}
1453        {}%
1454      \setunit{\bibpagerefpunct}\newblock
1455      \usebibmacro{pageref}%
1456      \usebibmacro{finentry}}
```

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

```
1457    \DeclareBibliographyDriver{inbook}{%
1458      \usebibmacro{bibindex}%
1459      \usebibmacro{begentry}%
1460      \usebibmacro{author/translator+others}%
1461      \setunit{\printdelim{nametitledelim}}\newblock
1462      \usebibmacro{title}%
1463      \setunit{\titlebyauthordelim}\newblock
1464      \usebibmacro{byauthor}%
1465      \newunit\newblock
1466      \usebibmacro{in:}%
1467      \usebibmacro{bybookauthor}%
1468      \newunit\newblock
1469      \usebibmacro{maintitle+booktitle}%
1470      \newunit
1471      \iffieldundef{maintitle}
1472        {\printfield{volume}%
1473         \printfield{part}}
1474        {}%
1475      \newunit\newblock
1476      \usebibmacro{byeditor+others}%
1477      \newunit\newblock
1478      \printfield{volumes}%
1479      \newunit\newblock
1480      \printfield{note}%
1481      \newunit\newblock
1482      \usebibmacro{series+number+edition+publisher+location+date}%
1483      \newunit\newblock
1484      \usebibmacro{chapter+pages}%
1485      \newunit\newblock
1486      \iftoggle{bbx:isbn}
1487        {\printfield{isbn}}
1488        {}%
1489      \newunit\newblock
1490      \usebibmacro{doi+eprint+url}%
1491      \newunit\newblock
1492      \usebibmacro{addendum+pubstate}%
1493      \iftoggle{bbx:related}
1494        {\usebibmacro{related:init}%
1495         \usebibmacro{related}}
1496        {}%
1497      \setunit{\bibpagerefpunct}\newblock
1498      \usebibmacro{pageref}%
1499      \usebibmacro{finentry}}
```

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

```
1500    \DeclareFieldFormat[suppbook]{title}{%
1501      \def\currentfield{title}%
1502      \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1503      \undef\currentfield}
1504    \DeclareBibliographyDriver{suppbook}{%
1505      \usebibmacro{bibindex}%
1506      \usebibmacro{begentry}%
1507      \usebibmacro{author/translator+others}%
1508      \setunit{\printdelim{nametitledelim}}\newblock
1509      \usebibmacro{title}%
1510      \setunit{\titlebyauthordelim}\newblock
1511      \usebibmacro{byauthor}%
1512      \newunit\newblock
1513      \printfield{note}%
1514      \setunit{\addspace}\newblock
1515      \usebibmacro{in:}%
1516      \usebibmacro{bybookauthor}%
1517      \newunit\newblock
1518      \usebibmacro{maintitle+booktitle}%
1519      \newunit
1520      \iffieldundef{maintitle}
1521        {\printfield{volume}%
1522         \printfield{part}}
1523        {}%
1524      \newunit\newblock
1525      \usebibmacro{byeditor+others}%
1526      \newunit\newblock
1527      \printfield{volumes}%
1528      \newunit\newblock
1529      \usebibmacro{series+number+edition+publisher+location+date}%
1530      \newunit\newblock
1531      \usebibmacro{chapter+pages}%
1532      \newunit\newblock
1533      \iftoggle{bbx:isbn}
1534        {\printfield{isbn}}
1535        {}%
1536      \newunit\newblock
1537      \usebibmacro{doi+eprint+url}%
1538      \newunit\newblock
1539      \usebibmacro{addendum+pubstate}%
1540      \iftoggle{bbx:related}
1541        {\usebibmacro{related:init}%
1542         \usebibmacro{related}}
1543        {}%
1544      \setunit{\bibpagerefpunct}\newblock
1545      \usebibmacro{pageref}%
1546      \usebibmacro{finentry}}
```

We also provide a bookinbook driver that handles origdate differently.

```
1547    \DeclareBibliographyDriver{bookinbook}{%
1548      \usebibmacro{bibindex}%
1549      \usebibmacro{begentry}%
1550      \usebibmacro{author/translator+others}%
1551      \setunit{\printdelim{nametitledelim}}\newblock
1552      \usebibmacro{title}%
1553      \setunit{\titlebyauthordelim}\newblock
1554      \usebibmacro{byauthor}%
1555      \newunit\newblock
1556      \usebibmacro{in:}%
1557      \usebibmacro{bybookauthor}%
```

```
1558      \newunit\newblock
1559      \usebibmacro{maintitle+booktitle}%
1560      \newunit
1561      \iffieldundef{maintitle}
1562        {\printfield{volume}%
1563         \printfield{part}}
1564        {}%
1565      \newunit\newblock
1566      \usebibmacro{byeditor+others}%
1567      \newunit\newblock
1568      \printfield{volumes}%
1569      \newunit\newblock
1570      \printfield{note}%
1571      \newunit\newblock
1572      \usebibmacro{series+number+edition+publisher+location+date}%
1573      \newunit\newblock
1574      \usebibmacro{chapter+pages}%
1575      \newunit\newblock
1576      \iftoggle{bbx:isbn}
1577        {\printfield{isbn}}
1578        {}%
1579      \newunit\newblock
1580      \usebibmacro{doi+eprint+url}%
1581      \newunit\newblock
1582      \usebibmacro{addendum+pubstate}%
1583      \iftoggle{bbx:related}
1584        {\usebibmacro{related:init}%
1585         \usebibmacro{related}}
1586        {}%
1587      \setunit{\bibpagerefpunct}\newblock
1588      \usebibmacro{pageref}%
1589      \usebibmacro{finentry}}
```

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

```
1590      \DeclareBibliographyDriver{collection}{%
1591      \usebibmacro{bibindex}%
1592      \usebibmacro{begentry}%
1593      \usebibmacro{editor+others}%
1594      \setunit{\printdelim{nametitledelim}}\newblock
1595      \usebibmacro{title}%
1596      \newunit\newblock
1597      \usebibmacro{byeditor+others}%
1598      \newunit\newblock
1599      \printfield{note}%
1600      \newunit\newblock
1601      \usebibmacro{maintitle+volume}%
1602      \newunit
1603      \usebibmacro{series+number+edition+publisher+location+date}%
1604      \newunit\newblock
1605      \usebibmacro{chapter+pages}%
1606      \newunit
1607      \printfield{pagetotal}%
1608      \newunit\newblock
1609      \iftoggle{bbx:isbn}
1610        {\printfield{isbn}}
1611        {}%
1612      \newunit\newblock
1613      \usebibmacro{doi+eprint+url}%
1614      \newunit\newblock
1615      \usebibmacro{addendum+pubstate}%
```

```
1616    \iftoggle{bbx:related}
1617      {\usebibmacro{related:init}%
1618       \usebibmacro{related}}
1619      {}%
1620    \setunit{\bibpagerefpunct}\newblock
1621    \usebibmacro{pageref}%
1622    \usebibmacro{finentry}}
```

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

```
1623    \DeclareBibliographyDriver{mvcollection}{%
1624      \usebibmacro{bibindex}%
1625      \usebibmacro{begentry}%
1626      \usebibmacro{editor+others}%
1627      \setunit{\printdelim{nametitledelim}}\newblock
1628      \usebibmacro{maintitle+title}%
1629      \newunit
1630      \ifboolexpr{
1631        test {\iffieldequalstr{relatedtype}{multivolume}}
1632        or
1633        ( not test {\iffieldundef{maintitle}} )
1634      }{}{%
1635        \printfield{volume}%
1636        \printfield{part}}%
1637      \newunit\newblock
1638      \usebibmacro{byeditor+others}%
1639      \newunit\newblock
1640      \printfield{volumes}%
1641      \newunit\newblock
1642      \printfield{note}%
1643      \newunit\newblock
1644      \ifboolexpr{
1645        test {\iffieldequalstr{relatedtype}{multivolume}}
1646        and
1647        test {\iffieldundef{maintitle}}
1648      }{%
1649        \printfield{volume}%
1650        \printfield{part}%
1651      }{}%
1652      \newunit\newblock
1653      \usebibmacro{series+number+edition+publisher+location+date}%
1654      \newunit\newblock
1655      \usebibmacro{chapter+pages}%
1656      \newunit
1657      \printfield{pagetotal}%
1658      \newunit\newblock
1659      \iftoggle{bbx:isbn}
1660        {\printfield{isbn}}
1661        {}%
1662      \newunit\newblock
1663      \usebibmacro{doi+eprint+url}%
1664      \newunit\newblock
1665      \usebibmacro{addendum+pubstate}%
1666      \iftoggle{bbx:related}
1667        {\usebibmacro{related:init}%
1668         \usebibmacro{related}}
1669        {}%
1670      \setunit{\bibpagerefpunct}\newblock
1671      \usebibmacro{pageref}%
1672      \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.

```
1673    \DeclareBibliographyDriver{incollection}{%
1674      \usebibmacro{bibindex}%
1675      \usebibmacro{begentry}%
1676      \usebibmacro{author/translator+others}%
1677      \setunit{\printdelim{nametitledelim}}\newblock
1678      \usebibmacro{title}%
1679      \setunit{\titlebyauthordelim}\newblock
1680      \usebibmacro{byauthor}%
1681      \newunit\newblock
1682      \usebibmacro{in:}%
1683      \usebibmacro{bookeditor}%
1684      \newunit\newblock
1685      \usebibmacro{maintitle+booktitle}%
1686      \newunit
1687      \iffieldundef{maintitle}
1688        {\printfield{volume}%
1689         \printfield{part}}
1690        {}%
1691      \newunit\newblock
1692      \printfield{volumes}%
1693      \newunit\newblock
1694      \printfield{note}%
1695      \newunit\newblock%
1696      \usebibmacro{series+number+edition+publisher+location+date}%
1697      \newunit\newblock
1698      \usebibmacro{chapter+pages}%
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      \iftoggle{bbx:related}
1708        {\usebibmacro{related:init}%
1709         \usebibmacro{related}}
1710        {}%
1711      \setunit{\bibpagerefpunct}\newblock
1712      \usebibmacro{pageref}%
1713      \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.

```
1714    \DeclareFieldFormat[suppcollection]{title}{%
1715      \def\currentfield{title}%
1716      \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1717      \undef\currentfield}
1718    \DeclareBibliographyDriver{suppcollection}{%
1719      \usebibmacro{bibindex}%
1720      \usebibmacro{begentry}%
1721      \usebibmacro{author/translator+others}%
1722      \setunit{\printdelim{nametitledelim}}\newblock
1723      \usebibmacro{title}%
1724      \setunit{\titlebyauthordelim}\newblock
1725      \usebibmacro{byauthor}%
```

```
1726        \newunit\newblock
1727        \printfield{note}%
1728        \setunit{\addspace}\newblock
1729        \usebibmacro{in:}%
1730        \usebibmacro{bookeditor}%
1731        \newunit\newblock
1732        \usebibmacro{maintitle+booktitle}%
1733        \newunit
1734        \iffieldundef{maintitle}
1735          {\printfield{volume}%
1736           \printfield{part}}
1737          {}%
1738        \newunit\newblock
1739        \printfield{volumes}%
1740        \newunit\newblock%
1741        \usebibmacro{series+number+edition+publisher+location+date}%
1742        \newunit\newblock
1743        \usebibmacro{chapter+pages}%
1744        \newunit\newblock
1745        \iftoggle{bbx:isbn}
1746          {\printfield{isbn}}
1747          {}%
1748        \newunit\newblock
1749        \usebibmacro{doi+eprint+url}%
1750        \newunit\newblock
1751        \usebibmacro{addendum+pubstate}%
1752        \iftoggle{bbx:related}
1753          {\usebibmacro{related:init}%
1754           \usebibmacro{related}}
1755          {}%
1756        \setunit{\bibpagerefpunct}\newblock
1757        \usebibmacro{pageref}%
1758        \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.

```
1759      \DeclareBibliographyDriver{reference}{%
1760        \usebibmacro{bibindex}%
1761        \usebibmacro{begentry}%
1762        \usebibmacro{author/editor+others/translator+others}%
1763        \setunit{\printdelim{nametitledelim}}\newblock
1764        \usebibmacro{title}%
1765        \newunit\newblock
1766        \printfield{edition}%
1767        \setunit{\titlebyauthordelim}\newblock
1768        \usebibmacro{byauthor}%
1769        \newunit\newblock
1770        \usebibmacro{byeditor+others}%
1771        \newunit\newblock
1772        \printfield{note}%
1773        \newunit\newblock
1774        \usebibmacro{maintitle+volume}%
1775        \newunit
1776        \usebibmacro{series+number+publisher+location+date}%
1777        \newunit\newblock
1778        \usebibmacro{chapter+pages}%
1779        \newunit
1780        \printfield{pagetotal}%
1781        \newunit\newblock
1782        \iftoggle{bbx:isbn}
```

```
1783        {\printfield{isbn}}
1784        {}%
1785      \newunit\newblock
1786      \usebibmacro{doi+eprint+url}%
1787      \newunit\newblock
1788      \usebibmacro{addendum+pubstate}%
1789      \iftoggle{bbx:related}
1790        {\usebibmacro{related:init}%
1791         \usebibmacro{related}}
1792        {}%
1793      \setunit{\bibpagerefpunct}\newblock
1794      \usebibmacro{pageref}%
1795      \usebibmacro{finentry}}
```

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

```
1796    \DeclareBibliographyDriver{mvreference}{%
1797      \usebibmacro{bibindex}%
1798      \usebibmacro{begentry}%
1799      \usebibmacro{author/editor+others/translator+others}%
1800      \setunit{\printdelim{nametitledelim}}\newblock
1801      \usebibmacro{maintitle+title}%
1802      \newunit
1803      \ifboolexpr{
1804        test {\iffieldequalstr{relatedtype}{multivolume}}
1805        or
1806        ( not test {\iffieldundef{maintitle}} )
1807      }{}{%
1808        \printfield{volume}%
1809        \printfield{part}}%
1810      \newunit\newblock
1811      \printfield{edition}%
1812      \setunit{\titlebyauthordelim}\newblock
1813      \usebibmacro{byauthor}%
1814      \newunit\newblock
1815      \usebibmacro{byeditor+others}%
1816      \newunit\newblock
1817      \printfield{volumes}%
1818      \newunit\newblock
1819      \printfield{note}%
1820      \newunit\newblock
1821      \ifboolexpr{
1822        test {\iffieldequalstr{relatedtype}{multivolume}}
1823        and
1824        test {\iffieldundef{maintitle}}
1825      }{%
1826        \printfield{volume}%
1827        \printfield{part}%
1828      }{}%
1829      \newunit\newblock
1830      \usebibmacro{series+number+publisher+location+date}%
1831      \newunit\newblock
1832      \usebibmacro{chapter+pages}%
1833      \newunit
1834      \printfield{pagetotal}%
1835      \newunit\newblock
1836      \iftoggle{bbx:isbn}
1837        {\printfield{isbn}}
1838        {}%
1839      \newunit\newblock
1840      \usebibmacro{doi+eprint+url}%
```

```
1841        \newunit\newblock
1842        \usebibmacro{addendum+pubstate}%
1843        \iftoggle{bbx:related}
1844          {\usebibmacro{related:init}%
1845           \usebibmacro{related}}
1846          {}%
1847        \setunit{\bibpagerefpunct}\newblock
1848        \usebibmacro{pageref}%
1849        \usebibmacro{finentry}}
```

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

```
1850    \DeclareBibliographyDriver{inreference}{%
1851      \usebibmacro{bibindex}%
1852      \usebibmacro{begentry}%
1853      \usebibmacro{author/translator+others}%
1854      \setunit{\printdelim{nametitledelim}}\newblock
1855      \usebibmacro{title}%
1856      \setunit{\titlebyauthordelim}\newblock
1857      \usebibmacro{byauthor}%
1858      \newunit\newblock
1859      \iffieldundef{editor}{}{%
1860        \usebibmacro{in:}%
1861        \usebibmacro{bookeditor}%
1862        \newunit\newblock}%
1863      \usebibmacro{maintitle+booktitle}%
1864      \newunit
1865      \iffieldundef{maintitle}
1866        {\printfield{volume}%
1867         \printfield{part}}
1868        {}%
1869      \newunit\newblock
1870      \printfield{edition}%
1871      \newunit
1872      \usebibmacro{byeditor+others}%
1873      \newunit\newblock
1874      \printfield{volumes}%
1875      \newunit\newblock
1876      \printfield{note}%
1877      \newunit\newblock%
1878      \usebibmacro{series+number+publisher+location+date}%
1879      \newunit\newblock
1880      \usebibmacro{chapter+pages}%
1881      \newunit
1882      \printfield{pagetotal}%
1883      \newunit\newblock
1884      \iftoggle{bbx:isbn}
1885        {\printfield{isbn}}
1886        {}%
1887      \newunit\newblock
1888      \usebibmacro{doi+eprint+url}%
1889      \newunit\newblock
1890      \usebibmacro{addendum+pubstate}%
1891      \iftoggle{bbx:related}
1892        {\usebibmacro{related:init}%
1893         \usebibmacro{related}}
1894        {}%
1895      \setunit{\bibpagerefpunct}\newblock
1896      \usebibmacro{pageref}%
1897      \usebibmacro{finentry}}
```

2.1.11 Works presented at meetings

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

```
1898    \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.

```
1899    \renewbibmacro*{event+venue+date}{%
1900      \printfield{eventtitle}%
1901      \newunit
1902      \printfield{eventtitleaddon}%
1903      \newunit
1904      \printfield{venue}%
1905      \newunit%
1906      \printeventdate%
1907      \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!

```
1908    \DeclareBibliographyDriver{proceedings}{%
1909      \usebibmacro{bibindex}%
1910      \usebibmacro{begentry}%
1911      \usebibmacro{author}%
1912      \newunit
1913      \usebibmacro{maintitle+title}%
1914      \newunit
1915      \iffieldundef{maintitle}
1916        {\printfield{volume}%
1917         \printfield{part}}
1918        {}%
1919      \newunit\newblock
1920      \usebibmacro{event+venue+date}%
1921      \newunit\newblock
1922      \usebibmacro{byeditor+others}%
1923      \newunit\newblock
1924      \printfield{volumes}%
1925      \newunit\newblock
1926      \printfield{note}%
1927      \newunit\newblock
1928      \printlist{organization}%
1929      \newunit
1930      \usebibmacro{series+number+edition+publisher+location+date}%
1931      \newunit\newblock
1932      \usebibmacro{chapter+pages}%
1933      \newunit
1934      \printfield{pagetotal}%
```

```
1935        \newunit\newblock
1936        \iftoggle{bbx:isbn}
1937          {\printfield{isbn}}
1938          {}%
1939        \newunit\newblock
1940        \usebibmacro{doi+eprint+url}%
1941        \newunit\newblock
1942        \usebibmacro{addendum+pubstate}%
1943        \iftoggle{bbx:related}
1944          {\usebibmacro{related:init}%
1945           \usebibmacro{related}}
1946          {}%
1947        \setunit{\bibpagerefpunct}\newblock
1948        \usebibmacro{pageref}%
1949        \usebibmacro{finentry}}
```

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

```
1950      \DeclareBibliographyDriver{inproceedings}{%
1951        \usebibmacro{bibindex}%
1952        \usebibmacro{begentry}%
1953        \usebibmacro{author/translator+others}%
1954        \setunit{\printdelim{nametitledelim}}\newblock
1955        \usebibmacro{title}%
1956        \setunit{\titlebyauthordelim}\newblock
1957        \usebibmacro{byauthor}%
1958        \newunit\newblock
1959        \usebibmacro{in:}%
1960        \usebibmacro{maintitle+booktitle}%
1961        \newunit
1962        \iffieldundef{maintitle}
1963          {\printfield{volume}%
1964           \printfield{part}}
1965          {}%
1966        \newunit\newblock
1967        \usebibmacro{event+venue+date}%
1968        \newunit\newblock
1969        \usebibmacro{byeditor+others}%
1970        \newunit\newblock
1971        \printfield{volumes}%
1972        \newunit\newblock
1973        \printfield{note}%
1974        \newunit\newblock
1975        \printlist{organization}%
1976        \newunit
1977        \usebibmacro{series+number+publisher+location+date}%
1978        \newunit\newblock
1979        \usebibmacro{chapter+pages}%
1980        \newunit\newblock
1981        \iftoggle{bbx:isbn}
1982          {\printfield{isbn}}
1983          {}%
1984        \newunit\newblock
1985        \usebibmacro{doi+eprint+url}%
1986        \newunit\newblock
1987        \usebibmacro{addendum+pubstate}%
1988        \iftoggle{bbx:related}
1989          {\usebibmacro{related:init}%
1990           \usebibmacro{related}}
1991          {}%
```

```
1992        \setunit{\bibpagerefpunct}\newblock
1993        \usebibmacro{pageref}%
1994        \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.

```
1995    \newbibmacro*{series+type+number}{%
1996      \ifboolexpr{
1997        test {\iffieldundef{series}}
1998        and
1999        test {\iffieldundef{type}}
2000      }{}{%
2001        \printfield{series}%
2002        \newunit
2003        \ifboolexpr{%
2004          test {\iffieldundef{type}}
2005          and
2006          not test {\iffieldundef{number}}
2007        }{%
2008          \bibcpstring{number}
2009        }{%
2010          \printfield{type}%
2011        }%
2012        \setunit*{\addspace}%
2013        \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.

```
2014    \renewbibmacro*{institution+location+date}{%
2015      \ifboolexpr{
2016        ( test {\iffieldundef{number}}
2017          or
2018          not test {\iffieldundef{type}}
2019          or
2020          not test {\iffieldundef{series}}
2021        )
2022        and
2023        test {\iflistundef{institution}}
2024        and
2025        test {\iflistundef{location}}
2026        and
2027        test {\iffieldundef{year}}
2028        and
2029        test {\iffieldundef{yeardivision}}
2030        and
2031        test {\iffieldundef{month}}
2032      }{}{%
2033        \nopunct
2034        \printtext[publication]{%
2035          \ifboolexpr{
2036            test {\iffieldundef{series}}
2037            and
2038            test {\iffieldundef{type}}
2039          }{%
```

```
2040            \printfield{number}%
2041            \setunit*{\addcomma\space}%
2042          }{}%
2043          \printlist{location}%
2044          \iflistundef{institution}%
2045          {\setunit*{\addcomma\space}}%
2046          {\setunit*{\addcolon\space}}%
2047          \printlist{institution}%
2048          \setunit*{\addcomma\space}%
2049          \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.

```
2050    \newtoggle{blx@ox@altthesis}
2051    \newtoggle{blx@ox@plainthesis}
2052    \DeclareFieldAlias{thesis:publication}{publication}
2053    \DeclareFieldFormat{plain}{#1}
2054    \DeclareBibliographyOption{altthesis}[true]{%
2055      \settoggle{blx@ox@altthesis}{#1}
2056    }
2057    \DeclareBibliographyOption[string]{thesis}[out]{%
2058      \ifstrequal{#1}{plain}{%
2059        \toggletrue{blx@ox@altthesis}%
2060        \toggletrue{blx@ox@plainthesis}%
2061        \DeclareFieldAlias{thesis:publication}{plain}%
2062      }{%
2063        \togglefalse{blx@ox@plainthesis}%
2064        \DeclareFieldAlias{thesis:publication}{publication}%
2065        \ifstrequal{#1}{in}{%
2066          \toggletrue{blx@ox@altthesis}%
2067        }{%
2068          \togglefalse{blx@ox@altthesis}%
2069          \ifstrequal{#1}{out}{}{%
2070            \PackageError{biblatex-oxref}
2071            {Invalid option 'bookseries=#1'}
2072            {Valid values are 'in', 'out', and 'plain'.}}}}}
2073    \newbibmacro*{type+institution+location+date}{%
2074      \iftoggle{blx@ox@altthesis}{%
2075        \ifboolexpr{
2076          test {\iffieldundef{type}}
2077          and
2078          test {\iflistundef{institution}}
2079          and
2080          test {\iflistundef{location}}
2081          and
2082          test {\iffieldundef{year}}
2083          and
2084          test {\iffieldundef{yeardivision}}
2085          and
2086          test {\iffieldundef{month}}
2087        }{}{%
2088          \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
2089          \printtext[thesis:publication]{%
2090            \printfield{type}%
2091            \setunit*{\addcomma\space}%
2092            \printlist{location}%
2093            \iflistundef{institution}{%
2094              \setunit*{\addcomma\space}%
2095            }{%
```

```
2096              \setunit*{\addcolon\space}}%
2097          \printlist{institution}%
2098          \setunit*{\addcomma\space}%
2099          \usebibmacro{date}}}
2100      }{%
2101      \printfield{type}%
2102      \newunit
2103      \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.

```
2104    \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
2105      \ifboolexpr{
2106        test {\iffieldundef{type}}
2107        and
2108        test {\iffieldundef{series}}
2109        and
2110        test {\iffieldundef{number}}
2111        and
2112        test {\iffieldundef{edition}}
2113        and
2114        test {\iflistundef{organization}}
2115        and
2116        test {\iflistundef{publisher}}
2117        and
2118        test {\iflistundef{location}}
2119        and
2120        test {\iffieldundef{year}}
2121        and
2122        test {\iffieldundef{yeardivision}}
2123        and
2124        test {\iffieldundef{month}}
2125      }{}{%
2126        \nopunct
2127        \printtext[publication]{%
2128          \usebibmacro{series+type+number}%
2129          \setunit{\addsemicolon\space}%
2130          \printfield{edition}%
2131          \setunit*{\addcomma\space}%
2132          \iflistundef{publisher}{}{%
2133            \printlist{organization}%
2134            \setunit*{\addcomma\space}}%
2135          \printlist{location}%
2136          \iflistundef{publisher}{%
2137            \iflistundef{organization}{%
2138              \setunit*{\addcomma\space}%
2139            }{%
2140              \setunit*{\addcolon\space}%
2141              \printlist{organization}}%
2142          }{%
2143            \setunit*{\addcolon\space}%
2144            \printlist{publisher}}%
2145          \setunit*{\addcomma\space}%
2146          \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.

```
2147  \newcommand*{\legreport}{legal}
2148  \DeclareBibliographyDriver{report}{%
2149    \usebibmacro{bibindex}%
2150    \usebibmacro{begentry}%
2151    \usebibmacro{author}%
2152    \setunit{\printdelim{nametitledelim}}\newblock
2153    \usebibmacro{maintitle+title}%
2154    \newunit
2155    \iffieldundef{maintitle}
2156      {\printfield{volume}%
2157       \printfield{part}}
2158      {}%
2159    \setunit{\titlebyauthordelim}\newblock
2160    \usebibmacro{byauthor}%
2161    \newunit\newblock
2162    \printfield{version}%
2163    \newunit\newblock
2164    \printfield{note}%
2165    \newunit\newblock
2166    \usebibmacro{series+type+number}%
2167    \setunit{\addspace}%
2168    \usebibmacro{institution+location+date}%
2169    \iffieldequals{entrysubtype}{\legreport}{%
2170      \setunit{\addspace}\nopunct
2171      \let\origadddot\adddot
2172      \def\adddot{}%
2173      \usebibmacro{chapter+pages}%
2174      \let\adddot\origadddot
2175    }{%
2176      \newunit\newblock
2177      \usebibmacro{chapter+pages}%
2178    }%
2179    \newunit
2180    \printfield{pagetotal}%
2181    \newunit\newblock
2182    \iftoggle{bbx:isbn}
2183      {\printfield{isrn}}
2184      {}%
2185    \newunit\newblock
2186    \usebibmacro{doi+eprint+url}%
2187    \newunit\newblock
2188    \usebibmacro{addendum+pubstate}%
2189    \iftoggle{bbx:related}
2190      {\usebibmacro{related:init}%
2191       \usebibmacro{related}}
2192      {}%
2193    \setunit{\bibpagerefpunct}\newblock
2194    \usebibmacro{pageref}%
2195    \usebibmacro{finentry}}
```

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

```
2196  \xpatchbibdriver{thesis}{%
2197    \printfield{type}%
2198    \newunit
2199    \usebibmacro{institution+location+date}%
2200  }{%
2201    \usebibmacro{type+institution+location+date}%
```

```
2202      }{}{\wlog{WARNING: biblatex-oxref failed to patch thesis}}
```

We give booklet entries descriptor support.

```
2203      \DeclareFieldFormat[booklet]{title}{%
2204        \def\currentfield{title}%
2205        \iffieldannotation{descriptor}{#1}{%
2206          \mkbibquote{#1\isdot}}%
2207        \undef\currentfield}
```

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

```
2208      \DeclareFieldFormat[patent]{title}{\mkbibemph{#1}}
2209      \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.

```
2210      \DeclareNameAlias{byholder}{default}
2211      \renewbibmacro*{byholder}{%
2212        \ifnameundef{holder}{}{%
2213          \bibstring{byholder}%
2214          \setunit{\addspace}%
2215          \printnames[byholder]{holder}}}
2216      \newbibmacro*{location+dates}{%
2217        \ifboolexpr{
2218          test {\iffieldundef{location}}
2219          and
2220          test {\iffieldundef{origyear}}
2221          and
2222          test {\iffieldundef{origmonth}}
2223          and
2224          test {\iffieldundef{year}}
2225          and
2226          test {\iffieldundef{month}}
2227        }{}{%
2228          \nopunct
2229          \printtext[publication]{%
2230            \printlist[][-\value{listtotal}]{location}%
2231            \setunit*{\addcomma\space}%
2232            \ifboolexpr{
2233              test {\iffieldundef{origyear}}
2234              and
2235              test {\iffieldundef{origmonth}}
2236            }{}{%
2237              \iffieldundef{origdatetype}{%
2238                \bibstring{filed}
2239              }{
2240                \printfield{origdatetype}}%
2241              \setunit*{\addspace}}%
2242            \usebibmacro{origdate+time}%
2243            \setunit*{\addcomma\space}%
2244            \ifboolexpr{
2245              test {\iffieldundef{year}}
2246              and
2247              test {\iffieldundef{month}}
2248            }{}{%
2249              \iffieldundef{datetype}{%
2250                \bibstring{issued}%
2251              }{
```

```
2252              \printfield{datetype}}%
2253            \setunit*{\addspace}}%
2254          \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.

```
2255    \DeclareBibliographyDriver{patent}{%
2256      \usebibmacro{bibindex}%
2257      \usebibmacro{begentry}%
2258      \usebibmacro{author}%
2259      \setunit{\printdelim{nametitledelim}}\newblock
2260      \usebibmacro{title}%
2261      \newunit
2262      \printlist{language}%
2263      \setunit{\titlebyauthordelim}\newblock
2264      \usebibmacro{byauthor}%
2265      \newunit\newblock
2266      \printfield{note}%
2267      \newunit\newblock
2268      \printfield{type}%
2269      \setunit*{\addspace}%
2270      \printfield{number}%
2271      \newunit\newblock
2272      \usebibmacro{byholder}%
2273      \newunit\newblock
2274      \usebibmacro{location+dates}%
2275      \newunit\newblock
2276      \usebibmacro{doi+eprint+url}%
2277      \newunit\newblock
2278      \usebibmacro{addendum+pubstate}%
2279      \iftoggle{bbx:related}
2280        {\usebibmacro{related:init}%
2281         \usebibmacro{related}}
2282        {}%
2283      \setunit{\bibpagerefpunct}\newblock
2284      \usebibmacro{pageref}%
2285      \usebibmacro{finentry}}
```

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

```
2286    \DeclareBibliographyDriver{manual}{%
2287      \usebibmacro{bibindex}%
2288      \usebibmacro{begentry}%
2289      \ifboolexpr{
2290        test {\ifentrytype{standard}}
2291        and
2292        ( test {\ifnameundef{author}}
2293          or
2294          not test \ifuseauthor )
2295        and
2296        not test {\iffieldundef{number}}
2297      }{%
2298        \printfield{number}\clearfield{number}%
2299        \newunit\newblock
2300      }{}%
```

```
2301        \usebibmacro{author/editor}%
2302        \setunit{\printdelim{nametitledelim}}\newblock
2303        \ifentrytype{software}
2304          {\usebibmacro{title+version}}
2305          {\usebibmacro{title}}%
2306        \setunit{\titlebyauthordelim}\newblock
2307        \usebibmacro{byauthor}%
2308        \newunit\newblock
2309        \usebibmacro{byeditor}%
2310        \newunit
2311        \ifentrytype{software}
2312          {}
2313          {\newunit\printfield{version}}%
2314        \newunit
2315        \printfield{note}%
2316        \newunit\newblock
2317        \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2318        \newunit\newblock
2319        \usebibmacro{chapter+pages}%
2320        \newunit
2321        \printfield{pagetotal}%
2322        \newunit\newblock
2323        \iftoggle{bbx:isbn}
2324          {\printfield{isbn}}
2325          {}%
2326        \newunit\newblock
2327        \usebibmacro{doi+eprint+url}%
2328        \newunit\newblock
2329        \usebibmacro{addendum+pubstate}%
2330        \iftoggle{bbx:related}
2331          {\usebibmacro{related:init}%
2332           \usebibmacro{related}}
2333          {}%
2334        \setunit{\bibpagerefpunct}\newblock
2335        \usebibmacro{pageref}%
2336        \usebibmacro{finentry}}
2337      \DeclareBibliographyAlias{standard}{manual}
2338      \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.

```
2339      \newbibmacro*{publisher+type+series+number+date}{%
2340        \iffieldundef{number}{}{%
2341          \setunit{\addcomma\space}%
2342          \usebibmacro{origdate+time}%
2343        }%
2344        \ifboolexpr{%
2345          test {\iflistundef{origpublisher}}
2346          and
2347          test {\iflistundef{location}}
2348          and
2349          test {\iflistundef{publisher}}
2350          and
2351          test {\iffieldundef{type}}
2352          and
```

```
2353        test {\iffieldundef{series}}
2354        and
2355        test {\iffieldundef{number}}
2356        and
2357        test {\iffieldundef{year}}
2358        and
2359        test {\iffieldundef{yeardivision}}
2360        and
2361        test {\iffieldundef{month}}
2362        and
2363        test {\iffieldundef{origyear}}
2364        and
2365        test {\iffieldundef{origyeardivision}}
2366        and
2367        test {\iffieldundef{origmonth}}
2368        and
2369        test {\iffieldundef{hour}}
2370      }{}{%
2371        \nopunct
2372        \printtext[publication]{%
2373          \printlist{origpublisher}%
2374          \setunit*{\addsemicolon\space}%
2375          \printlist{location}%
2376          \iflistundef{publisher}%
2377            {\setunit*{\addcomma\space}}%
2378            {\setunit*{\addcolon\space}}%
2379          \printlist{publisher}%
2380          \iffieldundef{series}%
2381            {\setunit*{\addspace}}%
2382            {\setunit*{\recordseriespunct}}%
2383          \printfield{series}%
2384          \setunit*{\addcomma\space}%
2385          \printfield{type}%
2386          \iflistundef{publisher}%
2387            {\setunit*{\addcomma\space}}%
2388            {\setunit*{\addspace}}%
2389          \printfield{number}%
2390          \iffieldundef{number}{%
2391            \setunit{\addcomma\space}%
2392            \usebibmacro{origdate+time}%
2393          }{}%
2394          \setunit{\addcomma\space}%
2395          \usebibmacro{date+time}}}}
```

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

```
2396    \newtoggle{blx@ox@endeditor}
2397    \DeclareEntryOption{endeditor}[true]{%
2398      \settoggle{blx@ox@endeditor}{#1}}
2399    \newbibmacro*{pre-byeditor+others}{%
2400      \iftoggle{blx@ox@endeditor}{}{%
2401        \usebibmacro{byeditor+others}%
2402      }}
2403    \newbibmacro*{post-byeditor+others}{%
2404      \iftoggle{blx@ox@endeditor}{%
2405        \usebibmacro{byeditor+others}%
2406      }{}}
```

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

```
2407   \DeclareBibliographyDriver{audio}{%
2408     \usebibmacro{bibindex}%
2409     \usebibmacro{begentry}%
2410     \usebibmacro{author}%
2411     \setunit{\printdelim{nametitledelim}}\newblock
2412     \usebibmacro{title}%
2413     \newunit
2414     \usebibmacro{maintitle}%
2415     \iffieldequalstr{relatedtype}{includes}{%
2416       \iftoggle{bbx:related}{%
2417         \newunit\newblock
2418         \usebibmacro{related:init}%
2419         \usebibmacro{related}%
2420         \clearfield{related}%
2421       }{}%
2422     }{}%
2423     \setunit{\addspace}
2424     \usebibmacro{onlinetype}%
2425     \setunit{\titlebyauthordelim}\newblock
2426     \usebibmacro{byauthor}%
2427     \newunit\newblock
2428     \usebibmacro{pre-byeditor+others}%
2429     \newunit\newblock
2430     \printfield{volumes}%
2431     \newunit\newblock
2432     \printfield{note}%
2433     \newunit\newblock%
2434     \printlist{organization}%
2435     \newunit\newblock%
2436     \usebibmacro{publisher+type+series+number+date}%
2437     \setunit{\addspace}%
2438     \printfield{howpublished}%
2439     \newunit\newblock
2440     \usebibmacro{post-byeditor+others}%
2441     \newunit\newblock
2442     \iftoggle{bbx:isbn}
2443       {\printfield{isbn}}
2444       {}%
2445     \newunit\newblock
2446     \usebibmacro{doi+eprint+url}%
2447     \newunit\newblock
2448     \usebibmacro{addendum+pubstate}%
2449     \iftoggle{bbx:related}
2450       {\usebibmacro{related:init}%
2451        \usebibmacro{related}}
2452       {}%
2453     \setunit{\bibpagerefpunct}\newblock
2454     \usebibmacro{pageref}%
2455     \usebibmacro{finentry}}
```

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

```
2456   \DeclareBibliographyAlias{music}{audio}
2457   \DeclareBibliographyAlias{movie}{audio}
2458   \DeclareBibliographyAlias{video}{audio}
```

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

```
2459   \DeclareBibliographyDriver{inaudio}{%
2460     \usebibmacro{bibindex}%
2461     \usebibmacro{begentry}%
```

```
2462      \usebibmacro{author}%
2463      \setunit{\printdelim{nametitledelim}}\newblock
2464      \usebibmacro{title}%
2465      \setunit{\titlebyauthordelim}\newblock
2466      \usebibmacro{byauthor}%
2467      \newunit\newblock
2468      \usebibmacro{in:}%
2469      \usebibmacro{bybookauthor}%
2470      \newunit\newblock
2471      \usebibmacro{maintitle+booktitle}%
2472      \iffieldequalstr{relatedtype}{includes}{%
2473        \iftoggle{bbx:related}{%
2474          \newunit\newblock
2475          \usebibmacro{related:init}%
2476          \usebibmacro{related}%
2477          \clearfield{related}%
2478        }{}%
2479      }{}%
2480      \setunit{\addspace}
2481      \usebibmacro{onlinetype}%
2482      \newunit\newblock
2483      \usebibmacro{pre-byeditor+others}%
2484      \newunit\newblock
2485      \printfield{volumes}%
2486      \newunit\newblock
2487      \printfield{note}%
2488      \newunit\newblock%
2489      \printlist{organization}%
2490      \newunit\newblock%
2491      \usebibmacro{publisher+type+series+number+date}%
2492      \setunit{\addspace}%
2493      \printfield{howpublished}%
2494      \newunit\newblock
2495      \usebibmacro{post-byeditor+others}%
2496      \newunit\newblock
2497      \iftoggle{bbx:isbn}
2498        {\printfield{isbn}}
2499        {}%
2500      \newunit\newblock
2501      \usebibmacro{doi+eprint+url}%
2502      \newunit\newblock
2503      \usebibmacro{addendum+pubstate}%
2504      \iftoggle{bbx:related}
2505        {\usebibmacro{related:init}%
2506         \usebibmacro{related}}
2507        {}%
2508      \setunit{\bibpagerefpunct}\newblock
2509      \usebibmacro{pageref}%
2510      \usebibmacro{finentry}}
```

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

```
2511      \DeclareBibliographyAlias{inmusic}{inaudio}
2512      \DeclareBibliographyAlias{inmovie}{inaudio}
2513      \DeclareBibliographyAlias{invideo}{inaudio}
```

We set up appropriate inheritance rules.

```
2514    \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2515      \inherit{title}{booktitle}
2516      \inherit{subtitle}{booksubtitle}
2517      \inherit{titleaddon}{booktitleaddon}
2518      \noinherit{shorttitle}
2519      \noinherit{sorttitle}
2520      \noinherit{indextitle}
2521      \noinherit{indexsorttitle}
2522    }
```

Titles for videos do not have a consistent format, so we define some entrysubtype-based vari-
ation. 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.

```
2523    \DeclareFieldFormat[audio,music]{title}{%
2524      \def\currentfield{title}%
2525      \iffieldannotation{descriptor}{#1}{%
2526        \iffieldequalstr{entrysubtype}{podcast}{%
2527          \mkbibquote{#1\isdot}%
2528        }{%
2529          \mkbibemph{#1}}}%
2530      \undef\currentfield}
2531    \DeclareFieldFormat[movie,video]{title}{%
2532      \def\currentfield{title}%
2533      \iffieldannotation{descriptor}{#1}{%
2534        \ifboolexpr{
2535          test {\iffieldequalstr{entrysubtype}{episode}}
2536          or
2537          test {\iffieldequalstr{entrysubtype}{clip}}
2538          or
2539          test {\iffieldequalstr{entrysubtype}{webcast}}
2540        }{%
2541          \mkbibquote{#1\isdot}%
2542        }{%
2543          \mkbibemph{#1}}}%
2544      \undef\currentfield}
2545    \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2546      \def\currentfield{title}%
2547      \iffieldannotation{descriptor}{#1}{%
2548        \mkbibquote{#1\isdot}%
2549      }%
2550      \undef\currentfield}
2551    \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2552      \def\currentfield{booktitle}%
2553      \iffieldannotation{descriptor}{#1}{%
2554        \iffieldequalstr{entrysubtype}{podcast}{%
2555          \mkbibquote{#1\isdot}%
2556        }{%
2557          \mkbibemph{#1}}}%
2558      \undef\currentfield}
2559    \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2560      \def\currentfield{booktitle}%
2561      \iffieldannotation{descriptor}{#1}{%
2562        \ifboolexpr{
2563          test {\iffieldequalstr{entrysubtype}{episode}}
2564          or
2565          test {\iffieldequalstr{entrysubtype}{clip}}
2566          or
2567          test {\iffieldequalstr{entrysubtype}{webcast}}
2568        }{%
```

```
2569            \mkbibquote{#1\isdot}%
2570          }{%
2571            \mkbibemph{#1}}}%
2572        \undef\currentfield}
2573
```

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.

```
2574        \DeclareBibliographyDriver{performance}{%
2575          \usebibmacro{bibindex}%
2576          \usebibmacro{begentry}%
2577          \usebibmacro{author}%
2578          \setunit{\printdelim{nametitledelim}}\newblock
2579          \usebibmacro{title}%
2580          \newunit
2581          \usebibmacro{maintitle}%
2582          \iffieldequalstr{relatedtype}{includes}{%
2583            \iftoggle{bbx:related}{%
2584              \newunit\newblock
2585              \usebibmacro{related:init}%
2586              \usebibmacro{related}%
2587              \clearfield{related}%
2588            }{}%
2589          }{}%
2590          \setunit{\addspace}
2591          \usebibmacro{onlinetype}%
2592          \setunit{\titlebyauthordelim}\newblock
2593          \usebibmacro{byauthor}%
2594          \newunit\newblock
2595          \usebibmacro{pre-byeditor+others}%
2596          \setunit{\addspace}%
2597          \printfield{howpublished}%
2598          \newunit\newblock
2599          \printfield{type}%
2600          \newunit\newblock
2601          \printfield{note}%
2602          \ifboolexpr{
2603            test {\iffieldundef{origyear}}
2604            and
2605            test {\iffieldundef{origmonth}}
2606          }{}{%
2607            \setunit{\addspace}\newblock
2608            \printtext[publication]{\usebibmacro{origdate+time}}}
2609          \newunit\newblock
2610          \usebibmacro{event+venue+location+date}%
2611          \newunit\newblock
2612          \usebibmacro{post-byeditor+others}%
2613          \newunit\newblock
2614          \printlist{organization}%
2615          \newunit\newblock
2616          \iftoggle{bbx:isbn}
2617            {\printfield{isbn}}
2618            {}%
2619          \newunit\newblock
2620          \usebibmacro{doi+eprint+url}%
2621          \newunit\newblock
2622          \usebibmacro{addendum+pubstate}%
2623          \iftoggle{bbx:related}
2624            {\usebibmacro{related:init}%
2625             \usebibmacro{related}}
```

```
2626          {}%
2627        \setunit{\bibpagerefpunct}\newblock
2628        \usebibmacro{pageref}%
2629        \usebibmacro{finentry}}
2630      \DeclareBibliographyAlias{image}{performance}
2631      \DeclareBibliographyAlias{artwork}{performance}
```

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

```
2632    \newbibmacro*{event+venue+location+date}{%
2633      \printfield{eventtitle}%
2634      \newunit
2635      \printfield{eventtitleaddon}%
2636      \newunit
2637      \printlist{institution}%
2638      \newunit
2639      \printfield{venue}%
2640      \newunit
2641      \printlist{location}%
2642      \newunit%
2643      \ifboolexpr{
2644        test {\iffieldundef{year}}
2645        and
2646        test {\iffieldundef{month}}
2647      }{\printeventdate}{\usebibmacro{date+time}}}
2648
```

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.

```
2649    \DeclareFieldFormat[online,image]{title}{%
2650      \def\currentfield{title}%
2651      \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2652      \undef\currentfield}
2653
```

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

```
2654    \newbibmacro*{onlinetype}{%
2655      \ifboolexpr{
2656        test {\iffieldundef{url}}
2657        or
2658        test {\iffieldundef{entrysubtype}}
2659      }{}{%
2660        \ifbibxstring{\thefield{entrysubtype}}{%
2661          \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2662        }{}}}
```

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 wesbite 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.

```
2663  \DeclareBibliographyDriver{online}{%
2664    \usebibmacro{bibindex}%
2665    \usebibmacro{begentry}%
2666    \usebibmacro{author/editor+others/translator+others}%
2667    \setunit{\printdelim{nametitledelim}}\newblock
2668    \usebibmacro{title}%
2669    \newunit
2670    \usebibmacro{maintitle}
2671    \setunit{\addspace}%
2672    \usebibmacro{onlinetype}%
2673    \setunit{\titlebyauthordelim}\newblock
2674    \usebibmacro{byauthor}%
2675    \newunit\newblock
2676    \usebibmacro{byeditor+others}%
2677    \newunit\newblock
2678    \printfield{version}%
2679    \newunit
2680    \printfield{note}%
2681    \newunit\newblock
2682    \printlist{organization}%
2683    \iffieldundef{year}{}{%
2684      \setunit{\addspace}\newblock
2685      \printtext[parens]{\usebibmacro{date+time}}%
2686    }%
2687    \newunit\newblock
2688    \printlist{publisher}%
2689    \newunit\newblock
2690    \iftoggle{bbx:eprint}
2691      {\usebibmacro{eprint}}
2692      {}%
2693    \newunit\newblock
2694    \usebibmacro{url+urldate}%
2695    \newunit\newblock
2696    \usebibmacro{addendum+pubstate}%
2697    \iftoggle{bbx:related}
2698      {\usebibmacro{related:init}%
2699       \usebibmacro{related}}
2700      {}%
2701    \setunit{\bibpagerefpunct}\newblock
2702    \usebibmacro{pageref}%
2703    \usebibmacro{finentry}}
```

Software

The version for software goes between the title and titleaddon.

```
2704  \newbibmacro*{title+version}{%
2705    \ifboolexpr{
2706      test {\iffieldundef{title}}
2707      and
2708      test {\iffieldundef{subtitle}}
2709    }
2710    {}
2711    {\printtext[title]{%
2712       \printfield[titlecase]{title}%
2713       \setunit{\subtitlepunct}%
```

```
2714            \printfield[titlecase]{subtitle}}%
2715          \setunit{\addspace}}%
2716        \printfield{version}%
2717        \setunit{\addspace}%
2718        \printfield{titleaddon}%
2719      }
2720      \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}
```

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

```
2721      \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}
```

The software driver is a variant of the manual driver.

```
2722      \DeclareBibliographyAlias{software}{manual}
```

Datasets

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

```
2723      \DeclareBibliographyDriver{dataset}{%
2724        \usebibmacro{bibindex}%
2725        \usebibmacro{begentry}%
2726        \usebibmacro{author/editor+others/translator+others}%
2727        \setunit{\printdelim{nametitledelim}}\newblock
2728        \usebibmacro{title}%
2729        \newunit
2730        \printlist{language}%
2731        \setunit{\titlebyauthordelim}\newblock
2732        \usebibmacro{byauthor}%
2733        \newunit\newblock
2734        \usebibmacro{byeditor+others}%
2735        \newunit\newblock
2736        \printfield{type}%
2737        \newunit
2738        \printfield{version}%
2739        \newunit\newblock
2740        \printfield{note}%
2741        \newunit\newblock
2742        \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2743        \newunit\newblock
2744        \usebibmacro{doi+eprint+url}%
2745        \newunit\newblock
2746        \usebibmacro{addendum+pubstate}%
2747        \iftoggle{bbx:related}
2748          {\usebibmacro{related:init}%
2749           \usebibmacro{related}}
2750          {}%
2751        \setunit{\bibpagerefpunct}\newblock
2752        \usebibmacro{pageref}%
2753        \usebibmacro{finentry}}
```

2.1.15 Legal references

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

Entry options

```
2754  \newtoggle{bbx:scotstyle}
2755  \DeclareEntryOption{scottish-style}[true]{%
2756    \settoggle{bbx:scotstyle}{#1}}
2757  \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2758  \DeclareEntryOption{year-essential}[true]{%
2759      \setboolean{bbx@year-essential}{#1}}
2760  \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2761  \DeclareEntryOption{paryear-essential}[true]{%
2762      \setboolean{bbx@paryear-essential}{#1}}
2763  \newtoggle{blx@ox@nopostnotedelim}
2764  \newtoggle{bbx:altcourt}
2765  \DeclareBiblatexOption{global,type,entry}{court-plain}[true]{%
2766    \settoggle{bbx:altcourt}{#1}}
2767  \newtoggle{bbx@ecliuse}
2768  \newtoggle{bbx@eclionly}
2769  \DeclareBibliographyOption[string]{ecli}[yes]{%
2770    \ifstrequal{#1}{no}{%
2771      \global\togglefalse{bbx@ecliuse}%
2772      \global\togglefalse{bbx@eclionly}%
2773    }{%
2774      \global\toggletrue{bbx@ecliuse}%
2775      \ifstrequal{#1}{only}{%
2776        \global\toggletrue{bbx@eclionly}%
2777      }{}}}
```

Field formats

```
2778  \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2779  \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2780  \DeclareFieldFormat[jurisdiction]{volume}{#1}
2781  \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2782  \DeclareFieldFormat{romanvol}{\RN{#1}}
2783  \DeclareListFormat[jurisdiction]{listb}{}
2784  \protected\def\mkusbibordinal#1{%
2785    \begingroup
2786    \@tempcnta0#1\relax\number\@tempcnta
2787    \@whilenum\@tempcnta>100\do{\advance\@tempcnta-100\relax}%
2788    \ifnum\@tempcnta>20
2789      \@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
2790    \fi
2791    \ifcase\@tempcnta th\or st\or d\or d\else th\fi
2792    \endgroup}%
2793  \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2794  \DeclareFieldFormat{verba}{#1}
2795
2796  \DeclareListFormat{echrinst}{%
2797    \ifboolexpr{%
2798      test {\ifnumequal{\value{listtotal}}{1}}
2799      or
2800      test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2801    }{%
2802      \ifboolexpr{
2803        test {\ifdefstring{\Commission}{#1}}
2804        or
2805        test {\ifdefstring{\commission}{#1}}%
2806      }{%
2807        \bibstring{commissiondecision}%
2808      }{#1}%
```

```
2809        }{%
2810          \setcounter{blx@tmpcnt}{\value{listcount}}%
2811          \addtocounter{blx@tmpcnt}{1}%
2812          \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2813            \ifnumgreater{\value{listtotal}}{2}{%
2814              #1\finalandcomma\space\bibstring{and}\addspace
2815            }{%
2816              #1\space\bibstring{and}\addspace
2817            }
2818          }{%
2819            #1\addcomma\space}}}%

2821    \newcommand*{\commission}{commission}
2822    \newcommand*{\Commission}{Commission}
2823    \DeclareListFormat{ecthr}{%
2824      \ifboolexpr{
2825        test {\ifdefstring{\Commission}{#1}}
2826        or
2827        test {\ifdefstring{\commission}{#1}}
2828      }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}

2830    \newcommand*{\pcijrep}{PCIJ Rep}
2831    \DeclareFieldFormat{international}{%
2832      \iffieldequals{journaltitle}{\pcijrep}{%
2833        \bibcplstring{jourser}\space #1%
2834      }{#1}}

2836    \DeclareListFormat{checkcontains}{%
2837      \bbx@check{#1}}
2838    \newtoggle{bbx@institutiontoggle}
2839    \newcommand\iflistcontains[2]{%
2840      \global\togglefalse{bbx@institutiontoggle}%
2841      \def\bbx@check##1{%
2842        \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2843      \printlist[checkcontains]{#1}%
2844      \iftoggle{bbx@institutiontoggle}}

2846    \DeclareFieldFormat{draftleg}{%
2847      \StrBefore{#1}{ Bill}}

2849    \DeclareListFormat{billprinting}{%
2850      \ifstrequal{#1}{HC}{%
2851        \mkbibbrackets{\strfield{number}}%
2852        \toggletrue{blx@ox@nopostnotedelim}%
2853      }{%
2854        \strfield{number}%
2855        \togglefalse{blx@ox@nopostnotedelim}}}

2857    \newcommand*{\treatypartysep}{\allowbreak ---\allowbreak}
2858    \DeclareListFormat{treaty}{%
2859      \ifmoreitems{}{%
2860        \ifnumequal{\value{listcount}}{1}{%
2861          \bibopenparen
2862        }{}%
2863        \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2864          #1\treatypartysep
2865        }{%
2866          #1\bibcloseparen}}}

2868    \def\siganddate#1{%
2869      \def\bbx@tempa{#1}%
2870      \expandafter\bbx@signeddatei#1/relax}
```

```
2871   \def\bbx@signeddatei#1=#2/relax{%
2872     \def\bbx@tempa{#2-}%
2873     \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2874   \def\makebbx@datei#1-#2-#3-{%
2875     \makebbx@dateii{#1}{#2}{#3}}
2876   \def\makebbx@dateii#1#2#3{%
2877     \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2878     \space
2879     #1}
2880   \DeclareListFormat{treatydates}{%
2881     \ifnumequal{\value{listcount}}{1}{%
2882       \siganddate{#1}%
2883     }{%
2884       \addcomma\space\siganddate{#1}}}
2885
```

Pagination formats

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

```
2886   \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2887     \begingroup
2888     \def\blx@tempa{\blx@mkpageprefix@i}%
2889     \ifstrequal{#1}{none}{}{%
2890       \ifbibstring{#1}{%
2891         \def\blx@tempa{\blx@mkpageprefix{#1}}%
2892       }{%
2893         \blx@warning@entry{Unknown pagination type '#1'}}}%
2894     \@ifnextchar[%
2895       {\blx@tempa}
2896       {\blx@tempa[\@firstofone]}}
2897
2898   \newcommand*\paragraphmarkings{[]}
2899   \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2900     \iffieldundef{pagination}{%
2901       \ifboolexpr{
2902         test {\ifkeyword{eu}}
2903         or
2904         test {\ifkeyword{echr}}
2905       }{%
2906         \mkcomprange[{\mkrawpageprefix[paragraph]}]{#1}%
2907       }{%
2908         \mkcomprange{#1}}%
2909     }{%
2910       \iffieldequals{pagination}{\paragraphmarkings}{%
2911         \mkcomprange[\mkbibbrackets]{#1}%
2912       }{%
2913         \mkcomprange[{\mkpageprefix[pagination]}]{#1}}}}
```

Shorthands

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

```
2914   \renewbibmacro*{shorthandintro}{%
2915     \iffieldundef{shorthandintro}
2916       {\iffieldundef{shorthand}
2917         {}
2918         {\setunit{\addspace}%
2919          \printtext[parens]{%
```

```
2920              \ifboolexpr{
2921                test {\ifentrytype{jurisdiction}}
2922                or
2923                test {\ifentrytype{legal}}
2924                or
2925                test {\ifentrytype{legislation}}
2926              }{}{%
2927                \bibstring{citedas}\space}%
2928              \printfield{shorthand}}}}
2929          {\setunit{\addspace}%
2930           \printtext[parens]{\printfield{shorthandintro}}}}
2931
```

Common macros

```
2932    \newbibmacro*{issue/volume}{%
2933      \iffieldundef{volume}%
2934        {\iffieldundef{issue}%
2935          {}%
2936          {\printfield{issue}}}%
2937        {\printfield[default]{volume}}}
2938    \newcommand*{\subtypenewsp}{newspaper}
2939    \newbibmacro*{year+vol+report}[1][default]{%
2940      \iffieldequals{entrysubtype}{\subtypenewsp}{%
2941        \setunit{\addcomma\space}%
2942      }{%
2943        \usebibmacro{journaldate}%
2944        \setunit{\addspace}%
2945        \printfield[parens]{origyear}%
2946        \setunit{\addspace}%
2947        \printfield{volume}%
2948        \setunit{\addspace}}%
2949      \printfield{journaltitle}%
2950      \setunit*{\addspace}%
2951      \iffieldundef{series}{}{%
2952        \setunit{\addspace}%
2953        \printfield[#1]{series}%
2954        \setunit{\addspace}}%
2955      \iffieldequals{entrysubtype}{\subtypenewsp}{%
2956        \setunit{\addcomma\space}%
2957        \printdate%
2958      }{}}
2959    \newbibmacro*{journaldate}[1][]{%
2960      \ifboolexpr{
2961        test {\iffieldundef{#1volume}}
2962        or
2963        bool {bbx@#1year-essential}
2964      }{%
2965        \ifboolexpr{
2966          test {\ifkeyword{sc}}
2967          or
2968          test {\iftoggle{bbx:scotstyle}}
2969        }{%
2970          \setunit{\addcomma\space}%
2971          \printfield{#1year}%
2972        }{%
2973          \printfield[brackets]{#1year}}%
2974      }{%
2975        \printfield[parens]{#1year}}}
2976    \newcommand*{\casenote}{casenote}
```

```
2977    \newcommand{\casenotetext}{\bibstring{casenote}}
2978    \newbibmacro{journaltitle}{%
2979      \iffieldequals{entrysubtype}{\casenote}{%
2980        \iffieldundef{crossref}{%
2981          \usebibmacro{title}%
2982        }{%
2983          \iffieldundef{note}{%
2984            \restorefield{note}{\casenotetext}%
2985          }{}%
2986          \ifboolexpr{
2987            test {\iffootnote}
2988            and test {\iftoggle{bbx@samefootnote}}
2989            and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2990          }{}{\printfield[casenotetitle]{title}}}%
2991      }{%
2992        \usebibmacro{title}}}
2993    \newbibmacro*{unreported}[1][default]{%
2994      \iffieldundef{verba}{%
2995        \ifboolexpr{
2996          test {\iflistundef{institution}}
2997          and
2998          test {\iffieldundef{date}}
2999          and
3000          test {\iffieldundef{year}}
3001        }{}{%
3002          \ifboolexpr{
3003            test {\iffieldundef{date}}
3004            and
3005            test {\iffieldundef{year}}
3006          }{%
3007            \mkbibparens{\printlist[jurisdiction]{institution}}%
3008          }{%
3009            \toggletrue{blx@ox@nopostnotedelim}%
3010            \iflistundef{institution}{%
3011              \mkbibparens{\usebibmacro{date}}%
3012            }{%
3013              \printtext[parens]{%
3014                \printlist[#1]{institution}%
3015                \setunit{\addcomma\space}
3016                \usebibmacro{date}}}}}%
3017      }{%
3018        \iftoggle{bbx@ecliuse}{}{%
3019          \printfield{verba}}}}
3020    \newbibmacro{court-note}{%
3021      \iffieldundef{note}%
3022        {}%
3023        {\printfield{note}%
3024         \toggletrue{blx@ox@nopostnotedelim}}}
3025    \newbibmacro*{jurisdictionpages}{%
3026      \let\origadddot\adddot
3027      \def\adddot{}%
3028      \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
3029        \setunit{\addspace}%
3030        \printfield{pages}}%
3031      \let\adddot\origadddot
3032    }
3033    \newbibmacro{pcitenote}{%
3034      \iffieldundef{parreporter}{}{%
3035        \setunit{\addcomma\space}%
3036        \iffieldundef{postnote}{}{%
3037          \printfield{postnote}%
3038          \clearfield{postnote}%
```

```
3039            \setunit{\addsemicolon\space}}}}
3040        \newbibmacro*{courtid}{%
3041          \iffieldundef{number}{%
3042            \ifboolexpr{
3043              test {\iflistundef{institution}}
3044              and
3045              test {\iffieldundef{location}}%
3046            }{%
3047              \togglefalse{blx@ox@nopostnotedelim}%
3048            }{%
3049              \ifboolexpr{%
3050                test {\iffieldundef{journaltitle}}
3051                or
3052                not togl {bbx:altcourt}
3053              }{%
3054                \printtext[parens]{%
3055                  \printfield{location}%
3056                  \setunit{\addspace}%
3057                  \printlist{institution}%
3058                  \usebibmacro{unrep:date}}%
3059                \toggletrue{blx@ox@nopostnotedelim}
3060              }{%
3061                \setunit{\addcomma\space}%
3062                \printfield{location}%
3063                \setunit*{\addspace}%
3064                \printlist{institution}}}%
3065          }{%
3066            \togglefalse{blx@ox@nopostnotedelim}}}
3067        \newbibmacro*{unrep:date}{%
3068          \ifboolexpr{
3069            test {\iffieldundef{journaltitle}}%
3070            and
3071            test {\iffieldundef{number}}%
3072            and
3073            test {\iffieldundef{neutralcite}}%
3074          }{%
3075            \setunit{\addcomma\space}%
3076            \usebibmacro{date}%
3077          }{}}
3078
```

Legal cases

There are different formats depending on the jurisdiction.

```
3079        \DeclareBibliographyDriver{jurisdiction}{%
3080          \usebibmacro{bibindex}%
3081          \usebibmacro{begentry}%
3082          \usebibmacro{juriscitation}%
3083          \usebibmacro{doi+eprint+url}%
3084          \setunit{\addspace}%\newblock
3085          \usebibmacro{addendum+pubstate}%
3086          \setunit{\addspace}%\newblock
3087          \iftoggle{bbx:related}
3088            {\usebibmacro{related:init}%
3089             \usebibmacro{related}}
3090            {}%
3091          \setunit{\bibpagerefpunct}\newblock
3092          \usebibmacro{pageref}%
3093          \usebibmacro{finentry}}
```

```
3094    \newtoggle{bbx@juriscitedone}
3095    \newbibmacro{juriscitation}{%
3096      \togglefalse{bbx@juriscitedone}%
3097      \renewcommand{\do}[1]{%
3098        \ifkeyword{##1}{%
3099          \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
3100          \listbreak
3101        }{}}%
3102      \docsvlist{eu,echr,int,ca,us}%
3103      \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
3104    }
```

Here is the format for EU cases.

```
3105    \newtoggle{bbx@commissiondecision}
3106    \newbibmacro*{eujuriscitation}{%
3107      \ifboolexpr{
3108        test {\iflistcontains{institution}{\commission}}
3109        or
3110        test {\iflistcontains{institution}{\Commission}}
3111      }{%
3112        \toggletrue{bbx@commissiondecision}%
3113      }{%
3114        \togglefalse{bbx@commissiondecision}}%
3115      \iftoggle{bbx@commissiondecision}{}{%
3116        \usebibmacro{eucasenumber}}%
3117      \usebibmacro{title}%
3118      \setunit{\addspace}%
3119      \iftoggle{bbx@commissiondecision}{%
3120        \usebibmacro{eucommissiondecision}}{}%
3121      \setunit{\addspace}%
3122      \usebibmacro{eu:reportinfo}%
3123      \iftoggle{bbx@commissiondecision}{%
3124        \setunit{\addcomma\space}%
3125      }{%
3126        \setunit{\addspace}}%
3127      \usebibmacro{altreportdetails}%
3128      \usebibmacro{court-note}%
3129    }
3130    \newcommand*\oxrefand{ and }
3131    \newbibmacro{eucasetype}{%
3132      \iffieldundef{type}{%
3133        \ifboolexpr{
3134          test {\IfSubStr{\thefield{number}}{,}}
3135          or
3136          test {\IfSubStr{\thefield{number}}{--}}
3137          or
3138          test {\IfSubStr{\thefield{number}}{\oxrefand}}
3139        }{%
3140          \bibstring{eujoinedcases}%
3141        }{%
3142          \bibstring{eucase}}%
3143      }{%
3144        \printfield{type}}%
3145    }
3146    \newbibmacro{eucasenumber}{%
3147      \usebibmacro{eucasetype}%
3148      \setunit{\addnbspace}%
3149      \printfield{number}%
3150      \setunit{\addspace}}
3151    \newbibmacro{eucommissiondecision}{%
3152      \iffieldundef{userb}{%
```

```
3153        \iffieldundef{number}{}{%
3154          \printtext[parens]{%
3155            \usebibmacro{eucasetype}%
3156            \setunit{\addnbspace}%
3157            \printfield{number}}}%
3158      }{%
3159        \printtext[parens]{%
3160          \printfield{userb}}%
3161        \setunit{\addspace}%
3162        \iffieldundef{number}{}{%
3163          \iffieldundef{type}{%
3164            \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3165          }{%
3166            \setunit{\addspace\printfield{type}\addspace}}%
3167          \printfield{number}}%
3168      }%
3169    }
3170    \newbibmacro*{eu:reportinfo}{%
3171      \iftoggle{bbx@eclionly}{%
3172        \iffieldundef{verba}{%
3173          \usebibmacro{eu:osreport}
3174        }{%
3175          \printfield{verba}}%
3176      }{%
3177        \usebibmacro{eu:osreport}}}
3178    \newbibmacro*{eu:osreport}{%
3179      \iftoggle{bbx@ecliuse}{%
3180        \iffieldundef{verba}{}{%
3181          \printfield{verba}%
3182          \setunit{\addcomma\space}}%
3183      }{}%
3184      \iffieldundef{journaltitle}{%
3185        \usebibmacro{unreported}%
3186      }{%
3187        \usebibmacro{eu:year+vol+report}}}
3188    \newcommand*\officialjournaltitle{OJ}
3189    \newcommand*\ecrreporttitle{ECR}
3190    \newbibmacro*{eu:year+vol+report}{%
3191      \iffieldequals{journaltitle}{\ecrreporttitle}{%
3192        \printfield[brackets]{year}%
3193        \setunit{\addspace}%
3194        \printfield{journaltitle}%
3195        \setunit{\addspace}%
3196        \printfield{volume}%
3197        \setunit*{\printtext{--\allowbreak}}%
3198        \printfield{pages}%
3199      }{%
3200        \iffieldequals{journaltitle}{\officialjournaltitle}{%
3201          \printfield[brackets]{year}%
3202          \setunit{\addspace}%
3203          \printfield{journaltitle}%
3204          \setunit{\addspace}%
3205          \printfield[default]{series}%
3206          \usebibmacro{issue/volume}%
3207          \setunit{\printtext{\slash}}%
3208          \printfield{pages}%
3209        }{%
3210          \usebibmacro{year+vol+report}}}}
3211
```

Here is the format for European Human Rights cases.

```
3212    \newbibmacro*{echrjuriscitation}{%
3213      \usebibmacro{title}%
3214      \setunit{\addspace}\newblock
3215      \iffieldundef{number}{}{%
3216        \printtext[parens]{%
3217          \def\adddot{}%
3218          \bibstring{application}\space
3219          \bibstring{number}\space
3220          \printfield{number}}%
3221        \setunit{\addspace}\newblock}%
3222      \iffieldundef{journaltitle}{%
3223        \usebibmacro{unreported}[echrinst]%
3224      }{%
3225        \usebibmacro{echr:year+vol+report}
3226        \setunit{\addspace}\newblock
3227        \usebibmacro{echr:courtid}}%
3228      \setunit{\addspace}%
3229      \usebibmacro{court-note}%
3230      \newblock
3231      \setunit{\addspace}}
3232    \newcommand*{\seriesa}{Series A}
3233    \newcommand*{\echrreports}{ECHR}
3234    \newbibmacro*{echr:year+vol+report}{%
3235      \iffieldequals{journaltitle}{\seriesa}{%
3236        \usebibmacro{seriesareport}%
3237      }{%
3238        \iffieldequals{journaltitle}{\echrreports}{%
3239          \usebibmacro{echrreports}%
3240        }{%
3241          \usebibmacro{year+vol+report}
3242          \setunit{\addspace}%
3243      \printfield{pages}}}}
3244    \newbibmacro*{seriesareport}{%
3245      \printfield[parens]{year}%
3246      \setunit{\addspace}%
3247      \printfield{journaltitle}%
3248      \setunit{\addspace}%
3249      \printtext{\def\adddot{}\bibstring{number}\addspace}%
3250      \printfield{pages}}
3251    \newbibmacro*{echrreports}{%
3252      \printfield{journaltitle}%
3253      \setunit{\addspace}%
3254      \printfield{year}%
3255      \iffieldundef{volume}{}{%
3256        \printtext{--}\printfield[romanvol]{volume}}%
3257      \setunit{\addspace}%
3258      \printfield{pages}}
3259    \newcommand*{\decisionsandreports}{DR}
3260    \newcommand*{\collectionofdecisions}{CD}
3261    \newbibmacro*{echr:courtid}{%
3262      \ifboolexpr{
3263        test {\iffieldequals{journaltitle}{\decisionsandreports}}
3264        or
3265        test {\iffieldequals{journaltitle}{\collectionofdecisions}}%
3266      }{}{%
3267        \printlist[ecthr]{institution}}}
3268
```

Here is the format for international cases.

```
3269    \newbibmacro*{intjuriscitation}{%
3270      \iflistundef{institution}{%
3271        \setunit{}\printtext{}%
3272      }{%
3273        \printlist{institution}%
3274        \setunit{\addcomma\space}}%
3275      \usebibmacro{int:title}%
3276      \setunit{\addspace}\newblock
3277      \iffieldundef{journaltitle}{%
3278        \printfield{number}%
3279        \setunit{\addspace}\newblock
3280        \printtext[parens]{\printdate}%
3281      }{%
3282        \usebibmacro{year+vol+report}[international]%
3283      }%
3284      \setunit{\addspace}%
3285      \usebibmacro{int:jurisdictionpages}%
3286      \setunit{\addspace}\newblock
3287      \usebibmacro{court-note}%
3288    }
3289    \newbibmacro*{int:title}{%
3290      \ifboolexpr{
3291        test {\iffieldundef{title}}
3292        and
3293        test {\iffieldundef{subtitle}}
3294      }{}{%
3295        \printtext[title]{%
3296          \printfield[titlecase]{title}%
3297          \setunit{\addspace}%
3298          \printfield[parens]{subtitle}}}%
3299      \setunit{\addspace}%
3300      \printfield{titleaddon}%
3301    }
3302    \newbibmacro*{int:jurisdictionpages}{%
3303      \let\origaddot\adddot
3304      \def\adddot{}%
3305      \iffieldequals{journaltitle}{\pcijrep}{%
3306        \printtext{\bibcpstring{number}\addspace}%
3307        \iffieldundef{pages}{%
3308          \printfield{number}%
3309        }{%
3310          \printfield{pages}}%
3311      }{%
3312        \printfield{pages}}%
3313      \let\addot\origadddot
3314    }
3315
```

Here is the format for Canadian cases.

```
3316    \newbibmacro{cajuriscitation}{%
3317      \usebibmacro{title}%
3318      \setunit{\cacasetitlepunct}\newblock
3319      \printfield{number}%
3320      \setunit{\addcomma\space}%
3321      \iffieldundef{journaltitle}{}{%
3322        \usebibmacro{can:year+vol+report}}%
3323      \usebibmacro{jurisdictionpages}%
3324      \usebibmacro{pcitenote}%
3325      \usebibmacro{altreportdetails}%
3326      \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
```

```
3327        \newunit\newblock
3328        \usebibmacro{courtid}%
3329        \newunit%
3330        \usebibmacro{court-note}%
3331        \newblock%
3332        \newunit}
3333     \newbibmacro*{can:year+vol+report}{%
3334        \iffieldundef{number}{%
3335           \setunit{\addspace}%
3336        }{%
3337           \ifboolexpr{
3338              test {\iffieldundef{volume}}
3339              or
3340              bool {bbx@year-essential}%
3341           }{}{%
3342              \clearfield{year}}}%
3343        \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
3344           \iffieldundef{year}{}{%
3345              \usebibmacro{journaldate}%
3346              \setunit{\addspace}}}%
3347        \printfield{volume}%
3348        \setunit{\addspace}%
3349        \printfield{journaltitle}%
3350        \setunit*{\addspace}%
3351        \iffieldundef{series}{}{%
3352           \setunit{\addspace}%
3353           \printtext[parens]{\printfield[usseries]{series}}%
3354           \setunit{\addspace}}%
3355        \iffieldequals{entrysubtype}{\subtypenewsp}{%
3356           \setunit{\addcomma\space}%
3357           \usebibmacro{newspaperdate}%
3358        }{}}
```

Here is the format for American cases.

```
3359     \newbibmacro{usjuriscitation}{%
3360        \usebibmacro{title}%
3361        \setunit{\uscasetitlepunct}\newblock%
3362        \iffieldundef{journaltitle}{%
3363           \printfield{number}%
3364           \setunit{\addcomma\space}%
3365           \printfield[default]{eprint}%
3366           \clearfield{eprint}%
3367        }{
3368           \usebibmacro{us:vol+report}}%
3369        \setunit{\addspace}%
3370        \usebibmacro{jurisdictionpages}%
3371        \usebibmacro{us:postnote}%
3372        \usebibmacro{altreportdetails}%
3373        \setunit{\addspace}\newblock
3374        \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3375        \setunit{\addspace}%
3376        \usebibmacro{us:courtid+date}%
3377        \setunit{\addspace}%
3378        \usebibmacro{court-note}%
3379        \newblock
3380        \setunit{\addspace}}
3381     \newbibmacro{us:vol+report}{%
3382        \printfield{volume}%
3383        \setunit{\addspace}%
3384        \printfield{journaltitle}%
3385        \iffieldundef{series}{}{%
```

```
3386        \setunit{\addspace}%
3387        \printfield[usseries]{series}}}
3388    \newbibmacro{us:postnote}{%
3389      \iffieldundef{postnote}{}{%
3390        \setunit{\addcomma\space}%
3391        \printfield{postnote}%
3392        \clearfield{postnote}%
3393      }}
3394    \newbibmacro{us:courtid+date}{%
3395      \ifboolexpr{
3396        test {\iflistundef{institution}}
3397        and
3398        test {\iflistundef{location}}
3399        and
3400        test {\iffieldundef{year}}
3401      }{}{%
3402        \printtext[parens]{%
3403          \printlist{location}%
3404          \setunit*{\addspace}%
3405          \printlist{institution}%
3406          \setunit{\addspace}%
3407          \printfield{year}%
3408          \nopunct}}}
3409
```

Here is the format for English cases.

```
3410    \newbibmacro{enjuriscitation}{%
3411      \usebibmacro{title}%
3412      \setunit{\addspace}\newblock
3413      \printfield{neutralcite}%
3414      \setunit*{\addcomma\space}%
3415      \printfield{number}%
3416      \setunit*{\addcomma\space}%
3417      \iffieldundef{journaltitle}{}{%
3418        \usebibmacro{year+vol+report}}%
3419      \usebibmacro{jurisdictionpages}%
3420      \usebibmacro{pcitenote}%
3421      \usebibmacro{altreportdetails}%
3422      \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additionalreports
3423      \setunit{\addspace}\newblock
3424      \usebibmacro{courtid}%
3425      \setunit{\addspace}%
3426      \usebibmacro{court-note}}
3427    \newbibmacro{altreportdetails}{%
3428      \restorefield{prenote}{\postnotesecond}%
3429      \iffieldundef{parreporter}{}{%
3430        \usebibmacro{journaldate}[par]%
3431        \setunit{\addspace}\newblock
3432        \usebibmacro{altreportvolume}%
3433        \setunit{\addspace}\newblock
3434        \usebibmacro{altjournaltitle}%
3435        \setunit{\addspace}\newblock
3436        \usebibmacro{altseries}%
3437        \setunit{\addspace}\newblock
3438        \usebibmacro{altjurisdictionpages}%
3439        \iffieldundef{prenote}{}{%
3440          \setunit{\addcomma\space}%
3441          \printfield[postnote]{prenote}}}}
3442    \newbibmacro*{altreportvolume}{%
3443      \iffieldundef{parvolume}{}{%
```

```
3444              \printfield{parvolume}}}
3445         \newbibmacro*{altjournaltitle}{%
3446           \iffieldundef{parreporter}{}{
3447              \printfield{parreporter}}}
3448         \newbibmacro*{altseries}{%
3449           \iffieldundef{parseries}{}{%
3450              \printfield{parseries}}}
3451         \newbibmacro*{altjurisdictionpages}{%
3452           \iffieldundef{parpages}{}{%
3453              \printfield{parpages}}}%
3454
```

Legislation

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

```
3455       \newcommand*{\subtypecourtrules}{procedure-rule}
3456       \DeclareBibliographyDriver{legislation}{%
3457         \usebibmacro{bibindex}%
3458         \usebibmacro{begentry}%
3459         \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3460           \usebibmacro{courtrules}%
3461         }{%
3462           \ifkeyword{draft}{%
3463             \usebibmacro{legislation:bill}%
3464           }{%
3465             \ifkeyword{eu}{%
3466               \usebibmacro{eulegislation}%
3467             }{%
3468               \printfield[default]{title}%
3469               \setunit{\addspace}%
3470               \printfield[default]{year}%
3471               \setunit*{\addspace}%
3472               \usebibmacro{legnumber}%
3473               \setunit{\addspace}\newblock
3474               \usebibmacro{legsupp}}}}%
3475         \setunit{\addcomma\space}%
3476         \printfield{note}%
3477         \setunit{\bibpagerefpunct}\newblock
3478         \usebibmacro{pageref}%
3479         \usebibmacro{finentry}}
3480       \newbibmacro*{courtrules}{%
3481         \restorefield{prenote}{\postnotesecond}%
3482         \iffieldequalstr{shorttitle}{PD}{%
3483           \printfield{postnote}%
3484           \clearfield{postnote}%
3485           \setunit{\addspace}%
3486         }{}%
3487         \iffieldundef{shorttitle}{%
3488           \printfield[default]{title}%
3489         }{%
3490           \printfield[default]{shorttitle}}%
3491         \setunit{\addspace}\newblock
3492         \iffieldundef{postnote}{%
3493           \toggletrue{blx@ox@nopostnotedelim}%
3494         }{%
3495           \iffieldequalstr{shorttitle}{CPR}{%
3496             \printfield{postnote}%
3497             \setunit{\addspace}%
```

```
3498              }{%
3499                \printtext{%
3500                  \bibstring{order}\space
3501                  \printfield{postnote}%
3502                  \setunit{\addcomma\space}}}}%
3503          \restorefield{postnote}{\postnotesecond}%
3504          \usebibmacro{postnote}%
3505          \clearfield{postnote}%
3506          \setunit{\addspace}\newblock}
3507      \newcommand*{\subtypeprimarylegislation}{primary}
3508      \newbibmacro*{legislation:bill}{%
3509          \printfield[draftleg]{title}%
3510          \setunit{\addspace}%
3511          \printlist{institution}%
3512          \setunit*{\addspace}%
3513          \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3514            \bibcpstring{bill}%
3515            \setunit{\addspace}%
3516            \printtext[parens]{\usebibmacro{sessionyear}}%
3517            \setunit{\addspace}%
3518            \iffieldundef{number}{}{%
3519              \printlist[billprinting]{institution}}%
3520          }{%
3521            \printtext[parens]{%
3522              \bibstring{draft}\space
3523              \printdate}}
3524          \setunit{\addspace}}
3525      \newbibmacro*{sessionyear}{%
3526          \iffieldundef{year}{}{%
3527            \printfield{year}%
3528            \iffieldundef{endyear}{}{%
3529              \bibdaterangesep
3530              \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}}
3531      \newbibmacro{eulegislation}{%
3532          \printfield[default]{title}%
3533          \setunit{\addspace}\newblock%
3534          \usebibmacro{eulegref}}
3535      \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3536      \newbibmacro*{eulegref}{%
3537          \iffieldequals{journaltitle}{\officialjournaltitle}{%
3538            \printfield[brackets]{year}%
3539            \setunit{\addspace}%
3540            \printfield{journaltitle}%
3541            \setunit{\addspace}%
3542            \iffieldundef{series}{%
3543              \printtext{L}%
3544            }{%
3545              \printfield[default]{series}}%
3546            \usebibmacro{issue/volume}%
3547            \setunit*{\addslash}%
3548            \printfield{pages}%
3549            \togglefalse{blx@ox@nopostnotedelim}%
3550          }{%
3551            \usebibmacro{year+vol+report}%
3552            \setunit*{\addspace}%
3553            \printfield{pages}}}
3554      \newbibmacro*{legnumber}{%
3555          \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3556            \ifboolexpr{(
3557                test {\iffieldundef{number}}
3558                or
3559                not test {\iffieldundef{title}} )
```

```
3560          and not (
3561            test {\ifkeyword{cy}}
3562            or
3563            test {\ifkeyword{sc}}
3564            or
3565            test {\ifkeyword{ni}} )
3566        }{}{%
3567          \printtext[parens]{\printfield{number}}%
3568          \toggletrue{blx@ox@nopostnotedelim}}%
3569      }{%
3570        \iffieldundef{number}{}{%
3571          \setunit{\addcomma\addspace}%
3572          \printfield{number}%
3573          \togglefalse{blx@ox@nopostnotedelim}}}}
```

This adds additional material for Welsh statutory instruments.

```
3574    \newbibmacro*{legsupp}{%
3575      \ifkeyword{cy}
3576        {\iffieldundef{userb}
3577          {}
3578          {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3579        {}}
3580
```

Treaties, explanatory notes and Hansard

```
3581    \newcommand*{\explanatorynote}{explanatory note}
3582    \newcommand*{\parliamentarytype}{parliamentary}
3583    \newcommand*{\treatysubtype}{piltreaty}
3584    \DeclareBibliographyDriver{legal}{%
3585      \usebibmacro{bibindex}%
3586      \usebibmacro{begentry}%
3587      \iffieldequals{entrysubtype}{\explanatorynote}{%
3588        \printfield[default]{title}%
3589        \setunit{\addspace}\newblock
3590      }{%
3591        \iffieldequals{entrysubtype}{\parliamentarytype}{%
3592          \usebibmacro{legal:parliamentary}%
3593        }{%
3594          \usebibmacro{treatycitation}}}%
3595      \setunit{\addcomma\space}\newblock
3596      \printfield[default]{note}
3597      \setunit{\addspace}\newblock
3598      \iftoggle{bbx:related}
3599        {\usebibmacro{related:init}%
3600         \usebibmacro{related}}
3601        {}%
3602      \setunit{\bibpagerefpunct}%
3603      \usebibmacro{pageref}%
3604      \usebibmacro{finentry}}
3605    \newbibmacro{legal:parliamentary}{%
3606      \printfield[default]{title}%
3607      \newunit\newblock
3608      \printfield{type}%
3609      \setunit{\addspace}%
3610      \iffieldundef{series}{}{%
3611        \printtext[parens]{%
3612          \biblstring{jourser}\space
3613          \printfield{series}}}%
```

```
3614        \setunit{\addspace}%
3615        \printfield{volume}%
3616        \setunit{\addcomma\space}%
3617        \usebibmacro{hansard-ref}%
3618        \setunit{\addspace}%
3619        \iffieldundef{year}{}{%
3620          \printtext[parens]{\usebibmacro{date}}}%
3621        \togglefalse{blx@ox@nopostnotedelim}}
3622      \newbibmacro*{hansard-ref}{%
3623        \iffieldundef{postnote}{%
3624          \iffieldundef{pages}{}{%
3625            \printfield{pages}}%
3626        }{}}%
3627      \newbibmacro{treatycitation}{%
3628        \printfield[default]{title}%
3629        \setunit{\addspace}\newblock%
3630        \printlist[treaty]{institution}
3631        \setunit{\addspace}\newblock
3632        \usebibmacro{treatyinfo}%
3633        \setunit{\addspace}\newblock
3634        \usebibmacro{treaty:year+vol+report}}
3635      \newbibmacro{treatyinfo}{%
3636        \iflistundef{lista}{% execution
3637          \iffieldundef{year}{}{%
3638            \iffieldundef{volume}{}{%
3639              \printtext[parens]{\printdate}}}%
3640        }{%
3641          \printtext[parens]{\printlist[treatydates]{lista}}}}
3642      \newbibmacro{treaty:year+vol+report}{%
3643        \iffieldequals{journaltitle}{\officialjournaltitle}{%
3644          \usebibmacro{eulegref}%
3645        }{%
3646          \usebibmacro{treaty:date}%
3647          \setunit{\addspace}%
3648          \printfield[default]{volume}%
3649          \setunit{\addspace}%
3650          \printfield{journaltitle}%
3651          \setunit*{\addspace}%
3652          \iffieldundef{series}{%
3653            \printfield{type}%
3654            \setunit*{\addspace}%
3655          }{%
3656            \printfield{series}%
3657            \iffieldundef{type}{%
3658              \setunit{\addspace}%
3659              \bibcpstring{number}
3660              \setunit{\addspace}%
3661            }{%
3662              \setunit{\addcomma\space}%
3663            }}
3664          \printfield{number}
3665          \setunit*{\addspace}%
3666          \printfield{pages}}}%
3667      \newbibmacro*{treaty:date}{%
3668        \ifboolexpr{
3669          test {\iffieldundef{volume}}
3670          or
3671          bool {bbx@year-essential}
3672        }{%
3673          \ifboolexpr{
3674            test {\ifkeyword{sc}}
3675            or
```

```
3676        test {\iftoggle{bbx:scotstyle}}
3677      }{%
3678        \printfield{year}%
3679      }{%
3680        \printfield[brackets]{year}%
3681      }}{}}
3682
```

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

```
3683      \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.

```
3684      \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3685      \newcommand{\collectionshelfmarkpunct}{\addspace}
3686      \newcommand{\datingpagespunct}{\addcomma\addspace}
3687      \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3688      \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3689      \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%
```

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

```
3690      \def\recto{r}
3691      \def\verso{v}
3692      \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.

```
3693      \DeclareFieldFormat[manuscript,unpublished]{title}{%
3694        \def\currentfield{title}%
3695        \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3696        \undef\currentfield}
3697      \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3698      \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3699      \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3700      \DeclareFieldFormat{dating}{#1\isdot}%
3701      \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.

```
3702      \newbibmacro{manuscript:date}{%
3703        \ifboolexpr{
3704          test {\ifnameundef{author}}
3705          and
3706          test {\iffieldundef{title}}
3707          and
3708          test {\iffieldundef{label}}
```

```
3709        }{}{\usebibmacro{date}}}
3710    \newbibmacro{dating}{%
3711        \ifboolexpr{(
3712            test {\ifnameundef{author}}
3713            and
3714            test {\iffieldundef{title}}
3715            and
3716            test {\iffieldundef{label}}
3717          ) or
3718          test {\iffieldundef{year}}
3719        }{%
3720          \printfield{dating}%
3721        }{}}
```

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.

```
3722    \newbibmacro{location+library+collection+shelfmark}{%
3723      \printfield{library}%
3724      \setunit{\locationlibrarypunct}%
3725      \printlist{location}%
3726      \setunit{\librarycollectionpunct}%
3727      \usebibmacro{collection+shelfmark}}
3728    \newbibmacro{collection+shelfmark}{%
3729      \ifboolexpr{
3730        test {\iffieldundef{collection}}
3731        and
3732        test {\iffieldundef{shelfmark}}
3733      }{}{%
3734        \printtext[collection+shelfmark]{%
3735          \printfield{collection}%
3736          \setunit*{\collectionshelfmarkpunct}%
3737          \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.

```
3738    \newbibmacro{manuscript:pages}{%
3739      \printfield{pagetotal}%
3740      \setunit{\addspace}%
3741      \iffieldundef{pages}{%
3742        \usebibmacro{manuscript:columns+layer}%
3743      }{%
3744        \usebibmacro{manuscript:columns}%
3745        \setunit{\pagetotalpagespunct}%
3746        \printfield{pages}%
3747        \setunit{\addspace}%
3748        \usebibmacro{manuscript:layer}}}
3749    \newbibmacro{manuscript:columns}{%
3750      \iffieldundef{columns}{}{%
3751        \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3752    }%
3753    \newbibmacro{manuscript:layer}{%
3754      \iffieldundef{layer}{}{%
3755        \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3756    }%
3757    \newbibmacro{manuscript:columns+layer}{%
3758      \ifboolexpr{
3759        test {\iffieldundef{columns}}
```

```
3760        or
3761        test{\iffieldundef{layer}}
3762      }{%
3763        \usebibmacro{manuscript:columns}%
3764        \usebibmacro{manuscript:layer}%
3765      }{%
3766        \printtext[columns+layer]{%
3767          \bibstring{\strfield{columns}column}%
3768          \setunit*{\columnslayerpunct}%
3769          \bibstring{\strfield{layer}layer}}}}%
```

Putting it all together, here is the manuscript driver.

```
3770    \DeclareBibliographyDriver{manuscript}{%
3771      \usebibmacro{bibindex}%
3772      \usebibmacro{begentry}%
3773      \usebibmacro{author}%
3774      \setunit{\printdelim{nametitledelim}}\newblock
3775      \usebibmacro{title}%
3776      \setunit{\titlebyauthordelim}\newblock
3777      \usebibmacro{byauthor}%
3778      \newunit\newblock
3779      \printfield{howpublished}%
3780      \newunit\newblock
3781      \printfield{note}%
3782      \newunit\newblock
3783      \usebibmacro{manuscript:date}%
3784      \newunit\newblock
3785      \usebibmacro{location+library+collection+shelfmark}%
3786      \newunit
3787      \printfield{support}%
3788      \newunit
3789      \usebibmacro{dating}%
3790      \setunit{\datingpagespunct}
3791      \usebibmacro{manuscript:pages}
3792      \newunit\newblock%
3793      \iftoggle{bbx:url}{%
3794        \usebibmacro{url+urldate}%
3795      }{}%
3796      \iftoggle{bbx:related}{%
3797        \usebibmacro{related:init}%
3798        \usebibmacro{related}%
3799      }{}%
3800      \setunit{\bibpagerefpunct}\newblock
3801      \usebibmacro{pageref}%
3802      \usebibmacro{finentry}}
```

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

```
3803    \newbibmacro*{library+location+series+number}{%
3804      \printfield{library}%
3805      \setunit{\locationlibrarypunct}%
3806      \printlist{location}%
3807      \setunit{\librarycollectionpunct}%
3808      \ifboolexpr{
3809        test {\iffieldundef{series}}
3810        and
3811        test {\iffieldundef{number}}
3812      }{}{%
3813        \printtext[collection+shelfmark]{%
3814          \printfield{series}%
```

```
3815              \setunit*{\collectionshelfmarkpunct}%
3816              \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'.

```
3817      \newtoggle{blx@ox@ms}
3818      \DeclareBibliographyDriver{unpublished}{%
3819        \usebibmacro{bibindex}%
3820        \usebibmacro{begentry}%
3821        \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3822        \usebibmacro{author}%
3823        \setunit{\printdelim{nametitledelim}}\newblock
3824        \usebibmacro{title}%
3825        \setunit{\titlebyauthordelim}\newblock
3826        \usebibmacro{byauthor}%
3827        \newunit\newblock
3828        \printfield{note}%
3829        \newunit\newblock
3830        \printfield{howpublished}%
3831        \newunit\newblock
3832        \iftoggle{blx@ox@ms}{%
3833          \usebibmacro{manuscript:date}%
3834          \newunit\newblock
3835          \usebibmacro{library+location+series+number}%
3836          \newunit
3837          \printfield{support}%
3838          \newunit
3839          \usebibmacro{dating}%
3840          \setunit{\datingpagespunct}
3841          \usebibmacro{manuscript:pages}
3842        }{%
3843          \usebibmacro{location+date}%
3844        }%
3845        \newunit\newblock
3846        \iftoggle{bbx:url}
3847          {\usebibmacro{url+urldate}}
3848          {}%
3849        \newunit\newblock
3850        \usebibmacro{addendum+pubstate}%
3851        \iftoggle{bbx:related}
3852          {\usebibmacro{related:init}%
3853           \usebibmacro{related}}
3854          {}%
3855        \setunit{\bibpagerefpunct}\newblock
3856        \usebibmacro{pageref}%
3857        \usebibmacro{finentry}}
```

2.1.17 LETTERS

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

```
3858      \DeclareBibliographyDriver{letter}{%
3859        \usebibmacro{bibindex}%
3860        \usebibmacro{begentry}%
3861        \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3862        \usebibmacro{author}%
3863        \setunit{\printdelim{nametitledelim}}\newblock
3864        \usebibmacro{title}%
3865        \setunit{\titlebyauthordelim}\newblock
```

```
3866        \usebibmacro{byauthor}%
3867        \newunit\newblock
3868        \printfield{note}%
3869        \iffieldundef{howpublished}{}{\nopunct\printfield{howpublished}}%
3870        \newunit\newblock
3871        \iftoggle{blx@ox@ms}{%
3872          \usebibmacro{manuscript:date}%
3873          \newunit\newblock
3874          \usebibmacro{library+location+series+number}%
3875          \newunit
3876          \printfield{support}%
3877          \newunit
3878          \usebibmacro{dating}%
3879          \setunit{\datingpagespunct}
3880          \usebibmacro{manuscript:pages}
3881        }{%
3882          \usebibmacro{location+date}%
3883        }%
3884        \newunit\newblock
3885        \iftoggle{bbx:url}
3886          {\usebibmacro{url+urldate}}
3887          {}%
3888        \newunit\newblock
3889        \usebibmacro{addendum+pubstate}%
3890        \iftoggle{bbx:related}
3891          {\usebibmacro{related:init}%
3892           \usebibmacro{related}}
3893          {}%
3894        \setunit{\bibpagerefpunct}\newblock
3895        \usebibmacro{pageref}%
3896        \usebibmacro{finentry}}
3897      \DeclareFieldFormat[letter]{title}{%
3898        \def\currentfield{title}%
3899        \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3900        \undef\currentfield}
3901      \DeclareFieldFormat[letter]{date}{%
3902        \iffieldundef{url}{#1}{\mkbibparens{#1}}}
```

2.1.18   Related entries

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

```
3903      \xpatchbibdriver{booklet}{%
3904        \setunit{\bibpagerefpunct}\newblock
3905        \usebibmacro{pageref}%
3906        \newunit\newblock
3907        \iftoggle{bbx:related}
3908          {\usebibmacro{related:init}%
3909           \usebibmacro{related}}
3910          {}%
3911      }{%
3912        \iftoggle{bbx:related}
3913          {\usebibmacro{related:init}%
3914           \usebibmacro{related}}
3915          {}%
3916        \setunit{\bibpagerefpunct}\newblock
3917        \usebibmacro{pageref}%
3918      }{}{\wlog{WARNING: biblatex-oxref failed to patch booklet}}
```

```
3919    \xpatchbibdriver{misc}{%
3920      \setunit{\bibpagerefpunct}\newblock
3921      \usebibmacro{pageref}%
3922      \newunit\newblock
3923      \iftoggle{bbx:related}
3924        {\usebibmacro{related:init}%
3925         \usebibmacro{related}}
3926        {}%
3927    }{%
3928      \iftoggle{bbx:related}
3929        {\usebibmacro{related:init}%
3930         \usebibmacro{related}}
3931        {}%
3932      \setunit{\bibpagerefpunct}\newblock
3933      \usebibmacro{pageref}%
3934    }{}{\wlog{WARNING: biblatex-oxref failed to patch misc}}
```

We provide an option for setting the relatedtype punctuation.

```
3935    \DeclareDelimFormat{begrelateddelimamendedby}{\addcomma\space}
3936    \DeclareDelimFormat{begrelateddelimequals}{\addspace}
3937    \DeclareDelimFormat{begrelateddelimin}{\addcomma\space}
3938    \DeclareDelimFormat{begrelateddelimincludes}{\addcomma\space}
3939    \DeclareDelimFormat{begrelateddelimreprintfrom}{\addperiod\space}
3940    \DeclareDelimFormat{begrelateddelimreviewof}{\newunitpunct}
3941    \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}
3942    \DeclareDelimFormat{begrelateddelimmultivolume}{\newunitpunct}
3943    \DeclareDelimFormat{relateddelimmultivolume}{\newunitpunct}
3944    \newtoggle{blx@ox@success}
3945    \DeclareBiblatexOption{global,type}[string]{relationpunct}[semicolon]{%
3946      \bgroup\blx@blxinit
3947      \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3948        \global\togglefalse{blx@ox@success}%
3949        \PackageError{biblatex-oxref}{%
3950          Invalid option 'relationpunct=#1'%
3951        }{%
3952          Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3953          'period', 'exclam', 'question', and 'space'.}}%
3954      \egroup
3955      \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}{%
3956        \DeclareDelimFormat{begrelateddelim}{\addspace}%
3957      }{%
3958        \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}%
3959      }{}}}
3960    \DeclareEntryOption[string]{relationpunct}[semicolon]{%
3961      \bgroup\blx@blxinit
3962      \ifcsdef{add#1}{\global\toggletrue{blx@ox@success}}{%
3963        \global\togglefalse{blx@ox@success}%
3964        \PackageError{biblatex-oxref}{%
3965          Invalid option 'relationpunct=#1'%
3966        }{%
3967          Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3968          'period', 'exclam', 'question', and 'space'.}}%
3969      \egroup
3970      \iftoggle{blx@ox@success}{\ifstrequal{#1}{space}{%
3971        \DeclareDelimFormat{begrelateddelim}{\addspace}%
3972        \DeclareDelimFormat{begrelateddelimamendedby}{\addspace}
3973        \DeclareDelimFormat{begrelateddelimequals}{\addspace}%
3974        \DeclareDelimFormat{begrelateddelimin}{\addspace}%
3975        \DeclareDelimFormat{begrelateddelimincludes}{\addspace}%
3976        \DeclareDelimFormat{begrelateddelimreprintfrom}{\addspace}%
```

```
3977        \DeclareDelimFormat{begrelateddelimreviewof}{\addspace}%
3978        \DeclareDelimFormat{begrelateddelimtranslationof}{\addspace}%
3979        \DeclareDelimFormat{begrelateddelimmultivolume}{\addspace}%
3980      }{%
3981        \DeclareDelimFormat{begrelateddelim}{\csuse{add#1}\space}%
3982        \DeclareDelimFormat{begrelateddelimamendedby}{\csuse{add#1}\space}
3983        \DeclareDelimFormat{begrelateddelimequals}{\csuse{add#1}\space}%
3984        \DeclareDelimFormat{begrelateddelimin}{\csuse{add#1}\space}%
3985        \DeclareDelimFormat{begrelateddelimincludes}{\csuse{add#1}\space}%
3986        \DeclareDelimFormat{begrelateddelimreprintfrom}{\csuse{add#1}\space}%
3987        \DeclareDelimFormat{begrelateddelimreviewof}{\csuse{add#1}\space}%
3988        \DeclareDelimFormat{begrelateddelimtranslationof}{\csuse{add#1}\space}%
3989        \DeclareDelimFormat{begrelateddelimmultivolume}{\csuse{add#1}\space}}%
3990      }{}}
3991    \ExecuteBibliographyOptions{relationpunct}
3992    \newcounter{blx@ox@relitem}
3993    \xapptobibmacro{begrelated}{%
3994      \setcounter{blx@ox@relitem}{0}%
3995    }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelated}}
```

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

```
3996    \newtoggle{blx@ox@norelin}
3997    \DeclareBiblatexOption{global,type,entry}{norelatedin}[true]{%
3998      \settoggle{blx@ox@norelin}{#1}}
3999    \xapptobibmacro{begrelatedloop}{%
4000      \iftoggle{blx@ox@norelin}{%
4001        \renewbibmacro*{in:}{%
4002          \ifboolexpr{
4003            test {\iffieldequalstr{entrysubtype}{yearbook}}
4004            or (
4005              test {\ifnameundef{author}}
4006              and
4007              test {\ifnameundef{translator}}
4008              and
4009              test {\iffieldundef{title}}
4010          )}{}{%
4011            \bibstring{in}%
4012            \printunit{\intitlepunct}%
4013          }}}{}%
4014    }{}{\wlog{WARNING: biblatex-oxref failed to append to begrelatedloop}}
4015
```

Translations

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

```
4016    \newbibmacro*{rellanguage}{%
4017      \def\do##1{%
4018        \entrydata{##1}{%
4019          \printlist{language}}}%
4020      \docsvfield{related}%
4021    }
4022    \DeclareFieldFormat{relatedstring:translationof}{%
4023      \iffieldundef{relatedstring}{%
4024        \blx@ox@langbibstring{\usebibmacro{rellanguage}}{original}%
4025        \printunit{\addcomma\space}
4026      }{%
4027        \thefield{relatedstring}\printunit{\relatedpunct}}}
```

```
4028
4029    \DeclareFieldFormat{related:translationof}{%
4030      \mkbibbrackets{#1}}
```

Co-publications

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

```
4031    \newbibmacro*{related:copub}[1]{%
4032      \entrydata*{#1}{%
4033        \usebibmacro{publisher+location+date}%
4034        \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.

```
4035    \renewbibmacro*{related:reprintfrom}[1]{%
4036      \entrydata*{#1}{%
4037        \nopunct
4038        \usedriver{%
4039          \ifnameundef{savedauthor}{%
4040            \ifnameundef{savededitor}{}{%
4041              \ifnamesequal{editor}{savededitor}{%
4042                \clearname{editor}%
4043              }{}}%
4044          }{%
4045            \ifnamesequal{author}{savedauthor}{%
4046              \clearname{author}%
4047            }{}}%
4048          \iffieldundef{savedtitle}{}{%
4049            \iffieldsequal{savedtitle}{title}{%
4050              \clearfield{title}%
4051            }{}}%
4052          \renewbibmacro*{related:init}{}%
4053          \DeclareNameAlias{sortname}{default}%
4054          \ifbibmacroundef{date+extradate}{}{%
4055            \renewbibmacro*{date+extradate}{}%
4056            \renewbibmacro*{date}{\printdate}}%
4057          \renewbibmacro*{pageref}{}%
4058        }{%
4059          \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.

```
4060    \newbibmacro*{related:serialarticle}[1]{%
4061      \entrydata*{#1}{%
4062        \iffieldundef{savedjournaltitle}{}{%
4063          \iffieldsequal{journaltitle}{savedjournaltitle}{%
4064            \clearfield{journaltitle}%
4065          }{}}%
4066        \iffieldundef{savedjournalsubtitle}{}{%
4067          \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
```

```
4068            \clearfield{journalsubtitle}%
4069          }{}}%
4070        \iffieldundef{savedseries}{}{%
4071          \iffieldsequal{series}{savedseries}{%
4072            \clearfield{series}%
4073          }{}}%
4074        \iffieldundef{savedyear}{\clearfield{year}}{
4075          \iffieldsequal{year}{savedyear}{%
4076            \clearfield{year}%
4077          }{}}%
4078        \usebibmacro{journal+issuetitle}%
4079        \newunit
4080        \usebibmacro{note+pages}%
4081        \newunit\newblock
4082        \usebibmacro{doi+eprint+url}%
4083        \newunit\newblock
4084        \usebibmacro{addendum+pubstate}}}
```

Reviews

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

```
4085    \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
4086    \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
4087    \DeclareFieldFormat[review]{number}{#1}% number of a journal
4088    \DeclareFieldFormat[review]{series}{% series of a journal
4089      \ifinteger{#1}
4090      {\mkbibordseries{#1}~\bibstring{jourser}}
4091      {\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.

```
4092    \newbibmacro*{related:reviewof}[1]{%
4093      \entrydata*{#1}{%
4094        \usedriver{%
4095          \renewbibmacro*{related:init}{}%
4096          \DeclareNameAlias{author}{given-family}%
4097          \renewbibmacro*{pageref}{}%
4098        }{\thefield{entrytype}}%
4099      }%
4100    }
```

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'.

```
4101    \DeclareBibliographyDriver{review}{%
4102      \usebibmacro{bibindex}%
4103      \usebibmacro{begentry}%
4104      \usebibmacro{author/translator+others}%
4105      \setunit{\printdelim{nametitledelim}}\newblock
4106      \usebibmacro{title}%
4107      \setunit{\titlebyauthordelim}\newblock
4108      \usebibmacro{byauthor}%
4109      \newunit\newblock
4110      \usebibmacro{bytranslator+others}%
```

```
4111     \newunit\newblock
4112     \printfield{version}%
4113     \newunit\newblock
4114     \iftoggle{bbx:related}{%
4115       \usebibmacro{related:init}%
4116       \usebibmacro{related}%
4117     }{}%
4118     \newunit\newblock
4119     \usebibmacro{in:}%
4120     \setunit{\addspace}%
4121     \usebibmacro{journal+issuetitle}%
4122     \newunit
4123     \usebibmacro{byeditor+others}%
4124     \iffieldundef{note}%
4125       {\newunit}%
4126       {\setunit{\addsemicolon\addspace}}%
4127     \usebibmacro{note+pages}%
4128     \newunit\newblock
4129     \iftoggle{bbx:isbn}
4130       {\printfield{issn}}
4131       {}%
4132     \newunit\newblock
4133     \usebibmacro{doi+eprint+url}%
4134     \newunit\newblock
4135     \usebibmacro{addendum+pubstate}%
4136     \setunit{\bibpagerefpunct}\newblock
4137     \usebibmacro{pageref}%
4138     \usebibmacro{finentry}}
4139
```

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.

```
4140     \DeclareFieldFormat{related:multivolume}{#1}
4141     \renewbibmacro*{related:multivolume}[1]{%
4142       \entrydata*{#1}{%
4143         \printtext{%
4144           \printfield{volume}%
4145           \printfield{part}%
4146           \iffieldsequal{savedtitle}{title}{}{%
4147             \setunit{\addcolon\space}%
4148             \usebibmacro{title}}%
4149         }%
4150         \setunit*{\addspace}%
4151         \iffieldsequal{savedseries}{series}{\clearfield{series}}{}%
4152         \iffieldsequal{savednumber}{number}{\clearfield{number}}{}%
4153         \iffieldsequal{savededition}{edition}{\clearfield{edition}}{}%
4154         \ifboolexpr{
4155           test {\iflistsequal{savedpublisher}{publisher}}
4156           and
4157           test {\iflistsequal{savedlocation}{location}}
4158         }{\clearlist{publisher}\clearlist{location}}{}%
4159         \iffieldsequal{saveddate}{date}{\clearfield{date}}{}%
4160         \usebibmacro{series+number+edition+publisher+location+date}%
4161       }}
4162
```

Related editions

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

```
4163    \providecommand*{\mkrelatedstringtext}[1]{{{\mainlang #1}}}
4164    \newbibmacro*{related:editedas}[1]{%
4165      \entrydata{#1}{%
4166        \renewbibmacro*{name:hook}[1]{%
4167          \ifnumequal{\value{listcount}}{1}
4168            {\mkrelatedstringtext{\lbx@initnamehook{#1}}}
4169            {}}%
4170        \printfield{edition}%
4171        \setunit{\addspace}%
4172        \usebibmacro{byeditor+others}%
4173        \setunit*{\addcomma\space\bibstring[\mkrelatedstringtext]{astitle}\space}%
4174        \usebibmacro{maintitle+title}%
4175        \setunit{\addspace}%
4176        \printfield{note}%
4177        \newunit\newblock
4178        \printfield{volumes}%
4179        \newunit
4180        \usebibmacro{series+number+publisher+location+date}}}
4181    \renewbibmacro*{related:bytranslator}[1]{%
4182      \entrydata{#1}{%
4183        \renewbibmacro*{name:hook}[1]{%
4184          \ifnumequal{\value{listcount}}{1}
4185            {\mkrelatedstringtext{\lbx@initnamehook{#1}}}
4186            {}}%
4187        \printnames[bytranslator]{translator}%
4188        \setunit*{\addspace\bibstring[\mkrelatedstringtext]{astitle}\space}%
4189        \usebibmacro{maintitle+title}%
4190        \setunit{\addspace}%
4191        \printfield{note}%
4192        \newunit\newblock
4193        \printfield{volumes}%
4194        \newunit
4195        \usebibmacro{series+number+publisher+location+date}}}
4196
```

Joint releases

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

```
4197    \newbibmacro*{related:includes}[1]{%
4198      \stepcounter{blx@ox@relitem}%
4199      \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
4200        {\bibstring{and}\addspace}{}%
4201      \entrydata{#1}{%
4202        \ifbibmacroundef{date+extradate}{}{%
4203          \renewbibmacro*{date+extradate}{}}%
4204        \usebibmacro{author}%
4205        \setunit{\printdelim{nametitledelim}}\newblock
4206        \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.

```
4207  \DeclareFieldFormat[misc]{title}{%
4208    \def\currentfield{title}%
4209    \iffieldannotation{descriptor}{#1}{%
4210      \iffieldequalstr{relatedtype}{in}{%
4211        \mkbibquote{#1\isdot}%
4212      }{%
4213        \mkbibemph{#1}%
4214      }}%
4215    \undef\currentfield}
4216  \newbibmacro*{related:in}[1]{%
4217    \entrydata*{#1}{%
4218      \usedriver
4219        {\ifnameundef{savedauthor}
4220          {\ifnameundef{savededitor}
4221            {}
4222            {\ifnamesequal{editor}{savededitor}
4223              {\clearname{editor}}
4224              {}}}
4225          {\ifnamesequal{author}{savedauthor}
4226            {\clearname{author}}
4227            {}}%
4228        \renewbibmacro*{related:init}{}%
4229        \DeclareNameAlias{sortname}{default}%
4230        \ifbibmacroundef{date+extradate}
4231          {}
4232          {\renewbibmacro*{date+extradate}{}%
4233           \renewbibmacro*{date}{\printdate}}%
4234        \renewbibmacro*{pageref}{}}
4235        {\thefield{entrytype}}%
4236      \ifboolexpr{
4237        test {\iffieldundef{pages}}
4238        or
4239        test {\iffieldundef{savedpages}}
4240      }{%
4241        \newunit\newblock
4242      }{%
4243        \setunit{\addspace}%
4244        \bibstring{thiscite}%
4245        \printunit{\addspace}%
4246      }%
4247    }%
4248    \usebibmacro{chapter+pages}%
4249  }
4250
```

2.1.19 Source maps

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

```
4251  \DeclareStyleSourcemap{%
4252    \maps[datatype=bibtex]{%
```

Sort order

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

```
4253      \map{
4254        \pertype{proceedings}
```

```
4255              \pertype{mvproceedings}
4256              \step[notfield=author,
4257                 fieldsource=organization,
4258                 fieldtarget=author]
4259           }
```

Descriptors

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

```
4260           \map[overwrite=false]{
4261             \step[fieldsource=descriptor, final]
4262             \step[notfield=title,
4263                fieldset=title+an,
4264                fieldvalue={=descriptor}]
4265             \step[notfield=title,
4266                fieldsource=descriptor,
4267                fieldtarget=title]
4268             \step[fieldsource=descriptor,
4269                fieldtarget=note]
4270           }
```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```
4271           \map[overwrite=false]{
4272             \step[fieldsource=realauthor, final]
4273             \step[notfield=author,
4274                fieldset=author+an,
4275                fieldvalue={=inferred}]
4276             \step[notfield=author,
4277                fieldsource=realauthor,
4278                fieldtarget=author]
4279             \step[fieldsource=realauthor,
4280                fieldtarget=authoraddon]
4281           }
4282           \map[overwrite=false]{
4283             \step[fieldsource=realeditor, final]
4284             \step[notfield=editor,
4285                fieldset=editor+an,
4286                fieldvalue={=inferred}]
4287             \step[notfield=editor,
4288                fieldsource=realeditor,
4289                fieldtarget=editor]
4290             \step[fieldsource=realeditor,
4291                fieldtarget=editoraddon]
4292           }
```

Editors as joint authors

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

```
4293           \map[overwrite=false]{
4294             \step[fieldsource=editor+an,
4295                match=\regexp{=jointauthor},
```

```
4296            final]
4297          \step[fieldsource=editor,
4298            fieldtarget=jointauthor]
4299          \step[fieldsource=editortype,
4300            fieldtarget=jointauthortype]
4301        }
4302        \map[overwrite=false]{
4303          \step[fieldsource=translator+an,
4304            match=\regexp{=jointauthor},
4305            final]
4306          \step[fieldsource=translator,
4307            fieldtarget=jointauthor]
4308          \step[fieldset=jointauthortype,
4309            fieldvalue={=translator}]
4310        }
```

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.

```
4311        \map[overwrite=false]{
4312          \pertype{standard}
4313          \step[notfield=author,
4314              fieldsource=number,
4315              final]
4316          \step[fieldset=sortkey,
4317              origfieldval]
4318        }
```

Audiovisual materials

For audiovisual materials, origdatetype defaults to 'recorded'.

```
4319        \map[overwrite=false]{
4320          \pertype{audio}
4321          \pertype{music}
4322          \pertype{movie}
4323          \pertype{video}
4324          \pertype{inaudio}
4325          \pertype{inmusic}
4326          \pertype{inmovie}
4327          \pertype{invideo}
4328          \step[fieldset=origdatetype,fieldvalue={recorded}]
4329        }
```

Legal references

These help ensure compatibility with oscola.

```
4330        \map[overwrite=false]{
4331          \pertype{jurisdiction}
4332          \step[fieldsource=reporter,
4333              fieldtarget=journaltitle]
4334          \step[fieldsource=court,
4335              fieldtarget=institution]
4336          \step[fieldsource=additionalreports,
4337              fieldtarget=listb]
```

```
4338          \step[fieldsource=ecli,
4339                 fieldtarget=verba]
4340        }%
4341        \map[overwrite=false]{
4342          \pertype{legal}
4343          \step[fieldsource=reporter,
4344                 fieldtarget=journaltitle]
4345        }
4346        \map[overwrite=true]{
4347            \pertype{legal}
4348          \step[fieldsource=parties,
4349                  fieldtarget=institution]
4350          \step[fieldsource=execution,
4351                  fieldtarget=lista]
4352        }
```

This is how oscola removes dots from entries.

```
4353        \map[overwrite=true]{
4354        \pertype{jurisdiction}
4355        \pertype{legislation}
4356        \pertype{legal}
4357        \step[fieldsource=title,
4358              match=\regexp{(\d)\.(\d)},
4359              replace=\regexp{$1.$2}]
4360        \step[fieldsource=title,
4361              match=\regexp{(\D)\.(\d)},
4362              replace=\regexp{$1 $2}]
4363        \step[fieldsource=title,
4364               match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4365               replace=\regexp{$1}]
4366        \step [fieldsource=title,
4367               match=\regexp{([^\d{])\.(?![}])},
4368               replace=\regexp{$1}]
4369        \step[fieldsource=shorttitle,
4370              match=\regexp{(\d)\.(\d)},
4371              replace=\regexp{$1.$2}]
4372        \step[fieldsource=shorttitle,
4373              match=\regexp{(\D)\.(\d)},
4374              replace=\regexp{$1 $2}]
4375        \step[fieldsource=shorttitle,
4376               match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4377               replace=\regexp{$1}]
4378        \step [fieldsource=shorttitle,
4379               match=\regexp{([^\d{])\.(?![}])},
4380               replace=\regexp{$1}]
4381        \step[fieldsource=parreporter,
4382              match=\regexp{(\d)\.(\d)},
4383              replace=\regexp{$1.$2}]
4384        \step[fieldsource=parreporter,
4385              match=\regexp{(\D)\.(\d)},
4386              replace=\regexp{$1 $2}]
4387        \step[fieldsource=parreporter,
4388               match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4389               replace=\regexp{$1}]
4390        \step [fieldsource=parreporter,
4391               match=\regexp{([^\d{])\.(?![}])},
4392               replace=\regexp{$1}]
4393        \step[fieldsource=journaltitle,
4394              match=\regexp{(\d)\.(\d)},
4395               replace=\regexp{$1.$2}]
```

```
4396        \step[fieldsource=journaltitle,
4397            match=\regexp{(\D)\.(\d)},
4398            replace=\regexp{$1 $2}]
4399        \step[fieldsource=journaltitle,
4400            match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4401            replace=\regexp{$1}]
4402        \step [fieldsource=journaltitle,
4403            match=\regexp{([^\d{])\.(?![}])},
4404            replace=\regexp{$1}]
4405        \step[fieldsource=institution,
4406            match=\regexp{(\d)\.(\d)},
4407            replace=\regexp{$1.$2}]
4408        \step[fieldsource=institution,
4409            match=\regexp{(\D)\.(\d)},
4410            replace=\regexp{$1 $2}]
4411        \step[fieldsource=institution,
4412            match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4413            replace=\regexp{$1}]
4414        \step[fieldsource=institution,
4415            match=\regexp{([^\d{])\.(?![}])},
4416            replace=\regexp{$1}]
4417        \step[fieldsource=publisher,
4418            match=\regexp{(\d)\.(\d)},
4419            replace=\regexp{$1.$2}]
4420        \step[fieldsource=publisher,
4421            match=\regexp{(\D)\.(\d)},
4422            replace=\regexp{$1 $2}]
4423        \step[fieldsource=publisher,
4424            match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4425            replace=\regexp{$1}]
4426        \step [fieldsource=publisher,
4427            match=\regexp{([^\d{])\.(?![}])},
4428            replace=\regexp{$1}]
4429        \step[fieldsource=location,
4430            match=\regexp{(\d)\.(\d)},
4431            replace=\regexp{$1.$2}]
4432        \step[fieldsource=location,
4433            match=\regexp{(\D)\.(\d)},
4434            replace=\regexp{$1 $2}]
4435        \step[fieldsource=location,
4436            match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4437            replace=\regexp{$1}]
4438        \step [fieldsource=location,
4439            match=\regexp{([^\d{])\.(?![}])},
4440            replace=\regexp{$1}]
4441        \step[fieldsource=series,
4442            match=\regexp{(\d)\.(\d)},
4443            replace=\regexp{$1.$2}]
4444        \step[fieldsource=series,
4445            match=\regexp{(\D)\.(\d)},
4446            replace=\regexp{$1 $2}]
4447        \step[fieldsource=series,
4448            match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4449            replace=\regexp{$1}]
4450        \step [fieldsource=series,
4451            match=\regexp{([^\d{])\.(?![}])},
4452            replace=\regexp{$1}]
4453        \step[fieldsource=indextitle,
4454            match=\regexp{(\d)\.(\d)},
4455            replace=\regexp{$1.$2}]
4456        \step[fieldsource=indextitle,
4457            match=\regexp{(\D)\.(\d)},
```

```
4458               replace=\regexp{$1 $2}]
4459           \step[fieldsource=indextitle,
4460               match=\regexp{(?:\A|[^{])\K\.([^\d}])},
4461               replace=\regexp{$1}]
4462           \step [fieldsource=indextitle,
4463               match=\regexp{([^\d{])\.(?![}])},
4464               replace=\regexp{$1}]
4465           }
```

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

```
4466           \map[overwrite=false]{
4467             \step[fieldsource=casenumber, final]
4468             \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
4469             \step[fieldsource=casenumber, fieldtarget=userb]
4470           }
4471         }%
4472       }
4473
```

2.1.20 Sorting schemes

We adjust the sort order to take into account some other fields that might end up at the front (library, collection, series). The 'nty' scheme is used by oxnotes.

```
4474     \DeclareSortingTemplate{nty}{
4475       \sort{
4476         \field{presort}
4477       }
4478       \sort[final]{
4479         \field{sortkey}
4480       }
4481       \sort{
4482         \field{sortname}
4483         \field{author}
4484         \field{editor}
4485         \field{translator}
4486         \field{sorttitle}
4487         \field{title}
4488         \field{library}
4489       }
4490       \sort{
4491         \field{sorttitle}
4492         \field{title}
4493       }
4494       \sort{
4495         \field{sortyear}
4496         \field{year}
4497       }
4498       \sort{
4499         \field{volume}
4500         \literal{0}
4501       }
4502       \sort{
4503         \field{location}
4504       }
4505       \sort{
4506         \field{collection}
4507         \field{series}
4508       }
```

```
4509      }
```

The 'nyt' scheme is used by oxyear.

```
4510    \DeclareSortingTemplate{nyt}{
4511      \sort{
4512        \field{presort}
4513      }
4514      \sort[final]{
4515        \field{sortkey}
4516      }
4517      \sort{
4518        \field{sortname}
4519        \field{author}
4520        \field{editor}
4521        \field{translator}
4522        \field{sorttitle}
4523        \field{title}
4524        \field{library}
4525      }
4526      \sort{
4527        \field{sortyear}
4528        \field{labelyear}
4529        \field{year}
4530      }
4531      \sort{
4532        \field{sorttitle}
4533        \field{title}
4534      }
4535      \sort{
4536        \field{volume}
4537        \literal{0}
4538      }
4539      \sort{
4540        \field{location}
4541      }
4542      \sort{
4543        \field{collection}
4544        \field{series}
4545      }
4546    }
```

The 'anyt' scheme is used by oxalph.

```
4547    \DeclareSortingTemplate{anyt}{
4548      \sort{
4549        \field{presort}
4550      }
4551      \sort{
4552        \field{labelalpha}
4553      }
4554      \sort[final]{
4555        \field{sortkey}
4556      }
4557      \sort{
4558        \field{sortname}
4559        \field{author}
4560        \field{editor}
4561        \field{translator}
4562        \field{sorttitle}
4563        \field{title}
```

```
4564        \field{library}
4565      }
4566    \sort{
4567      \field{sortyear}
4568      \field{labelyear}
4569      \field{year}
4570    }
4571    \sort{
4572      \field{sorttitle}
4573      \field{title}
4574    }
4575    \sort{
4576      \field{volume}
4577      \literal{0}
4578    }
4579    \sort{
4580      \field{location}
4581    }
4582    \sort{
4583      \field{collection}
4584      \field{series}
4585    }
4586  }
```

The following entry types never put editors first.

```
4587    \ExecuteBibliographyOptions
4588      [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4589      manuscript,unpublished,review]{useeditor=false}
```

2.2   Notes style: oxnotes.bbx

2.2.1   PRELIMINARIES

First we load the common oxref features.

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

2.2.2   NAMES

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

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

We ensure the printing of the anon localization string matches.

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

2.2.3 Multivolume dates

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

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

2.2.4 Source maps

```
38    \DeclareStyleSourcemap{%
39      \maps[datatype=bibtex]{%
```

Sort order

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

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

2.3 Numeric style: oxnum.bbx

2.3.1 Preliminaries

First we load the common oxref features.

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

2.3.2 Names

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

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

We ensure the printing of the anon localization string matches.

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

2.3.3 Multivolume dates

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

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

2.3.4 Label numbers

This next code is extracted from the standard numeric style.

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

```
72        \setlength{\parsep}{\bibparsep}%
73        \renewcommand*{\makelabel}[1]{\hss##1}}}
74     {\endlist}
75     {\item}
76
77  \DeclareBibliographyDriver{set}{%
78     \entryset
79       {\ifbool{bbx:subentry}
80          {\printfield[bibentrysetcount]{entrysetcount}%
81           \printunit*{\addnbspace}}
82          {}}
83       {}%
84     \newunit\newblock
85     \usebibmacro{setpageref}%
86     \finentry}
```

2.4   Author–year style: oxyear.bbx

2.4.1   PRELIMINARIES

First we load the common oxref features.

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

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

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

2.4.2   DATE MERGING OPTION

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

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

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

```
29     \providebibmacro*{date+extradate}{}
30     \DeclareFieldFormat{datelabel}{\mkbibparens{#1}}
31     \DeclareFieldFormat{labeldate}{%
32       \iflabeldateisdate{%
33         \def\currentfield{date}%
34       }{%
35         \iflabeldateisanydate{%
36           \def\currentfield{\thefield{labeldatesource}date}%
```

```
37        }{%
38          \def\currentfield{\thefield{labeldatesource}}}}%
39        \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
40        \undef\currentfield}
```

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

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

The extradate string should be printed bare.

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

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

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

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

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

Since v3.12, authoryear.bbx has had an bbx:ifmergeddate test. We don't use it, but if we define it too it suppresses redefinition warnings later.

```
78    \newbibmacro*{bbx:ifmergeddate}{\@secondoftwo}
79
```

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).

```
80    \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.

```
81     \def\bbx@opt@mergedate@maximum{%
82       \renewbibmacro*{date+extradate}{%
83         \iffieldundef{labelyear}{}{%
84           \iflabeldateisdate{%
85             \printtext[datelabel]{%
86               \printfield{issue}\clearfield{issue}%
87               \setunit*{\addspace}%
88               \printdateextra}%
89             \clearfield{year}\clearfield{yeardivision}\clearfield{month}\clearfield{day}%
90           }{%
91             \iflabeldateisanydate{%
92               \printtext[datelabel]{%
93                 \csuse{print\thefield{labeldatesource}dateextra}}%
94               \clearfield{\thefield{labeldatesource}year}%
95               \clearfield{\thefield{labeldatesource}yeardivision}%
96               \clearfield{\thefield{labeldatesource}month}%
97               \clearfield{\thefield{labeldatesource}day}%
98             }{%
99               \usebibmacro{labeldate}%
100              \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.

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

```
114        \clearfield{\thefield{labeldatesource}day}%
115      }{%
116        \usebibmacro{labeldate}%
117        \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}}}}}}
```

- year always merges the year, and only the year, with the label date. Other date and time componenents 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.

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

- 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.

```
130    \def\bbx@opt@mergedate@basic{%
131      \renewbibmacro*{date+extradate}{%
132        \iffieldundef{labelyear}{}{%
133          \usebibmacro{labeldate}%
134          \iflabeldateisdate{%
135            \ifboolexpr{
136              test {\ifdateshavedifferentprecision{label}{}}
137              or
138              not test {\iffieldundef{issue}}
139            }{}{%
140              \clearfield{year}}%
141          }{%
142            \iflabeldateisanydate{%
143              \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{}{%
144                \clearfield{\thefield{labeldatesource}year}}%
145            }{%
146              \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
147          }}}}}
```

- 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.

```
148    \def\bbx@opt@mergedate@minimum{%
149      \renewbibmacro*{date+extradate}{%
150        \iffieldundef{labelyear}{}{%
151          \usebibmacro{labeldate}%
152          \iflabeldateisdate{%
153            \ifboolexpr{
154              test {\ifdateshavedifferentprecision{label}{}}
155              or
```

```
156              not test {\iffieldundef{extradate}}
157              or
158              not test {\iffieldundef{issue}}
159            }{}{%
160              \clearfield{year}}%
161          }{%
162            \iflabeldateisanydate{%
163              \ifboolexpr{
164                test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
165                or
166                not test {\iffieldundef{extradate}}
167              }{}{%
168                \clearfield{\thefield{labeldatesource}year}}%
169            }{%
170              \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
171            }}}}}
```

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

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

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

```
179    \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 extravagently named `\mknoyeardaterangefull` and `\mknoyeardaterangetrunc`.

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

```
202   \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
203     \iffieldundef{#2month}{}{%
204       \printtext[{#2date}]{%
205         \datecircaprint
206         \iffieldundef{#2yeardivision}{%
207           \ifboolexpr{
208             test {\ifdateyearsequal{label}{labelend}}
209             and
210             test {\iffieldsequal{#2month}{#2endmonth}}
211           }{%
212             \csuse{mkbibdate#1}{}{}{#2day}%
213           }{%
214             \csuse{mkbibdate#1}{}{#2month}{#2day}}%
215         }{%
216           \csuse{mkbibyeardivisiondate#1}{}{#2yeardivision}}%
217         \dateuncertainprint
218         \iffieldundef{#2endmonth}{}{%
219           \iffieldequalstr{#2endmonth}{}{%
220             \mbox{\bibdaterangesep}%
221           }{%
222             \bibdaterangesep
223             \enddatecircaprint
224             \iffieldundef{#2yeardivision}{%
225               \csuse{mkbibdate#1}{}{#2endmonth}{#2endday}%
226             }{%
227               \csuse{mkbibyeardivisiondate#1}{}{#2endyeardivision}}%
228             \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.

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

2.4.3 Bibliography formatting

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

```
250    \DeclareFieldFormat{shorthandwidth}{#1}
```

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

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

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

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

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

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

The shorthand formatting is just like authoryear.

```
290    \defbibenvironment{shorthand}
291      {\list
292        {\printfield[shorthandwidth]{shorthand}}
```

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

2.4.4 Name and date formatting

We set up hashing just as in authoryear.

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

We ensure related entries do not interfere with the hashing.

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

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

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

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

```
324      \xpatchbibmacro{author+altauthor}{%
325        \printnames{author}%
326      }{%
327        \ifboolexpr{%
328          ( not test {\ifnameundef{shortauthor}} )
329          and
330          test {\ifnumequal{\value{shortauthor}}{\value{author}}}
331        }{%
332          \usebibmacro{namepairs}{author}{shortauthor}%
333        }{%
334          \printnames{author}%
```

```
335        }%
336      }{}{\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.

```
337      \xpatchbibmacro{bbx:editor}{%
338        \usebibmacro{#1}%
339      }{%
340        \usebibmacro{date+extradate}%
341        \setunit*{\addspace}%
342        \usebibmacro{#1}%
343      }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor}}%
344      \xpatchbibmacro{bbx:editor}{%
345        \global\undef\bbx@lasthash
346      }{%
347        \global\undef\bbx@lasthash
348        \usebibmacro{labeltitle}%
349        \setunit*{\addspace}%
350        \usebibmacro{date+extradate}%
351      }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch bbx:editor (lasthash)}}%
352      \xpatchbibmacro{editor+alteditor}{%
353        \printnames[byeditor]%
354      }{%
355        \printnames[editor]%
356      }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+alteditor}}
357      \xpatchbibmacro{editor+alteditor}{%
358        \printnames{editor}%
359      }{%
360        \ifboolexpr{%
361          ( not test {\ifnameundef{shorteditor}} )
362          and
363          test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
364        }{%
365          \usebibmacro{namepairs}{editor}{shorteditor}%
366        }{%
367          \printnames{editor}%
368        }%
369      }{}{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch editor+alteditor (shorteditor)}}%
```

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

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

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

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

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

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

```
421    \xpatchbibdriver{online}{%
422      \iffieldundef{year}%
423    }{%
424      \ifboolexpr{
425        test {\iffieldundef{yeardivision}}
426        and
427        test {\iffieldundef{month}}
428      }%
429    }{}{\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.

```
430    \DeclareFieldFormat[bookinbook]{citetitle}{%
431      \ifboolexpr{
432        test {\iffieldequalstr{entrysubtype}{poem}}
```

```
433        or
434        test {\iffieldequalstr{entrysubtype}{play}}
435      }{%
436        \mkbibemph{#1}%
437      }{%
438        \mkbibquote{#1\isdot}}}
439    \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
440        image,manuscript,unpublished]{citetitle}{%
441      \def\currentfield{title}%
442      \ifboolexpr{
443        test {\iffieldannotation{descriptor}}
444        or (
445          test {\iffieldundef{shorttitle}}
446          and
447          test {\iffieldundef{title}}
448        )
449      }{#1}{\mkbibquote{#1\isdot}}%
450      \undef\currentfield}
451    \DeclareFieldFormat[suppperiodical,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[audio,music]{citetitle}{%
464      \def\currentfield{title}%
465      \ifboolexpr{
466        test {\iffieldannotation{descriptor}}
467        or (
468          test {\iffieldundef{shorttitle}}
469          and
470          test {\iffieldundef{title}}
471        )
472      }{#1}{%
473        \iffieldequalstr{entrysubtype}{podcast}{%
474          \mkbibquote{#1\isdot}%
475        }{%
476          \mkbibemph{#1}}}%
477      \undef\currentfield}
478    \DeclareFieldFormat[movie,video]{citetitle}{%
479      \def\currentfield{title}%
480      \ifboolexpr{
481        test {\iffieldannotation{descriptor}}
482        or (
483          test {\iffieldundef{shorttitle}}
484          and
485          test {\iffieldundef{title}}
486        )
487      }{#1}{%
488        \ifboolexpr{
489          test {\iffieldequalstr{entrysubtype}{episode}}
490          or
491          test {\iffieldequalstr{entrysubtype}{clip}}
492          or
493          test {\iffieldequalstr{entrysubtype}{webcast}}
494        }{%
```

```
495        \mkbibquote{#1\isdot}%
496      }{%
497        \mkbibemph{#1}}}%
498    \undef\currentfield}
499  \DeclareFieldFormat[legislation,legal]{citetitle}{#1}
500  \DeclareFieldFormat[misc]%
501      {citetitle}{%
502    \def\currentfield{title}%
503    \ifboolexpr{
504      test {\iffieldannotation{descriptor}}
505      or (
506        test {\iffieldundef{shorttitle}}
507        and
508        test {\iffieldundef{title}}
509      )
510    }{#1}{%
511      \iffieldequalstr{relatedtype}{in}{%
512        \mkbibquote{#1\isdot}%
513      }{%
514        \mkbibemph{#1}%
515      }}%
516    \undef\currentfield}
517
```

2.4.5 Journal division formatting

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

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

2.4.6 Manuscripts

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

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

We include the library field as a fallback title.

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

2.4.7 Source maps

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

```
545    \DeclareStyleSourcemap{%
546      \maps[datatype=bibtex]{%
```

Suppressing a 'nodate' label

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

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

Standards

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

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

2.5 Alphabetic style: oxalph.bbx

2.5.1 Preliminaries

This style is based on oxyear.

```
20    \RequireBibliographyStyle{oxyear}
```

2.5.2 SUPPRESSING LABELEXTRA

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

```
21    \xpatchcmd{\bbx@opt@mergedate@maximum}{%
22      \printdateextra
23    }{%
24      \printdate
25    }{}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum
      ↪ (print)}}
26    \xpatchcmd{\bbx@opt@mergedate@maximum}{%
27      \csuse{print\thefield{labeldatesource}dateextra}%
28    }{%
29      \csuse{print\thefield{labeldatesource}date}%
30    }{}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum
      ↪ (label)}}
31    \xpatchcmd{\bbx@opt@mergedate@compact}{%
32      \csuse{print\thefield{labeldatesource}dateextra}%
33    }{%
34      \csuse{print\thefield{labeldatesource}date}%
35    }{}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@compact}}
36    \xpatchbibmacro{labeldate}{%
37      \printlabeldateextra
38    }{%
39      \printlabeldate
40    }{}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch labeldate}}
41    \ExecuteBibliographyOptions{mergedate}
42
```

2.5.3 LABEL CODES: PRINTING

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

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

```
68          \setlength{\leftmargin}{\labelwidth}%
69          \setlength{\labelsep}{\biblabelsep}%
70          \addtolength{\leftmargin}{\labelsep}%
71          \setlength{\itemsep}{\bibitemsep}%
72          \setlength{\parsep}{\bibparsep}%
73          \renewcommand*{\makelabel}[1]{##1\hss}}}
74       {\endlist}
75       {\item}
```

2.5.4 Label codes: generating

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

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

Citation styles

3.1 Notes style: oxnotes.cbx

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

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

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

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

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

3.2 Numeric style: oxnum.cbx

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

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

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

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

The page reference postnote is given after a colon.

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

3.3 Author–year style: 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 gininits set by the bibliography style, so we set it to init instead. If left alone, biblatex would do this anyway, but if we do it explicitly, we avoid the warning message.

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

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

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

We insert anonymous author handling into cite.

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

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

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

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

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

The page reference postnote is given after a colon.

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

3.4   Alphabetic style: oxalph.cbx

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

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

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

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

The page reference postnote is given after a colon.

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

3.5   Common citation fixes

This code is appended to all the citation style files.

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

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

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

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

Data model adjustments

4.1 oxnotes.dbx, oxyear.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 `datetype` and `origdatetype` fields are used for prefixing the date with a description.

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

We add the `inaudio` entry type and friends.

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

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

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

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

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

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

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

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

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

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

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

This data model helps with legal citations.

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

Localization modules

5.1 English: english-oxref.lbx

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

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

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

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

These are new strings defined by oxref:

- Roles expressed as functions

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

- Roles expressed as actions

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

- Publication details

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

- Publication state

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

- Pagination

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

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

- Types

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

- Miscellaneous

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

- Labels

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

- Country names, patents, and patent requests,

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

- These are borrowed from other styles.

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

```
134        adopted          = {{adopted}{adopted}},
135        inforce          = {{entered into force}{entered into force}},
```

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

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

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

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

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

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

The abbreviations for some publication details are different.

```
221      newseries       = {{new series}{\mkbibacro{NS}}},
222      oldseries       = {{old series}{\mkbibacro{OS}}},
223      edition         = {{edition}{edn\adddot}},
224      reprint         = {{reprint\nopunct}{repr\adddot\nopunct}},
225      reviewof        = {{review of}{review of}},
226      reprintas       = {{reprinted as}{repr\adddotspace as}},
227      reprintfrom     = {{from}{from}},
228      translationas   = {{English translation as}{Eng\adddotspace trans\adddotspace as}},
229      origpubin       = {{originally published in}{originally pub\adddot}},
```

There is also a different abbreviation for 'paragraph'.

```
230        paragraph          = {{paragraph}{para\adddot}},
231        paragraphs         = {{paragraphs}{paras\adddot}},
```

New Hart's Rules uses 'accessed' for URL dates.

```
232        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.

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

Languages are abbreviated.

```
243        langamerican       = {{American English}{Amer\adddotspace Eng\adddot}},
244        langbasque         = {{Basque}{Basq\adddot}},
245        langbrazilian      = {{Brazilian Portuguese}{Braz\adddotspace Port\adddot}},
246        langbulgarian      = {{Bulgarian}{Bulg\adddot}},
247        langcatalan        = {{Catalan}{Catal\adddot}},
248        langcroatian       = {{Croatian}{Croat\adddot}},
249        langczech          = {{Czech}{Czech}},
250        langdanish         = {{Danish}{Dan\adddot}},
251        langdutch          = {{Dutch}{Dutch}},
252        langenglish        = {{English}{Eng\adddot}},
253        langestonian       = {{Estonian}{Eston\adddot}},
254        langfinnish        = {{Finnish}{Finn\adddot}},
255        langfrench         = {{French}{Fr\adddot}},
256        langgalician       = {{Galician}{Galic\adddot}},
257        langgerman         = {{German}{Ger\adddot}},
258        langgreek          = {{Greek}{Gr\adddot}},
259        langhungarian      = {{Hungarian}{Hung\adddot}},
260        langitalian        = {{Italian}{It\adddot}},
261        langjapanese       = {{Japanese}{Jap\adddot}},
262        langlatin          = {{Latin}{Lat\adddot}},
263        langlatvian        = {{Latvian}{Latv\adddot}},
264        langlithuanian     = {{Lithuanian}{Lith\adddot}},
265        langmarathi        = {{Marathi}{Mar\adddot}},
266        langnorwegian      = {{Norwegian}{Norw\adddot}},
267        langpolish         = {{Polish}{Pol\adddot}},
268        langportuguese     = {{Portuguese}{Port\adddot}},
269        langromanian       = {{Romanian}{Rom\adddot}},
270        langrussian        = {{Russian}{Russ\adddot}},
271        langserbian        = {{Serbian}{Serb\adddot}},
272        langslovak         = {{Slovak}{Slovak}},
273        langslovene        = {{Slovene}{Slov\adddot}},
274        langspanish        = {{Spanish}{Sp\adddot}},
275        langswedish        = {{Swedish}{Swed\adddot}},
276        langturkish        = {{Turkish}{Turk\adddot}},
277        langukrainian      = {{Ukrainian}{Ukr\adddot}},
278      }
```

5.2 British English: british-oxref.lbx

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

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

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

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

As you'd expect from an Oxford style, we use the Oxford comma, and use a period as the time separator. The redefinition of \blx@ox@langbibstring is given here as well.

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

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

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

5.3 American English: american-oxref.lbx

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

5.4 Spanish: spanish-oxref.lbx

Thanks to Bruno Maltras for contributing these translations.

We load the standard language-specific punctuation and date formatting.

```
20    \InheritBibliographyExtras{spanish}
```

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

```
21    \DeclareBibliographyStrings{%
22      inherit          = {spanish},
```

These are new strings defined by oxref:

- Roles expressed as functions

```
23      director        = {{direcci\'on}{dir\adddot}},
24      directors       = {{directores}{dirs\adddot}},
25      performer       = {{int\'erprete}{int\adddot}},
26      performers      = {{int\'erpretes}{ints\adddot}},
27      reader          = {{narraci\'on}{narr\adddot}},
28      readers         = {{narradores}{narrs\adddot}},
29      conductor       = {{direcci\'on}{dir\adddot}},
30      conductors      = {{directores}{dirs\adddot}},
31      serieseditor    = {{editor de la serie}{ed\adddotspace ser\adddot}},
32      serieseditors   = {{editores de la serie}{eds\adddotspace ser\adddot}},
33      holder          = {{titular}{tit\adddot}},
34      holders         = {{titulares}{tits\adddot}},
35      editorcm        = {{editor y compilador}{ed\adddotspace y comp\adddot}},
36      editorcms       = {{editores y compiladores}{eds\adddotspace y comps\adddot}},
```

- Roles expressed as actions

```
37      byperformer     = {{interpretado por}{int\adddot}},
38      bydirector      = {{dirigido por}{dir\adddot}},
39      byreader        = {{narrado por}{narr\adddotspace por}},
40      byconductor     = {{dirigido por}{dir\adddot}},
41      byserieseditor  = {{editado por}{ed\adddot}},
42      byholder        = {{derechos de}{held by}},
43      byeditorcm      = {{editado y compilado por}{ed\adddotspace y comp\adddot}},
```

- Publication details

```
44      facsimile       = {{edici\'on facs\'imil}{ed\adddotspace facs\adddot}},
45      revised         = {{edici\'on revisada}{ed\adddotspace rev\adddot}},
46      revisedenlarged = {{edici\'on revisada y ampliada}{ed\adddotspace rev\adddotspace y
    ↪  amp\adddot}},
47      revisedreprint  = {{reimpresi\'on revisada}{reimpr\adddotspace rev\adddot}},
48      suppto          = {{Suplemento de}{Supl\adddot de}},
49      equals          = {{=}{=}},
50      original        = {{original}{orig\adddot}},
51      amendedby       = {{enmendado por}{enmendado por}},
```

- Publication state

```
52      inpressin       = {{de pr\'oxima publicaci\'on en}{de pr\'ox\adddotspace publ\adddot}},
```

- Pagination

```
53      book            = {{libro}{lib\adddot}},
54      books           = {{libros}{libs\adddot}},
55      canto           = {{canto}{canto}},
56      cantos          = {{cantos}{cantos}},
```

```
57      stanza          = {{estrofa}{estr\adddot}},
58      stanzas         = {{estrofas}{estrs\adddot}},
59      act             = {{Acto}{Acto}},
60      acts            = {{Actos}{Actos}},
61      scene           = {{Escena}{Escena}},
62      scenes          = {{Escenas}{Escenas}},
63      folio           = {{folio}{fol\adddot}},
64      folios          = {{folios}{fols\adddot}},
65      article         = {{art\'iculo}{art\adddot}},
66      articles        = {{art\'iculos}{arts\adddot}},
67      clause          = {{cl\'ausula}{cl\adddot}},
68      clauses         = {{cl\'ausulas}{cls\adddot}},
69      regulation      = {{regulaci\'on}{reg\adddot}},
70      regulations     = {{regulaciones}{regs\adddot}},
71      rule            = {{norma}{nrm\adddot}},
72      rules           = {{normas}{nrms\adddot}},
73      booktotal       = {{libro}{lib\adddot}},
74      booktotals      = {{libros}{libs\adddot}},
75      cantototal      = {{canto}{canto}},
76      cantototals     = {{cantos}{cantos}},
77      stanzatotal     = {{estrofa}{estr\adddot}},
78      stanzatotals    = {{estrofas}{estrs\adddot}},
79      acttotal        = {{Acto}{Acto}},
80      acttotals       = {{Actos}{Actos}},
81      scenetotal      = {{Escena}{Escena}},
82      scenetotals     = {{Escenas}{Escenas}},
83      foliototal      = {{folio}{fol\adddot}},
84      foliototals     = {{folios}{fols\adddot}},
85      articletotal    = {{art\'iculo}{art\adddot}},
86      articletotals   = {{art\'iculos}{arts\adddot}},
87      clausetotal     = {{cl\'ausula}{cl\adddot}},
88      clausetotals    = {{cl\'ausulas}{cls\adddot}},
89      regulationtotal  = {{regulaci\'on}{reg\adddot}},
90      regulationtotals = {{regulaciones}{regs\adddot}},
91      ruletotal       = {{norma}{nrm\adddot}},
92      ruletotals      = {{normas}{nrms\adddot}},
```

- Types

```
93      facebook        = {{Facebook post}{Facebook post}},
94      tweet           = {{tweet}{tweet}},
95      podcast         = {{podcast}{podcast}},
96      clip            = {{video}{video}},
97      webcast         = {{webcast}{webcast}},
98      poster          = {{poster}{poster}},
```

- Miscellaneous

```
99      nolocation      = {{sin lugar}{s\adddot l\adddot}},
100     modified        = {{\'ultima modificaci\'on}{\'ult\adddotspace modif\adddot}},
101     recorded        = {{registrado}{registrado}},
102     uploaded        = {{subido}{subido}},
103     filed           = {{archivado}{archivado}},
104     issued          = {{publicado}{publicado}},
```

- Labels

```
105        anon              = {{An\'onimo}{An\'on\adddot}},
106        pseudo            = {{Pseudo-}{Ps\adddot-}},
107        urldown           = {{descargado}{descargado}},
```

- Country names, patents, and patent requests,

```
108        countryjp         = {{Jap\'on}{JP}},
109        patentjp          = {{Patente japonesa}{Pat\adddotspace japonesa}},
110        patreqjp          = {{Solicitud de patente japonesa}{Sol\adddotspace pat\adddotspace
    ↪      japonesa}},
```

- These are borrowed from other styles.

```
111        1column           = {{una columna}{1\addnbspace col\adddot}},
112        2column           = {{dos columnas}{2\addnbspace col\adddot}},
113        inflayer          = {{norma subordinada}{norm\adddotspace sub\adddot}},
114        suplayer          = {{norma superior}{norm\adddotspace sup\adddot}},
115        paper             = {{hoja}{h\adddot}},
116        papyrus           = {{papiro}{papiro}},
117        parchment         = {{pergamino}{pergam\adddot}},
118        eucase            = {{Caso}{Caso}},
119        eujoinedcases     = {{Casos agrupados}{Casos agrupados}},
120        commissiondecision = {{Decisi/'on de la Comisi/'on}{Decisi/'on de la Comisi/'on}},
121        application       = {{Solicitud}{Solic\adddot}},
122        order             = {{Orden}{Ord\adddot}},
123        bill              = {{Proyecto de ley}{Proy\adddotspace de ley}},
124        draft             = {{anteproyecto}{anteproyecto}},
125        opened            = {{abierto a la firma}{abierto a la firma}},
126        signed            = {{aprobada}{aprobada}},
127        adopted           = {{adoptada}{adoptada}},
128        inforce           = {{en vigor}{en vigor}},
```

The rest of these strings are overrides for the standard ones.

In parallel with the English versions, we remove the final 'por' from the abbreviated versions of the roles expressed as actions.

```
129        byeditor          = {{editado por}{ed\adddotspace}},
130        byredactor        = {{redacci\'on de}{red\adddotspace de}},
131        byreviser         = {{revisado por}{rev\adddotspace}},
132        byreviewer        = {{rese\~nado por}{res\adddotspace}},
133        byfounder         = {{fundado por}{fund\adddotspace}},
134        bycontinuator     = {{continuado por}{cont\adddotspace}},
135        bycollaborator    = {{colaboraci\'on de}{col\adddotspace de}},
136        bytranslator      = {{traducido por}{trad\adddotspace}},
137        bycommentator     = {{comentado por}{com\adddotspace}},
138        byannotator       = {{anotado por}{anot\adddotspace}},
139        byeditortr        = {{editado y traducido por}%
140                             {ed\adddotspace y trad\adddotspace}},
141        byeditorco        = {{editado y comentado por}%
142                             {ed\adddotspace y com\adddotspace }},
143        byeditoran        = {{edici\'on y notas de}%
144                             {ed\adddotspace y not\adddotspace}},
145        byeditorin        = {{edici\'on e introducci\'on de}%
146                             {ed\adddotspace e intr\adddotspace}},
147        byeditorfo        = {{edici\'on y pr\'ologo de}%
148                             {ed\adddotspace y pr\'ol\adddotspace}},
149        byeditoraf        = {{edici\'on y ep\'ilogo de}%
150                             {ed\adddotspace y ep\'il\adddotspace}},
```

```
151        byeditortrco    = {{editado, traducido y comentado por}%
152                          {ed.,\addabbrvspace trad\adddotspace y com\adddotspace}},
153        byeditortran    = {{edici\'on, traducci\'on y notas de}%
154                          {ed.,\addabbrvspace trad\adddotspace y not\adddotspace}},
155        byeditortrin    = {{edici\'on, traducci\'on e introducci\'on de}%
156                          {ed.,\addabbrvspace trad\adddotspace e intr\adddotspace}},
157        byeditortrfo    = {{edici\'on, traducci\'on y pr\'ologo de}%
158                          {ed.,\addabbrvspace trad\adddotspace y pr\'ol\adddotspace}},
159        byeditortraf    = {{editado, traducido y epilogado}%
160                          {ed.,\addabbrvspace trad\adddotspace y ep\'il\adddotspace}},
161        byeditorcoin    = {{editado, comentado e introducido}%
162                          {ed.,\addabbrvspace com\adddotspace e intr\adddotspace}},
163        byeditorcofo    = {{edici\'on, comentarios y pr\'ologo de}%
164                          {ed.,\addabbrvspace com\adddotspace y pr\'ol\adddotspace}},
165        byeditorcoaf    = {{edici\'on, comentarios y ep\'ilogo de}%
166                          {ed.,\addabbrvspace com\adddotspace y ep\'il\adddotspace}},
167        byeditoranin    = {{edici\'on, notas e introducci\'on de}%
168                          {ed.,\addabbrvspace anot\adddotspace e intr\adddotspace}},
169        byeditoranfo    = {{edici\'on, notas y pr\'ologo de}%
170                          {ed.,\addabbrvspace anot\adddotspace y pr\'ol\adddotspace}},
171        byeditoranaf    = {{edici\'on, notas y ep\'ilogo de}%
172                          {ed.,\addabbrvspace anot\adddotspace y ep\'il\adddotspace}},
173        byeditortrcoin  = {{edici\'on, traducci\'on, comentarios e introducci\'on de}%
174                          {ed.,\addabbrvspace trad.,\addabbrvspace com\adddotspace e
                          ↪  intr\adddotspace}},
175        byeditortrcofo  = {{edici\'on, traducci\'on, comentarios y pr\'ologo de}%
176                          {ed.,\addabbrvspace trad.,\addabbrvspace com\adddotspace y
                          ↪  pr\'ol\adddotspace}},
177        byeditortrcoaf  = {{edici\'on, traducci\'on, comentarios y ep\'ilogo de}%
178                          {ed.,\addabbrvspace trad.,\addabbrvspace com\adddotspace y
                          ↪  ep\'il\adddotspace}},
179        byeditortranin  = {{edici\'on, traducci\'on, notas e introducci\'on de}%
180                          {ed.,\addabbrvspace trad.,\addabbrvspace anot\adddotspace e
                          ↪  intr\adddotspace}},
181        byeditortranfo  = {{edici\'on, traducci\'on, notas y pr\'ologo de}%
182                          {ed.,\addabbrvspace trad.,\addabbrvspace anot\adddotspace y
                          ↪  pr\'ol\adddotspace}},
183        byeditortranaf  = {{edici\'on, traducci\'on, notas y ep\'ilogo de}%
184                          {ed.,\addabbrvspace trad.,\addabbrvspace anot\adddotspace y
                          ↪  ep\'il\adddotspace}},
185        bytranslatorco  = {{traducci\'on y comentarios de}%
186                          {trad\adddotspace y com\adddotspace}},
187        bytranslatoran  = {{traducci\'on y notas de}%
188                          {trad\adddotspace y not\adddotspace}},
189        bytranslatorin  = {{traducci\'on e introducci\'on de}%
190                          {trad\adddotspace e introd\adddotspace}},
191        bytranslatorfo  = {{traducci\'on y pr\'ologo de}%
192                          {trad\adddotspace y pr\'ol\adddotspace}},
193        bytranslatoraf  = {{traducci\'on y ep\'ilogo de}%
194                          {trad\adddotspace y ep\'il\adddotspace}},
195        bytranslatorcoin = {{traducci\'on, comentarios e introducci\'on de}%
196                          {trad.,\addabbrvspace com\adddotspace e intr\adddotspace}},
197        bytranslatorcofo = {{traducci\'on, comentarios y pr\'ologo de}%
198                          {trad.,\addabbrvspace com\adddotspace y pr\'ol\adddotspace}},
199        bytranslatorcoaf = {{traducci\'on, comentarios y ep\'ilogo de}%
200                          {trad.,\addabbrvspace com\adddotspace y ep\'il\adddotspace}},
201        bytranslatoranin = {{traducci\'on, notas e introducci\'on de}%
202                          {trad.,\addabbrvspace anot\adddotspace e intr\adddotspace}},
203        bytranslatoranfo = {{traducci\'on, notas y pr\'ologo}%
204                          {trad.,\addabbrvspace anot\adddotspace y pr\'ol\adddotspace}},
205        bytranslatoranaf = {{traducci\'on, notas y ep\'ilogo}%
206                          {trad.,\addabbrvspace anot\adddotspace y ep\'il\adddotspace}},
```

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

```
207        withcommentator  = {{con comentario de}{con comentario de}},
208        withannotator    = {{con notas de}{con notas de}},
209        withintroduction = {{con introduci\'on de}{con introduci\'on de}},
210        withforeword     = {{con pr\'ologo de}{con pr\'ologo de}},
211        withafterword    = {{con ep\'ilogo de}{con ep\'ilogo de}},
212        introduction     = {{introduci\'on}{introduci\'on}},
```

The abbreviations for some publication details are different.

```
213        newseries      = {{nueva \'epoca}{\mkbibacro{N\'E}}},
214        oldseries      = {{antigua \'epoca}{\mkbibacro{A\'E}}},
215        edition        = {{edici\'on}{edn\adddot}},
216        reprintfrom    = {{de}{de}},
217        translationas  = {{traducido espa\~nol como}{trad\adddotspace espa\~nol como}},
218        origpubin      = {{publicado originalmente en}{pub\adddot orig\adddotspace}},
```

New Hart's Rules uses 'accessed' for URL dates.

```
219        urlseen        = {{accedido}{accedido}},
```

Oxford style is to use 'henceforth' for shorthands and 'at' to cite a page within a range.

```
220        idem           = {{idem}{id\adddot}},
221        idemsm         = {{idem}{id\adddot}},
222        idemsf         = {{eadem}{ead\adddot}},
223        idemsn         = {{idem}{id\adddot}},
224        idempm         = {{eidem}{eid\adddot}},
225        idempf         = {{eaedem}{eaed\adddot}},
226        idempn         = {{eadem}{ead\adddot}},
227        idempp         = {{eidem}{eid\adddot}},
228        citedas        = {{en adelante}{en adelante}},
229        thiscite       = {{en}{en}},
```

Languages are abbreviated.

```
230        langamerican   = {{ingl\'es americano}{ing\adddotspace amer\adddot}},
231        langbasque     = {{vasco}{vasc\adddot}},
232        langbrazilian  = {{portugu\'es brasile\~no}{por\adddotspace bras\adddot}},
233        langbulgarian  = {{b\'ulgaro}{bul\adddot}},
234        langcatalan    = {{catal\'an}{cat\adddot}},
235        langcroatian   = {{croata}{hrv\adddot}},
236        langczech      = {{checo}{ces\adddot}},
237        langdanish     = {{dan\'es}{dan\adddot}},
238        langdutch      = {{neerland\'es}{nld\adddot}},
239        langenglish    = {{ingl\'es}{ing\adddot}},
240        langestonian   = {{estonio}{est\adddot}},
241        langfinnish    = {{fin\'es}{fin\adddot}},
242        langfrench     = {{franc\'es}{fra\adddot}},
243        langgalician   = {{gallego}{glg\adddot}},
244        langgerman     = {{alem\'an}{ale\adddot}},
245        langgreek      = {{griego}{gr\adddot}},
246        langhungarian  = {{h\'ungaro}{hun\adddot}},
247        langitalian    = {{italiano}{ita\adddot}},
248        langjapanese   = {{japon\'es}{jap\adddot}},
249        langlatin      = {{lat\'in}{lat\adddot}},
250        langlatvian    = {{let\'on}{let\adddot}},
251        langlithuanian = {{lituano}{lit\adddot}},
252        langmarathi    = {{marathi}{mar\adddot}},
```

```
253      langnorwegian    = {{noruego}{nor\adddot}},
254      langpolish       = {{polaco}{pol\adddot}},
255      langportuguese   = {{portugu\'es}{port\adddot}},
256      langrussian      = {{ruso}{rus\adddot}},
257      langserbian      = {{serbio}{srp\adddot}},
258      langslovak       = {{eslovaco}{slk\adddot}},
259      langslovene      = {{esloveno}{slv\adddot}},
260      langspanish      = {{espa\~nol}{esp\adddot}},
261      langswedish      = {{sueco}{sueco}},
262      langturkish      = {{turco}{turco}},
263      langukrainian    = {{ucraniano}{ucr\adddot}},
264    }
```

5.5 Polish: polish-oxref.lbx

Thanks to Sebastian Wasiuta for contributing these translations and extras.

We load the standard language-specific punctuation and date formatting.

```
20    \InheritBibliographyExtras{polish}
```

Here are some additional specific settings we need.

There is no comma after forenames in the inverted position.

```
21    \DeclareBibliographyExtras{%
22      \DeclareDelimFormat{revsdnamedelim}{}%
```

We need to use the right case for month names in treaty execution dates.

```
23      \savecommand\makebbx@dateii
24      \def\makebbx@dateii#1#2#3{%
25        \blx@imc@stripzeros{#3}~\lbx@pl@mkbibmonth{#2}%
26        \space
27        #1}%
```

Volume numbers are expressed in uppercase Roman numerals.

```
28      \savecommand\mkvolroman
29      \renewcommand*{\mkvolroman}[1]{\RN{#1}}%
```

There is no compression of years.

```
30      \savecommand\blx@ox@compyear
31      \renewcommand*{\blx@ox@compyear}[2]{#2}%
```

There is no compression of pagination ranges.

```
32      \savefieldformat{pages}%
33      \DeclareFieldFormat{pages}{%
34        \iffieldundef{bookpagination}%
35          {\mknormrange{#1}}%
36          {\mkpageprefix[bookpagination][\mknormrange]{#1}}%
37      }%
38      \savefieldformat{postnote}%
39      \DeclareFieldFormat{postnote}{%
40        \iffieldundef{pagination}%
```

```
41            {\mknormrange{#1}}%
42            {\mkpageprefix[pagination][\mknormrange]{#1}}%
43        }%
```

We flip the word order when specifying the edition.

```
44      \savefieldformat{edition}%
45      \DeclareFieldFormat{edition}{%
46        \ifinteger{#1}
47          {\bibstring{edition}~\mkbibordedition{#1}}
48          {\ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}}%
49      }
```

Lastly we add code to undo these changes before switching to another language.

```
50      \UndeclareBibliographyExtras{%
51        \DeclareDelimFormat{revsdnamedelim}{\addcomma}%
52        \restorecommand\makebbx@dateii
53        \restorecommand\mkvolroman
54        \restorecommand\blx@ox@compyear
55        \restorefieldformat{pages}%
56        \restorefieldformat{postnote}%
57        \restorefieldformat{edition}%
58      }
```

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

```
59      \DeclareBibliographyStrings{%
60        inherit          = {polish},
```

These are new strings defined by oxref:

- Roles expressed as functions

```
61        director          = {{re\.{z}yser}{re\.{z}\adddot}},
62        directors         = {{re\.{z}yserzy}{re\.{z}\adddot}},
63        performer         = {{wykonawca}{wyk\adddot}},
64        performers        = {{wykonawcy}{wyk\adddot}},
65        reader            = {{czytelnik}{czytelnik}},
66        readers           = {{czytelnicy}{czytelnicy}},
67        conductor         = {{dyrygent}{dyr\adddot}},
68        conductors        = {{dyrygenci}{dyr\adddot}},
69        serieseditor      = {{redaktor serii}{red\adddotspace serii}},
70        serieseditors     = {{redaktor serii}{red\adddotspace serii}},
71        holder            = {{w\l a\'{s}ciciel}{w\l a\'{s}ciciel}},
72        holders           = {{w\l a\'{s}ciciele}{w\l a\'{s}ciciele}},
73        editorcm          = {{redaktor i~kompilator}{red\adddotspace i~kompilator}},
74        editorcms         = {{redaktorzy i~kompilatorzy}{red\adddotspace i~kompilatorzy}},
```

- Roles expressed as actions

```
75        byperformer       = {{wykonawca}{wyk\adddot}},
76        bydirector        = {{re\.{z}yseria}{re\.{z}\adddot}},
77        byreader          = {{czyta}{czyta}},
78        byconductor       = {{kieruje}{kier\adddot}},
79        byserieseditor    = {{redakcja}{red\adddot}},
80        byholder          = {{w~posiadaniu}{w~posiadaniu}},
81        byeditorcm        = {{redakcja i~opracowanie}{red\adddotspace i~oprac\adddot}},
```

- Publication details

```
82    facsimile      = {{wydanie faksymile}{wyd\adddotspace faksymile}},
83    revised        = {{wydanie poprawione}{wyd\adddotspace popr\adddot}},
84    revisedenlarged = {{wydanie poprawione i~rozszerzone}{wyd\adddotspace popr\adddotspace
↪     i~rozszerz\adddot}},
85    revisedreprint = {{przedruk poprawiony}{przedr\adddotspace popr\adddot}},
86    suppto         = {{dodatek do}{dod\adddotspace do}},
87    equals         = {{=}{=}},
88    original       = {{oryginalny}{oryg\adddot}},
89    amendedby      = {{zmienione przez}{zmien\adddotspace przez}},
```

- Publication state

```
90    inpressin      = {{z\l o\.{z}one do}{z\l o\.{z}one do}},
```

- Pagination

```
91    book           = {{ksi\k{e}ga}{ks\adddot}},
92    books          = {{ksi\k{e}gi}{ks\adddot}},
93    canto          = {{pie\'{s}\'{n}}{pie\'{s}\'{n}}},
94    cantos         = {{pie\'{s}ni}{pie\'{s}ni}},
95    stanza         = {{zwrotka}{zwr\adddot}},
96    stanzas        = {{zwrotki}{zwr\adddot}},
97    act            = {{akt}{a\adddot}},
98    acts           = {{akty}{aa\adddot}},
99    scene          = {{scena}{sc\adddot}},
100   scenes         = {{sceny}{sc\adddot}},
101   folio          = {{karta}{k\adddot}},
102   folios         = {{karty}{kk\adddot}},
103   article        = {{artyku\l }{art\adddot}},
104   articles       = {{artyku\l y}{art\adddot}},
105   clause         = {{klauzula}{klauz\adddot}},
106   clauses        = {{klauzule}{klauz\adddot}},
107   regulation     = {{rozporz\k{a}dzenie}{rozp\adddot}},
108   regulations    = {{rozporz\k{a}dzenia}{rozp\adddot}},
109   rule           = {{przepis}{przep\adddot}},
110   rules          = {{przepisy}{przep\adddot}},
111   booktotal      = {{ksi\k{e}ga}{ks\adddot}},
112   booktotals     = {{ksi\k{e}gi}{ks\adddot}},
113   cantototal     = {{pie\'{s}\'{n}}{pie\'{s}\'{n}}},
114   cantototals    = {{pie\'{s}ni}{pie\'{s}ni}},
115   stanzatotal    = {{zwrotka}{zwr\adddot}},
116   stanzatotals   = {{zwrotki}{zwr\adddot}},
117   acttotal       = {{akt}{a\adddot}},
118   acttotals      = {{akty}{aa\adddot}},
119   scenetotal     = {{scena}{sc\adddot}},
120   scenetotals    = {{sceny}{sc\adddot}},
121   foliototal     = {{karta}{k\adddot}},
122   foliototals    = {{karty}{kk\adddot}},
123   articletotal   = {{artyku\l }{art\adddot}},
124   articletotals  = {{artyku\l y}{art\adddot}},
125   clausetotal    = {{klauzula}{klauz\adddot}},
126   clausetotals   = {{klauzule}{klauz\adddot}},
127   regulationtotal = {{rozporz\k{a}dzenie}{rozp\adddot}},
128   regulationtotals = {{rozporz\k{a}dzenia}{rozp\adddot}},
129   ruletotal      = {{przepis}{przep\adddot}},
130   ruletotals     = {{przepisy}{przep\adddot}},
```

- Types

```
131        facebook          = {{wpis na Facebooku}{wpis na Facebooku}},
132        tweet             = {{wpis na Twitterze}{wpis na Twitterze}},
133        podcast           = {{podcast}{podcast}},
134        clip              = {{wideo}{wideo}},
135        webcast           = {{webcast}{webcast}},
136        poster            = {{plakat}{plakat}},
```

- Miscellaneous

```
137        nolocation        = {{bez miejsca}{b\adddot m\adddot}},
138        modified          = {{ostatnio zmodyfikowany}{ostatnio zmodyf\adddot}},
139        recorded          = {{nagrane}{nagr\adddot}},
140        uploaded          = {{za\l adowane}{za\l ad\adddot}},
141        filed             = {{wniesione}{wniesione}},
142        issued            = {{wydany}{wyd\adddot}},
```

- Labels

```
143        anon              = {{Anonim}{Anon\adddot}},
144        pseudo            = {{Pseudo-}{Ps\adddot-}},
145        urldown           = {{pobrane}{pobrane}},
```

- Country names, patents, and patent requests,

```
146        countryjp         = {{Japonia}{JP}},
147        patentjp          = {{japo\'{n}ski patent}{jap\adddotspace pat\adddot}},
148        patreqjp          = {{japo\'{n}ski wniosek patentowy}{jap\adddotspace wniosek pat\adddot}},
```

- These are borrowed from other styles.

```
149        1column           = {{jedna kolumna}{1\addnbspace kol\adddot}},
150        2column           = {{dwie kolumny}{2\addnbspace kol\adddot}},
151        inflayer          = {{warstwa ni\.{z}sza}{warstwa ni\.{z}sza}},
152        suplayer          = {{warstwa wy\.{z}sza}{warstwa wy\.{z}sza}},
153        paper             = {{gazeta}{gazeta}},
154        papyrus           = {{papirus}{papirus}},
155        parchment         = {{pergamin}{pergamin}},
156        eucase            = {{sprawa}{sprawa}},
157        eujoinedcases     = {{po\l \k{a}czone sprawy}{po\l \k{a}czone sprawy}},
158        commissiondecision = {{decyzja komisji}{decyzja komisji}},
159        application       = {{wniosek}{wniosek}},
160        order             = {{polecenie}{polecenie}},
161        bill              = {{rachunek}{rachunek}},
162        draft             = {{projekt}{proj\adddot}},
163        opened            = {{przed\l o\.{z}one do podpisu}{przed\l\adddotspace do podp\adddot}},
164        signed            = {{podpisane}{podpisane}},
165        adopted           = {{przyj\k{e}te}{przyj\k{e}te}},
166        inforce           = {{wesz\l o w~\.{z}ycie}{wesz\l o w~\.{z}ycie}},
```

The rest of these strings are overrides for the standard ones.

```
167        byeditor          = {{redakcja}{red\adddot}},
168        bycompiler        = {{opracowanie}{oprac\adddot}},
169        byfounder         = {{za\l o\.{z}one przez}{za\l o\.{z}\adddotspace przez}},
170        bycontinuator     = {{kontynuowane przez}{kont\adddotspace przez}},
171        byredactor        = {{redakcja}{red\adddot}},
```

```
172      byreviser        = {{poprawki}{popr\adddot}},
173      byreviewer       = {{recenzja}{rec\adddot}},
174      bycollaborator   = {{we wsp\'{o}\l pracy z}{we wsp\'{o}\l pr\adddotspace z}},
175      bytranslator     = {{t\l umaczenie}{t\l um\adddot}},
176      bycommentator    = {{komentarz}{kom\adddot}},
177      byannotator      = {{obja\'{s}nienia}{obja\'{s}n\adddot}},
178      byeditortr       = {{redakcja i~t\l umaczenie}%
179                          {red\adddotspace i~t\l um\adddot}},
180      byeditorco       = {{redakcja i~komentarz}%
181                          {red\adddotspace i~kom\adddot}},
182      byeditoran       = {{redakcja i~obja\'{s}nienia}%
183                          {red\adddotspace i~obja\'{s}n\adddot}},
184      byeditorin       = {{redakcja i~wst\k{e}p}%
185                          {red\adddotspace i~wst\k{e}p}},
186      byeditorfo       = {{redakcja i~przedmowa}%
187                          {red\adddotspace i~przedm\adddot}},
188      byeditoraf       = {{redakcja i~pos\l owie}%
189                          {red\adddotspace i~pos\l \adddot}},
190      byeditortrco     = {{redakcja, t\l umaczenie i~komentarz}%
191                          {red.,\addabbrvspace t\l um.,\addabbrvspace kom\adddot}},
192      byeditortran     = {{redakcja, t\l umaczenie i~obja\'{s}nienia}%
193                          {red.,\addabbrvspace t\l um.,\addabbrvspace obja\'{s}n\adddot}},
194      byeditortrin     = {{redakcja, t\l umaczenie, wst\k{e}p}%
195                          {red.,\addabbrvspace t\l um.,\addabbrvspace wst\k{e}p}},
196      byeditortrfo     = {{redakcja, t\l umaczenie, przedmowa}%
197                          {red.,\addabbrvspace t\l um.,\addabbrvspace przedm\adddot}},
198      byeditortraf     = {{redakcja, t\l umaczenie, pos\l \adddot}%
199                          {red.,\addabbrvspace t\l um.,\addabbrvspace pos\l \adddot}},
200      byeditorcoin     = {{redakcja, komentarz, wst\k{e}p}%
201                          {red.,\addabbrvspace kom.,\addabbrvspace wst\k{e}p}},
202      byeditorcofo     = {{redakcja, komentarz i~przedmowa}%
203                          {red.,\addabbrvspace kom.,\addabbrvspace przedm\adddot}},
204      byeditorcoaf     = {{redakcja, komentarz, pos\l owie}%
205                          {red.,\addabbrvspace kom.,\addabbrvspace pos\l \adddot}},
206      byeditoranin     = {{redakcja, obja\'{s}nienia, wst\k{e}p}%
207                          {red.,\addabbrvspace obja\'{s}n.,\addabbrvspace wst\k{e}p}},
208      byeditoranfo     = {{redakcja, obja\'{s}nienia, przedmowa}%
209                          {red.,\addabbrvspace obja\'{s}n.,\addabbrvspace przedm\adddot}},
210      byeditoranaf     = {{redakcja, obja\'{s}nienia, pos\l owie}%
211                          {red.,\addabbrvspace obja\'{s}n.,\addabbrvspace pos\l \adddot}},
212      byeditortrcoin   = {{redakcja, t\l umaczenie, komentarz, wst\k{e}p}%
213                          {red.,\addabbrvspace t\l um.,\addabbrvspace kom.,\addabbrvspace
                          ↪  wst\k{e}p}},
214      byeditortrcofo   = {{redakcja, t\l umaczenie, komentarz, przedmowa}%
215                          {red.,\addabbrvspace t\l um.,\addabbrvspace kom.,\addabbrvspace
                          ↪  przedm\adddot}},
216      byeditortrcoaf   = {{redakcja, t\l umaczenie, komentarz, pos\l owie}%
217                          {red.,\addabbrvspace t\l um.,\addabbrvspace kom.,\addabbrvspace pos\l
                          ↪  \adddot}},
218      byeditortranin   = {{redakcja, t\l umaczenie, obja\'{s}nienia, wst\k{e}p}%
219                          {red.,\addabbrvspace t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace
                          ↪  wst\k{e}p}},
220      byeditortranfo   = {{redakcja, t\l umaczenie, obja\'{s}nienia, przedmowa}%
221                          {red.,\addabbrvspace t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace
                          ↪  przedm\adddot}},
222      byeditortranaf   = {{redakcja, t\l umaczenie, obja\'{s}nienia, pos\l owie}%
223                          {red.,\addabbrvspace t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace
                          ↪  pos\l \adddot}},
224      bytranslatorco   = {{t\l umaczenie i~komentarz}%
225                          {t\l um\adddotspace i~kom\adddot}},
226      bytranslatoran   = {{t\l umaczenie i~obja\'{s}nienia}%
227                          {t\l um\adddotspace i~obja\'{s}n\adddot}},
```

```
228      bytranslatorin  = {{t\l umaczenie i~wst\k{e}p}%
229                        {t\l um.,\addabbrvspace wst\k{e}p}},
230      bytranslatorfo  = {{t\l umaczenie i~przedmowa}%
231                        {t\l um.,\addabbrvspace przedm\adddot}},
232      bytranslataraf  = {{t\l umaczenie i~pos\l owie}%
233                        {t\l um.,\addabbrvspace pos\l \adddot}},
234      bytranslatorcoin = {{t\l umaczenie, komentarz i~wst\k{e}p}%
235                        {t\l um.,\addabbrvspace kom.,\addabbrvspace wst\k{e}p}},
236      bytranslatorcofo = {{t\l umaczenie, komentarz i~przedmowa}%
237                        {t\l um.,\addabbrvspace kom.,\addabbrvspace przedm\adddot}},
238      bytranslatorcoaf = {{t\l umaczenie, komentarz i~pos\l owie}%
239                        {t\l um.,\addabbrvspace kom.,\addabbrvspace pos\l \adddot}},
240      bytranslatoranin = {{t\l umaczenie, obja\'{s}nienia i~wst\k{e}p}%
241                        {t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace wst\k{e}p}},
242      bytranslatoranfo = {{t\l umaczenie, obja\'{s}nienia i~przedmowa}%
243                        {t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace przedm\adddot}},
244      bytranslatoranaf = {{t\l umaczenie, obja\'{s}nienia i~pos\l owie}%
245                        {t\l um.,\addabbrvspace obja\'{s}n.,\addabbrvspace pos\l \adddot}},
```

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

```
246      withcommentator  = {{komentarz}{komentarz}},
247      withannotator    = {{obja\'{s}nienia}{obja\'{s}nienia}},
248      withintroduction = {{wst\k{e}p}{wst\k{e}p}},
249      withforeword     = {{przedmowa}{przedmowa}},
250      withafterword    = {{pos\l owie}{pos\l owie}},
251      introduction     = {{wst\k{e}p}{wst\k{e}p}},
```

The translations and abbreviations for some publication details are different.

```
252      newseries       = {{nowa seria}{nowa seria}},
253      oldseries       = {{dawna seria}{dawna seria}},
254      edition         = {{wydanie}{wyd\adddot}},
255      reviewof        = {{recenzja}{rec\adddot}},
256      reprintfrom     = {{przedruk z}{przedr\adddotspace z}},
257      translationas   = {{t\l umaczenie polskie}{t\l um\adddotspace pol\adddotspace}},
258      origpubin       = {{pierwodruk w}{pierwodr\adddotspace w}},
```

We use a different translation for 'paragraph'.

```
259      paragraph       = {{ust\k{e}p}{ust\adddot}},
260      paragraphs      = {{ust\k{e}py}{ust\adddot}},
```

New Hart's Rules uses 'accessed' for URL dates.

```
261      urlseen         = {{dost\k{e}p}{dost\k{e}p}},
```

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

```
262      idem            = {{idem}{id\adddot}},
263      idemsm          = {{idem}{id\adddot}},
264      idemsf          = {{eadem}{ead\adddot}},
265      idemsn          = {{idem}{id\adddot}},
266      idempm          = {{eidem}{eid\adddot}},
267      idempf          = {{eaedem}{eaed\adddot}},
268      idempn          = {{eadem}{ead\adddot}},
269      idempp          = {{eidem}{eid\adddot}},
270      citedas         = {{dalej}{dalej}},
```

```
271        thiscite          = {{na}{na}},
```

Languages are abbreviated.

```
272        langamerican      = {{ameryka\'{n}ski angielski}{amer\adddotspace ang\adddot}},
273        langbasque        = {{baskijski}{bask\adddot}},
274        langbrazilian     = {{brazylijski portugalski}{braz\adddot port\adddot}},
275        langbulgarian     = {{bu\l garski}{bu\l g\adddot}},
276        langcatalan       = {{katalo\'{n}ski}{katal\adddot}},
277        langcroatian      = {{chorwacki}{chorw\adddot}},
278        langczech         = {{czeski}{czeski}},
279        langdanish        = {{du\'{n}ski}{du\'{n}\adddot}},
280        langdutch         = {{holenderski}{holend\adddot}},
281        langenglish       = {{angielski}{ang\adddot}},
282        langestonian      = {{esto\'{n}ski}{est\adddot}},
283        langfinnish       = {{fi\'{n}ski}{fi\'{n}\adddot}},
284        langfrench        = {{francuski}{fr\adddot}},
285        langgalician      = {{galicyjski}{galic\adddot}},
286        langgerman        = {{niemiecki}{niem\adddot}},
287        langgreek         = {{grecki}{gr\adddot}},
288        langhungarian     = {{w\k{e}gierski}{w\k{e}g\adddot}},
289        langitalian       = {{w\l oski}{w\l \adddot}},
290        langjapanese      = {{japo\'{n}ski}{jap\adddot}},
291        langlatin         = {{\l aci\'{n}ski}{\l ac\adddot}},
292        langlatvian       = {{\l otewski}{\l ot\adddot}},
293        langlithuanian    = {{litewski}{lit\adddot}},
294        langmarathi       = {{marathi}{mar\adddot}},
295        langnorwegian     = {{norweski}{norw\adddot}},
296        langpolish        = {{polski}{pol\adddot}},
297        langportuguese    = {{portugalski}{port\adddot}},
298        langromanian      = {{rumu\'{n}ski}{rum\adddot}},
299        langrussian       = {{rosyjski}{ros\adddot}},
300        langserbian       = {{serbski}{serb\adddot}},
301        langslovak        = {{s\l owacki}{s\l c\adddot}},
302        langslovene       = {{s\l owe\'{n}ski}{s\l owe\'{n}\adddot}},
303        langspanish       = {{hiszpa\'{n}ski}{hiszp\adddot}},
304        langswedish       = {{szwedzki}{szw\adddot}},
305        langturkish       = {{turecki}{tur\adddot}},
306        langukrainian     = {{ukrai\'{n}ski}{ukr\adddot}},
307    }
```

5.6   Other languages

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