

OXREF BUNDLE

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

Alex Ball

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# Introduction

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

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

## 1.1 Quick start

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

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

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

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

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

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

## 1.2 Installation

### 1.2.1 DEPENDENCIES

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

### 1.2.2 MANAGED WAY

The latest stable release of the biblatex-oxref bundle has been packaged for TeX Live and MiKTeX. If you are running TeX Live and have `tlmgr` installed, you can install the bundle simply by running `tlmgr install biblatex-oxref`. If you are running MiKTeX, you can install the bundle by running `mpm --install=biblatex-oxref`. Both `tlmgr` and `mpm` have GUI versions that you might find friendlier.

### 1.2.3 AUTOMATED WAY

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

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

### 1.2.4 MANUAL WAY

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

1. Run `luatex oxref.dtx` to generate the source files. (You can safely skip this step if you are confident about step 2.)
2. Compile `oxref.dtx`, `oxnotes-doc.tex`, `oxyear-doc.tex`, and `oxnum-doc.tex` with LuaLaTeX and Biber to generate the documentation. You will need to enable shell escape so that minted can typeset the listings.
3. Move the files to your TeX tree as follows:
  - `source/latex/biblatex-oxref`: `oxref.dtx`, `(oxref.ins)`
  - `tex/latex/biblatex-oxref`: `american-oxref.lbx`, `british-oxref.lbx`, `english-oxref.lbx`, `oxalph.bbx`, `oxalph.cbx`, `oxalph.dbx`, `oxnotes.bbx`, `oxnotes.cbx`, `oxnotes.dbx`, `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 2016–2018 Alex Ball.

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

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

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

## Bibliography styles

### 2.1 Base style: oxref.bbx

#### 2.1.1 LOADING DEPENDENCIES, SETTING UP LANGUAGES, APPLYING OPTIONS

Dependencies:

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

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

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

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

We provide some additional bibliography strings:

- roles expressed as functions;

```
24 \NewBibliographyString{%
25   director, performer, reader, conductor,
```

- roles expressed as actions;

```
26   bydirector, byperformer, byreader, byconductor, byserieseditor,
```

- publication details;

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

- publication state;

28      `inpressin,`

- pagination;

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

- types;

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

- miscellaneous;

36      `nolocation, modified, recorded, uploaded,`

- labels;

37      `anon, pseudo, urldown,`

- borrowed from other styles.

38      `1column, 2column, inflayer, suplayer, paper, papyrus, parchment,`  
 39      `eucase, eujoinedcases, commissiondecision, application,`  
 40      `order, bill, draft, opened, signed, adopted, inforce,`  
 41      `}`

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.

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

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

44      `\renewcommand*{\labelnamepunct}{\addcomma\space}`  
 45      `\renewcommand*{\newunitpunct}{\addcomma\space}`  
 46      `\renewcommand*{\subtitlepunct}{\addcolon\space}`  
 47      `\renewcommand*{\intitlepunct}{\nopunct\space}`  
 48      `\renewcommand*{\bibnamedash}{\resizebox{2em}{\height}{\textemdash}\addthinspace}`  
 49      `\newcommand*{\recordseriespunct}{\addcomma\space}`  
 50      `\newcommand*{\relatedtypepunct}{\addsemicolon\space}`  
 51      `\renewcommand*{\relateddelim}{\addsemicolon\space}`  
 52      `\DeclareDelimFormat{revsdnamedelim}{\addcomma}`  
 53      `\DeclareDelimFormat{authortypedelim}{\addspace}`  
 54      `\DeclareDelimFormat{editortypedelim}{\addspace}`  
 55      `\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.

```
56 \DeclareNameAlias{bookauthor}{default}
57 \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.

```
58 \newtoggle{blx@ox@scnames}
59 \DeclareBibliographyOption[boolean]{scnames}[true]{%
60   \settoggle{blx@ox@scnames}{#1}
61 }
```

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.

```
62 \newtoggle{blx@ox@nametitle}\toggletrue{blx@ox@nametitle}%
63 \DeclareBibliographyOption[boolean]{usenametitles}[true]{%
64   \settoggle{blx@ox@nametitle}{#1}
65   \DeclareEntryOption[boolean]{usenametitles}[true]{%
66     \settoggle{blx@ox@nametitle}{#1}}
```

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

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

Here is the one for inverted name order.

```
79 \newbibmacro*{name:family-title-given}[5]{%
80   \ifuseprefix{%
81     \usebibmacro{name:delim}{#3#1}%
82     \usebibmacro{name:hook}{#3#1}%
83     \ifdefvoid{#3}{}{%
84       \ifcapital{%
85         \mkbibnameprefix{\MakeCapital{#3}}\isdot
86       }{%
87         \mkbibnameprefix{#3}\isdot}%
88     \ifprefchar{}{\bibnamedelimc}}%
89   \mkbibnamefamily{#1}\isdot
90   \ifdefvoid{#4}{}{\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
91   \ifboolexpe{%
92     (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
```

```

93     and
94     test {\ifdefvoid{#2}}%
95   }{}{%
96     \revsdnamepunct}%
97   \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
98   \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
99 }{%
100   \usebibmacro{name:delim}{#1}%
101   \usebibmacro{name:hook}{#1}%
102   \mkbibnamefamily{#1}\isdot
103   \ifdefvoid{#4}{}{\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
104   \ifboolexpe{%
105     (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
106     and
107     test {\ifdefvoid{#2}}
108     and
109     test {\ifdefvoid{#3}}%
110   }{}{%
111     \revsdnamepunct}%
112   \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
113   \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
114   \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.

```

115 \def\blx@ox@lasthash{}
116 \DeclareNameFormat{bib-family-given/cite-given-family}{%
117   \iffielddannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}{}%
118   \ifitemannotation{inferred}{\bibopenbracket}{}%
119   \ifbibliography{%
120     \iftoggle{blx@ox@scnames}{%
121       \renewcommand*{\mkbibnamefamily}[1]{\textsc{##1}}%
122       \renewcommand*{\mkbibnamegiven}[1]{\textsc{##1}}%
123       \renewcommand*{\mkbibnameprefix}[1]{\textsc{##1}}%
124       \renewcommand*{\mkbibnamesuffix}[1]{\textsc{##1}}%
125       \renewcommand*{\mkbibnametitle}[1]{\textsc{##1}}%
126     }{}%
127     \ifgiveninits{%
128       \usebibmacro{name:family-title-given}%
129       {\namepartfamily}%
130       {\namepartgiveni}%
131       {\namepartprefix}%
132       {\namepartsuffix}%
133       {\nameparttitle}%
134     }{%
135       \usebibmacro{name:family-title-given}%
136       {\namepartfamily}%
137       {\namepartgiven}%
138       {\namepartprefix}%
139       {\namepartsuffix}%
140       {\nameparttitle}%
141     }%
142     \savefield{hash}{\blx@ox@lasthash}%
143     \ifitemannotation{pseudo}{%
144       \addspace\printtext[parens]{%
145         \iftoggle{blx@ox@scnames}{%
146           \textsc{\bibsstring{pseudo}}%
147         }{}%

```

```

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

```

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`.

```

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

```

```

204     {\namepartsuffix}
205     {\nameparttitle}}%
206 \savefield{hash}{\blx@ox@lasthash}%
207 \ifitemannotation{variant}{%
208     \global\settoggle{blx@ox@variantname}{true}%
209 }{%
210     \global\settoggle{blx@ox@variantname}{false}}%
211 \usebibmacro{name:andothers}}

```

We do likewise for the regular family-given format.

```

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

```

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

```

232 \xpatchbibmacro{name:given-family}%
233     {\bibnamedelimd\mkbibnamesuffix{#4}}%
234     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}{}
235 \xpatchbibmacro{name:family-given}%
236     {\bibnamedelimd\mkbibnamesuffix{#4}}%
237     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}{}

```

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).

```

238 \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
239 \DeclareFieldFormat{namevariant}{\mkbibparens{\bibstring{equals}\space #1}}

```

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

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

```

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

```

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

```

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

```

```

296     }%
297 }%

```

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.

```

298   }%
299   \savebox{\blx@ox@altnamebox}{%
300     \printnames[#1]{\value{namepairs}}-\value{namepairs}}{#2}%
301   }%
302   \let\blx@ox@secondhash=\blx@ox@lasthash
303   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
304     \unhbox\blx@ox@namebox
305   }{%
306     \unhbox\blx@ox@altnamebox
307     \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
308   }%
309 }%
310 }%

```

Now we return to common code.

```

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

```

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

```

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

```

```

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

```

This is the (simpler) implementation for editors.

```

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

```

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`.

```

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

```

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

```

389 \newbool{bbx@inset}
390 \DeclareBibliographyDriver{set}{%
391   \booltrue{bbx@inset}%
392   \entryset{}%

```

```

393 \newunit\newblock
394 \usebibmacro{setpageref}%
395 \finentry}

```

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

```

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

```

We copy the author to rawauthor for easier testing.

```

408 \DeclareStyleSourceMap{
409 \maps[datatype=bibtex]{%
410 \map{%
411 \step[fieldsource=author]%
412 \step[fieldset=rawauthor, origfieldval]%
413 }
414 }%
415 }

```

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).

```

416 \newcommand*{\oxrefanon}{Anonymous}
417 \newtoggle{blx@ox@isanon}
418 \renewbibmacro*{author}{%
419 \iffieldequals{rawauthor}{\oxrefanon}{%
420 \toggletrue{blx@ox@isanon}%
421 }{%
422 \togglefalse{blx@ox@isanon}}%
423 \ifbool{expr}{
424 test \ifuseauthor
425 and
426 ( not test {\ifnameundef{author}} )
427 and (
428 ( not togl {blx@ox@isanon} )
429 or
430 ( not togl {blx@ox@autoanon} )
431 or
432 test {\ifbibliography}
433 )
434 }
435 {\usebibmacro{bbx:dashcheck}

```



```

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

```

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.

```

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

```

We do the same for `translator` as well.

```

477     \renewbibmacro*{translator}{%
478         \usebibmacro{bbx:translator}{translatorstrg}}
479     \renewbibmacro*{translator+others}{%
480         \usebibmacro{bbx:translator}{translator+othersstrg}}
481     \newbibmacro*{bbx:translator}[1]{%
482         \ifboolexpr{
483             test \ifusetranslator
484             and
485             not test {\ifnameundef{translator}}
486         }
487         {\usebibmacro{bbx:dashcheck}
488          {\bibnamedash}

```

```

489     {\printnames{translator}%
490      \setunit{\printdelim{translatortypedelim}}}%
491     \usebibmacro{bbx:savehash}%
492     \usebibmacro{#1}%
493     \clearname{translator}%
494     \setunit{\addspace}%
495     {\global\undef\bbx@lasthash}}
496 \xpatchbibmacro{translatorstrg}%
497 {\bibstring}%
498 {\bibstring[\mkbibparens]}{}{}%
499 \xpatchbibmacro{translator+othersstrg}%
500 {\bibstring}%
501 {\bibstring[\mkbibparens]}{}{}%

```

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

```

502 \renewbibmacro*{bybookauthor}{%
503   \ifnamesequal{author}{bookauthor}%
504   {\bibstring{idem\thefield{gender}}}%
505   {\printnames{bookauthor}}}

```

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

```

506 \newbibmacro*{bookeditor}{%
507   \global\undef\bbx@lasthash
508   \ifboolexpr{
509     test \ifuseeditor
510     and
511     not test {\ifnameundef{editor}}
512   }{%
513     \ifnamesequal{author}{editor}{%
514       \bibstring{idem\thefield{gender}}%
515       \setunit{\addspace}%
516       \usebibmacro{editor+othersstrg}%
517       \clearname{editor}%
518     }%
519     \printnames[bookeditor]{editor}%
520     \setunit*\addspace%
521     \usebibmacro{editor+othersstrg}%
522     \clearname{editor}%
523   }%
524 }{}

```

We provide a macro for printing series editors.

```

525 \newbibmacro*{byserieseditor}{%
526   \ifnameundef{serieseditor}
527   {}
528   {\usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
529     \setunit{\addspace}%
530     \printnames[byeditor]{serieseditor}%
531     \newunit}}

```

### 2.1.3 TITLES

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

```

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

```

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

```

556 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
557 \newbibmacro*{origtitle}{%
558   \iffieldundef{origtitle}{}{%
559     \iflistundef{language}{%
560       \printtext[parens]{\printfield{origtitle}}%
561     }{%
562       \printtext[brackets]{%
563         \printlist{language}\space
564         \bibstring{translationof}\space
565         \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 extracted and adapted from code by Marco Daniel.<sup>1</sup>

```

566 \newcommand{\bLx@ox@compyear}[2]{%
567   \def\num@one{#1}%
568   \def\num@two{#2}%
569   \StrLen{\num@one}[\num@one@len]%
570   \StrLen{\num@two}[\num@two@len]%

```

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

```

571 \IfEq{\num@one@len}{\num@two@len}%
572 {\StrCompare{\num@one}{\num@two}[\Result]}%
573 \ifnum\num@two@len>3%
574 \IfStrEq{\Result}{2}{\def\Result{1}}}%
575 \fi
576 \StrGobbleLeft{0\num@two}{\Result}%
577 {\num@two}%
578 }

```

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

```

579 \patchcmd{\mkdaterangefull}{%
580 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
581 }{%
582 \iffieldundef{#2endmonth}%
583 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
584 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
585 }{}%
586 \patchcmd{\mkdaterangefullextra}{%
587 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
588 }{%
589 \iffieldundef{#2endmonth}%
590 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
591 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
592 }{}%
593 \patchcmd{\mkdaterangetrunc}{%
594 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
595 }{%
596 \iffieldundef{#2endmonth}%
597 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
598 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
599 }{}%
600 \patchcmd{\mkdaterangetruncextra}{%
601 \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
602 }{%
603 \iffieldundef{#2endmonth}%
604 {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
605 {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
606 }{}%

```

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

```

607 \DeclareFieldFormat{datatype}{%
608 \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
609 }
610 \newtoggle{blx@ox@timefirst}
611 \DeclareBibliographyOption{timefirst}[true]{%
612 \settoggle{blx@ox@timefirst}{#1}}
613 \DeclareEntryOption{timefirst}[true]{%
614 \settoggle{blx@ox@timefirst}{#1}}
615 \newbibmacro*{date+time}{%
616 \ifbool{expr{
617 test {\iffieldundef{year}}
618 and
619 test {\iffieldundef{season}}
620 and
621 test {\iffieldundef{month}}
622 and
623 test {\iffieldundef{hour}}
624 }}{

```

```

625     \printfield{datetype}}%
626     \setunit*{\addspace}%
627     \iftoggle{blx@ox@timefirst}{%
628         \printtime
629         \setunit*{\addcomma\space}}{}%
630     \printdate
631     \iftoggle{blx@ox@timefirst}{}{%
632         \setunit*{\addcomma\space}%
633         \printtime}%
634 }
635 \renewbibmacro*{date}{\usebibmacro{date+time}}

```

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

```

636 \DeclareFieldFormat{origdatetype}{%
637     \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
638 }
639 \newbibmacro*{origdate+time}{%
640     \ifboolexpr{
641         test {\iffieldundef{origyear}}
642         and
643         test {\iffieldundef{origseason}}
644         and
645         test {\iffieldundef{origmonth}}
646         and
647         test {\iffieldundef{orighour}}
648     }{}%
649     \printfield{origdatetype}}%
650     \setunit*{\addspace}%
651     \iftoggle{blx@ox@timefirst}{%
652         \printorigtime
653         \setunit*{\addcomma\space}}{}%
654     \printorigdate
655     \iftoggle{blx@ox@timefirst}{}{%
656         \setunit*{\addcomma\space}%
657         \printorigtime}%
658 }

```

## 2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

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

```

659 \xpatchfieldformat{edition}{%
660     #1\isdot
661 }{%
662     \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
663 }{}

```

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

```

664 \DeclareFieldFormat{pages}{%
665     \iffieldundef{bookpagination}%
666     {\mkcomprange{#1}}%
667     {\mkcomprange[{\mkpageprefix[bookpagination]}]{#1}}%
668 }

```

The same is true in citations.

```

669 \DeclareFieldFormat{postnote}{%
670 \iffielddundef{pagination}%
671 {\mkcomprange{#1}}%
672 {\mkcomprange[\mkpageprefix]{#1}}%
673 }

```

### 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.

```

674 \DeclareBibliographyOption{nopublisher}[true]{%
675 \DeclareFieldInputHandler{publisher}{\def\NewValue{}}%
676 }

```

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.

```

677 \DeclareBibliographyOption{nolocation}[true]{%
678 \DeclareStyleSourceMap{
679 \maps[datatype=bibtex]{
680 \map{
681 \pertype{book}
682 \pertype{mvbook}
683 \pertype{bookinbook}
684 \pertype{inbook}
685 \pertype{suppbook}
686 \pertype{collection}
687 \pertype{mvcollection}
688 \pertype{incollection}
689 \pertype{suppcollection}
690 \pertype{reference}
691 \pertype{mvreference}
692 \pertype{inreference}
693 \pertype{proceedings}
694 \pertype{mvproceedings}
695 \pertype{inproceedings}
696 \step[notfield=location, fieldset=location,
↪ fieldvalue={\noexpand\bibstring{nolocation}}]
697 }
698 }
699 }%
700 }

```

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

```

701 \newtoggle{blx@ox@noloc}
702 \def\blx@ox@noloc{{\bibstring{nolocation}}}
703 \DeclareEntryOption{nolocation}[true]{%
704 \settoggle{blx@ox@noloc}{#1}%
705 \iflistundef{location}{%
706 \iftoggle{blx@ox@noloc}{\restorelist{location}{\blx@ox@noloc}}{}%
707 }{}

```

### 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.

```

708 \DeclareBibliographyOption{isourls}[true]{%
709   \ifstrequal{#1}{true}
710     {\DeclareFieldFormat{url}{$\angle$\url{##1}$\rangle$}}
711     {\DeclareFieldFormat{url}{\url{##1}}}%
712 }
713 \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.

```

714 \renewcommand*{\biburlsetup}{%
715   \Urlmuskip=0mu plus 2mu\relax
716   \mathchardef\UrlBigBreakPenalty=100\relax
717   \mathchardef\UrlBreakPenalty=200\relax
718   \def\UrlBigBreaks{\do/\\do:}%
719   \def\UrlNoBreaks{\do\(\do\[\do\{\do\<}%
720   \def\UrlBreaks{%
721     \do\>\do\}\do\]\do\)\do\\\do\|}%
722     \do\' \do\$ \do\* \do\^ \do\"}%
723   \appto\UrlSpecials{%
724     \do!\{\mathbin{\mskip-\Urlmuskip\mathchar`\!\mskip\Urlmuskip}}%
725     \do\&\{\mathbin{\mskip-\Urlmuskip\mathchar`\&\mskip\Urlmuskip}}%
726     \do\+\{\mathbin{\mskip-\Urlmuskip\mathchar`\+\mskip\Urlmuskip}}%
727     \do\,\{\mathbin{\mskip-\Urlmuskip\mathchar`\,\mskip\Urlmuskip}}%
728     \do\-\{\mathbin{\mskip-\Urlmuskip\mathchar`\-\mskip\Urlmuskip}}%
729     \do\.\{\mathbin{\mskip-\Urlmuskip\mathchar`\.\mskip\Urlmuskip}}%
730     \do\;\{\mathbin{\mskip-\Urlmuskip\mathchar`\;\mskip\Urlmuskip}}%
731     \do\=\{\mathbin{\mskip-\Urlmuskip\mathchar`\=\mskip\Urlmuskip}}%
732     \do\?\{\mathbin{\mskip-\Urlmuskip\mathchar`\?\mskip\Urlmuskip}}%
733     \do\_ \{\mathbin{\mskip-\Urlmuskip\mathchar`\_\mskip\Urlmuskip}}%
734     \do\@ \{\mathbin{\mskip-\Urlmuskip\mathchar`\@\mskip\Urlmuskip}}%
735     \do\# \{\mathbin{\mskip-\Urlmuskip\mathchar`\#\mskip\Urlmuskip}}%
736   }%
737   \ifnumgreater{\value{biburlnumpenalty}}{0}{
738     {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlnumpenalty}}}}%
739     \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
740   }%
741   \ifnumgreater{\value{biburlucpenalty}}{0}{
742     {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlucpenalty}}}}%
743     \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
744     \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
745     \do\U\do\V\do\W\do\X\do\Y\do\Z}
746   }%
747   \ifnumgreater{\value{biburlllcpenalty}}{0}{
748     {\def\do##1{\appto\UrlSpecials{\do##1{\mathchar`##1 \penalty\value{biburlllcpenalty}}}}%
749     \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
750     \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
751     \do\U\do\V\do\W\do\X\do\Y\do\Z}
752   }%
753   \let\do=noexpand}

```

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

```

754 \DeclareFieldFormat{urldate}{\bibstring{urlseen}\space#1}
755 \xpatchbibmacro{url+urldate}{%
756   {\setunit*{\addspace}}%

```

```
757 {\setunit*{\addcomma\addspace}}{}{}
```

The DOI is introduced by ‘doi’ in lowercase.

```
758 \xpatchfieldformat{doi}%
759 {\mkbibacro{DOI}}%
760 {\printtext{doi}}{}{}
```

Unlike URLs, DOIs are preceded by a full stop.

```
761 \xpatchbibmacro{doi+eprint+url}%
762 {\printfield{doi}}%
763 {\setunit{\addperiod\space}\printfield{doi}}{}{}
```

### 2.1.8 ADDENDA

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

```
764 \renewbibmacro*{addendum+pubstate}{%
765 \ifboolexpr{
766   test {\iffielddundef{pubstate}}
767   or
768   test {\iffieldequalstr{labeldatesource}{pubstate}}
769 }{}{%
770   \nopunct
771   \ifbibstring{\thefield{pubstate}}{%
772     \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
773   }{%
774     \printfield{pubstate}}%
775   \setunit{\addsemicolon\addspace}\newblock
776   \printfield{addendum}}
777 \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}
```

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

```
778 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
779 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}
```

### 2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

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

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

```
781 \newcommand*{\blx@ox@abbrevstring}{%
782   A\^{A}BCDEFG\u{G}HI\.{I}\^{I}JKLMNOP\^{O}\^{O}PQRSTU\^{U}\^{U}VWXYZ.}%
783 \AtBeginDocument{
784   \ifdefstring{\encodingdefault}{OT1}}{}{%
785     \renewcommand*{\blx@ox@abbrevstring}{%
786       A\^{A}BC\c{C}DEFG\u{G}HI\.{I}\^{I}JKLMNOP\^{O}\^{O}PQRS\c{S}TU\^{U}\^{U}VWXYZ.}%
787   }
```



```

788 }
789 \newcommand*{\ifabbrev}[3]{%
790   \StrRight{#1}{1}[\blx@ox@lastchar]%
791   \IfSubStr{\blx@ox@abbrevstring}{\blx@ox@lastchar}{#2}{#3}
792 }

```

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.

```

793 \renewbibmacro*{journal+issuetitle}{%
794   \ifboolexpr{
795     test {\iffieldundef{title}}
796     and
797     not test {\iffieldundef{issuetitle}}
798   }{%
799     \usebibmacro{issue}%
800     \setunit{\addspace =\addspace}%
801   }{%
802     \ifboolexpr{
803       ( not test {\iffieldundef{pubstate}} )
804       and
805       test {\ifbibtstring{\thefield{pubstate}in}}
806     }{%
807       \printtext{\bibstring{\thefield{pubstate}in}\space}%
808       \clearfield{pubstate}%
809     }{}%
810     \usebibmacro{journal}%
811     \iffieldundef{journalsubtitle}{%
812       \ifabbrev{\thefield{journaltitle}}{\setunit{\addspace}}{\newunit}%
813     }{%
814       \ifabbrev{\thefield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
815     \iffieldundef{series}{}{%
816       \newunit\newblock
817       \printfield{series}%
818       \ifbibtstring{\thefield{series}}{%
819         \setunit{\addspace}%
820       }{%
821         \newunit}}%
822     \usebibmacro{volume+number+eid}%
823     \setunit{\addspace}%
824     \usebibmacro{issue+date}%
825     \newunit}

```

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

```

826 \renewbibmacro*{title+issuetitle}{%
827   \usebibmacro{periodical}%
828   \iffieldundef{subtitle}{%
829     \ifabbrev{\thefield{title}}{\setunit{\addspace}}{\newunit}%
830   }{%
831     \ifabbrev{\thefield{subtitle}}{\setunit{\addspace}}{\newunit}}%
832   \iffieldundef{series}{}{%
833     \newunit\newblock
834     \printfield{series}%

```

```

835 \ifbibxstring{\thefield{series}}{%
836 \setunit{\addspace}%
837 }{%
838 \newunit}}%
839 \usebibmacro{volume+number+eid}%
840 \setunit{\addspace}%
841 \usebibmacro{issue+date}%
842 \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).

```

843 \DeclareBibliographyOption{issuestyle}[slash]{%
844 \ifcsdef{blx@ox@issuestyle@#1}{%
845 \csuse{blx@ox@issuestyle@#1}%
846 }{%
847 \PackageError{biblatex}
848 {Invalid option 'issuestyle=#1'}
849 {Valid values are 'slash', 'colon', 'comma', 'parens'}%
850 }%
851 }
852 \csdef{blx@ox@issuestyle@slash}{%
853 \renewbibmacro*{volume+number+eid}{%
854 \printfield{volume}%
855 \setunit*{\addslash}%
856 \printfield{number}%
857 }%
858 }
859 \csdef{blx@ox@issuestyle@colon}{%
860 \renewbibmacro*{volume+number+eid}{%
861 \printfield{volume}%
862 \setunit*{\addcolon\space}%
863 \printfield{number}%
864 }%
865 }
866 \csdef{blx@ox@issuestyle@comma}{%
867 \renewbibmacro*{volume+number+eid}{%
868 \printfield{volume}%
869 \setunit*{\addcomma\space}%
870 \printfield{number}%
871 }%
872 }
873 \csdef{blx@ox@issuestyle@parens}{%
874 \renewbibmacro*{volume+number+eid}{%
875 \printfield{volume}%
876 \setunit*{\addspace}%
877 \printfield[parens]{number}%
878 }%
879 }
880 \ExecuteBibliographyOptions{issuestyle=slash}

```

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

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

```

881 \newtoggle{blx@ox@varissuedate}
882 \DeclareBibliographyOption[boolean]{varissuedate}[true]{%
883   \settoggle{blx@ox@varissuedate}{#1}}
884 \DeclareEntryOption[boolean]{varissuedate}[true]{%
885   \settoggle{blx@ox@varissuedate}{#1}}
886 \renewbibmacro*{issue+date}{%
887   \ifboolexpr{
888     test {\iffieldundef{issue}}
889     and
890     test {\iffieldundef{year}}
891     and
892     test {\iffieldundef{season}}
893     and
894     test {\iffieldundef{month}}
895   }{%
896     \ifboolexpr{
897       togl {blx@ox@varissuedate}
898       and
899       test {\iffieldundef{volume}}
900       and
901       test {\iffieldundef{number}}
902     }{%
903       \newunit
904       \printtext{%
905         \iffieldundef{issue}{%
906           \usebibmacro{date}
907         }{%
908           \printfield{issue}%
909           \setunit*{\addspace}%
910           \usebibmacro{date}}}%
911     }{%
912       \printtext[parens]{%
913         \iffieldundef{issue}{%
914           \usebibmacro{date}%
915         }{%
916           \printfield{issue}%
917           \setunit*{\addspace}%
918           \usebibmacro{date}}}}}%
919   \newunit
920   \printfield{eid}%
921 }

```

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.

```

922 \DeclareBibliographyDriver{article}{%
923   \usebibmacro{bibindex}%
924   \usebibmacro{begentry}%
925   \usebibmacro{author/translator+others}%
926   \setunit{\printdelim{nametitledelim}}\newblock
927   \usebibmacro{title}%
928   \newunit\newblock
929   \usebibmacro{byauthor}%
930   \newunit\newblock
931   \usebibmacro{bytranslator+others}%
932   \newunit\newblock

```

```

933 \printfield{version}%
934 \newunit\newblock
935 \usebibmacro{journal+issuetitle}%
936 \newunit
937 \usebibmacro{byeditor+others}%
938 \iffieldequalstr{relatedtype}{suppto}{%
939   \setunit{\addsemicolon\space}%
940   \iftoggle{bbx:related}{%
941     \usebibmacro{related:init}%
942     \usebibmacro{related}%
943     \clearfield{related}%
944   }{}%
945 }{}%
946 \newunit
947 \usebibmacro{note+pages}%
948 \newunit\newblock
949 \iftoggle{bbx:isbn}
950   {\printfield{issn}}
951   {}%
952 \newunit\newblock
953 \usebibmacro{doi+eprint+url}%
954 \newunit\newblock
955 \usebibmacro{addendum+pubstate}%
956 \setunit{\bibpagerefpunct}\newblock
957 \usebibmacro{pageref}%
958 \setunit{\relatedtypepunct}\newblock
959 \iftoggle{bbx:related}
960   {\usebibmacro{related:init}%
961     \usebibmacro{related}}
962   {}%
963 \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

964 \DeclareBibliographyDriver{periodical}{%
965   \usebibmacro{bibindex}%
966   \usebibmacro{begentry}%
967   \usebibmacro{editor}%
968   \setunit{\printdelim{nametitledelim}}\newblock
969   \usebibmacro{title+issuetitle}%
970   \newunit\newblock
971   \usebibmacro{byeditor}%
972   \newunit\newblock
973   \printfield{note}%
974   \newunit\newblock
975   \iftoggle{bbx:isbn}
976     {\printfield{issn}}
977     {}%
978   \newunit\newblock
979   \usebibmacro{doi+eprint+url}%
980   \newunit\newblock
981   \usebibmacro{addendum+pubstate}%
982   \setunit{\bibpagerefpunct}\newblock
983   \usebibmacro{pageref}%
984   \setunit{\relatedtypepunct}\newblock
985   \iftoggle{bbx:related}
986     {\usebibmacro{related:init}%
987       \usebibmacro{related}}
988     {}%
989   \usebibmacro{finentry}}

```

### 2.1.10 BOOKS AND WORKS IN BOOKS

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

```
990 \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.

```
991 \DeclareFieldFormat[bookinbook]{citetitle}{%
992   \ifbool{expr{
993     test {\iffieldequalstr{entrysubtype}{poem}}
994     or
995     test {\iffieldequalstr{entrysubtype}{play}}
996   }}{
997     \mkbibemph{#1}%
998   }{
999     \mkbibquote{#1\isdot}}
1000 \DeclareFieldFormat[bookinbook]{title}{%
1001   \ifbool{expr{
1002     test {\iffieldequalstr{entrysubtype}{poem}}
1003     or
1004     test {\iffieldequalstr{entrysubtype}{play}}
1005   }}{
1006     \mkbibemph{#1}%
1007   }{
1008     \mkbibquote{#1\isdot}}
```

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

```
1009 \DeclareFieldFormat[inference]{title}{\mkbibquote{#1\isdot}}
```

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

```
1010 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbk,%
1011 collection,mvcollection,incollection,suppcollection,%
1012 proceedings,mvproceedings,inproceedings,%
1013 reference,mvreference,inreference]{volume}{%
1014   \IfSubStr{#1}{-}{%
1015     \StrCount{#1}{-}[\blx@dashnum]%
1016     \StrBefore{#1}{-}[\blx@volnum]%
1017     \Rn{\blx@volnum}\bibrangedash
1018     \StrBehind{\blx@dashnum}{#1}{-}[\blx@volnum]%
1019     \Rn{\blx@volnum}%
1020   }{
1021     \Rn{#1}}
```

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

```
1022 \newbibmacro*{maintitle+volume}{%
1023   \ifbool{expr{
1024     test {\iffielddundef{maintitle}}
1025     or
1026     test {\iffielddundef{volume}}
1027   }}{
1028     {\printtext[maintitle+volume]{%
1029       \bibstring{volume}\addspace
```

```

1030 \printfield{volume}\printfield{part}\addspace
1031 \bibstring{ofseries}\addspace
1032 \usebibmacro{maintitle}}
1033 }
1034 \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}

```

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

```

1035 \renewbibmacro*{in:}{%
1036 \iffieldequalstr{entrysubtype}{yearbook}}{%
1037 \printtext{\bibstring{in}\intitlepunct}}

```

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

```

1038 \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.

```

1039 \renewbibmacro*{series+number}{%
1040 \printfield{series}%
1041 \setunit*{\addcomma\space}%
1042 \usebibmacro{byserieseditor}%
1043 \setunit*{\addcomma\space}%
1044 \printfield{number}}

```

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.

```

1045 \newcounter{locpubpairs}
1046 \newbibmacro*{edition+publisher+location+date}{%
1047 \printlist{origlocation}%
1048 \iflistundef{origpublisher}%
1049 {\setunit*{\addcomma\space}}%
1050 {\setunit*{\addcolon\space}}%
1051 \printlist{origpublisher}%
1052 \setunit*{\addcomma\space}%
1053 \ifboolexpr{
1054 test {\iflistundef{origlocation}}
1055 and
1056 test {\iflistundef{origpublisher}}
1057 and
1058 test {\iffieldundef{edition}}}
1059 }{%
1060 \printorigdate}%
1061 \setunit{\addsemicolon\space}%
1062 \printfield{edition}%
1063 \setunit*{\addcomma\space}%

```

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

```

1064 \ifboolexpr{%
1065 test {\ifnumcomp{\value{publisher}}{>}{1}}

```

```

1066     and
1067     test {\ifnumequal{\value{locpubpairs}}{\value{publisher}}}
1068   }{%
1069     \setcounter{locpubpairs}{0}%
1070     \savebibmacro{list:andothers}%
1071     \renewbibmacro*{list:andothers}{}%
1072     \whilebool{expr{%
1073       test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1074     }}{%
1075       \stepcounter{locpubpairs}%
1076       \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1077         \ifnumequal{\value{publisher}}{2}{%
1078           \setunit*{\addspace\bibstring{and}\addspace}%
1079         }{%
1080           \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1081             \setunit*{\addcomma\space\bibstring{and}\addspace}%
1082           }{%
1083             \setunit*{\addcomma\space}%
1084           }%
1085         }%
1086       }%
1087       \printlist[][\value{locpubpairs}-\value{locpubpairs}]{location}%
1088       \setunit*{\addcolon\space}%
1089       \printlist[][\value{locpubpairs}-\value{locpubpairs}]{publisher}%
1090     }%
1091     \restorebibmacro{list:andothers}%
1092   }{%
1093     \printlist{location}%
1094     \iflistundef{publisher}%
1095     {\setunit*{\addcomma\space}}%
1096     {\setunit*{\addcolon\space}}%
1097     \printlist{publisher}%
1098   }%
1099   \setunit*{\addcomma\space}%
1100   \usebibmacro{date}%
1101 }

```

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

```

1102 \newbibmacro*{series+number+edition+publisher+location+date}{%
1103   \ifbool{expr{
1104     test {\iffieldundef{series}}
1105     and
1106     test {\iffieldundef{number}}
1107     and
1108     test {\iffieldundef{edition}}
1109     and
1110     test {\iflistundef{publisher}}
1111     and
1112     test {\iflistundef{location}}
1113     and
1114     test {\iffieldundef{year}}
1115     and
1116     test {\iffieldundef{season}}
1117     and
1118     test {\iffieldundef{month}}
1119   }}{%
1120     \nopunct
1121     \printtext[publication]{%
1122       \usebibmacro{series+number}%

```

```

1123     \setunit{\addsemicolon\addspace}%
1124     \usebibmacro{edition+publisher+location+date}%
1125     \usebibmacro{copub}}}%
1126 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1127 \setunit{\addspace}\newblock
1128 \usebibmacro{origpub}%
1129 }

```

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

```

1130 \newbibmacro*{series+number+publisher+location+date}{%
1131   \ifboolexpr{
1132     test {\iffieldundef{series}}
1133     and
1134     test {\iffieldundef{number}}
1135     and
1136     test {\iflistundef{publisher}}
1137     and
1138     test {\iflistundef{location}}
1139     and
1140     test {\iffieldundef{year}}
1141     and
1142     test {\iffieldundef{season}}
1143     and
1144     test {\iffieldundef{month}}
1145   }{%
1146     \nopunct
1147     \printtext[publication]{%
1148       \usebibmacro{series+number}%
1149       \setunit{\addsemicolon\addspace}%
1150       \usebibmacro{publisher+location+date}%
1151       \usebibmacro{copub}}}%
1152   \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1153   \setunit{\addspace}\newblock
1154   \usebibmacro{origpub}%
1155 }

```

The copub macro prints co-publication details.

```

1156 \newbibmacro*{copub}{%
1157   \ifboolexpr{
1158     togl {bbx:related}
1159     and
1160     test {\iffieldequalstr{relatedtype}{copub}}
1161   }{%
1162     \setunit{\addsemicolon\space}%
1163     \usebibmacro{related:init}%
1164     \usebibmacro{related}%
1165   }%
1166 }

```

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

```

1167 \newbibmacro*{origpub}{%
1168   \ifboolexpr{
1169     test {\iflistundef{origlocation}}
1170     and
1171     test {\iflistundef{origpublisher}}
1172     and

```



```

1173     test {\iffielddundef{edition}}
1174     and
1175     ( not test {\iffielddundef{origyear}} )
1176   }{%
1177     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1178   }{%
1179   }

```

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;

```

1180 \DeclareBibliographyDriver{book}{%
1181   \usebibmacro{bibindex}%
1182   \usebibmacro{begentry}%
1183   \usebibmacro{author/editor+others/translator+others}%
1184   \setunit{\printdelim{nametitledelim}}\newblock
1185   \usebibmacro{title}%
1186   \newunit\newblock
1187   \usebibmacro{byauthor}%
1188   \newunit\newblock
1189   \usebibmacro{byeditor+others}%
1190   \newunit\newblock
1191   \printfield{note}%
1192   \newunit\newblock
1193   \usebibmacro{maintitle+volume}%
1194   \newunit
1195   \usebibmacro{series+number+edition+publisher+location+date}%
1196   \setunit{\addspace}%
1197   \printfield{howpublished}%
1198   \newunit\newblock
1199   \usebibmacro{chapter+pages}%
1200   \newunit
1201   \printfield{pagetotal}%
1202   \newunit\newblock
1203   \iftoggle{bbx:isbn}
1204     {\printfield{isbn}}
1205     {}%
1206   \newunit\newblock
1207   \usebibmacro{doi+eprint+url}%
1208   \newunit\newblock
1209   \usebibmacro{addendum+pubstate}%
1210   \setunit{\bibpagerefpunct}\newblock
1211   \usebibmacro{pageref}%
1212   \setunit{\relatedtypepunct}\newblock
1213   \iftoggle{bbx:related}
1214     {\usebibmacro{related:init}%
1215      \usebibmacro{related}}
1216     {}%
1217   \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;

```

1218 \DeclareBibliographyDriver{mvbook}{%
1219   \usebibmacro{bibindex}%
1220   \usebibmacro{begentry}%
1221   \usebibmacro{author/editor+others/translator+others}%
1222   \setunit{\printdelim{nametitledelim}}\newblock
1223   \usebibmacro{maintitle+title}%
1224   \newunit
1225   \ifboolexpr{
1226     test {\iffieldequalstr{relatedtype}{multivolume}}
1227     or
1228     ( not test {\iffieldundef{maintitle}} )
1229   }{%
1230     \printfield{volume}%
1231     \printfield{part}%
1232     \newunit\newblock
1233     \usebibmacro{byauthor}%
1234     \newunit\newblock
1235     \usebibmacro{byeditor+others}%
1236     \newunit\newblock
1237     \printfield{volumes}%
1238     \newunit\newblock
1239     \printfield{note}%
1240     \newunit\newblock
1241     \ifboolexpr{
1242       test {\iffieldequalstr{relatedtype}{multivolume}}
1243       and
1244       test {\iffieldundef{maintitle}}
1245     }{%
1246       \printfield{volume}%
1247       \printfield{part}%
1248     }{%
1249       \newunit\newblock
1250       \usebibmacro{series+number+edition+publisher+location+date}%
1251       \newunit\newblock
1252       \usebibmacro{chapter+pages}%
1253       \newunit
1254       \printfield{pagetotal}%
1255       \newunit\newblock
1256       \iftoggle{bbx:isbn}
1257       {\printfield{isbn}}
1258       {}%
1259       \newunit\newblock
1260       \usebibmacro{doi+eprint+url}%
1261       \newunit\newblock
1262       \usebibmacro{addendum+pubstate}%
1263       \setunit{\bibpagerefpunct}\newblock
1264       \usebibmacro{pageref}%
1265       \setunit{\relatedtypepunct}\newblock
1266       \iftoggle{bbx:related}
1267       {\usebibmacro{related:init}%
1268         \usebibmacro{related}}
1269       {}%
1270       \usebibmacro{finentry}}

```

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

```

1271 \DeclareBibliographyDriver{inbook}{%
1272   \usebibmacro{bibindex}%
1273   \usebibmacro{begentry}%
1274   \usebibmacro{author/translator+others}%
1275   \setunit{\printdelim{nametitledelim}}\newblock
1276   \usebibmacro{title}%
1277   \newunit\newblock
1278   \usebibmacro{byauthor}%
1279   \newunit\newblock
1280   \usebibmacro{in:}%
1281   \usebibmacro{bybookauthor}%
1282   \newunit\newblock
1283   \usebibmacro{maintitle+booktitle}%
1284   \newunit
1285   \iffieldundef{maintitle}
1286   {\printfield{volume}%
1287    \printfield{part}}
1288   {}%
1289   \newunit\newblock
1290   \usebibmacro{byeditor+others}%
1291   \newunit\newblock
1292   \printfield{volumes}%
1293   \newunit\newblock
1294   \printfield{note}%
1295   \newunit\newblock%
1296   \usebibmacro{series+number+edition+publisher+location+date}%
1297   \newunit\newblock
1298   \usebibmacro{chapter+pages}%
1299   \newunit\newblock
1300   \iftoggle{bbx:isbn}
1301   {\printfield{isbn}}
1302   {}%
1303   \newunit\newblock
1304   \usebibmacro{doi+eprint+url}%
1305   \newunit\newblock
1306   \usebibmacro{addendum+pubstate}%
1307   \setunit{\bibpagerefpunct}\newblock
1308   \usebibmacro{pageref}%
1309   \setunit{\relatedtypepunct}\newblock
1310   \iftoggle{bbx:related}
1311   {\usebibmacro{related:init}%
1312    \usebibmacro{related}}
1313   {}%
1314   \usebibmacro{finentry}}
1315 \DeclareFieldFormat[suppbook]{title}{#1\nopunct}

```

We also provide a bookinbook driver that handles origdate differently.

```

1316 \DeclareBibliographyDriver{bookinbook}{%
1317   \usebibmacro{bibindex}%
1318   \usebibmacro{begentry}%
1319   \usebibmacro{author/translator+others}%
1320   \setunit{\printdelim{nametitledelim}}\newblock
1321   \usebibmacro{title}%
1322   \newunit\newblock
1323   \usebibmacro{byauthor}%
1324   \newunit\newblock
1325   \usebibmacro{in:}%
1326   \usebibmacro{bybookauthor}%
1327   \newunit\newblock
1328   \usebibmacro{maintitle+booktitle}%

```

```

1329 \newunit
1330 \iffieldundef{maintitle}
1331 {\printfield{volume}%
1332 \printfield{part}}
1333 {}%
1334 \newunit\newblock
1335 \usebibmacro{byeditor+others}%
1336 \newunit\newblock
1337 \printfield{volumes}%
1338 \newunit\newblock
1339 \printfield{note}%
1340 \newunit\newblock
1341 \usebibmacro{series+number+publisher+location+date}%
1342 \newunit\newblock
1343 \usebibmacro{chapter+pages}%
1344 \newunit\newblock
1345 \iftoggle{bbx:isbn}
1346 {\printfield{isbn}}
1347 {}%
1348 \newunit\newblock
1349 \usebibmacro{doi+eprint+url}%
1350 \newunit\newblock
1351 \usebibmacro{addendum+pubstate}%
1352 \setunit{\bibpagerefpunct}\newblock
1353 \usebibmacro{pageref}%
1354 \setunit{\relatedtypepunct}\newblock
1355 \iftoggle{bbx:related}
1356 {\usebibmacro{related:init}%
1357 \usebibmacro{related}}
1358 {}%
1359 \usebibmacro{finentry}}

```

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

```

1360 \DeclareBibliographyDriver{collection}{%
1361 \usebibmacro{bibindex}%
1362 \usebibmacro{begentry}%
1363 \usebibmacro{editor+others}%
1364 \setunit{\printdelim{nametitledelim}}\newblock
1365 \usebibmacro{title}%
1366 \newunit\newblock
1367 \usebibmacro{byeditor+others}%
1368 \newunit\newblock
1369 \printfield{note}%
1370 \newunit\newblock
1371 \usebibmacro{maintitle+volume}%
1372 \newunit
1373 \usebibmacro{series+number+edition+publisher+location+date}%
1374 \newunit\newblock
1375 \usebibmacro{chapter+pages}%
1376 \newunit
1377 \printfield{pagetotal}%
1378 \newunit\newblock
1379 \iftoggle{bbx:isbn}
1380 {\printfield{isbn}}
1381 {}%
1382 \newunit\newblock
1383 \usebibmacro{doi+eprint+url}%
1384 \newunit\newblock
1385 \usebibmacro{addendum+pubstate}%
1386 \setunit{\bibpagerefpunct}\newblock

```

```

1387 \usebibmacro{pageref}%
1388 \setunit{\relatedtypepunct}\newblock
1389 \iftoggle{bbx:related}
1390 {\usebibmacro{related:init}%
1391 \usebibmacro{related}}
1392 {}%
1393 \usebibmacro{finentry}}

```

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

```

1394 \DeclareBibliographyDriver{mvcollection}{%
1395 \usebibmacro{bibindex}%
1396 \usebibmacro{begentry}%
1397 \usebibmacro{editor+others}%
1398 \setunit{\printdelim{nametitledelim}}\newblock
1399 \usebibmacro{maintitle+title}%
1400 \newunit
1401 \ifboolexpr{
1402 test {\iffieldequalstr{relatedtype}{multivolume}}
1403 or
1404 ( not test {\iffieldundef{maintitle}} )
1405 }{}%
1406 \printfield{volume}%
1407 \printfield{part}%
1408 \newunit\newblock
1409 \usebibmacro{byeditor+others}%
1410 \newunit\newblock
1411 \printfield{volumes}%
1412 \newunit\newblock
1413 \printfield{note}%
1414 \newunit\newblock
1415 \ifboolexpr{
1416 test {\iffieldequalstr{relatedtype}{multivolume}}
1417 and
1418 test {\iffieldundef{maintitle}}
1419 }{}%
1420 \printfield{volume}%
1421 \printfield{part}%
1422 }{}%
1423 \newunit\newblock
1424 \usebibmacro{series+number+edition+publisher+location+date}%
1425 \newunit\newblock
1426 \usebibmacro{chapter+pages}%
1427 \newunit
1428 \printfield{pagetotal}%
1429 \newunit\newblock
1430 \iftoggle{bbx:isbn}
1431 {\printfield{isbn}}
1432 {}%
1433 \newunit\newblock
1434 \usebibmacro{doi+eprint+url}%
1435 \newunit\newblock
1436 \usebibmacro{addendum+pubstate}%
1437 \setunit{\bibpagerefpunct}\newblock
1438 \usebibmacro{pageref}%
1439 \setunit{\relatedtypepunct}\newblock
1440 \iftoggle{bbx:related}
1441 {\usebibmacro{related:init}%
1442 \usebibmacro{related}}
1443 {}%

```

```
1444 \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.

```
1445 \DeclareBibliographyDriver{incollection}{%
1446   \usebibmacro{bibindex}%
1447   \usebibmacro{begentry}%
1448   \usebibmacro{author/translator+others}%
1449   \setunit{\printdelim{nametitledelim}}\newblock
1450   \usebibmacro{title}%
1451   \newunit\newblock
1452   \usebibmacro{byauthor}%
1453   \newunit\newblock
1454   \usebibmacro{in:}%
1455   \usebibmacro{bookeditor}%
1456   \newunit\newblock
1457   \usebibmacro{maintitle+booktitle}%
1458   \newunit
1459   \iffieldundef{maintitle}
1460   {\printfield{volume}%
1461    \printfield{part}}
1462   {}%
1463   \newunit\newblock
1464   \printfield{volumes}%
1465   \newunit\newblock
1466   \printfield{note}%
1467   \newunit\newblock%
1468   \usebibmacro{series+number+edition+publisher+location+date}%
1469   \newunit\newblock
1470   \usebibmacro{chapter+pages}%
1471   \newunit\newblock
1472   \iftoggle{bbx:isbn}
1473   {\printfield{isbn}}
1474   {}%
1475   \newunit\newblock
1476   \usebibmacro{doi+eprint+url}%
1477   \newunit\newblock
1478   \usebibmacro{addendum+pubstate}%
1479   \setunit{\bibpagerefpunct}\newblock
1480   \usebibmacro{pageref}%
1481   \setunit{\relatedtypepunct}\newblock
1482   \iftoggle{bbx:related}
1483   {\usebibmacro{related:init}%
1484    \usebibmacro{related}}
1485   {}%
1486   \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.

```
1487 \DeclareBibliographyDriver{reference}{%
1488   \usebibmacro{bibindex}%
1489   \usebibmacro{begentry}%
1490   \usebibmacro{author/editor+others/translator+others}%
1491   \setunit{\printdelim{nametitledelim}}\newblock
1492   \usebibmacro{title}%
1493   \newunit\newblock
1494   \printfield{edition}%
```

```

1495 \newunit
1496 \usebibmacro{byauthor}%
1497 \newunit\newblock
1498 \usebibmacro{byeditor+others}%
1499 \newunit\newblock
1500 \printfield{note}%
1501 \newunit\newblock
1502 \usebibmacro{maintitle+volume}%
1503 \newunit
1504 \usebibmacro{series+number+publisher+location+date}%
1505 \newunit\newblock
1506 \usebibmacro{chapter+pages}%
1507 \newunit
1508 \printfield{pagetotal}%
1509 \newunit\newblock
1510 \iftoggle{bbx:isbn}
1511 {\printfield{isbn}}
1512 {}%
1513 \newunit\newblock
1514 \usebibmacro{doi+eprint+url}%
1515 \newunit\newblock
1516 \usebibmacro{addendum+pubstate}%
1517 \setunit{\bibpagerefpunct}\newblock
1518 \usebibmacro{pageref}%
1519 \setunit{\relatedtypepunct}\newblock
1520 \iftoggle{bbx:related}
1521 {\usebibmacro{related:init}%
1522 \usebibmacro{related}}
1523 {}%
1524 \usebibmacro{finentry}}

```

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

```

1525 \DeclareBibliographyDriver{mvreference}{%
1526 \usebibmacro{bibindex}%
1527 \usebibmacro{begentry}%
1528 \usebibmacro{author/editor+others/translator+others}%
1529 \setunit{\printdelim{nametitledelim}}\newblock
1530 \usebibmacro{maintitle+title}%
1531 \newunit
1532 \ifboolexpr{
1533 test {\iffieldequalstr{relatedtype}{multivolume}}
1534 or
1535 ( not test {\iffieldundef{maintitle}} )
1536 }{%
1537 \printfield{volume}%
1538 \printfield{part}%
1539 \newunit\newblock
1540 \printfield{edition}%
1541 \newunit
1542 \usebibmacro{byauthor}%
1543 \newunit\newblock
1544 \usebibmacro{byeditor+others}%
1545 \newunit\newblock
1546 \printfield{volumes}%
1547 \newunit\newblock
1548 \printfield{note}%
1549 \newunit\newblock
1550 \ifboolexpr{
1551 test {\iffieldequalstr{relatedtype}{multivolume}}
1552 and

```

```

1553     test {\iffielddundef{maintitle}}
1554   }{%
1555     \printfield{volume}%
1556     \printfield{part}%
1557   }{%
1558     \newunit\newblock
1559     \usebibmacro{series+number+publisher+location+date}%
1560     \newunit\newblock
1561     \usebibmacro{chapter+pages}%
1562     \newunit
1563     \printfield{pagetotal}%
1564     \newunit\newblock
1565     \iftoggle{bbx:isbn}
1566     {\printfield{isbn}}
1567     {}%
1568     \newunit\newblock
1569     \usebibmacro{doi+eprint+url}%
1570     \newunit\newblock
1571     \usebibmacro{addendum+pubstate}%
1572     \setunit{\bibpagerefpunct}\newblock
1573     \usebibmacro{pageref}%
1574     \setunit{\relatedtypepunct}\newblock
1575     \iftoggle{bbx:related}
1576     {\usebibmacro{related:init}%
1577      \usebibmacro{related}}
1578     {}%
1579     \usebibmacro{finentry}}

```

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

```

1580 \DeclareBibliographyDriver{inference}{%
1581   \usebibmacro{bibindex}%
1582   \usebibmacro{begentry}%
1583   \usebibmacro{author/translator+others}%
1584   \setunit{\printdelim{nametitledelim}}\newblock
1585   \usebibmacro{title}%
1586   \newunit\newblock
1587   \usebibmacro{byauthor}%
1588   \newunit\newblock
1589   \iffielddundef{editor}{}{%
1590     \usebibmacro{in:}%
1591     \usebibmacro{bookeditor}%
1592     \newunit\newblock}%
1593   \usebibmacro{maintitle+booktitle}%
1594   \newunit
1595   \iffielddundef{maintitle}
1596   {\printfield{volume}%
1597    \printfield{part}}
1598   {}%
1599   \newunit\newblock
1600   \printfield{edition}%
1601   \newunit
1602   \usebibmacro{byeditor+others}%
1603   \newunit\newblock
1604   \printfield{volumes}%
1605   \newunit\newblock
1606   \printfield{note}%
1607   \newunit\newblock%
1608   \usebibmacro{series+number+publisher+location+date}%
1609   \newunit\newblock

```



```

1610 \usebibmacro{chapter+pages}%
1611 \newunit
1612 \printfield{pagetotal}%
1613 \newunit\newblock
1614 \iftoggle{bbx:isbn}
1615 {\printfield{isbn}}
1616 {}%
1617 \newunit\newblock
1618 \usebibmacro{doi+eprint+url}%
1619 \newunit\newblock
1620 \usebibmacro{addendum+pubstate}%
1621 \setunit{\bibpagerefpunct}\newblock
1622 \usebibmacro{pageref}%
1623 \setunit{\relatedtypepunct}\newblock
1624 \iftoggle{bbx:related}
1625 {\usebibmacro{related:init}%
1626 \usebibmacro{related}}
1627 {}%
1628 \usebibmacro{finentry}}

```

### 2.1.11 WORKS PRESENTED AT MEETINGS

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

```

1629 \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. A bit of jiggery-pokery is used to make the colon italic if it follows italic text.

```

1630 \renewbibmacro*{event+venue+date}{%
1631 \printfield{eventtitle}%
1632 \newunit
1633 \printfield{eventtitleaddon}%
1634 \ifboolexpr{
1635 test {\iffielddundef{venue}}
1636 and
1637 test {\iffielddundef{eventyear}}
1638 }{}{%
1639 \iffielddundef{eventtitle}{%
1640 \setunit{\mkbibemph{\addcomma}\space}%
1641 }{}%
1642 \newunit}%
1643 \printfield{venue}%
1644 \newunit%
1645 \printeventdate}%
1646 \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!

```

1647 \DeclareBibliographyDriver{proceedings}{%
1648   \usebibmacro{bibindex}%
1649   \usebibmacro{begentry}%
1650   \usebibmacro{author}%
1651   \newunit
1652   \usebibmacro{maintitle+title}%
1653   \newunit
1654   \iffielddundef{maintitle}
1655   {\printfield{volume}%
1656    \printfield{part}}
1657   {}%
1658   \newunit\newblock
1659   \usebibmacro{event+venue+date}%
1660   \newunit\newblock
1661   \usebibmacro{byeditor+others}%
1662   \newunit\newblock
1663   \printfield{volumes}%
1664   \newunit\newblock
1665   \printfield{note}%
1666   \newunit\newblock
1667   \printlist{organization}%
1668   \newunit
1669   \usebibmacro{series+number+edition+publisher+location+date}%
1670   \newunit\newblock
1671   \usebibmacro{chapter+pages}%
1672   \newunit
1673   \printfield{pagetotal}%
1674   \newunit\newblock
1675   \iftoggle{bbx:isbn}
1676   {\printfield{isbn}}
1677   {}%
1678   \newunit\newblock
1679   \usebibmacro{doi+eprint+url}%
1680   \newunit\newblock
1681   \usebibmacro{addendum+pubstate}%
1682   \setunit{\bibpagerefunct}\newblock
1683   \usebibmacro{pageref}%
1684   \setunit{\relatedtypepunct}\newblock
1685   \iftoggle{bbx:related}
1686   {\usebibmacro{related:init}%
1687    \usebibmacro{related}}
1688   {}%
1689   \usebibmacro{finentry}}

```

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

```

1690 \DeclareBibliographyDriver{inproceedings}{%
1691   \usebibmacro{bibindex}%
1692   \usebibmacro{begentry}%
1693   \usebibmacro{author/translator+others}%
1694   \setunit{\printdelim{nametitledelim}}\newblock
1695   \usebibmacro{title}%
1696   \newunit\newblock
1697   \usebibmacro{byauthor}%
1698   \newunit\newblock
1699   \usebibmacro{in:}%
1700   \usebibmacro{maintitle+booktitle}%
1701   \newunit
1702   \iffielddundef{maintitle}
1703   {\printfield{volume}%

```

```

1704     \printfield{part}}
1705   {}%
1706   \newunit\newblock
1707   \usebibmacro{event+venue+date}%
1708   \newunit\newblock
1709   \usebibmacro{byeditor+others}%
1710   \newunit\newblock
1711   \printfield{volumes}%
1712   \newunit\newblock
1713   \printfield{note}%
1714   \newunit\newblock
1715   \printlist{organization}%
1716   \newunit
1717   \usebibmacro{series+number+publisher+location+date}%
1718   \newunit\newblock
1719   \usebibmacro{chapter+pages}%
1720   \newunit\newblock
1721   \iftoggle{bbx:isbn}
1722   {\printfield{isbn}}
1723   {}%
1724   \newunit\newblock
1725   \usebibmacro{doi+eprint+url}%
1726   \newunit\newblock
1727   \usebibmacro{addendum+pubstate}%
1728   \setunit{\bibpagerefunct}\newblock
1729   \usebibmacro{pageref}%
1730   \setunit{\relatedtypepunct}\newblock
1731   \iftoggle{bbx:related}
1732   {\usebibmacro{related:init}%
1733     \usebibmacro{related}}
1734   {}%
1735   \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.

```

1736   \newbibmacro*{series+type+number}{%
1737     \ifboolexpr{
1738       test {\iffieldundef{series}}
1739       and
1740       test {\iffieldundef{type}}
1741     }{%
1742       \printfield{series}%
1743       \newunit
1744       \ifboolexpr{
1745         test {\iffieldundef{type}}
1746         and
1747         not test {\iffieldundef{number}}
1748       }{%
1749         \bibcpstring{number}
1750       }%
1751       \printfield{type}%
1752     }%
1753     \setunit*{\addspace}%
1754     \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 standard thesis driver, which also works well for us, and the report driver.

```

1755 \renewbibmacro*{institution+location+date}{%
1756 \ifbool{expr}{
1757   test {\iffieldundef{type}}
1758   and
1759   test {\iffieldundef{series}}
1760   and
1761   test {\iffieldundef{number}}
1762   and
1763   test {\iflistundef{institution}}
1764   and
1765   test {\iflistundef{location}}
1766   and
1767   test {\iffieldundef{year}}
1768   and
1769   test {\iffieldundef{season}}
1770   and
1771   test {\iffieldundef{month}}
1772 }{}{%
1773 \nopunct
1774 \printtext[publication]{%
1775 \ifbool{expr}{
1776   test {\iffieldundef{series}}
1777   and
1778   test {\iffieldundef{type}}
1779 }{}%
1780 \printfield{number}%
1781 \setunit*{\addcomma\space}%
1782 }{}%
1783 \printlist{location}%
1784 \iflistundef{institution}%
1785 {\setunit*{\addcomma\space}}%
1786 {\setunit*{\addcolon\space}}%
1787 \printlist{institution}%
1788 \setunit*{\addcomma\space}%
1789 \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.

```

1790 \newtoggle{blx@ox@altthesis}
1791 \DeclareBibliographyOption[boolean]{altthesis}[true]{%
1792 \settoggle{blx@ox@altthesis}{#1}
1793 }
1794 \newbibmacro*{type+institution+location+date}{%
1795 \iftoggle{blx@ox@altthesis}{%
1796 \ifbool{expr}{
1797   test {\iffieldundef{type}}
1798   and
1799   test {\iflistundef{institution}}
1800   and
1801   test {\iflistundef{location}}
1802   and
1803   test {\iffieldundef{year}}
1804   and
1805   test {\iffieldundef{season}}
1806   and
1807   test {\iffieldundef{month}}
1808 }{}{%
1809 \nopunct
1810 \printtext[publication]{%

```

```

1811     \printfield{type}%
1812     \setunit*{\addcomma\space}%
1813     \printlist{location}%
1814     \iflistundef{institution}{%
1815         \setunit*{\addcomma\space}%
1816     }{%
1817         \setunit*{\addcolon\space}}%
1818     \printlist{institution}%
1819     \setunit*{\addcomma\space}%
1820     \usebibmacro{date}}}%
1821 }{%
1822     \printfield{type}%
1823     \newunit
1824     \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.

```

1825 \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
1826     \ifboolexpr{
1827         test {\iffieldundef{type}}
1828         and
1829         test {\iffieldundef{series}}
1830         and
1831         test {\iffieldundef{number}}
1832         and
1833         test {\iffieldundef{edition}}
1834         and
1835         test {\iflistundef{organization}}
1836         and
1837         test {\iflistundef{publisher}}
1838         and
1839         test {\iflistundef{location}}
1840         and
1841         test {\iffieldundef{year}}
1842         and
1843         test {\iffieldundef{season}}
1844         and
1845         test {\iffieldundef{month}}
1846     }{%
1847         \nopunct
1848         \printtext[publication]{%
1849             \usebibmacro{series+type+number}%
1850             \setunit{\addsemicolon\space}%
1851             \printfield{edition}%
1852             \setunit*{\addcomma\space}%
1853             \iflistundef{publisher}{%
1854                 \printlist{organization}%
1855                 \setunit*{\addcomma\space}}%
1856             \printlist{location}%
1857             \iflistundef{publisher}{%
1858                 \iflistundef{organization}{%
1859                     \setunit*{\addcomma\space}%
1860                 }{%
1861                     \setunit*{\addcolon\space}%
1862                     \printlist{organization}}%
1863             }{%
1864                 \setunit*{\addcolon\space}%
1865                 \printlist{publisher}}%

```

```

1866 \setunit*{\addcomma\space}%
1867 \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.

```

1868 \newcommand*{\legreport}{legal}
1869 \DeclareBibliographyDriver{report}{%
1870   \usebibmacro{bibindex}%
1871   \usebibmacro{begentry}%
1872   \usebibmacro{author}%
1873   \setunit{\printdelim{nametitledelim}}\newblock
1874   \usebibmacro{maintitle+title}%
1875   \newunit
1876   \iffielddundef{maintitle}
1877   {\printfield{volume}%
1878     \printfield{part}}
1879   {}%
1880   \newunit\newblock
1881   \usebibmacro{byauthor}%
1882   \newunit\newblock
1883   \printfield{version}%
1884   \newunit\newblock
1885   \printfield{note}%
1886   \newunit\newblock
1887   \usebibmacro{series+type+number}%
1888   \setunit{\addspace}%
1889   \usebibmacro{institution+location+date}%
1890   \iffieldequals{entrysubtype}{\legreport}{%
1891     \setunit{\addspace}\nopunct
1892   }{%
1893     \newunit\newblock}%
1894   \usebibmacro{chapter+pages}%
1895   \newunit
1896   \printfield{pagetotal}%
1897   \newunit\newblock
1898   \iftoggle{bbx:isbn}
1899   {\printfield{isrn}}
1900   {}%
1901   \newunit\newblock
1902   \usebibmacro{doi+eprint+url}%
1903   \newunit\newblock
1904   \usebibmacro{addendum+pubstate}%
1905   \setunit{\bibpagerefpunct}\newblock
1906   \usebibmacro{pageref}%
1907   \setunit{\relatedtypepunct}\newblock
1908   \iftoggle{bbx:related}
1909   {\usebibmacro{related:init}%
1910     \usebibmacro{related}}
1911   {}%
1912   \usebibmacro{finentry}}

```

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

```

1913 \xpatchbibdriver{thesis}{%
1914   \printfield{type}%
1915   \newunit

```

```

1916 \usebibmacro{institution+location+date}%
1917 }{%
1918 \usebibmacro{type+institution+location+date}%
1919 }{}{}

```

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;

```

1920 \DeclareBibliographyDriver{manual}{%
1921 \usebibmacro{bibindex}%
1922 \usebibmacro{begentry}%
1923 \usebibmacro{author/editor}%
1924 \setunit{\printdelim{nametitledelim}}\newblock
1925 \usebibmacro{title}%
1926 \newunit\newblock
1927 \usebibmacro{byauthor}%
1928 \newunit\newblock
1929 \usebibmacro{byeditor}%
1930 \newunit\newblock
1931 \printfield{type}%
1932 \newunit
1933 \printfield{version}%
1934 \newunit
1935 \printfield{note}%
1936 \newunit\newblock
1937 \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
1938 \newunit\newblock
1939 \usebibmacro{chapter+pages}%
1940 \newunit
1941 \printfield{pagetotal}%
1942 \newunit\newblock
1943 \iftoggle{bbx:isbn}
1944 {\printfield{isbn}}
1945 {}%
1946 \newunit\newblock
1947 \usebibmacro{doi+eprint+url}%
1948 \newunit\newblock
1949 \usebibmacro{addendum+pubstate}%
1950 \setunit{\bibpagerefunct}\newblock
1951 \usebibmacro{pageref}%
1952 \setunit{\relatedtypepunct}\newblock
1953 \iftoggle{bbx:related}
1954 {\usebibmacro{related:init}%
1955 \usebibmacro{related}}
1956 {}%
1957 \usebibmacro{finentry}}

```

### 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.

```

1958 \newbibmacro*{publisher+type+series+number+date}{%
1959 \iffielddundef{number}{}{}%
1960 \setunit{\addcomma\space}%
1961 \usebibmacro{origdate+time}%

```

```

1962 }%
1963 \ifbool{expr}{%
1964   test {\iflistundef{origpublisher}}
1965   and
1966   test {\iflistundef{location}}
1967   and
1968   test {\iflistundef{publisher}}
1969   and
1970   test {\iffieldundef{type}}
1971   and
1972   test {\iffieldundef{series}}
1973   and
1974   test {\iffieldundef{number}}
1975   and
1976   test {\iffieldundef{year}}
1977   and
1978   test {\iffieldundef{season}}
1979   and
1980   test {\iffieldundef{month}}
1981   and
1982   test {\iffieldundef{eventyear}}
1983   and
1984   test {\iffieldundef{eventseason}}
1985   and
1986   test {\iffieldundef{eventmonth}}
1987   and
1988   test {\iffieldundef{hour}}
1989 }{}{%
1990   \nopunct
1991   \printtext[publication]{%
1992     \printlist{origpublisher}%
1993     \setunit*{\addsemicolon\space}%
1994     \printlist{location}%
1995     \iflistundef{publisher}%
1996       {\setunit*{\addcomma\space}}%
1997       {\setunit*{\addcolon\space}}%
1998     \printlist{publisher}%
1999     \iffieldundef{series}%
2000       {\setunit*{\addspace}}%
2001       {\setunit*{\recordseriespunct}}%
2002     \printfield{series}%
2003     \setunit*{\addcomma\space}%
2004     \printfield{type}%
2005     \iflistundef{publisher}%
2006       {\setunit*{\addcomma\space}}%
2007       {\setunit*{\addspace}}%
2008     \printfield{number}%
2009     \iffieldundef{number}{%
2010       \setunit*{\addcomma\space}%
2011       \usebibmacro{origdate+time}%
2012     }{}%
2013     \setunit*{\addcomma\space}%
2014     \usebibmacro{date+time}}}%

```

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

```

2015 \newtoggle{blx@ox@endeditor}
2016 \DeclareEntryOption[boolean]{endeditor}[true]{%
2017   \settoggle{blx@ox@endeditor}{#1}}
2018 \newbibmacro*{pre-byeditor+others}{%

```



```

2019 \iftoggle{blx@ox@endeditor}{%
2020 \usebibmacro{byeditor+others}%
2021 }}
2022 \newbibmacro*{post-byeditor+others}{%
2023 \iftoggle{blx@ox@endeditor}{%
2024 \usebibmacro{byeditor+others}%
2025 }}

```

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

```

2026 \DeclareBibliographyDriver{audio}{%
2027 \usebibmacro{bibindex}%
2028 \usebibmacro{begentry}%
2029 \usebibmacro{author}%
2030 \setunit{\printdelim{nametitledelim}}\newblock
2031 \usebibmacro{title}%
2032 \newunit
2033 \usebibmacro{maintitle}%
2034 \iffieldequalstr{relatedtype}{includes}{%
2035 \iftoggle{bbx:related}{%
2036 \newunit\newblock
2037 \usebibmacro{related:init}%
2038 \usebibmacro{related}%
2039 \clearfield{related}%
2040 }{}%
2041 }{}%
2042 \setunit{\addspace}
2043 \usebibmacro{onlinetype}%
2044 \newunit\newblock
2045 \usebibmacro{byauthor}%
2046 \newunit\newblock
2047 \usebibmacro{pre-byeditor+others}%
2048 \newunit\newblock
2049 \printfield{volumes}%
2050 \newunit\newblock
2051 \printfield{note}%
2052 \newunit\newblock%
2053 \printlist{organization}%
2054 \newunit\newblock%
2055 \usebibmacro{publisher+type+series+number+date}%
2056 \setunit{\addspace}%
2057 \printfield{howpublished}%
2058 \newunit\newblock
2059 \usebibmacro{post-byeditor+others}%
2060 \newunit\newblock
2061 \iftoggle{bbx:isbn}
2062 {\printfield{isbn}}
2063 {}%
2064 \newunit\newblock
2065 \usebibmacro{doi+eprint+url}%
2066 \newunit\newblock
2067 \usebibmacro{addendum+pubstate}%
2068 \setunit{\bibpagerefpunct}\newblock
2069 \usebibmacro{pageref}%
2070 \setunit{\relatedtypepunct}\newblock
2071 \iftoggle{bbx:related}
2072 {\usebibmacro{related:init}%
2073 \usebibmacro{related}}
2074 {}%
2075 \usebibmacro{finentry}}

```

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

```
2076 \DeclareBibliographyAlias{music}{audio}
2077 \DeclareBibliographyAlias{movie}{audio}
2078 \DeclareBibliographyAlias{video}{audio}
```

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

```
2079 \DeclareBibliographyDriver{inaudio}{%
2080   \usebibmacro{bibindex}%
2081   \usebibmacro{begentry}%
2082   \usebibmacro{author}%
2083   \setunit{\printdelim{nametitle}}\newblock
2084   \usebibmacro{title}%
2085   \newunit\newblock
2086   \usebibmacro{byauthor}%
2087   \newunit\newblock
2088   \usebibmacro{in:}%
2089   \usebibmacro{bybookauthor}%
2090   \newunit\newblock
2091   \usebibmacro{maintitle+booktitle}%
2092   \iffieldequalstr{relatedtype}{includes}{%
2093     \iftoggle{bbx:related}{%
2094       \newunit\newblock
2095       \usebibmacro{related:init}%
2096       \usebibmacro{related}%
2097       \clearfield{related}%
2098     }{}%
2099   }{}%
2100   \setunit{\addspace}
2101   \usebibmacro{onlinetype}%
2102   \newunit\newblock
2103   \usebibmacro{pre-byeditor+others}%
2104   \newunit\newblock
2105   \printfield{volumes}%
2106   \newunit\newblock
2107   \printfield{note}%
2108   \newunit\newblock%
2109   \printlist{organization}%
2110   \newunit\newblock%
2111   \usebibmacro{publisher+type+series+number+date}%
2112   \setunit{\addspace}%
2113   \printfield{howpublished}%
2114   \newunit\newblock
2115   \usebibmacro{post-byeditor+others}%
2116   \newunit\newblock
2117   \iftoggle{bbx:isbn}
2118   {\printfield{isbn}}
2119   {}%
2120   \newunit\newblock
2121   \usebibmacro{doi+eprint+url}%
2122   \newunit\newblock
2123   \usebibmacro{addendum+pubstate}%
2124   \setunit{\bibpagerefpunct}\newblock
2125   \usebibmacro{pageref}%
2126   \setunit{\relatedtypepunct}\newblock
2127   \iftoggle{bbx:related}
2128   {\usebibmacro{related:init}%
2129     \usebibmacro{related}}
2130   {}%
2131   \usebibmacro{finentry}}
```

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

```
2132 \DeclareBibliographyAlias{inmusic}{inaudio}
2133 \DeclareBibliographyAlias{inmovie}{inaudio}
2134 \DeclareBibliographyAlias{invideo}{inaudio}
```

We set up appropriate inheritance rules.

```
2135 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2136   \inherit{title}{booktitle}
2137   \inherit{subtitle}{booksubtitle}
2138   \inherit{titleaddon}{booktitleaddon}
2139   \noinherit{shorttitle}
2140   \noinherit{sorttitle}
2141   \noinherit{indextitle}
2142   \noinherit{indexsorttitle}
2143 }
```

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

```
2144 \DeclareFieldFormat{audio,music}{title}{%
2145   \def\currentfield{title}%
2146   \iffielddannotation{descriptor}{#1}{%
2147     \iffieldequalstr{entrysubtype}{podcast}{%
2148       \mkbibquote{#1\isdot}%
2149     }{%
2150       \mkbibemph{#1}}}%
2151   \undef\currentfield}
2152 \DeclareFieldFormat{movie,video}{title}{%
2153   \def\currentfield{title}%
2154   \iffielddannotation{descriptor}{#1}{%
2155     \ifboolexpr{
2156       test {\iffieldequalstr{entrysubtype}{episode}}
2157       or
2158       test {\iffieldequalstr{entrysubtype}{clip}}
2159       or
2160       test {\iffieldequalstr{entrysubtype}{webcast}}
2161     }{%
2162       \mkbibquote{#1\isdot}%
2163     }{%
2164       \mkbibemph{#1}}}%
2165   \undef\currentfield}
2166 \DeclareFieldFormat{inaudio,inmusic,inmovie,invideo}{title}{%
2167   \def\currentfield{title}%
2168   \iffielddannotation{descriptor}{#1}{%
2169     \mkbibquote{#1\isdot}%
2170   }%
2171   \undef\currentfield}
2172 \DeclareFieldFormat{inaudio,inmusic}{booktitle}{%
2173   \def\currentfield{booktitle}%
2174   \iffielddannotation{descriptor}{#1}{%
2175     \iffieldequalstr{entrysubtype}{podcast}{%
2176       \mkbibquote{#1\isdot}%
2177     }{%
2178       \mkbibemph{#1}}}%
2179   \undef\currentfield}
```

```

2180 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2181 \def\currentfield{booktitle}%
2182 \iffieldannotation{descriptor}{#1}{%
2183 \ifboolexpr{
2184 test {\iffieldequalstr{entrysubtype}{episode}}
2185 or
2186 test {\iffieldequalstr{entrysubtype}{clip}}
2187 or
2188 test {\iffieldequalstr{entrysubtype}{webcast}}
2189 }{%
2190 \mkbibquote{#1\isdot}%
2191 }{%
2192 \mkbibemph{#1}}}%
2193 \undef\currentfield}

```

The examples of image references in *New Hart's Rules* are all for online images, and the online driver seems to work well for them. The main difference is that they use a different format for the title.

```

2194 \DeclareBibliographyAlias{image}{online}
2195 \DeclareFieldFormat[image]{title}{\mkbibquote{#1\isdot}}

```

## 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.

```

2196 \DeclareFieldFormat[online]{title}{%
2197 \def\currentfield{title}%
2198 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2199 \undef\currentfield}

```

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

```

2200 \newbibmacro*{onlinetype}{%
2201 \ifboolexpr{
2202 test {\iffieldundef{url}}
2203 or
2204 test {\iffieldundef{entrysubtype}}
2205 }{%
2206 \ifbibxstring{\thefield{entrysubtype}}{%
2207 \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2208 }{}}

```

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

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

```

2209 \DeclareBibliographyDriver{online}{%
2210   \usebibmacro{bibindex}%
2211   \usebibmacro{begentry}%
2212   \usebibmacro{author/editor+others/translator+others}%
2213   \setunit{\printdelim{nametitledelim}}\newblock
2214   \usebibmacro{title}%
2215   \newunit
2216   \usebibmacro{maintitle}
2217   \setunit{\addspace}%
2218   \usebibmacro{onlinetype}%
2219   \newunit\newblock
2220   \usebibmacro{byauthor}%
2221   \newunit\newblock
2222   \usebibmacro{byeditor+others}%
2223   \newunit\newblock
2224   \printfield{version}%
2225   \newunit
2226   \printfield{note}%
2227   \newunit\newblock
2228   \printlist{organization}%
2229   \iffieldundef{year}{}{%
2230     \setunit{\addspace}\newblock
2231     \printtext[parens]{\usebibmacro{date+time}}%
2232   }%
2233   \newunit\newblock
2234   \printlist{publisher}%
2235   \newunit\newblock
2236   \iftoggle{bbx:eprint}
2237   {\usebibmacro{eprint}}
2238   {}%
2239   \newunit\newblock
2240   \usebibmacro{url+urldate}%
2241   \newunit\newblock
2242   \usebibmacro{addendum+pubstate}%
2243   \setunit{\bibpagerefunct}\newblock
2244   \usebibmacro{pageref}%
2245   \setunit{\relatedtypepunct}\newblock
2246   \iftoggle{bbx:related}
2247   {\usebibmacro{related:init}%
2248     \usebibmacro{related}}
2249   {}%
2250   \usebibmacro{finentry}}

```

## Software

The version for software goes between the title and titleaddon.

```

2251 \newbibmacro*{title+version}{%
2252   \ifboolexpr{
2253     test {\iffieldundef{title}}
2254     and
2255     test {\iffieldundef{subtitle}}
2256   }
2257   {}
2258   {\printtext[title]{%
2259     \printfield[titlecase]{title}%
2260     \setunit{\subtitlepunct}%
2261     \printfield[titlecase]{subtitle}}%
2262     \setunit{\addspace}}%
2263   \printfield{version}%

```

```

2264 \setunit{\addspace}%
2265 \printfield{titleaddon}%
2266 }
2267 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

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

```

2268 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is based loosely on the manual driver.

```

2269 \DeclareBibliographyDriver{software}{%
2270 \usebibmacro{bibindex}%
2271 \usebibmacro{begentry}%
2272 \usebibmacro{author/editor}%
2273 \setunit{\printdelim{nametitleledelim}}\newblock
2274 \usebibmacro{title+version}%
2275 \newunit\newblock
2276 \usebibmacro{byauthor}%
2277 \newunit\newblock
2278 \usebibmacro{byeditor}%
2279 \newunit\newblock
2280 \printfield{type}%
2281 \newunit
2282 \printfield{note}%
2283 \newunit\newblock
2284 \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2285 \newunit\newblock
2286 \usebibmacro{chapter+pages}%
2287 \newunit
2288 \printfield{pagetotal}%
2289 \newunit\newblock
2290 \iftoggle{bbx:isbn}
2291 {\printfield{isbn}}
2292 {}%
2293 \newunit\newblock
2294 \usebibmacro{doi+eprint+url}%
2295 \newunit\newblock
2296 \usebibmacro{addendum+pubstate}%
2297 \setunit{\bibpagerefpunct}\newblock
2298 \usebibmacro{pageref}%
2299 \setunit{\relatedtypepunct}\newblock
2300 \iftoggle{bbx:related}
2301 {\usebibmacro{related:init}%
2302 \usebibmacro{related}}
2303 {}%
2304 \usebibmacro{finentry}}

```

## Datasets

Datasets are currently treated like manuals

```

2305 \DeclareBibliographyAlias{dataset}{manual}

```

### 2.1.15 LEGAL REFERENCES

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

## Entry options

```

2306 \newtoggle{bbx:scotstyle}
2307 \DeclareEntryOption{scottish-style}[true]{%
2308   \settoggle{bbx:scotstyle}{#1}}
2309 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2310 \DeclareEntryOption{year-essential}[true]{%
2311   \setboolean{bbx@year-essential}{#1}}
2312 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2313 \DeclareEntryOption{paryear-essential}[true]{%
2314   \setboolean{bbx@paryear-essential}{#1}}
2315 \newtoggle{blx@ox@nopostnotedelim}
2316 \newtoggle{bbx:altcourt}
2317 \DeclareBibliographyOption{court-plain}[true]{%
2318   \settoggle{bbx:altcourt}{#1}}
2319 \DeclareEntryOption{court-plain}[true]{%
2320   \settoggle{bbx:altcourt}{#1}}
2321 \newtoggle{bbx@ecliuse}
2322 \newtoggle{bbx@eclionly}
2323 \DeclareBibliographyOption{ecli}[yes]{%
2324   \ifstrequal{#1}{no}{%
2325     \global\togglefalse{bbx@ecliuse}%
2326     \global\togglefalse{bbx@eclionly}%
2327   }{%
2328     \global\toggletrue{bbx@ecliuse}%
2329     \ifstrequal{#1}{only}{%
2330       \global\toggletrue{bbx@eclionly}%
2331     }{}

```

## Field formats

```

2332 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2333 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2334 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2335 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2336 \DeclareFieldFormat{romanvol}{\RN{#1}}
2337 \DeclareListFormat[jurisdiction]{listb}{}
2338 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2339 \DeclareFieldFormat{verba}{#1}
2340
2341 \DeclareListFormat{echrinst}{%
2342   \ifboolexpr{%
2343     test {\ifnumequal{\value{listtotal}}{1}}
2344     or
2345     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2346   }{%
2347     \ifboolexpr{
2348       test {\ifdefstring{Commission}{#1}}
2349       or
2350       test {\ifdefstring{commission}{#1}}%
2351     }{%
2352       \bibstring{commissiondecision}%
2353     }{#1}%
2354   }{%
2355     \setcounter{blx@tmpcnt}{\value{listcount}}%
2356     \addtocounter{blx@tmpcnt}{1}%
2357     \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2358       #1\space\bibstring{and}\addspace
2359     }{%
2360       #1\addcomma\space}}%

```

```

2361 \newcommand*{\commission}{commission}
2362 \newcommand*{\Commission}{Commission}
2363 \DeclareListFormat{ecthr}{%
2364   \ifbool{expr{
2365     test {\ifdefstring{\Commission}{#1}}
2366     or
2367     test {\ifdefstring{\commission}{#1}}
2368   }}{\bibstring{\mkbibparens}{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2369
2370 \newcommand*{\pciirep}{PCIJ Rep}
2371 \DeclareFieldFormat{international}{%
2372   \iffieldequals{journaltitle}{\pciirep}{%
2373     \bibcplstring{jourser}\space #1%
2374   }{#1}}
2375
2376 \DeclareListFormat{checkcontains}{%
2377   \bbx@check{#1}}
2378 \newtoggle{bbx@institutiontoggle}
2379 \newcommand\iflistcontains[2]{%
2380   \global\togglefalse{bbx@institutiontoggle}%
2381   \def\bbx@check##1{%
2382     \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2383   \printlist{checkcontains}{#1}%
2384   \iftoggle{bbx@institutiontoggle}}
2385
2386 \DeclareFieldFormat{draftleg}{%
2387   \StrBefore{#1}{ Bill}}
2388
2389 \DeclareListFormat{billprinting}{%
2390   \ifstrequal{#1}{HC}{%
2391     \mkbibbrackets{\strfield{number}}%
2392     \toggletrue{blx@ox@nopostnotedelim}%
2393   }{%
2394     \strfield{number}%
2395     \togglefalse{blx@ox@nopostnotedelim}}
2396
2397 \newcommand*{\treatypartysep}{\allowbreak ---\allowbreak}
2398 \DeclareListFormat{treaty}{%
2399   \ifmoreitems{%
2400     \ifnumequal{\value{listcount}}{1}{%
2401       \bibopenparen
2402     }{%
2403       \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2404         #1\treatypartysep
2405       }{%
2406         #1\bibcloseparen}}
2407
2408 \def\siganddate#1{%
2409   \def\bbx@tempa{#1}%
2410   \expandafter\bbx@signeddatei#1/relax}
2411 \def\bbx@signeddatei#1=#2/relax{%
2412   \def\bbx@tempa{#2-}%
2413   \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2414 \def\makebbx@datei#1-#2-#3-{%
2415   \makebbx@dateii{#1}{#2}{#3}}
2416 \def\makebbx@dateii#1#2#3{%
2417   \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2418   \space
2419   #1}
2420 \DeclareListFormat{treatydates}{%
2421   \ifnumequal{\value{listcount}}{1}{%
2422

```



```

2423 \siganddate{#1}%
2424 }{%
2425 \addcomma\space\siganddate{#1}}

```

## Pagination formats

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

```

2426 \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2427 \begingroup
2428 \def\blx@tempa{\blx@mkpageprefix@i}%
2429 \ifstrequal{#1}{none}{}{%
2430 \ifbibstring{#1}{%
2431 \def\blx@tempa{\blx@mkpageprefix{#1}}%
2432 }{%
2433 \blx@warning@entry{Unknown pagination type '#1'}}}%
2434 \@ifnextchar[%]
2435 {\blx@tempa}
2436 {\blx@tempa[\@firstofone]}
2437
2438 \newcommand*\paragraphmarkings{[]}
2439 \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2440 \iffielddundef{pagination}{%
2441 \ifboolexpr{
2442 test {\ifkeyword{eu}}
2443 or
2444 test {\ifkeyword{echr}}
2445 }{%
2446 \mkcomprange[\mkrawpageprefix[paragraph]]{#1}%
2447 }{%
2448 \mkcomprange{#1}}}%
2449 }{%
2450 \iffieldequals{pagination}{\paragraphmarkings}{%
2451 \mkcomprange[\mkbibbrackets]{#1}%
2452 }{%
2453 \mkcomprange[\mkpageprefix[pagination]]{#1}}}}

```

## Shorthands

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

```

2454 \renewbibmacro*{shorthandintro}{%
2455 \iffielddundef{shorthandintro}
2456 {\iffielddundef{shorthand}
2457 {}
2458 {\setunit{\addspace}%
2459 \printtext[parens]{%
2460 \ifboolexpr{
2461 test {\ifentrytype{jurisdiction}}
2462 or
2463 test {\ifentrytype{legal}}
2464 or
2465 test {\ifentrytype{legislation}}
2466 }{}%
2467 \bibstring{citedas}\space}%
2468 \printfield{shorthand}}}}
2469 {\setunit{\addspace}%
2470 \printtext[parens]{\printfield{shorthandintro}}}

```

## Common macros

```

2471 \newbibmacro*{issue/volume}{%
2472   \iffielddundef{volume}%
2473   {\iffielddundef{issue}%
2474     {}%
2475     {\printfield{issue}}}%
2476   {\printfield[default]{volume}}}
2477 \newcommand*{\subtypenewsp}{newspaper}
2478 \newbibmacro*{year+vol+report}[1][default]{%
2479   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2480     \setunit{\addcomma\space}%
2481   }{%
2482     \usebibmacro{journaldate}%
2483     \setunit{\addspace}%
2484     \printfield[parens]{origyear}%
2485     \setunit{\addspace}%
2486     \printfield{volume}%
2487     \setunit{\addspace}}%
2488   \printfield{journaltitle}%
2489   \setunit*{\addspace}%
2490   \iffielddundef{series}{}{%
2491     \setunit{\addspace}%
2492     \printfield[#1]{series}%
2493     \setunit{\addspace}}%
2494   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2495     \setunit{\addcomma\space}%
2496     \printdate%
2497   }{}}
2498 \newbibmacro*{journaldate}[1][{%
2499   \ifboolexpr{
2500     test {\iffielddundef{#1volume}}
2501     or
2502     bool {bbx@#1year-essential}
2503   }{%
2504     \ifboolexpr{
2505       test {\ifkeyword{sc}}
2506       or
2507       test {\iftoggle{bbx:scotstyle}}
2508     }{%
2509       \setunit{\addcomma\space}%
2510       \printfield{#1year}%
2511     }{%
2512       \printfield[brackets]{#1year}}%
2513   }{%
2514     \printfield[parens]{#1year}}}
2515 \newcommand*{\casenote}{casenote}
2516 \newcommand{\casenotetext}{\bibstring{casenote}}
2517 \newbibmacro{journaltitle}{%
2518   \iffieldequals{entrysubtype}{\casenote}{%
2519     \iffielddundef{crossref}{%
2520       \usebibmacro{title}%
2521     }{%
2522       \iffielddundef{note}{%
2523         \restorefield{note}{\casenotetext}%
2524       }{}%
2525       \ifboolexpr{
2526         test {\iffootnote}
2527         and test {\iftoggle{bbx@samefootnote}}
2528         and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2529       }{}{\printfield[casenotetitle]{title}}}%
2530   }{%

```

```

2531     \usebibmacro{title}}
2532 \newbibmacro*{unreported}[1][default]{%
2533   \iffieldundef{verba}{%
2534     \ifboolexpr{
2535       test {\iflistundef{institution}}
2536       and
2537       test {\iffieldundef{date}}
2538       and
2539       test {\iffieldundef{year}}
2540     }{}{%
2541       \ifboolexpr{
2542         test {\iffieldundef{date}}
2543         and
2544         test {\iffieldundef{year}}
2545       }{%
2546         \mkbibparens{\printlist[jurisdiction]{institution}}%
2547       }{%
2548         \toggletrue{blx@ox@nopostnotedelim}%
2549         \iflistundef{institution}{%
2550           \mkbibparens{\usebibmacro{date}}%
2551         }{%
2552           \printtext[parens]{%
2553             \printlist[#1]{institution}%
2554             \setunit{\addcomma\space}
2555             \usebibmacro{date}}}%
2556       }{%
2557         \iftoggle{bbx@ecliuse}{}{}%
2558         \printfield{verba}}}}
2559 \newbibmacro{court-note}{%
2560   \iffieldundef{note}%
2561   {}%
2562   {\printfield{note}%
2563     \toggletrue{blx@ox@nopostnotedelim}}}
2564 \newbibmacro*{jurisdictionpages}{%
2565   \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
2566     \setunit{\addspace}%
2567     \printfield{pages}}}
2568 \newbibmacro{pcitenote}{%
2569   \iffieldundef{userc}{}{}% parreporter
2570   \setunit{\addcomma\space}%
2571   \iffieldundef{postnote}{}{%
2572     \printfield{postnote}%
2573     \clearfield{postnote}%
2574     \setunit{\addsemicolon\space}}}
2575 \newbibmacro*{courtid}{%
2576   \iffieldundef{number}{%
2577     \ifboolexpr{
2578       test {\iflistundef{institution}}
2579       and
2580       test {\iffieldundef{location}}%
2581     }{%
2582       \togglefalse{blx@ox@nopostnotedelim}%
2583     }{%
2584       \ifboolexpr{%
2585         test {\iffieldundef{journaltitle}}
2586         or
2587         not togl {bbx:altcourt}}
2588       }{%
2589         \printtext[parens]{%
2590           \printfield{location}%
2591           \setunit{\addspace}%
2592           \printlist{institution}%

```

```

2593     \usebibmacro{unrep:date}}%
2594     \toggletrue{blx@ox@nopostnotedelim}
2595   }{%
2596     \setunit{\addcomma\space}%
2597     \printfield{location}%
2598     \setunit*{\addspace}%
2599     \printlist{institution}}}%
2600   }{%
2601     \togglefalse{blx@ox@nopostnotedelim}}%
2602 \newbibmacro*{unrep:date}{%
2603   \ifboolexpr{
2604     test {\iffieldundef{journaltitle}}%
2605     and
2606     test {\iffieldundef{number}}%
2607   }{%
2608     \setunit{\addcomma\space}%
2609     \usebibmacro{date}%
2610   }{}

```

## Legal cases

There are different formats depending on the jurisdiction.

```

2611 \DeclareBibliographyDriver{jurisdiction}{%
2612   \usebibmacro{bibindex}%
2613   \usebibmacro{begentry}%
2614   \usebibmacro{juriscitation}%
2615   \usebibmacro{doi+eprint+url}%
2616   \setunit{\addspace}%\newblock
2617   \usebibmacro{addendum+pubstate}%
2618   \setunit{\bibpagerefpunct}\newblock
2619   \usebibmacro{pageref}%
2620   \setunit{\addspace}%\newblock
2621   \iftoggle{bbx:related}
2622     {\usebibmacro{related:init}%
2623      \usebibmacro{related}}
2624     {}%
2625   \usebibmacro{finentry}}
2626 \newtoggle{bbx@juriscitedone}
2627 \newbibmacro{juriscitation}{%
2628   \togglefalse{bbx@juriscitedone}%
2629   \renewcommand{\do}[1]{%
2630     \ifkeyword{##1}{%
2631       \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2632       \listbreak
2633     }{}%
2634   \docsvlist{eu,chr,int,ca,us}%
2635   \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
2636 }

```

Here is the format for EU cases.

```

2637 \newbibmacro*{eujuriscitation}{%
2638   \iflistcontains{institution}{\commission}}{}{%
2639     \usebibmacro{eucasenumber}}%
2640   \usebibmacro{title}%
2641   \setunit{\addspace}%
2642   \iflistcontains{institution}{\commission}}{}{%
2643     \usebibmacro{eucommissiondecision}}{}%
2644   \setunit{\addspace}%

```

```

2645 \usebibmacro{eu:reportinfo}%
2646 \iflistcontains{institution}{\commission}{%
2647 \setunit{\addcomma\space}%
2648 }{%
2649 \setunit{\addspace}}%
2650 \usebibmacro{court-note}%
2651 }
2652 \newbibmacro{eucasenumber}{%
2653 \iffieldundef{type}{%
2654 \ifboolexpr{
2655 test {\IfSubStr{\thefield{number}}{,}}
2656 or
2657 test {\IfSubStr{\thefield{number}}{--}}
2658 or
2659 test {\IfSubStr{\thefield{number}}{ and }}
2660 }{%
2661 \bibstring{eujoinedcases}%
2662 }{%
2663 \bibstring{eucase}}%
2664 }{%
2665 \printfield{type}}%
2666 \setunit{\adddnbspace}%
2667 \printfield{number}%
2668 \setunit{\addspace}}
2669 \newbibmacro{eucommissiondecision}{%
2670 \iffieldundef{userb}{%
2671 \printfield[parens]{userb}%
2672 \setunit{\addspace}%
2673 \iffieldundef{number}{%
2674 \iffieldundef{type}{%
2675 \setunit{\addspace\bibstring{commissiondecision}\addspace}%
2676 }{%
2677 \setunit{\addspace\printfield{type}\addspace}}%
2678 \printfield{number}}}%
2679 \newbibmacro*{eu:reportinfo}{%
2680 \iftoggle{bbx@ec1only}{%
2681 \iffieldundef{verba}{%
2682 \usebibmacro{eu:osreport}
2683 }{%
2684 \printfield{verba}}%
2685 }{%
2686 \usebibmacro{eu:osreport}}}
2687 \newbibmacro*{eu:osreport}{%
2688 \iftoggle{bbx@ec1use}{%
2689 \iffieldundef{verba}{%
2690 \printfield{verba}%
2691 \setunit{\addcomma\space}}%
2692 }{%
2693 \iffieldundef{journaltitle}{%
2694 \usebibmacro{unreported}%
2695 }{%
2696 \usebibmacro{eu:year+vol+report}}}
2697 \newcommand*{\officialjournaltitle{OJ}}
2698 \newcommand*{\ecrreporttitle{ECR}}
2699 \newbibmacro*{eu:year+vol+report}{%
2700 \iffieldequals{journaltitle}{\ecrreporttitle}{%
2701 \printfield[brackets]{year}%
2702 \setunit{\addspace}%
2703 \printfield{journaltitle}%
2704 \setunit{\addspace}%
2705 \printfield{volume}%
2706 \setunit*{\printtext{--\allowbreak}}}%

```

```

2707 \printfield{pages}%
2708 }{%
2709 \iffieldequals{journaltitle}{\officialjournaltitle}{%
2710 \printfield[brackets]{year}%
2711 \setunit{\addspace}%
2712 \printfield{journaltitle}%
2713 \setunit{\addspace}%
2714 \printfield[default]{series}%
2715 \usebibmacro{issue/volume}%
2716 \setunit{\printtext{\slash}}%
2717 \printfield{pages}%
2718 }{%
2719 \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

2720 \newbibmacro*{echrjuriscitation}{%
2721 \usebibmacro{title}%
2722 \setunit{\addspace}\newblock
2723 \iffieldundef{number}{}{%
2724 \printtext[parens]{%
2725 \def\addot{}%
2726 \bibstring{application}\space
2727 \bibstring{number}\space
2728 \printfield{number}}%
2729 \setunit{\addspace}\newblock}%
2730 \iffieldundef{journaltitle}{%
2731 \usebibmacro{unreported}[echrinst]%
2732 }{%
2733 \usebibmacro{echr:year+vol+report}%
2734 \setunit{\addspace}\newblock
2735 \usebibmacro{echr:courtid}}%
2736 \setunit{\addspace}%
2737 \usebibmacro{court-note}%
2738 \newblock
2739 \setunit{\addspace}}
2740 \newcommand*{\seriesa}{Series A}
2741 \newcommand*{\echrreports}{ECHR}
2742 \newbibmacro*{echr:year+vol+report}{%
2743 \iffieldequals{journaltitle}{\seriesa}{%
2744 \usebibmacro{seriesareport}%
2745 }{%
2746 \iffieldequals{journaltitle}{\echrreports}{%
2747 \usebibmacro{echrreports}%
2748 }{%
2749 \usebibmacro{year+vol+report}%
2750 \setunit{\addspace}%
2751 \printfield{pages}}}}
2752 \newbibmacro*{seriesareport}{%
2753 \printfield[parens]{year}%
2754 \setunit{\addspace}%
2755 \printfield{journaltitle}%
2756 \setunit{\addspace}%
2757 \printtext{\def\addot{} \bibstring{number}\addspace}%
2758 \printfield{pages}}
2759 \newbibmacro*{echrreports}{%
2760 \printfield{journaltitle}%
2761 \setunit{\addspace}%
2762 \printfield{year}%
2763 \iffieldundef{volume}{}{%
2764 \printtext{--}\printfield[romanvol]{volume}}

```

```

2765 \setunit{\addspace}%
2766 \printfield{pages}}
2767 \newcommand*{\decisionsandreports}{DR}
2768 \newcommand*{\collectionofdecisions}{CD}
2769 \newbibmacro*{echr:courtid}{%
2770 \ifboolexpr{
2771 test {\iffieldequals{journaltitle}{\decisionsandreports}}
2772 or
2773 test {\iffieldequals{journaltitle}{\collectionofdecisions}}}%
2774 }{}%
2775 \printlist[ecthr]{institution}}

```

Here is the format for international cases.

```

2776 \newbibmacro*{intjuriscitation}{%
2777 \iflistundef{institution}{%
2778 \setunit{}\printtext{}%
2779 }%
2780 \printlist{institution}%
2781 \setunit{\addcomma\space}%
2782 \usebibmacro{int:title}%
2783 \setunit{\addspace}\newblock
2784 \iffieldundef{journaltitle}{%
2785 \printfield{number}%
2786 \setunit{\addspace}\newblock
2787 \printtext[parens]{\printdate}%
2788 }%
2789 \usebibmacro{year+vol+report}[international]%
2790 }%
2791 \setunit{\addspace}%
2792 \usebibmacro{int:jurisdictionpages}%
2793 \setunit{\addspace}\newblock
2794 \usebibmacro{court-note}%
2795 }
2796 \newbibmacro*{int:title}{%
2797 \ifboolexpr{
2798 test {\iffieldundef{title}}
2799 and
2800 test {\iffieldundef{subtitle}}
2801 }{}%
2802 \printtext[title]{%
2803 \printfield[titlecase]{title}%
2804 \setunit{\addspace}%
2805 \printfield[parens]{subtitle}}}%
2806 \setunit{\addspace}%
2807 \printfield{titleaddon}%
2808 }
2809 \newbibmacro*{int:jurisdictionpages}{%
2810 \iffieldequals{journaltitle}{\pciirep}{%
2811 \printtext{\bibcpstring{number}\addspace}%
2812 \iffieldundef{pages}{%
2813 \printfield{number}%
2814 }%
2815 \printfield{pages}}}%
2816 }{}%
2817 \printfield{pages}}

```

Here is the format for Canadian cases.

```

2818 \newbibmacro{canjuriscitation}{%
2819 \usebibmacro{title}%

```

```

2820 \setunit{\addspace}\newblock
2821 \printfield{number}%
2822 \setunit{\addcomma\space}%
2823 \iffieldundef{journaltitle}{}{%
2824   \usebibmacro{can:year+vol+report}}%
2825 \usebibmacro{jurisdictionpages}%
2826 \usebibmacro{pcitenote}%
2827 \usebibmacro{altreportdetails}%
2828 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
2829 \newunit\newblock
2830 \usebibmacro{courtid}%
2831 \newunit%
2832 \usebibmacro{court-note}%
2833 \newblock%
2834 \newunit}
2835 \newbibmacro*{can:year+vol+report}{%
2836   \iffieldundef{number}{}%
2837   \setunit{\addspace}%
2838 }{%
2839   \ifboolexpr{
2840     test {\iffieldundef{volume}}
2841     or
2842     bool {bbx@year-essential}}%
2843   }{}%
2844   \clearfield{year}}}%
2845 \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
2846   \iffieldundef{year}{}{%
2847     \usebibmacro{journaldate}%
2848     \setunit{\addspace}}}%
2849 \printfield{volume}%
2850 \setunit{\addspace}%
2851 \printfield{journaltitle}%
2852 \setunit*\addspace}%
2853 \iffieldundef{series}{}{%
2854   \setunit{\addspace}%
2855   \printtext[pars]{\printfield[usseries]{series}}%
2856   \setunit{\addspace}}}%
2857 \iffieldequals{entrysubtype}{\subtypenewsp}{}%
2858   \setunit{\addcomma\space}%
2859   \usebibmacro{newspaperdate}%
2860 }{}

```

Here is the format for American cases.

```

2861 \newbibmacro{usjuriscitation}{%
2862   \usebibmacro{title}%
2863   \setunit{\addcomma\space}\newblock%
2864   \iffieldundef{journaltitle}{}%
2865     \printfield{number}%
2866     \setunit{\addcomma\space}%
2867     \printfield[default]{eprint}%
2868     \clearfield{eprint}%
2869 }{
2870   \usebibmacro{us:vol+report}}%
2871 \setunit{\addspace}%
2872 \usebibmacro{jurisdictionpages}%
2873 \usebibmacro{us:postnote}%
2874 \usebibmacro{altreportdetails}%
2875 \setunit{\addspace}\newblock
2876 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
2877 \setunit{\addspace}%
2878 \usebibmacro{us:courtid+date}%

```



```

2879 \setunit{\addspace}%
2880 \usebibmacro{court-note}%
2881 \newblock
2882 \setunit{\addspace}}
2883 \newbibmacro{us:vol+report}{%
2884 \printfield{volume}%
2885 \setunit{\addspace}%
2886 \printfield{journaltitle}%
2887 \iffieldundef{series}{}{%
2888 \setunit{\addspace}%
2889 \printfield[usseries]{series}}}
2890 \newbibmacro{us:postnote}{%
2891 \iffieldundef{postnote}{}{%
2892 \setunit{\addcomma\space}%
2893 \printfield{postnote}%
2894 \clearfield{postnote}%
2895 }}
2896 \newbibmacro{us:courtid+date}{%
2897 \ifboolexpr{
2898 test {\iflistundef{institution}}
2899 and
2900 test {\iflistundef{location}}
2901 and
2902 test {\iffieldundef{year}}}
2903 }{}{%
2904 \printtext[parens]{%
2905 \printlist{location}%
2906 \setunit*{\addspace}%
2907 \printlist{institution}%
2908 \setunit{\addspace}%
2909 \printfield{year}%
2910 \nopunct}}}

```

Here is the format for English cases.

```

2911 \newbibmacro{enjuriscitation}{%
2912 \usebibmacro{title}%
2913 \setunit{\addspace}\newblock
2914 \printfield{number}%
2915 \setunit*{\addcomma\space}%
2916 \iffieldundef{journaltitle}{}{%
2917 \usebibmacro{year+vol+report}}%
2918 \usebibmacro{jurisdictionpages}%
2919 \usebibmacro{pcitenote}%
2920 \usebibmacro{altreportdetails}%
2921 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
2922 \setunit{\addspace}\newblock
2923 \usebibmacro{courtid}%
2924 \setunit{\addspace}%
2925 \usebibmacro{court-note}}
2926 \newbibmacro{altreportdetails}{%
2927 \restorefield{prenote}{\postnotesecond}%
2928 \iffieldundef{userc}{}{% parreporter
2929 \usebibmacro{journaldate}[par]%
2930 \setunit{\addspace}\newblock
2931 \usebibmacro{altreportvolume}%
2932 \setunit{\addspace}\newblock
2933 \usebibmacro{altjournaltitle}%
2934 \setunit{\addspace}\newblock
2935 \usebibmacro{altseries}%
2936 \setunit{\addspace}\newblock

```

```

2937     \usebibmacro{altjurisdictionpages}%
2938     \iffielddundef{prenote}{}{}%
2939     \setunit{\addcomma\space}%
2940     \printfield[postnote]{prenote}}}}
2941 \newbibmacro*{altreportvolume}{%
2942     \iffielddundef{userb}{% parvolume
2943     \printfield{volume}%
2944     }{%
2945     \printfield{userb}}}
2946 \newbibmacro*{altjournaltitle}{%
2947     \iffielddundef{userc}{% parreporter
2948     \printfield{journaltitle}%
2949     \setunit{\addspace}%
2950     }{
2951     \printfield{userc}}}
2952 \newbibmacro*{altseries}{%
2953     \iffielddundef{userd}{% parseries
2954     \printfield{series}%
2955     }{%
2956     \printfield{userd}}}
2957 \newbibmacro*{altjurisdictionpages}{%
2958     \iffielddundef{usere}{% parpages
2959     \usebibmacro{jurisdictionpages}%
2960     }{%
2961     \printfield{usere}}}

```

## Legislation

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

```

2962 \newcommand*{\subtypecourtrules}{procedure-rule}
2963 \DeclareBibliographyDriver{legislation}{%
2964     \usebibmacro{bibindex}%
2965     \usebibmacro{begentry}%
2966     \iffieldequals{entrysubtype}{\subtypecourtrules}{%
2967         \usebibmacro{courtrules}%
2968     }{%
2969         \ifkeyword{draft}{%
2970             \usebibmacro{legislation:bill}%
2971         }{%
2972             \ifkeyword{eu}{%
2973                 \usebibmacro{eulegislation}%
2974             }{%
2975                 \printfield[default]{title}%
2976                 \setunit{\addspace}%
2977                 \printfield[default]{year}%
2978                 \setunit*{\addspace}%
2979                 \usebibmacro{legnumber}%
2980                 \setunit{\addspace}\newblock
2981                 \usebibmacro{legsupp}}}}}%
2982     \setunit{\addcomma\space}%
2983     \printfield{note}%
2984     \setunit{\addspace}%
2985     \usebibmacro{finentry}}
2986 \newbibmacro*{courtrules}{%
2987     \restorefield{prenote}{\postnotesecond}%
2988     \iffieldequalstr{shorttitle}{PD}{%
2989         \printfield{postnote}%
2990         \clearfield{postnote}%

```

```

2991     \setunit{\addspace}%
2992   }{}%
2993   \iffieldundef{shorttitle}{%
2994     \printfield[default]{title}%
2995   }{%
2996     \printfield[default]{shorttitle}%
2997   \setunit{\addspace}\newblock
2998   \iffieldundef{postnote}{%
2999     \toggletrue{blx@ox@nopostnotedelim}%
3000   }{%
3001     \iffieldequalstr{shorttitle}{CPR}{%
3002       \printfield{postnote}%
3003       \setunit{\addspace}%
3004     }{%
3005       \printtext{%
3006         \bibstring{order}\space
3007         \printfield{postnote}%
3008         \setunit{\addcomma\space}}}%
3009     \restorefield{postnote}{\postnotessecond}%
3010     \usebibmacro{postnote}%
3011     \clearfield{postnote}%
3012     \setunit{\addspace}\newblock
3013   \newcommand*{\subtypeprimarylegislation}{primary}
3014   \newbibmacro*{legislation:bill}{%
3015     \printfield[draftleg]{title}%
3016     \setunit{\addspace}%
3017     \printlist{institution}%
3018     \setunit*{\addspace}%
3019     \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3020       \bibcpstring{bill}%
3021       \setunit{\addspace}%
3022       \printtext[pars]{\usebibmacro{sessionyear}}%
3023       \setunit{\addspace}%
3024       \iffieldundef{number}{}%
3025       \printlist[billprinting]{institution}}%
3026   }{%
3027     \printtext[pars]{%
3028       \bibstring{draft}\space
3029       \printdate}%
3030     \setunit{\addspace}}
3031   \newbibmacro*{sessionyear}{%
3032     \iffieldundef{year}{}%
3033     \printfield{year}%
3034     \iffieldundef{endyear}{}%
3035     \bibdaterangesep
3036     \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}%
3037   \newbibmacro{eulegislation}{%
3038     \printfield[default]{title}%
3039     \setunit{\addspace}\newblock%
3040     \usebibmacro{eulegref}}
3041   \newcommand*{\ojsspecedtitle}{OJ Spec Ed}
3042   \newbibmacro*{eulegref}{%
3043     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3044       \printfield[brackets]{year}%
3045       \setunit{\addspace}%
3046       \printfield{journaltitle}%
3047       \setunit{\addspace}%
3048       \iffieldundef{series}{%
3049         \printtext{L}%
3050       }{%
3051         \printfield[default]{series}}%
3052     \usebibmacro{issue/volume}%

```

```

3053     \setunit*{\addslash}%
3054     \printfield{pages}%
3055     \togglefalse{blx@ox@nopostnotedelim}%
3056 }{%
3057     \usebibmacro{year+vol+report}%
3058     \setunit*{\addspace}%
3059     \printfield{pages}}
3060 \newbibmacro*{legnumber}{%
3061     \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3062         \ifboolexpr{(
3063             test {\iffieldundef{number}}
3064             or
3065             not test {\iffieldundef{title}} )
3066             and not (
3067                 test {\ifkeyword{cy}}
3068                 or
3069                 test {\ifkeyword{sc}}
3070                 or
3071                 test {\ifkeyword{ni}} )
3072         )}{%
3073             \printtext[parens]{\printfield{number}}%
3074             \toggletrue{blx@ox@nopostnotedelim}}%
3075 }{%
3076     \iffieldundef{number}{%
3077         \setunit{\addcomma\addspace}%
3078         \printfield{number}%
3079         \togglefalse{blx@ox@nopostnotedelim}}}%

```

This adds additional material for Welsh statutory instruments.

```

3080 \newbibmacro*{legsupp}{%
3081     \ifkeyword{cy}
3082     {\iffieldundef{userb}
3083         {}
3084         {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3085     {}

```

## Treaties, explanatory notes and Hansard

```

3086 \newcommand*{\explanatorynote}{explanatory note}
3087 \newcommand*{\parliamentarytype}{parliamentary}
3088 \newcommand*{\treatysubtype}{piltreaty}
3089 \DeclareBibliographyDriver{legal}{%
3090     \usebibmacro{bibindex}%
3091     \usebibmacro{begentry}%
3092     \iffieldequals{entrysubtype}{\explanatorynote}{%
3093         \printfield[default]{title}%
3094         \setunit{\addspace}\newblock
3095     }{%
3096         \iffieldequals{entrysubtype}{\parliamentarytype}{%
3097             \usebibmacro{legal:parliamentary}%
3098         }{%
3099             \usebibmacro{treatycitation}}}%
3100     \setunit{\addcomma\space}\newblock
3101     \printfield[default]{note}
3102     \setunit{\addspace}\newblock
3103     \setunit{\bibpagerefpunct}%
3104     \usebibmacro{pageref}%
3105     \usebibmacro{finentry}}
3106 \newbibmacro{legal:parliamentary}{%

```

```

3107 \printfield[default]{title}%
3108 \newunit\newblock
3109 \printfield{type}%
3110 \setunit{\addspace}%
3111 \iffieldundef{series}{}{%
3112   \printtext[parens]{%
3113     \bibstring{jourser}\space
3114     \printfield{series}}}%
3115 \setunit{\addspace}%
3116 \printfield{volume}%
3117 \setunit{\addcomma\space}%
3118 \usebibmacro{hansard-ref}%
3119 \setunit{\addspace}%
3120 \iffieldundef{year}{}{%
3121   \printtext[parens]{\usebibmacro{date}}}%
3122 \togglefalse{blx@ox@nopostnotedelim}}
3123 \newbibmacro*{hansard-ref}{%
3124   \iffieldundef{postnote}{%
3125     \iffieldundef{pages}{}{%
3126       \printfield{pages}}%
3127   }}%
3128 \newbibmacro{treatycitation}{%
3129   \printfield[default]{title}%
3130   \setunit{\addspace}\newblock%
3131   \printlist[treaty]{institution}%
3132   \setunit{\addspace}\newblock
3133   \usebibmacro{treatyinfo}%
3134   \setunit{\addspace}\newblock
3135   \usebibmacro{treaty:year+vol+report}}
3136 \newbibmacro{treatyinfo}{%
3137   \iflistundef{lista}{% execution
3138     \iffieldundef{year}{}{%
3139       \iffieldundef{volume}{}{%
3140         \printtext[parens]{\printdate}}}%
3141   }}%
3142   \printtext[parens]{\printlist[treatydates]{lista}}}}
3143 \newbibmacro{treaty:year+vol+report}{%
3144   \iffieldequals{journaltitle}{\officialjournaltitle}{%
3145     \usebibmacro{eulegref}%
3146   }}%
3147   \usebibmacro{treaty:date}%
3148   \setunit{\addspace}%
3149   \printfield[default]{volume}%
3150   \setunit{\addspace}%
3151   \printfield{journaltitle}%
3152   \setunit*{\addspace}%
3153   \iffieldundef{series}{}{%
3154     \setunit{\addspace}%
3155     \printfield{series}%
3156     \setunit{\addspace}}%
3157   \printfield{pages}}}%
3158 \newbibmacro*{treaty:date}{%
3159   \ifboolexpr{
3160     test {\iffieldundef{volume}}
3161     or
3162     bool {bbx@year-essential}
3163   }{%
3164     \ifboolexpr{
3165       test {\ifkeyword{sc}}
3166       or
3167       test {\iftoggle{bbx:scotstyle}}
3168     }{%

```

```

3169     \printfield{year}%
3170   }{%
3171     \printfield[brackets]{year}%
3172   }}{}

```

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

```

3173   \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.

```

3174   \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3175   \newcommand{\collectionshelfmarkpunct}{\addspace}
3176   \newcommand{\datingpagespunct}{\addcomma\addspace}
3177   \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3178   \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3179   \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%

```

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

```

3180   \def\recto{r}
3181   \def\verso{v}
3182   \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.

```

3183   \DeclareFieldFormat[manuscript,unpublished]{title}{%
3184     \def\currentfield{title}%
3185     \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3186     \undef\currentfield}
3187   \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3188   \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3189   \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3190   \DeclareFieldFormat{dating}{#1\isdot}%
3191   \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.

```

3192   \newbibmacro{manuscript:date}{%
3193     \ifboolexpr{
3194       test {\ifnameundef{author}}
3195       and
3196       test {\iffieldundef{title}}
3197     }{\usebibmacro{date}}{}
3198   \newbibmacro{dating}{%
3199     \ifboolexpr{
3200       test {\ifnameundef{author}}
3201       and

```

```

3202     test {\iffielddundef{title}}
3203   ) or
3204     test {\iffielddundef{year}}
3205   }{%
3206     \printfield{dating}%
3207   }{}

```

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.

```

3208 \newbibmacro{location+library+collection+shelfmark}{%
3209   \printfield{library}%
3210   \setunit{\locationlibrarypunct}%
3211   \printlist{location}%
3212   \setunit{\librarycollectionpunct}%
3213   \usebibmacro{collection+shelfmark}}
3214 \newbibmacro{collection+shelfmark}{%
3215   \ifboolexpr{
3216     test {\iffielddundef{collection}}
3217     and
3218     test {\iffielddundef{shelfmark}}
3219   }{%
3220     \printtext[collection+shelfmark]{%
3221       \printfield{collection}%
3222       \setunit*{\collectionshelfmarkpunct}%
3223       \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.

```

3224 \newbibmacro{manuscript:pages}{%
3225   \printfield{pagetotal}%
3226   \setunit{\addspace}%
3227   \iffielddundef{pages}{%
3228     \usebibmacro{manuscript:columns+layer}%
3229   }{%
3230     \usebibmacro{manuscript:columns}%
3231     \setunit{\pagetotalpagespunct}%
3232     \printfield{pages}%
3233     \setunit{\addspace}%
3234     \usebibmacro{manuscript:layer}}}
3235 \newbibmacro{manuscript:columns}{%
3236   \iffielddundef{columns}{}%
3237   \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3238 }%
3239 \newbibmacro{manuscript:layer}{%
3240   \iffielddundef{layer}{}%
3241   \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3242 }%
3243 \newbibmacro{manuscript:columns+layer}{%
3244   \ifboolexpr{
3245     test {\iffielddundef{columns}}
3246     or
3247     test{\iffielddundef{layer}}
3248   }{%
3249     \usebibmacro{manuscript:columns}%
3250     \usebibmacro{manuscript:layer}%
3251   }{%
3252     \printtext[columns+layer]{%

```

```

3253 \bibstring{\strfield{columns}column}%
3254 \setunit*{\columnslayerpunct}%
3255 \bibstring{\strfield{layer}layer}}}%

```

Putting it all together, here is the manuscript driver.

```

3256 \DeclareBibliographyDriver{manuscript}{%
3257   \usebibmacro{bibindex}%
3258   \usebibmacro{begentry}%
3259   \usebibmacro{author}%
3260   \setunit{\printdelim{nametitledelim}}\newblock
3261   \usebibmacro{title}%
3262   \newunit\newblock
3263   \usebibmacro{byauthor}%
3264   \newunit\newblock
3265   \printfield{howpublished}%
3266   \newunit\newblock
3267   \printfield{note}%
3268   \newunit\newblock
3269   \usebibmacro{manuscript:date}%
3270   \newunit\newblock
3271   \usebibmacro{location+library+collection+shelfmark}%
3272   \newunit
3273   \printfield{support}%
3274   \newunit
3275   \usebibmacro{dating}%
3276   \setunit{\datingpagespunct}%
3277   \usebibmacro{manuscript:pages}%
3278   \newunit\newblock%
3279   \iftoggle{bbx:url}{%
3280     \usebibmacro{url+urldate}%
3281   }{}%
3282   \setunit{\relatedtypepunct}\newblock
3283   \iftoggle{bbx:related}{%
3284     \usebibmacro{related:init}%
3285     \usebibmacro{related}%
3286   }{}%
3287   \usebibmacro{finentry}}

```

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

```

3288 \newbibmacro*{library+location+series+number}{%
3289   \printfield{library}%
3290   \setunit{\locationlibrarypunct}%
3291   \printlist{location}%
3292   \setunit{\librarycollectionpunct}%
3293   \ifboolexpr{
3294     test {\iffieldundef{series}}
3295     and
3296     test {\iffieldundef{number}}
3297   }{}%
3298   \printtext[collection+shelfmark]{%
3299     \printfield{series}%
3300     \setunit*{\collectionshelfmarkpunct}%
3301     \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’.



```

3302 \newtoggle{blx@ox@ms}
3303 \DeclareBibliographyDriver{unpublished}{%
3304   \usebibmacro{bibindex}%
3305   \usebibmacro{begentry}%
3306   \iffielddundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3307   \usebibmacro{author}%
3308   \setunit{\printdelim{nametitledelim}}\newblock
3309   \usebibmacro{title}%
3310   \newunit\newblock
3311   \usebibmacro{byauthor}%
3312   \newunit\newblock
3313   \printfield{howpublished}%
3314   \newunit\newblock
3315   \printfield{note}%
3316   \newunit\newblock
3317   \iftoggle{blx@ox@ms}{%
3318     \usebibmacro{manuscript:date}%
3319     \newunit\newblock
3320     \usebibmacro{library+location+series+number}%
3321     \newunit
3322     \printfield{support}%
3323     \newunit
3324     \usebibmacro{dating}%
3325     \setunit{\datingpagespunct}
3326     \usebibmacro{manuscript:pages}
3327   }{%
3328     \usebibmacro{location+date}%
3329   }%
3330   \newunit\newblock
3331   \iftoggle{bbx:url}
3332     {\usebibmacro{url+urldate}}
3333     {}%
3334   \newunit\newblock
3335   \usebibmacro{addendum+pubstate}%
3336   \setunit{\bibpagerefpunct}\newblock
3337   \usebibmacro{pageref}%
3338   \setunit{\relatedtypepunct}\newblock
3339   \iftoggle{bbx:related}
3340     {\usebibmacro{related:init}%
3341      \usebibmacro{related}}
3342     {}%
3343   \usebibmacro{finentry}}

```

### 2.1.17 RELATED ENTRIES

We make the punctuation before related items configurable in remaining drivers inherited from the standard style.

```

3344 \xpatchbibdriver{booklet}{%
3345   \newunit\newblock
3346   \iftoggle{bbx:related}
3347 }{%
3348   \setunit{\relatedtypepunct}\newblock
3349   \iftoggle{bbx:related}
3350 }{}%
3351 \xpatchbibdriver{misc}{%
3352   \newunit\newblock
3353   \iftoggle{bbx:related}
3354 }{%
3355   \setunit{\relatedtypepunct}\newblock

```

```

3356 \iftoggle{bbx:related}
3357 }{}
3358 \xpatchbibdriver{patent}{%
3359 \newunit\newblock
3360 \iftoggle{bbx:related}
3361 }{%
3362 \setunit{\relatedtypepunct}\newblock
3363 \iftoggle{bbx:related}
3364 }{}

```

We provide an option for setting the relatedtype punctuation.

```

3365 \DeclareBibliographyOption{relationpunct}[semicolon]{%
3366 \ifcsdef{add#1}{%
3367 \ifstrequal{#1}{space}{%
3368 \renewcommand*{\relatedtypepunct}{\addspace}%
3369 }{%
3370 \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3371 }{%
3372 \PackageError{biblatex-oxref}{%
3373 Invalid option 'relationpunct=#1'%
3374 }{%
3375 Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3376 'period', 'exclam', 'question', and 'space'.}}}
3377 \newtoggle{blx@ox@relpunctset}
3378 \DeclareEntryOption{relationpunct}[semicolon]{%
3379 \ifcsdef{add#1}{%
3380 \ifstrequal{#1}{space}{%
3381 \renewcommand*{\relatedtypepunct}{\addspace}%
3382 }{%
3383 \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3384 \toggletrue{blx@ox@relpunctset}
3385 }{%
3386 \PackageError{biblatex-oxref}{%
3387 Invalid option 'relationpunct=#1'%
3388 }{%
3389 Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3390 'period', 'exclam', 'question', and 'space'.}}}
3391 \newcounter{blx@ox@relitem}
3392 \xapptobibmacro{begrelated}{%
3393 \setcounter{blx@ox@relitem}{0}%
3394 \iftoggle{blx@ox@relpunctset}{%
3395 \iffieldequalstr{relatedtype}{in}{%
3396 \setunit{\addcomma\space}}{%
3397 \iffieldequalstr{relatedtype}{reprintfrom}{%
3398 \setunit{\addperiod\space}}{%
3399 \iffieldequalstr{relatedtype}{translationof}{%
3400 \setunit{\addspace}}{%
3401 \iffieldequalstr{relatedtype}{multivolume}{%
3402 \setunit{\addcomma\space}}{%
3403 }{}

```

## Translations

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

```

3404 \newbibmacro*{rellanguage}{%
3405 \def\do##1{%
3406 \entrydata{##1}{%
3407 \printlist{language}}}%

```

```

3408     \docsvfield{related}%
3409   }
3410   \DeclareFieldFormat{relatedstring:translationof}{%
3411     \usebibmacro{rellanguage}\space
3412     \bibstring{original}\addcomma\space}
3413
3414   \DeclareFieldFormat{related:translationof}{%
3415     \mkbibbrackets{#1}}

```

## Co-publications

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

```

3416   \newbibmacro*{related:copub}[1]{%
3417     \entrydata*{#1}{%
3418       \usebibmacro{publisher+location+date}%
3419       \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.

```

3420   \renewbibmacro*{related:reprintfrom}[1]{%
3421     \entrydata*{#1}{%
3422       \nopunct
3423       \usedriver{%
3424         \ifnameundef{savedauthor}{%
3425           \ifnameundef{savededitor}{%
3426             \ifnameequal{editor}{savededitor}{%
3427               \clearname{editor}%
3428             }{}%
3429           }{%
3430             \ifnameequal{author}{savedauthor}{%
3431               \clearname{author}%
3432             }{}%
3433           }%
3434         \iffielddundef{savedtitle}{%
3435           \iffielddequal{savedtitle}{title}{%
3436             \clearfield{title}%
3437           }{}%
3438         }%
3439       }%
3440     }%
3441     \renewbibmacro*{related:init}{%
3442       \DeclareNameAlias{sortname}{default}%
3443       \ifbibmacroundef{date+extradate}{%
3444         \renewbibmacro*{date+extradate}{%
3445           \renewbibmacro*{date}{\printdate}%
3446         }%
3447       }%
3448     }%
3449     \thebibliography{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.

```

3445   \newbibmacro*{related:serialarticle}[1]{%
3446     \entrydata*{#1}{%
3447       \iffielddundef{savedjournaltitle}{%

```

```

3448 \iffielddsequal{journaltitle}{savedjournaltitle}{%
3449 \clearfield{journaltitle}%
3450 }{}%
3451 \iffieldundef{savedjournalsubtitle}{}{%
3452 \iffielddsequal{journalsubtitle}{savedjournalsubtitle}{%
3453 \clearfield{journalsubtitle}%
3454 }{}%
3455 \iffieldundef{savedseries}{}{%
3456 \iffielddsequal{series}{savedseries}{%
3457 \clearfield{series}%
3458 }{}%
3459 \iffieldundef{savedyear}{\clearfield{year}}{
3460 \iffielddsequal{year}{savedyear}{%
3461 \clearfield{year}%
3462 }{}%
3463 \usebibmacro{journal+issuetitle}%
3464 \newunit
3465 \usebibmacro{note+pages}%
3466 \newunit\newblock
3467 \usebibmacro{doi+eprint+url}%
3468 \newunit\newblock
3469 \usebibmacro{addendum+pubstate}}

```

## Reviews

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

```

3470 \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
3471 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3472 \DeclareFieldFormat[review]{number}{#1}% number of a journal
3473 \DeclareFieldFormat[review]{series}{% series of a journal
3474 \ifinteger{#1}
3475 {\mkbibordseries{#1}~\bibstring{jourser}}
3476 {\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.

```

3477 \newbibmacro*{related:reviewof}[1]{%
3478 \entrydata*{#1}{%
3479 \usedriver{%
3480 \renewbibmacro*{related:init}{}%
3481 \DeclareNameAlias{author}{given-family}%
3482 \renewbibmacro*{pageref}{}%
3483 }{\thefield{entrytype}}%
3484 }%
3485 }

```

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'.

```

3486 \DeclareBibliographyDriver{review}{%
3487 \usebibmacro{bibindex}%
3488 \usebibmacro{begentry}%
3489 \usebibmacro{author/translator+others}%
3490 \setunit{\printdelim{nametitledelim}}\newblock

```

```

3491 \usebibmacro{title}%
3492 \newunit\newblock
3493 \usebibmacro{byauthor}%
3494 \newunit\newblock
3495 \usebibmacro{bytranslator+others}%
3496 \newunit\newblock
3497 \printfield{version}%
3498 \newunit\newblock
3499 \iftoggle{bbx:related}{%
3500   \usebibmacro{related:init}%
3501   \usebibmacro{related}%
3502 }{%
3503 \newunit\newblock
3504 \usebibmacro{in:}%
3505 \setunit{\addspace}%
3506 \usebibmacro{journal+issuetitle}%
3507 \newunit
3508 \usebibmacro{byeditor+others}%
3509 \iffielddundef{note}%
3510   {\newunit}%
3511   {\setunit{\addsemicolon\addspace}}%
3512 \usebibmacro{note+pages}%
3513 \newunit\newblock
3514 \iftoggle{bbx:isbn}
3515   {\printfield{issn}}
3516   {}%
3517 \newunit\newblock
3518 \usebibmacro{doi+eprint+url}%
3519 \newunit\newblock
3520 \usebibmacro{addendum+pubstate}%
3521 \setunit{\bibpagerefpunct}\newblock
3522 \usebibmacro{pageref}%
3523 \usebibmacro{finentry}}

```

## Multiple volumes

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

```

3524 \DeclareFieldFormat{related:multivolume}{#1}
3525 \renewbibmacro*{related:multivolume}[1]{%
3526   \entrydata*{#1}{%
3527     \printtext{%
3528       \printfield{volume}%
3529       \printfield{part}}%
3530   \setunit*{\addspace}%
3531   \usebibmacro{series+number+edition+publisher+location+date}}}

```

## Related editions

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

```

3532 \newbibmacro*{related:editedas}[1]{%
3533   \entrydata{#1}{%
3534     \renewbibmacro*{name:hook}[1]{%
3535       \ifnumequal{\value{listcount}}{1}{%
3536         \begingroup
3537         \mkrelatedstring%

```

```

3538     \lbx@initnamehook{#1}%
3539     \endgroup
3540   }{}%
3541   \printfield{edition}%
3542   \setunit{\addspace}%
3543   \usebibmacro{byeditor+others}%
3544   \setunit*{\addcomma\space\bibstring[\mkrelatedstring]{astitle}\space}%
3545   \usebibmacro{maintitle+title}%
3546   \setunit{\addspace}%
3547   \printfield{note}%
3548   \newunit\newblock
3549   \printfield{volumes}%
3550   \newunit
3551   \usebibmacro{series+number+publisher+location+date}}}
3552 \renewbibmacro*{related:bytranslator}[1]{%
3553   \entrydata{#1}{%
3554     \renewbibmacro*{name:hook}[1]{%
3555       \ifnumequal{\value{listcount}}{1}
3556       {\begingroup
3557         \mkrelatedstring%
3558         \lbx@initnamehook{#1}%
3559         \endgroup}
3560       {}%
3561       \printnames[bytranslator]{translator}%
3562       \setunit*{\addspace\bibstring[\mkrelatedstring]{astitle}\space}%
3563       \usebibmacro{maintitle+title}%
3564       \setunit{\addspace}%
3565       \printfield{note}%
3566       \newunit\newblock
3567       \printfield{volumes}%
3568       \newunit
3569       \usebibmacro{series+number+publisher+location+date}}}

```

## Joint releases

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

```

3570 \newbibmacro*{related:includes}[1]{%
3571   \stepcounter{blx@ox@relitem}%
3572   \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3573   {\bibstring{and}\addspace}%
3574   \entrydata{#1}{%
3575     \ifbibmacroundef{date+extradate}{}%
3576     \renewbibmacro*{date+extradate}{}%
3577     \usebibmacro{author}%
3578     \setunit{\printdelim{nametitledelim}}\newblock
3579     \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.

```

3580 \DeclareFieldFormat[misc]{title}{%
3581   \def\currentfield{title}%
3582   \iffielddannotation{descriptor}{#1}%
3583   \iffieldequalstr{relatedtype}{in}%
3584   \mkbibquote{#1\isdot}%

```

```

3585     }{%
3586       \mkbibemph{#1}%
3587     }{%
3588     \undef\currentfield}
3589 \newbibmacro*{related:in}[1]{%
3590   \entrydata*{#1}{%
3591     \usedriver
3592       {\ifnameundef{savedauthor}
3593         {\ifnameundef{savededitor}
3594           {}
3595           {\ifnameequal{editor}{savededitor}
3596             {\clearname{editor}}
3597             {}}}
3598         {\ifnameequal{author}{savedauthor}
3599           {\clearname{author}}
3600           {}}}%
3601   \renewbibmacro*{related:init}{}%
3602   \DeclareNameAlias{sortname}{default}%
3603   \ifbibmacroundef{date+extradate}
3604     {}
3605     {\renewbibmacro*{date+extradate}{}%
3606       \renewbibmacro*{date}{\printdate}}%
3607   \renewbibmacro*{pageref}{}%
3608   {\thefield{entrytype}}%
3609   \ifboolexpr{
3610     test {\iffieldundef{pages}}
3611     or
3612     test {\iffieldundef{savedpages}}
3613   }{%
3614     \newunit\newblock
3615   }{%
3616     \setunit{\addspace}%
3617     \bibstring{thiscite}%
3618     \printunit{\addspace}%
3619   }%
3620 }%
3621 \usebibmacro{chapter+pages}%
3622 }

```

### 2.1.18 SOURCE MAPS

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

```

3623 \DeclareStyleSourceMap{%
3624   \maps[datatype=bibtex]{%

```

#### Sort order

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

```

3625   \map[
3626     \pertype{proceedings}
3627     \pertype{mvproceedings}
3628     \step[notfield=author,
3629           fieldsource=organization,
3630           fieldtarget=author]
3631   ]

```

## Descriptors

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

```

3632 \map[overwrite=false]{
3633   \step[fieldsource=descriptor, final]
3634   \step[notfield=title,
3635         fieldset=title+an,
3636         fieldvalue={=descriptor}]
3637   \step[notfield=title,
3638         fieldsource=descriptor,
3639         fieldtarget=title]
3640   \step[fieldsource=descriptor,
3641         fieldtarget=note]
3642 }
```

## Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

3643 \map[overwrite=false]{
3644   \step[fieldsource=realauthor, final]
3645   \step[notfield=author,
3646         fieldset=author+an,
3647         fieldvalue={=inferred}]
3648   \step[notfield=author,
3649         fieldsource=realauthor,
3650         fieldtarget=author]
3651   \step[fieldsource=realauthor,
3652         fieldtarget=authoraddon]
3653 }
3654 \map[overwrite=false]{
3655   \step[fieldsource=reaeditor, final]
3656   \step[notfield=editor,
3657         fieldset=editor+an,
3658         fieldvalue={=inferred}]
3659   \step[notfield=editor,
3660         fieldsource=reaeditor,
3661         fieldtarget=editor]
3662   \step[fieldsource=reaeditor,
3663         fieldtarget=editoraddon]
3664 }
```

## Editors as joint authors

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

```

3665 \map[overwrite=false]{
3666   \step[fieldsource=editor+an,
3667         match=\regexp{=jointauthor},
3668         final]
3669   \step[fieldsource=editor,
3670         fieldtarget=jointauthor]
3671   \step[fieldsource=editortype,
3672         fieldtarget=jointauthortype]
3673 }
3674 \map[overwrite=false]{
3675   \step[fieldsource=translator+an,
```



```

3676         match=\regexp{=jointauthor},
3677         final]
3678     \step[fieldsource=translator,
3679           fieldtarget=jointauthor]
3680     \step[fieldset=jointauthortype,
3681           fieldvalue={=translator}]
3682 }

```

### Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```

3683     \map[overwrite=false]{
3684       \pertype{audio}
3685       \pertype{music}
3686       \pertype{movie}
3687       \pertype{video}
3688       \pertype{inaudio}
3689       \pertype{inmusic}
3690       \pertype{inmovie}
3691       \pertype{invideo}
3692       \step[fieldset=origdatetype,fieldvalue={recorded}]
3693     }

```

### Legal references

These help ensure compatibility with oscola.

```

3694     \map[overwrite=false]{
3695       \pertype{jurisdiction}
3696       \step[fieldsource=reporter,
3697             fieldtarget=journaltitle]
3698       \step[fieldsource=parvolume,
3699             fieldtarget=userb]
3700       \step[fieldsource=parreporter,
3701             fieldtarget=userc]
3702       \step[fieldsource=parseries,
3703             fieldtarget=userd]
3704       \step[fieldsource=parpages,
3705             fieldtarget=usere]
3706       \step[fieldsource=court,
3707             fieldtarget=institution]
3708       \step[fieldsource=additionalreports,
3709             fieldtarget=listb]
3710       \step[fieldsource=ecli,
3711             fieldtarget=verba]
3712     }%
3713     \map[overwrite=false]{
3714       \pertype{legal}
3715       \step[fieldsource=reporter,
3716             fieldtarget=journaltitle]
3717     }
3718     \map[overwrite=true]{
3719       \pertype{legal}
3720       \step[fieldsource=parties,
3721             fieldtarget=institution]
3722       \step[fieldsource=execution,
3723             fieldtarget=lista]
3724     }

```

This is how oscola removes dots from entries.

```

3725 \map[overwrite=true]{
3726   \pertype{jurisdiction}
3727   \pertype{legislation}
3728   \pertype{legal}
3729   \step[fieldsource=title,
3730     match=\regexp{(\d)\.(\d)},
3731     replace=\regexp{$1.$2}]
3732   \step[fieldsource=title,
3733     match=\regexp{(\D)\.(\d)},
3734     replace=\regexp{$1 $2}]
3735   \step[fieldsource=title,
3736     match=\regexp{\.(\D)},
3737     replace=\regexp{$1}]
3738   \step [fieldsource=title,
3739     match=\regexp{(\D)\.},
3740     replace=\regexp{$1}]
3741   \step[fieldsource=shorttitle,
3742     match=\regexp{(\d)\.(\d)},
3743     replace=\regexp{$1.$2}]
3744   \step[fieldsource=shorttitle,
3745     match=\regexp{(\D)\.(\d)},
3746     replace=\regexp{$1 $2}]
3747   \step[fieldsource=shorttitle,
3748     match=\regexp{\.(\D)},
3749     replace=\regexp{$1}]
3750   \step [fieldsource=shorttitle,
3751     match=\regexp{(\D)\.},
3752     replace=\regexp{$1}]
3753   \step[fieldsource=userc,
3754     match=\regexp{(\d)\.(\d)},
3755     replace=\regexp{$1.$2}]
3756   \step[fieldsource=userc,
3757     match=\regexp{(\D)\.(\d)},
3758     replace=\regexp{$1 $2}]
3759   \step[fieldsource=userc,
3760     match=\regexp{\.(\D)},
3761     replace=\regexp{$1}]
3762   \step [fieldsource=userc,
3763     match=\regexp{(\D)\.},
3764     replace=\regexp{$1}]
3765   \step[fieldsource=journaltitle,
3766     match=\regexp{(\d)\.(\d)},
3767     replace=\regexp{$1.$2}]
3768   \step[fieldsource=journaltitle,
3769     match=\regexp{(\D)\.(\d)},
3770     replace=\regexp{$1 $2}]
3771   \step[fieldsource=journaltitle,
3772     match=\regexp{\.(\D)},
3773     replace=\regexp{$1}]
3774   \step [fieldsource=journaltitle,
3775     match=\regexp{(\D)\.},
3776     replace=\regexp{$1}]
3777   \step[fieldsource=institution,
3778     match=\regexp{(\d)\.(\d)},
3779     replace=\regexp{$1.$2}]
3780   \step[fieldsource=institution,
3781     match=\regexp{(\D)\.(\d)},
3782     replace=\regexp{$1 $2}]
3783   \step[fieldsource=institution,
3784     match=\regexp{\.(\D)},

```

```

3785         replace=\regexp{$1}]
3786 \step[fieldsource=institution,
3787       match=\regexp{(\D)\.},
3788       replace=\regexp{$1}]
3789 \step[fieldsource=publisher,
3790       match=\regexp{(\d)\.(\d)},
3791       replace=\regexp{$1.$2}]
3792 \step[fieldsource=publisher,
3793       match=\regexp{(\D)\.(\d)},
3794       replace=\regexp{$1 $2}]
3795 \step[fieldsource=publisher,
3796       match=\regexp{\.(\D)},
3797       replace=\regexp{$1}]
3798 \step [fieldsource=publisher,
3799       match=\regexp{(\D)\.},
3800       replace=\regexp{$1}]
3801 \step[fieldsource=location,
3802       match=\regexp{(\d)\.(\d)},
3803       replace=\regexp{$1.$2}]
3804 \step[fieldsource=location,
3805       match=\regexp{(\D)\.(\d)},
3806       replace=\regexp{$1 $2}]
3807 \step[fieldsource=location,
3808       match=\regexp{\.(\D)},
3809       replace=\regexp{$1}]
3810 \step [fieldsource=location,
3811       match=\regexp{(\D)\.},
3812       replace=\regexp{$1}]
3813 \step[fieldsource=series,
3814       match=\regexp{(\d)\.(\d)},
3815       replace=\regexp{$1.$2}]
3816 \step[fieldsource=series,
3817       match=\regexp{(\D)\.(\d)},
3818       replace=\regexp{$1 $2}]
3819 \step[fieldsource=series,
3820       match=\regexp{\.(\D)},
3821       replace=\regexp{$1}]
3822 \step [fieldsource=series,
3823       match=\regexp{(\D)\.},
3824       replace=\regexp{$1}]
3825 \step[fieldsource=indextitle,
3826       match=\regexp{(\d)\.(\d)},
3827       replace=\regexp{$1.$2}]
3828 \step[fieldsource=indextitle,
3829       match=\regexp{(\D)\.(\d)},
3830       replace=\regexp{$1 $2}]
3831 \step[fieldsource=indextitle,
3832       match=\regexp{\.(\D)},
3833       replace=\regexp{$1}]
3834 \step [fieldsource=indextitle,
3835       match=\regexp{(\D)\.},
3836       replace=\regexp{$1}]
3837 }
3838 }%
3839 }

```

### 2.1.19 SORTING SCHEMES

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

```

3840 \DeclareSortingTemplate{nty}{
3841   \sort{
3842     \field{presort}
3843   }
3844   \sort[final]{
3845     \field{sortkey}
3846   }
3847   \sort{
3848     \field{sortname}
3849     \field{author}
3850     \field{editor}
3851     \field{translator}
3852     \field{sorttitle}
3853     \field{title}
3854     \field{library}
3855   }
3856   \sort{
3857     \field{sorttitle}
3858     \field{title}
3859   }
3860   \sort{
3861     \field{sortyear}
3862     \field{year}
3863   }
3864   \sort{
3865     \field{volume}
3866     \literal{0}
3867   }
3868   \sort{
3869     \field{location}
3870   }
3871   \sort{
3872     \field{collection}
3873     \field{series}
3874   }
3875 }
3876
3877 \DeclareSortingTemplate{nyt}{
3878   \sort{
3879     \field{presort}
3880   }
3881   \sort[final]{
3882     \field{sortkey}
3883   }
3884   \sort{
3885     \field{sortname}
3886     \field{author}
3887     \field{editor}
3888     \field{translator}
3889     \field{sorttitle}
3890     \field{title}
3891     \field{library}
3892   }
3893   \sort{
3894     \field{sortyear}
3895     \field{year}
3896   }
3897   \sort{
3898     \field{sorttitle}
3899     \field{title}
3900   }
3901   \sort{

```

```

3902     \field{volume}
3903     \literal{0}
3904   }
3905   \sort{
3906     \field{location}
3907   }
3908   \sort{
3909     \field{collection}
3910     \field{series}
3911   }
3912 }
3913
3914 \DeclareSortingTemplate{anyt}{
3915   \sort{
3916     \field{presort}
3917   }
3918   \sort{
3919     \field{labelalpha}
3920   }
3921   \sort[final]{
3922     \field{sortkey}
3923   }
3924   \sort{
3925     \field{sortname}
3926     \field{author}
3927     \field{editor}
3928     \field{translator}
3929     \field{sorttitle}
3930     \field{title}
3931     \field{library}
3932   }
3933   \sort{
3934     \field{sortyear}
3935     \field{year}
3936   }
3937   \sort{
3938     \field{sorttitle}
3939     \field{title}
3940   }
3941   \sort{
3942     \field{volume}
3943     \literal{0}
3944   }
3945   \sort{
3946     \field{location}
3947   }
3948   \sort{
3949     \field{collection}
3950     \field{series}
3951   }
3952 }

```

The following entry types never put editors first.

```

3953 \ExecuteBibliographyOptions
3954 [proceedings,report,audio,music,movie,video,manuscript,unpublished,review]%
3955 {useeditor=false}

```

## 2.2 Notes style: oxnotes.bbx

### 2.2.1 PRELIMINARIES

First we load the common oxref features.

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

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

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

We ensure the printing of the anon localization string matches.

```
25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{}%
```

### 2.2.2 PAGE RANGES IN CITATIONS

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

```
34 \renewbibmacro*{postnote}{%
35   \iffieldundef{postnote}{}{}%
36   \iffieldundef{pages}{}%
37   \setunit{\postnotedelim}%
38   \printfield{postnote}%
39 }{%
40   \printtext{\addspace\bibstring{thiscite}\space}%
41   \printfield{postnote}}}
```

### 2.2.3 SOURCE MAPS

```
42 \DeclareStyleSourceMap{%
43   \maps[datatype=bibtex]{%
```

#### Sort order

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

```
44 \map{
45   \pertype{mvbook}
46   \pertype{mvcollection}
47   \pertype{mvreference}
48   \pertype{proceedings}
```

```

49     \pertype{mvproceedings}
50     \pertype{report}
51     \step[fieldsource=maintitle]%
52     \step[fieldset=sorttitle, origfieldval]%
53     \step[fieldsource=volume]%
54     \step[fieldset=sorttitle, append, origfieldval]%
55     \step[fieldsource=title]%
56     \step[fieldset=sorttitle, append, origfieldval]%
57   }%
58 }%
59 }

```

## 2.3 Numeric style: oxnum.bbx

### 2.3.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

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

```

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

```

We ensure the printing of the anon localization string matches.

```

25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{}

```

### 2.3.2 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```

34 \ExecuteBibliographyOptions{labelnumber}
35
36 \providebool{bbx:subentry}
37
38 \DeclareBibliographyOption[boolean]{subentry}[true]{%
39   \setbool{bbx:subentry}{#1}}
40
41 \DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
42 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
43 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
44
45 \defbibenvironment{bibliography}
46 {
47   \list
48   {\printtext[labelnumberwidth]{%
49     \printfield{labelprefix}%

```

```

49 \printfield[labelnumber]}
50   {\setlength{\labelwidth}{\labelnumberwidth}}%
51   \setlength{\leftmargin}{\labelwidth}%
52   \setlength{\labelsep}{\biblabelsep}%
53   \addtolength{\leftmargin}{\labelsep}%
54   \setlength{\itemsep}{\bibitemsep}%
55   \setlength{\parsep}{\bibparsep}}%
56   \renewcommand*{\makelabel}[1]{\hss##1}}
57 {\endlist}
58 {\item}
59
60 \defbibenvironment{shorthand}
61   {\list
62     {\printfield[shorthandwidth]{shorthand}}
63     {\setlength{\labelwidth}{\shorthandwidth}}%
64     \setlength{\leftmargin}{\labelwidth}%
65     \setlength{\labelsep}{\biblabelsep}%
66     \addtolength{\leftmargin}{\labelsep}%
67     \setlength{\itemsep}{\bibitemsep}%
68     \setlength{\parsep}{\bibparsep}}%
69     \renewcommand*{\makelabel}[1]{\hss##1}}}
70 {\endlist}
71 {\item}
72
73 \DeclareBibliographyDriver{set}{%
74   \entryset
75     {\ifbool{bbx:subentry}
76       {\printfield[bibentrysetcount]{entrysetcount}}%
77     \printunit*{\adddnbspace}}
78   {}
79   {}%
80   \newunit\newblock
81   \usebibmacro{setpageref}%
82   \finentry}

```

## 2.4 Author–year style: oxyear.bbx

### 2.4.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

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

```

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

```

### 2.4.2 DATE MERGING OPTION

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



```

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

```

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}}

```

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

```

31 \DeclareLabeldate{%
32   \field{origdate}
33   \field{date}
34   \field{year}
35   \field{eventdate}
36   \field{pubstate}
37   \literal{nodate}
38 }

```

The `extradate` string should be printed bare.

```

39 \DeclareFieldFormat{extradate}{%
40   \iffielddundef{\thefield{labeldatesource}}{%
41     \iffieldnums{\thefield{labeldatesource}year}{~}%
42   }{%
43     \iffieldnums{\thefield{labeldatesource}}{~}%
44   }%
45   \mkbibemph{\mknumalph{#1}}}%

```

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

```

46 \def\iflabeldateisanydate{%
47   \ifboolexpr{%
48     togl {blx@labeldateparts}
49     and not test {\iffielddundef{labeldatesource}}
50     and (
51       test {\iffieldequalstr{labeldatesource}{year}}
52       or not test {\iffielddundef{\thefield{labeldatesource}year}}
53     )}}
54 \def\iflabeldateispubstate{%
55   \ifboolexpr{%
56     not test {\iffielddundef{labeldatesource}}
57     and test {\iffieldequalstr{labeldatesource}{pubstate}}}}

```

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).

```
58 \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.

```
59 \def\bbx@opt@mergedate@maximum{%
60   \renewbibmacro*{date+extradate}{%
61     \iffieldundef{labelyear}}{%
62       \printtext[datelabel]{%
63         \iflabeldateisdate{%
64           \printfield{issue}\clearfield{issue}%
65           \setunit*{\addspace}%
66           \printdateextra
67           \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
68         }{%
69           \iflabeldateisanydate{%
70             \csuse{print\thefield{labeldatesource}dateextra}%
71             \clearfield{\thefield{labeldatesource}year}%
72             \clearfield{\thefield{labeldatesource}season}%
73             \clearfield{\thefield{labeldatesource}month}%
74             \clearfield{\thefield{labeldatesource}day}%
75           }{%
76             \printlabeldateextra
77             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
78           }
79         }
80       }
81     }
82   }
```

- 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.

```
79 \def\bbx@opt@mergedate@compact{%
80   \renewbibmacro*{date+extradate}{%
81     \iffieldundef{labelyear}}{%
82       \printtext[datelabel]{%
83         \iflabeldateisdate{%
84           \printdateextra
85           \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
86         }{%
87           \iflabeldateisanydate{%
88             \csuse{print\thefield{labeldatesource}dateextra}%
89             \clearfield{\thefield{labeldatesource}year}%
90             \clearfield{\thefield{labeldatesource}season}%
91             \clearfield{\thefield{labeldatesource}month}%
92             \clearfield{\thefield{labeldatesource}day}%
93           }{%
94             \printlabeldateextra
95             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
96           }
97         }
98       }
99     }
100   }
```

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

```
97 \def\bbx@opt@mergedate@year{%
98   \renewbibmacro*{date+extradate}{%
99     \iffieldundef{labelyear}}{%
100       \printtext[datelabel]{%
101         \iflabeldateisdate{%
102           \printfield{year}\clearfield{year}%
103           \setunit*{\addspace}%
104           \printdateextra
105           \clearfield{season}\clearfield{month}\clearfield{day}%
106         }{%
107           \iflabeldateisanydate{%
108             \csuse{print\thefield{labeldatesource}dateextra}%
109             \clearfield{\thefield{labeldatesource}year}%
110             \clearfield{\thefield{labeldatesource}season}%
111             \clearfield{\thefield{labeldatesource}month}%
112             \clearfield{\thefield{labeldatesource}day}%
113           }{%
114             \printlabeldateextra
115             \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
116           }
117         }
118       }
119     }
120   }
```

```

100 \printtext[datelabel]{\printlabeldateextra}%
101 \iflabeldateisdate{%
102   \clearfield{year}
103 }{%
104   \iflabeldateisanydate{%
105     \clearfield{\thefield{labeldatesource}year}%
106   }{%
107     \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
108   }}}

```

- 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.

```

109 \def\bbx@opt@mergedate@basic{%
110   \renewbibmacro*{date+extradate}{%
111     \iffieldundef{labelyear}}{%
112     \printtext[datelabel]{\printlabeldateextra}%
113     \iflabeldateisdate{%
114       \ifboolexpr{
115         test {\ifdateshavedifferentprecision{label}}{}
116         or
117         not test {\iffieldundef{issue}}
118       }{}{%
119         \clearfield{year}}%
120     }{%
121       \iflabeldateisanydate{%
122         \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{}{%
123           \clearfield{\thefield{labeldatesource}year}}%
124       }{%
125         \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
126       }}}

```

- 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.

```

127 \def\bbx@opt@mergedate@minimum{%
128   \renewbibmacro*{date+extradate}{%
129     \iffieldundef{labelyear}}{%
130     \printtext[datelabel]{\printlabeldateextra}%
131     \iflabeldateisdate{%
132       \ifboolexpr{
133         test {\ifdateshavedifferentprecision{label}}{}
134         or
135         not test {\iffieldundef{extradate}}
136         or
137         not test {\iffieldundef{issue}}
138       }{}{%
139         \clearfield{year}}%
140     }{%
141       \iflabeldateisanydate{%
142         \ifboolexpr{
143           test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
144           or
145           not test {\iffieldundef{extradate}}
146         }{}{%
147           \clearfield{\thefield{labeldatesource}year}}%
148       }{%

```

```

149 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
150 }}}}

```

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

```

151 \def\bbx@opt@mergedate@false{%
152 \renewbibmacro*{date+extradate}{%
153 \iffieldundef{labelyear}{}%
154 \printtext[date]{\printlabeldateextra}%
155 \iflabeldateisanydate}{%
156 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
157 }}}}

```

We set the default to be true/year.

```

158 \ExecuteBibliographyOptions{mergedate}

```

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

```

159 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
160 \iffieldundef{#2month}{}%
161 \datecircaprint
162 \printtext[#2date]{%
163 \iffieldundef{#2season}{%
164 \csuse{mkbibdate#1}{#2month}{#2day}%
165 \blx@printtime{#2}{%
166 }{%
167 \csuse{mkbibseasondate#1}{#2season}}%
168 \dateuncertainprint
169 \iffieldundef{#2endmonth}{}%
170 \iffieldequalstr{#2endmonth}{}%
171 \mbox{\bibdaterangesep}%
172 }{%
173 \bibdaterangesep
174 \enddatecircaprint
175 \iffieldundef{#2season}{%
176 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
177 \blx@printtime{#2}{end}%
178 }{%
179 \csuse{mkbibseasondate#1}{#2endseason}}%
180 \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.

```

181 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
182 \iffieldundef{#2month}{}%
183 \datecircaprint
184 \printtext[#2date]{%
185 \iffieldundef{#2season}{%
186 \ifbool{expr{

```

```

187     test {\iffieldequal{labelyear}{labelendyear}}
188     and
189     test {\iffieldequal{#2month}{#2endmonth}}
190   }{%
191     \csuse{mkbibdate#1}{}{#2day}%
192   }{%
193     \csuse{mkbibdate#1}{}{#2month}{#2day}}%
194 }{%
195   \csuse{mkbibseasondate#1}{}{#2season}}%
196 \dateuncertainprint
197 \iffieldundef{#2endmonth}{}{%
198   \iffieldequalstr{#2endmonth}{}{%
199     \mbox{\bibdaterangesep}%
200   }{%
201     \bibdaterangesep
202     \enddatecircaprint
203     \iffieldundef{#2season}{}{%
204       \csuse{mkbibdate#1}{}{#2endmonth}{#2endday}%
205     }{%
206       \csuse{mkbibseasondate#1}{}{#2endseason}}%
207     \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.

```

208 \xpatchcmd{\mkdaterangefull}{%
209   \iffieldundef{#2year} {}%
210 }{%
211   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
212 }{}{}
213 \xpatchcmd{\mkdaterangetrunc}{%
214   \iffieldundef{#2year} {}%
215 }{%
216   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
217 }{}{}
218 \xpatchcmd{\mkdaterangefullextra}{%
219   \iffieldundef{#2year} {}%
220 }{%
221   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
222 }{}{}
223 \xpatchcmd{\mkdaterangetruncextra}{%
224   \iffieldundef{#2year} {}%
225 }{%
226   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
227 }{}{}

```

### 2.4.3 BIBLIOGRAPHY FORMATTING

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

```

228 \DeclareFieldFormat{shorthandwidth}{#1}

```

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

```

229 \xpretonameformat{family-given}{%
230   \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}{}}%
231   \ifitemannotation{inferred}{\bibopenbracket}{}%
232 }{}{}

```

```

233 \xpatchnameformat{family-given}{%
234 \usebibmacro{name:andothers}%
235 }{%
236 \ifitemannotation{pseudo}{%
237 \addspace\printtext[parens]{\bibsstring{pseudo}}%
238 }{%
239 \ifitemannotation{inferred}{\bibclosebracket}{}%
240 \usebibmacro{name:andothers}%
241 \iffieldannotation{inferred}{%
242 \ifboolexpr{
243 test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
244 or
245 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
246 or (
247 test {\ifnumequal{\value{listcount}}{\value{minnames}}}
248 and
249 test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
250 }\bibclosebracket}{}%
251 }{%
252 }{}
253 \DeclareNameAlias{shortauthor}{family-given}
254 \DeclareNameAlias{shorteditor}{family-given}

```

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

```

255 \DeclareNameAlias{sortname}{family-given}
256 \DeclareNameAlias{author}{family-given}
257 \DeclareNameAlias{editor}{family-given}
258 \DeclareNameAlias{translator}{family-given}

```

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

```

259 \defbibenvironment{bibliography}
260 {\list
261 {}
262 {\setlength{\leftmargin}{\bibhang}%
263 \setlength{\itemindent}{-\leftmargin}%
264 \setlength{\itemsep}{\bibitemsep}%
265 \setlength{\parsep}{\bibparsep}}}
266 {\endlist}
267 {\item}

```

The shorthand formatting is just like authoryear.

```

268 \defbibenvironment{shorthand}
269 {\list
270 {\printfield[shorthandwidth]{shorthand}}
271 {\setlength{\labelwidth}{\shorthandwidth}%
272 \setlength{\leftmargin}{\labelwidth}%
273 \setlength{\labelsep}{\biblabelsep}%
274 \addtolength{\leftmargin}{\labelsep}%
275 \setlength{\itemsep}{\bibitemsep}%
276 \setlength{\parsep}{\bibparsep}%
277 \renewcommand*{\makelabel}[1]{##1\hss}}
278 {\endlist}
279 {\item}

```

## 2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in `authoryear`.

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

We ensure related entries do not interfere with the hashing.

```
281 \xapptobibmacro{begrelated}{%
282   \booltrue{bbx@inset}}{}{}
283 \xapptobibmacro{endrelated}{%
284   \usebibmacro*{bbx:savehash}}{}{}
```

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

```
285 \xpatchbibmacro{author}{%
286   \iffieldundef{authortype}%
287 }{%
288   \usebibmacro{date+extradate}%
289   \setunit*{\addspace}%
290   \iffieldundef{authortype}%
291 }{}{}%
292 \xpatchbibmacro{author}{%
293   \global\undef\bbx@lasthash
294 }{%
295   \global\undef\bbx@lasthash
296   \usebibmacro{labeltitle}%
297   \setunit*{\addspace}%
298   \usebibmacro{date+extradate}%
299 }{}{}%
```

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.

```
300 \xpatchbibmacro{namepairs}{%
301   \printnames[by#1]%
302 }{%
303   \printnames[#1]%
304 }{}{}
305 \xpatchbibmacro{author+altauthor}{%
306   \printnames{author}%
307 }{%
308   \ifboolexpr{%
309     ( not test {\iffnameundef{shortauthor}} )
310     and
311     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
312   }{%
313     \usebibmacro{namepairs}{author}{shortauthor}%
314   }{%
315     \printnames{author}%
316   }%
317 }{}{}%
```

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

```
318 \xpatchbibmacro{bbx:editor}{%
319   \usebibmacro{#1}%
```

```

320 }{
321   \usebibmacro{date+extradate}%
322   \setunit*{\addspace}%
323   \usebibmacro{#1}%
324 }{}%
325 \xpatchbibmacro{bbx:editor}{%
326   \global\undef\bbx@lasthash
327 }{%
328   \global\undef\bbx@lasthash
329   \usebibmacro{labeltitle}%
330   \setunit*{\addspace}%
331   \usebibmacro{date+extradate}%
332 }{}%
333 \xpatchbibmacro{editor+altditor}{%
334   \printnames[byeditor]%
335 }{%
336   \printnames[editor]%
337 }{}%
338 \xpatchbibmacro{editor+altditor}{%
339   \printnames{editor}%
340 }{%
341   \ifboolexpr{%
342     ( not test {\ifnameundef{shorteditor}} )
343     and
344     test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
345   }{%
346     \usebibmacro{namepairs}{editor}{shorteditor}%
347   }{%
348     \printnames{editor}%
349   }%
350 }{}%

```

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

```

351 \xpatchbibmacro{bbx:translator}{%
352   \global\undef\bbx@lasthash
353 }{%
354   \global\undef\bbx@lasthash
355   \usebibmacro{labeltitle}%
356   \setunit*{\addspace}%
357   \usebibmacro{date+extradate}%
358 }{}%
359 \xpatchbibmacro{bbx:translator}{%
360   \usebibmacro{#1}%
361 }{%
362   \usebibmacro{date+extradate}%
363   \setunit*{\addspace}%
364   \usebibmacro{#1}%
365 }{}%

```

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.

```

366 \newtoggle{blx@ox@clearedtitle}
367 \newbibmacro*{labeltitle}{%
368   \iffieldundef{label}{%
369     \iffieldundef{shorttitle}{%
370       \ifboolexpr{
371         test {\iffieldundef{title}}
372         and

```



```

373     test {\iffielddundef{subtitle}}
374   }{%
375     \printfield{library}%
376     \clearfield{library}%
377   }{%
378     \printtext[title]{%
379       \printfield[titlecase]{title}%
380       \setunit{\subtitlepunct}%
381       \printfield[titlecase]{subtitle}}%
382     \clearfield{title}%
383     \clearfield{subtitle}%
384     \toggletrue{blx@ox@clearedtitle}%
385     \setunit{\addspace}%
386   }%
387 }{%
388   \printtext[title]{\printfield[titlecase]{shorttitle}}%
389 }%
390 }{%
391   \printfield{label}%
392 }%
393 }

```

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

```

394 \xpretobibmacro{maintitle+title}{%
395   \iftoggle{blx@ox@clearedtitle}{%
396     \usebibmacro{maintitle+volume}%
397     \clearfield{maintitle}%
398     \clearfield{volume}%
399   }{%
400   }}%
401 \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.

```

402 \xpatchbibdriver{online}{%
403   \iffielddundef{year}%
404 }{%
405   \ifboolexpr{
406     test {\iffielddundef{season}}
407     and
408     test {\iffielddundef{month}}
409   }%
410 }{}%

```

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

```

411 \DeclareFieldFormat{online,image}{citetitle}{\mkbibquote{#1\isdot}}
412 \DeclareFieldFormat{legislation,legal}{citetitle}{#1}
413 \DeclareFieldFormat{manuscript,unpublished}{citetitle}{%
414   \def\currentfield{title}%
415   \ifboolexpr{
416     test {\iffielddannotation{descriptor}}
417     or (
418       test {\iffielddundef{shorttitle}}
419       and
420       test {\iffielddundef{title}}

```

```

421     )
422     }{#1}{\mkbibquote{#1\isdot}}%
423     \undef\currentfield}

```

## 2.4.5 JOURNAL DIVISION FORMATTING

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

```

424 \renewcommand*{\bibpagespunct}{%
425   \ifbool{expr{
426     test {\ifentrytype{article}}
427     or
428     test {\ifentrytype{supperperiodical}}
429     or
430     test {\ifentrytype{review}}
431   }{%
432     \addcolon\space
433   }{%
434     \addcomma\space
435   }%
436 }

```

## 2.4.6 MANUSCRIPTS

The dates for manuscripts should not really be in parentheses, but it looks really odd to have them bare, when compared to other entries. As a compromise, we use square brackets.

```

437 \DeclareFieldFormat[manuscript]{date}{\mkbibbrackets{#1}}
438 \DeclareFieldFormat[unpublished]{date}{%
439   \iftoggle{blx@ox@ms}{\mkbibbrackets{#1}}{\mkbibparens{#1}}}
440 \renewbibmacro*{manuscript:date}{\usebibmacro{date}}

```

We include the library field as a fallback title.

```

441 \DeclareLabeltitle{%
442   \field{shorttitle}
443   \field{title}
444   \field{maintitle}
445   \field{library}
446 }

```

## 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 }{}
26 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
27 \csuse{print\thefield{labeldatesource}dateextra}
28 }{%
29 \csuse{print\thefield{labeldatesource}date}
30 }{}
31 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
32 \printlabeldateextra
33 }{%
34 \printlabeldate
35 }{}
36 \xpatchcmd{\bbx@opt@mergedate@compact}{%
37 \csuse{print\thefield{labeldatesource}dateextra}
38 }{%
39 \csuse{print\thefield{labeldatesource}date}
40 }{}
41 \xpatchcmd{\bbx@opt@mergedate@compact}{%
42 \printlabeldateextra
43 }{%
44 \printlabeldate
45 }{}
46 \xpatchcmd{\bbx@opt@mergedate@year}{%
47 \printlabeldateextra
48 }{%
49 \printlabeldate
50 }{}
51 \xpatchcmd{\bbx@opt@mergedate@basic}{%
52 \printlabeldateextra
53 }{%
54 \printlabeldate
55 }{}
56 \xpatchcmd{\bbx@opt@mergedate@minimum}{%
57 \printlabeldateextra
58 }{%
59 \printlabeldate
60 }{}
61 \xpatchcmd{\bbx@opt@mergedate@false}{%
62 \printlabeldateextra
63 }{%
64 \printlabeldate
65 }{}
66 \ExecuteBibliographyOptions{mergedate}

```

### 2.5.3 LABEL CODES: PRINTING

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

```

67 \ExecuteBibliographyOptions{labelalpha,sorting=anyt}
68
69 \DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{#1}}
70 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
71
72 \defbibenvironment{bibliography}
73 {
74   \list
75   {\printtext[labelalphawidth]{%

```

```

75      \printfield{labelprefix}%
76 \printfield{labelalpha}%
77      \printfield{extraalpha}}
78      {\setlength{\labelwidth}{\labelalphawidth}%
79       \setlength{\leftmargin}{\labelwidth}%
80       \setlength{\labelsep}{\biblabelsep}%
81       \addtolength{\leftmargin}{\labelsep}%
82       \setlength{\itemsep}{\bibitemsep}%
83       \setlength{\parsep}{\bibparsep}}%
84      \renewcommand*{\makelabel}[1]{##1\hss}}
85 {\endlist}
86 {\item}
87
88 \defbibenvironment{shorthand}
89 {\list
90  {\printfield[shorthandwidth]{shorthand}}
91  {\setlength{\labelwidth}{\shorthandwidth}%
92   \setlength{\leftmargin}{\labelwidth}%
93   \setlength{\labelsep}{\biblabelsep}%
94   \addtolength{\leftmargin}{\labelsep}%
95   \setlength{\itemsep}{\bibitemsep}%
96   \setlength{\parsep}{\bibparsep}%
97   \renewcommand*{\makelabel}[1]{##1\hss}}}
98 {\endlist}
99 {\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.

```

100 \DeclareStyleSourcemap{%
101   \maps[datatype=bibtex]{%
102     \map[overwrite=false]{%
103       \step[fieldsource=title, final]
104       \step[fieldset=shortlabeltitle, origfieldval]
105       \step[fieldsource=subtitle]
106       \step[fieldset=shortlabeltitle, origfieldval, append=true]
107       \step[fieldsource=shortlabeltitle,
108             match=\regexp{[^\p{Lu}]}},
109             replace=\regexp{}}
110     }}}
111 \DeclareLabelalphaTemplate{%
112   \labelelement{
113     \field[final]{shorthand}
114     \field[label]
115     \field[strwidth=3, strside=left, ifnames=1]{labelname}
116     \field[strwidth=1, strside=left]{labelname}
117     \field[strwidth=3, strside=left]{shortlabeltitle}
118     \field[strwidth=4, strside=left]{labeltitle}
119   }
120   \labelelement{
121     \field[strwidth=2, strside=right]{labelyear}
122   }
123 }

```

## Citation styles

### 3.1 Notes style: oxnotes.cbx

The standard verbose style works without further adjustment.

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

### 3.2 Author–year style: oxyyear.cbx

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

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

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

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

We patch it with our version of year range compression.

```
22 \xpatchbibmacro{cite:labeldate+extradate}{%
23   \printfield{labelendyear}%
24 }{%
25   \iffielddundef{extradate}{%
26     \blx@ox@compyear
27     {\thefield{labelyear}}%
28     {\thefield{labelendyear}}%
29   }%
30   \printfield{labelendyear}%
31 }
```

We insert anonymous author handling into cite.

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

```

39     and
40     test {\iffieldequals{rawauthor}{\oxrefanon}}
41   }{%
42     \iftoggle{blx@ox@abbranon}{\bibsstring{anon}}{\bibrplstring{anon}}%
43   }{%
44     \printnames{labelname}%
45   }%
46 }{}

```

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.

```

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

```

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

```

55 \renewcommand*{\compctedelim}{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

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

```

### 3.3 Notes style: oxnum.cbx

The standard numeric style works without further adjustment.

```

20 \RequireCitationStyle{numeric-comp}

```

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

```

21 \renewcommand*{\compctedelim}{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

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

```

### 3.4 Notes style: oxalph.cbx

The standard alphabetic style works without further adjustment.

```

20 \RequireCitationStyle{alphabetic}

```

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

```

21 \renewcommand*{\compctedelim}{\addsemicolon\space}

```

The page reference postnote is given after a colon.

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

### 3.5 Common citation fixes

This code is appended to all the citation style files.

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

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

## Data model adjustments

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

We provide an additional name part for handling titles.

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

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

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

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

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

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

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

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

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

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

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

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

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



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

This data model helps with legal citations.

```
38 \DeclareDatamodelFields[type=field,datatype=date]{pardate}  
39 \DeclareDatamodelEntryfields[jurisdiction]{pardate}
```

## Localization modules

### 5.1 English: english-oxref.lbx

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

```

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

```

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

```

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

```

These are new strings defined by oxref:

- Roles expressed as functions

```

35   director      = {{director}}{dir\adddot}},
36   performer     = {{}},
37   reader        = {{reader}}{reader}},
38   conductor      = {{conductor}}{cond\adddot}},

```

- Roles expressed as actions

```

39   byperformer   = {{}},
40   bydirector    = {{directed by}}{dir\adddot}},
41   byreader      = {{read by}}{read by}},
42   byconductor   = {{conducted by}}{cond\adddot}},
43   byserieseditor = {{edited by}}{ed\adddot}},

```

- Publication details

```

44 facsimile      = {{facsimile edition}}{facs\addotsspace edn\adddot}},
45 revised       = {{revised edition}}{rev\addotsspace edn\adddot}},
46 revisedenlarged = {{revised and enlarged edition}}{rev\addotsspace ane enl\addotsspace
↪ edn\adddot}},
47 revisedreprint = {{revised reprint}}{rev\addotsspace repr\adddot}},
48 suppto        = {{Supplement to}}{Supplement to}},
49 equals        = {{=}}{=}},
50 original      = {{original}}{orig\adddot}},

```

- Publication state

```

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

```

- Pagination

```

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

```

- Types

```

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

```

- Miscellaneous

```

98     nolocation     = {{no place}}{n\addot p\addot}},
99     modified        = {{last modified}}{last modified}},
100    recorded        = {{recorded}}{recorded}},
101    uploaded         = {{uploaded}}{uploaded}},

```

- Labels

```

102    anon            = {{Anonymous}}{Anon\addot}},
103    pseudo          = {{Pseudo-}}{Ps\addot-}},
104    urldown          = {{downloaded}}{downloaded}},

```

- These are borrowed from other styles.

```

105    1column         = {{one column}}{1\addnbspace col\addot}},
106    2column         = {{two columns}}{2\addnbspace col\addot}},
107    inflayer        = {{inferior layer}}{inf\addotsspace lay\addot}},
108    suplayer        = {{superior layer}}{sup\addotsspace lay\addot}},
109    paper           = {{paper}}{pap\addot}},
110    papyrus         = {{papyrus}}{papy\addot}},
111    pergamant       = {{pergamant}}{perg\addot}},
112    eucase          = {{Case}}{Case}},
113    eujoinedcases   = {{Joined Cases}}{Joined Cases}},
114    commissiondecision = {{Commission Decision}}{Commission Decision}},
115    application      = {{Application}}{App\addot}},
116    order           = {{Order}}{Ord\addot}},
117    bill            = {{Bill}}{Bill}},
118    draft           = {{draft}}{draft}},
119    opened          = {{opened for signature}}{opened for signature}},
120    signed          = {{signed}}{signed}},
121    adopted         = {{adopted}}{adopted}},
122    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).

```

123    byeditor        = {{edited by}}{ed\addot}},
124    bycompiler      = {{compiled by}}{comp\addot}},
125    byfounder       = {{founded by}}{found\addot}},
126    bycontinuator   = {{continued by}}{cont\addot}},
127    byredactor      = {{redacted by}}{red\addot}},
128    byreviser       = {{revised by}}{rev\addot}},
129    byreviewer      = {{reviewed by}}{rev\addot}},
130    bycollaborator  = {{in collaboration with}}{in collab\addotsspace with}},
131    bytranslator    = {{translated \lbox@lfromlang\ by}}{trans\addot\ \lbox@lfromlang}},

```

```

132 bycommentator = {{commented by}{comm\adddot}},
133 byannotator   = {{annotated by}{annot\adddot}},
134 byeditortr    = {{edited and translated \lbx@lfromlang\ by}%
135                 {ed\adddotsspace and trans\adddot\ \lbx@sfromlang}},
136 byeditorco    = {{edited and commented by}%
137                 {ed\adddotsspace and comm\adddot}},
138 byeditoran    = {{edited and annotated by}%
139                 {ed\adddotsspace and annot\adddot}},
140 byeditorin    = {{edited, with an introduction, by}%
141                 {ed.\adddotsspace with introduction}},
142 byeditorfo    = {{edited, with a foreword, by}%
143                 {ed.\adddotsspace with foreword}},
144 byeditoraf    = {{edited, with an afterword, by}%
145                 {ed.\adddotsspace with afterword}},
146 byeditortrco  = {{edited, translated \lbx@lfromlang\finalandcomma\ and commented by}%
147                 {ed.\addabrvspace trans\adddot\ \lbx@sfromlang\finalandcomma\ and
                  ↪ comm\adddot}},
148 byeditortran  = {{edited, translated \lbx@lfromlang\finalandcomma\ and annotated by}%
149                 {ed.\addabrvspace trans\adddot\ \lbx@sfromlang\finalandcomma\ and
                  ↪ annot\adddot}},
150 byeditortrin  = {{edited and translated \lbx@lfromlang, with an introduction, by}%
151                 {with introduction, ed\adddotsspace and trans\adddot\ \lbx@sfromlang}},
152 byeditortrfo  = {{edited and translated \lbx@lfromlang, with a foreword, by}%
153                 {with foreword, ed\adddotsspace and trans\adddot\ \lbx@sfromlang}},
154 byeditortraf  = {{edited and translated \lbx@lfromlang, with an afterword, by}%
155                 {with afterword, ed\adddotsspace and trans\adddot\ \lbx@sfromlang}},
156 byeditorcoin  = {{edited and commented, with an introduction, by}%
157                 {with introduction, ed\adddotsspace and comm\adddot}},
158 byeditorcofo  = {{edited and commented, with a foreword, by}%
159                 {with foreword, ed\adddotsspace and comm\adddot}},
160 byeditorcoaf  = {{edited and commented, with an afterword, by}%
161                 {with afterword, ed\adddotsspace and comm\adddot}},
162 byeditoranin  = {{edited and annotated, with an introduction, by}%
163                 {with introduction, ed\adddotsspace and annot\adddot}},
164 byeditoranfo  = {{edited and annotated, with a foreword, by}%
165                 {with foreword, ed\adddotsspace and annot\adddot}},
166 byeditoranaf  = {{edited and annotated, with an afterword, by}%
167                 {with afterword, ed\adddotsspace and annot\adddot}},
168 byeditortrcoin = {{edited, translated \lbx@lfromlang\finalandcomma\ and commented, with
169                 ↪ an introduction, by}%
                  {with introduction, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and comm\adddot}},
170 byeditortrcofo = {{edited, translated \lbx@lfromlang\finalandcomma\ and commented, with a
171                 ↪ foreword, by}%
                  {with foreword, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and comm\adddot}},
172 byeditortrcoaf = {{edited, translated \lbx@lfromlang\finalandcomma\ and commented, with
173                 ↪ an afterword, by}%
                  {with afterword, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and comm\adddot}},
174 byeditortranin = {{edited, translated \lbx@lfromlang\finalandcomma\ and annotated, with
175                 ↪ an introduction, by}%
                  {with introduction, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and annot\adddot}},
176 byeditortranfo = {{edited, translated \lbx@lfromlang\finalandcomma\ and annotated, with a
177                 ↪ foreword, by}%
                  {with foreword, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and annot\adddot}},
178 byeditortranaf = {{edited, translated \lbx@lfromlang\finalandcomma\ and annotated, with
179                 ↪ an afterword, by}%
                  {with afterword, ed.\addabrvspace trans\adddot\
                  ↪ \lbx@sfromlang\finalandcomma\ and annot\adddot}},

```

```

180 bytranslatorco = {{translated \lbx@lfromlang\ and commented by}%
181                 {trans\addot\ \lbx@sfromlang\ and comm\addot}},
182 bytranslatoran = {{translated \lbx@lfromlang\ and annotated by}%
183                 {trans\addot\ \lbx@sfromlang\ and annot\addot}},
184 bytranslatorin = {{translated \lbx@lfromlang, with an introduction, by}%
185                 {trans\addot\ \lbx@sfromlang\ with introduction}},
186 bytranslatorfo = {{translated \lbx@lfromlang, with a foreword, by}%
187                 {trans\addot\ \lbx@sfromlang\ with foreword}},
188 bytranslatoraf = {{translated \lbx@lfromlang, with an afterword, by}%
189                 {trans\addot\ \lbx@sfromlang\ with afterword}},
190 bytranslatorcoin = {{translated \lbx@lfromlang\ and commented, with an introduction, by}%
191                    {with introduction, trans\addot\ \lbx@sfromlang\ and comm\addot}},
192 bytranslatorcofo = {{translated \lbx@lfromlang\ and commented, with a foreword, by}%
193                    {with foreword, trans\addot\ \lbx@sfromlang\ and comm\addot}},
194 bytranslatorcoaf = {{translated \lbx@lfromlang\ and commented, with an afterword, by}%
195                    {with afterword, trans\addot\ \lbx@sfromlang\ and comm\addot}},
196 bytranslatoranin = {{translated \lbx@lfromlang\ and annotated, with an introduction, by}%
197                    {with introduction, trans\addot\ \lbx@sfromlang\ and annot\addot}},
198 bytranslatoranfo = {{translated \lbx@lfromlang\ and annotated, with a foreword, by}%
199                    {with foreword, trans\addot\ \lbx@sfromlang\ and annot\addot}},
200 bytranslatoranaf = {{translated \lbx@lfromlang\ and annotated, with an afterword, by}%
201                    {with afterword, trans\addot\ \lbx@sfromlang\ and annot\addot}},

```

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

```

202 withinintroduction = {{with an introduction by}{with an introduction by}},
203 withcommentator = {{with a commentary by}{with a commentary by}},
204 withannotator = {{with annotations by}{with annotations by}},
205 withinintroduction = {{with an introduction by}{with an introduction by}},
206 withforeword = {{with a foreword by}{with a foreword by}},
207 withafterword = {{with an afterword by}{with an afterword by}},
208 introduction = {{introduction}{introduction}},

```

The abbreviations for some publication details are different.

```

209 newseries = {{new series}{\mkbibacro{NS}}},
210 oldseries = {{old series}{\mkbibacro{OS}}},
211 edition = {{edition}{edn\addot}},
212 reprint = {{reprint\nopunct}{repr\addot\nopunct}},
213 reviewof = {{review of}{review of}},
214 reprintas = {{reprinted as}{repr\addotsspace as}},
215 reprintfrom = {{from}{from}},
216 translationas = {{English translation as}{Eng\addotsspace trans\addotsspace as}},
217 origpubin = {{originally published in}{originally pub\addot}},

```

There is also a different abbreviation for ‘paragraph’.

```

218 paragraph = {{paragraph}{para\addot}},
219 paragraphs = {{paragraphs}{paras\addot}},

```

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

```

220 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.

```

221 idem          = {{idem}}{id\adddot}},
222 idemsm        = {{idem}}{id\adddot}},
223 idemsf         = {{eadem}}{ead\adddot}},
224 idemsn         = {{idem}}{id\adddot}},
225 idempm         = {{eidem}}{eid\adddot}},
226 idempf         = {{eaedem}}{eaed\adddot}},
227 idempn         = {{eadem}}{ead\adddot}},
228 idemp          = {{eidem}}{eid\adddot}},
229 citedas        = {{henceforth}}{henceforth}},
230 thiscite       = {{at}}{at}},

```

Languages are abbreviated.

```

231 langamerican   = {{English}}{Eng\adddot}},
232 langbrazilian  = {{Brazilian}}{Braz\adddot}},
233 langcatalan    = {{Catalan}}{Catal\adddot}},
234 langcroatian   = {{Croatian}}{Croat\adddot}},
235 langczech       = {{Czech}}{Czech}},
236 langdanish     = {{Danish}}{Dan\adddot}},
237 langdutch       = {{Dutch}}{Dutch}},
238 langenglish    = {{English}}{Eng\adddot}},
239 langestonian   = {{Estonian}}{Eston\adddot}},
240 langfinnish     = {{Finnish}}{Finn\adddot}},
241 langfrench      = {{French}}{Fr\adddot}},
242 langgerman      = {{German}}{Ger\adddot}},
243 langgreek       = {{Greek}}{Gr\adddot}},
244 langitalian     = {{Italian}}{It\adddot}},
245 langlatin       = {{Latin}}{Lat\adddot}},
246 langnorwegian  = {{Norwegian}}{Norw\adddot}},
247 langpolish      = {{Polish}}{Pol\adddot}},
248 langportuguese  = {{Portuguese}}{Port\adddot}},
249 langrussian     = {{Russian}}{Russ\adddot}},
250 langslovene     = {{Slovene}}{Slov\adddot}},
251 langspanish     = {{Spanish}}{Sp\adddot}},
252 langswedish     = {{Swedish}}{Swed\adddot}},
253 }

```

## 5.2 British English: british-oxref.lbx

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

```

20 \InheritBibliographyExtras{british}
21 \DeclareBibliographyExtras{%
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   \stripzeros{\thefield{#1}}}%
32   \def\finalandcomma{\addcomma}%
33   \def\bibtimesep{\addperiod}%
34 }

```

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

```
35 \DeclareBibliographyStrings{%  
36   inherit      = {english-oxref},  
37   am           = {{a\addot m\addot}{a\addot m\addot}},  
38   pm           = {{p\addot m\addot}{p\addot m\addot}},  
39 }
```

### 5.3 American English: american-oxref.lbx

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