

OXREF BUNDLE

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

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Introduction

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

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

1.1 Quick start

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

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

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

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

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

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

1.2 Installation

1.2.1 DEPENDENCIES

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

1.2.2 MANAGED WAY

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

1.2.3 AUTOMATED WAY

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

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

1.2.4 MANUAL WAY

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

1. Run `luatex oxref.dtx` to generate the source files. (You can safely skip this step if you are confident about step 2.)
2. Compile `oxref.dtx`, `oxnotes-doc.tex`, `oxyyear-doc.tex`, and `oxnum-doc.tex` with LuaLaTeX and Biber to generate the documentation. You will need to enable shell escape so that minted can typeset the listings.
3. Move the files to your TeX tree as follows:
 - `source/latex/biblatex-oxref`: `oxref.dtx`, `(oxref.ins)`
 - `tex/latex/biblatex-oxref`: `american-oxref.lbx`, `british-oxref.lbx`, `english-oxref.lbx`, `oxalph.bbx`, `oxalph.cbx`, `oxalph.dbx`, `oxnotes.bbx`, `oxnotes.cbx`, `oxnotes.dbx`, `oxnum.bbx`, `oxnum.cbx`, `oxnum.dbx`, `oxref.bbx`, `oxyyear.bbx`, `oxyyear.cbx`, `oxyyear.dbx`
 - `doc/latex/biblatex-oxref`: `README.md`, `oxalph-doc.pdf`, `oxalph-doc.tex`, `oxnotes-doc.pdf`, `oxnotes-doc.tex`, `oxnum-doc.pdf`, `oxnum-doc.tex`, `oxref.bib`, `oxref.pdf`, `oxyyear-doc.pdf`, `oxyyear-doc.tex`
4. You may then have to update your installation's file name database before TeX and friends can see the files.

1.3 Licence

Copyright 2016–7 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 `eucause, 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         {\namepartsuffix}
224         {\nameparttitle}}}%
225 \savefield{hash}{\blx@ox@lasthash}%
226 \ifitemannotation{variant}{%
227     \global\settoggle{blx@ox@variantname}{true}%
228 }{%
229     \global\settoggle{blx@ox@variantname}{false}}%
230 \usebibmacro{name:andothers}}

```

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

```

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

```

237 \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
238 \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.

```

239 \newcounter{namepairs}
240 \newsavebox{\blx@ox@namebox}

```

```

241 \newsavebox{\blx@ox@altnamebox}
242 \newbibmacro*{namepairs}[2]{%
243   \setcounter{namepairs}{0}%
244   \savebibmacro{name:andothers}%
245   \renewbibmacro*{name:andothers}{}%
246   \whileboolexpr{%
247     test {\ifnumless{\value{namepairs}}{\value{#1}}}
248     and (
249       test {\ifdefvoid{\c@maxnames}}
250       or
251       test {\ifnumequal{\c@maxnames}{0}}
252       or
253       test {\ifnumless{\value{#1}}{\c@maxnames}}
254       or
255       test {\ifnumequal{\value{#1}}{\c@maxnames}}
256       or
257       test {\ifdefvoid{\c@minnames}}
258       or
259       test {\ifnumequal{\c@minnames}{0}}
260       or
261       test {\ifnumless{\value{namepairs}}{\c@minnames}}
262     )
263   }{%
264     \stepcounter{namepairs}%
265     \ifnumgreater{\value{namepairs}}{1}{%
266       \ifnumequal{\value{#1}}{2}{%
267         \setunit*{\addspace\bibstring{and}\addspace}%
268       }{%
269         \ifnumequal{\value{namepairs}}{\value{#1}}{%
270           \setunit*{\addcomma\space\bibstring{and}\addspace}%
271         }{%
272           \setunit*{\addcomma\space}%
273         }%
274       }%
275     }%
276     \savebox{\blx@ox@namebox}{%
277       \printnames[by1][\value{namepairs}-\value{namepairs}]{#1}%
278     }%
279     \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.

```

280 \IfEndWith{#2}{addon}{%
281   \savebox{\blx@ox@altnamebox}{%
282     \printnames[by1][\value{namepairs}-\value{namepairs}]{#2}%
283   }%
284   \let\blx@ox@secondhash=\blx@ox@lasthash
285   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
286     \unhbox\blx@ox@namebox
287   }{%
288     \unhbox\blx@ox@namebox\addspace
289     \iftoggle{blx@ox@variantname}{%
290       \ifbibliography{%
291         ↪ \printtext[namevariant]{\printnames[by1][\value{namepairs}-\value{namepairs}]{#2}}%
292       }{%
293         \printtext[nameaddon]{\unhbox\blx@ox@altnamebox}%
294       }%
295     }%
296   }%

```

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.

```

297   }{%
298     \savebox{\blx@ox@altnamebox}{%
299       \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
300     }%
301     \let\blx@ox@secondhash=\blx@ox@lasthash
302     \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
303       \unhbox\blx@ox@namebox
304     }{%
305       \unhbox\blx@ox@altnamebox
306       \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
307     }%
308   }%
309 }%
```

Now we return to common code.

```

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

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

```

322 \newbibmacro*{author+altauthor}{%
323   \ifboolexpr{
324     test {\ifnameundef{authoraddon}}
325     and
326     test {\ifnameundef{jointauthor}}
327   }{%
328     \printnames{author}%
329   }{%
330     \ifnumequal{\value{authoraddon}}{\value{author}}{%
331       \usebibmacro{namepairs}{author}{authoraddon}%
332     }{%
333       \printnames{author}%
334       \ifnameundef{authoraddon}{%
335         \setunit*\addspace%
336         \printtext[nameaddon]{\printnames[byauthor]{authoraddon}}%
337       }%
338       \ifnameundef{jointauthor}{%
339         \setunit{\addcomma\space}%
340         \iffieldundef{jointauthortype}{%
341           \bibstring{byeditor}%
342         }{%
343           \printfield{jointauthortype}%
344         }%
345         \setunit*\addspace%
346         \printnames[author]{jointauthor}%
347       }%
348     }%
349   }%
```

```

348 }
349 \DeclareFieldFormat{jointauthortype}{%
350   \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

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

```

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`.

```

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

```

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

```

388 \newbool{bbx@inset}
389 \DeclareBibliographyDriver{set}{%
390   \booltrue{bbx@inset}%
391   \entryset{}{}%
392   \newunit\newblock
393   \usebibmacro{setpageref}%
394   \finentry}

```

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

```

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

```

We copy the author to rawauthor for easier testing.

```

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

```

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).

```

415 \newcommand*{\oxrefanon}{Anonymous}
416 \newtoggle{blx@ox@isanon}
417 \renewbibmacro*{author}{%
418   \iffieldequals{rawauthor}{\oxrefanon}{%
419     \toggletrue{blx@ox@isanon}%
420   }{%
421     \togglefalse{blx@ox@isanon}%
422   }
423   \ifboolexpr{
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

```



```

440     togl {blx@ox@isanon}
441   }{%
442     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
443   }{%
444     \usebibmacro{author+altauthor}%
445   }%
446   \iffieldundef{nameaddon}
447   {}
448   {\setunit{\addspace}%
449     \printfield{nameaddon}}%
450   \setunit{\printdelim{authortypedelim}}}%
451   \iffieldundef{authortype}
452   {}
453   {\usebibmacro{authorstrg}%
454     \setunit{\addspace}}}%
455   {\global\undef\bbx@lasthash}}
456   \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+altdeditor`, and we don't yet add the year label.

```

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

```

We do the same for `translator` as well.

```

476   \renewbibmacro*{translator}{%
477     \usebibmacro{bbx:translator}{translatorstrg}}
478   \renewbibmacro*{translator+others}{%
479     \usebibmacro{bbx:translator}{translator+othersstrg}}
480   \newbibmacro*{bbx:translator}[1]{%
481     \ifbool{expr{
482       test \ifusetranslator
483       and
484       not test {\ifnameundef{translator}}
485     }}
486     {\usebibmacro{bbx:dashcheck}
487       {\bibnamedash}
488       {\printnames{translator}%
489         \setunit{\printdelim{translatortypedelim}}}%
490       \usebibmacro{bbx:savehash}}%
491     \usebibmacro{#1}%
492     \clearname{translator}%

```

```

493     \setunit{\addspace}}%
494     {\global\undef\bbx@lasthash}}
495 \xpatchbibmacro{translatorstrg}%
496   {\bibstring}%
497   {\bibstring[\mkbibparens]}{}{}%
498 \xpatchbibmacro{translator+othersstrg}%
499   {\bibstring}%
500   {\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).

```

501 \renewbibmacro*{bybookauthor}{%
502   \ifnamesequal{author}{bookauthor}%
503   {\bibstring{idem\thefield{gender}}}%
504   {\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 oxyyear.

```

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

```

We provide a macro for printing series editors.

```

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

```

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

```

555 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
556 \newbibmacro*{origtitle}{%
557   \iffieldundef{origtitle}{}%
558   \iflistundef{language}{%
559     \printtext[parens]{\printfield{origtitle}}%
560   }{%
561     \printtext[brackets]{%
562       \printlist{language}\space
563       \bibstring{translationof}\space
564       \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.¹

```

565 \newcommand{\blx@ox@compyear}[2]{%
566   \def\num@one{#1}%
567   \def\num@two{#2}%
568   \StrLen{\num@one}[\num@one@len]%
569   \StrLen{\num@two}[\num@two@len]%
570   \IfEq{\num@one@len}{\num@two@len}{%
571     {\StrCompare{\num@one}{\num@two}[\Result]}%
572     \ifnum\num@two@len>3%
573     \IfStrEq{\Result}{2}{\def\Result{1}}}%
574   \fi

```

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

```

575 \StrGobbleLeft{0\num@two}{\Result}}%
576 {\num@two}%
577 }

```

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

```

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

```

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

```

606 \DeclareFieldFormat{datatype}{%
607 \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
608 }
609 \newtoggle{blx@ox@timefirst}
610 \DeclareBibliographyOption{timefirst}[true]{%
611 \settoggle{blx@ox@timefirst}{#1}}
612 \DeclareEntryOption{timefirst}[true]{%
613 \settoggle{blx@ox@timefirst}{#1}}
614 \newbibmacro*{date+time}{%
615 \ifboolexpr{
616 test {\iffieldundef{year}}
617 and
618 test {\iffieldundef{season}}
619 and
620 test {\iffieldundef{month}}
621 and
622 test {\iffieldundef{hour}}
623 }{}%
624 \printfield{datatype}%
625 \setunit*{\addspace}%
626 \iftoggle{blx@ox@timefirst}{%
627 \printtime
628 \setunit*{\addcomma\space}}{}%

```

```

629 \printdate
630 \iftoggle{blx@ox@timefirst}{%
631 \setunit*{\addcomma\space}%
632 \printtime}%
633 }
634 \renewbibmacro*{date}{\usebibmacro{date+time}}

```

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

```

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

```

2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

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

```

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

```

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

```

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

```

The same is true in citations.

```

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

```

```
672 }
```

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.

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

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.

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

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

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

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.

```

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

```

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

```

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

```

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

```

The DOI is introduced by ‘doi’ in lowercase.

```

757 \xpatchfieldformat{doi}%
758   {\mkbibacro{DOI}}%
759   {\printtext{doi}}{}{}

```

Unlike URLs, DOIs are preceded by a full stop.

```

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

```

2.1.8 ADDENDA

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

```

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

```

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

```

777 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
778 \DeclareFieldFormat{misc,unpublished}{howpublished}{#1}

```

2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

```

779 \DeclareFieldFormat{article,periodical,review}{entrysubtype}{\mkbibbrackets{#1}}

```

We provide a command for testing if a title is abbreviated.

```

780 \newcommand*{\ifabbrev}[3]{%
781   \StrRight{#1}{1}[\blx@ox@lastchar]%
782   \IfSubStr{AÂBCÇDEFGĤIĦJKLMNOÖPQRSŞTUÜVWXYZ.}{\blx@ox@lastchar}{#2}{#3}}

```

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.

```

783 \renewbibmacro*{journal+issuetitle}{%
784   \ifboolexpr{

```



```

785     test {\iffieldundef{title}}
786     and
787     not test {\iffieldundef{issuetitle}}
788 }{%
789     \usebibmacro{issue}%
790     \setunit{\addspace =\addspace}%
791 }{%
792     \ifboolexpr{
793         ( not test {\iffieldundef{pubstate}} )
794         and
795         test {\ifbibtstring{\thefield{pubstate}in}}
796     }{%
797         \printtext{\bibstring{\thefield{pubstate}in}\space}%
798         \clearfield{pubstate}%
799     }{}%
800     \usebibmacro{journal}%
801     \iffieldundef{journalsubtitle}{%
802         \ifabbrev{\thefield{journaltitle}}{\setunit{\addspace}}{\newunit}%
803     }{%
804         \ifabbrev{\thefield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
805     \iffieldundef{series}{}{%
806         \newunit\newblock
807         \printfield{series}%
808         \ifbibtstring{\thefield{series}}{%
809             \setunit{\addspace}%
810         }{%
811             \newunit}}%
812     \usebibmacro{volume+number+eid}%
813     \setunit{\addspace}%
814     \usebibmacro{issue+date}%
815     \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.

```

816 \renewbibmacro*{title+issuetitle}{%
817     \usebibmacro{periodical}%
818     \iffieldundef{subtitle}{%
819         \ifabbrev{\thefield{title}}{\setunit{\addspace}}{\newunit}%
820     }{%
821         \ifabbrev{\thefield{subtitle}}{\setunit{\addspace}}{\newunit}}%
822     \iffieldundef{series}{}{%
823         \newunit\newblock
824         \printfield{series}%
825         \ifbibtstring{\thefield{series}}{%
826             \setunit{\addspace}%
827         }{%
828             \newunit}}%
829     \usebibmacro{volume+number+eid}%
830     \setunit{\addspace}%
831     \usebibmacro{issue+date}%
832     \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).

```

833 \DeclareBibliographyOption{issuestyle}[slash]{%
834   \ifcsdef{blx@ox@issuestyle@#1}{%
835     \csuse{blx@ox@issuestyle@#1}%
836   }{%
837     \PackageError{biblatex}
838       {Invalid option 'issuestyle=#1'}
839       {Valid values are 'slash', 'colon', 'comma', 'parens'}%
840   }%
841 }
842 \csdef{blx@ox@issuestyle@slash}{%
843   \renewbibmacro*{volume+number+eid}{%
844     \printfield{volume}%
845     \setunit*{\addslash}%
846     \printfield{number}%
847   }%
848 }
849 \csdef{blx@ox@issuestyle@colon}{%
850   \renewbibmacro*{volume+number+eid}{%
851     \printfield{volume}%
852     \setunit*{\addcolon\space}%
853     \printfield{number}%
854   }%
855 }
856 \csdef{blx@ox@issuestyle@comma}{%
857   \renewbibmacro*{volume+number+eid}{%
858     \printfield{volume}%
859     \setunit*{\addcomma\space}%
860     \printfield{number}%
861   }%
862 }
863 \csdef{blx@ox@issuestyle@parens}{%
864   \renewbibmacro*{volume+number+eid}{%
865     \printfield{volume}%
866     \setunit*{\addspace}%
867     \printfield[parens]{number}%
868   }%
869 }
870 \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.

```

871 \newtoggle{blx@ox@varissuedate}
872 \DeclareBibliographyOption[boolean]{varissuedate}[true]{%
873   \settoggle{blx@ox@varissuedate}{#1}}
874 \DeclareEntryOption[boolean]{varissuedate}[true]{%
875   \settoggle{blx@ox@varissuedate}{#1}}
876 \renewbibmacro*{issue+date}{%
877   \ifboolexpr{
878     test {\iffielddundef{issue}}
879     and
880     test {\iffielddundef{year}}
881     and
882     test {\iffielddundef{season}}
883     and
884     test {\iffielddundef{month}}

```

```

885 }{ %
886   \ifboolexpr{
887     togl {blx@ox@varissuedate}
888     and
889     test {\iffielddundef{volume}}
890     and
891     test {\iffielddundef{number}}
892   }{ %
893     \newunit
894     \printtext{%
895       \iffielddundef{issue}{%
896         \usebibmacro{date}
897       }{ %
898         \printfield{issue}%
899         \setunit*{\addspace}%
900         \usebibmacro{date}}}%
901   }{ %
902     \printtext[parens]{%
903       \iffielddundef{issue}{%
904         \usebibmacro{date}%
905       }{ %
906         \printfield{issue}%
907         \setunit*{\addspace}%
908         \usebibmacro{date}}}}}%
909   \newunit
910   \printfield{eid}%
911 }

```

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.

```

912 \DeclareBibliographyDriver{article}{%
913   \usebibmacro{bibindex}%
914   \usebibmacro{begentry}%
915   \usebibmacro{author/translator+others}%
916   \setunit{\printdelim{nametitlelim}}\newblock
917   \usebibmacro{title}%
918   \newunit\newblock
919   \usebibmacro{byauthor}%
920   \newunit\newblock
921   \usebibmacro{bytranslator+others}%
922   \newunit\newblock
923   \printfield{version}%
924   \newunit\newblock
925   \usebibmacro{journal+issuetitle}%
926   \newunit
927   \usebibmacro{byeditor+others}%
928   \iffieldequalstr{relatedtype}{suppto}{%
929     \setunit{\addsemicolon\space}%
930     \iftoggle{bbx:related}{%
931       \usebibmacro{related:init}%
932       \usebibmacro{related}%
933       \clearfield{related}%
934     }{ }%
935   }{ %
936     \newunit

```

```

937 \usebibmacro{note+pages}%
938 \newunit\newblock
939 \iftoggle{bbx:isbn}
940   {\printfield{issn}}
941   {}%
942 \newunit\newblock
943 \usebibmacro{doi+eprint+url}%
944 \newunit\newblock
945 \usebibmacro{addendum+pubstate}%
946 \setunit{\bibpagerefpunct}\newblock
947 \usebibmacro{pageref}%
948 \setunit{\relatedtypepunct}\newblock
949 \iftoggle{bbx:related}
950   {\usebibmacro{related:init}%
951    \usebibmacro{related}}
952   {}%
953 \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

954 \DeclareBibliographyDriver{periodical}{%
955   \usebibmacro{bibindex}%
956   \usebibmacro{begentry}%
957   \usebibmacro{editor}%
958   \setunit{\printdelim{nametitle}}\newblock
959   \usebibmacro{title+issuetitle}%
960   \newunit\newblock
961   \usebibmacro{byeditor}%
962   \newunit\newblock
963   \printfield{note}%
964   \newunit\newblock
965   \iftoggle{bbx:isbn}
966     {\printfield{issn}}
967     {}%
968   \newunit\newblock
969   \usebibmacro{doi+eprint+url}%
970   \newunit\newblock
971   \usebibmacro{addendum+pubstate}%
972   \setunit{\bibpagerefpunct}\newblock
973   \usebibmacro{pageref}%
974   \setunit{\relatedtypepunct}\newblock
975   \iftoggle{bbx:related}
976     {\usebibmacro{related:init}%
977      \usebibmacro{related}}
978     {}%
979   \usebibmacro{finentry}}

```

2.1.10 BOOKS AND WORKS IN BOOKS

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

```

980 \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.

```

981 \DeclareFieldFormat{bookinbook}{citetitle}{%
982   \ifbool{expr{
983     test {\iffieldequalstr{entrysubtype}{poem}}}

```

```

984     or
985     test {\iffieldequalstr{entrysubtype}{play}}
986   }{%
987     \mkbibemph{#1}%
988   }{%
989     \mkbibquote{#1\isdot}}}
990 \DeclareFieldFormat[bookinbook]{title}{%
991   \ifboolexpr{
992     test {\iffieldequalstr{entrysubtype}{poem}}
993     or
994     test {\iffieldequalstr{entrysubtype}{play}}
995   }{%
996     \mkbibemph{#1}%
997   }{%
998     \mkbibquote{#1\isdot}}}

```

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

```

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

```

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

```

1000 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbook,%
1001 collection,mvcollection,incollection,suppcollection,%
1002 proceedings,mvproceedings,inproceedings,%
1003 reference,mvreference,inference]{volume}{%
1004   \IfSubStr{#1}{-}{%
1005     \StrCount{#1}{-}[\blx@ox@dashnum]%
1006     \StrBefore{#1}{-}[\blx@ox@volnum]%
1007     \Rn{\blx@ox@volnum}\bibrangedash
1008     \StrBehind[\blx@ox@dashnum]{#1}{-}[\blx@ox@volnum]%
1009     \Rn{\blx@ox@volnum}%
1010   }{%
1011     \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.

```

1012 \newbibmacro*{maintitle+volume}{%
1013   \ifboolexpr{
1014     test {\iffieldundef{maintitle}}
1015     or
1016     test {\iffieldundef{volume}}
1017   }{%
1018     {\printtext[maintitle+volume]{%
1019       \bibstring{volume}\addspace
1020       \printfield{volume}\printfield{part}\addspace
1021       \bibstring{ofseries}\addspace
1022       \usebibmacro{maintitle}}}
1023   }
1024   \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}

```

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

```

1025 \renewbibmacro*{in:}{%
1026   \iffieldequalstr{entrysubtype}{yearbook}{%
1027     \printtext{\bibstring{in}\intitlepunct}}

```

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

```
1028 \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.

```
1029 \renewbibmacro*{series+number}{%
1030 \printfield{series}%
1031 \setunit*{\addcomma\space}%
1032 \usebibmacro{byserieseditor}%
1033 \setunit*{\addcomma\space}%
1034 \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.

```
1035 \newcounter{locpubpairs}
1036 \newbibmacro*{edition+publisher+location+date}{%
1037 \printlist{origlocation}%
1038 \iflistundef{origpublisher}%
1039 {\setunit*{\addcomma\space}}%
1040 {\setunit*{\addcolon\space}}%
1041 \printlist{origpublisher}%
1042 \setunit*{\addcomma\space}%
1043 \ifboolexpr{
1044 test {\iflistundef{origlocation}}
1045 and
1046 test {\iflistundef{origpublisher}}
1047 and
1048 test {\iffieldundef{edition}}}
1049 {}{}%
1050 \printorigdate}%
1051 \setunit{\addsemicolon\space}%
1052 \printfield{edition}%
1053 \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.

```
1054 \ifboolexpr{%
1055 test {\ifnumcomp{\value{publisher}}{>}{1}}
1056 and
1057 test {\ifnumequal{\value{location}}{\value{publisher}}}
1058 }{%
1059 \setcounter{locpubpairs}{0}%
1060 \savebibmacro{list:andothers}%
1061 \renewbibmacro*{list:andothers}{}%
1062 \whileboolexpr{%
1063 test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1064 }{%
1065 \stepcounter{locpubpairs}%
1066 \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1067 \ifnumequal{\value{publisher}}{2}{%
1068 \setunit*{\addspace\bibstring{and}\addspace}%
1069 }{%
1070 \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1071 \setunit*{\addcomma\space\bibstring{and}\addspace}%
```

```

1072         }{%
1073         \setunit*{\addcomma\space}%
1074     }%
1075 }%
1076 }{%
1077 \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{location}%
1078 \setunit*{\addcolon\space}%
1079 \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{publisher}%
1080 }%
1081 \restorebibmacro{list:andothers}%
1082 }{%
1083 \printlist{location}%
1084 \iflistundef{publisher}%
1085 {\setunit*{\addcomma\space}}%
1086 {\setunit*{\addcolon\space}}%
1087 \printlist{publisher}%
1088 }%
1089 \setunit*{\addcomma\space}%
1090 \usebibmacro{date}%
1091 }

```

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

```

1092 \newbibmacro*{series+number+edition+publisher+location+date}{%
1093 \ifboolexpr{
1094     test {\iffielddundef{series}}
1095     and
1096     test {\iffielddundef{number}}
1097     and
1098     test {\iffielddundef{edition}}
1099     and
1100     test {\iflistundef{publisher}}
1101     and
1102     test {\iflistundef{location}}
1103     and
1104     test {\iffielddundef{year}}
1105     and
1106     test {\iffielddundef{season}}
1107     and
1108     test {\iffielddundef{month}}
1109 }{%
1110 \nopunct
1111 \printtext[publication]{%
1112 \usebibmacro{series+number}%
1113 \setunit{\addsemicolon\addspace}%
1114 \usebibmacro{edition+publisher+location+date}%
1115 \usebibmacro{copub}}}%
1116 \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1117 \setunit{\addspace}\newblock
1118 \usebibmacro{origpub}%
1119 }

```

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

```

1120 \newbibmacro*{series+number+publisher+location+date}{%
1121 \ifboolexpr{
1122     test {\iffielddundef{series}}
1123     and

```

```

1124     test {\iffielddundef{number}}
1125     and
1126     test {\iflistundef{publisher}}
1127     and
1128     test {\iflistundef{location}}
1129     and
1130     test {\iffielddundef{year}}
1131     and
1132     test {\iffielddundef{season}}
1133     and
1134     test {\iffielddundef{month}}
1135   }{}%
1136   \nopunct
1137   \printtext[publication]{%
1138     \usebibmacro{series+number}%
1139     \setunit{\addsemicolon\addspace}%
1140     \usebibmacro{publisher+location+date}%
1141     \usebibmacro{copub}}}%
1142   \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1143   \setunit{\addspace}\newblock
1144   \usebibmacro{origpub}%
1145 }

```

The copub macro prints co-publication details.

```

1146 \newbibmacro*{copub}{%
1147   \ifboolexpr{
1148     togl {bbx:related}
1149     and
1150     test {\iffieldequalstr{relatedtype}{copub}}
1151   }{%
1152     \setunit{\addsemicolon\space}%
1153     \usebibmacro{related:init}%
1154     \usebibmacro{related}%
1155   }{}%
1156 }

```

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

```

1157 \newbibmacro*{origpub}{%
1158   \ifboolexpr{
1159     test {\iflistundef{origlocation}}
1160     and
1161     test {\iflistundef{origpublisher}}
1162     and
1163     test {\iffielddundef{edition}}
1164     and
1165     ( not test {\iffielddundef{origyear}} )
1166   }{%
1167     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1168   }{}%
1169 }

```

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;

```

1170 \DeclareBibliographyDriver{book}{%
1171   \usebibmacro{bibindex}%
1172   \usebibmacro{begentry}%
1173   \usebibmacro{author/editor+others/translator+others}%
1174   \setunit{\printdelim{nametitledelim}}\newblock
1175   \usebibmacro{title}%
1176   \newunit\newblock
1177   \usebibmacro{byauthor}%
1178   \newunit\newblock
1179   \usebibmacro{byeditor+others}%
1180   \newunit\newblock
1181   \printfield{note}%
1182   \newunit\newblock
1183   \usebibmacro{maintitle+volume}%
1184   \newunit
1185   \usebibmacro{series+number+edition+publisher+location+date}%
1186   \setunit{\addspace}%
1187   \printfield{howpublished}%
1188   \newunit\newblock
1189   \usebibmacro{chapter+pages}%
1190   \newunit
1191   \printfield{pagetotal}%
1192   \newunit\newblock
1193   \iftoggle{bbx:isbn}
1194     {\printfield{isbn}}
1195     {}%
1196   \newunit\newblock
1197   \usebibmacro{doi+eprint+url}%
1198   \newunit\newblock
1199   \usebibmacro{addendum+pubstate}%
1200   \setunit{\bibpagerefpunct}\newblock
1201   \usebibmacro{pageref}%
1202   \setunit{\relatedtypepunct}\newblock
1203   \iftoggle{bbx:related}
1204     {\usebibmacro{related:init}%
1205      \usebibmacro{related}}
1206     {}%
1207   \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;

```

1208 \DeclareBibliographyDriver{mvbook}{%
1209   \usebibmacro{bibindex}%
1210   \usebibmacro{begentry}%
1211   \usebibmacro{author/editor+others/translator+others}%
1212   \setunit{\printdelim{nametitledelim}}\newblock
1213   \usebibmacro{maintitle+title}%
1214   \newunit
1215   \ifboolexpr{
1216     test {\iffieldequalstr{relatedtype}{multivolume}}
1217     or
1218     ( not test {\iffieldundef{maintitle}} )

```

```

1219   }{}%
1220   \printfield{volume}%
1221   \printfield{part}}%
1222   \newunit\newblock
1223   \usebibmacro{byauthor}%
1224   \newunit\newblock
1225   \usebibmacro{byeditor+others}%
1226   \newunit\newblock
1227   \printfield{volumes}%
1228   \newunit\newblock
1229   \printfield{note}%
1230   \newunit\newblock
1231   \ifboolexpr{
1232     test {\iffieldequalstr{relatedtype}{multivolume}}
1233     and
1234     test {\iffieldundef{maintitle}}
1235   }{}%
1236   \printfield{volume}%
1237   \printfield{part}}%
1238   }{}%
1239   \newunit\newblock
1240   \usebibmacro{series+number+edition+publisher+location+date}%
1241   \newunit\newblock
1242   \usebibmacro{chapter+pages}%
1243   \newunit
1244   \printfield{pagetotal}%
1245   \newunit\newblock
1246   \iftoggle{bbx:isbn}
1247   {\printfield{isbn}}
1248   {}%
1249   \newunit\newblock
1250   \usebibmacro{doi+eprint+url}%
1251   \newunit\newblock
1252   \usebibmacro{addendum+pubstate}%
1253   \setunit{\bibpagerefunct}\newblock
1254   \usebibmacro{pageref}%
1255   \setunit{\relatedtypepunct}\newblock
1256   \iftoggle{bbx:related}
1257   {\usebibmacro{related:init}%
1258     \usebibmacro{related}}
1259   {}%
1260   \usebibmacro{finentry}}

```

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

```

1261   \DeclareBibliographyDriver{inbook}{%
1262     \usebibmacro{bibindex}%
1263     \usebibmacro{begentry}%
1264     \usebibmacro{author/translator+others}%
1265     \setunit{\printdelim{nametitledelim}}\newblock
1266     \usebibmacro{title}%
1267     \newunit\newblock
1268     \usebibmacro{byauthor}%
1269     \newunit\newblock
1270     \usebibmacro{in:}%
1271     \usebibmacro{bybookauthor}%
1272     \newunit\newblock
1273     \usebibmacro{maintitle+booktitle}%
1274     \newunit
1275     \iffieldundef{maintitle}

```

```

1276 {\printfield{volume}%
1277 \printfield{part}}
1278 {}%
1279 \newunit\newblock
1280 \usebibmacro{byeditor+others}%
1281 \newunit\newblock
1282 \printfield{volumes}%
1283 \newunit\newblock
1284 \printfield{note}%
1285 \newunit\newblock%
1286 \usebibmacro{series+number+edition+publisher+location+date}%
1287 \newunit\newblock
1288 \usebibmacro{chapter+pages}%
1289 \newunit\newblock
1290 \iftoggle{bbx:isbn}
1291 {\printfield{isbn}}
1292 {}%
1293 \newunit\newblock
1294 \usebibmacro{doi+eprint+url}%
1295 \newunit\newblock
1296 \usebibmacro{addendum+pubstate}%
1297 \setunit{\bibpagerefpunct}\newblock
1298 \usebibmacro{pageref}%
1299 \setunit{\relatedtypepunct}\newblock
1300 \iftoggle{bbx:related}
1301 {\usebibmacro{related:init}%
1302 \usebibmacro{related}}
1303 {}%
1304 \usebibmacro{finentry}}
1305 \DeclareFieldFormat[supbook]{title}{#1\nopunct}

```

We also provide a bookinbook driver that handles origdate differently.

```

1306 \DeclareBibliographyDriver{bookinbook}{%
1307 \usebibmacro{bibindex}%
1308 \usebibmacro{begentry}%
1309 \usebibmacro{author/translator+others}%
1310 \setunit{\printdelim{nametitledelim}}\newblock
1311 \usebibmacro{title}%
1312 \newunit\newblock
1313 \usebibmacro{byauthor}%
1314 \newunit\newblock
1315 \usebibmacro{in:}%
1316 \usebibmacro{bybookauthor}%
1317 \newunit\newblock
1318 \usebibmacro{maintitle+booktitle}%
1319 \newunit
1320 \iffielddundef{maintitle}
1321 {\printfield{volume}%
1322 \printfield{part}}
1323 {}%
1324 \newunit\newblock
1325 \usebibmacro{byeditor+others}%
1326 \newunit\newblock
1327 \printfield{volumes}%
1328 \newunit\newblock
1329 \printfield{note}%
1330 \newunit\newblock
1331 \usebibmacro{series+number+publisher+location+date}%
1332 \newunit\newblock
1333 \usebibmacro{chapter+pages}%

```

```

1334 \newunit\newblock
1335 \iftoggle{bbx:isbn}
1336 {\printfield{isbn}}
1337 {}%
1338 \newunit\newblock
1339 \usebibmacro{doi+eprint+url}%
1340 \newunit\newblock
1341 \usebibmacro{addendum+pubstate}%
1342 \setunit{\bibpagerefpunct}\newblock
1343 \usebibmacro{pageref}%
1344 \setunit{\relatedtypepunct}\newblock
1345 \iftoggle{bbx:related}
1346 {\usebibmacro{related:init}%
1347 \usebibmacro{related}}
1348 {}%
1349 \usebibmacro{finentry}}

```

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

```

1350 \DeclareBibliographyDriver{collection}{%
1351 \usebibmacro{bibindex}%
1352 \usebibmacro{begentry}%
1353 \usebibmacro{editor+others}%
1354 \setunit{\printdelim{nametitle}}\newblock
1355 \usebibmacro{title}%
1356 \newunit\newblock
1357 \usebibmacro{byeditor+others}%
1358 \newunit\newblock
1359 \printfield{note}%
1360 \newunit\newblock
1361 \usebibmacro{maintitle+volume}%
1362 \newunit
1363 \usebibmacro{series+number+edition+publisher+location+date}%
1364 \newunit\newblock
1365 \usebibmacro{chapter+pages}%
1366 \newunit
1367 \printfield{pagetotal}%
1368 \newunit\newblock
1369 \iftoggle{bbx:isbn}
1370 {\printfield{isbn}}
1371 {}%
1372 \newunit\newblock
1373 \usebibmacro{doi+eprint+url}%
1374 \newunit\newblock
1375 \usebibmacro{addendum+pubstate}%
1376 \setunit{\bibpagerefpunct}\newblock
1377 \usebibmacro{pageref}%
1378 \setunit{\relatedtypepunct}\newblock
1379 \iftoggle{bbx:related}
1380 {\usebibmacro{related:init}%
1381 \usebibmacro{related}}
1382 {}%
1383 \usebibmacro{finentry}}

```

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

```

1384 \DeclareBibliographyDriver{mvcollection}{%
1385 \usebibmacro{bibindex}%
1386 \usebibmacro{begentry}%
1387 \usebibmacro{editor+others}%

```

```

1388 \setunit{\printdelim{nametitleldelim}}\newblock
1389 \usebibmacro{maintitle+title}%
1390 \newunit
1391 \ifboolexpr{
1392   test {\iffieldequalstr{relatedtype}{multivolume}}
1393   or
1394   ( not test {\iffieldundef{maintitle}} )
1395 }{\%
1396   \printfield{volume}%
1397   \printfield{part}}%
1398 \newunit\newblock
1399 \usebibmacro{byeditor+others}%
1400 \newunit\newblock
1401 \printfield{volumes}%
1402 \newunit\newblock
1403 \printfield{note}%
1404 \newunit\newblock
1405 \ifboolexpr{
1406   test {\iffieldequalstr{relatedtype}{multivolume}}
1407   and
1408   test {\iffieldundef{maintitle}}
1409 }{\%
1410   \printfield{volume}%
1411   \printfield{part}}%
1412 }{\%
1413 \newunit\newblock
1414 \usebibmacro{series+number+edition+publisher+location+date}%
1415 \newunit\newblock
1416 \usebibmacro{chapter+pages}%
1417 \newunit
1418 \printfield{pagetotal}%
1419 \newunit\newblock
1420 \iftoggle{bbx:isbn}
1421 {\printfield{isbn}}
1422 {}%
1423 \newunit\newblock
1424 \usebibmacro{doi+eprint+url}%
1425 \newunit\newblock
1426 \usebibmacro{addendum+pubstate}%
1427 \setunit{\bibpagerefunct}\newblock
1428 \usebibmacro{pageref}%
1429 \setunit{\relatedtypepunct}\newblock
1430 \iftoggle{bbx:related}
1431 {\usebibmacro{related:init}%
1432   \usebibmacro{related}}
1433 {}%
1434 \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.

```

1435 \DeclareBibliographyDriver{incollection}{%
1436   \usebibmacro{bibindex}%
1437   \usebibmacro{begentry}%
1438   \usebibmacro{author/translator+others}%
1439   \setunit{\printdelim{nametitleldelim}}\newblock
1440   \usebibmacro{title}%
1441   \newunit\newblock
1442   \usebibmacro{byauthor}%
1443   \newunit\newblock

```

```

1444 \usebibmacro{in:}%
1445 \usebibmacro{bookeditor}%
1446 \newunit\newblock
1447 \usebibmacro{maintitle+booktitle}%
1448 \newunit
1449 \iffielddundef{maintitle}
1450 {\printfield{volume}%
1451   \printfield{part}}
1452 {}%
1453 \newunit\newblock
1454 \printfield{volumes}%
1455 \newunit\newblock
1456 \printfield{note}%
1457 \newunit\newblock%
1458 \usebibmacro{series+number+edition+publisher+location+date}%
1459 \newunit\newblock
1460 \usebibmacro{chapter+pages}%
1461 \newunit\newblock
1462 \iftoggle{bbx:isbn}
1463 {\printfield{isbn}}
1464 {}%
1465 \newunit\newblock
1466 \usebibmacro{doi+eprint+url}%
1467 \newunit\newblock
1468 \usebibmacro{addendum+pubstate}%
1469 \setunit{\bibpagerefpunct}\newblock
1470 \usebibmacro{pageref}%
1471 \setunit{\relatedtypepunct}\newblock
1472 \iftoggle{bbx:related}
1473 {\usebibmacro{related:init}%
1474   \usebibmacro{related}}
1475 {}%
1476 \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.

```

1477 \DeclareBibliographyDriver{reference}{%
1478   \usebibmacro{bibindex}%
1479   \usebibmacro{begentry}%
1480   \usebibmacro{author/editor+others/translator+others}%
1481   \setunit{\printdelim{nametitledelim}}\newblock
1482   \usebibmacro{title}%
1483   \newunit\newblock
1484   \printfield{edition}%
1485   \newunit
1486   \usebibmacro{byauthor}%
1487   \newunit\newblock
1488   \usebibmacro{byeditor+others}%
1489   \newunit\newblock
1490   \printfield{note}%
1491   \newunit\newblock
1492   \usebibmacro{maintitle+volume}%
1493   \newunit
1494   \usebibmacro{series+number+publisher+location+date}%
1495   \newunit\newblock
1496   \usebibmacro{chapter+pages}%
1497   \newunit
1498   \printfield{pagetotal}%
1499   \newunit\newblock
1500   \iftoggle{bbx:isbn}

```

```

1501 {\printfield{isbn}}
1502 {}%
1503 \newunit\newblock
1504 \usebibmacro{doi+eprint+url}%
1505 \newunit\newblock
1506 \usebibmacro{addendum+pubstate}%
1507 \setunit{\bibpagerefpunct}\newblock
1508 \usebibmacro{pageref}%
1509 \setunit{\relatedtypepunct}\newblock
1510 \iftoggle{bbx:related}
1511 {\usebibmacro{related:init}%
1512  \usebibmacro{related}}
1513 {}%
1514 \usebibmacro{finentry}}

```

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

```

1515 \DeclareBibliographyDriver{mvreference}{%
1516   \usebibmacro{bibindex}%
1517   \usebibmacro{begentry}%
1518   \usebibmacro{author/editor+others/translator+others}%
1519   \setunit{\printdelim{nametitledelim}}\newblock
1520   \usebibmacro{maintitle+title}%
1521   \newunit
1522   \ifboolexpr{
1523     test {\iffieldequalstr{relatedtype}{multivolume}}
1524     or
1525     ( not test {\iffieldundef{maintitle}} )
1526   }{%
1527     \printfield{volume}%
1528     \printfield{part}%
1529     \newunit\newblock
1530     \printfield{edition}%
1531     \newunit
1532     \usebibmacro{byauthor}%
1533     \newunit\newblock
1534     \usebibmacro{byeditor+others}%
1535     \newunit\newblock
1536     \printfield{volumes}%
1537     \newunit\newblock
1538     \printfield{note}%
1539     \newunit\newblock
1540   \ifboolexpr{
1541     test {\iffieldequalstr{relatedtype}{multivolume}}
1542     and
1543     test {\iffieldundef{maintitle}}
1544   }{%
1545     \printfield{volume}%
1546     \printfield{part}%
1547   }{%
1548     \newunit\newblock
1549     \usebibmacro{series+number+publisher+location+date}%
1550     \newunit\newblock
1551     \usebibmacro{chapter+pages}%
1552     \newunit
1553     \printfield{pagetotal}%
1554     \newunit\newblock
1555     \iftoggle{bbx:isbn}
1556     {\printfield{isbn}}
1557     {}%
1558     \newunit\newblock

```

```

1559 \usebibmacro{doi+eprint+url}%
1560 \newunit\newblock
1561 \usebibmacro{addendum+pubstate}%
1562 \setunit{\bibpagerefpunct}\newblock
1563 \usebibmacro{pageref}%
1564 \setunit{\relatedtypepunct}\newblock
1565 \iftoggle{bbx:related}
1566 {\usebibmacro{related:init}%
1567 \usebibmacro{related}}
1568 {}%
1569 \usebibmacro{finentry}}

```

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

```

1570 \DeclareBibliographyDriver{inference}{%
1571 \usebibmacro{bibindex}%
1572 \usebibmacro{begentry}%
1573 \usebibmacro{author/translator+others}%
1574 \setunit{\printdelim{nametitledelim}}\newblock
1575 \usebibmacro{title}%
1576 \newunit\newblock
1577 \usebibmacro{byauthor}%
1578 \newunit\newblock
1579 \iffieldundef{editor}{}{%
1580 \usebibmacro{in:}%
1581 \usebibmacro{bookeditor}%
1582 \newunit\newblock}%
1583 \usebibmacro{maintitle+booktitle}%
1584 \newunit
1585 \iffieldundef{maintitle}
1586 {\printfield{volume}%
1587 \printfield{part}}
1588 {}%
1589 \newunit\newblock
1590 \printfield{edition}%
1591 \newunit
1592 \usebibmacro{byeditor+others}%
1593 \newunit\newblock
1594 \printfield{volumes}%
1595 \newunit\newblock
1596 \printfield{note}%
1597 \newunit\newblock%
1598 \usebibmacro{series+number+publisher+location+date}%
1599 \newunit\newblock
1600 \usebibmacro{chapter+pages}%
1601 \newunit
1602 \printfield{pagetotal}%
1603 \newunit\newblock
1604 \iftoggle{bbx:isbn}
1605 {\printfield{isbn}}
1606 {}%
1607 \newunit\newblock
1608 \usebibmacro{doi+eprint+url}%
1609 \newunit\newblock
1610 \usebibmacro{addendum+pubstate}%
1611 \setunit{\bibpagerefpunct}\newblock
1612 \usebibmacro{pageref}%
1613 \setunit{\relatedtypepunct}\newblock
1614 \iftoggle{bbx:related}
1615 {\usebibmacro{related:init}%

```



```

1616 \usebibmacro{related}}
1617 {}%
1618 \usebibmacro{finentry}}

```

2.1.11 WORKS PRESENTED AT MEETINGS

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

```

1619 \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.

```

1620 \renewbibmacro*{event+venue+date}{%
1621 \printfield{eventtitle}%
1622 \newunit
1623 \printfield{eventtitleaddon}%
1624 \ifboolexpr{
1625   test {\iffieldundef{venue}}
1626   and
1627   test {\iffieldundef{eventyear}}
1628 }{%
1629   \iffieldundef{eventtitle}{%
1630     \setunit{\mkbibemph{\addcomma}\space}%
1631   }{%
1632     \newunit}%
1633   \printfield{venue}%
1634   \newunit%
1635   \printeventdate}%
1636 \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!

```

1637 \DeclareBibliographyDriver{proceedings}{%
1638 \usebibmacro{bibindex}%
1639 \usebibmacro{begentry}%
1640 \usebibmacro{author}%
1641 \newunit
1642 \usebibmacro{maintitle+title}%
1643 \newunit
1644 \iffieldundef{maintitle}
1645 {\printfield{volume}%
1646 \printfield{part}}
1647 }{%
1648 \newunit\newblock
1649 \usebibmacro{event+venue+date}%

```

```

1650 \newunit\newblock
1651 \usebibmacro{byeditor+others}%
1652 \newunit\newblock
1653 \printfield{volumes}%
1654 \newunit\newblock
1655 \printfield{note}%
1656 \newunit\newblock
1657 \printlist{organization}%
1658 \newunit
1659 \usebibmacro{series+number+edition+publisher+location+date}%
1660 \newunit\newblock
1661 \usebibmacro{chapter+pages}%
1662 \newunit
1663 \printfield{pagetotal}%
1664 \newunit\newblock
1665 \iftoggle{bbx:isbn}
1666 {\printfield{isbn}}
1667 {}%
1668 \newunit\newblock
1669 \usebibmacro{doi+eprint+url}%
1670 \newunit\newblock
1671 \usebibmacro{addendum+pubstate}%
1672 \setunit{\bibpagerefpunct}\newblock
1673 \usebibmacro{pageref}%
1674 \setunit{\relatedtypepunct}\newblock
1675 \iftoggle{bbx:related}
1676 {\usebibmacro{related:init}%
1677 \usebibmacro{related}}
1678 {}%
1679 \usebibmacro{finentry}}

```

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

```

1680 \DeclareBibliographyDriver{inproceedings}{%
1681 \usebibmacro{bibindex}%
1682 \usebibmacro{begentry}%
1683 \usebibmacro{author/translator+others}%
1684 \setunit{\printdelim{nametitledelim}}\newblock
1685 \usebibmacro{title}%
1686 \newunit\newblock
1687 \usebibmacro{byauthor}%
1688 \newunit\newblock
1689 \usebibmacro{in:}%
1690 \usebibmacro{maintitle+booktitle}%
1691 \newunit
1692 \iffieldundef{maintitle}
1693 {\printfield{volume}%
1694 \printfield{part}}
1695 {}%
1696 \newunit\newblock
1697 \usebibmacro{event+venue+date}%
1698 \newunit\newblock
1699 \usebibmacro{byeditor+others}%
1700 \newunit\newblock
1701 \printfield{volumes}%
1702 \newunit\newblock
1703 \printfield{note}%
1704 \newunit\newblock
1705 \printlist{organization}%
1706 \newunit

```

```

1707 \usebibmacro{series+number+publisher+location+date}%
1708 \newunit\newblock
1709 \usebibmacro{chapter+pages}%
1710 \newunit\newblock
1711 \iftoggle{bbx:isbn}
1712 {\printfield{isbn}}
1713 {}%
1714 \newunit\newblock
1715 \usebibmacro{doi+eprint+url}%
1716 \newunit\newblock
1717 \usebibmacro{addendum+pubstate}%
1718 \setunit{\bibpagerefpunct}\newblock
1719 \usebibmacro{pageref}%
1720 \setunit{\relatedtypepunct}\newblock
1721 \iftoggle{bbx:related}
1722 {\usebibmacro{related:init}%
1723 \usebibmacro{related}}
1724 {}%
1725 \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.

```

1726 \newbibmacro*{series+type+number}{%
1727 \ifboolexpr{
1728 test {\iffieldundef{series}}
1729 and
1730 test {\iffieldundef{type}}
1731 }{}{%
1732 \printfield{series}%
1733 \newunit
1734 \ifboolexpr{%
1735 test {\iffieldundef{type}}
1736 and
1737 not test {\iffieldundef{number}}
1738 }{%
1739 \bibcpstring{number}
1740 }{%
1741 \printfield{type}%
1742 }%
1743 \setunit*{\addspace}%
1744 \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.

```

1745 \renewbibmacro*{institution+location+date}{%
1746 \ifboolexpr{
1747 test {\iffieldundef{type}}
1748 and
1749 test {\iffieldundef{series}}
1750 and
1751 test {\iffieldundef{number}}
1752 and
1753 test {\iflistundef{institution}}
1754 and

```

```

1755     test {\iflistundef{location}}
1756     and
1757     test {\iffieldundef{year}}
1758     and
1759     test {\iffieldundef{season}}
1760     and
1761     test {\iffieldundef{month}}
1762   }{}%
1763   \nopunct
1764   \printtext[publication]{%
1765     \ifboolexpr{
1766       test {\iffieldundef{series}}
1767       and
1768       test {\iffieldundef{type}}
1769     }{%
1770       \printfield{number}%
1771       \setunit*{\addcomma\space}%
1772     }{}%
1773   \printlist{location}%
1774   \iflistundef{institution}%
1775   {\setunit*{\addcomma\space}}%
1776   {\setunit*{\addcolon\space}}%
1777   \printlist{institution}%
1778   \setunit*{\addcomma\space}%
1779   \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.

```

1780   \newtoggle{blx@ox@altthesis}
1781   \DeclareBibliographyOption[boolean]{altthesis}[true]{%
1782     \settoggle{blx@ox@altthesis}{#1}
1783   }
1784   \newbibmacro*{type+institution+location+date}{%
1785     \iftoggle{blx@ox@altthesis}{%
1786       \ifboolexpr{
1787         test {\iffieldundef{type}}
1788         and
1789         test {\iflistundef{institution}}
1790         and
1791         test {\iflistundef{location}}
1792         and
1793         test {\iffieldundef{year}}
1794         and
1795         test {\iffieldundef{season}}
1796         and
1797         test {\iffieldundef{month}}
1798       }{}%
1799       \nopunct
1800       \printtext[publication]{%
1801         \printfield{type}%
1802         \setunit*{\addcomma\space}%
1803         \printlist{location}%
1804         \iflistundef{institution}{%
1805           \setunit*{\addcomma\space}%
1806         }{%
1807           \setunit*{\addcolon\space}}%
1808         \printlist{institution}%
1809         \setunit*{\addcomma\space}%
1810         \usebibmacro{date}}}

```

```

1811 }{%
1812   \printfield{type}%
1813   \newunit
1814   \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.

```

1815 \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
1816   \ifbool{expr{
1817     test {\iffieldundef{type}}
1818     and
1819     test {\iffieldundef{series}}
1820     and
1821     test {\iffieldundef{number}}
1822     and
1823     test {\iffieldundef{edition}}
1824     and
1825     test {\iflistundef{organization}}
1826     and
1827     test {\iflistundef{publisher}}
1828     and
1829     test {\iflistundef{location}}
1830     and
1831     test {\iffieldundef{year}}
1832     and
1833     test {\iffieldundef{season}}
1834     and
1835     test {\iffieldundef{month}}
1836   }}{%
1837     \nopunct
1838     \printtext[publication]{%
1839       \usebibmacro{series+type+number}%
1840       \setunit{\addsemicolon\space}%
1841       \printfield{edition}%
1842       \setunit*{\addcomma\space}%
1843       \iflistundef{publisher}{%
1844         \printlist{organization}%
1845         \setunit*{\addcomma\space}}%
1846       \printlist{location}%
1847       \iflistundef{publisher}{%
1848         \iflistundef{organization}{%
1849           \setunit*{\addcomma\space}%
1850         }%
1851         \setunit*{\addcolon\space}%
1852         \printlist{organization}}%
1853     }{%
1854       \setunit*{\addcolon\space}%
1855       \printlist{publisher}}%
1856     \setunit*{\addcomma\space}%
1857     \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.

```

1858 \newcommand*{\legreport}{legal}
1859 \DeclareBibliographyDriver{report}{%
1860   \usebibmacro{bibindex}%
1861   \usebibmacro{begentry}%
1862   \usebibmacro{author}%
1863   \setunit{\printdelim{nametitle}}\newblock
1864   \usebibmacro{maintitle+title}%
1865   \newunit
1866   \iffieldundef{maintitle}
1867   {\printfield{volume}%
1868     \printfield{part}}
1869   {}%
1870   \newunit\newblock
1871   \usebibmacro{byauthor}%
1872   \newunit\newblock
1873   \printfield{version}%
1874   \newunit\newblock
1875   \printfield{note}%
1876   \newunit\newblock
1877   \usebibmacro{series+type+number}%
1878   \setunit{\addspace}%
1879   \usebibmacro{institution+location+date}%
1880   \iffieldequals{entrysubtype}{\legreport}{%
1881     \setunit{\addspace}\nopunct
1882   }{%
1883     \newunit\newblock}%
1884   \usebibmacro{chapter+pages}%
1885   \newunit
1886   \printfield{pagetotal}%
1887   \newunit\newblock
1888   \iftoggle{bbx:isbn}
1889   {\printfield{isrn}}
1890   {}%
1891   \newunit\newblock
1892   \usebibmacro{doi+eprint+url}%
1893   \newunit\newblock
1894   \usebibmacro{addendum+pubstate}%
1895   \setunit{\bibpagerefpunct}\newblock
1896   \usebibmacro{pageref}%
1897   \setunit{\relatedtypepunct}\newblock
1898   \iftoggle{bbx:related}
1899   {\usebibmacro{related:init}%
1900     \usebibmacro{related}}
1901   {}%
1902   \usebibmacro{finentry}}

```

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

```

1903 \xpatchbibdriver{thesis}{%
1904   \printfield{type}%
1905   \newunit
1906   \usebibmacro{institution+location+date}%
1907 }{%
1908   \usebibmacro{type+institution+location+date}%
1909 }{}

```

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;

```

1910 \DeclareBibliographyDriver{manual}{%
1911   \usebibmacro{bibindex}%
1912   \usebibmacro{begentry}%
1913   \usebibmacro{author/editor}%
1914   \setunit{\printdelim{nametitle}}\newblock
1915   \usebibmacro{title}%
1916   \newunit\newblock
1917   \usebibmacro{byauthor}%
1918   \newunit\newblock
1919   \usebibmacro{byeditor}%
1920   \newunit\newblock
1921   \printfield{type}%
1922   \newunit
1923   \printfield{version}%
1924   \newunit
1925   \printfield{note}%
1926   \newunit\newblock
1927   \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
1928   \newunit\newblock
1929   \usebibmacro{chapter+pages}%
1930   \newunit
1931   \printfield{pagetotal}%
1932   \newunit\newblock
1933   \iftoggle{bbx:isbn}
1934   {\printfield{isbn}}
1935   {}%
1936   \newunit\newblock
1937   \usebibmacro{doi+eprint+url}%
1938   \newunit\newblock
1939   \usebibmacro{addendum+pubstate}%
1940   \setunit{\bibpagerefpunct}\newblock
1941   \usebibmacro{pageref}%
1942   \setunit{\relatedtypepunct}\newblock
1943   \iftoggle{bbx:related}
1944   {\usebibmacro{related:init}%
1945    \usebibmacro{related}}
1946   {}%
1947   \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.

```

1948 \newbibmacro*{publisher+type+series+number+date}{%
1949   \iffieldundef{number}{}%
1950   \setunit{\addcomma\space}%
1951   \usebibmacro{origdate+time}%
1952   }%
1953   \ifboolexpr{%
1954     test {\iffieldundef{origpublisher}}
1955     and
1956     test {\iffieldundef{location}}
1957     and
1958     test {\iffieldundef{publisher}}
1959     and
1960     test {\iffieldundef{type}}
1961     and

```

```

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

```

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

```

2005   \newtoggle{blx@ox@endeditor}
2006   \DeclareEntryOption[boolean]{endeditor}[true]{%
2007     \settoggle{blx@ox@endeditor}{#1}}
2008   \newbibmacro*{pre-byeditor+others}{%
2009     \iftoggle{blx@ox@endeditor}{}{%
2010       \usebibmacro{byeditor+others}%
2011     }}
2012   \newbibmacro*{post-byeditor+others}{%
2013     \iftoggle{blx@ox@endeditor}{%
2014       \usebibmacro{byeditor+others}%
2015     }{}}

```

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


```

2016 \DeclareBibliographyDriver{audio}{%
2017   \usebibmacro{bibindex}%
2018   \usebibmacro{begentry}%
2019   \usebibmacro{author}%
2020   \setunit{\printdelim{nametitledelim}}\newblock
2021   \usebibmacro{title}%
2022   \newunit
2023   \usebibmacro{maintitle}%
2024   \iffieldequalstr{relatedtype}{includes}{%
2025     \iftoggle{bbx:related}{%
2026       \newunit\newblock
2027       \usebibmacro{related:init}%
2028       \usebibmacro{related}%
2029       \clearfield{related}%
2030     }{}%
2031   }{}%
2032   \setunit{\addspace}
2033   \usebibmacro{onlinetype}%
2034   \newunit\newblock
2035   \usebibmacro{byauthor}%
2036   \newunit\newblock
2037   \usebibmacro{pre-byeditor+others}%
2038   \newunit\newblock
2039   \printfield{volumes}%
2040   \newunit\newblock
2041   \printfield{note}%
2042   \newunit\newblock%
2043   \printlist{organization}%
2044   \newunit\newblock%
2045   \usebibmacro{publisher+type+series+number+date}%
2046   \setunit{\addspace}%
2047   \printfield{howpublished}%
2048   \newunit\newblock
2049   \usebibmacro{post-byeditor+others}%
2050   \newunit\newblock
2051   \iftoggle{bbx:isbn}
2052   {\printfield{isbn}}
2053   {}%
2054   \newunit\newblock
2055   \usebibmacro{doi+eprint+url}%
2056   \newunit\newblock
2057   \usebibmacro{addendum+pubstate}%
2058   \setunit{\bibpagerefpunct}\newblock
2059   \usebibmacro{pageref}%
2060   \setunit{\relatedtypepunct}\newblock
2061   \iftoggle{bbx:related}
2062   {\usebibmacro{related:init}%
2063    \usebibmacro{related}}
2064   {}%
2065   \usebibmacro{finentry}}

```

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

```

2066 \DeclareBibliographyAlias{music}{audio}
2067 \DeclareBibliographyAlias{movie}{audio}
2068 \DeclareBibliographyAlias{video}{audio}

```

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

```

2069 \DeclareBibliographyDriver{inaudio}{%
2070   \usebibmacro{bibindex}%
2071   \usebibmacro{begentry}%
2072   \usebibmacro{author}%
2073   \setunit{\printdelim{nametitledelim}}\newblock
2074   \usebibmacro{title}%
2075   \newunit\newblock
2076   \usebibmacro{byauthor}%
2077   \newunit\newblock
2078   \usebibmacro{in:}%
2079   \usebibmacro{bybookauthor}%
2080   \newunit\newblock
2081   \usebibmacro{maintitle+booktitle}%
2082   \iffieldequalstr{relatedtype}{includes}{%
2083     \iftoggle{bbx:related}{%
2084       \newunit\newblock
2085       \usebibmacro{related:init}%
2086       \usebibmacro{related}%
2087       \clearfield{related}%
2088     }{}%
2089   }{}%
2090   \setunit{\addspace}
2091   \usebibmacro{onlinetype}%
2092   \newunit\newblock
2093   \usebibmacro{pre-byeditor+others}%
2094   \newunit\newblock
2095   \printfield{volumes}%
2096   \newunit\newblock
2097   \printfield{note}%
2098   \newunit\newblock%
2099   \printlist{organization}%
2100   \newunit\newblock%
2101   \usebibmacro{publisher+type+series+number+date}%
2102   \setunit{\addspace}%
2103   \printfield{howpublished}%
2104   \newunit\newblock
2105   \usebibmacro{post-byeditor+others}%
2106   \newunit\newblock
2107   \iftoggle{bbx:isbn}
2108   {\printfield{isbn}}
2109   {}%
2110   \newunit\newblock
2111   \usebibmacro{doi+eprint+url}%
2112   \newunit\newblock
2113   \usebibmacro{addendum+pubstate}%
2114   \setunit{\bibpagerefunct}\newblock
2115   \usebibmacro{pageref}%
2116   \setunit{\relatedtypepunct}\newblock
2117   \iftoggle{bbx:related}
2118   {\usebibmacro{related:init}%
2119     \usebibmacro{related}}
2120   {}%
2121   \usebibmacro{finentry}}

```

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

```

2122 \DeclareBibliographyAlias{inmusic}{inaudio}
2123 \DeclareBibliographyAlias{inmovie}{inaudio}
2124 \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.

```

2125 \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2126 \inherit{title}{booktitle}
2127 \inherit{subtitle}{booksubtitle}
2128 \inherit{titleaddon}{booktitleaddon}
2129 \noinherit{shorttitle}
2130 \noinherit{sorttitle}
2131 \noinherit{indextitle}
2132 \noinherit{indexsorttitle}
2133 }

```

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.

```

2134 \DeclareFieldFormat[audio,music]{title}{%
2135 \def\currentfield{title}%
2136 \iffielddannotation{descriptor}{#1}{%
2137 \iffieldequalstr{entrysubtype}{podcast}{%
2138 \mkbibquote{#1\isdot}%
2139 }{%
2140 \mkbibemph{#1}}}%
2141 \undef\currentfield}
2142 \DeclareFieldFormat[movie,video]{title}{%
2143 \def\currentfield{title}%
2144 \iffielddannotation{descriptor}{#1}{%
2145 \ifboolexpr{
2146 test {\iffieldequalstr{entrysubtype}{episode}}
2147 or
2148 test {\iffieldequalstr{entrysubtype}{clip}}
2149 or
2150 test {\iffieldequalstr{entrysubtype}{webcast}}
2151 }{%
2152 \mkbibquote{#1\isdot}%
2153 }{%
2154 \mkbibemph{#1}}}%
2155 \undef\currentfield}
2156 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2157 \def\currentfield{title}%
2158 \iffielddannotation{descriptor}{#1}{%
2159 \mkbibquote{#1\isdot}%
2160 }%
2161 \undef\currentfield}
2162 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2163 \def\currentfield{booktitle}%
2164 \iffielddannotation{descriptor}{#1}{%
2165 \iffieldequalstr{entrysubtype}{podcast}{%
2166 \mkbibquote{#1\isdot}%
2167 }{%
2168 \mkbibemph{#1}}}%
2169 \undef\currentfield}
2170 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2171 \def\currentfield{booktitle}%
2172 \iffielddannotation{descriptor}{#1}{%
2173 \ifboolexpr{
2174 test {\iffieldequalstr{entrysubtype}{episode}}
2175 or
2176 test {\iffieldequalstr{entrysubtype}{clip}}
2177 or
2178 test {\iffieldequalstr{entrysubtype}{webcast}}
2179 }{%

```

```

2180 \mkbibquote{#1\isdot}%
2181 }{%
2182 \mkbibemph{#1}}}%
2183 \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.

```

2184 \DeclareBibliographyAlias{image}{online}
2185 \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.

```

2186 \DeclareFieldFormat[online]{title}{%
2187 \def\currentfield{title}%
2188 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}}%
2189 \undef\currentfield}

```

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

```

2190 \newbibmacro*{onlinetype}{%
2191 \ifboolexpr{
2192 test {\iffieldundef{url}}
2193 or
2194 test {\iffieldundef{entrysubtype}}
2195 }{%
2196 \ifbibxstring{\thefield{entrysubtype}}{%
2197 \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2198 }{}}

```

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.

```

2199 \DeclareBibliographyDriver{online}{%
2200 \usebibmacro{bibindex}%
2201 \usebibmacro{begentry}%
2202 \usebibmacro{author/editor+others/translator+others}%
2203 \setunit{\printdelim{nametitledelim}}\newblock
2204 \usebibmacro{title}%
2205 \newunit
2206 \usebibmacro{maintitle}
2207 \setunit{\addspace}%
2208 \usebibmacro{onlinetype}%

```

```

2209 \newunit\newblock
2210 \usebibmacro{byauthor}%
2211 \newunit\newblock
2212 \usebibmacro{byeditor+others}%
2213 \newunit\newblock
2214 \printfield{version}%
2215 \newunit
2216 \printfield{note}%
2217 \newunit\newblock
2218 \printlist{organization}%
2219 \iffieldundef{year}{}{%
2220   \setunit{\addspace}\newblock
2221   \printtext[parns]{\usebibmacro{date+time}}%
2222 }%
2223 \newunit\newblock
2224 \printlist{publisher}%
2225 \newunit\newblock
2226 \iftoggle{bbx:eprint}
2227 {\usebibmacro{eprint}}
2228 {}%
2229 \newunit\newblock
2230 \usebibmacro{url+urldate}%
2231 \newunit\newblock
2232 \usebibmacro{addendum+pubstate}%
2233 \setunit{\bibpagerefunct}\newblock
2234 \usebibmacro{pageref}%
2235 \setunit{\relatedtypepunct}\newblock
2236 \iftoggle{bbx:related}
2237 {\usebibmacro{related:init}%
2238   \usebibmacro{related}}
2239 {}%
2240 \usebibmacro{finentry}}

```

Software

The version for software goes between the title and titleaddon.

```

2241 \newbibmacro*{title+version}{%
2242   \ifboolexpr{
2243     test {\iffieldundef{title}}
2244     and
2245     test {\iffieldundef{subtitle}}
2246   }
2247   {}
2248   {\printtext[title]{%
2249     \printfield[titlecase]{title}%
2250     \setunit{\subtitlepunct}%
2251     \printfield[titlecase]{subtitle}}%
2252     \setunit{\addspace}}%
2253   \printfield{version}%
2254   \setunit{\addspace}%
2255   \printfield{titleaddon}%
2256 }
2257 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

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

```

2258 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is based loosely on the manual driver.

```

2259 \DeclareBibliographyDriver{software}{%
2260   \usebibmacro{bibindex}%
2261   \usebibmacro{begentry}%
2262   \usebibmacro{author/editor}%
2263   \setunit{\printdelim{nametitledelim}}\newblock
2264   \usebibmacro{title+version}%
2265   \newunit\newblock
2266   \usebibmacro{byauthor}%
2267   \newunit\newblock
2268   \usebibmacro{byeditor}%
2269   \newunit\newblock
2270   \printfield{type}%
2271   \newunit
2272   \printfield{note}%
2273   \newunit\newblock
2274   \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2275   \newunit\newblock
2276   \usebibmacro{chapter+pages}%
2277   \newunit
2278   \printfield{pagetotal}%
2279   \newunit\newblock
2280   \iftoggle{bbx:isbn}
2281   {\printfield{isbn}}
2282   {}%
2283   \newunit\newblock
2284   \usebibmacro{doi+eprint+url}%
2285   \newunit\newblock
2286   \usebibmacro{addendum+pubstate}%
2287   \setunit{\bibpagerefunct}\newblock
2288   \usebibmacro{pageref}%
2289   \setunit{\relatedtypepunct}\newblock
2290   \iftoggle{bbx:related}
2291   {\usebibmacro{related:init}%
2292    \usebibmacro{related}}
2293   {}%
2294   \usebibmacro{finentry}}

```

Datasets

Datasets are currently treated like manuals

```

2295 \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

```

2296 \newtoggle{bbx:scotstyle}
2297 \DeclareEntryOption{scottish-style}[true]{%
2298   \settoggle{bbx:scotstyle}{#1}}
2299 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2300 \DeclareEntryOption{year-essential}[true]{%
2301   \setboolean{bbx@year-essential}{#1}}
2302 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2303 \DeclareEntryOption{paryear-essential}[true]{%

```

```

2304 \setboolean{bbx@paryear-essential}{#1}}
2305 \newtoggle{blx@ox@nopostnotedelim}
2306 \newtoggle{bbx:altcourt}
2307 \DeclareBibliographyOption{court-plain}[true]{%
2308 \settoggle{bbx:altcourt}{#1}}
2309 \DeclareEntryOption{court-plain}[true]{%
2310 \settoggle{bbx:altcourt}{#1}}
2311 \newtoggle{bbx@ecliuse}
2312 \newtoggle{bbx@eclionly}
2313 \DeclareBibliographyOption{ecli}[yes]{%
2314 \ifstrequal{#1}{no}{%
2315 \global\togglefalse{bbx@ecliuse}%
2316 \global\togglefalse{bbx@eclionly}%
2317 }{%
2318 \global\toggletrue{bbx@ecliuse}%
2319 \ifstrequal{#1}{only}{%
2320 \global\toggletrue{bbx@eclionly}%
2321 }{}}

```

Field formats

```

2322 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2323 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2324 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2325 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2326 \DeclareFieldFormat{romanvol}{\RN{#1}}
2327 \DeclareListFormat[jurisdiction]{listb}{}
2328 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2329 \DeclareFieldFormat{verba}{#1}
2330
2331 \DeclareListFormat{echrinst}{%
2332 \ifboolexpr{%
2333 test {\ifnumequal{\value{listtotal}}{1}}
2334 or
2335 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2336 }{%
2337 \ifboolexpr{
2338 test {\ifdefstring{\Commission}{#1}}
2339 or
2340 test {\ifdefstring{\commission}{#1}}%
2341 }{%
2342 \bibstring{commissiondecision}%
2343 }{#1}%
2344 }{%
2345 \setcounter{blx@tmpcnt}{\value{listcount}}%
2346 \addtocounter{blx@tmpcnt}{1}%
2347 \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2348 #1\space\bibstring{and}\addspace
2349 }{%
2350 #1\addcomma\space}}%
2351
2352 \newcommand*{\commission}{commission}
2353 \newcommand*{\Commission}{Commission}
2354 \DeclareListFormat{ecthr}{%
2355 \ifboolexpr{
2356 test {\ifdefstring{\Commission}{#1}}
2357 or
2358 test {\ifdefstring{\commission}{#1}}
2359 }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2360

```

```

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

```

Pagination formats

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


```

2416 \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2417 \begingroup
2418 \def\blx@tempa{\blx@mkpageprefix@i}%
2419 \ifstrequal{#1}{none}{}{}%
2420 \ifbibstring{#1}{%
2421 \def\blx@tempa{\blx@mkpageprefix{#1}}%
2422 }{}%
2423 \blx@warning@entry{Unknown pagination type '#1'}}}%
2424 \@ifnextchar[%]
2425 {\blx@tempa}
2426 {\blx@tempa[\@firstofone]}
2427
2428 \newcommand*\paragraphmarkings{[]}
2429 \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2430 \iffielddundef{pagination}{%
2431 \ifboolexpr{
2432 test {\ifkeyword{eu}}
2433 or
2434 test {\ifkeyword{echr}}
2435 }{}%
2436 \mkcomprange[\mkrawpageprefix[paragraph]]{#1}%
2437 }{}%
2438 \mkcomprange{#1}}%
2439 }{}%
2440 \iffieldequals{pagination}{\paragraphmarkings}{%
2441 \mkcomprange[\mkbibbrackets]{#1}%
2442 }{}%
2443 \mkcomprange[\mkpageprefix[pagination]]{#1}}}%

```

Shorthands

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

```

2444 \renewbibmacro*{shorthandintro}{%
2445 \iffielddundef{shorthandintro}
2446 {\iffielddundef{shorthand}
2447 {}
2448 {\setunit{\addspace}%
2449 \printtext[parens]{%
2450 \ifboolexpr{
2451 test {\ifentrytype{jurisdiction}}
2452 or
2453 test {\ifentrytype{legal}}
2454 or
2455 test {\ifentrytype{legislation}}
2456 }{}{}%
2457 \bibstring{citedas}\space}%
2458 \printfield{shorthand}}}%
2459 {\setunit{\addspace}%
2460 \printtext[parens]{\printfield{shorthandintro}}}%

```

Common macros

```

2461 \newbibmacro*{issue/volume}{%
2462 \iffielddundef{volume}%
2463 {\iffielddundef{issue}%
2464 {}%
2465 {\printfield{issue}}}%
2466 {\printfield[default]{volume}}%

```

```

2467 \newcommand*{\subtypenewsp}{newspaper}
2468 \newbibmacro*{year+vol+report}[1][default]{%
2469   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2470     \setunit{\addcomma\space}%
2471   }{%
2472     \usebibmacro{journaldate}%
2473     \setunit{\addspace}%
2474     \printfield[parens]{origyear}%
2475     \setunit{\addspace}%
2476     \printfield{volume}%
2477     \setunit{\addspace}}%
2478   \printfield{journaltitle}%
2479   \setunit*{\addspace}%
2480   \iffieldundef{series}{}{%
2481     \setunit{\addspace}%
2482     \printfield[#1]{series}%
2483     \setunit{\addspace}}%
2484   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2485     \setunit{\addcomma\space}%
2486     \printdate%
2487   }{}}
2488 \newbibmacro*{journaldate}[1][{%
2489   \ifboolexpr{
2490     test {\iffieldundef{#1volume}}
2491     or
2492     bool {bbx@#1year-essential}}
2493   }{%
2494     \ifboolexpr{
2495       test {\ifkeyword{sc}}
2496       or
2497       test {\iftoggle{bbx:scotstyle}}}
2498     }{%
2499       \setunit{\addcomma\space}%
2500       \printfield{#1year}%
2501     }{%
2502       \printfield[brackets]{#1year}}%
2503   }{%
2504     \printfield[parens]{#1year}}}
2505 \newcommand*{\casenote}{casenote}
2506 \newcommand{\casenotetext}{\bibstring{casenote}}
2507 \newbibmacro{journaltitle}{%
2508   \iffieldequals{entrysubtype}{\casenote}{%
2509     \iffieldundef{crossref}{%
2510       \usebibmacro{title}%
2511     }{%
2512       \iffieldundef{note}{%
2513         \restorefield{note}{\casenotetext}%
2514       }{}%
2515       \ifboolexpr{
2516         test {\iffootnote}
2517         and test {\iftoggle{bbx@samefootnote}}
2518         and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2519       }{}{\printfield[casenotetitle]{title}}}%
2520     }{%
2521       \usebibmacro{title}}}
2522 \newbibmacro*{unreported}[1][default]{%
2523   \iffieldundef{verba}{%
2524     \ifboolexpr{
2525       test {\iflistundef{institution}}
2526       and
2527       test {\iffieldundef{date}}
2528       and

```

```

2529     test {\iffielddundef{year}}
2530   }{%
2531     \ifboolexpr{
2532       test {\iffielddundef{date}}
2533       and
2534       test {\iffielddundef{year}}
2535     }{%
2536       \mkbibparens{\printlist[jurisdiction]{institution}}%
2537     }{%
2538       \toggletrue{blx@ox@nopostnotedelim}%
2539       \iflistundef{institution}{%
2540         \mkbibparens{\usebibmacro{date}}%
2541       }{%
2542         \printtext[parens]{%
2543           \printlist[#1]{institution}%
2544           \setunit{\addcomma\space}
2545           \usebibmacro{date}}}%
2546     }{%
2547       \iftoggle{bbx@ecliuse}{%
2548         \printfield{verba}}}%
2549   \newbibmacro{court-note}{%
2550     \iffielddundef{note}%
2551     {}%
2552     {\printfield{note}%
2553       \toggletrue{blx@ox@nopostnotedelim}}}
2554   \newbibmacro*{jurisdictionpages}{%
2555     \iffieldequals{entrysubtype}{\subtypenewsp}{%
2556       \setunit{\addspace}%
2557       \printfield{pages}}}%
2558   \newbibmacro{pcitenote}{%
2559     \iffielddundef{userc}{%
2560       \setunit{\addcomma\space}%
2561       \iffielddundef{postnote}{%
2562         \printfield{postnote}%
2563         \clearfield{postnote}%
2564         \setunit{\addsemicolon\space}}}%
2565     \iffielddundef{number}{%
2566       \iffielddundef{number}{%
2567         \ifboolexpr{
2568           test {\iflistundef{institution}}
2569           and
2570           test {\iffielddundef{location}}%
2571         }{%
2572           \togglefalse{blx@ox@nopostnotedelim}%
2573         }{%
2574           \ifboolexpr{%
2575             test {\iffielddundef{journaltitle}}
2576             or
2577             not togl {bbx:altcourt}
2578           }{%
2579             \printtext[parens]{%
2580               \printfield{location}%
2581               \setunit{\addspace}%
2582               \printlist{institution}%
2583               \usebibmacro{unrep:date}}%
2584             \toggletrue{blx@ox@nopostnotedelim}
2585           }{%
2586             \setunit{\addcomma\space}%
2587             \printfield{location}%
2588             \setunit*\addspace%
2589             \printlist{institution}}}%
2590         }%

```

```

2591 \togglefalse{blx@ox@nopostnotedelim}}
2592 \newbibmacro*{unrep:date}{%
2593 \ifbool{expr{
2594 test {\iffieldundef{journaltitle}}%
2595 and
2596 test {\iffieldundef{number}}%
2597 }{%
2598 \setunit{\addcomma\space}%
2599 \usebibmacro{date}%
2600 }{}}

```

Legal cases

There are different formats depending on the jurisdiction.

```

2601 \DeclareBibliographyDriver{jurisdiction}{%
2602 \usebibmacro{bibindex}%
2603 \usebibmacro{begentry}%
2604 \usebibmacro{juriscitation}%
2605 \usebibmacro{doi+eprint+url}%
2606 \setunit{\addspace}%\newblock
2607 \usebibmacro{addendum+pubstate}%
2608 \setunit{\bibpagerefpunct}\newblock
2609 \usebibmacro{pageref}%
2610 \setunit{\addspace}%\newblock
2611 \iftoggle{bbx:related}
2612 { \usebibmacro{related:init}%
2613 \usebibmacro{related}}
2614 {}%
2615 \usebibmacro{finentry}}
2616 \newtoggle{bbx@juriscitedone}
2617 \newbibmacro{juriscitation}{%
2618 \togglefalse{bbx@juriscitedone}%
2619 \renewcommand{\do}[1]{%
2620 \ifkeyword{##1}{%
2621 \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2622 \listbreak
2623 }{}}%
2624 \docsvlist{eu,echr,int,ca,us}%
2625 \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
2626 }

```

Here is the format for EU cases.

```

2627 \newbibmacro*{eujuriscitation}{%
2628 \iflistcontains{institution}{\commission}}{%
2629 \usebibmacro{eucasenumber}}%
2630 \usebibmacro{title}%
2631 \setunit{\addspace}%
2632 \iflistcontains{institution}{\commission}}{%
2633 \usebibmacro{eucommissiondecision}}{%
2634 \setunit{\addspace}%
2635 \usebibmacro{eu:reportinfo}%
2636 \iflistcontains{institution}{\commission}}{%
2637 \setunit{\addcomma\space}%
2638 }{%
2639 \setunit{\addspace}}%
2640 \usebibmacro{court-note}%
2641 }
2642 \newbibmacro{eucasenumber}{%

```

```

2643 \iffielddundef{type}{%
2644 \ifboolexpr{
2645 test {\IfSubStr{\thefield{number}}{,}}
2646 or
2647 test {\IfSubStr{\thefield{number}}{--}}
2648 or
2649 test {\IfSubStr{\thefield{number}}{ and }}
2650 }{%
2651 \bibstring{eujoinedcases}%
2652 }{%
2653 \bibstring{eucase}}%
2654 }{%
2655 \printfield{type}}%
2656 \setunit{\addnbspace}%
2657 \printfield{number}%
2658 \setunit{\addspace}}
2659 \newbibmacro{eucommissiondecision}{%
2660 \iffielddundef{userb}{}%
2661 \printfield[parens]{userb}}%
2662 \setunit{\addspace}%
2663 \iffielddundef{number}{}%
2664 \iffielddundef{type}{%
2665 \setunit{\addspace\bibstring{commissiondecision}\addspace}%
2666 }{%
2667 \setunit{\addspace\printfield{type}\addspace}}%
2668 \printfield{number}}
2669 \newbibmacro*{eu:reportinfo}{%
2670 \iftoggle{bbx@eclionly}{%
2671 \iffielddundef{verba}{%
2672 \usebibmacro{eu:osreport}
2673 }{%
2674 \printfield{verba}}%
2675 }{%
2676 \usebibmacro{eu:osreport}}}
2677 \newbibmacro*{eu:osreport}{%
2678 \iftoggle{bbx@ecliuse}{%
2679 \iffielddundef{verba}{}%
2680 \printfield{verba}%
2681 \setunit{\addcomma\space}}%
2682 }{}%
2683 \iffielddundef{journaltitle}{%
2684 \usebibmacro{unreported}%
2685 }{%
2686 \usebibmacro{eu:year+vol+report}}}
2687 \newcommand*{\officialjournaltitle}{OJ}
2688 \newcommand*{\ecrreporttitle}{ECR}
2689 \newbibmacro*{eu:year+vol+report}{%
2690 \iffieldequals{journaltitle}{\ecrreporttitle}{%
2691 \printfield[brackets]{year}%
2692 \setunit{\addspace}%
2693 \printfield{journaltitle}%
2694 \setunit{\addspace}%
2695 \printfield{volume}%
2696 \setunit*{\printtext{--\allowbreak}}%
2697 \printfield{pages}%
2698 }{%
2699 \iffieldequals{journaltitle}{\officialjournaltitle}{%
2700 \printfield[brackets]{year}%
2701 \setunit{\addspace}%
2702 \printfield{journaltitle}%
2703 \setunit{\addspace}%
2704 \printfield[default]{series}%

```

```

2705 \usebibmacro{issue/volume}%
2706 \setunit{\printtext{\slash}}%
2707 \printfield{pages}%
2708 }{%
2709 \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

2710 \newbibmacro*{echrjuriscitation}{%
2711 \usebibmacro{title}%
2712 \setunit{\addspace}\newblock
2713 \iffieldundef{number}{}{%
2714 \printtext[parens]{%
2715 \def\addot{}%
2716 \bibstring{application}\space
2717 \bibstring{number}\space
2718 \printfield{number}}}%
2719 \setunit{\addspace}\newblock}%
2720 \iffieldundef{journaltitle}{%
2721 \usebibmacro{unreported}[echrinst]%
2722 }{%
2723 \usebibmacro{echr:year+vol+report}
2724 \setunit{\addspace}\newblock
2725 \usebibmacro{echr:courtid}}%
2726 \setunit{\addspace}%
2727 \usebibmacro{court-note}%
2728 \newblock
2729 \setunit{\addspace}}
2730 \newcommand*{\seriesa}{Series A}
2731 \newcommand*{\echrreports}{ECHR}
2732 \newbibmacro*{echr:year+vol+report}{%
2733 \iffieldequals{journaltitle}{\seriesa}{%
2734 \usebibmacro{seriesareport}%
2735 }{%
2736 \iffieldequals{journaltitle}{\echrreports}{%
2737 \usebibmacro{echrreports}%
2738 }{%
2739 \usebibmacro{year+vol+report}
2740 \setunit{\addspace}%
2741 \printfield{pages}}}}
2742 \newbibmacro*{seriesareport}{%
2743 \printfield[parens]{year}%
2744 \setunit{\addspace}%
2745 \printfield{journaltitle}%
2746 \setunit{\addspace}%
2747 \printtext{\def\addot{}\bibstring{number}\addspace}%
2748 \printfield{pages}}
2749 \newbibmacro*{echrreports}{%
2750 \printfield{journaltitle}%
2751 \setunit{\addspace}%
2752 \printfield{year}%
2753 \iffieldundef{volume}{}{%
2754 \printtext{--}\printfield[romanvol]{volume}}
2755 \setunit{\addspace}%
2756 \printfield{pages}}
2757 \newcommand*{\decisionsandreports}{DR}
2758 \newcommand*{\collectionofdecisions}{CD}
2759 \newbibmacro*{echr:courtid}{%
2760 \ifboolexpr{
2761 test {\iffieldequals{journaltitle}{\decisionsandreports}}
2762 or

```

```

2763     test {\iffieldequals{journaltitle}{\collectionofdecisions}}%
2764   }{}%
2765   \printlist[ecthr]{institution}}}

```

Here is the format for international cases.

```

2766 \newbibmacro*{intjuriscitation}{%
2767   \iflistundef{institution}{%
2768     \setunit{}\printtext{%
2769   }{%
2770     \printlist{institution}%
2771     \setunit{\addcomma\space}}%
2772   \usebibmacro{int:title}%
2773   \setunit{\addspace}\newblock
2774   \iffieldundef{journaltitle}{%
2775     \printfield{number}%
2776     \setunit{\addspace}\newblock
2777     \printtext[parens]{\printdate}%
2778   }{%
2779     \usebibmacro{year+vol+report}[international]%
2780   }%
2781   \setunit{\addspace}%
2782   \usebibmacro{int:jurisdictionpages}%
2783   \setunit{\addspace}\newblock
2784   \usebibmacro{court-note}%
2785 }
2786 \newbibmacro*{int:title}{%
2787   \ifboolexpr{
2788     test {\iffieldundef{title}}
2789     and
2790     test {\iffieldundef{subtitle}}
2791   }{}%
2792   \printtext[title]{%
2793     \printfield[titlecase]{title}%
2794     \setunit{\addspace}%
2795     \printfield[parens]{subtitle}}}%
2796   \setunit{\addspace}%
2797   \printfield{titleaddon}%
2798 }
2799 \newbibmacro*{int:jurisdictionpages}{%
2800   \iffieldequals{journaltitle}{\pcijrep}{%
2801     \printtext{\bibcpstring{number}\addspace}%
2802     \iffieldundef{pages}{%
2803       \printfield{number}%
2804     }{%
2805       \printfield{pages}}}%
2806   }{%
2807     \printfield{pages}}

```

Here is the format for Canadian cases.

```

2808 \newbibmacro{canjuriscitation}{%
2809   \usebibmacro{title}%
2810   \setunit{\addspace}\newblock
2811   \printfield{number}%
2812   \setunit{\addcomma\space}%
2813   \iffieldundef{journaltitle}{}%
2814     \usebibmacro{can:year+vol+report}}}%
2815   \usebibmacro{jurisdictionpages}%
2816   \usebibmacro{pcitenote}%
2817   \usebibmacro{altreportdetails}%

```

```

2818 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
2819 \newunit\newblock
2820 \usebibmacro{courtid}%
2821 \newunit%
2822 \usebibmacro{court-note}%
2823 \newblock%
2824 \newunit}
2825 \newbibmacro*{can:year+vol+report}{%
2826 \iffielddundef{number}{%
2827 \setunit{\addspace}%
2828 }{%
2829 \ifboolexpr{
2830 test {\iffielddundef{volume}}
2831 or
2832 bool {bbx@year-essential}%
2833 }{}{%
2834 \clearfield{year}}}%
2835 \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
2836 \iffielddundef{year}{%
2837 \usebibmacro{journaldate}%
2838 \setunit{\addspace}}}%
2839 \printfield{volume}%
2840 \setunit{\addspace}%
2841 \printfield{journaltitle}%
2842 \setunit*{\addspace}%
2843 \iffielddundef{series}{%
2844 \setunit{\addspace}%
2845 \printtext[pars]{\printfield[usseries]{series}}%
2846 \setunit{\addspace}}}%
2847 \iffieldequals{entrysubtype}{\subtypenewsp}{%
2848 \setunit{\addcomma\space}%
2849 \usebibmacro{newspaperdate}%
2850 }{}%

```

Here is the format for American cases.

```

2851 \newbibmacro{usjuriscitation}{%
2852 \usebibmacro{title}%
2853 \setunit{\addcomma\space}\newblock%
2854 \iffielddundef{journaltitle}{%
2855 \printfield{number}%
2856 \setunit{\addcomma\space}%
2857 \printfield[default]{eprint}%
2858 \clearfield{eprint}%
2859 }%
2860 \usebibmacro{us:vol+report}}%
2861 \setunit{\addspace}%
2862 \usebibmacro{jurisdictionpages}%
2863 \usebibmacro{us:postnote}%
2864 \usebibmacro{altreportdetails}%
2865 \setunit{\addspace}\newblock
2866 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
2867 \setunit{\addspace}%
2868 \usebibmacro{us:courtid+date}%
2869 \setunit{\addspace}%
2870 \usebibmacro{court-note}%
2871 \newblock
2872 \setunit{\addspace}}
2873 \newbibmacro{us:vol+report}{%
2874 \printfield{volume}%
2875 \setunit{\addspace}%
2876 \printfield{journaltitle}%

```



```

2877 \iffielddundef{series}{}{%
2878 \setunit{\addspace}%
2879 \printfield[usseries]{series}}
2880 \newbibmacro{us:postnote}{%
2881 \iffielddundef{postnote}{}{%
2882 \setunit{\addcomma\space}%
2883 \printfield{postnote}%
2884 \clearfield{postnote}%
2885 }}
2886 \newbibmacro{us:courtid+date}{%
2887 \ifboolexpr{
2888 test {\iflistundef{institution}}
2889 and
2890 test {\iflistundef{location}}
2891 and
2892 test {\iffielddundef{year}}}
2893 }{}{%
2894 \printtext[parens]{%
2895 \printlist{location}%
2896 \setunit*{\addspace}%
2897 \printlist{institution}%
2898 \setunit{\addspace}%
2899 \printfield{year}%
2900 \nopunct}}}

```

Here is the format for English cases.

```

2901 \newbibmacro{enjuristicitation}{%
2902 \usebibmacro{title}%
2903 \setunit{\addspace}\newblock
2904 \printfield{number}%
2905 \setunit*{\addcomma\space}%
2906 \iffielddundef{journaltitle}{}{%
2907 \usebibmacro{year+vol+report}}%
2908 \usebibmacro{jurisdictionpages}%
2909 \usebibmacro{pcitenote}%
2910 \usebibmacro{altreportdetails}%
2911 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports
2912 \setunit{\addspace}\newblock
2913 \usebibmacro{courtid}%
2914 \setunit{\addspace}%
2915 \usebibmacro{court-note}}
2916 \newbibmacro{altreportdetails}{%
2917 \restorefield{prenote}{\postnotesecond}%
2918 \iffielddundef{userc}{}{% parreporter
2919 \usebibmacro{journaldate}[par]%
2920 \setunit{\addspace}\newblock
2921 \usebibmacro{altreportvolume}%
2922 \setunit{\addspace}\newblock
2923 \usebibmacro{altjournaltitle}%
2924 \setunit{\addspace}\newblock
2925 \usebibmacro{altseries}%
2926 \setunit{\addspace}\newblock
2927 \usebibmacro{altjurisdictionpages}%
2928 \iffielddundef{prenote}{}{%
2929 \setunit{\addcomma\space}%
2930 \printfield[postnote]{prenote}}}}
2931 \newbibmacro*{altreportvolume}{%
2932 \iffielddundef{userb}{}{% parvolume
2933 \printfield{volume}%
2934 }{}%

```

```

2935     \printfield{userb}}
2936 \newbibmacro*{altjournaltitle}{%
2937   \iffieldundef{userc}{% parreporter
2938     \printfield{journaltitle}%
2939     \setunit{\addspace}%
2940   }{
2941     \printfield{userc}}
2942 \newbibmacro*{altseries}{%
2943   \iffieldundef{userd}{% parseries
2944     \printfield{series}%
2945   }{%
2946     \printfield{userd}}
2947 \newbibmacro*{altjurisdictionpages}{%
2948   \iffieldundef{usere}{% parpages
2949     \usebibmacro{jurisdictionpages}%
2950   }{%
2951     \printfield{usere}}}%

```

Legislation

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

```

2952 \newcommand*{\subtypecourtrules}{procedure-rule}
2953 \DeclareBibliographyDriver{legislation}{%
2954   \usebibmacro{bibindex}%
2955   \usebibmacro{begentry}%
2956   \iffieldequals{entrysubtype}{\subtypecourtrules}{%
2957     \usebibmacro{courtrules}%
2958   }{%
2959     \ifkeyword{draft}{%
2960       \usebibmacro{legislation:bill}%
2961     }{%
2962       \ifkeyword{eu}{%
2963         \usebibmacro{eulegislation}%
2964       }{%
2965         \printfield[default]{title}%
2966         \setunit{\addspace}%
2967         \printfield[default]{year}%
2968         \setunit*{\addspace}%
2969         \usebibmacro{legnumber}%
2970         \setunit{\addspace}\newblock
2971         \usebibmacro{legsupp}}}%
2972   \setunit{\addcomma\space}%
2973   \printfield{note}%
2974   \setunit{\addspace}%
2975   \usebibmacro{finentry}}
2976 \newbibmacro*{courtrules}{%
2977   \restorefield{prenote}{\postnotesecond}%
2978   \iffieldequalstr{shorttitle}{PD}{%
2979     \printfield{postnote}%
2980     \clearfield{postnote}%
2981     \setunit{\addspace}%
2982   }{%
2983     \iffieldundef{shorttitle}{%
2984       \printfield[default]{title}%
2985     }{%
2986       \printfield[default]{shorttitle}%
2987     \setunit{\addspace}\newblock
2988     \iffieldundef{postnote}{%

```

```

2989     \toggletrue{blx@ox@nopostnotedelim}%
2990 }{%
2991     \iffieldequalstr{shorttitle}{CPR}{%
2992         \printfield{postnote}%
2993         \setunit{\addspace}%
2994     }{%
2995         \printtext{%
2996             \bibstring{order}\space
2997             \printfield{postnote}%
2998             \setunit{\addcomma\space}}}%
2999     \restorefield{postnote}{\postnotesecond}%
3000     \usebibmacro{postnote}%
3001     \clearfield{postnote}%
3002     \setunit{\addspace}\newblock}
3003 \newcommand*{\subtypeprimarylegislation}{primary}
3004 \newbibmacro*{legislation:bill}{%
3005     \printfield[draftleg]{title}%
3006     \setunit{\addspace}%
3007     \printlist{institution}%
3008     \setunit*{\addspace}%
3009     \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3010         \bibcpstring{bill}%
3011         \setunit{\addspace}%
3012         \printtext[parens]{\usebibmacro{sessionyear}}%
3013         \setunit{\addspace}%
3014         \iffieldundef{number}{}{%
3015             \printlist[billprinting]{institution}}%
3016     }{%
3017         \printtext[parens]{%
3018             \bibstring{draft}\space
3019             \printdate}%
3020         \setunit{\addspace}}
3021 \newbibmacro*{sessionyear}{%
3022     \iffieldundef{year}{}{%
3023         \printfield{year}%
3024         \iffieldundef{endyear}{}{%
3025             \bibdaterangesep
3026             \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}%
3027     }
3028 \newbibmacro{eulegislation}{%
3029     \printfield[default]{title}%
3030     \setunit{\addspace}\newblock%
3031     \usebibmacro{eulegref}}
3032 \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3033 \newbibmacro*{eulegref}{%
3034     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3035         \printfield[brackets]{year}%
3036         \setunit{\addspace}%
3037         \printfield{journaltitle}%
3038         \setunit{\addspace}%
3039         \iffieldundef{series}{}{%
3040             \printtext{L}%
3041         }%
3042         \printfield[default]{series}}%
3043     \usebibmacro{issue/volume}%
3044     \setunit*{\addslash}%
3045     \printfield{pages}%
3046     \togglefalse{blx@ox@nopostnotedelim}%
3047 }{%
3048     \usebibmacro{year+vol+report}%
3049     \setunit*{\addspace}%
3050     \printfield{pages}}
\newbibmacro*{legnumber}{%

```

```

3051 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3052 \ifboolexpr{(
3053     test {\iffieldundef{number}}
3054     or
3055     not test {\iffieldundef{title}} )
3056 and not (
3057     test {\ifkeyword{cy}}
3058     or
3059     test {\ifkeyword{sc}}
3060     or
3061     test {\ifkeyword{ni}} )
3062 }){%
3063 \printtext[parens]{\printfield{number}}%
3064 \toggletrue{blx@ox@nopostnotedelim}}%
3065 }{%
3066 \iffieldundef{number}}){%
3067 \setunit{\addcomma\addspace}%
3068 \printfield{number}%
3069 \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3070 \newbibmacro*{legsupp}{%
3071 \ifkeyword{cy}
3072 {\iffieldundef{userb}
3073 }
3074 {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3075 }

```

Treaties, explanatory notes and Hansard

```

3076 \newcommand*{\explanatorynote}{explanatory note}
3077 \newcommand*{\parliamentarytype}{parliamentary}
3078 \newcommand*{\treatysubtype}{piltreaty}
3079 \DeclareBibliographyDriver{legal}{%
3080 \usebibmacro{bibindex}%
3081 \usebibmacro{begentry}%
3082 \iffieldequals{entrysubtype}{\explanatorynote}{%
3083 \printfield[default]{title}%
3084 \setunit{\addspace}\newblock
3085 }{%
3086 \iffieldequals{entrysubtype}{\parliamentarytype}{%
3087 \usebibmacro{legal:parliamentary}%
3088 }{%
3089 \usebibmacro{treatycitation}}}%
3090 \setunit{\addcomma\space}\newblock
3091 \printfield[default]{note}
3092 \setunit{\addspace}\newblock
3093 \setunit{\bibpagerefpunct}%
3094 \usebibmacro{pageref}%
3095 \usebibmacro{finentry}}
3096 \newbibmacro{legal:parliamentary}{%
3097 \printfield[default]{title}%
3098 \newunit\newblock
3099 \printfield{type}%
3100 \setunit{\addspace}%
3101 \iffieldundef{series}}){%
3102 \printtext[parens]{%
3103 \bibstring{jourser}\space
3104 \printfield{series}}}%

```

```

3105 \setunit{\addspace}%
3106 \printfield{volume}%
3107 \setunit{\addcomma\space}%
3108 \usebibmacro{hansard-ref}%
3109 \setunit{\addspace}%
3110 \iffieldundef{year}{}{%
3111   \printtext[parens]{\usebibmacro{date}}}%
3112 \togglefalse{blx@ox@nopostnotedelim}}
3113 \newbibmacro*{hansard-ref}{%
3114   \iffieldundef{postnote}{}%
3115   \iffieldundef{pages}{}%
3116   \printfield{pages}}%
3117 }{}%
3118 \newbibmacro{treatycitation}{%
3119   \printfield[default]{title}%
3120   \setunit{\addspace}\newblock%
3121   \printlist[treaty]{institution}
3122   \setunit{\addspace}\newblock
3123   \usebibmacro{treatyinfo}%
3124   \setunit{\addspace}\newblock
3125   \usebibmacro{treaty:year+vol+report}}
3126 \newbibmacro{treatyinfo}{%
3127   \iflistundef{lista}{% execution
3128     \iffieldundef{year}{}{%
3129       \iffieldundef{volume}{}{%
3130         \printtext[parens]{\printdate}}}%
3131   }{%
3132     \printtext[parens]{\printlist[treatydates]{lista}}}%
3133 \newbibmacro{treaty:year+vol+report}{%
3134   \iffieldequals{journaltitle}{\officialjournaltitle}{%
3135     \usebibmacro{eulegref}%
3136   }{%
3137     \usebibmacro{treaty:date}%
3138     \setunit{\addspace}%
3139     \printfield[default]{volume}%
3140     \setunit{\addspace}%
3141     \printfield{journaltitle}%
3142     \setunit*\addspace}%
3143   \iffieldundef{series}{}{%
3144     \setunit{\addspace}%
3145     \printfield{series}%
3146     \setunit{\addspace}}%
3147   \printfield{pages}}}%
3148 \newbibmacro*{treaty:date}{%
3149   \ifboolexpr{
3150     test {\iffieldundef{volume}}
3151     or
3152     bool {bbx@year-essential}
3153   }{%
3154     \ifboolexpr{
3155       test {\ifkeyword{sc}}
3156       or
3157       test {\iftoggle{bbx:scotstyle}}
3158     }{%
3159       \printfield{year}%
3160     }{%
3161       \printfield[brackets]{year}%
3162     }}%

```

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

```
3163 \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.

```
3164 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3165 \newcommand{\collectionshelfmarkpunct}{\addspace}
3166 \newcommand{\datingpagespunct}{\addcomma\addspace}
3167 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3168 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3169 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%
```

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

```
3170 \def\recto{r}
3171 \def\verso{v}
3172 \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.

```
3173 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3174 \def\currentfield{title}%
3175 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3176 \undef\currentfield}
3177 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3178 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3179 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3180 \DeclareFieldFormat{dating}{#1\isdot}%
3181 \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.

```
3182 \newbibmacro{manuscript:date}{%
3183 \ifboolexpr{
3184 test {\ifnameundef{author}}
3185 and
3186 test {\iffieldundef{title}}
3187 }{\usebibmacro{date}}
3188 \newbibmacro{dating}{%
3189 \ifboolexpr{(
3190 test {\ifnameundef{author}}
3191 and
3192 test {\iffieldundef{title}}
3193 ) or
3194 test {\iffieldundef{year}}}
3195 }{%
3196 \printfield{dating}%
3197 }}
```

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.

```

3198 \newbibmacro{location+library+collection+shelfmark}{%
3199 \printfield{library}%
3200 \setunit{\locationlibrarypunct}%
3201 \printlist{location}%
3202 \setunit{\librarycollectionpunct}%
3203 \usebibmacro{collection+shelfmark}}
3204 \newbibmacro{collection+shelfmark}{%
3205 \ifboolexpr{
3206 test {\iffieldundef{collection}}
3207 and
3208 test {\iffieldundef{shelfmark}}
3209 }{}{%
3210 \printtext[collection+shelfmark]{%
3211 \printfield{collection}%
3212 \setunit*{\collectionshelfmarkpunct}%
3213 \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.

```

3214 \newbibmacro{manuscript:pages}{%
3215 \printfield{pagetotal}%
3216 \setunit{\addspace}%
3217 \iffieldundef{pages}{%
3218 \usebibmacro{manuscript:columns+layer}%
3219 }{%
3220 \usebibmacro{manuscript:columns}%
3221 \setunit{\pagetotalpagespunct}%
3222 \printfield{pages}%
3223 \setunit{\addspace}%
3224 \usebibmacro{manuscript:layer}}}
3225 \newbibmacro{manuscript:columns}{%
3226 \iffieldundef{columns}{}{%
3227 \printtext[columns]{\bibstring{\strfield{columns}column}}}%
3228 }%
3229 \newbibmacro{manuscript:layer}{%
3230 \iffieldundef{layer}{}{%
3231 \printtext[layer]{\bibstring{\strfield{layer}layer}}}%
3232 }%
3233 \newbibmacro{manuscript:columns+layer}{%
3234 \ifboolexpr{
3235 test {\iffieldundef{columns}}
3236 or
3237 test{\iffieldundef{layer}}
3238 }{%
3239 \usebibmacro{manuscript:columns}%
3240 \usebibmacro{manuscript:layer}%
3241 }{%
3242 \printtext[columns+layer]{%
3243 \bibstring{\strfield{columns}column}%
3244 \setunit*{\columnslayerpunct}%
3245 \bibstring{\strfield{layer}layer}}}%

```

Putting it all together, here is the manuscript driver.

```

3246 \DeclareBibliographyDriver{manuscript}{%
3247   \usebibmacro{bibindex}%
3248   \usebibmacro{begentry}%
3249   \usebibmacro{author}%
3250   \setunit{\printdelim{nametitledelim}}\newblock
3251   \usebibmacro{title}%
3252   \newunit\newblock
3253   \usebibmacro{byauthor}%
3254   \newunit\newblock
3255   \printfield{howpublished}%
3256   \newunit\newblock
3257   \printfield{note}%
3258   \newunit\newblock
3259   \usebibmacro{manuscript:date}%
3260   \newunit\newblock
3261   \usebibmacro{location+library+collection+shelfmark}%
3262   \newunit
3263   \printfield{support}%
3264   \newunit
3265   \usebibmacro{dating}%
3266   \setunit{\datingpagespunct}
3267   \usebibmacro{manuscript:pages}%
3268   \newunit\newblock%
3269   \iftoggle{bbx:url}{%
3270     \usebibmacro{url+urldate}%
3271   }{}%
3272   \setunit{\relatedtypepunct}\newblock
3273   \iftoggle{bbx:related}{%
3274     \usebibmacro{related:init}%
3275     \usebibmacro{related}%
3276   }{}%
3277   \usebibmacro{finentry}}

```

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

```

3278 \newbibmacro*{library+location+series+number}{%
3279   \printfield{library}%
3280   \setunit{\locationlibrarypunct}%
3281   \printlist{location}%
3282   \setunit{\librarycollectionpunct}%
3283   \ifboolexpr{
3284     test {\iffieldundef{series}}
3285     and
3286     test {\iffieldundef{number}}
3287   }{}{%
3288     \printtext[collection+shelfmark]{%
3289       \printfield{series}%
3290       \setunit*{\collectionshelfmarkpunct}%
3291       \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’.

```

3292 \newtoggle{blx@ox@ms}
3293 \DeclareBibliographyDriver{unpublished}{%
3294   \usebibmacro{bibindex}%
3295   \usebibmacro{begentry}%
3296   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3297   \usebibmacro{author}%
3298   \setunit{\printdelim{nametitledelim}}\newblock
3299   \usebibmacro{title}%

```



```

3300 \newunit\newblock
3301 \usebibmacro{byauthor}%
3302 \newunit\newblock
3303 \printfield{howpublished}%
3304 \newunit\newblock
3305 \printfield{note}%
3306 \newunit\newblock
3307 \iftoggle{blx@ox@ms}{%
3308   \usebibmacro{manuscript:date}%
3309   \newunit\newblock
3310   \usebibmacro{library+location+series+number}%
3311   \newunit
3312   \printfield{support}%
3313   \newunit
3314   \usebibmacro{dating}%
3315   \setunit{\datingpagespunct}
3316   \usebibmacro{manuscript:pages}
3317 }{%
3318   \usebibmacro{location+date}%
3319 }%
3320 \newunit\newblock
3321 \iftoggle{bbx:url}
3322   {\usebibmacro{url+urldate}}
3323   {}%
3324 \newunit\newblock
3325 \usebibmacro{addendum+pubstate}%
3326 \setunit{\bibpagerefpunct}\newblock
3327 \usebibmacro{pageref}%
3328 \setunit{\relatedtypepunct}\newblock
3329 \iftoggle{bbx:related}
3330   {\usebibmacro{related:init}%
3331     \usebibmacro{related}}
3332   {}%
3333 \usebibmacro{finentry}}

```

2.1.17 RELATED ENTRIES

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

```

3334 \xpatchbibdriver{booklet}{%
3335   \newunit\newblock
3336   \iftoggle{bbx:related}
3337 }{%
3338   \setunit{\relatedtypepunct}\newblock
3339   \iftoggle{bbx:related}
3340 }{}%
3341 \xpatchbibdriver{misc}{%
3342   \newunit\newblock
3343   \iftoggle{bbx:related}
3344 }{%
3345   \setunit{\relatedtypepunct}\newblock
3346   \iftoggle{bbx:related}
3347 }{}%
3348 \xpatchbibdriver{patent}{%
3349   \newunit\newblock
3350   \iftoggle{bbx:related}
3351 }{%
3352   \setunit{\relatedtypepunct}\newblock
3353   \iftoggle{bbx:related}

```

3354 }{}{}

We provide an option for setting the relatedtype punctuation.

```

3355 \DeclareBibliographyOption{relationpunct}[semicolon]{%
3356   \ifcsdef{add#1}{%
3357     \ifstrequal{#1}{space}{%
3358       \renewcommand*{\relatedtypepunct}{\addspace}%
3359     }%
3360     \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3361   }%
3362   \PackageError{biblatex-oxref}{%
3363     Invalid option 'relationpunct=#1'%
3364   }%
3365   Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3366   'period', 'exclam', 'question', and 'space'.}}}
3367 \newtoggle{blx@ox@relpunctset}
3368 \DeclareEntryOption{relationpunct}[semicolon]{%
3369   \ifcsdef{add#1}{%
3370     \ifstrequal{#1}{space}{%
3371       \renewcommand*{\relatedtypepunct}{\addspace}%
3372     }%
3373     \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3374   \toggletrue{blx@ox@relpunctset}
3375 }%
3376   \PackageError{biblatex-oxref}{%
3377     Invalid option 'relationpunct=#1'%
3378   }%
3379   Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3380   'period', 'exclam', 'question', and 'space'.}}}
3381 \newcounter{blx@ox@relitem}
3382 \xapptobibmacro{begrelated}{%
3383   \setcounter{blx@ox@relitem}{0}%
3384   \iftoggle{blx@ox@relpunctset}{%
3385     \iffieldequalstr{relatedtype}{in}{%
3386       \setunit{\addcomma\space}}{%
3387     \iffieldequalstr{relatedtype}{reprintfrom}{%
3388       \setunit{\addperiod\space}}{%
3389     \iffieldequalstr{relatedtype}{translationof}{%
3390       \setunit{\addspace}}{%
3391     \iffieldequalstr{relatedtype}{multivolume}{%
3392       \setunit{\addcomma\space}}{%
3393   }{}{}}

```

Translations

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

```

3394 \newbibmacro*{rellanguage}{%
3395   \def\do##1{%
3396     \entrydata{##1}{%
3397       \printlist{language}}}%
3398   \docsvfield{related}%
3399 }
3400 \DeclareFieldFormat{relatedstring:translationof}{%
3401   \usebibmacro{rellanguage}\space
3402   \bibstring{original}\addcomma\space}
3403
3404 \DeclareFieldFormat{related:translationof}{%
3405   \mkbibbrackets{#1}}

```

Co-publications

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

```

3406 \newbibmacro*{related:copub}[1]{%
3407   \entrydata*{#1}{%
3408     \usebibmacro{publisher+location+date}%
3409     \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.

```

3410 \renewbibmacro*{related:reprintfrom}[1]{%
3411   \entrydata*{#1}{%
3412     \nopunct
3413     \usedriver{%
3414       \ifnameundef{savedauthor}{%
3415         \ifnameundef{savededitor}{%
3416           \ifnameequal{editor}{savededitor}{%
3417             \clearname{editor}%
3418           }{}%
3419         }{}%
3420       \ifnameequal{author}{savedauthor}{%
3421         \clearname{author}%
3422       }{}%
3423     \iffieldundef{savedtitle}{%
3424       \iffieldsequal{savedtitle}{title}{%
3425         \clearfield{title}%
3426       }{}%
3427     \renewbibmacro*{related:init}{%
3428       \DeclareNameAlias{sortname}{default}%
3429       \ifbibmacroundef{date+extradate}{%
3430         \renewbibmacro*{date+extradate}{%
3431           \renewbibmacro*{date}{\printdate}%
3432         \renewbibmacro*{pageref}{%
3433       }{}%
3434     \thefield{entrytype}}}}

```

Articles that span issues

If an article spans several issues of a journal, we print the second reference after the first, omitting any information in common.

```

3435 \newbibmacro*{related:serialarticle}[1]{%
3436   \entrydata*{#1}{%
3437     \iffieldundef{savedjournaltitle}{%
3438       \iffieldsequal{journaltitle}{savedjournaltitle}{%
3439         \clearfield{journaltitle}%
3440       }{}%
3441     \iffieldundef{savedjournalsubtitle}{%
3442       \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
3443         \clearfield{journalsubtitle}%
3444       }{}%
3445     \iffieldundef{savedseries}{%
3446       \iffieldsequal{series}{savedseries}{%
3447         \clearfield{series}%
3448       }{}%

```

```

3449 \iffielddundef{savedyear}{\clearfield{year}}{
3450 \iffielddsequal{year}{savedyear}{%
3451 \clearfield{year}%
3452 }{}}%
3453 \usebibmacro{journal+issuetitle}%
3454 \newunit
3455 \usebibmacro{note+pages}%
3456 \newunit\newblock
3457 \usebibmacro{doi+eprint+url}%
3458 \newunit\newblock
3459 \usebibmacro{addendum+pubstate}}

```

Reviews

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

```

3460 \DeclareFieldFormat[review]{title}{\mkbibquote{#1}\isdot}}
3461 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3462 \DeclareFieldFormat[review]{number}{#1}% number of a journal
3463 \DeclareFieldFormat[review]{series}{% series of a journal
3464 \ifinteger{#1}
3465 {\mkbibordseries{#1}~\bibstring{jourser}}
3466 {\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.

```

3467 \newbibmacro*{related:reviewof}[1]{%
3468 \entrydata*{#1}{%
3469 \usedriver{%
3470 \renewbibmacro*{related:init}{}%
3471 \DeclareNameAlias{author}{given-family}%
3472 \renewbibmacro*{pageref}{}%
3473 }{\thefield{entrytype}}%
3474 }%
3475 }

```

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'.

```

3476 \DeclareBibliographyDriver{review}{%
3477 \usebibmacro{bibindex}%
3478 \usebibmacro{begentry}%
3479 \usebibmacro{author/translator+others}%
3480 \setunit{\printdelim{nametitledelim}}\newblock
3481 \usebibmacro{title}%
3482 \newunit\newblock
3483 \usebibmacro{byauthor}%
3484 \newunit\newblock
3485 \usebibmacro{bytranslator+others}%
3486 \newunit\newblock
3487 \printfield{version}%
3488 \newunit\newblock
3489 \iftoggle{bbx:related}{%
3490 \usebibmacro{related:init}%
3491 \usebibmacro{related}%

```

```

3492     }{}%
3493     \newunit\newblock
3494     \usebibmacro{in:}%
3495     \setunit{\addspace}%
3496     \usebibmacro{journal+issuetitle}%
3497     \newunit
3498     \usebibmacro{byeditor+others}%
3499     \iffielddundef{note}%
3500         {\newunit}%
3501         {\setunit{\addsemicolon\addspace}}%
3502     \usebibmacro{note+pages}%
3503     \newunit\newblock
3504     \iftoggle{bbx:isbn}
3505         {\printfield{issn}}
3506         {}%
3507     \newunit\newblock
3508     \usebibmacro{doi+eprint+url}%
3509     \newunit\newblock
3510     \usebibmacro{addendum+pubstate}%
3511     \setunit{\bibpagerefpunct}\newblock
3512     \usebibmacro{pageref}%
3513     \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.

```

3514     \DeclareFieldFormat{related:multivolume}{#1}
3515     \renewbibmacro*{related:multivolume}[1]{%
3516         \entrydata*{#1}{%
3517             \printtext{%
3518                 \printfield{volume}%
3519                 \printfield{part}}%
3520             \setunit*{\addspace}%
3521             \usebibmacro{series+number+edition+publisher+location+date}}}

```

Related editions

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

```

3522     \newbibmacro*{related:editedas}[1]{%
3523         \entrydata{#1}{%
3524             \renewbibmacro*{name:hook}[1]{%
3525                 \ifnumequal{\value{listcount}}{1}{%
3526                     \begingroup
3527                     \mkrelatedstring%
3528                     \ltx@initnamehook{#1}%
3529                     \endgroup
3530                 }{}%
3531                 \printfield{edition}%
3532                 \setunit{\addspace}%
3533                 \usebibmacro{byeditor+others}%
3534                 \setunit*{\addcomma\space\bibstring[\mkrelatedstring]{astitle}\space}%
3535                 \usebibmacro{maintitle+title}%
3536                 \setunit{\addspace}%
3537                 \printfield{note}%
3538                 \newunit\newblock

```

```

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

```

Joint releases

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

```

3560 \newbibmacro*{related:includes}[1]{%
3561     \stepcounter{blx@ox@relitem}%
3562     \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3563     {\bibstring{and}\addspace}{}%
3564     \entrydata{#1}{%
3565         \ifbibmacroundef{date+extradate}{}{%
3566             \renewbibmacro*{date+extradate}{}%
3567             \usebibmacro{author}%
3568             \setunit{\printdelim{nametitledelim}}\newblock
3569             \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.

```

3570 \DeclareFieldFormat[misc]{title}{%
3571     \def\currentfield{title}%
3572     \iffielddannotation{descriptor}{#1}{%
3573         \iffieldequalstr{relatedtype}{in}{%
3574             \mkbibquote{#1\isdot}%
3575         }{%
3576             \mkbibemph{#1}%
3577         }}%
3578     \undef\currentfield}
3579 \newbibmacro*{related:in}[1]{%
3580     \entrydata*{#1}{%
3581         \usedriver
3582         {\ifnameundef{savedauthor}
3583          {\ifnameundef{savededitor}
3584           {}
3585           {\ifnameequal{editor}{savededitor}

```

```

3586         {\clearname{editor}}
3587     {}
3588     {\ifnamesequal{author}{savedauthor}
3589      {\clearname{author}}
3590      {}}%
3591     \renewbibmacro*{related:init}{}%
3592     \DeclareNameAlias{sortname}{default}%
3593     \ifbibmacroundef{date+extradate}
3594     {}
3595     {\renewbibmacro*{date+extradate}{}%
3596      \renewbibmacro*{date}{\printdate}}%
3597     \renewbibmacro*{pageref}{}
3598     {\thefield{entrytype}}%
3599     \ifboolexpr{
3600       test {\iffieldundef{pages}}
3601       or
3602       test {\iffieldundef{savedpages}}
3603     }{%
3604       \newunit\newblock
3605     }%
3606     \setunit{\addspace}%
3607     \bibstring{thiscite}%
3608     \printunit{\addspace}%
3609   }%
3610 }%
3611 \usebibmacro{chapter+pages}%
3612 }

```

2.1.18 SOURCE MAPS

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

```

3613 \DeclareStyleSourceMap{%
3614   \maps[datatype=bibtex]{%

```

Sort order

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

```

3615   \map{
3616     \pertype{proceedings}
3617     \pertype{mvproceedings}
3618     \step[notfield=author,
3619           fieldsource=organization,
3620           fieldtarget=author]
3621   }

```

Descriptors

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

```

3622   \map[overwrite=false]{
3623     \step[fieldsource=descriptor, final]
3624     \step[notfield=title,
3625           fieldset=title+an,
3626           fieldvalue={-descriptor}]

```

```

3627     \step[notfield=title,
3628           fieldsource=descriptor,
3629           fieldtarget=title]
3630     \step[fieldsource=descriptor,
3631           fieldtarget=note]
3632   }

```

Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

3633     \map[overwrite=false]{
3634       \step[fieldsource=realauthor, final]
3635       \step[notfield=author,
3636             fieldset=author+an,
3637             fieldvalue={inferred}]
3638       \step[notfield=author,
3639             fieldsource=realauthor,
3640             fieldtarget=author]
3641       \step[fieldsource=realauthor,
3642             fieldtarget=authoraddon]
3643     }
3644     \map[overwrite=false]{
3645       \step[fieldsource=reaeditor, final]
3646       \step[notfield=editor,
3647             fieldset=editor+an,
3648             fieldvalue={inferred}]
3649       \step[notfield=editor,
3650             fieldsource=reaeditor,
3651             fieldtarget=editor]
3652       \step[fieldsource=reaeditor,
3653             fieldtarget=editoraddon]
3654     }

```

Editors as joint authors

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

```

3655     \map[overwrite=false]{
3656       \step[fieldsource=editor+an,
3657             match=\regexp{jointauthor},
3658             final]
3659       \step[fieldsource=editor,
3660             fieldtarget=jointauthor]
3661       \step[fieldsource=editortype,
3662             fieldtarget=jointauthortype]
3663     }
3664     \map[overwrite=false]{
3665       \step[fieldsource=translator+an,
3666             match=\regexp{jointauthor},
3667             final]
3668       \step[fieldsource=translator,
3669             fieldtarget=jointauthor]
3670       \step[fieldset=jointauthortype,
3671             fieldvalue={translator}]
3672     }

```


Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```

3673 \map[overwrite=false]{
3674   \pertype{audio}
3675   \pertype{music}
3676   \pertype{movie}
3677   \pertype{video}
3678   \pertype{inaudio}
3679   \pertype{inmusic}
3680   \pertype{inmovie}
3681   \pertype{invideo}
3682   \step[fieldset=origdatetype,fieldvalue={recorded}]
3683 }

```

Legal references

These help ensure compatibility with oscola.

```

3684 \map[overwrite=false]{
3685   \pertype{jurisdiction}
3686   \step[fieldsource=reporter,
3687         fieldtarget=journaltitle]
3688   \step[fieldsource=parvolume,
3689         fieldtarget=userb]
3690   \step[fieldsource=parreporter,
3691         fieldtarget=userc]
3692   \step[fieldsource=parseries,
3693         fieldtarget=userd]
3694   \step[fieldsource=parpages,
3695         fieldtarget=usere]
3696   \step[fieldsource=court,
3697         fieldtarget=institution]
3698   \step[fieldsource=additionalreports,
3699         fieldtarget=listb]
3700   \step[fieldsource=ecli,
3701         fieldtarget=verba]
3702 }%
3703 \map[overwrite=false]{
3704   \pertype{legal}
3705   \step[fieldsource=reporter,
3706         fieldtarget=journaltitle]
3707 }
3708 \map[overwrite=true]{
3709   \pertype{legal}
3710   \step[fieldsource=parties,
3711         fieldtarget=institution]
3712   \step[fieldsource=execution,
3713         fieldtarget=lista]
3714 }

```

This is how oscola removes dots from entries.

```

3715 \map[overwrite=true]{
3716   \pertype{jurisdiction}
3717   \pertype{legislation}
3718   \pertype{legal}
3719   \step[fieldsource=title,
3720         match=\regexp{(\d)\.(\d)},
3721         replace=\regexp{$1.$2}]

```

```

3722 \step[fieldsource=title,
3723       match=\regexp{(\D)\.(\d)},
3724       replace=\regexp{$1 $2}]
3725 \step[fieldsource=title,
3726       match=\regexp{\.(\D)},
3727       replace=\regexp{$1}]
3728 \step [fieldsource=title,
3729       match=\regexp{(\D)\.},
3730       replace=\regexp{$1}]
3731 \step[fieldsource=shorttitle,
3732       match=\regexp{(\d)\.(\d)},
3733       replace=\regexp{$1.$2}]
3734 \step[fieldsource=shorttitle,
3735       match=\regexp{(\D)\.(\d)},
3736       replace=\regexp{$1 $2}]
3737 \step[fieldsource=shorttitle,
3738       match=\regexp{\.(\D)},
3739       replace=\regexp{$1}]
3740 \step [fieldsource=shorttitle,
3741       match=\regexp{(\D)\.},
3742       replace=\regexp{$1}]
3743 \step[fieldsource=userc,
3744       match=\regexp{(\d)\.(\d)},
3745       replace=\regexp{$1.$2}]
3746 \step[fieldsource=userc,
3747       match=\regexp{(\D)\.(\d)},
3748       replace=\regexp{$1 $2}]
3749 \step[fieldsource=userc,
3750       match=\regexp{\.(\D)},
3751       replace=\regexp{$1}]
3752 \step [fieldsource=userc,
3753       match=\regexp{(\D)\.},
3754       replace=\regexp{$1}]
3755 \step[fieldsource=journaltitle,
3756       match=\regexp{(\d)\.(\d)},
3757       replace=\regexp{$1.$2}]
3758 \step[fieldsource=journaltitle,
3759       match=\regexp{(\D)\.(\d)},
3760       replace=\regexp{$1 $2}]
3761 \step[fieldsource=journaltitle,
3762       match=\regexp{\.(\D)},
3763       replace=\regexp{$1}]
3764 \step [fieldsource=journaltitle,
3765       match=\regexp{(\D)\.},
3766       replace=\regexp{$1}]
3767 \step[fieldsource=institution,
3768       match=\regexp{(\d)\.(\d)},
3769       replace=\regexp{$1.$2}]
3770 \step[fieldsource=institution,
3771       match=\regexp{(\D)\.(\d)},
3772       replace=\regexp{$1 $2}]
3773 \step[fieldsource=institution,
3774       match=\regexp{\.(\D)},
3775       replace=\regexp{$1}]
3776 \step[fieldsource=institution,
3777       match=\regexp{(\D)\.},
3778       replace=\regexp{$1}]
3779 \step[fieldsource=publisher,
3780       match=\regexp{(\d)\.(\d)},
3781       replace=\regexp{$1.$2}]
3782 \step[fieldsource=publisher,
3783       match=\regexp{(\D)\.(\d)},

```

```

3784         replace=\regexp{$1 $2}]
3785 \step[fieldsource=publisher,
3786       match=\regexp{\.(\D)},
3787       replace=\regexp{$1}]
3788 \step [fieldsource=publisher,
3789       match=\regexp{(\D)\.},
3790       replace=\regexp{$1}]
3791 \step[fieldsource=location,
3792       match=\regexp{(\d)\.(\d)},
3793       replace=\regexp{$1.$2}]
3794 \step[fieldsource=location,
3795       match=\regexp{(\D)\.(\d)},
3796       replace=\regexp{$1 $2}]
3797 \step[fieldsource=location,
3798       match=\regexp{\.(\D)},
3799       replace=\regexp{$1}]
3800 \step [fieldsource=location,
3801       match=\regexp{(\D)\.},
3802       replace=\regexp{$1}]
3803 \step[fieldsource=series,
3804       match=\regexp{(\d)\.(\d)},
3805       replace=\regexp{$1.$2}]
3806 \step[fieldsource=series,
3807       match=\regexp{(\D)\.(\d)},
3808       replace=\regexp{$1 $2}]
3809 \step[fieldsource=series,
3810       match=\regexp{\.(\D)},
3811       replace=\regexp{$1}]
3812 \step [fieldsource=series,
3813       match=\regexp{(\D)\.},
3814       replace=\regexp{$1}]
3815 \step[fieldsource=indextitle,
3816       match=\regexp{(\d)\.(\d)},
3817       replace=\regexp{$1.$2}]
3818 \step[fieldsource=indextitle,
3819       match=\regexp{(\D)\.(\d)},
3820       replace=\regexp{$1 $2}]
3821 \step[fieldsource=indextitle,
3822       match=\regexp{\.(\D)},
3823       replace=\regexp{$1}]
3824 \step [fieldsource=indextitle,
3825       match=\regexp{(\D)\.},
3826       replace=\regexp{$1}]
3827 }
3828 }%
3829 }

```

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).

```

3830 \DeclareSortingTemplate{nty}{
3831   \sort{
3832     \field{presort}
3833   }
3834   \sort[final]{
3835     \field{sortkey}
3836   }
3837   \sort{

```

```

3838     \field{sortname}
3839     \field{author}
3840     \field{editor}
3841     \field{translator}
3842     \field{sorttitle}
3843     \field{title}
3844     \field{library}
3845 }
3846 \sort{
3847     \field{sorttitle}
3848     \field{title}
3849 }
3850 \sort{
3851     \field{sortyear}
3852     \field{year}
3853 }
3854 \sort{
3855     \field{volume}
3856     \literal{0}
3857 }
3858 \sort{
3859     \field{location}
3860 }
3861 \sort{
3862     \field{collection}
3863     \field{series}
3864 }
3865 }
3866
3867 \DeclareSortingTemplate{nyt}{
3868     \sort{
3869         \field{presort}
3870     }
3871     \sort[final]{
3872         \field{sortkey}
3873     }
3874     \sort{
3875         \field{sortname}
3876         \field{author}
3877         \field{editor}
3878         \field{translator}
3879         \field{sorttitle}
3880         \field{title}
3881         \field{library}
3882     }
3883     \sort{
3884         \field{sortyear}
3885         \field{year}
3886     }
3887     \sort{
3888         \field{sorttitle}
3889         \field{title}
3890     }
3891     \sort{
3892         \field{volume}
3893         \literal{0}
3894     }
3895     \sort{
3896         \field{location}
3897     }
3898     \sort{
3899         \field{collection}

```

```

3900     \field{series}
3901   }
3902 }
3903
3904 \DeclareSortingTemplate{anyt}{
3905   \sort{
3906     \field{presort}
3907   }
3908   \sort{
3909     \field{labelalpha}
3910   }
3911   \sort[final]{
3912     \field{sortkey}
3913   }
3914   \sort{
3915     \field{sortname}
3916     \field{author}
3917     \field{editor}
3918     \field{translator}
3919     \field{sorttitle}
3920     \field{title}
3921     \field{library}
3922   }
3923   \sort{
3924     \field{sortyear}
3925     \field{year}
3926   }
3927   \sort{
3928     \field{sorttitle}
3929     \field{title}
3930   }
3931   \sort{
3932     \field{volume}
3933     \literal{0}
3934   }
3935   \sort{
3936     \field{location}
3937   }
3938   \sort{
3939     \field{collection}
3940     \field{series}
3941   }
3942 }

```

The following entry types never put editors first.

```

3943 \ExecuteBibliographyOptions
3944   [proceedings,report,audio,music,movie,video,manuscript,unpublished,review]%
3945   {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   \iffielddundef{postnote}{}{}%
36   \iffielddundef{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   {\list
47     {\printtext[labelnumberwidth]{%
48       \printfield{labelprefix}%
49       \printfield{labelnumber}}}
50     {\setlength{\labelwidth}{\labelnumberwidth}%
51      \setlength{\leftmargin}{\labelwidth}%
52      \setlength{\labelsep}{\biblabelsep}%
53      \addtolength{\leftmargin}{\labelsep}%
54      \setlength{\itemsep}{\bibitemsep}%
55      \setlength{\parsep}{\bibparsep}}%
56     \renewcommand*{\makelabel}[1]{\hss#1}}
57   {\endlist}
58   {\item}
59
60 \defbibenvironment{shorthand}
61   {\list
62     {\printfield[shorthandwidth]{shorthand}}}
```

```

63     {\setlength{\labelwidth}{\shorthandwidth}%
64      \setlength{\leftmargin}{\labelwidth}%
65      \setlength{\labelsep}{\biblabelsep}%
66      \addtolength{\leftmargin}{\labelsep}%
67      \setlength{\itemsep}{\bibitemsep}%
68      \setlength{\parsep}{\bibparsep}%
69      \renewcommand*{\makelabel}[1]{\hss##1}}
70 {\endlist}
71 {\item}
72
73 \DeclareBibliographyDriver{set}{%
74   \entryset
75   {\ifbool{bbx:subentry}
76    {\printfield[bibentrysetcount]{entrysetcount}%
77     \printunit*{\addnbspace}}
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   \iffieldundef{\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 {\iffieldundef{labeldatesource}}
50     and not test {\iffieldundef{\thefield{labeldatesource}year}}}%
51 \def\iflabeldateispubstate{%
52   \ifboolexpr{%
53     not test {\iffieldundef{labeldatesource}}
54     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).

```

55 \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.

```

56 \def\bbx@opt@mergedate@maximum{%
57   \renewbibmacro*{date+extradate}{%
58     \iffieldundef{labelyear}{%
59       \printtext[datelabel]{%
60         \iflabeldateisdate{%
61           \printfield{issue}\clearfield{issue}%
62           \setunit*{\addspace}%
63           \printdateextra

```

```

64      \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
65  }{%
66      \iflabeldateisanydate{%
67          \csuse{print\thefield{labeldatesource}dateextra}%
68          \clearfield{\thefield{labeldatesource}year}%
69          \clearfield{\thefield{labeldatesource}season}%
70          \clearfield{\thefield{labeldatesource}month}%
71          \clearfield{\thefield{labeldatesource}day}%
72      }{%
73          \printlabeldateextra
74          \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
75      }}}}

```

- 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.

```

76 \def\bbx@opt@mergedate@compact{%
77 \renewbibmacro*{date+extradate}{%
78 \iffielddundef{labelyear}}{%
79 \printtext[date\label]{%
80 \iflabeldateisanydate{%
81 \csuse{print\thefield{labeldatesource}dateextra}%
82 \clearfield{\thefield{labeldatesource}year}%
83 \clearfield{\thefield{labeldatesource}season}%
84 \clearfield{\thefield{labeldatesource}month}%
85 \clearfield{\thefield{labeldatesource}day}%
86 }{%
87 \printlabeldateextra
88 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
89 }}}}

```

- 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.

```

90 \def\bbx@opt@mergedate@year{%
91 \renewbibmacro*{date+extradate}{%
92 \iffielddundef{labelyear}}{%
93 \printtext[date\label]{\printlabeldateextra}%
94 \iflabeldateisanydate{%
95 \clearfield{\thefield{labeldatesource}year}%
96 }{%
97 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
98 }}}}

```

- 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.

```

99 \def\bbx@opt@mergedate@basic{%
100 \renewbibmacro*{date+extradate}{%
101 \iffielddundef{labelyear}}{%
102 \printtext[date\label]{\printlabeldateextra}%
103 \iflabeldateisanydate{%
104 \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{%
105 \ifboolexpr{
106 test {\iffieldequalstr{labeldatesource}}{

```

```

107         and
108         not test {\iffieldundef{issue}}
109       }{}%
110       \clearfield{\thefield{labeldatesource}year}}}%
111     }{}%
112     \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
113   }}}}

```

- 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 extradata, *and* (if this is the regular date) no issue.

```

114 \def\bbx@opt@mergedate@minimum{%
115   \renewbibmacro*{date+extradata}{%
116     \iffieldundef{labelyear}}{}%
117     \printtext[datelabel]{\printlabeldateextra}%
118     \iflabeldateisanydate{%
119       \ifboolexpr{
120         test {\ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}}
121         or
122         not test {\iffieldundef{extradata}}
123       }{}%
124       \ifboolexpr{
125         test {\iffieldequalstr{labeldatesource}{}}
126         and
127         not test {\iffieldundef{issue}}
128       }{}%
129       \clearfield{\thefield{labeldatesource}year}}}%
130   }{}%
131   \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
132 }}}}

```

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

```

133 \def\bbx@opt@mergedate@false{%
134   \renewbibmacro*{date+extradata}{%
135     \iffieldundef{labelyear}}{}%
136     \printtext[datelabel]{\printlabeldateextra}%
137     \iflabeldateisanydate{}{}%
138     \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}%
139   }}}}

```

We set the default to be true/year.

```

140 \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`.

```

141 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
142   \iffieldundef{#2month}}{}%
143   \datecircaprint
144   \printtext[#2date]{%
145   \iffieldundef{#2season}}{}%

```

```

146 \csuse{mkbibdate#1}{#2month}{#2day}%
147 \blx@printtime{#2}%
148 }%
149 \csuse{mkbibseasondate#1}{#2season}%
150 \dateuncertainprint
151 \iffieldundef{#2endmonth}{%
152 \iffieldequalstr{#2endmonth}{%
153 \mbox{\bibdaterangesep}%
154 }%
155 \bibdaterangesep
156 \enddatecircaprint
157 \iffieldundef{#2season}{%
158 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
159 \blx@printtime{#2}{end}%
160 }%
161 \csuse{mkbibseasondate#1}{#2endseason}%
162 \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.

```

163 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
164 \iffieldundef{#2month}{%
165 \datecircaprint
166 \printtext[#2date]{%
167 \iffieldundef{#2season}{%
168 \ifboolexpr{
169 test {\iffieldsequal{labelyear}{labelendyear}}
170 and
171 test {\iffieldsequal{#2month}{#2endmonth}}
172 }%
173 \csuse{mkbibdate#1}{#2day}%
174 }%
175 \csuse{mkbibdate#1}{#2month}{#2day}%
176 }%
177 \csuse{mkbibseasondate#1}{#2season}%
178 \dateuncertainprint
179 \iffieldundef{#2endmonth}{%
180 \iffieldequalstr{#2endmonth}{%
181 \mbox{\bibdaterangesep}%
182 }%
183 \bibdaterangesep
184 \enddatecircaprint
185 \iffieldundef{#2season}{%
186 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
187 }%
188 \csuse{mkbibseasondate#1}{#2endseason}%
189 \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.

```

190 \xpatchcmd{\mkdaterangefull}{%
191 \iffieldundef{#2year}{%
192 }%
193 \iffieldundef{#2year}{\mknoyeardaterangefull{#1}{#2}}%
194 }{}

```

```

195 \xpatchcmd{\mkdaterangetrunc}{%
196 \iffieldundef{#2year} {}%
197 }{%
198 \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
199 }{}
200 \xpatchcmd{\mkdaterangefullextra}{%
201 \iffieldundef{#2year} {}%
202 }{%
203 \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
204 }{}
205 \xpatchcmd{\mkdaterangetruncextra}{%
206 \iffieldundef{#2year} {}%
207 }{%
208 \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
209 }{}

```

2.4.3 BIBLIOGRAPHY FORMATTING

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

```

210 \DeclareFieldFormat{shorthandwidth}{#1}

```

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

```

211 \xpretonameformat{family-given}{%
212 \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}{}%
213 \ifitemannotation{inferred}{\bibopenbracket}{}%
214 }{}
215 \xpatchnameformat{family-given}{%
216 \usebibmacro{name:andothers}%
217 }{%
218 \ifitemannotation{pseudo}{%
219 \addspace\printtext[parens]{\bibsstring{pseudo}}%
220 }{}%
221 \ifitemannotation{inferred}{\bibclosebracket}{}%
222 \usebibmacro{name:andothers}%
223 \iffieldannotation{inferred}{%
224 \ifboolexpr{
225 test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
226 or
227 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
228 or (
229 test {\ifnumequal{\value{listcount}}{\value{minnames}}}
230 and
231 test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
232 }{\bibclosebracket}{}%
233 }{}%
234 }{}
235 \DeclareNameAlias{shortauthor}{family-given}
236 \DeclareNameAlias{shorteditor}{family-given}

```

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

```

237 \DeclareNameAlias{sortname}{family-given}
238 \DeclareNameAlias{author}{family-given}
239 \DeclareNameAlias{editor}{family-given}
240 \DeclareNameAlias{translator}{family-given}

```

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

```

241 \defbibenvironment{bibliography}
242   {\list
243     {}
244     {\setlength{\leftmargin}{\bibhang}%
245       \setlength{\itemindent}{-\leftmargin}%
246       \setlength{\itemsep}{\bibitemsep}%
247       \setlength{\parsep}{\bibparsep}}
248   {\endlist}
249   {\item}

```

The shorthand formatting is just like authoryear.

```

250 \defbibenvironment{shorthand}
251   {\list
252     {\printfield[shorthandwidth]{shorthand}}
253     {\setlength{\labelwidth}{\shorthandwidth}%
254       \setlength{\leftmargin}{\labelwidth}%
255       \setlength{\labelsep}{\biblabelsep}%
256       \addtolength{\leftmargin}{\labelsep}%
257       \setlength{\itemsep}{\bibitemsep}%
258       \setlength{\parsep}{\bibparsep}%
259       \renewcommand*{\makelabel}[1]{##1\hss}}
260   {\endlist}
261   {\item}

```

2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in authoryear.

```

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

```

We ensure related entries do not interfere with the hashing.

```

263 \xapptobibmacro{begrelated}{%
264   \booltrue{bbx@inset}}{}{}
265 \xapptobibmacro{endrelated}{%
266   \usebibmacro*{bbx:savehash}}{}{}

```

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

```

267 \xpatchbibmacro{author}{%
268   \iffieldundef{authortype}%
269 }{%
270   \usebibmacro{date+extradate}%
271   \setunit*{\addspace}%
272   \iffieldundef{authortype}%
273 }{}{}%
274 \xpatchbibmacro{author}{%
275   \global\undef\bbx@lasthash
276 }{%
277   \global\undef\bbx@lasthash
278   \usebibmacro{label+title}%
279   \setunit*{\addspace}%
280   \usebibmacro{date+extradate}%
281 }{}{}%

```

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.

```

282 \xpatchbibmacro{namepairs}{%
283   \printnames[by#1]%
284 }{%
285   \printnames[#1]%
286 }{}%
287 \xpatchbibmacro{author+altauthor}{%
288   \printnames{author}%
289 }{%
290   \ifbool{expr}{%
291     ( not test {\ifnameundef{shortauthor}} )
292     and
293     test {\ifnumequal{\value{shortauthor}}{\value{author}}}
294   }{%
295     \usebibmacro{namepairs}{author}{shortauthor}%
296   }{%
297     \printnames{author}%
298   }%
299 }{}%

```

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

```

300 \xpatchbibmacro{bbx:editor}{%
301   \usebibmacro{#1}%
302 }{%
303   \usebibmacro{date+extradate}%
304   \setunit*{\addspace}%
305   \usebibmacro{#1}%
306 }{}%
307 \xpatchbibmacro{bbx:editor}{%
308   \global\undef\bbx@lasthash
309 }{%
310   \global\undef\bbx@lasthash
311   \usebibmacro{labeltitle}%
312   \setunit*{\addspace}%
313   \usebibmacro{date+extradate}%
314 }{}%
315 \xpatchbibmacro{editor+alteditor}{%
316   \printnames[byeditor]%
317 }{%
318   \printnames{editor}%
319 }{}%
320 \xpatchbibmacro{editor+alteditor}{%
321   \printnames{editor}%
322 }{%
323   \ifbool{expr}{%
324     ( not test {\ifnameundef{shorteditor}} )
325     and
326     test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
327   }{%
328     \usebibmacro{namepairs}{editor}{shorteditor}%
329   }{%
330     \printnames{editor}%
331   }%
332 }{}%

```

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

```

333 \xpatchbibmacro{bbx:translator}{%
334 \global\undef\bbx@lasthash
335 }{%
336 \global\undef\bbx@lasthash
337 \usebibmacro{labeltitle}%
338 \setunit*\addspace}%
339 \usebibmacro{date+extradate}%
340 }{}{}%
341 \xpatchbibmacro{bbx:translator}{%
342 \usebibmacro{#1}%
343 }{%
344 \usebibmacro{date+extradate}%
345 \setunit*\addspace}%
346 \usebibmacro{#1}%
347 }{}{}%

```

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.

```

348 \newtoggle{blx@ox@clearedtitle}
349 \newbibmacro*{labeltitle}{%
350 \iffieldundef{label}{%
351 \iffieldundef{shorttitle}{%
352 \ifboolexpr{
353 test {\iffieldundef{title}}
354 and
355 test {\iffieldundef{subtitle}}
356 }{%
357 \printfield{library}%
358 \clearfield{library}%
359 }{%
360 \printtext[title]{%
361 \printfield[titlecase]{title}%
362 \setunit{\subtitlepunct}%
363 \printfield[titlecase]{subtitle}}%
364 \clearfield{title}%
365 \clearfield{subtitle}%
366 \toggletrue{blx@ox@clearedtitle}%
367 \setunit{\addspace}%
368 }%
369 }{%
370 \printtext[title]{\printfield[titlecase]{shorttitle}}%
371 }%
372 }{%
373 \printfield{label}%
374 }%
375 }

```

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

```

376 \xpretobibmacro{maintitle+title}{%
377 \iftoggle{blx@ox@clearedtitle}{%
378 \usebibmacro{maintitle+volume}%
379 \clearfield{maintitle}%
380 \clearfield{volume}%
381 }{}%
382 }{}{}
383 \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.

```

384 \xpatchbibdriver{online}{%
385   \iffieldundef{year}%
386 }{%
387   \ifboolexpr{
388     test {\iffieldundef{season}}
389     and
390     test {\iffieldundef{month}}
391   }%
392 }{}

```

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

```

393 \DeclareFieldFormat[online,image]{citetitle}{\mkbibquote{#1\isdot}}
394 \DeclareFieldFormat[legislation,legal]{citetitle}{#1}
395 \DeclareFieldFormat[manuscript,unpublished]{citetitle}{%
396   \def\currentfield{title}%
397   \ifboolexpr{
398     test {\iffieldannotation{descriptor}}
399     or (
400       test {\iffieldundef{shorttitle}}
401       and
402       test {\iffieldundef{title}}
403     )
404   }{#1}{\mkbibquote{#1\isdot}}%
405   \undef\currentfield}

```

2.4.5 JOURNAL DIVISION FORMATTING

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

```

406 \renewcommand*{\bibpagespunct}{%
407   \ifboolexpr{
408     test {\ifentrytype{article}}
409     or
410     test {\ifentrytype{supperperiodical}}
411     or
412     test {\ifentrytype{review}}
413   }{%
414     \addcolon\space
415   }{%
416     \addcomma\space
417   }%
418 }

```

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.

```

419 \DeclareFieldFormat[manuscript]{dateLabel}{\mkbibbrackets{#1}}
420 \DeclareFieldFormat[unpublished]{dateLabel}{%
421   \iftoggle{blx@ox@ms}{\mkbibbrackets{#1}}{\mkbibparens{#1}}
422   \renewbibmacro*{manuscript:date}{\usebibmacro{date}}

```

We include the library field as a fallback title.

```

423 \DeclareLabeltitle{%
424   \field{shorttitle}
425   \field{title}
426   \field{maintitle}
427   \field{library}
428 }

```

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   {\list
74     {\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   \iffieldundef{\thefield{labeldatesource}year}%
49   {\addcomma\space}%
50   {\addspace}}
51 \DeclareDelimFormat{nonameyeardelim}{%
52   \iffieldundef{\thefield{labeldatesource}year}%
53   {\addcomma\space}%
54   {\addspace}}

```

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

```

55 \renewcommand*{\compcitedelim}{\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*{\compcitedelim}{\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*{\compcitedelim}{\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 bytranslatorsaf = {{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}
```