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

1.1 Quick start

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

\usepackage[style=oxnotes]{biblatex}
\usepackage[style=oxnum]{biblatex}
\usepackage[style=oxalph]{biblatex}
\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
  - american-oxref.lbx, british-oxref.lbx, english-oxref.lbx
  - oxref.bib
  - oxref.ins
  - oxnotes-doc.tex, oxyear-doc.tex, oxnum-doc.tex, oxalph-doc.tex


- Running `make inst` installs the files in the user’s TeX tree. You can undo this with `make uninst`.

- Running `make install` installs the files in the local TeX tree. You can undo this with `make uninstall`.

- Running `make clean` removes auxiliary files from the working directory.

- Running `make distclean` removes the generated files from the working directory as well.

### 1.2.4 Manual way

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

1. Run `luatex oxref.dtx` to generate the source files. (You can safely skip this step if you are confident about step 2.)

2. Compile `oxref.dtx`, `oxnotes-doc.tex`, `oxyear-doc.tex`, and `oxnum-doc.tex` with LuaLaTeX and Biber to generate the documentation. You will need to enable shell escape so that `minted` can typeset the listings.

3. Move the files to your TeX tree as follows:
   - `source/latex/biblatex-oxref`: `oxref.dtx`, `(oxref.ins)`
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 2016–2020 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.
2 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

\RequirePackage{etoolbox}
\RequirePackage{xpatch}
\RequirePackage{xstring}
\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.

\DeclareLanguageMappingSuffix{-oxref}

We provide some additional bibliography strings:

- roles expressed as functions;

\NewBibliographyString{%
director, performer, reader, conductor, serieseditor, holder, editorcm,
directors, performers, readers, conductors, serieseditors, holders, editorcms,
%
- roles expressed as actions;

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

- publication details;

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

- publication state;
Inpressin,

- pagination;

book, books, canto, cantos, stanza, stanzas, act, acts, scene, scenes, folio, folios,
article, articles, clause, clauses, regulation, regulations, rule, rules,
booktotal, booktotals, cantototal, cantototals, stanzatotal, stanzatotals,
acttotal, acttotals, scenetotal, scenetotals, foliotal, foliototals,
articletotal, articletotals, clausetotal, clausetotals, regulationtotal,
regulationtotals, ruletotal, rulertotals,

- types;

facebook, tweet, podcast, clip, webcast, poster,

- miscellaneous;

nolocation, modified, recorded, uploaded, filed, issued,

- labels;

anon, pseudo, urldown,

- country names, patents, and patent requests;

countryjp, patentjp, patreqjp,

- borrowed from other styles.

1column, 2column, suplayer, paper, papyrus, pergament,
eucase, eujointedcases, commissiondecision, application,
order, bill, draft, opened, signed, adopted, inforce,

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.

\RequireBibliographyStyle{standard}
\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.

\renewcommand*{\labelnamepunct}{\addcomma\space}
\renewcommand*{\newunitpunct}{\addcomma\space}
\renewcommand*{\subtitlepunct}{\addcolon\space}
\renewcommand*{\intitlepunct}{\nopunct\space}
\renewcommand*{\bibernamedash}{\resizebox{2em}{\height}{\textemdash}\addthinspace}
\newcommand*{\recordseriespunct}{\addcomma\space}
\newcommand*{\relatedtypepunct}{\addsemicolon\space}
\renewcommand*{\relateddelim}{\addsemicolon\space}
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.

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.

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.

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

Here is the one for inverted name order.
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.

```latex
\def\blx@ox@lasthash{}
\DeclareNameFormat{bib-family-given/cite-given-family}{}
```

We use the following name format to write author names in Oxford style, where surname is written first in the bibliography, but in natural order in citations.
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.
We do likewise for the regular family-given format.

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

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).

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 \texttt{namepairs} \LaTeX{} macro takes two arguments: the data fields holding the main name and alternative name respectively.

\begin{verbatim}
\newcounter{namepairs}
\newsavebox{\blx@ox@namebox}
\newsavebox{\blx@ox@altnamebox}
\newbibmacro{namepairs}[2]{
  \setcounter{namepairs}{0}
  \savebibmacro{name:andothers}
  \renewbibmacro{name:andothers}{}
  \whileboolexpr{
    \ifnumless{\value{namepairs}}{\value{#1}}
    \and
    \ifnumless{\value{#1}}{\c@maxnames}
    \or
    \ifnumequal{\c@maxnames}{0}
    \or
    \ifnumless{\value{#1}}{\c@maxnames}
    \or
    \ifnumequal{\value{#1}}{\c@maxnames}
    \or
    \ifdefvoid{\c@minnames}
    \or
    \ifnumequal{\c@minnames}{0}
    \or
    \ifnumless{\value{namepairs}}{\c@minnames}
  }{
    \stepcounter{namepairs}
    \ifnumgreater{\value{namepairs}}{1}{
      \ifnumequal{\value{#1}}{2}{
        \setunit*{\addspace\bibstring{and}\addspace}
      }{
        \ifnumequal{\value{namepairs}}{\value{#1}}{
          \setunit*{\addcomma\space\bibstring{and}\addspace}
        }{
          \setunit*{\addcomma\space}
        }
      }
    }{
      \setunit*{\addcomma\space}
    }
  }{
    \savebox{\blx@ox@namebox}{
      \printnames[#1]\[\value{namepairs}-\value{namepairs}\]{#1}
    }
    \let\blx@ox@firsthash=\blx@ox@lasthash
    \IfEndWith{#2}{addon}{
      \savebox{\blx@ox@altnamebox}{
        \printnames[by#1]\[\value{namepairs}-\value{namepairs}\]{#2}
      }
      \let\blx@ox@secondhash=\blx@ox@lasthash
    }
    \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{
      \unhbox\blx@ox@namebox
    }{
      \unhbox\blx@ox@namebox\addspace
    }
  }
  \%}
}\end{verbatim}

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

Now we return to common code.

We use this now for authors. We provide additional handling to support printing editors or translators promoted to joint authorship status.
This is the (simpler) implementation for editors.

Traditional Oxford style is to use dashes instead of repeating author names, but NHR recom-
mends 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.
The following is used in the \texttt{authortitle} and \texttt{authoryear} styles to switch off the dash check macro for reference sets.

\begin{verbatim}
\newbool{bbx@inset}
\DeclareBibliographyDriver{set}{%
  \booltrue{bbx@inset}
  \entryset{}{}
  \newunit
  \usebibmacro{setpageref}
  \finentry}
\end{verbatim}

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

\begin{verbatim}
\newtoggle{blx@ox@autoanon}
\newtoggle{blx@ox@abbranon}
\DeclareBibliographyOption[\texttt{string}]{anon}{\texttt{short}}{%
  \ifcsdef{blx@ox@opt@anon@#1}{%
    \csuse{blx@ox@opt@anon@#1}
  }{%
    \PackageError{biblatex-oxref}{Invalid option ‘anon=#1’}{Valid values are ‘long’, ‘short’, and ‘literal’}.)\}
  \csdef{blx@ox@opt@anon@literal}{\togglefalse{blx@ox@autoanon}}
  \csdef{blx@ox@opt@anon@long}{\toggletrue{blx@ox@autoanon}\togglefalse{blx@ox@abbranon}}
  \csdef{blx@ox@opt@anon@short}{\toggletrue{blx@ox@autoanon}\toggletrue{blx@ox@abbranon}}
\end{verbatim}

We copy the author to \texttt{rawauthor} for easier testing.

\begin{verbatim}
\DeclareStyleSourcemap{
  \maps[datatype=bibtex]{%
    \map{
      \step[fieldsource=author]%
      \step[fieldset=rawauthor, origfieldval]%
    }
  }
}\end{verbatim}

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 \texttt{authortitle} and \texttt{authoryear});
- inserting the \texttt{nameaddon} field if provided;
- inserting the author type if provided (as in \texttt{authoryear}).

\begin{verbatim}
\newcommand*{\oxrefanon}{Anonymous}
\newtoggle{blx@ox@isanon}
\renewbibmacro*{author}{%
  \iffieldequals{rawauthor}{\oxrefanon}{%
    \toggletrue{blx@ox@isanon}
  }{%
    \togglefalse{blx@ox@isanon}}}%
\ifboolexpr{test {\ifuseauthor} and ( not test {\ifndef{author} } ) and ( not \boolfalse{blx@ox@isanon} )}
\end{verbatim}
or
( not togl {blx@ox@autoanon} )
or
 test {\ifbibliography}
}
{\usebibmacro{bbx:dashcheck}
 {\bibnamedash}
{\usebibmacro{bbx:savehash}%
 {\ifboolexpr{
 { tog1 {blx@ox@autoanon}
 and
 tog1 {blx@ox@isanon}
}{%}
{\iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}}%
 {\usebibmacro{author+altauthor}%
 }}%
{\iffieldundef{nameaddon}
 {}%\setunit{\addspace}
{\printfield{nameaddon}}%\setunit{\printdelim{authortypedelim}}}%
{\iffieldundef{authortype}
 {}%\setunit{\addspace}}}
{\global\undef\bbx@lasthash}}
{\DeclareFieldFormat{authortype}{\mkbibparens{#1}}}

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

\newcommand{\titlebyauthordelim}{\addspace}

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

\renewbibmacro*{editor}{%\usebibmacro{bbx:editor}{editorstrg}}
{\usebibmacro*{editor+others}{%\usebibmacro{bbx:editor}{editor+othersstrg}}
\newbibmacro*{bbx:editor}[1]{%\ifboolexpr{
 {\ifuseeditor
 and
 not test {\ifnameundef{editor}}
}}{\usebibmacro{bbx:dashcheck}
 {\bibnamedash}
{\setunit{\addspace}
 {\printdelim{editortypedelim}}}}
{\cleardelim{editor}}%\global\undef\bbx@lasthash}}
{\DeclareFieldFormat{editortype}{\mkbibparen{#1}}}

We do the same for translator as well.
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).

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

We provide a macro for printing series editors.
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.

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'.

2.1.4 Dates and times

Year ranges are truncated (e.g. 2012–3). Therefore, we provide a command that compares two years, and outputs a full or truncated version of the second year, depending on how similar it is
to the first. It is adapted from code by Marco Daniel.¹

\newcommand{\blx@ox@compyear}[2]{% 
  \def\num@one{#1} 
  \def\num@two{#2} 
  \StrLen{\num@one}[\num@one@len] 
  \StrLen{\num@two}[\num@two@len] 
}

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

\ifboolexpr{test \ifnumequal{\num@one@len}{\num@two@len} and test \ifnumless{\num@one}{\num@two}}{% 
  \StrCompare{\num@one}{\num@two}[\Result] 
  \ifnum\num@two@len>3 
    \IfStrEq{\Result}{2}{\def\Result{1}}{} 
  \fi 
  Since \texttt{\Result} is the number of digits to trim from the left hand side of the year, plus one, we provide an extra sacrificial zero before trimming.

\StrGobbleLeft{0\num@two}{\Result} 
}\num@two} %}

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

\patchcmd{\mkdaterangefull}{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}{{% 
  \iffieldundef{#2endmonth}{\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}{{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}}\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangefull}}}}}}{} \wlog{\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangefull}}}}}

\patchcmd{\mkdaterangefullextra}{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}{{% 
  \iffieldundef{#2endmonth}{\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}{{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}}\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}}}}}{} \wlog{\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangefullextra}}}}}

\patchcmd{\mkdaterangetrunc@i}{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}{{% 
  \iffieldundef{#2endmonth}{\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}{{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}}\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}}}}}{} \wlog{\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangetrunc@i}}}}}

\patchcmd{\mkdaterangetruncextra@i}{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}{{% 
  \iffieldundef{#2endmonth}{\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}{{% 
  \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday} 
}}\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangetruncextra@i}}}}}}{} \wlog{\text{\texttt{\Warning{\textbf{WARNING: biblatex-oxref failed to patch mkdaterangetruncextra@i}}}}}

¹\url{http://tex.stackexchange.com/questions/23483/}
We provide a way of prefacing dates (and times) with a type. This is mainly intended for online resources.

\begin{verbatim}
\DeclareFieldFormat{datetype}{%
  \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
}\newtoggle{blx@ox@timefirst}
\DeclareBibliographyOption{timefirst}[true]{%
  \settoggle{blx@ox@timefirst}{#1}}
\DeclareTypeOption{timefirst}[true]{%
  \settoggle{blx@ox@timefirst}{#1}}
\DeclareEntryOption{timefirst}[true]{%
  \settoggle{blx@ox@timefirst}{#1}}
\newbibmacro*{date+time}{%
  \ifboolexpr{
    test {\iffieldundef{year}}
    and
    test {\iffieldundef{season}}
    and
    test {\iffieldundef{month}}
    and
    test {\iffieldundef{hour}}}{%}
  \printfield{datetype}%
  \setunit*{\addspace}
  \iftoggle{blx@ox@timefirst}{%
    \printtime%
    \setunit*{\addcomma\space}}{%}
  \printdate
  \iftoggle{blx@ox@timefirst}{{%
    \setunit*{\addcomma\space}}}{%}
}\renewbibmacro*{date}{\usebibmacro{date+time}}
\end{verbatim}

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

\begin{verbatim}
\DeclareFieldFormat{origdatetype}{%
  \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
}\newbibmacro*{origdate+time}{%
  \ifboolexpr{
    test {\iffieldundef{origyear}}
    and
    test {\iffieldndef{origseason}}
    and
    test {\iffieldndef{origmonth}}
    and
    test {\iffieldndef{orighour}}}{%}
  \printfield{origdatetype}%
  \setunit*{\addspace}
  \iftoggle{blx@ox@timefirst}{%
    \printorigtime%
    \setunit*{\addcomma\space}}{%}
  \printorigdate
  \iftoggle{blx@ox@timefirst}{{%
    \setunit*{\addcomma\space}}}{%}
}\renewbibmacro*{origdate}{\usebibmacro{origdate+time}}
\end{verbatim}
If a date is inferred, it goes in square brackets.

```
\DeclareFieldFormat{date}{%
  \def\currentfield{date}
  \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}
  \undef\currentfield}
\DeclareFieldFormat{origdate}{%
  \def\currentfield{origdate}
  \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}
  \undef\currentfield}
\DeclareFieldFormat{eventdate}{%
  \def\currentfield{eventdate}
  \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}
  \undef\currentfield}
```

### 2.1.5 Editions, Pages, and Other Number-Like Fields

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

```
\xpatchfieldformat{edition}{% #1\isdot%
  \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}
}{{\wlog{WARNING: biblatex-oxref failed to patch edition}}}
```

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

```
\DeclareFieldFormat{pages}{%
  \iffieldundef{bookpagination}{\mkcomprange{#1}}
  \mkcomprange[\mkpageprefix[bookpagination]]{#1}
  \}

\DeclareFieldFormat{postnote}{%
  \iffieldundef{pagination}{\mkcomprange{#1}}
  \mkcomprange[\mkpageprefix]{#1}
  \}
```

The same is true in citations.

### 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.

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

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
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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.

\DeclareBibliographyOption{nolocation}[true][%
\DeclareStyleSourcemap{
\maps[datatype=bibtex]{
\map{
  \pertype{book},
  \pertype{mvbook},
  \pertype{bookinbook},
  \pertype{inbook},
  \pertype{suppbook},
  \pertype{collection},
  \pertype{mvcollection},
  \pertype{incollection},
  \pertype{suppcollection},
  \pertype{reference},
  \pertype{mvreference},
  \pertype{inreference},
  \pertype{proceedings},
  \pertype{mvproceedings},
  \pertype{inproceedings},
  \step[notfield=location, fieldset=location, fieldvalue={\noexpand\bibstring{nolocation}}]
}
}
}
%

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

\newtoggle{blx@ox@noloc}
\def\blx@ox@noloc{{\bibstring{nolocation}}}
\DeclareEntryOption{nolocation}[true]{%
\settoggle{blx@ox@noloc}{#1}
\iflistundef{location}{%
\iftoggle{blx@ox@noloc}{\restorelist{location}{\blx@ox@noloc}}{}}%
}

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.

\DeclareBibliographyOption{isourls}[true][%
\ifstrequal{#1}{true}{\DeclareFieldFormat{url}{$\langle$\url{##1}$\rangle$}}{\DeclareFieldFormat{url}{\url{##1}}}
]
\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.
URL dates are set off with a comma rather than parentheses.

The DOI is introduced by ‘doi’ in lowercase.

Unlike URLs, DOIs are preceded by a full stop.
2.1.8 Addenda

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

\renewbibmacro*{addendum+pubstate}{%
  \ifboolexpr{
    \test {\iffieldundef{pubstate}}
    \or
    \test {\iffieldequalstr{labeldatesource}{pubstate}}
  }{%}
    \nopunct
    \ifbibstring{\thefield{pubstate}}{%
      \printtext[pubstate]{\bibstring{\thefield{pubstate}}}
    }{%
      \printfield{pubstate}}
  \setunit{\addsemicolon\addspace}\newblock
  \printfield{addendum}}%
\DeclareFieldFormat{pubstate}{\mkbibparens{#1}}

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

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

2.1.9 Articles and periodicals

Subtypes for articles and similar are in square brackets.

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

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

\newcommand*{\blx@ox@abbrevstring}{A^{A}BCDEFG\c{G}HI\.{I}JKLMNO"{O}PQRSTU"{U}VWXYZ.}
\AtBeginDocument{\ifdefstring{\encodingdefault}{OT1}{}{\renewcommand*{\blx@ox@abbrevstring}{A^{A}BC\c{C}DEFG\c{G}HI\.{I}JKLMNO"{O}PQRS\c{S}TU"{U}VWXYZ.}}}
\newcommand*{\ifabbrev}[3]{{\StrRight{#1}{1}[\blx@ox@lastchar]\IfSubStr{\blx@ox@abbrevstring}{\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.

\renewbibmacro*{journal+issuetitle}{%
  \ifboolexpr{
    \test {\iffieldundef{title}}
  }{%}
    \setunit{\addsemicolon\addspace}\newblock
    \printfield{addendum}}
\renewcommand*{\journal+issuetitle}{\mkbibparens{#1}}
We renew the \texttt{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.

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 \texttt{volume+number+eid} macro from actually printing the EID; this is printed by \texttt{issue+date} instead (see below).
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.
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.
Similar changes are made to the periodical driver.

The supperiodical driver is just like the article one, except the note comes sooner after the title. This is to allow it to be used as a descriptor. Since we’re breaking the alias, we need to explicitly replicate the article formatting for the rest of the entry.
2.1.10 Books and works in books

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

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

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

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

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

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

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

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.

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

\newbibmacro{series+number+edition+publisher+location+date}{%}
\iftoggle{blx@ox@altbookseries}{%}
\usebibmacro{series+number}{}
\setunit{\addcolon\space}
\printlist{publisher}{}
\setunit{\addcomma\space}
\usebibmacro{date}{}%
The edition information for reference works is recorded earlier in the reference, so we provide a variant that excludes it from the publication block.

The copub macro prints co-publication details.

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

```latex
\DeclareBibliographyDriver{book}{%
  \usebibmacro{bibindex}\
  \usebibmacro{begentry}\
  \usebibmacro{author/editor+others/translator+others}\
  \setunit{\printdelim{nametitledelim}}\newblock\
  \usebibmacro{title}\
  \setunit{\titlebyauthordelim}\newblock\
  \usebibmacro{byauthor}\
  \newunit\newblock\
  \usebibmacro{byeditor+others}\
  \newunit\newblock\
  \printfield{note}\
  \newunit\newblock\
  \usebibmacro{maintitle+volume}\
  \newunit\
  \usebibmacro{series+number+edition+publisher+location+date}\
  \setunit{\addspace}\
  \printfield{howpublished}\
  \newunit\newblock\
  \usebibmacro{chapter+pages}\
  \newunit\
  \usebibmacro{chapter+pages}\
  \newunit\newblock\
  \printfield{pagetotal}\
  \newunit\newblock\
  \iftoggle{bbx:isbn}{\printfield{isbn}}\{}\%
  \newunit\newblock\
  \usebibmacro{doi+eprint+url}\
  \newunit\newblock\
  \usebibmacro{addendum+pubstate}\
  \newunit\newblock\
  \usebibmacro{addendum+pubstate}\
  \newunit\newblock\
  \usebibmacro{pageref}\newblock\
  \setunit{\relatedtypepunct}\newblock\
  \iftoggle{bbx:related}{\usebibmacro{related:init}\{}\%
  \usebibmacro{related}}\%
  \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;

```latex
\DeclareBibliographyDriver{mvbook}{% \
  \usebibmacro{bibindex}% \usebibmacro{begentry}% \usebibmacro{author/editor+others/translator+others}% \setunit{\printdelim{nametitledelim}}\newblock \usebibmacro{maintitle+title}% \newunit \ifboolexpr{ % \test { \iffieldequalstr{relatedtype}{multivolume}} % or % ( not test { \iffieldequalstr{maintitle}{}} ) % }{ % \printfield{volume}% \printfield{part}}{ % \setunit{\titlebyauthordelim}\newblock \usebibmacro{byauthor}% \newunit\newblock \usebibmacro{byeditor+others}% \newunit\newblock \usebibmacro{volumes}% \newunit\newblock \usebibmacro{note}% \newunit\newblock \ifboolexpr{ % \test { \iffieldequalstr{relatedtype}{multivolume}} % and % \test { \iffieldequalstr{maintitle}{}} % }{ % \printfield{volume}% \printfield{part} }{ % } % \newunit\newblock \usebibmacro{series+number+edition+publisher+location+date}% \newunit\newblock \usebibmacro{chapter+pages}% \newunit\newblock \printfield{pagetotal}% \newunit\newblock \iftoggle{bbx:isbn}{\printfield{isbn}}{} \newunit\newblock \usebibmacro{doi+eprint+url}% \newunit\newblock \usebibmacro{addendum+pubstate}% \setunit{\bibpageref{punct}}\newblock \usebibmacro{pageref}% \iftoggle{bbx:related}{\usebibmacro{related:init}\usebibmacro{related}}{} \newunit\newblock \usebibmacro{finentry}}
```
Our inbook driver modifies the standard one in just the same way as our mvbook driver modifies the standard book.

```
\DeclareBibliographyDriver{inbook}{%
  \usebibmacro{bibindex}\
  \usebibmacro{begentry}\
  \usebibmacro{author/translator+others}\
  \setunit{\printdelim{nametitledelim}}\newblock
  \usebibmacro{title}\
  \setunit{\titlebyauthordelim}\newblock
  \usebibmacro{byauthor}\
  \newunit
  \usebibmacro{in:}\
  \usebibmacro{bybookauthor}\
  \newunit
  \usebibmacro{maintitle+booktitle}\
  \newunit
  \iffieldundef{maintitle}{\printfield{volume}\
    \printfield{part}}{}
  \newunit
  \usebibmacro{byeditor+others}\
  \newunit
  \printfield{volumes}\
  \newunit
  \printfield{note}\
  \newunit
  \usebibmacro{series+number+edition+publisher+location+date}\
  \newunit
  \usebibmacro{chapter+pages}\
  \newunit
  \iftoggle{bbx:isbn}{\printfield{isbn}}{}\
  \newunit
  \usebibmacro{doi+eprint+url}\
  \newunit
  \usebibmacro{addendum+pubstate}\
  \setunit{\bibpagerefpunct}\newblock
  \usebibmacro{pageref}
\setunit{\relatedtypepunct}\newblock
  \iftoggle{bbx:related}{\usebibmacro{related:init}\
    \usebibmacro{related}}{}\
\usebibmacro{finentry}}%
```

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

```
\DeclareFieldFormat[suppbook]{title}{%
  \def\currentfield{title}\%
  \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}\%
  \undef\currentfield\%
\}\%
\DeclareBibliographyDriver{suppbook}{%
  \usebibmacro{bibindex}\
  \usebibmacro{begentry}\
  \usebibmacro{author/translator+others}\
  \setunit{\printdelim{nametitledelim}}\newblock
  \usebibmacro{title}\
  \setunit{\titlebyauthordelim}\newblock
  \usebibmacro{byauthor}\
  \newunit
  \usebibmacro{in:}\
  \usebibmacro{bybookauthor}\
  \newunit
  \usebibmacro{maintitle+booktitle}\
  \newunit
  \iffieldundef{maintitle}{\printfield{volume}\
    \printfield{part}}{}
  \newunit
  \usebibmacro{byeditor+others}\
  \newunit
  \printfield{volumes}\
  \newunit
  \printfield{note}\
  \newunit
  \usebibmacro{series+number+edition+publisher+location+date}\
  \newunit
  \usebibmacro{chapter+pages}\
  \newunit
  \iftoggle{bbx:isbn}{\printfield{isbn}}{}\
  \newunit
  \usebibmacro{doi+eprint+url}\
  \newunit
  \usebibmacro{addendum+pubstate}\
  \setunit{\bibpagerefpunct}\newblock
  \usebibmacro{pageref}
\setunit{\relatedtypepunct}\newblock
  \iftoggle{bbx:related}{\usebibmacro{related:init}\
    \usebibmacro{related}}{}\
\usebibmacro{finentry}}%
```
We also provide a bookinbook driver that handles origdate differently.

\DeclareBibliographyDriver{bookinbook}{% 
  \usebibmacro{bibindex}% 
  \usebibmacro{begentry}% 
  \usebibmacro{author/translator+others}% 
  \setunit{\titlebyauthordelim}\newblock 
  \usebibmacro{title}% 
  \setunit{\titlebyauthordelim}\newblock 
  \usebibmacro{byauthor}% 
  \usebibmacro{in:}% 
  \usebibmacro{bybookauthor}% 
  \setunit{\addvspace}\newblock 
  \usebibmacro{maintitle+booktitle}% 
  \newunit 
  \iffielddefined{maintitle} 
  \{\printfield{volume}% 
   \printfield{part}}% 
  \} 
  \newunit 
  \usebibmacro{byeditor+others}% 
  \newunit 
  \usebibmacro{volume+number+edition+publisher+location+date}% 
  \newunit 
  \usebibmacro{chapter+pages}% 
  \newunit 
  \iftoggle{bbx:isbn} \printfield{isbn} \fi% 
  \newunit 
  \usebibmacro{doi+eprint+url} 
  \newunit 
  \usebibmacro{addendum+pubstate} 
  \setunit{\bibpagerefpunct}\newblock 
  \usebibmacro{pageref} 
  \setunit{\relatedtypepunct}\newblock 
  \iftoggle{bbx:related} \usebibmacro{related:init} \fi 
  \usebibmacro{related} 
  \} 
  \usebibmacro{finentry}
Our collection driver modifies the standard one in just the same way as our book driver.
Our \texttt{mvcollection} driver modifies the standard \texttt{collection} driver in just the same way as our \texttt{mvbook} driver modifies the standard book.

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

Our \texttt{incollection} driver modifies the standard one in the same way as our \texttt{mvbook} driver modifies the standard book. In addition, the \texttt{bookeditor} macro precedes \texttt{maintitle} instead of \texttt{byeditor+others} following it.

\begin{verbatim}
1590 \DeclareBibliographyDriver{incollection}{%
1591 \usebibmacro{bibindex}%
1592 \usebibmacro{begentry}%
1593 \usebibmacro{editor+others}%
1594 \setunit{\printdelim{nametitledelim}}\newblock
1595 \usebibmacro{maintitle+title}%
1596 \newunit
1597 \ifboolexpr{
1598 test {\iffieldequalstr{relatedtype}{multivolume}}
1599 or
1600 ( not test {\iffieldequalstr{maintitle}} ) }{
1601 \printfield{volume}%
1602 \printfield{part}%
1603 \newunit\newblock
1604 \usebibmacro{byeditor+others}%
1605 \newunit\newblock
1606 \printfield{volumes}%
1607 \newunit\newblock
1608 \printfield{note}%
1609 \newunit\newblock
1610 \iftoggle{bbx:isbn}{\printfield{isbn}}{}
1611 \ifboolexpr{
1612 test {\iffieldequalstr{relatedtype}{multivolume}}
1613 and
1614 ( not test {\iffieldequalstr{maintitle}} ) }{
1615 \printfield{volume}%
1616 \printfield{part}%
1617 }{}
1618 \newunit\newblock
1619 \usebibmacro{series+number+edition+publisher+location+date}%
1620 \newunit\newblock
1621 \usebibmacro{chapter+pages}%
1622 \newunit\newblock
1623 \printfield{pagetotal}%
1624 \newunit\newblock
1625 \iftoggle{bbx:isbn}{\printfield{isbn}}{}
1626 \setunit{ibpagerefpunct}\newblock
1627 \usebibmacro{doi+eprint+url}%
1628 \newunit\newblock
1629 \usebibmacro{addendum+pubstate}%
1630 \setunit{\bibpagerefpunct}\newblock
1631 \usebibmacro{pageref}%
1632 \setunit{\relatedtypepunct}\newblock
1633 \iftoggle{bbx:related}{\usebibmacro{related:init}\
1634 \usebibmacro{related}}{}
1635 \usebibmacro{finentry})
1636 \usebibmacro{finentry} }
1637 \\end{verbatim}
Bibliography styles

\usebibmacro{begentry}
\usebibmacro{author/translator+others}
\setunit{\printdelim{nametitledelim}}
\usebibmacro{title}
\setunit{\titlebyauthordelim}
\usebibmacro{byauthor}
\newunit
\usebibmacro{in:}
\usebibmacro{bookeditor}
\newunit
\usebibmacro{maintitle+booktitle}
\newunit
\iffieldundef{maintitle}
\{\printfield{volume}\}
\printfield{part}
\}
\newunit
\printfield{volumes}
\newunit
\printfield{note}
\newunit
\usebibmacro{series+number+edition+publisher+location+date}
\newunit
\usebibmacro{chapter+pages}
\iftoggle{bbx:isbn}
\printfield{isbn}
\}
\newunit
\usebibmacro{doi+eprint+url}
\newunit
\usebibmacro{addendum+pubstate}
\setunit{\bibpagerefpunct}
\usebibmacro{pageref}
\setunit{\relatedtypepunct}
\iftoggle{bbx:related}
\usebibmacro{related:init}
\usebibmacro{related}
\}
\usebibmacro{finentry}

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

\DeclareFieldFormat[ suppccollection ]{title}{
  \def\currentfield{title}
  \iftoggle{bbx:descriptor}
    \mkbibemph{#1}
  \}
  \undef\currentfield
\}
\DeclareBibliographyDriver{ suppccollection }{
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.
Similarly, \texttt{mvreference} is just like \texttt{mvbook} except that \texttt{edition} is given directly after the title.
Our inreference driver is just like inbook except bookeditor replaces bybookauthor and edition is given just before byeditor+others.

\DeclareBibliographyDriver{inreference}{
% 
\usebibmacro{bibindex}
% \usebibmacro{begentry}
% \usebibmacro{author/translator+others}
% \setunit{\printdelim{nametitledelim}}\newblock
% \usebibmacro{title}
% \setunit{\titlebyauthordelim}\newblock
% \usebibmacro{byauthor}
% \newunit\newblock
% \iffielddefined{editor}()
% \usebibmacro{in:}\newblock
% \usebibmacro{bookeditor}\newblock
% \newunit\newblock
% \usebibmacro{maintitle+booktitle}\newblock
% \newunit\newblock
% \iffielddefined{maintitle}
% \printfield{maintitle}
% \newunit\newblock
% \iffielddefined{part}
% \printfield{part}
% \newunit\newblock
% \iffielddefined{edition}
% \newunit\newblock
% \usebibmacro{byeditor+others}\newblock
% \newunit\newblock
% \printfield{volumes}\newblock
% \newunit\newblock
% \printfield{note}\newblock
% \newunit\newblock
% \usebibmacro{series+number+publisher+location+date}\newblock
% \newunit\newblock
% \usebibmacro{chapter+pages}\newblock
% \newunit\newblock
% \printfield{pagetotal}\newblock
% \newunit\newblock
% \iftoggle{bbx:isbn}
% \printfield{isbn}\newblock
% \newunit\newblock
% \usebibmacro{doi+eprint+url}\newblock
% \newunit\newblock
% \usebibmacro{addendum+pubstate}\newblock
% \setunit{\bibpagerefpunct}\newblock
% \usebibmacro{pageref}\newblock
% \setunit{\relatedtypepunct}\newblock
% \iftoggle{bbx:related}
% \usebibmacro{related:init}\newblock
% \usebibmacro{related}\newblock
% \iftoggle{bbx:related}
% \else\fi
% \usebibmacro{finentry}}
2.1.11 Works presented at meetings

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

In our version of the event+venue+date macro, the venue and date are set off with commas respectively instead of parentheses.

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

```latex
\newbibmacro*{series+type+number}{%
  \ifboolexpr{
eg \field{series} and \neg \field{type}}{
    \printfield{series}
  }{%
    \printfield{type}
    \setunit*{\addspace}
    \printfield{number}}}
```

Our version of the institution+location+date macro is just like the standard one except it is wrapped in parentheses, and the preceding punctuation is therefore suppressed. This is used by the report driver.

```latex
\renewbibmacro*{institution+location+date}{%
  \ifboolexpr{\neg \field{series} or \neg \field{type} or \neg \field{year} or \neg \field{season} or \neg \field{month}}{%
    \printtext[publication]{
      \ifboolexpr{\neg \field{series}}{%
        \printfield{institution}
      }{%
        \printfield{location}
      }
      \ifboolexpr{\neg \field{type}}{%
        \printfield{year}
      }{%
        \printfield{season}
      }
      \ifboolexpr{\neg \field{month}}{%
        \printfield{month}
      }
    }
  }{%
    \nopunct
    \printtext[publication]{%
      \ifboolexpr{\neg \field{series}}{%
        \printfield{series}
      }{%
        \printfield{type}
      }
    }
    \setunit*{\addspace}
    \printfield{number}}
```
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.
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.

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.

\newcommand{\legreport}{legal}
\DeclareBibliographyDriver{report}{% 
  \usebibmacro{bibindex}\
  \usebibmacro{begentry}\
  \usebibmacro{author}\
  \setunit{\printdelim{nametitledelim}}\newblock
  \usebibmacro{maintitle+title}\
  \newunit\
  \iffieldundef{maintitle}\
  \printfield{volume}\
  \printfield{part}\
  \setunit{\titlebyauthordelim}\newblock
  \usebibmacro{byauthor}\
  \newunit\newblock
  \printfield{version}\
  \newunit\newblock
  \printfield{note}\
  \newunit\newblock
  \usebibmacro{series+type+number}\
  \setunit{\addspace}\newblock
  \usebibmacro{institution+location+date}\
  \iffieldequals{entrysubtype}{\legreport}{% 
    \setunit{\addspace}\nopunct
  }{% 
    \newunit\newblock
    \usebibmacro{chapter+pages}\
    \newunit\newblock
    \printfield{pagetotal}\
    \newunit\newblock
    \iftoggle{bbx:isbn}{\printfield{isrn}}{% 
      \newunit\newblock
      \usebibmacro{doi+eprint+url}\
      \newunit\newblock
      \usebibmacro{addendum+pubstate}\
      \setunit{\bibpagerefpunct}\newblock
      \usebibmacro{pagerref}\
      \setunit{\relatedtypepunct}\newblock
      \usebibmacro{related}\
      \usebibmacro{related:init}\
      \usebibmacro{related}}\
    %}
  %}
)%
\newunit\newblock\iffieldequals{entrysubtype}{\legreport}{% 
  \usebibmacro{checklanguage}\
  \usebibmacro{final}\
}{% 
  \wlog{WARNING: biblatex-oxref failed to patch thesis}}

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

\xpatchbibdriver{thesis}{% 
  \printfield{type}\
  \newunit\newmacro{institution+location+date}\
}{% 
  \usebibmacro{type+institution+location+date}}%
%}
\wlog{WARNING: biblatex-oxref failed to patch thesis}

We give booklet entries descriptor support.
With patents, the titles are italic and the patent type is not abbreviated.

The holder, origdate and date fields have explicit signposting; the latter two use origdatetype and datetype, with some sensible defaults.
The patent driver differs from the regular one by having note moved further forward, and having a publication block consisting of location, origdate and date.

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

```latex
\newbibmacro{publisher+type+series+number+date}{%
  \iffielddefined{number}{}{%
    \setunit{\addcomma\space}
    \usebibmacro{origdate+time}%
  }%
  \ifboolexpr{%
    test {\iflistdef{origpublisher}}
    and
    test {\iflistdef{location}}
    and
    test {\iflistdef{publisher}}
    and
    test {\iffielddef{type}}
    and
    test {\iffielddef{series}}
    and
    test {\iffielddef{number}}
  }{
    \usebibmacro{publisher+type+series+number+date}%
  }
}\DeclareBibliographyAlias{standard}{manual}
\ExecuteBibliographyOptions[standard]{useeditor=false}
```
We provide the endeditor option to determine if credits should be placed before or after the publication block.

We provide a specialist audio driver. It borrows elements from the book and online drivers, and incorporates the above variations.
The same driver will do very well for music, video and movie.

In parallel with book-like entries, we provide an audio driver for citing tracks from an album.
The same driver will do very well for inmusic, invideo and inmovie. The latter two are for completeness but probably not useful.

We set up appropriate inheritance rules.
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.
The performance driver is similar to the audio driver, but instead of a publication block, it displays a set of event-related fields. With a bit of generosity, it can also work for artworks and images.
Here is the macro used for printing the event location and date for performances and exhibitions.

```latex
\newbibmacro{event+venue+location+date}{%
  \printfield{eventtitle}\
  \newunit\
  \printfield{eventtitleaddon}\
  \newunit\
  \printfield{venue}\
  \newunit\
  \printlist{institution}\
  \newunit\
  \printfield{venue}\
  \newunit\
  \printlist{location}\
  \newunit\
  \ifboolexpr{
    test {\iffieldundef{year}} and
    test {\iffieldundef{month}}}{\printeventdate}{\usebibmacro{date+time}}}%
```

### 2.1.14 Digital media

#### Website articles and social media

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

```latex
\DeclareFieldFormat[online,image]{title}{%
  \def\currentfield{title}\
  \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}\
  \undef\currentfield}
```

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

```latex
\newbibmacro{onlinetype}{%\%
  \ifboolexpr{
    test {\iffieldundef{url}} or
    test {\iffieldundef{entrysubtype}}}{%\%
    \ifbibxstring{\thefield{entrysubtype}}{%\%
      \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}\%
    }{}}%\%
```

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.

Software

The version for software goes between the title and titleaddon.
The url date string is different for software: ‘downloaded’ rather than ‘accessed’.

The software driver is a variant of the manual driver.

Datasets

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

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

\newtoggle{bbx:scotstyle}
\DeclareEntryOption{scottish-style}[true]{
  \settoggle{bbx:scotstyle}{#1}}
\DeclareEntryOption{year-essential}[true]{
  \setboolean{bbx@year-essential}{#1}}
\DeclareEntryOption{paryear-essential}[true]{
  \setboolean{bbx@paryear-essential}{#1}}
\newtoggle{blx@ox@nopostnotedelim}
\newtoggle{bbx:altcourt}
\DeclareBibliographyOption{court-plain}[true]{
  \settoggle{bbx:altcourt}{#1}}
\DeclareEntryOption{court-plain}[true]{
  \settoggle{bbx:altcourt}{#1}}
\newboolean{bbx@ecliuse}
\newboolean{bbx@eclionly}
\DeclareBibliographyOption[true]{ecli}[yes]{
  \ifstrequal{#1}{no}{
    \global\togglefalse{bbx@ecliuse}\global\togglefalse{bbx@eclionly}}{
    \global\toggltrue{bbx@ecliuse}\global\toggletrue{bbx@eclionly}}}\\
  \ifstrequal{#1}{only}{
    \global\toggletrue{bbx@eclionly}}{}}

Field formats

\DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}\\
\DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}\\
\DeclareFieldFormat[jurisdiction]{volume}{#1}\\
\DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}\\
\DeclareFieldFormat{romanvol}{\RN{#1}}\\
\DeclareListFormat[jurisdiction]{listb}{}\\
\DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}\\
\DeclareFieldFormat{verba}{#1}\\
\DeclareListFormat{echrinst}{\ifboolexpr{
  test {\ifdefstring{\Commission}{#1} or \ifdefstring{\commission}{#1}}{\bibstring{commissiondecision}}{#1}}{
  \ifstrequal{#1}{(1)}{\addcomma}{}}}}
\newcommand*{\commission}{commission}
\newcommand*{\Commission}{Commission}
\DeclareListFormat{ecthr}{% 
  \ifboolexpr{test {\ifdefstring{\Commission}{#1}}
  or
  test {\ifdefstring{\commission}{#1}}} {ibstring{[mkbibparen]}{commissiondecision}\toggletrue{blx@ox@nopostnotedelim})}{}}
\newcommand*{\pcijrep}{PCIJ Rep}
\DeclareFieldFormat{international}{% 
  \iffieldequals{journaltitle}{\pcijrep}{% 
    \bibcplstring{jourser} #1}\%}
\DeclareListFormat{checkcontains}{% 
  \bbx@check{#1}}
\newtoggle{bbx@institutiontoggle}
\newcommand\iflistcontains[2]{% 
  \global\togglefalse{bbx@institutiontoggle}
  \def\bbx@check##1{% 
    \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}
  \printlist[checkcontains]{#1}
  \iftoggle{bbx@institutiontoggle}}
\DeclareFieldFormat{draftleg}{% 
  \StrBefore{#1}{ Bill}}
\DeclareListFormat{billprinting}{% 
  \ifstrequal{#1}{HC}{% 
    \mkbibbrackets{\strfield{number}}\toggletrue{blx@ox@nopostnotedelim}}% 
  }{#1\togglefalse{blx@ox@nopostnotedelim}}}
\newcommand*{\treatypartysep}{---}
\DeclareListFormat{treaty}{% 
  \ifmoreitems{){% 
    \ifnumequal{\value{listcount}}{1}{% 
      \bibopenparen}{% 
    }\ifnumgreater{\value{liststop}}{\value{listcount}}{#1\treatypartysep}{{#1}\bibcloseparen}}}
\def\siganddate#1{\def\bbx@tempa{#1}\expandafter\bbx@signeddatei#1/relax}
\def\bbx@signeddatei#1=#2/relax{\def\bbx@tempa{#2-}\bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
\def\makebbx@datei#1#2#3{\blx@imc@stripzeros{#3}\mkbibmonth{#2}\space\#1}
\DeclareListFormat{treatydates}{% 
  \ifnumequal{\value{listcount}}{1}{% 
    \expandafter\makebbx@datei\bbx@tempa\space#1\bibcloseparen}}
\def\siganddate#1{\def\bbx@tempa{#1}\expandafter\bbx@signeddatei#1/relax}
\def\bbx@signeddatei#1=#2/relax{\def\bbx@tempa{#2-}\bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
\def\makebbx@datei#1#2#3{\blx@imc@stripzeros{#3}\mkbibmonth{#2}\space\#1}
\DeclareListFormat{treatydates}{% 
  \ifnumequal{\value{listcount}}{1}{% 
    \expandafter\makebbx@datei\bbx@tempa\space#1\bibcloseparen}}
Pagination formats

We define an alternative to \texttt{\textbackslash mkpageprefix} that takes a pagination key directly.

\newrobustcmd*{\texttt{\textbackslash mkrawpageprefix}}[1][none]{% 
\begingroup 
\def\blx@tempa{\blx@mkpageprefix@i} 
\ifstrequal{#1}{none}{}{ 
\ifbibstring{#1}{ 
\def\blx@tempa{\blx@mkpageprefix{#1}} 
}{} 
\if\warningentry{Unknown pagination type \textquotesingle#1\textquotesingle}{}
\@ifnextchar[{}{\blx@tempa}{\blx@tempa[@firstofone]}} 
\newcommand*{\texttt{\textbackslash paragraphmarkings}}[{}]{% 
\DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{% 
\iffieldequals{pagination}{\texttt{\textbackslash paragraphmarkings}}{% 
\mkcomprange{#1} 
\else{ 
\mkcomprange[\mkbibbrackets]{#1} 
\fi} 
\else{ 
\mkcomprange[\texttt{\textbackslash paragraphmarkings}]{#1} 
\fi} 
\renewbibmacro*{shorthandintro}{% 
\iffieldeundef{shorthandintro}{}{ 
\setunit{\addspace} 
\printtext[parens]{\printfield{shorthandintro}} 
\ifboolexpr{test {\ifkeyword{eu}} or test {\ifkeyword{echr}}} { 
\mkcomprange[\texttt{\textbackslash paragraphmarkings}]{#1} 
\else{ 
\mkcomprange[\texttt{\textbackslash paragraphmarkings}]{#1} 
\fi} 
\iffieldequals{shorthand}{\texttt{\textbackslash paragraphmarkings}}{% 
\mkcomprange[\texttt{\textbackslash paragraphmarkings}]{#1} 
\else{ 
\mkcomprange[\texttt{\textbackslash paragraphmarkings}]{#1} 
\fi} 
\renewbibmacro*{shorthandintro}{% 
\iffieldeundef{shorthandintro}{}{ 
\setunit{\addspace} 
\printtext[parens]{\printfield{shorthandintro}} 
\ifboolexpr{test {\ifentrytype{jurisdiction}} or test {\ifentrytype{legal}} or test {\ifentrytype{legislation}}} { 
\bibstring{citedas} \space 
\printfield{shorthand} 
\else{ 
\bibstring{citedas} \space 
\printfield{shorthand} 
\fi} 
\setunit{\addspace} 
\printtext[parens]{\printfield{shorthandintro}}} 

Shorthands

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

```latex
\newbibmacro{issue/volume}{%
  \iffieldeundef{volume}%
  (\iffieldeundef{issue}%
    (printfield{issue}))%
  (printfield{default}{volume}))
\newcommand{\subtypenewsp}{newspaper}
\newbibmacro{year+vol+report}{[1][default]{%
  \setunit{\addcomma\space}
  \iffieldequals{entrysubtype}{\subtypenewsp}{%
    \usebibmacro{journaldate}%
  \setunit{\addspace}%
  \iffieldequals{entrysubtype}{\subtypenewsp}{%
    \usebibmacro{journaldate}{[1][default]{%
      \iffboolexpr{%
        test {\iffieldeundef{#1volume}}
        or
        bool {bbx@#1year-essential}
      }{%
        \iffboolexpr{%
          test {\ifkeyword{sc}}
          or
          test {\iftoggle{bbx:scotstyle}}
        }{%
          \setunit{\addcomma\space}
          \printfield{#1year}}%
        \printfield{#1year}}%
      \setunit{\addcomma\space}%
      \printfield{#1year}}%
    \printdate%
    }{}
  \iffieldequals{entrysubtype}{\subtypenewsp}{%
\usebibmacro{title}
\newbibmacro{unreported}[1][default]{%
\iffieldundef{verba}{%
  \ifboolexpr{
    test \{\iffieldundef{institution}\} 
    and
    test \{\iffieldundef{date}\} 
    and
    test \{\iffieldundef{year}\}
  }{%}
    \newbibmacro{unreported}[1][default]{%
      \iffieldundef{verba}{%
        \ifboolexpr{
          test \{\iffeldundef{date}\} 
          and
          test \{\iffeldundef{year}\}
        }{%}
          \mkbibparens{\printlist{jurisdiction}\{institution\}}%
        \}%
      }{%}
        \newbibmacro{court-note}{%
          \iffieldundef{note}{%}
            \printfield{note}
          }{%}
            \toggletrue{blx@ox@nopostnotedelim}%
            \iffieldequals{entrysubtype}{\subtypenewsp}{%}
            \setunit{\addcomma\space}
            \usebibmacro{date}
Legal cases

There are different formats depending on the jurisdiction.

Here is the format for EU cases.
Here is the format for European Human Rights cases.

\bibmacro{echrjuriscitation}{}%  
\usebibmacro{title}{}%  
\setunit{\addspace}newblock  
\iffieldundef{number}{}%  
\printtext{parens}  
\def\adddot{}%  
\bibstring{application}\space  
\bibstring{number}\space  
\setunit{\addspace}newblock  
\setunit{\addspace}newblock  
\iffieldundef{journaltitle}{}%  
\usebibmacro{echr:year+vol+report}{}%  
\setunit{\addspace}newblock  
\setunit{\addspace}newblock  
\usebibmacro{unreported}[echrinst]%  
\}%
Here is the format for international cases.

```latex
\newbibmacro{int:jurisdiction}{%
  \iflistundef{institution}{%}
    \setunit{}\printtext{}%}
  \setlist{institution}%
  \setunit{\addcomma{}\space}%
  \usebibmacro{int:title}%
  \setunit{\addspace} newblock
  \iffieldundef{journaltitle}{%}
    \printfield{number} newblock
    \printtext[parens]{\printdate} newblock
  }{%
    \usebibmacro{year+vol+report}[international]%
  }%
  \setunit{\addspace} newblock
  \usebibmacro{int:jurisdictionpages} newblock
  %}
  \usebibmacro{int:note}{%}
  \setboolfalse{institute}%
  \iftoggle{institute}{%}
    \textbf{Institute:} \printtext{\printname{institution}}
  }{%
    \textbf{Institute:} \printtext{}%}
  \setunit{\addspace} newblock
  \usebibmacro{year+vol+report}{%}
  \setunit{\addspace} newblock
  \usebibmacro{int:jurisdictionpages}{%}
  \setunit{\addspace} newblock
  \usebibmacro{int:note}{%}
  \setbooltrue{institute}%
  \iftoggle{institute}{%}
    \textbf{Institute:} \printtext{\printname{institution}}
  }{%
    \textbf{Institute:} \printtext{}%}
  \setunit{\addspace} newblock
```

Here is the format for Canadian cases.

```latex
\newbibmacro{canjuriscitation}{
  \usebibmacro{title} \\
  \setunit{\addspace}newblock \\
  \printfield{number} \\
  \setunit{\addcomma\space} \\
  \iffieldundef{journaltitle}{}{\usebibmacro{can:year+vol+report}} \\
  \usebibmacro{journaldate} \\
  \setunit*{\addspace} \\
  \iffieldundef{series}{}{\setunit{\addspace} \\
    \printtext[parens]{\printfield[usseries]{series}} \\
    \setunit{\addspace}} \\
  \printfield{volume} \\
  \setunit{\addspace} \\
  \printfield{journaltitle} \\
  \setunit*{\addspace} \\
  \ifboolexpr{\test{\iffieldundef{journaltitle} or \ifbool{\bbx@year-essential}}}{\clearfield{year}}{} \\
  \printfield{year} \\
  \setunit{\addspace} \\
  \printfield{volume} \\
  \setunit{\addspace} \\
  \printfield{journaltitle} \\
  \setunit{\addspace} \\
  \printfield{series} \\
  \setunit{\addspace} \\
  \printfield[parens]{\printfield[usseries]{series}} \\
  \setunit{\addspace}}
```
Here is the format for American cases.

\newbibmacro{us:journalcitation}{
  \usebibmacro{title}\
  \setunit{\addcomma\space}\newblock\
  \iffieldundef{journaltitle}{}\usebibmacro{us:vol+report}\
  \setunit{\addspace}\
  \usebibmacro{us:postnote}\
  \setunit{\addspace}\
  \usebibmacro{us:courtid+date}\
  \usebibmacro{court-note}\
  \newblock}

Here is the format for English cases.
Legislation

Legislation tends to have a more consistent format, though European entries need special handling.
This adds additional material for Welsh statutory instruments.
Bibliography styles

Treaties, explanatory notes and Hansard

\newcommand{\explanatorynote}{explanatory note}
\newcommand{\parliamentarytype}{parliamentary}
\newcommand{\treatysubtype}{piltreaty}
\DeclareBibliographyDriver{legal}{
%  \usebibmacro{bibindex}
  \usebibmacro{begentry}
  \iffieldequals{entrysubtype}{\explanatorynote}
    \printfield[default]{title}
    \setunit{\addspace}\newblock
  \fi
  \iffieldequals{entrysubtype}{\parliamentarytype}
    \usebibmacro{legal:parliamentary}
  \else
    \usebibmacro{treatycitation}
  \fi
  \setunit{\addcomma\space}\newblock
  \printfield[default]{note}
  \setunit{\addspace}\newblock
  \setunit{\bibpagerefpunct}
  \usebibmacro{pageref}
  \usebibmacro{finentry}
}
\newbibmacro{legal:parliamentary}{
  \printfield[default]{title}
  \newunit\newblock
  \printfield{type}
  \setunit{\addspace}
  \iffieldundef{series}{}{
    \printtext[parens]{\biblstring{jourser}\space
      \printfield{series}}}
  \setunit{\addspace}
  \printfield{volume}
  \setunit{\addcomma\space}
  \usebibmacro{hansard-ref}
  \setunit{\addspace}\newblock
  \iffieldundef{year}{}{
    \printtext[parens]{\usebibmacro{date}}}
  \togglefalse{blx@ox@nopostnotedelim}
}
\newbibmacro{hansard-ref}{
  \iffieldundef{postnote}{}{
    \iffieldundef{pages}{}{
      \printfield{pages}}}
  \printfield{pages}\%
}
\newbibmacro{treatycitation}{
  \printfield[default]{title}
  \setunit{\addspace}\newblock
  \printlist[treaty]{institution}\newblock
  \usebibmacro{treatyinfo}\newblock
  \usebibmacro{treaty:year+vol+report}\%
}
\newbibmacro{treatyinfo}{
  \iflistundef{lista}\%
    \iffieldundef{year}{\%
      \iffieldundef{volume}{\%
        \printtext[parens]{\usebibmacro{date}}\%}
      \printtext[parens]{\usebibmacro{date}}\%
    \}\%
  \else
    \printtext[parens]{\usebibmacro{treatydates}{lista}}\%
  \endif\%
}
\newbibmacro{treaty:year+vol+report}{
  \usebibmacro{treatyinfo}\%
  \iffieldequals{list}{\% execution\%}
    \iffieldequals{year}{}\%
      \iffieldequals{volume}{}\%
        \printtext[parens]{\usebibmacro{date}}\%
    \}
  \%
}
\newbibmacro{treatydates}{
  \iffieldequals{journaltitle}{\% officialjournaltitle}\%
  \usebibmacro{eulegref}\%
}
We don’t really deal with commentaries as distinct from books.

\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.

\newcommand{\locationlibrarypunct}{\addcomma\addspace}
\newcommand{\collectionshelfmarkpunct}{\addspace}
\newcommand{\datingpagespunct}{\addcomma\addspace}
\newcommand{\librarycollectionpunct}{\addcomma\addspace}
\newcommand{\pagetotalpagespunct}{\addcomma\addspace}
\newcommand{\columnslayerpunct}{\addsemicolon\addspace}

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

\def\recto{r}
\def\verso{v}
\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.

\DeclareFieldFormat[manuscript,unpublished]{title}{%}
\def\currentfield{title}%
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.

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.

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.
Putting it all together, here is the manuscript driver.

\DeclareBibliographyDriver{manuscript}{%
We provide an alternative bibmacro for doing much the same but with the regular biblatex fields.

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’.
2.1.17 Letters

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

We provide an option for setting the relatedtype punctuation.

2.1.18 Related entries

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

We provide an option for setting the relatedtype punctuation.
\renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}
\PackageError{biblatex-oxref}{Invalid option ‘relationpunct=#1’
\MessageBreak
‘period’, ‘exclam’, ‘question’, and ‘space’.}}{\newtoggle{blx@ox@relpunctset}
\DeclareEntryOption[semicolon]{relationpunct}{\addcomma\space}\renewcommand{\relatedtypepunct}{\addcomma\space}\toggletrue{blx@ox@relpunctset}
\PackageError{biblatex-oxref}{Invalid option ‘relationpunct=#1’
\MessageBreak
\newcounter{blx@ox@relitem}
\xapptobibmacro{begrelated}{\setcounter{blx@ox@relitem}{0}\iftoggle{blx@ox@relpunctset}{}\iffieldequalstr{relatedtype}{in}{}\iffieldequalstr{relatedtype}{reprintfrom}{}\iffieldequalstr{relatedtype}{translationof}{}\iffieldequalstr{relatedtype}{multivolume}{}\iffieldequalstr{relatedtype}{multivolume}{}\wlog{WARNING: biblatex-oxref failed to append to begrelated}\DeclareDelimFormat{relateddelimmultivolume}{\newunitpunct}\DeclareDelimFormat{begrelateddelimmultivolume}{\newunitpunct}
\newbibmacro*{rellanguage}{\def\do##1{\entrydata{##1}{\printlist{language}}}\docsvfield{related}}\DeclareFieldFormat{relatedstring:translationof}{\usebibmacro{rellanguage}\space\bibstring{original}\addcomma\space}\DeclareFieldFormat{related:translationof}{\mkbibbrackets{#1}}
\newbibmacro*{rellanguage}{\def\do##1{\entrydata{##1}{\printlist{language}}}\docsvfield{related}}\DeclareFieldFormat}{relatedstring:translationof}{\usebibmacro{rellanguage}\space\bibstring{original}\addcomma\space}\DeclareFieldFormat}{related:translationof}{\mkbibbrackets{#1}}

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

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

```latex
\newbibmacro{related:reprintfrom}[1]{% 
  \entrydata{#1}{% 
    \nopunct
    \usedriver{% 
      \ifnameundef{savedauthor}{\% 
        \ifnameundef{savededitor}{% 
          \ifnameequal{editor}{savededitor}{% 
            \clearname{editor}{% 
          }{\% 
          \% 
          \ifnameequal{author}{savedauthor}{% 
            \clearname{author}{% 
          }{\% 
          \% 
        }{\% 
        \iffieldundef{savedtitle}{% 
          \% 
          \iffieldsequal{savedtitle}{title}{% 
            \clearfield{title}{% 
          }{\% 
          \% 
        }{\% 
      }{\% 
      \renewbibmacro{related:init}{% 
      \DeclareNameAlias{sortname}{default}{\% 
      \ifbibmacroundef{date+extradate}{% 
        \renewbibmacro{date+extradate}{% 
      }{\% 
      \renewbibmacro{date}{\printdate}{\% 
      \renewbibmacro{pageref}{% 
      \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.

```latex
\newbibmacro{related:serialarticle}[1]{% 
  \entrydata{#1}{% 
  \% 
  \iffieldundef{savedjournaltitle}{% 
  \% 
  \iffieldsequal{journaltitle}{savedjournaltitle}{% 
    \clearfield{journaltitle}{% 
  }{\% 
  \% 
  \iffieldundef{savedjournalsubtitle}{% 
  \% 
  \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{% 
    \clearfield{journalsubtitle}{% 
  }{\% 
  \% 
  \iffieldundef{savedseries}{% 
  \% 
  \iffieldsequal{series}{savedseries}{% 
    \clearfield{series}{% 
  }{\% 
  \% 
  \iffieldundef{savedyear}{\clearfield{year}}{\% 
  \iffieldsequal{year}{savedyear}{% 
    \clearfield{year}{% 
  }{\% 
```
Reviews

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

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.

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’.
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.

```
\DeclareFieldFormat{related:multivolume}{#1}
\renewbibmacro{related:multivolume}[1]{
  \entrydata*{#1}{
    \printfield{volume}\n    \printfield{part}\n    \iffieldsequal{savedtitle}{title}{
      \setunit{\addcolon}\n      \usebibmacro{title}\n    }{\setunit*{\addspace}}\n    \iffieldsequal{savedseries}{series}{\clearfield{series}}{}\n    \iffield{savednumber}{number}\n    \iffieldsequal{savededition}{edition}{\clearfield{edition}}{}\n    \ifboolexpr{\and test \iflistsequal{savedpublisher}{publisher} and test \iflistsequal{savedlocation}{location}}{
      \cleartolist{publisher}\n      \cleartolist{location}\n    }{
      \iffield{saveddate}{date}\n      \iffield{savedlocation}{location}\n      \usebibmacro{series+number+edition+publisher+location+date}\n    }\n  }}
```

Related editions

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

```
\newbibmacro{related:editedas}[1]{
  \entrydata[#1]{
    \renewbibmacro{name:hook}[1]{
      \ifnumequal{\value{listcount}}{1}{
        \begingroup
        \mkrelatedstring
        \lbx@initnamehook{#1}
      }{}\n    }
  }
```
Joint releases

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

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.
2.1.19 Source maps

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

```
\DeclareStyleSourcemap[
  maps[datatype=bibtex][%
  ]
%
Sort order

proceedings and \textit{mvproceedings} entries allow an organization to be printed in the author position.

```
\map{
  \pertype{proceedings}
  \pertype{mvproceedings}
  \step{notfield=author, fieldsource=organization, fieldtarget=author}
}
Descriptors
This map provides a helpful descriptor field that can simplify the provision of descriptors, being notes that can act as titles.

\map\{overwrite=false\}{
\step[fieldsource=descriptor, final]
\step[notfield=title, fieldset=title+an, fieldvalue={=descriptor}]
\step[notfield=title, fieldsource=descriptor, fieldtarget=title]
\step[fieldsource=descriptor, fieldtarget=note]}

Pseudonyms and inferred authorship
These help ensure compatibility with biblatex-realauthor.

\map\{overwrite=false\}{
\step[fieldsource=realauthor, final]
\step[notfield=author, fieldset=author+an, fieldvalue={=inferred}]
\step[notfield=author, fieldsource=realauthor, fieldtarget=author]
\step[fieldsource=realauthor, fieldtarget=authoraddon]}
\map\{overwrite=false\}{
\step[fieldsource=realeditor, final]
\step[notfield=editor, fieldset=editor+an, fieldvalue={=inferred}]
\step[notfield=editor, fieldsource=realeditor, fieldtarget=editor]
\step[fieldsource=realeditor, fieldtarget=editoraddon]}

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

\map\{overwrite=false\}{
\step[fieldsource=editor+an, match=\regexp{=jointauthor}, final]
\step[fieldsource=editor, fieldtarget=jointauthor]}
\map\{overwrite=false\}{
\step[fieldsource=editor, fieldtarget=jointauthortype]}
\map\{overwrite=false\}{
\step[fieldsource=translator+an,}
Standards
The purpose of this map is to move the number to the head of the reference in the absence of an author, and try to fix the sorting accordingly.

Audiovisual materials
For audiovisual materials, origdatetype defaults to ‘recorded’.

Legal references
These help ensure compatibility with oscola.
This is how oscola removes dots from entries.
\begin{verbatim}
replace=\regexp{$1$[1]}
\step[fieldsource=institution, 
match=\regexp{(.\d)}.\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=institution, 
match=\regexp{(\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=institution, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\step[fieldsource=publisher, 
match=\regexp{(.\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=publisher, 
match=\regexp{(\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=publisher, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\step[fieldsource=location, 
match=\regexp{(.\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=location, 
match=\regexp{(\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=location, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\step[fieldsource=series, 
match=\regexp{(.\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=series, 
match=\regexp{(\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=series, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\step[fieldsource=indextitle, 
match=\regexp{(.\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=indextitle, 
match=\regexp{(\d).\d), 
replace=\regexp{$1$.}$2$]
\step[fieldsource=indextitle, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\step[fieldsource=indextitle, 
match=\regexp{(\d).}\d), 
replace=\regexp{$1$}]
\}
\end{verbatim}
If casenumber is given, it is converted to number or, if the number is already set, userb.

```latex
\map[overwrite=false]{
  \step[fieldsource=casenumber, final]
  \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
  \step[fieldsource=casenumber, fieldtarget=userb]
}
```

### 2.1.20 Sorting schemes

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

```latex
\DeclareSortingTemplate{nty}{
  \sort{
    \field{presort}
  }
  \sort[final]{
    \field{sortkey}
  }
  \sort{
    \field{sortname}
    \field{author}
    \field{editor}
    \field{translator}
    \field{sorttitle}
    \field{title}
    \field{library}
  }
  \sort{
    \field{sorttitle}
    \field{title}
  }
  \sort{
    \field{sortyear}
    \field{year}
  }
  \sort{
    \field{volume}
    \literal{0}
  }
  \sort{
    \field{location}
  }
  \sort{
    \field{collection}
    \field{series}
  }
}

\DeclareSortingTemplate{nyt}{
  \sort{
    \field{presort}
  }
  \sort[final]{
    \field{sortkey}
  }
  \sort{
    \field{sortname}
  }
}
```
\DeclareSortingTemplate{anyt}{
  \sort{
    \field{presort}
  }
  \sort{
    \field{labelalpha}
  }
  \sort[final][]{
    \field{sortkey}
  }
  \sort{
    \field{sortname}
    \field{author}
    \field{editor}
    \field{translator}
    \field{sorttitle}
    \field{title}
    \field{library}
  }
  \sort{
    \field{sortyear}
    \field{year}
  }
  \sort{
    \field{sorttitle}
    \field{title}
  }
  \sort{
    \field{volume}
    \literal{0}
  }
  \sort{
    \field{location}
  }
}
The following entry types never put editors first.

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

2.2 Notes style: oxnotes.bbx

2.2.1 Preliminaries

First we load the common oxref features.

\RequireBibliographyStyle{oxref}

2.2.2 Names

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

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

We ensure the printing of the anon localization string matches.

\xpatchbibmacro{author}{}% 
\iftoggle{blx@ox@abbranon}{{\bibcpsstring{anon}}}{{\bibcplstring{anon}}}% 
\iffieldequalstr{relatedtype}{multivolume}{} 
\clearfield{year}\clearfield{month}\clearfield{day}{}% 
\}(\wlog{WARNING: biblatex-oxref (oxnotes) failed to patch author})

2.2.3 Multivolume dates

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

\xpretobibmacro{series+number+edition+publisher+location+date}{}% 
\iffieldequalstr{relatedtype}{multivolume}{} 
\clearfield{year}\clearfield{month}\clearfield{day}{}% 
)()()()
2.2.4 **Source maps**

```latex
\DeclareStyleSourceMap{%
  \maps[datatype=bibtex]{%

Sort order

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

```latex
\map{
\pertype{mvbook}
\pertype{mvcollection}
\pertype{mvreference}
\pertype{mvproceedings}
\pertype{report}
\step[fieldset=maintitle]
\step[fieldset=sorttitle, origfieldval]
\step[fieldset=volume]
\step[fieldset=sorttitle, append, origfieldval]
\step[fieldset=sorttitle, append, origfieldval]
\step[fieldset=sorttitle, append, origfieldval]
}%
}
```

2.3 **Numeric style: oxnum.bbx**

2.3.1 **Preliminaries**

First we load the common oxref features.

```latex
\RequireBibliographyStyle{oxref}
```

2.3.2 **Names**

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

```latex
\DeclareNameAlias{author}{bib-family-given/cite-given-family}
\DeclareNameAlias[related:reviewof]{author}{given-family}
\DeclareNameAlias{editor}{bib-family-given/cite-given-family}
\DeclareNameAlias[related:reviewof]{editor}{given-family}
```

We ensure the printing of the anon localization string matches.

```latex
\xpatchbibmacro{author}{%\iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}{\wlog{WARNING: biblatex-oxref (oxnum) failed to patch author}}}
```

2.3.2 **Names**

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

```latex
\DeclareNameAlias{author}{bib-family-given/cite-given-family}
\DeclareNameAlias[related:reviewof]{author}{given-family}
\DeclareNameAlias{editor}{bib-family-given/cite-given-family}
\DeclareNameAlias[related:reviewof]{editor}{given-family}
```

We ensure the printing of the anon localization string matches.

```latex
\xpatchbibmacro{author}{%\iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}{\wlog{WARNING: biblatex-oxref (oxnum) failed to patch author}}}
```
2.3.3 Multivolume dates

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

```latex
\pretobibmacro{series+number+edition+publisher+location+date}{%
  \iffieldequalstr{relatedtype}{multivolume}{%
    \clearfield{year}\clearfield{month}\clearfield{day}
  }{}}{}
```

2.3.4 Label numbers

This next code is extracted from the standard numeric style.

```latex
\ExecuteBibliographyOptions{labelnumber}
\providebool{bbx:subentry}
\DeclareBibliographyOption{subentry}[true]{%
  \setbool{bbx:subentry}{#1}}
\DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
\DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
\DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
\defbibenvironment{bibliography}{%\list{\printtext[labelnumberwidth]{%\printfield{labelprefix}%\printfield{labelnumber}}}%\setlength{\labelwidth}{\labelnumberwidth}%\setlength{\leftmargin}{\labelwidth}%\setlength{\labelsep}{\biblabelsep}%\addtolength{\leftmargin}{\labelsep}%\setlength{\itemsep}{\bibitemsep}%\setlength{\parsep}{\bibparsep}%\renewcommand*{\makelabel}{\hss##1}}%
\endlist}
\item
\defbibenvironment{shorthand}{%\list{\printfield[shorthandwidth]{shorthand}}%\setlength{\labelwidth}{\shorthandwidth}%\setlength{\leftmargin}{\labelwidth}%\setlength{\labelsep}{\biblabelsep}%\addtolength{\leftmargin}{\labelsep}%\setlength{\itemsep}{\bibitemsep}%\setlength{\parsep}{\bibparsep}%\renewcommand*{\makelabel}{\hss##1}}%
\endlist}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
\item
\DeclareBibliographyDriver{set}{%\entryset{\ifbool{bbx:subentry}{\printfield[bibentrysetcount]{entrysetcount}\printunit*{\addnbspace}}{}}}
```

Bibliography styles
2.4 Author–year style: oxyear.bbx

2.4.1 Preliminaries

First we load the common oxref features.

\RequireBibliographyStyle{oxref}

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

\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.

\DeclareBiblatexOption{global,type,entry}{mergedate}[true]{% 
  \ifcsdef{bbx@opt@mergedate@#1}{\csuse{bbx@opt@mergedate@#1}}{\PackageError{biblatex-oxref}{Invalid option 'mergedate=#1'}{Valid values are 'maximum', 'compact', 'basic', 'minimum', '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.

\providebibmacro*{date+extradate}{% 
\DeclareFieldFormat{datelabel}{\mkbibparens{#1}}% 
\DeclareFieldFormat{labeldate}{% 
  \iflabeldateisdate{% 
    \def\currentfield{date}% 
  }{% 
    \iflabeldateisanydate{% 
      \def\currentfield{\thefield{labeldatesource}date}% 
    }{% 
      \def\currentfield{\thefield{labeldatesource}}% 
    }% 
  }% 
  \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}% 
  \undef\currentfield}

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

\DeclareLabeldate{% 
  \field{origdate}% 
  \field{date}
The extradate string should be printed bare.

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

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

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).
• 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.

• 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.

• 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.
• 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.

• minimum will only merge the date with the label date if the two are identical, that is, a bare year with no month or disambiguating suffix. Therefore we clear the year if and only if there is no month component, no extradate, and (if this is the regular date) no issue.
false suppresses any merging. We only clear the label date source if it is a non-date field other than pubstate.

\def\bbx@opt@mergedate@false{
\renewbibmacro*{date+extradate}{{
\iffieldundef{labelyear}{}{
\usebibmacro{labeldate}{}
\iflabeldateisanydate{}{
\iflabeldateispubstate{}{
clearfield{\thefield{labeldatesource}}}%
}}}}

We set the default to be true/year.

\ExecuteBibliographyOptions{mergedate}

The problem with moving years but leaving months and days behind is that the regular date range macros in \texttt{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 \texttt{\pknoyeardaterangefull} and \texttt{\pknoyeardaterangetrunc}.

\newrobustcmd*{\pknoyeardaterangefull}[2]{
\iffielddedef(#1month){}
\datecircaprint
\printtext[#2date]{
\iffielddedef(#1season){}
\csuse{mkbibdate#1}{}{#1month}{#1day}
\blx@printtime{#2}{}
\dateuncertainprint
\iffielddedef(#1endmonth){}
\iffieldequalstr(#1endmonth){}{#1month}{#1day}
\csuse{mkbibdate#1}{}{#1endmonth}{#1endday}
\blx@printtime{#2}{end}
\dateuncertainprint
\enddatecircaprint
}\enddatecircaprint
\enddatecircaprint
\iffielddedef(#1endseason){}
\csuse{mkbibseasondate#1}{}{#1endseason}
\enddateuncertainprint)

There is a potential problem for \texttt{\pknoyeardaterangetrunc}, 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 \texttt{labelyear} instead.

\newrobustcmd*{\pknoyeardaterangetrunc}[2]{
\iffielddedef(#1month){}
\datecircaprint
\printtext[#2date]{
\iffielddedef(#1season){}
\ifboolexpr{
\test{\iffieldequalstr(labelyear)(labelendyear)}
and
\test{\iffieldequalstr(#1month)(#2endmonth)}
}{
\csuse{mkbibdate#1}{}{}{#1day}
\blx@printtime{#2}{}
\mbox{\bibdaterangesep}
\iffielddedef(#1endmonth){}
\iffieldequalstr(#1endmonth){}{#1month}{#1day}
\csuse{mkbibdate#1}{}{#1endmonth}{#1endday}
\blx@printtime{#2}{end}
\mbox{\bibdaterangesep}
\iffielddedef(#1endseason){}
\csuse{mkbibseasondate#1}{}{#1endseason}
\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.

\xpatchcmd{\mkdaterangefull}{% 
  \iffielddundef{#2year} {\blx@nounit} %
}{% 
  \iffielddedef{#2year} {\mknoyeardaterangefull[#1]{#2}}%}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangefull}}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangefullextra}}

\xpatchcmd{\mkdaterangetrunc@i}{% 
  \iffielddedef{#2year} {\mknoyeardaterangetrunc[#1]{#2}}%}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangetrunc@i}}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangetruncextra@i}}

\xpatchcmd{\mkdaterangefullextra}{% 
  \iffielddedef{#2year} {\mknoyeardaterangefullextra[#1]{#2}}%}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangefullextra}}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to patch mkdaterangetruncextra@i}}

2.4.3 Bibliography formatting

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

\DeclareFieldFormat{shorthandwidth}{#1}

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

\xpretonameformat{family-given}{% 
  \iffielddannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}}{}% 
  \iffitemannotation{inferred}{\bibopenbracket}{}%}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to family-given}}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to family-given}}

\xpatchnameformat{family-given}{% 
  \usebibmacro{name:andothers} %}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to family-given}}
{\wlog{WARNING: biblatex-oxref (oxyear) failed to prepend to family-given}}

\addspace\printtext[parens]{\bibsstring{pseudo}%}
Names at the head of the reference are family-given, but names elsewhere are given-family.

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

The shorthand formatting is just like authoryear.

2.4.4 Name and date formatting

We set up hashing just as in authoryear.
We ensure related entries do not interfere with the hashing.

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

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.

We apply the same patches to bbx:editor, but also move the editor string to after the date label.
We apply the same patches to `bbx:translator` as we do for `bbx:editor`, except for the shortening one.

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

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.

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

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

\renewcommand*{\bibpagespunct}{% \ifboolexpr{\test{\ifentrytype{article}} or \test{\ifentrytype{suppperiodical}} or \test{\ifentrytype{review}}} {% \adddcolon\space} {% \addcomma\space} %}

2.4.6 Manuscripts

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

\renewcommand{\bibmacro{manuscript:date}}{% \ifboolexpr{\test{\ifnameundef{author}} and \not\toggleбл@ox@clearedtitle} and \test{\iffieldundef{label}}} {{%}{\usebibmacro{date}}}

We include the library field as a fallback title.

\DeclareLabeltitle{% \field{shorttitle}\field{title}\field{maintitle}\field{library}}

2.4.7 Source maps

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

\DeclareStyleSourcemap{\maps[datatype=bibtex]}{%
Suppressing a ‘nodate’ label

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

\map[overwrite=true]{
  \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
  \step[fieldsource=sortyear, final]
  \step[fieldset=options, append, fieldvalue={,nonodate}]
}
\map[overwrite=true]{
  \step[notfield=options, final]
  \step[fieldsource=sortyear, final]
  \step[fieldset=options, fieldvalue={nonodate}]
}

Standards

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

\map[overwrite=false]{
  \pertype{standard}
  \step[notfield=author, fieldsource=number, fieldtarget=label]
}

2.5 Alphabetic style: oxalph.bbx

2.5.1 Preliminaries

This style is based on oxyear.

\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.

\xpatchcmd{\bbx@opt@mergedate@maximum}{% \printdateextra
  \% \printdate}{%}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (print))}}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (label)}}
\xpatchcmd{\bbx@opt@mergedate@compact}{% \csuse{print\thefield{labeldatesource}dateextra}%}{%}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (print))}}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (label)}}
\xpatchcmd{\bbx@opt@mergedate@compact}{% \csuse{print\thefield{labeldatesource}date}%}{%}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (print))}}{\wlog{WARNING: biblatex-oxref (oxalph) failed to patch bbx@opt@mergedate@maximum (label)}}
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.

\ExecuteBibliographyOptions{labelalpha,sorting=anyt}
\DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{#1}}
\DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
defbibenvironment{bibliography}
  {\list
    {\printtext[labelalphawidth]{%}
      \printfield[labelprefix]{}
      \printfield[labelalpha]{%}
      \setlength{\labelwidth}{\labelalphawidth}\
      \setlength{\leftmargin}{\labelwidth}\
      \setlength{\labelsep}{\biblabelsep}\
      \addtolength{\leftmargin}{\labelsep}\
      \setlength{\itemsep}{\bibitemsep}\
      \setlength{\parsep}{\bibparsep}\
      \renewcommand*{\makelabel}[1]{##1\hss}}
  {\endlist}
{\item}
defbibenvironment{shorthand}
  {\list
    {\printfield[shorthandwidth]{shorthand}{%}
      \setlength{\labelwidth}{\shorthandwidth}\
      \setlength{\leftmargin}{\labelwidth}\
      \setlength{\labelsep}{\biblabelsep}\
      \addtolength{\leftmargin}{\labelsep}\
      \setlength{\itemsep}{\bibitemsep}\
      \setlength{\parsep}{\bibparsep}\
      \renewcommand*{\makelabel}[1]{##1\hss}}
  {\endlist}
{\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.

\DeclareStyleSourcemap%
  \maps[datatype=bibtex]{%
\map[overwrite=false]{
  \step[fieldsource=title, final]
  \step[fieldset=shortlabeltitle, origfieldval]
  \step[fieldsource=subtitle]
  \step[fieldset=shortlabeltitle, origfieldval, append=true]
  \step[fieldsource=shortlabeltitle, match=\regexp[^\p{Lu}]],
  replace=\regexp{}]
}

\DeclareLabelAlphaTemplate{%
  \labelelement{
    \field[final]{shorthand}
    \field{label}
    \field[strwidth=3,strside=left,ifnames=1]{labelname}
    \field[shortlabeltitle]
    \field[labeltitle]
  }
  \labelelement{
    \field[shortlabeltitle]
    \field[labelyear]
  }
}
Citation styles

3.1 Notes style: oxnotes.cbx

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

\RequireCitationStyle{verbose}

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

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

\newbibmacro*{cite:postnote:pages}{%  
\setunit{\addspace}%  
\bibstring{thiscite}%  
\setunit{\addspace}%  
\printfield{postnote}}
\ExecuteBibliographyOptions{citepages=separate}

3.2 Numeric style: oxnum.cbx

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

\RequireCitationStyle{numeric-comp}

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

\renewcommand*{\multicitedelim}{\addsemicolon\space}
\renewcommand*{\compcitedelim}{\addsemicolon\space}

The page reference postnote is given after a colon.

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

3.3 Author–year style: oxyear.cbx

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

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

We insert anonymous author handling into `cite`.

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

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

The page reference postnote is given after a colon.
3.4 Alphabetic style: oxalph.cbx

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

\RequireCitationStyle{alphabetic}

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

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

The page reference postnote is given after a colon.

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

3.5 Common citation fixes

This code is appended to all the citation style files.

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

\RequirePackage{etoolbox}
\RequirePackage{xpatch}
\providetoggle{blx@ox@autoanon}
\providetoggle{blx@ox@abbranon}

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

\xpatchbibmacro{textcite}{{\printnames{labelname}}}{\ifboolexpr{\test {\iffieldequalstr{labelnamesource}{author}} and \togl {blx@ox@autoanon} and \test {\iffieldequals{rawauthor}{\oxrefanon}}} {\iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}} }{\wlog{WARNING: biblatex-oxref failed to patch textcite}}
Data model adjustments

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

We provide an additional name part for handling titles.

\begin{verbatim}
\DeclareDatamodelConstant[type=list]{nameparts}{prefix,family,suffix,given,title}
\end{verbatim}

The datetype and origdatetype fields are used for prefixing the date with a description.

\begin{verbatim}
\DeclareDatamodelFields[type=field,datatype=literal]{datetype,origdatetype}
\end{verbatim}

We add the inaudio entry type and friends.

\begin{verbatim}
\DeclareDatamodelEntrytypes{inaudio,inmusic,inmovie,invideo}
\end{verbatim}

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.

\begin{verbatim}
\DeclareDatamodelFields[type=list,datatype=name]{authoraddon,editoraddon,serieseditor}
\end{verbatim}

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

\begin{verbatim}
\DeclareDatamodelFields[type=list,datatype=name]{jointauthor}
\DeclareDatamodelFields[type=field,datatype=literal]{jointauthortype}
\end{verbatim}

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

\begin{verbatim}
\DeclareDatamodelFields[type=field,datatype=literal]{rawauthor}
\\DeclareDatamodelEntryfields{datetype,origdatetype,authoraddon,editoraddon,\%
serieseditor,jointauthor,jointauthortype,rawauthor}
\end{verbatim}

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

\begin{verbatim}
\DeclareDatamodelFields[type=field,datatype=literal]{shortlabeltitle}
\end{verbatim}

This data model is borrowed from biblatex-manuscripts-philology.
This data model helps with legal citations.
5.1 English: english-oxref.lbx

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

```latex
\HeredeBibliographyExtras{english}
\DeclareBibliographyExtras{%
\def\finalandcomma{\addcomma}
\protected\def\mkusbibordinal#1{%
\begingroup
\@tempcnta0#1\relax\number\@tempcnta
\@whilenum\@tempcnta>100\do{\advance\@tempcnta-100\relax}%
\@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
\ifnum\@tempcnta>20
\@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
\fi
\ifcase\@tempcnta th\or st\or d\or d\else th\fi
\begingroup\endgroup}%
}
\DeclareBibliographyStrings{%
\inherit = {english},%
}
```

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

These are new strings defined by oxref:

- Roles expressed as functions

```latex
\direct = {{director}{dir\adddot}},
directors = {{directors}{dirs\adddot}},
performer = {{}{}},
performers = {{}{}},
reader = {{reader}{reader}},
readers = {{readers}{readers}},
conductor = {{conductor}{cond\adddot}},
conductors = {{conductors}{cond\adddot}},
serieseditor = {{series editor}{ser\adddotspace ed\adddot}},
serieseditors = {{series editors}{ser\adddotspace eds\adddot}},
holder = {{holder}{holder}},
holders = {{holders}{holders}},
editorcm = {{editor and compiler}{ed\adddotspace and comp\adddot}},
editorcms = {{editors and compilers}{eds\adddotspace and comp\adddot}},
```

- Roles expressed as actions
• Publication details

facsimile = {{facsimile edition}{facs\adddotspace edn\adddot}}
revised = {{revised edition}{rev\adddotspace edn\adddot}}
revisedenlarged = {{revised and enlarged edition}{rev\adddotspace and enl\adddotspace edn\adddot}}
revisedreprint = {{revised reprint}{rev\adddotspace repr\adddot}}
suppto = {{Supplement to}{Supplement to}}
equals = {{=}{=}}
original = {{original}{orig\adddot}}

• Publication state

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

• Pagination

book = {{book}{bk\adddot}}
books = {{books}{bks\adddot}}
canto = {{canto}{canto}}
cantos = {{cantos}{cantos}}
stanza = {{stanza}{stanza}}
stanzas = {{stanzas}{stanzas}}
act = {{Act}{Act}}
acts = {{Acts}{Acts}}
scene = {{Scene}{Scene}}
scenes = {{Scenes}{Scenes}}
folio = {{folio}{fo\adddot}}
folios = {{folios}{fos\adddot}}
article = {{article}{art\adddot}}
articles = {{articles}{arts\adddot}}
clause = {{clause}{cl\adddot}}
clauses = {{clauses}{cls\adddot}}
regulation = {{regulation}{reg\adddot}}
regulations = {{regulations}{regs\adddot}}
rule = {{rule}{r\adddot}}
rules = {{rules}{rr\adddot}}
booktotal = {{book}{bk\adddot}}
booktotals = {{books}{bks\adddot}}
cantototal = {{canto}{canto}}
cantototals = {{cantos}{cantos}}
stanzatotal = {{stanza}{stanza}}
stanzatotals = {{stanzas}{stanzas}}
acttotal = {{Act}{Act}}
acttotals = {{Acts}{Acts}}
scenetotal = {{Scene}{Scene}}
scenetotals = {{Scenes}{Scenes}}
foliototal = {{folio}{fo\adddot}}
foliototals = {{folios}{fos\adddot}}
articletotal = {{article}{art\adddot}}
articletotals = {{articles}{arts\adddot}}
### Localization Modules

- **Types**
  - `facebook` = {{Facebook post}{Facebook post}},
  - `tweet` = {{Twitter post}{Twitter post}},
  - `podcast` = {{podcast}{podcast}},
  - `clip` = {{video}{video}},
  - `webcast` = {{webcast}{webcast}},
  - `poster` = {{poster}{poster}},

- **Miscellaneous**
  - `nolocation` = {{no place}{no place}},
  - `modified` = {{last modified}{last modified}},
  - `recorded` = {{recorded}{recorded}},
  - `uploaded` = {{uploaded}{uploaded}},
  - `filed` = {{filed}{filed}},
  - `issued` = {{issued}{issued}},

- **Labels**
  - `anon` = {{Anonymous}{Anonymous}},
  - `pseudo` = {{Pseudo-}{Pseudo-}},
  - `urldown` = {{downloaded}{downloaded}},

- **Country names, patents, and patent requests**
  - `countryjp` = {{Japan}{Japan}},
  - `patentjp` = {{Japanese patent}{Japanese patent}},
  - `patreqjp` = {{Japanese patent request}{Japanese patent request}},

- **These are borrowed from other styles.**
  - `1column` = {{one column}{one column}},
  - `2column` = {{two columns}{two columns}},
  - `inflayer` = {{inferior layer}{inferior layer}},
  - `suplayer` = {{superior layer}{superior layer}},
  - `paper` = {{paper}{paper}},
  - `papyrus` = {{papyrus}{papyrus}},
  - `pergament` = {{pergament}{pergament}},
  - `eucase` = {{Case}{Case}},
  - `eujoinedcases` = {{Joined Cases}{Joined Cases}},
  - `commissiondecision` = {{Commission Decision}{Commission Decision}},
  - `application` = {{Application}{Application}},
  - `order` = {{Order}{Order}},
  - `bill` = {{Bill}{Bill}},
  - `draft` = {{draft}{draft}},
  - `opened` = {{opened}{opened}},
  - `signed` = {{signed}{signed}},
  - `adopted` = {{adopted}{adopted}},

**Localization Modules**

- `clausetotal` = {{clause}{clause}},
- `clausetotals` = {{clauses}{clauses}},
- `regulationtotal` = {{regulation}{regulation}},
- `regulationtotals` = {{regulations}{regulations}},
- `ruletotal` = {{rule}{rule}},
- `ruletotals` = {{rules}{rules}},

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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).

```plaintext
byeditor = {{edited by}{ed\adddot}},
bycompiler = {{compiled by}{comp\adddot}},
byfounder = {{founded by}{found\adddot}},
bycontinuator = {{continued by}{cont\adddot}},
byredactor = {{redacted by}{red\adddot}},
byreviser = {{revised by}{rev\adddot}},
byreviewer = {{reviewed by}{rev\adddot}},
bycollaborator = {{in collaboration with}{in collab\adddotspace with}},
bytranslator = {{translated \lbx@lfromlang\ by}{trans\adddot \lbx@sfromlang}},
bycommentator = {{commented by}{comm\adddot}},
byannotator = {{annotated by}{annot\adddot}},
byeditortr = {{edited and translated \lbx@lfromlang\ by}\
\{ed\adddotspace and trans\adddot \lbx@sfromlang\}},
byeditorco = {{edited and commented by}\
\{ed\adddotspace and comm\adddot\}},
byeditoran = {{edited and annotated by}\
\{ed\adddotspace and annot\adddot\}},
byeditorin = {{edited, with an introduction, by}\
\{ed.\adddotspace with introduction\}},
byeditorfo = {{edited, with a foreword, by}\
\{ed.\adddotspace with foreword\}},
byeditoraf = {{edited, with an afterword, by}\
\{ed.\adddotspace with afterword\}},
byeditortrco = {{edited, translated \lbx@lfromlang\ and commented by}\
\{ed.,\addabbrvspace trans\adddot \lbx@sfromlang\ and comm\adddot\}},
byeditortран = {{edited, translated \lbx@lfromlang\ and annotated by}\
\{ed.,\addabbrvspace trans\adddot \lbx@sfromlang\ and annot\adddot\}},
byeditortrin = {{edited, with an introduction, by}\
\{with introduction, ed\adddotspace and trans\adddot \lbx@sfromlang\}},
byeditortrfo = {{edited, translated \lbx@lfromlang\ with a foreword, by}\
\{with foreword, ed\adddotspace and trans\adddot \lbx@sfromlang\}},
byeditortraf = {{edited, translated \lbx@lfromlang\ with an afterword, by}\
\{with afterword, ed\adddotspace and trans\adddot \lbx@sfromlang\}},
byeditorcof = {{edited and commented, with an introduction, by}\
\{with introduction, ed\adddotspace and comm\adddot\}},
byeditorcofo = {{edited and commented, with a foreword, by}\
\{with foreword, ed\adddotspace and comm\adddot\}},
byeditorcoaf = {{edited and commented, with an afterword, by}\
\{with afterword, ed\adddotspace and comm\adddot\}},
byeditoranin = {{edited and annotated, with an introduction, by}\
\{with introduction, ed\adddotspace and annot\adddot\}},
byeditoranfo = {{edited and annotated, with a foreword, by}\
\{with foreword, ed\adddotspace and annot\adddot\}},
byeditoranaf = {{edited and annotated, with an afterword, by}\
\{with afterword, ed\adddotspace and annot\adddot\}},
byeditortrcoi = {{edited, translated \lbx@lfromlang\ and commented, with an introduction, by}\
\{with introduction, ed.,\addabbrvspace trans\adddot \lbx@sfromlang\}}
```
The roles expressed as objects and terms for supplementary material are not abbreviated.

The abbreviations for some publication details are different.
There is also a different abbreviation for ‘paragraph’.

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


```
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.

```
idem = {{idem}{id\adddot}},
idemsm = {{idem}{id\adddot}},
idemsf = {{eadem}{ead\adddot}},
idemsn = {{idem}{id\adddot}},
idempm = {{eidem}{eid\adddot}},
idempf = {{eaedem}{eaed\adddot}},
idempn = {{eadem}{ead\adddot}},
idempn = {{eadem}{ead\adddot}},
citedas = {{henceforth}{henceforth}},
thiscite = {{at}{at}},
```

Languages are abbreviated.

```
langamerican = {{English}{Eng\adddot}},
langbrazilian = {{Brazilian}{Braz\adddot}},
langcatalan = {{Catalan}{Catal\adddot}},
langcroatian = {{Croatian}{Croat\adddot}},
langczech = {{Czech}{Czech}},
langdanish = {{Danish}{Dan\adddot}},
langdutch = {{Dutch}{Dutch}},
langenglish = {{English}{Eng\adddot}},
langestonian = {{Estonian}{Eston\adddot}},
langfrench = {{French}{Fr\adddot}},
langgerman = {{German}{Ger\adddot}},
langgreek = {{Greek}{Gr\adddot}},
langitalian = {{Italian}{It\adddot}},
langlatin = {{Latin}{Lat\adddot}},
langnorwegian = {{Norwegian}{Norw\adddot}},
langpolish = {{Polish}{Pol\adddot}},
langportuguese = {{Portuguese}{Port\adddot}},
langrussian = {{Russian}{Russ\adddot}},
langslovene = {{Slovene}{Slov\adddot}},
langsloven = {{Slovene}{Slov\adddot}},
langspanish = {{Spanish}{Sp\adddot}},
langswedish = {{Swedish}{Swed\adddot}},
```

### 5.2 British English: british-oxref.lbx

Here we set some language-specific punctuation and date formatting.
The only difference from the standard British date format is that we print it ‘clean’, with a cardinal instead of an ordinal day.

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

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

5.3 American English: american-oxref.lbx

5.4 Other languages

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