

biblatex-bath: Harvard referencing style as recommended by the University of Bath Library

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Package v6.0 – 25 May 2022

1 Introduction

This package provides a **biblatex** style to format reference lists in the **Harvard style** recommended by the University of Bath Library.

1.1 Installation

The files you need are included in the zip archive available from **GitHub**. If you use the zip archive from **CTAN**, you will need to run `luatex biblatex-bath.dtx` to generate them.

You can use this style simply by copying all the `.bbx`, `.cbx`, `.dbx` and `.lbx` files into your working directory, that is, the directory holding the main `.tex` file for your document. If you want the style to be available for all your documents without having to copy the files over each time, you can install them using the instructions below.

1.1.1 Managed way

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

1.1.2 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`
 - `bath.bbx`, `bath.cbx`, `bath.dbx`
 - `english-bath.lbx`, `british-bath.lbx`
 - `biblatex-bath.bib`
 - `biblatex-bath.ins`
- Running `make` generates the above files and also `biblatex-bath.pdf`. Ensure you have (at least) the `luatexja`, `adobemapping` and `[ipaex]` packages installed first.
- 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`.

*To contact the maintainer about this package, please visit the repository where the code is hosted: <https://github.com/alex-ball/bathbib>.

1.1.3 Manual way

You do not need to follow the first step if you downloaded the zip archive from [GitHub](#). You do not need to follow the second step if you already have the PDF documentation.

1. Run `luatex biblatex-bath.dtx` to generate the source files.
2. Compile `biblatex-bath.dtx` with [LuaLaTeX](#) and [Biber](#) to generate the documentation. You will need, among other things, the [luatexja](#), [adobemapping](#) and [haranoaji](#) packages installed; this is just for the documentation, not for the biblatex style itself.
3. If you are using TeX Live, find your home TeX tree using the following command at the command prompt/terminal:

```
kpsewhich -var-value=TEXMFHOME
```

If you are using MikTeX, consult the MikTeX manual entry for [integrating local additions](#). You can use one of the roots (TeX trees) already defined – preferably one of the User roots – or set up a new one.

4. Move the files to your TeX tree as follows:
 - `source/latex/biblatex-bath`: `biblatex-bath.dtx`, `(biblatex-bath.ins)`
 - `tex/latex/biblatex-bath`: `bath.bbx`, `bath.cbx`, `bath.dbx`, `english-bath.lbx`, `british-bath.lbx`
 - `doc/latex/biblatex-bath`: `biblatex-bath.pdf`, `README.md`
5. You may then have to update your installation’s file name database before TeX and friends can see the files.

2 Using the style

This style has been tested with `biblatex` versions 3.12 and 3.14.

To use the style, specify it when you load `biblatex`. To get the sorting order of your *citations* right, specify the `ynt` sorting scheme. To avoid possible inconsistencies (e.g. in how disambiguation letters are assigned), force all entries to use the global reference context:

```
\usepackage[style=bath,sorting=ynt]{biblatex}
\assignrefcontextentries[]{*}
```

Remember also to specify your `.bib` file in the preamble:

```
\addbibresource{file.bib}
```

To get the sorting order of your *references* right, create a new reference context just before you print your bibliography, using the `nyt` sorting scheme:

```
\newrefcontext[sorting=nyt]
\printbibliography
```

If you forget these extra steps, the `nyt` sorting scheme will be used throughout.

To make a citation in the text, use the key that corresponds to the entry in your `.bib` file:

```
While collections can be supplemented by other means \autocite{devlin.etal2021ipp},
the absence of an invisible collection amongst historians is noted by
\textcite[556]{stieg1981inh}. It may be, as \textcite{burchard1965hhl} points
out, that they have no assistants or are reluctant to delegate, or it may be
down to economic factors \autocite{adams2009tc1, adams2014tc2, adams2017tc3,
gb.pa2014}\dots
```

While collections can be supplemented by other means (Devlin, Martin and Ostrovnya, 2021), the absence of an invisible collection amongst historians is noted by Stieg (1981b, p.556). It may be, as Burchard (1965) points out, that they have no assistants or are reluctant to delegate, or it may be down to economic factors (Adams, 2009; 2014; *Pensions Act 2014*; Adams, 2017)...

Please refer to the documentation for `biblatex` for the full range of commands available for in-text citations.

It is strongly recommended to use Biber in place of BibTeX to process your references, as the style relies on Biber functionality to deal with some of the more exotic types of entry.

3 Breaking changes between versions

The following sections list implementation changes that might affect the way in which you write your bibliography database files.

In addition to the changes listed, when upgrading between major versions, you should expect some changes in formatting relating to the evolution of the Harvard (Bath) style itself. Some of the style's internal settings and structures may also change without warning.

3.1 Version 2

- The code for styling legal references has been completely overhauled, so you can represent them more semantically in your bibliography file. The examples below show the fields you should now use. As far as possible they have been made consistent with the `biblatex-oscola` style, a specialist style implementing the *Oxford Standard for the Citation of Legal Authorities*, to enable the same entries to be used with both styles.

For the sake of backwards compatibility, the version 1 semantics still work, but should be considered deprecated; support may be withdrawn in future (major) versions of this style.

- In version 1, the `titleaddon` field was printed unadorned, so you had to supply your own brackets. This was to allow greater freedom to 'hack' entries.

With version 2, you should not need to resort to such dirty tricks, so the style now applies the brackets for you, in common with styles such as `biblatex-apa`. Again, for the sake of backwards compatibility, before it does this it strips off any brackets you may have added by hand around your field value.

There is now a companion BibTeX style available (`bathx` in version 2+ of the `bath-bst` package) which is compatible with this style in the sense that it will render the same `.bib` file the same way, so long as some adjustments are made that won't affect the `biblatex` rendering (mainly concerning the handling of dates).

3.2 Version 3

- Journal titles are now coerced to sentence case, so any capital letters you want to keep need to be protected with braces.
- Entries of type `unpublished` are now explicitly marked as unpublished.
- With entry types that usually expect an `institution` or `organization` instead of a `publisher`, if you gave a `publisher` in earlier versions the `institution/organization` would be ignored. Now they are printed before the publication block.

- Some changes to the Harvard (Bath) style cannot be applied automatically (e.g. the update to how standards are referenced), so you may need to update your .bib file accordingly.

3.3 Version 5

- Series names (except those in `legislation` and `jurisdiction` entries) are now coerced to sentence case, so any capital letters you want to keep need to be protected with braces.
- The '[Online]' tag is now also triggered by `urldate/urlyear`.
- The style now sets `\bibhang` to 0pt instead of `\parindent` (or 1em).

3.4 Version 6

- Entry type clarifications such as 'Photograph' and 'Computer program' are now handled differently from translated titles, in particular as regards their position relative to the version, and how they interact with the '[Online]' tag. As a result, they should now be placed in `entrysubtype` rather than `titleaddon`.
- All elements of the title block (including `titleaddon`, `version`, and `entrysubtype`) now move to the head of the reference in the absence of an author/editor.

4 Examples

The examples below are shown in three parts. The first, marked with , shows an extract from the *Referencing guide: Harvard Bath* or *Referencing images*. The second, marked with , shows the reference as formatted by `biblatex`. The last shows how the reference was entered in the .bib file. The bottom right corner shows the source of the example: 'RX' indicates the 'Reference examples (A-Z)' section of the Guide; 'RL' indicates the 'Organise a reference list' section of the Guide; 'RI' indicates *Referencing images*.

You may notice that the examples tend to use BibTeX aliases and conventions for fields (e.g. `address`, `journal`, `year`) rather than the native `biblatex` fields. This is simply to ease transitions to and from BibTeX, and not a symptom of recalcitrance on the part of the author.

4.1 Books and book chapters

Book with author(s)

 Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology*. 7th ed. Edinburgh: Elsevier Churchill Livingstone.

 Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology*. 7th ed. Edinburgh: Elsevier Churchill Livingstone.

```
@book{rang.etal2012rdp,
  author = {Rang, H. P. and Dale, M. M. and Ritter, J. M. and Flower, R. J. and Henderson, G.},
  year = {2012},
  title = {Rang and {Dale's} Pharmacology},
  edition = {7},
  address = {Edinburgh},
  publisher = {Elsevier Churchill Livingstone}}
```

RX

 Open University, 1972. *Electricity and magnetism*. Bletchley: Open University Press.

 Open University, 1972. *Electricity and magnetism*. Bletchley: Open University Press.

```
@book{ou1972em,
  author = {{Open University}},
  year = {1972},
  title = {Electricity and Magnetism},
  address = {Bletchley},
  publisher = {Open University Press}}
```

RX

- 📖 Solomon, M.R., Askegaard, S., Hogg, M. and Bamossy, G.J., 2019. *Consumer behaviour: a European perspective*. 7th ed. Harlow: Pearson.
- ⚙️ Solomon, M.R., Askegaard, S., Hogg, M. and Bamossy, G.J., 2019. *Consumer behaviour: a European perspective*. 7th ed. Harlow: Pearson.

```
@book{solomon.etal2019cbe,
  author = {Solomon, M. R. and Askegaard, S. and Hogg, M. and Bamossy, G. J.},
  year = {2019},
  title = {Consumer Behaviour: a {European} Perspective},
  edition = {7},
  address = {Harlow},
  publisher = {Pearson}}
```

RX

Book with editor(s) instead of author(s)

- 📖 Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology*. 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.
- ⚙️ Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology*. 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.

```
@book{rothman.etal2008me,
  editor = {Kenneth J. Rothman and Sander Greenland and Timothy L. Lash},
  year = {2008},
  title = {Modern Epidemiology},
  edition = {3},
  address = {Philadelphia, Pa.},
  publisher = {Lippincott Williams \& Wilkins}}
```

RX

Electronic book

- 📖 Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: <http://www.hbcnetbase.com> [Accessed 16 June 2016].
- ⚙️ Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: <http://www.hbcnetbase.com> [Accessed 16 June 2016].

```
@book{haynes2014crc,
  editor = {Haynes, W. M.},
  year = {2014},
  title = {{CRC} Handbook of Chemistry and Physics},
  edition = {94},
  address = {Boca Raton, Fla.},
  publisher = {CRC Press/{Taylor and Francis}},
  url = {http://www.hbcnetbase.com},
  urldate = {2016-06-16}}
```

RX

📖 Blockley, D., 2021. *Engineering: a very short introduction* [Online]. Oxford: Oxford University Press. Available from: <https://www.amazon.co.uk/kindle> [Accessed 30 June 2021].

⚙️ Blockley, D., 2021. *Engineering: a very short introduction* [Online]. Oxford: Oxford University Press. Available from: <https://www.amazon.co.uk/kindle> [Accessed 30 June 2021].

```
@book{blockley2021evs,  
  author = {Blockley, D.},  
  year = {2021},  
  title = {Engineering: a Very Short Introduction},  
  address = {Oxford},  
  publisher = {Oxford University Press},  
  url = {https://www.amazon.co.uk/kindle},  
  urldate = {2021-06-30}}
```

RX

Book known by its title

💡 Use the most appropriate reference entry type instead of, say, book or collection.

📖 British National Formulary, 2020. 79th ed. London: Pharmaceutical Press.

⚙️ British National Formulary, 2020a. 79th ed. London: Pharmaceutical Press.

```
@reference{bnf2020,  
  year = {2020},  
  title = {{British National Formulary}},  
  edition = {79},  
  address = {London},  
  publisher = {Pharmaceutical Press}}
```

RX

📖 British National Formulary, 2020. 79th ed. *Aspirin*. London: Pharmaceutical Press.

⚙️ British National Formulary, 2020b. 79th ed. *Aspirin*. London: Pharmaceutical Press.

```
@inreference{aspirin2020bnf,  
  title = {Aspirin},  
  year = {2020},  
  booktitle = {{British National Formulary}},  
  edition = {79},  
  address = {London},  
  publisher = {Pharmaceutical Press}}
```

RX

📖 British National Formulary, 2019. *Aspirin* [Online]. London: Pharmaceutical Press. Available from: https://www.medicinescomplete.com/#/content/bnf/_456850132 [Accessed 26 November 2019].

⚙️ British National Formulary, 2019. *Aspirin* [Online]. London: Pharmaceutical Press. Available from: https://www.medicinescomplete.com/#/content/bnf/_456850132 [Accessed 26 November 2019].

```
@inreference{aspirin2019bnf,  
  title = {Aspirin},  
  year = {2019},  
  booktitle = {{British National Formulary}},  
  address = {London},  
  publisher = {Pharmaceutical Press},  
  url = {https://www.medicinescomplete.com/#/content/bnf/_456850132},  
  urldate = {2019-11-26}}
```

RX

- ❶ If you use the BibTeX backend, you will have to repeat the contents of the `booktitle` field in the `sorttitle` field yourself to ensure the entry is placed correctly in the reference list. If you use Biber, this is done automatically for you.

Chapter/paper from a collection (by different authors) in an edited book

- 📖 Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments*. Cambridge, Mass.: MIT Press, pp.41–87.
- ⚙️ Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments*. Cambridge, Mass.: MIT Press, pp.41–87.

```
@incollection{burchard1965hhl,
  author = {Burchard, J. E.},
  year = {1965},
  title = {How Humanists use a Library},
  editor = {C. F. J. Overhage and J. R. Harman},
  booktitle = {Intrex},
  booksubtitle = {Report on a Planning Conference and Information Transfer Experiments},
  address = {Cambridge, Mass.},
  publisher = {MIT Press},
  pages = {41-87}}
```

RL

- 📖 Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films*. London: Butterworths, pp.143–183.
- ⚙️ Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films*. London: Butterworths, pp.143–183.

```
@incollection{reid1967ptp,
  author = {D. R. Reid},
  year = {1967},
  title = {Physical Testing of Polymer Films},
  editor = {S. H. Pinner},
  booktitle = {Modern Packaging Films},
  address = {London},
  publisher = {Butterworths},
  pages = {143-183}}
```

RX

4.2 Articles and periodicals

Journal article

- 📖 Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.
- ⚙️ Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.

```
@article{stieg1981cer,
  author = {Stieg, M. F.},
  year = {1981},
  title = {Continuing Education and the Reference Librarian in the Academic and Research Library},
  journal = {Library Journal},
  volume = {105},
  number = {22},
  pages = {2547-2551}}
```

RL

Electronic journal article

 Devlin, S.M., Martin, A. and Ostrovnaya, I., 2021. Identifying prognostic pairwise relationships among bacterial species in microbiome studies. *PLOS Computational Biology* [Online], 17(11). Available from: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1009501> [Accessed 9 December 2021].

 Devlin, S.M., Martin, A. and Ostrovnaya, I., 2021. Identifying prognostic pairwise relationships among bacterial species in microbiome studies. *PLOS Computational Biology* [Online], 17(11). Available from: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1009501> [Accessed 9 December 2021].

```
@article{devlin.etal2021ipp,  
  author = {Devlin, S. M. and Martin, A. and Ostrovnaya, I.},  
  year = {2021},  
  title = {Identifying Prognostic Pairwise Relationships Among Bacterial  
    Species in Microbiome Studies},  
  journal = {{PLOS Computational Biology}},  
  volume = {17},  
  number = {11},  
  url = {https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1009501},  
  urldate = {2021-12-09}}
```

RX

 Steward, S., Connelly, D. and Robinson, J., 2020. Everything you should know about the coronavirus outbreak. *The pharmaceutical journal* [Online]. Available from: <https://www.pharmaceutical-journal.com/news-and-analysis/features/everything-you-should-know-about-the-coronavirus-outbreak/20207629.article> [Accessed 30 April 2020].

 Steward, S., Connelly, D. and Robinson, J., 2020. Everything you should know about the coronavirus outbreak. *The pharmaceutical journal* [Online]. Available from: <https://www.pharmaceutical-journal.com/news-and-analysis/features/everything-you-should-know-about-the-coronavirus-outbreak/20207629.article> [Accessed 30 April 2020].

```
@article{steward.etal2020eys,  
  author = {Steward, S. and Connelly, D. and Robinson, J.},  
  year = {2020},  
  title = {Everything You Should Know About the Coronavirus Outbreak},  
  journal = {The Pharmaceutical Journal},  
  url = {https://www.pharmaceutical-journal.com/news-and-analysis/features/everything-you-should-know-about-the-coronavirus-outbreak/20207629.article},  
  urldate = {2020-04-30}}
```

RX

- 📄 Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: <https://www.sciencedirect.com/science/article/pii/S1553838919303367> [Accessed 19 June 2019].
- ⚙️ Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: <https://www.sciencedirect.com/science/article/pii/S1553838919303367> [Accessed 19 June 2019].

```
@article{liontou.etal2019dra,
  author = {Liontou, C. and Kontopodis, E. and Oikonomidis, N. and Maniotis, C. and
    Tassopoulos, A. and Tsiafoutis, I. and Lazaris, E. and Koutouzis, M.},
  year = {2019},
  title = {Distal Radial Access: a Review Article},
  journal = {Cardiovascular Revascularization Medicine},
  pubstate = {inpress},
  url = {https://www.sciencedirect.com/science/article/pii/S1553838919303367},
  urldate = {2019-06-19}}
```

RX

💡 If citing an article yet to be officially published, use the `pubstate` field with the keyword `inpress` for ‘in press’ and `inpreparation` or `submitted` (whichever is more accurate) for ‘preprint’.

Preprint or trial study in a digital repository

- 📄 Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: <http://opus.bath.ac.uk> [Accessed 4 May 2016].
- ⚙️ Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: <http://opus.bath.ac.uk> [Accessed 4 May 2016].

```
@report{shah.corrick2016hsc,
  author = {Shah, I. and Corrick, I.},
  year = {2016},
  title = {How should central banks respond to non-neutral inflation expectations?},
  address = {Bath},
  institution = {University of Bath},
  library = {OPUS},
  url = {http://opus.bath.ac.uk},
  urldate = {2016-05-04}}
```

RX

- 📖 Ganju, V., 2021. *A study of EnGeneIC Dream Vectors (EDV's) packaged with the chemotherapy, E-EDV-D682 given simultaneously as non-targeted EDVs carrying an immune enhancer called EDV-GC, in participants with advanced pancreatic and other cancers whose disease has progressed after one or two treatment regimes, or where other standard therapies are not appropriate.* Sydney: University of Sydney. *Australian and New Zealand Clinical Trials Registry* [Online]. Available from: <http://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=365258> [Accessed 29 April 2021].
- ⚙ Ganju, V., 2021. *A study of EnGeneIC Dream Vectors (EDV's) packaged with the chemotherapy, E-EDV-D682 given simultaneously as non-targeted EDVs carrying an immune enhancer called EDV-GC, in participants with advanced pancreatic and other cancers whose disease has progressed after one or two treatment regimes, or where other standard therapies are not appropriate.* Sydney: University of Sydney. *Australian and New Zealand Clinical Trials Registry* [Online]. Available from: <http://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=365258> [Accessed 29 April 2021].

```
@report{ganju2021sed,
  author = {Ganju, V.},
  year = {2021},
  title = {A study of {EnGeneIC} {Dream} {Vectors} {(EDV's)} packaged with the chemotherapy,
    {E-EDV-D682} given simultaneously as non-targeted {EDVs} carrying an immune enhancer
    called {EDV-GC}, in participants with advanced pancreatic and other cancers whose disease
    has progressed after one or two treatment regimes, or where other standard therapies are
    not appropriate},
  address = {Sydney},
  institution = {University of Sydney},
  library = {Australian and New Zealand Clinical Trials Registry},
  url = {http://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=365258},
  urldate = {2021-04-29}}
```

RX

- 💡 The Harvard (Bath) style treats preprints as grey literature, and so the `report` entry type is the best match semantically. Use `library` to specify the name of the preprint repository.

In standard biblatex, you would typically use the natural entry type for the work and provide preprint details using the `eprinttype`, `eprintclass` and `eprint` fields.

Newspaper article

- 📖 Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.
- ⚙ Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.

```
@article{haurant2004bbh,
  author = {Haurant, S.},
  date = {2004-07-29},
  title = {Britain's Borrowing Hits \pounds 1 Trillion},
  journal = {{The Guardian}},
  pages = {16c}}
```

RX

- 📖 The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.
- ⚙ The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.

```
@article{independent1992pub,
  author = {{The Independent}},
  date = {1992-06-04},
  title = {Picking Up the Bills},
  journal = {{The Independent}},
  pages = {28a}}
```

RX

📄 Cogley, M., 2020. Corporate confidence slumps to record low. *The Telegraph* [Online], 4 May. Available from: <https://www.telegraph.co.uk/business/2020/05/03/corporate-confidence-slumps-all-time-low/> [Accessed 5 May 2020].

⚙️ Cogley, M., 2020. Corporate confidence slumps to record low. *The Telegraph* [Online], 4 May. Available from: <https://www.telegraph.co.uk/business/2020/05/03/corporate-confidence-slumps-all-time-low/> [Accessed 5 May 2020].

```
@article{cogley2020ccs,  
  author = {Cogley, M.},  
  date = {2020-05-04},  
  title = {Corporate Confidence Slumps to Record Low},  
  journal = {{The Telegraph}},  
  url = {https://www.telegraph.co.uk/business/2020/05/03/corporate-confidence-slumps-all-time-low/},  
  urldate = {2020-05-05}}
```

RX

4.3 Conference papers

Conference paper (when proceedings have a named editor)

📄 Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute*, 2–4 August 1964, Glasgow. London: Academic Press, pp.113–118.

⚙️ Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute*, 2–4 August 1964, Glasgow. London: Academic Press, pp.113–118.

```
@inproceedings{crawford1965oim,  
  author = {Crawford, G. I.},  
  year = {1965},  
  title = {Oxygen in Metals},  
  editor = {J. M. A. Lenihan and S. J. Thompson},  
  booktitle = {Activation Analysis},  
  booksubtitle = {Proceedings of a {NATO} {Advanced} {Study} {Institute}},  
  eventdate = {1964-08-02/1964-08-04},  
  venue = {Glasgow},  
  address = {London},  
  publisher = {Academic Press},  
  pages = {113-118}}
```

RX

Conference paper (when proceedings have no named editor or are part of a major series)

📄 Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.

⚙️ Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.

```
@inproceedings{soper1972rbc,  
  author = {Soper, D.},  
  year = {1972},  
  title = {Review of Bracken Control Experiments with Asulam},  
  booktitle = {Proceedings of the 11th {British} {Weed} {Control} {Conference}},  
  eventdate = {1972-11-15/1972-11-17},  
  venue = {Brighton},  
  address = {Brighton},  
  publisher = {University of Sussex},  
  pages = {24-31}}
```

RX

4.4 Grey literature

Thesis/dissertation

 Burrell, J.G., 1973. *The importance of school tours in education*. Thesis (M.A.). Queen's University, Belfast.

 Burrell, J.G., 1973. *The importance of school tours in education*. Thesis (M.A.). Queen's University, Belfast.

```
@thesis{burrell1973ist,  
  author = {Burrell, J. G.},  
  year = {1973},  
  title = {The Importance of School Tours in Education},  
  type = {Thesis \parenttext{M.A.}},  
  school = {Queen's University, Belfast}}
```

RX

Report, working paper, or research briefing

 UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

 UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

```
@report{unesco1993gip,  
  author = {{UNESCO}},  
  year = {1993},  
  title = {General Information Programme and {UNISIST}},  
  address = {Paris},  
  institution = {UNESCO},  
  number = {PGI-93/WS/22}}
```

RX

 BRE, 2007. *Designing quality buildings: a BRE guide*. (Report 497). Bracknell: BRE.

 BRE, 2007. *Designing quality buildings: a BRE guide*. (Report 497). Bracknell: BRE.

```
@techreport{bre2007dqb,  
  author = {{BRE}},  
  year = {2007},  
  title = {Designing Quality Buildings: a {BRE} Guide},  
  address = {Bracknell},  
  institution = {BRE},  
  type = {Report},  
  number = {497}}
```

RX

 Deneulin, S. and Dinerstein, A.C., 2010. *Hope movements: social movements in the pursuit of human development*. (Bath papers in international development and wellbeing, no. 8). Bath: University of Bath.

 Deneulin, S. and Dinerstein, A.C., 2010. *Hope movements: social movements in the pursuit of human development*. (Bath papers in international development and wellbeing, no. 8). Bath: University of Bath.

```
@report{deneulin.dinerstein2010hms,  
  author = {Deneulin, S. and Dinerstein, A. C.},  
  year = {2010},  
  title = {Hope Movements: Social Movements in the Pursuit of Human Development},  
  address = {Bath},  
  institution = {University of Bath},  
  series = {Bath Papers in International Development and Wellbeing},  
  number = {no.~8}}
```

RX

- ❗ The style inserts a comma between the `series` and `number` fields, but does not insert one between `type` and `number`.

Standard

📖 BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material*. London: BSI.

⚙️ BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material*. London: BSI.

```
@standard{bs5605:1990,
  author = {{BSI}},
  year = {1990},
  title = {{BS}-5605:1990 {Recommendations} for Citing and Referencing Published Material},
  address = {London},
  organization = {BSI}}
```

RX

📖 ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels*. West Conshohocken, Pa.: ASTM.

⚙️ ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels*. West Conshohocken, Pa.: ASTM.

```
@standard{astm.d1655,
  author = {{ASTM}},
  year = {2019},
  title = {{ASTM-D1655} - 19 {Standard} Specification for Aviation Turbine Fuels},
  address = {West Conshohocken, Pa.},
  organization = {ASTM}}
```

RX

Patent

📖 Phillipp Morris Inc., 1981. *Optical perforating apparatus and system*. European patent application 0021165A1. 1981-01-07.

⚙️ Phillipp Morris Inc., 1981. *Optical perforating apparatus and system*. European patent application 0021165A1. 1981-01-07.

```
@patent{pm1981opa,
  author = {{Phillipp Morris Inc.}},
  year = {1981},
  title = {Optical perforating apparatus and system},
  type = {European patent application},
  number = {0021165A1. 1981-01-07}}
```

RX

- ❗ Note that biblatex has special localisation keys for full patents and patent requests/applications.

Unpublished written material and personal communications

📖 Harris, G., 2013. *Focus group recommendations: internal task group report*. Unpublished.

⚙️ Harris, G., 2013. *Focus group recommendations: internal task group report*. Unpublished.

```
@unpublished{harris2013fgr,
  author = {Harris, G.},
  year = {2013},
  title = {Focus group recommendations: internal task group report}}
```

RX

- 📖 Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics*. University of Bath. Unpublished.
- ⚙️ Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics*. University of Bath. Unpublished.

```
@unpublished{hadley2015bir,
  author = {Hadley, S.},
  year = {2015},
  title = {Biomechanics: introductory reading, {BM289}: sport biomechanics},
  howpublished = {University of Bath}}
```

RX

- 📖 Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies*. University of Bath. Unpublished.
- ⚙️ Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies*. University of Bath. Unpublished.

```
@unpublished{thomas2015wcr,
  author = {Thomas, D.},
  year = {2015},
  title = {Word count and referencing style},
  booktitle = {Frequently asked questions discussion board: {PHYS} 2011: housing studies},
  howpublished = {University of Bath}}
```

RX

4.5 Audiovisual materials

Image

- 📖 NASA, 2015. *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: <http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk> [Accessed 7 January 2015].
- ⚙️ NASA, 2015. *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: <http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk> [Accessed 7 January 2015].

```
@image{nasa2015nat,
  author = {{NASA}},
  year = {2015},
  title = {{NASA} Astronaut {Tim} {Kopra} on {Dec.\@} 21 Spacewalk},
  address = {Washington},
  publisher = {NASA},
  url = {http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk},
  urldate = {2015-01-07}}
```

RI

- 📖 Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2016].
- ⚙️ Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2016].

```
@image{iliff2006rcb,
  author = {D. Iliff},
  year = {2006},
  title = {{Royal} {Crescent} in {Bath,} {England} - {July} 2006},
  address = {San Francisco},
  organization = {Wikimedia Foundation},
  url = {https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg},
  urldate = {2016-01-07}}
```

RI

💡 You can use either the **publisher** or the **organization** field to record the source of the image.

📖 Bristol Region Building Record, 1965. *Green Park House (since demolished), viewed from southwest* [Photograph]. BRBR, D/877/1. Archives & Research Collections, University of Bath Library.

⚙️ Bristol Region Building Record, 1965. *Green Park House (since demolished), viewed from southwest* [Photograph]. BRBR, D/877/1. Archives & Research Collections, University of Bath Library.

```
@image{brbr1965gph,  
  author = {{Bristol Region Building Record}},  
  year = {1965},  
  title = {{Green} {Park} {House} (since demolished), viewed from southwest},  
  entrysubtype = {Photograph},  
  number = {BRBR, D/877/1},  
  library = {Archives \& Research Collections, University of Bath Library}}
```

RI

💡 Use the **library** field to record the name of the archive. If the image is on display rather than archived, use **institution** instead for the museum, gallery or building. If you also wish to provide the name of the organisation that published the image, use the **publisher** field if the location you provide relates to the publisher, but the **organization** field if the location relates to the archive.

💡 Put archival locator information (e.g. box or shelf number) in the **number** field. Alternatively, you can split the information across the (non-standard) **collection** ('BRBR') and **shelfmark** ('D/877/1') fields.

💡 Put the clarification of the resource type in **entrysubtype**. In most cases, you can use **titleaddon** instead, but **entrysubtype** will correctly suppress 'Online' being shown while **titleaddon** will not.

Map

📖 Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.

⚙️ Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.

```
@manual{andrews.dury1773wilts,  
  author = {Andrews, J. and Dury, A.},  
  year = {1773},  
  title = {Map of {Wiltshire}},  
  series = {1 inch to 2 miles},  
  address = {Devizes},  
  publisher = {Wiltshire Record Society}}
```

RX

❗ The book entry type would also work for this reference.

📄 Ordnance Survey, 2020. *Street view map of University of Bath* [Online], 1:5000, OS VectorMap® Local. Available from: <https://digimap.edina.ac.uk/roam/map/os> [Accessed 30 April 2020].

⚙️ Ordnance Survey, 2020. *Street view map of University of Bath* [Online], 1:5000, OS VectorMap® Local. Available from: <https://digimap.edina.ac.uk/roam/map/os> [Accessed 30 April 2020].

```
@manual{os2020bath,
  author = {{Ordnance Survey}},
  year = {2020},
  title = {Street view map of {University of Bath}},
  series = {1:5000, {OS VectorMap® Local}},
  url = {https://digimap.edina.ac.uk/roam/map/os},
  urldate = {2020-04-30}}
```

RX

📄 Google, 2020. *Harbourside, Bristol* [Online], Google Maps. Available from: <https://www.google.co.uk/maps/place/Harbourside,+Bristol/> [Accessed 30 April 2020].

⚙️ Google, 2020. *Harbourside, Bristol* [Online], Google Maps. Available from: <https://www.google.co.uk/maps/place/Harbourside,+Bristol/> [Accessed 30 April 2020].

```
@manual{google2020harbourside,
  author = {{Google}},
  year = {2020},
  title = {{Harbourside, Bristol}},
  series = {{Google Maps}},
  url = {https://www.google.co.uk/maps/place/Harbourside,+Bristol/},
  urldate = {2020-04-30}}
```

RX

Film, video or DVD

📄 *Macbeth*, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.

⚙️ *Macbeth*, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.

```
@video{macbeth1948,
  year = {1948},
  title = {Macbeth},
  type = {Film},
  note = {Directed by Orson Welles},
  address = {USA},
  publisher = {Republic Pictures}}
```

RX

❗ In the above entry, the following would also work instead of using **note**:

```
editor = {Orson Welles},
editortype = {director},
```

❗ You can also use **movie** as an alias for **video**.

- 📺 *The elephant man* [Online], 1980. Film. Directed by David Lynch. USA: Brooksfilms. Available from: BBC iPlayer [Accessed 4 May 2021].
- ⚙️ *The elephant man* [Online], 1980. Film. Directed by David Lynch. USA: Brooksfilms. Available from: BBC iPlayer [Accessed 4 May 2021].

```
@video{elephant-man1980,
  year = {1980},
  title = {The elephant man},
  type = {Film},
  note = {Directed by David Lynch},
  address = {USA},
  publisher = {Brooksfilms},
  library = {BBC iPlayer},
  urldate = {2021-05-04}}
```

RX

Online video/audio

- 📺 Moran, C., 2016. *Save our libraries* [Online]. Available from: <https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be> [Accessed 29 April 2016].
- ⚙️ Moran, C., 2016. *Save our libraries* [Online]. Available from: <https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be> [Accessed 29 April 2016].

```
@video{moran2016sol,
  author = {Moran, C.},
  year = {2016},
  title = {Save Our Libraries},
  url = {https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be},
  urldate = {2016-04-29}}
```

RX

- 📺 Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: <https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast> [Accessed 28 March 2019].
- ⚙️ Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: <https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast> [Accessed 28 March 2019].

```
@audio{chakrabarti2016hac,
  author = {Chakrabarti, V.},
  year = {2016},
  title = {How Architecture and City Planning Can Combat Social Inequality},
  url = {https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast},
  urldate = {2019-03-28}}
```

RX

Television or radio broadcast

- 📺 Hurry up and wait, 2021. *Inside no.9, Episode 6:4*. TV. BBC2, 31 May. 21.30 hrs.
- ⚙️ Hurry up and wait, 2021. *Inside no.9, Episode 6:4*. TV. BBC2, 31 May. 21.30 hrs.

```
@video{inn2021huw,
  date = {2021-05-31T21:30:00},
  title = {Hurry up and wait},
  series = {Inside No.9},
  number = {{Episode} 6:4},
  type = {TV},
  publisher = {BBC2}}
```

RX

💡 Use `type` for the medium and `publisher` for the channel.

💡 If the episode has an individual title, use `series` for the series and `number` for the episode number. Otherwise, give both series and episode number as the `title`.

📖 Rick Stein's French odyssey: Episode 5, 2006. TV. BBC2, 23 August. 20.30 hrs.
⚙️ Rick Stein's French odyssey: Episode 5, 2006. TV. BBC2, 23 August. 20.30 hrs.

```
@video{rsfo2006ep5,  
  date = {2006-08-23T20:30:00},  
  title = {Rick {Stein's} {French} Odyssey},  
  subtitle = {{Episode} 5},  
  type = {TV},  
  publisher = {BBC2}}
```

RX

📖 The Archers, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.
⚙️ The Archers, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.

```
@audio{archers20060823,  
  date = {2006-08-23T19:02:00},  
  title = {The {Archers}},  
  type = {Radio},  
  publisher = {BBC Radio 4}}
```

RX

📖 You can also use `music` as an alias for `audio`.

📖 The secret, 2020. *Tiger king: murder, mayhem and madness, Episode 3* [Online]. TV. Available from: Netflix [Accessed 4 May 2021].
⚙️ The secret, 2020. *Tiger king: murder, mayhem and madness, Episode 3* [Online]. TV. Available from: Netflix [Accessed 4 May 2021].

```
@video{tkmmm2020ts,  
  year = {2020},  
  title = {The Secret},  
  series = {Tiger King: Murder, Mayhem and Madness},  
  number = {{Episode} 3},  
  type = {TV},  
  library = {Netflix},  
  urldate = {2021-05-04}}
```

RX

Music score

📖 Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21*. Harmondsworth: Penguin.
⚙️ Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21*. Harmondsworth: Penguin.

```
@book{beethoven1950symp1,  
  author = {Ludwig van Beethoven},  
  year = {1950},  
  title = {Symphony no.1 in {C,} {Op.21}},  
  address = {Harmondsworth},  
  publisher = {Penguin}}
```

RX

4.6 Digital media

Website or webpage

-  World Health Organization, 2018. *The top 10 causes of death* [Online]. Geneva: World Health Organization. Available from: <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death> [Accessed 29 June 2020].
-  World Health Organization, 2018. *The top 10 causes of death* [Online]. Geneva: World Health Organization. Available from: <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death> [Accessed 29 June 2020].

```
@online{who2018ttc,  
  author = {{World Health Organization}},  
  year = {2018},  
  title = {The Top 10 Causes of Death},  
  address = {Geneva},  
  organization = {World Health Organization},  
  url = {https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death},  
  urldate = {2020-06-29}}
```

RX

-  Manco, J., 2013. *Vernacular architecture* [Online]. Available from: <https://www.buildinghistory.org/style/vernacular.shtml> [Accessed 20 February 2020].
-  Manco, J., 2013. *Vernacular architecture* [Online]. Available from: <https://www.buildinghistory.org/style/vernacular.shtml> [Accessed 20 February 2020].

```
@online{manco2013va,  
  author = {Manco, J.},  
  year = {2013},  
  title = {Vernacular Architecture},  
  url = {https://www.buildinghistory.org/style/vernacular.shtml},  
  urldate = {2020-02-20}}
```

RX

Social media

-  Gaiman, N., 2021. *Facebook post* [Online], 21 April. Available from: <https://www.facebook.com/neilgaiman/posts/305187897642814> [Accessed 13 May 2021].
-  Gaiman, N., 2021. *Facebook post* [Online], 21 April. Available from: <https://www.facebook.com/neilgaiman/posts/305187897642814> [Accessed 13 May 2021].

```
@online{gaiman2021fbp,  
  author = {Gaiman, N.},  
  date = {2021-04-21},  
  title = {Facebook post},  
  url = {https://www.facebook.com/neilgaiman/posts/305187897642814},  
  urldate = {2021-05-13}}
```

RX

📄 Library at University of Bath [@bathunilibrary], 2021. *Twitter post* [Online], 10 May. Available from: <https://twitter.com/BathUniLibrary/status/1391774402618998795?s=20> [Accessed 12 May 2021].

⚙️ Library at University of Bath [@bathunilibrary], 2021. *Twitter post* [Online], 10 May. Available from: <https://twitter.com/BathUniLibrary/status/1391774402618998795?s=20> [Accessed 12 May 2021].

```
@online{ublib2021tp,  
  author = {{Library at University of Bath}},  
  nameaddon = {@bathunilibrary},  
  date = {2021-05-10},  
  title = {Twitter post},  
  url = {https://twitter.com/BathUniLibrary/status/1391774402618998795?s=20},  
  urldate = {2021-05-12}}
```

RX

📄 University of Bath Library [@unibathlib], 2021. *Instagram post* [Online], 15 March. Available from: https://www.instagram.com/p/CMb5GHjFv9A/?utm_source=ig_web_copy_link [Accessed 7 May 2021].

⚙️ University of Bath Library [@unibathlib], 2021. *Instagram post* [Online], 15 March. Available from: https://www.instagram.com/p/CMb5GHjFv9A/?utm_source=ig_web_copy_link [Accessed 7 May 2021].

```
@online{ublib2021ip,  
  author = {{University of Bath Library}},  
  nameaddon = {@unibathlib},  
  date = {2021-03-15},  
  title = {Instagram post},  
  url = {https://www.instagram.com/p/CMb5GHjFv9A/?utm_source=ig_web_copy_link},  
  urldate = {2021-05-07}}
```

RX

Email discussion list

📄 Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].

⚙️ Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].

```
@letter{clark2004euk,  
  author = {Clark, T.},  
  date = {2004-07-05},  
  title = {A {European} {UK} {Libraries} {Plus}?},  
  journal = {Lis-link},  
  url = {lis-link@jiscmail.ac.uk},  
  urldate = {2004-07-30}}
```

RX

💡 Use the `journal` field to specify the mailing list. If you omit the `journal` field, the entry will be formatted as an unpublished work.

Database

 Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: <http://www.portal.euromonitor.com> [Accessed 6 November 2014].

 Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: <http://www.portal.euromonitor.com> [Accessed 6 November 2014].

```
@dataset{bvd2008bt,  
  author = {{Bureau van Dijk}},  
  year = {2008},  
  title = {{BT} {Group} PLC Company Report},  
  library = {FAME},  
  address = {London},  
  publisher = {Bureau van Dijk},  
  url = {http://www.portal.euromonitor.com},  
  urldate = {2014-11-06}}
```

RX

 Use the `title` field for the entry title, and the `library` field for the name of the database itself.

Dataset

 Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: <https://doi.org/10.15125/BATH-00069> [Accessed 20 April 2016].

 Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: <https://doi.org/10.15125/BATH-00069> [Accessed 20 April 2016].

```
@dataset{wilson2013rgc,  
  author = {Wilson, D.},  
  year = {2013},  
  title = {Real Geometry and Connectedness via Triangular Description},  
  subtitle = {{CAD} Example Bank},  
  address = {Bath},  
  publisher = {University of Bath},  
  doi = {10.15125/BATH-00069},  
  urldate = {2016-04-20}}
```

RX

Computer program

 @screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: <https://screencast-o-matic.com/> [Accessed 16 May 2016].

 @screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: <https://screencast-o-matic.com/> [Accessed 16 May 2016].

```
@software{screencasto,  
  author = {@screencasto},  
  title = {{Screencast-O-Matic}},  
  version = {2},  
  entrysubtype = {computer program},  
  url = {https://screencast-o-matic.com/},  
  urldate = {2016-05-16}}
```

RX

 Put the clarification of the resource type in `entrysubtype`. In most cases, you can use `titleaddon` instead, but `titleaddon` is shown immediately after the title and may be shown alongside the ‘Online’ label, whereas `entrysubtype` is printed after the `version` and supersedes the ‘Online’ label.

4.7 Works in languages other than English

Work in translation

- 📖 Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.
- ⚙️ Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.

```
@book{aristotle2007ne,  
  author = {Aristotle},  
  year = {2007},  
  title = {Nicomachean Ethics},  
  translator = {W. D. Ross},  
  address = {South Dakota},  
  publisher = {NuVisions}}
```

RX

Work in the Roman alphabet

- 📖 Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.
- ⚙️ Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.

```
@book{esquivel2003cap,  
  author = {Esquivel, L.},  
  year = {2003},  
  title = {Como Agua para Chocolate},  
  titleaddon = {Like water for chocolate},  
  address = {Barcelona},  
  publisher = {Debolsillo}}
```

RX

💡 Use the `titleaddon` field to supply the English translation of the title.

- 📖 Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.
- ⚙️ Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.

```
@article{thurfjell1975vhv,  
  author = {Thurfjell, W.},  
  year = {1975},  
  title = {Vart har våran doktor tagit vägen?},  
  titleaddon = {Where has our doctor gone?},  
  journal = {Läkartidningen},  
  volume = {72},  
  pages = {789}}
```

RX

Work in a non-Roman alphabet

- 📖 Hua, L. 華林甫, 1999. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.
- ⚙️ Hua, L. 華林甫, 1999b. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.

```
@article{hua1999qys1,
  author = {given=Linfu, family=Hua, cjk=華林甫},
  year = {1999},
  title = {Qingdai yilai {Sanxia} diqu shuihan zaihai de chubu yanjiu
    {清代以來三峽地區水旱災害的初步研}},
  titleaddon = {A preliminary study of floods and droughts in the {Three} {Gorges} region since
    the {Qing} dynasty},
  journal = {Zhongguo shehui kexue \emph{中國社會科學}},
  volume = {1},
  pages = {168-79}}
```

RX

- 💡 To supply a transliterated version of an author name, specify the name using the name parts family, given and cjk. Please note that if you do supply a cjk component, any prefix or suffix component you may supply will be ignored.

- 📖 Hua, L., 1999. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.
- ⚙️ Hua, L., 1999a. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.

```
@article{hua1999qys2,
  author = {Hua, Linfu},
  year = {1999},
  title = {Qingdai yilai {Sanxia} diqu shuihan zaihai de chubu yanjiu},
  titleaddon = {A preliminary study of floods and droughts in the {Three} {Gorges} region since
    the {Qing} dynasty},
  journal = {Zhongguo shehui kexue},
  volume = {1},
  pages = {168-79}}
```

RX

- 💡 Although not a feature of the Harvard (Bath) Style, if you want to suppress the punctuation between the family name and the initial (and thereby be more faithful to the original orthography), you can specify this using biblatex's data annotations feature, using the keyword cjk:

- 📖 Hua L. 華林甫, 2001. *Lorem ipsum*.
- ⚙️ Hua L. 華林甫, 2001. *Lorem ipsum*.

```
@book{hua2001foo,
  author = {given=Linfu, family=Hua, cjk=華林甫},
  author+an = {1=cjk},
  year = {2001},
  title = {Lorem ipsum}}
```

📖 Pamporov, A., 2006. *Romskoto vsekidnevnie v Balgariya* [Roma everyday life in Bulgaria]. Veliko Tarnovo: Faber.

⚙️ Pamporov, A., 2006. *Romskoto vsekidnevnie v Balgariya* [Roma everyday life in Bulgaria]. Veliko Tarnovo: Faber.

```
@book{pamporov2006rvb,  
  author = {Pamporov, A.},  
  year = {2006},  
  title = {Romskoto vsekidnevnie v {Balgariya}},  
  titleaddon = {Roma everyday life in Bulgaria},  
  address = {Veliko Tarnovo},  
  publisher = {Faber}}
```

RX

4.8 Legal or government document: UK parliamentary reports/legislation

House of Commons paper

💡 Use this form for reports of House of Commons select committees.

📖 Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003*. (HC 2003/04, 30). London: National Audit Office.

⚙️ Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003*. (HC 2003/04, 30). London: National Audit Office.

```
@report{gb.hc2003/04-30,  
  author = {{Great Britain. Parliament. House of Commons}},  
  year = {2004},  
  title = {National {Savings} Investment Deposits},  
  subtitle = {Account 2002--2003},  
  address = {London},  
  publisher = {National Audit Office},  
  series = {{HC} 2003/04},  
  number = {30}}
```

RX

House of Lords paper

💡 Use this form for reports of House of Lords select committees.

📖 Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill*. (HL 1986/87, (66)). London: HMSO.

⚙️ Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill*. (HL 1986/87, (66)). London: HMSO.

```
@report{gb.hl1986/87-66,  
  author = {{Great Britain. Parliament. House of Lords}},  
  year = {1987},  
  title = {Social Fund (Maternity and Funeral Expenses) Bill},  
  address = {London},  
  publisher = {HMSO},  
  series = {{HL} 1986/87},  
  number = {66}}
```

RX

🔧 For joint committees, you will have to hack this slightly, putting the session years in **series** and the HL and HC numbers in **number**.

Command paper

- 📖 Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper*. (Cm. 6041). London: TSO.
- ⚙️ Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper*. (Cm. 6041). London: TSO.

```
@report{gb.cm6041,
  author = {{Great Britain. Ministry of Defence}},
  year = {2004},
  title = {Delivering Security in a Changing World},
  subtitle = {Defence White Paper},
  address = {London},
  publisher = {TSO},
  series = {Cm},
  number = {6041}}
```

RX

House of Commons/House of Lords bill

- 📖 Great Britain. Parliament. House of Commons, 1988. *Local government finance bill*. (Bills | 1987/88, 66). London: HMSO.
- ⚙️ Great Britain. Parliament. House of Commons, 1988. *Local government finance bill*. (Bills | 1987/88, 66). London: HMSO.

```
@legislation{gb.bill1987/88-66,
  author = {{Great Britain. Parliament. House of Commons}},
  year = {1988},
  title = {Local Government Finance Bill},
  address = {London},
  publisher = {HMSO},
  series = {{Bills | 1987/88}},
  number = {66}}
```

RX

Act of Parliament (UK Statutes) before 1963

- 📖 *Witchcraft Act 1735* (9 Geo.2, c.5).
- ⚙️ *Witchcraft Act 1735* (9 Geo.2, c.5).

```
@legislation{gb.wa1735,
  title = {Witchcraft {Act}},
  year = {1735},
  series = {9 Geo.2},
  chapter = {5}}
```

RX

- 📖 You could instead combine the series and chapter in the **number** field:

```
number = {9 Geo.2, c.5}
```

Act of Parliament (UK Statutes) 1963 onwards

- 📖 *Pensions Act 2014*, c.19. London: TSO.
- ⚙️ *Pensions Act 2014*, c.19. London: TSO.

```
@legislation{gb.pa2014,  
  title = {Pensions {Act}},  
  year = {2014},  
  chapter = {19},  
  address = {London},  
  publisher = {TSO}}
```

RX

Statutory instrument

- 📖 *The Human Medicines Regulations 2012* [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf [Accessed 17 April 2016].
- ⚙️ *The Human Medicines Regulations 2012* [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf [Accessed 17 April 2016].

```
@legislation{gb.hmr2012,  
  entrysubtype = {secondary},  
  title = {The {Human} {Medicines} {Regulations}},  
  year = {2012},  
  number = {No.1916},  
  address = {United Kingdom},  
  publisher = {HMSO},  
  url = {http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf},  
  urldate = {2016-04-17}}
```

RX

💡 Use the `entrysubtype` 'secondary' to put the number in the right place.

4.9 Legal or government document: EU reports/legislation

EU publication

- 📖 European Commission, 2015. *General report on the activities of the European Union 2014*. Luxembourg: Publications Office of the European Union.
- ⚙️ European Commission, 2015. *General report on the activities of the European Union 2014*. Luxembourg: Publications Office of the European Union.

```
@report{ec2015gra,  
  author = {{European Commission}},  
  year = {2015},  
  title = {General Report on the Activities of the {European} {Union} 2014},  
  address = {Luxembourg},  
  publisher = {Publications Office of the European Union}}
```

RX

EU regulation or directive, decision, recommendation or opinion

- 📖 Council Regulation (EC) 1984/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.
- ⚙️ Council Regulation (EC) 1984/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.

```
@legislation{eu.dir1984/2003,
  title = {Council {Regulation} ({EC}) 1984/2003 of 8 {April} 2003 Introducing a System for
    the Statistical Monitoring of Trade in Bluefin Tuna, Swordfish and Big Eye Tuna within
    the {Community}},
  shorttitle = {Council {Regulation} \parenttext{EC} 1984/2003},
  year = {2003},
  journal = {OJ},
  series = {L},
  volume = {295}}
```

RX

- ❗ The `shorttitle` will be used in citations instead of the full title.

4.10 Legal or government document: case reports

Legal case study

- 📖 *Seldon v. Clarkson Wright & Jakes*. [2012]. UKSC 16.
- ⚙️ *Seldon v. Clarkson Wright & Jakes*. [2012]. UKSC 16.

```
@jurisdiction{seldon-v-c.w.j2012,
  title = {Seldon v.~{Clarkson} {Wright} \& {Jakes}},
  year = {2012},
  journal = {UKSC},
  pages = {16}}
```

RX

- ❗ Generally speaking, the year should be in square brackets if it is essential to the citation (unless it is a Scottish case, in which case it is printed bare), and in parentheses if it is not.
- 💡 By default, the style assumes the year is essential if and only if a volume number is *not* provided; to override this, you can use the `year-essential` option:

```
options = {year-essential=true},
```

To use Scottish style for a case, you can either use the `scottish-style` option or the keyword `sc`:

```
options = {scottish-style},
keywords = {sc},
```

- 🔑 This should cover most cases, but legal references tend to enforce their own conventions no matter what the rest of the reference list is doing, and it is out of scope for this style to cater for every variation. Therefore if you need a different format (e.g. for an American case), you may prefer to format the reference more-or-less by hand:

```
title = {Seldon v.~{Clarkson} {Wright} \& {Jakes}},
sortyear = {2012},
note = {[2012]. UKSC 16}
```

Judgment of the European Court of Justice

 *Alessandrini Srl and others v. Commission* (C-295/03 P) [2005] ECR I-5700.
 *Alessandrini Srl and others v. Commission* (C-295/03 P) [2005] ECR I-5700.

```
@jurisdiction{srl.etal-v-comm2005,  
  title = {Alessandrini {Srl} and others v. {Commission}},  
  number = {C-295/03 P},  
  year = {2005},  
  journal = {ECR},  
  volume = {I},  
  pages = {5700}}
```

RX

- 💡 Use the `number` field (or the non-standard `casenumber` field) for the case number. For Commission Decisions, use the (non-standard) `casenumber` or (bibtex-oscola) `userb` field for the Commission case number, `number` for the formal decision number, and give ‘Commission’ as the `institution`.

5 References

- @screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: <https://screencast-o-matic.com/> [Accessed 16 May 2016].
- Adams, G., 2009. *Test citation one*. London: Imperial College Bookstall.
- Adams, G., 2014. *Test citation two*. Oxford: Oxford University Press.
- Adams, G., 2017. *Test citation three*. Cambridge: Cambridge University Press.
- Alessandrini Srl and others v. Commission* (C-295/03 P) [2005] ECR I-5700.
- Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.
- Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.
- ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels*. West Conshohocken, Pa.: ASTM.
- Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21*. Harmondsworth: Penguin.
- Blockley, D., 2021. *Engineering: a very short introduction* [Online]. Oxford: Oxford University Press. Available from: <https://www.amazon.co.uk/kindle> [Accessed 30 June 2021].
- BRE, 2007. *Designing quality buildings: a BRE guide*. (Report 497). Bracknell: BRE.
- Bristol Region Building Record, 1965. *Green Park House (since demolished), viewed from southwest* [Photograph]. BRBR, D/877/1. Archives & Research Collections, University of Bath Library.
- British National Formulary, 2019. *Aspirin* [Online]. London: Pharmaceutical Press. Available from: https://www.medicinescomplete.com/#/content/bnf/_456850132 [Accessed 26 November 2019].
- British National Formulary, 2020a. 79th ed. London: Pharmaceutical Press.
- British National Formulary, 2020b. 79th ed. *Aspirin*. London: Pharmaceutical Press.
- BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material*. London: BSI.

- Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments*. Cambridge, Mass.: MIT Press, pp.41–87.
- Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: <http://www.portal.euromonitor.com> [Accessed 6 November 2014].
- Burrell, J.G., 1973. *The importance of school tours in education*. Thesis (M.A.). Queen’s University, Belfast.
- Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: <https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast> [Accessed 28 March 2019].
- Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].
- Cogley, M., 2020. Corporate confidence slumps to record low. *The Telegraph* [Online], 4 May. Available from: <https://www.telegraph.co.uk/business/2020/05/03/corporate-confidence-slumps-all-time-low/> [Accessed 5 May 2020].
- Council Regulation (EC) 1831/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.
- Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute, 2–4 August 1964*, Glasgow. London: Academic Press, pp.113–118.
- Deneulin, S. and Dinerstein, A.C., 2010. *Hope movements: social movements in the pursuit of human development*. (Bath papers in international development and wellbeing, no. 8). Bath: University of Bath.
- Devlin, S.M., Martin, A. and Ostrovnaya, I., 2021. Identifying prognostic pairwise relationships among bacterial species in microbiome studies. *PLOS Computational Biology* [Online], 17(11). Available from: <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1009501> [Accessed 9 December 2021].
- Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.
- European Commission, 2015. *General report on the activities of the European Union 2014*. Luxembourg: Publications Office of the European Union.
- Gaiman, N., 2021. *Facebook post* [Online], 21 April. Available from: <https://www.facebook.com/neilgaiman/posts/305187897642814> [Accessed 13 May 2021].
- Ganju, V., 2021. *A study of EnGeneIC Dream Vectors (EDV’s) packaged with the chemotherapy, E-EDV-D682 given simultaneously as non-targeted EDVs carrying an immune enhancer called EDV-GC, in participants with advanced pancreatic and other cancers whose disease has progressed after one or two treatment regimes, or where other standard therapies are not appropriate*. Sydney: University of Sydney. *Australian and New Zealand Clinical Trials Registry* [Online]. Available from: <http://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=365258> [Accessed 29 April 2021].
- Google, 2020. *Harbourside, Bristol* [Online], Google Maps. Available from: <https://www.google.co.uk/maps/place/Harbourside,+Bristol/> [Accessed 30 April 2020].
- Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper*. (Cm. 6041). London: TSO.
- Great Britain. Parliament. House of Commons, 1988. *Local government finance bill*. (Bills | 1987/88, 66). London: HMSO.

- Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003*. (HC 2003/04, 30). London: National Audit Office.
- Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill*. (HL 1986/87, (66)). London: HMSO.
- Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics*. University of Bath. Unpublished.
- Harris, G., 2013. *Focus group recommendations: internal task group report*. Unpublished.
- Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.
- Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: <http://www.hbcnetbase.com> [Accessed 16 June 2016].
- Hua, L., 1999a. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.
- Hua, L. 華林甫, 1999b. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.
- Hua L. 華林甫, 2001. *Lorem ipsum*.
- Hurry up and wait, 2021. *Inside no.9, Episode 6:4*. TV. BBC2, 31 May. 21.30 hrs.
- Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2016].
- Library at University of Bath [@bathunilibrary], 2021. *Twitter post* [Online], 10 May. Available from: <https://twitter.com/BathUniLibrary/status/1391774402618998795?s=20> [Accessed 12 May 2021].
- Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: <https://www.sciencedirect.com/science/article/pii/S1553838919303367> [Accessed 19 June 2019].
- Macbeth*, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.
- Manco, J., 2013. *Vernacular architecture* [Online]. Available from: <https://www.buildinghistory.org/style/vernacular.shtml> [Accessed 20 February 2020].
- Moran, C., 2016. *Save our libraries* [Online]. Available from: <https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be> [Accessed 29 April 2016].
- NASA, 2015. *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: <http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk> [Accessed 7 January 2015].
- Newman, R., 2010. Malaria control beyond 2010. *Brit. Med. J.*, 341(7765), pp.157–208.
- Open University, 1972. *Electricity and magnetism*. Bletchley: Open University Press.
- Ordnance Survey, 2020. *Street view map of University of Bath* [Online], 1:5000, OS VectorMap® Local. Available from: <https://digimap.edina.ac.uk/roam/map/os> [Accessed 30 April 2020].
- Pamporov, A., 2006. *Romskoto vsekidnevie v Balgariya* [Roma everyday life in Bulgaria]. Veliko Tarnovo: Faber.

- Pensions Act 2014*, c.19. London: TSO.
- Phillipp Morris Inc., 1981. *Optical perforating apparatus and system*. European patent application 0021165A1. 1981-01-07.
- Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology*. 7th ed. Edinburgh: Elsevier Churchill Livingstone.
- Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films*. London: Butterworths, pp.143–183.
- Rick Stein's French odyssey: Episode 5, 2006. TV. BBC2, 23 August. 20.30 hrs.
- Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology*. 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.
- Seldon v. Clarkson Wright & Jakes*. [2012]. UKSC 16.
- Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: <http://opus.bath.ac.uk> [Accessed 4 May 2016].
- Solomon, M.R., Askegaard, S., Hogg, M. and Bamossy, G.J., 2019. *Consumer behaviour: a European perspective*. 7th ed. Harlow: Pearson.
- Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.
- Steward, S., Connelly, D. and Robinson, J., 2020. Everything you should know about the coronavirus outbreak. *The pharmaceutical journal* [Online]. Available from: <https://www.pharmaceutical-journal.com/news-and-analysis/features/everything-you-should-know-about-the-coronavirus-outbreak/20207629.article> [Accessed 30 April 2020].
- Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.
- Stieg, M.F., 1981b. The information needs of historians. *College and research libraries*, 42(6), pp.549–560.
- The Archers, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.
- The elephant man* [Online], 1980. Film. Directed by David Lynch. USA: Brookfilms. Available from: BBC iPlayer [Accessed 4 May 2021].
- The Human Medicines Regulations 2012* [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/ukxi/2012/1916/pdfs/ukxi_20121916_en.pdf [Accessed 17 April 2016].
- The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.
- The secret, 2020. *Tiger king: murder, mayhem and madness, Episode 3* [Online]. TV. Available from: Netflix [Accessed 4 May 2021].
- Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies*. University of Bath. Unpublished.
- Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.
- UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

University of Bath Library [@unibathlib], 2021. *Instagram post* [Online], 15 March. Available from: https://www.instagram.com/p/CMb5GHjFv9A/?utm_source=ig_web_copy_link [Accessed 7 May 2021].

Wetzstein, G., Ozcan, A., Gigan, S., Fan, S., Englund, D., Soljacic, M., Denz, C., Miller, D.A.B. and Psaltis, D., 2020. Inference in artificial intelligence with deep optics and photonics. *Nature*, 588(7836), pp.39–47.

Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: <https://doi.org/10.15125/BATH-00069> [Accessed 20 April 2016].

Witchcraft Act 1735 (9 Geo.2, c.5).

World Health Organization, 2018. *The top 10 causes of death* [Online]. Geneva: World Health Organization. Available from: <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death> [Accessed 29 June 2020].

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7 Implementation: bibliography style

7.1 Preliminaries

For ease of maintenance, we will patch some definitions with `xpatch` instead of writing out our own in full.

```
20 \RequirePackage{etoolbox,xpatch}
```

Some string analysis is required.

```
21 \RequirePackage{xstring}
```

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

```
22 \ifcsdef{DeclareLanguageMappingSuffix}{%
23   \DeclareLanguageMappingSuffix{-bath}
24 }{%
25   \DeclareLanguageMapping{english}{english-bath}
26   \DeclareLanguageMapping{british}{british-bath}
27 }
```

We provide some additional bibliography strings.

```
28 \NewBibliographyString{%
29   online, hours, at, unpublished, legalchapter,
30   director, performer, reader, conductor,
31   directors, performers, readers, conductors,
32   bydirector, byperformer, byreader, byconductor,
33 }
```

To maintain compatibility with older versions of `biblatex`, we backport some newer features if necessary.

```
35 \ifcsdef{letbibmacro}{-}{%
36   \def\letbibmacro#1#2{%
37     \ifcsundef{abx@macro@#2}
38       {\blx@error
39         {Bibliography macro '#2' undefined}
40         {Use '\string\newbibmacro' to define this macro}}
41     {\csletcs{abx@macro@#1}{abx@macro@#2}}
42   }
43 \ifcsdef{iflabeldateisdate}{-}{%
44   \def\iflabeldateisdate{%
45     \ifboolexpr{%
46       togl {blx@labeldateparts}
47       and not test {\iffieldundef{labeldatesource}}
48       and
49       (test {\iffieldequalstr{labeldatesource}{}}
50         or test {\iffieldequalstr{labeldatesource}{year}})}%
51   }
52 \ifcsdef{DeclareBiblatexOption}{-}{%
53   \def\DeclareBiblatexOption@II#1[#2]#3[#4]#5{
54     \IfSubStr#1{global}{\DeclareBibliographyOption[#2]{#3}{#4}{#5}}{-}{%
55     \IfSubStr#1{type}{\DeclareTypeOption[#2]{#3}{#4}{#5}}{-}{%
56     \IfSubStr#1{entry}{\DeclareEntryOption[#2]{#3}{#4}{#5}}{-}{%
57     \def\DeclareBiblatexOption@I#1[#2]#3#4{\@ifnextchar [%
58       {\DeclareBiblatexOption@II#1[#2]#3#4}%
59       {\DeclareBiblatexOption@II#1[#2]#3[]#4}}%
60     \def\DeclareBiblatexOption#1#2{\@ifnextchar [%
61       {\DeclareBiblatexOption@I#1#2}%
62       {\DeclareBiblatexOption@I#1[]#2}}%
63   }
```

This makes biblatex take notice of parentheses, brackets and angle brackets when deciding whether to suppress double punctuation.

```

64 \def\blx@setsfcodes{%
65   \let\blx@setsfcodes\relax
66   \let\frenchspacing\blx@setfrcodes
67   \let\nonfrenchspacing\blx@setencodes
68   \ifnum\sfcode`\.>2000
69     \blx@setencodes
70   \else
71     \blx@setfrcodes
72   \fi
73   \@setquotesfcodes
74   \sfcode`\(=\@m
75   \sfcode`\)=\@m
76   \sfcode`\[=\@m
77   \sfcode`\]=\@m
78   \sfcode`\<=\@m
79   \sfcode`\>=\@m}

```

7.2 Standard common toggle options

These are options provided by all standard styles.

```

81 \newtoggle{bbx:isbn}
82 \newtoggle{bbx:url}
83 \newtoggle{bbx:doi}
84 \newtoggle{bbx:eprint}
85 \newtoggle{bbx:related}
86
87 \DeclareBiblatexOption{global,type,entry}[boolean]{isbn}[true]{%
88   \settoggle{bbx:isbn}{#1}}
89 \DeclareBiblatexOption{global,type,entry}[boolean]{url}[true]{%
90   \settoggle{bbx:url}{#1}}
91 \DeclareBiblatexOption{global,type,entry}[boolean]{doi}[true]{%
92   \settoggle{bbx:doi}{#1}}
93 \DeclareBiblatexOption{global,type,entry}[boolean]{eprint}[true]{%
94   \settoggle{bbx:eprint}{#1}}
95 \DeclareBiblatexOption{global,type,entry}[boolean]{related}[true]{%
96   \settoggle{bbx:related}{#1}}

```

7.3 Author–year specific options

7.3.1 Author (label) dashes

The dashed option from the standard author–year style controls whether repeated author/editor names are replaced with a dash.

```

98 \newbibmacro*{bbx:savehash}{%
99   \savefield{fullhash}{\bbx@lasthash}}
100
101 \DeclareBibliographyOption[boolean]{dashed}[true]{%
102   \ifstrequal{#1}{true}
103   {\ExecuteBibliographyOptions{pagetracker}%
104     \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}}
105   {\renewbibmacro*{bbx:savehash}{}}}

```

7.3.2 Date options

For some resources (ISO standards, Acts of Parliament), the date is part of the label and should not be repeated in the date slot. So that this can be achieved cleanly by omitting the date, we declare a `nonodate` option that can suppress the substitution of the missing date by ‘n.d.’

```

107 \newtoggle{bbx:nonodate}
108 \DeclareBiblatexOption[global,type,entry][boolean]{nonodate}[true]{%
109   \settoggle{bbx:nonodate}{#1}}

```

The `mergedate` option controls the format of the date at the head of the reference in the `date+extradate` macro, and whether and how the same date is displayed later in the `issue+date` macro.

```

111 \providebibmacro*{date+extradate}{}
112 \newbibmacro*{issue+date}{%
113   \printtext[parens]{%
114     \printfield{issue}%
115     \setunit*{\addspace}%
116     \usebibmacro{date}}%
117   \newunit}

```

We allow the date macro to print the time as well.

```

119 \newbibmacro*{bbx:ifmergeddate}{\@secondoftwo}
120 \renewbibmacro*{date}{%
121   \usebibmacro{bbx:ifmergeddate}{}{%
122     \printdate
123     \setunit*{\bibdatetimesep}%
124   }%
125   \printtime}%

```

The following are similar to the standard author–year options except they respect the `nonodate` option and allow the field format of the date text to be configured.

The `maximum` option merges date/issue with date label.

```

127 \def\bbx@opt@mergedate@maximum{%
128   \renewbibmacro*{date+extradate}{%
129     \iffieldundef{labelyear}
130     {}
131     {\printtext[datelabel]{%
132       \iflabeldateisdate
133       {\printfield{issue}%
134         \setunit*{\addspace}%
135         \printdateextra}
136       {\printlabeldateextra}}}}%
137   \renewbibmacro*{bbx:ifmergeddate}{\iflabeldateisdate}%
138   \renewbibmacro*{issue+date}{%
139     \usebibmacro{bbx:ifmergeddate}
140     {}
141     {\printtext[parens]{%
142       \printfield{issue}%
143       \setunit*{\addspace}%
144       \printdate}}}}

```

The `compact` option merges date with date label.

```

146 \def\bbx@opt@mergedate@compact{%
147   \renewbibmacro*{date+extradate}{%
148     \ifboolexpr{
149       togl {bbx:nonodate}
150       and not test {\iflabeldateisdate}}
151     {}
152     {\printtext[datelabel]{%
153       \iflabeldateisdate
154       {\printdateextra}
155       {\printlabeldateextra}}}}%
156   \renewbibmacro*{bbx:ifmergeddate}{\iflabeldateisdate}%
157   \renewbibmacro*{issue+date}{%
158     \ifboolexpr{test {\usebibmacro{bbx:ifmergeddate}}
159       and

```

```

160         test {\iffieldundef{issue}}
161     {}
162     {\printtext[parens]{%
163         \printfield{issue}%
164         \setunit*{\addspace}%
165         \usebibmacro{bbx:ifmergeddate}
166         {}
167         {\printdate}}}%
168     \newunit}}

```

The basic option merges year-only date with date label.

```

170 \def\bbx@opt@mergedate@basic{%
171     \renewbibmacro*{date+extradate}{%
172         \ifboolexpr{
173             togl {bbx:nonodate}
174             and not test {\iflabeldateisdate}}
175         {}
176         {\printtext[datelabel]{\printlabeldateextra}}}%
177     \renewbibmacro*{bbx:ifmergeddate}{%
178         \ifboolexpr{
179             test {\iflabeldateisdate}
180             and
181             not test {\ifdateshavedifferentprecision{label}{}}
182         }%
183     }%
184     \renewbibmacro*{issue+date}{%
185         \ifboolexpr{
186             test {\usebibmacro{bbx:ifmergeddate}}
187             and
188             test {\iffieldundef{issue}}
189         }
190         {}
191         {\printtext[parens]{%
192             \printfield{issue}%
193             \setunit*{\addspace}%
194             \printdate}}}%
195     \newunit}}

```

The minimum option merges year-only date with year-only date label.

```

197 \def\bbx@opt@mergedate@minimum{%
198     \renewbibmacro*{date+extradate}{%
199         \ifboolexpr{
200             togl {bbx:nonodate}
201             and not test {\iflabeldateisdate}}
202         {}
203         {\printtext[datelabel]{\printlabeldateextra}}}%
204     \renewbibmacro*{bbx:ifmergeddate}{%
205         \ifboolexpr{
206             test {\iflabeldateisdate}
207             and
208             not test {\ifdateshavedifferentprecision{label}{}}
209             and
210             test {\iffieldundef{extradate}}
211         }%
212     }%
213     \renewbibmacro*{issue+date}{%
214         \ifboolexpr{
215             test {\usebibmacro{bbx:ifmergeddate}}
216             and
217             test {\iffieldundef{issue}}
218         }
219         {}

```

```

220     {\printtext [parens]{%
221         \printfield{issue}%
222         \setunit*{\addspace}%
223         \printdate}}%
224     \newunit}}

```

The false option doesn't merge date/issue with date label

```

226 \def\bbx@opt@mergedate@false{%
227     \renewbibmacro*{date+extradate}{%
228         \iffieldundef{labelyear}
229         {}
230         {\printtext [parens]{\printlabeldateextra}}}%
231     \renewbibmacro*{bbx:ifmergeddate}{\@secondoftwo}%
232     \renewbibmacro*{issue+date}{%
233         \printtext [parens]{%
234             \printfield{issue}%
235             \setunit*{\addspace}%
236             \usebibmacro{date}}}%
237     \newunit}}

```

Lastly, here is our new (default) option, which 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.

```

239 \def\bbx@opt@mergedate@year{%
240     \renewbibmacro*{date+extradate}{%
241         \iffieldundef{labelyear}{}{%
242             \ifboolexpr{
243                 togl {bbx:nonodate}
244                 and
245                 not test {\iflabeldateisdate}
246             }{}{%
247                 \printtext [date label]{\printlabeldateextra}%
248             }%
249             \iflabeldateisdate{%
250                 \clearfield{year}%
251             }{}}
252     \ifcsundef{abx@macro@date+extrayear}{}{%
253         \renewbibmacro*{date+extrayear}{\usebibmacro{date+extradate}}%
254     }
255     \renewbibmacro*{issue+date}{%
256         \iffieldundef{issue}{}{%
257             \ifboolexpr{(
258                 test {\iffieldundef{volume}}
259                 and
260                 test {\iffieldundef{number}}
261             ) and
262                 test {\iffieldundef{eid}}
263             }{%
264                 \newunit
265                 \printfield{issue}%
266             }{%
267                 \printtext [parens]{%
268                     \printfield{issue}%
269                 }%
270             }
271         }%
272         \setunit{\addcomma\space}%
273         \printdate
274         \newunit
275     }%
276 }%
277

```

```
278 \def\bbx@opt@mergedate@true{\bbx@opt@mergedate@year}
```

We define the option in terms of the above.

```
280 \DeclareBiblatexOption{global,type,entry}[boolean]{mergedate}[true]{%
281   \ifcsdef{bbx@opt@mergedate@#1}
282     {\csuse{bbx@opt@mergedate@#1}}
283     {\PackageError{biblatex}
284       {Invalid option 'mergedate=#1'}
285       {Valid values are 'maximum', 'compact', 'basic', 'minimum',\MessageBreak
286        'year', 'true' (=year), and 'false'.}}}
```

7.3.3 Default settings

Things to note in particular:

- With `@online` entries, the URL is shown even if `url=false`, globally.
- With `@letter` entries, the date is written complete at the start of the reference.

```
288 \ExecuteBibliographyOptions{isbn,url,doi,eprint,related}
289 \ExecuteBibliographyOptions{labeldateparts,sorting=nyt,pagetracker,mergedate}
290 \ExecuteBibliographyOptions{%
291   maxcitenames=3,maxbibnames=9999,isbn=false,giveninits=true,dashed=false,
292   alldates=comp,labeldate=year,labelalpha=true}
293 \ExecuteBibliographyOptions[online]{url=true}
294 \ExecuteBibliographyOptions[reference,audio,video,music,movie]{%
295   useeditor=false}
296 \ExecuteBibliographyOptions[letter]{mergedate=maximum}
```

7.4 Drivers for formatting specific entry types

```
298 \newbibmacro*{begentry}{}
299 \newbibmacro*{finentry}{\finentry}
```

7.4.1 Articles

Compared with the standard styles, the main differences in the driver are the omission of ‘in’ and the position of the publication state (which is in the `journal+issuetitle` macro).

```
301 \DeclareBibliographyDriver{article}{%
302   \usebibmacro{bibindex}%
303   \usebibmacro{begentry}%
304   \usebibmacro{author/translator+others}%
305   \setunit{\printdelim{nametitledelim}}\newblock
306   \usebibmacro{title}%
307   % \newunit
308   % \printlist{language}%
309   \newunit\newblock
310   \usebibmacro{byauthor}%
311   \newunit\newblock
312   \usebibmacro{bytranslator+others}%
313   \newunit\newblock
314   \usebibmacro{journal+issuetitle}%
315   \newunit
316   \usebibmacro{byeditor+others}%
317   \newunit
318   \usebibmacro{note+pages}%
319   \newunit\newblock
320   \iftoggle{bbx:isbn}
321     {\printfield{issn}}
```

```

322     {}%
323 \newunit\newblock
324 \usebibmacro{doi+eprint+url}%
325 \newunit\newblock
326 \printfield{addendum}%
327 \setunit{\bibpagerefpunct}\newblock
328 \usebibmacro{pageref}%
329 \newunit\newblock
330 \iftoggle{bbx:related}
331   {\usebibmacro{related:init}%
332    \usebibmacro{related}}
333   {}%
334 \usebibmacro{finentry}}
335
336 \DeclareBibliographyDriver{periodical}{%
337   \usebibmacro{bibindex}%
338   \usebibmacro{begentry}%
339   \usebibmacro{editor}%
340   \setunit{\printdelim{nametitledelim}}\newblock
341   \usebibmacro{title+issuetitle}%
342   % \newunit
343   % \printlist{language}%
344   \newunit\newblock
345   \usebibmacro{byeditor}%
346   \newunit\newblock
347   \printfield{note}%
348   \newunit\newblock
349   \iftoggle{bbx:isbn}
350     {\printfield{issn}}
351     {}%
352   \newunit\newblock
353   \usebibmacro{doi+eprint+url}%
354   \newunit\newblock
355   \usebibmacro{addendum+pubstate}%
356   \setunit{\bibpagerefpunct}\newblock
357   \usebibmacro{pageref}%
358   \newunit\newblock
359   \iftoggle{bbx:related}
360     {\usebibmacro{related:init}%
361      \usebibmacro{related}}
362     {}%
363   \usebibmacro{finentry}}

```

7.4.2 Books

Compared with the standard styles, the main difference is that the series is separated by a comma rather than a period. This also affects proceedings and certain forms of grey literature.

```

365 \DeclareBibliographyDriver{book}{%
366   \usebibmacro{bibindex}%
367   \usebibmacro{begentry}%
368   \usebibmacro{author/editor+others/translator+others}%
369   \setunit{\printdelim{nametitledelim}}\newblock
370   \usebibmacro{maintitle+title}%
371   % \newunit
372   % \printlist{language}%
373   \newunit\newblock
374   \usebibmacro{byauthor}%
375   \newunit\newblock
376   \usebibmacro{byeditor+others}%
377   \newunit\newblock
378   \printfield{edition}%

```

```

379 \newunit
380 \iffieldundef{maintitle}
381   {\printfield{volume}%
382    \printfield{part}}
383   {}%
384 \newunit
385 \printfield{volumes}%
386 \setunit{\addcomma\space}%
387 \usebibmacro{series+number}%
388 \newunit\newblock
389 \printfield{note}%
390 \newunit\newblock
391 \usebibmacro{publisher+location+date}%
392 \newunit\newblock
393 \usebibmacro{chapter+pages}%
394 % \newunit
395 % \printfield{pagetotal}%
396 \newunit\newblock
397 \iftoggle{bbx:isbn}
398   {\printfield{isbn}}
399   {}%
400 \newunit\newblock
401 \usebibmacro{doi+eprint+url}%
402 \newunit\newblock
403 \usebibmacro{addendum+pubstate}%
404 \setunit{\bibpagerefpunct}\newblock
405 \usebibmacro{pageref}%
406 \newunit\newblock
407 \iftoggle{bbx:related}
408   {\usebibmacro{related:init}%
409    \usebibmacro{related}}
410   {}%
411 \usebibmacro{finentry}}
412
413 \DeclareBibliographyDriver{collection}{%
414   \usebibmacro{bibindex}%
415   \usebibmacro{begentry}%
416   \usebibmacro{editor+others}%
417   \setunit{\printdelim{nametitledelim}}\newblock
418   \usebibmacro{maintitle+title}%
419   % \newunit
420   % \printlist{language}%
421   \newunit\newblock
422   \usebibmacro{byeditor+others}%
423   \newunit\newblock
424   \printfield{edition}%
425   \newunit
426   \iffieldundef{maintitle}
427     {\printfield{volume}%
428      \printfield{part}}
429     {}%
430   \newunit
431   \printfield{volumes}%
432   \setunit{\addcomma\space}%
433   \usebibmacro{series+number}%
434   \newunit\newblock
435   \printfield{note}%
436   \newunit\newblock
437   \usebibmacro{publisher+location+date}%
438   \newunit\newblock
439   \usebibmacro{chapter+pages}%
440   % \newunit
441   % \printfield{pagetotal}%

```

```

442 \newunit\newblock
443 \iftoggle{bbx:isbn}
444   {\printfield{isbn}}
445   {}%
446 \newunit\newblock
447 \usebibmacro{doi+eprint+url}%
448 \newunit\newblock
449 \usebibmacro{addendum+pubstate}%
450 \setunit{\bibpagerefpunct}\newblock
451 \usebibmacro{pageref}%
452 \newunit\newblock
453 \iftoggle{bbx:related}
454   {\usebibmacro{related:init}%
455   \usebibmacro{related}}
456   {}%
457 \usebibmacro{finentry}}
458
459 \DeclareBibliographyDriver{proceedings}{%
460   \usebibmacro{bibindex}%
461   \usebibmacro{begentry}%
462   \usebibmacro{editor+others}%
463   \setunit{\printdelim{nametitledelim}}\newblock
464   \usebibmacro{maintitle+title}%
465   % \newunit
466   % \printlist{language}%
467   \newunit\newblock
468   \usebibmacro{event+venue+date}%
469   \newunit\newblock
470   \usebibmacro{byeditor+others}%
471   \newunit\newblock
472   \iffieldundef{maintitle}
473     {\printfield{volume}%
474     \printfield{part}}
475     {}%
476   \newunit
477   \printfield{volumes}%
478   \setunit{\addcomma\space}%
479   \usebibmacro{series+number}%
480   \newunit\newblock
481   \printfield{note}%
482   \newunit\newblock
483   \printlist{organization}%
484   \newunit
485   \usebibmacro{publisher+location+date}%
486   \newunit\newblock
487   \usebibmacro{chapter+pages}%
488   % \newunit
489   % \printfield{pagetotal}%
490   \newunit\newblock
491   \iftoggle{bbx:isbn}
492     {\printfield{isbn}}
493     {}%
494   \newunit\newblock
495   \usebibmacro{doi+eprint+url}%
496   \newunit\newblock
497   \usebibmacro{addendum+pubstate}%
498   \setunit{\bibpagerefpunct}\newblock
499   \usebibmacro{pageref}%
500   \newunit\newblock
501   \iftoggle{bbx:related}
502     {\usebibmacro{related:init}%
503     \usebibmacro{related}}
504     {}%

```

```
505 \usebibmacro{finentry}}
```

7.4.3 Works in collections

Compared with the standard styles, the main difference is that the editors precede the book title.

```
507 \DeclareBibliographyDriver{inbook}{%
508   \usebibmacro{bibindex}%
509   \usebibmacro{begentry}%
510   \usebibmacro{author/translator+others}%
511   \setunit{\printdelim{nametitledelim}}\newblock
512   \usebibmacro{title}%
513   % \newunit
514   % \printlist{language}%
515   \newunit\newblock
516   \usebibmacro{byauthor}%
517   \newunit\newblock
518   \usebibmacro{in:}%
519   \usebibmacro{bybookauthor}%
520   \newunit\newblock
521   \usebibmacro{maintitle+booktitle}%
522   \newunit\newblock
523   \usebibmacro{byeditor+others}%
524   \newunit\newblock
525   \printfield{edition}%
526   \newunit
527   \iffieldundef{maintitle}
528     {\printfield{volume}%
529     \printfield{part}}
530     {}%
531   \newunit
532   \printfield{volumes}%
533   \setunit{\addcomma\space}%
534   \usebibmacro{series+number}%
535   \newunit\newblock
536   \printfield{note}%
537   \newunit\newblock
538   \usebibmacro{publisher+location+date}%
539   \newunit\newblock
540   \usebibmacro{chapter+pages}%
541   \newunit\newblock
542   \iftoggle{bbx:isbn}
543     {\printfield{isbn}}
544     {}%
545   \newunit\newblock
546   \usebibmacro{doi+eprint+url}%
547   \newunit\newblock
548   \usebibmacro{addendum+pubstate}%
549   \setunit{\bibpagerefpunct}\newblock
550   \usebibmacro{pageref}%
551   \newunit\newblock
552   \iftoggle{bbx:related}
553     {\usebibmacro{related:init}%
554     \usebibmacro{related}}
555     {}%
556   \usebibmacro{finentry}}
557
558 \DeclareBibliographyDriver{incollection}{%
559   \usebibmacro{bibindex}%
560   \usebibmacro{begentry}%
561   \usebibmacro{author/translator+others}%
562   \setunit{\printdelim{nametitledelim}}\newblock
```

```

563 \usebibmacro{title}%
564 % \newunit
565 % \printlist{language}%
566 \newunit\newblock
567 \usebibmacro{byauthor}%
568 \newunit\newblock
569 \usebibmacro{in:}%
570 \usebibmacro{bookeditor}%
571 \newunit\newblock
572 \usebibmacro{maintitle+booktitle}%
573 \usebibmacro{byeditor+others}%
574 \newunit\newblock
575 \printfield{edition}%
576 \newunit
577 \iffieldundef{maintitle}
578   {\printfield{volume}%
579    \printfield{part}}
580   {}%
581 \newunit
582 \printfield{volumes}%
583 \setunit{\addcomma\space}%
584 \usebibmacro{series+number}%
585 \newunit\newblock
586 \printfield{note}%
587 \newunit\newblock
588 \usebibmacro{publisher+location+date}%
589 \newunit\newblock
590 \usebibmacro{chapter+pages}%
591 \newunit\newblock
592 \iftoggle{bbx:isbn}
593   {\printfield{isbn}}
594   {}%
595 \newunit\newblock
596 \usebibmacro{doi+eprint+url}%
597 \newunit\newblock
598 \usebibmacro{addendum+pubstate}%
599 \setunit{\bibpagerefpunct}\newblock
600 \usebibmacro{pageref}%
601 \newunit\newblock
602 \iftoggle{bbx:related}
603   {\usebibmacro{related:init}%
604    \usebibmacro{related}}
605   {}%
606 \usebibmacro{finentry}}
607
608 \DeclareBibliographyDriver{inproceedings}{%
609   \usebibmacro{bibindex}%
610   \usebibmacro{begentry}%
611   \usebibmacro{author/translator+others}%
612   \setunit{\printdelim{nametitledelim}}\newblock
613   \usebibmacro{title}%
614   % \newunit
615   % \printlist{language}%
616   \newunit\newblock
617   \usebibmacro{byauthor}%
618   \newunit\newblock
619   \ifnameundef{editor}{-}{\usebibmacro{in:}}%
620   \usebibmacro{bookeditor}%
621   \newunit\newblock
622   \usebibmacro{maintitle+booktitle}%
623   \usebibmacro{byeditor+others}%
624   \newunit
625   \usebibmacro{event+venue+date}%

```

```

626 \newunit\newblock
627 \iffieldundef{maintitle}
628   {\printfield{volume}%
629    \printfield{part}}
630   {}%
631 \newunit
632 \printfield{volumes}%
633 \setunit{\addcomma\space}%
634 \usebibmacro{series+number}%
635 \newunit\newblock
636 \printfield{note}%
637 \newunit\newblock
638 \printlist{organization}%
639 \newunit
640 \usebibmacro{publisher+location+date}%
641 \newunit\newblock
642 \usebibmacro{chapter+pages}%
643 \newunit\newblock
644 \iftoggle{bbx:isbn}
645   {\printfield{isbn}}
646   {}%
647 \newunit\newblock
648 \usebibmacro{doi+eprint+url}%
649 \newunit\newblock
650 \usebibmacro{addendum+pubstate}%
651 \setunit{\bibpagerefpunct}\newblock
652 \usebibmacro{pageref}%
653 \newunit\newblock
654 \iftoggle{bbx:related}
655   {\usebibmacro{related:init}%
656    \usebibmacro{related}}
657   {}%
658 \usebibmacro{finentry}}

```

7.4.4 Entries in reference works

In these cases, the title is moved after the edition information.

```

660 \DeclareBibliographyDriver{inreference}{%
661   \usebibmacro{bibindex}%
662   \usebibmacro{begentry}%
663   \usebibmacro{author/translator+others}%
664   \setunit{\printdelim{nametitledelim}}\newblock
665   \ifnameundef{author}{}{%
666     \usebibmacro{title}%
667     \newunit}%
668   \printlist{language}%
669   \newunit\newblock
670   \usebibmacro{byauthor}%
671   \newunit\newblock
672   \ifboolexpr{
673     test {\iffieldundef{maintitle}}
674     and
675     test {\iffieldundef{booktitle}}
676   }{}{%
677     \ifnameundef{editor}{}{\usebibmacro{in:}}%
678     \usebibmacro{bookeditor}%
679     \newunit\newblock
680     \usebibmacro{maintitle+booktitle}}%
681   \usebibmacro{byeditor+others}%
682   \newunit\newblock
683   \printfield{edition}%

```

```

684 \newunit
685 \iffieldundef{maintitle}
686   {\printfield{volume}%
687    \printfield{part}}
688   {}%
689 \newunit
690 \ifnameundef{author}{\usebibmacro{title}%
691 \newunit}{}%
692 \printfield{volumes}%
693 \setunit{\addcomma\space}%
694 \usebibmacro{series+number}%
695 \newunit\newblock
696 \printfield{note}%
697 \newunit\newblock
698 \usebibmacro{publisher+location+date}%
699 \newunit\newblock
700 \usebibmacro{chapter+pages}%
701 \newunit\newblock
702 \iftoggle{bbx:isbn}
703   {\printfield{isbn}}
704   {}%
705 \newunit\newblock
706 \usebibmacro{doi+eprint+url}%
707 \newunit\newblock
708 \usebibmacro{addendum+pubstate}%
709 \setunit{\bibpagerefpunct}\newblock
710 \usebibmacro{pageref}%
711 \newunit\newblock
712 \iftoggle{bbx:related}
713   {\usebibmacro{related:init}%
714    \usebibmacro{related}}
715   {}%
716 \usebibmacro{finentry}

```

7.4.5 Datasets

The main difference from the standard driver is the use of the `library` macro.

```

718 \DeclareBibliographyDriver{dataset}{%
719   \usebibmacro{bibindex}%
720   \usebibmacro{begentry}%
721   \usebibmacro{author/editor+others/translator+others}%
722   \setunit{\printdelim{nametitledelim}}\newblock
723   \usebibmacro{title}%
724   % \newunit
725   % \printlist{language}%
726   \newunit\newblock
727   \usebibmacro{byauthor}%
728   \newunit\newblock
729   \usebibmacro{byeditor+others}%
730   \newunit\newblock
731   \printfield{type}%
732   \newunit
733   \printfield{edition}%
734   \setunit{\addcomma\space}%
735   \usebibmacro{series+number}%
736   \newunit\newblock
737   \printfield{note}%
738   \newunit\newblock
739   \usebibmacro{library}%
740   \newunit\newblock
741   \usebibmacro{organization+location+date}%

```

```

742 \newunit\newblock
743 \usebibmacro{doi+eprint+url}%
744 \newunit\newblock
745 \usebibmacro{addendum+pubstate}%
746 \setunit{\bibpagerefpunct}\newblock
747 \usebibmacro{pageref}%
748 \newunit\newblock
749 \iftoggle{bbx:related}
750   {\usebibmacro{related:init}%
751   \usebibmacro{related}}
752   {}%
753 \usebibmacro{finentry}}

```

7.4.6 Software

The driver for software entries is based on `misc`. The main difference is in how the type is printed.

```

755 \DeclareBibliographyDriver{software}{%
756   \usebibmacro{bibindex}%
757   \usebibmacro{begentry}%
758   \usebibmacro{author/editor+others/translator+others}%
759   \setunit{\printdelim{nametitle}}\newblock
760   \usebibmacro{title}%
761   \setunit{\addspace}
762   \printfield{type}%
763   % \newunit
764   % \printlist{language}%
765   \newunit\newblock
766   \usebibmacro{byauthor}%
767   \newunit\newblock
768   \usebibmacro{byeditor+others}%
769   \newunit\newblock
770   \printfield{howpublished}%
771   \newunit\newblock
772   \printfield{note}%
773   \newunit\newblock
774   \usebibmacro{organization+location+date}%
775   \newunit\newblock
776   \usebibmacro{doi+eprint+url}%
777   \newunit\newblock
778   \usebibmacro{addendum+pubstate}%
779   \setunit{\bibpagerefpunct}\newblock
780   \usebibmacro{pageref}%
781   \newunit\newblock
782   \iftoggle{bbx:related}
783     {\usebibmacro{related:init}%
784     \usebibmacro{related}}
785     {}%
786   \usebibmacro{finentry}}

```

7.4.7 Manuals

The `manual` driver is useful for a variety of technical publications, such as standards, patents and maps. (Patents have their own driver, in fact, but we set things up so the `manual` driver can be used instead if needed for compatibility.) We use specialist macros for the type/number and publication block.

```

788 \DeclareBibliographyDriver{manual}{%
789   \usebibmacro{bibindex}%
790   \usebibmacro{begentry}%
791   \usebibmacro{author/editor}%
792   \setunit{\printdelim{nametitle}}\newblock

```

```

793 \usebibmacro{title}%
794 % \newunit
795 % \printlist{language}%
796 \newunit\newblock
797 \usebibmacro{byauthor}%
798 \newunit\newblock
799 \usebibmacro{byeditor}%
800 \newunit\newblock
801 \printfield{edition}%
802 \usebibmacro{manual:series+type+number}%
803 \newunit
804 \printfield{note}%
805 \newunit\newblock
806 \usebibmacro{organization+location+date}%
807 \newunit\newblock
808 \usebibmacro{chapter+pages}%
809 % \newunit
810 % \printfield{pagetotal}%
811 \newunit\newblock
812 \iftoggle{bbx:isbn}
813   {\printfield{isbn}}
814   {}%
815 \newunit\newblock
816 \usebibmacro{doi+eprint+url}%
817 \newunit\newblock
818 \usebibmacro{addendum+pubstate}%
819 \setunit{\bibpagerefpunct}\newblock
820 \usebibmacro{pageref}%
821 \newunit\newblock
822 \iftoggle{bbx:related}
823   {\usebibmacro{related:init}%
824     \usebibmacro{related}}
825   {}%
826 \usebibmacro{finentry}}

```

7.4.8 Patents

```

828 \DeclareBibliographyDriver{patent}{%
829   \usebibmacro{bibindex}%
830   \usebibmacro{begentry}%
831   \usebibmacro{author}%
832   \setunit{\printdelim{nametitledelim}}\newblock
833   \usebibmacro{title}%
834   % \newunit
835   % \printlist{language}%
836   \newunit\newblock
837   \usebibmacro{byauthor}%
838   \newunit\newblock
839   \printfield{type}%
840   \setunit*{\addspace}%
841   \printfield{number}%
842   \iflistundef{location}
843     {}
844     {\setunit*{\addspace}%
845       \printtext[parens]{%
846         \printlist [] [-\value{listtotal}]{location}}}%
847   \newunit\newblock
848   \usebibmacro{byholder}%
849   \newunit\newblock
850   \printfield{note}%
851   \newunit\newblock
852   \usebibmacro{date}%

```

```

853 \newunit\newblock
854 \usebibmacro{doi+eprint+url}%
855 \newunit\newblock
856 \usebibmacro{addendum+pubstate}%
857 \setunit{\bibpagerefpunct}\newblock
858 \usebibmacro{pageref}%
859 \newunit\newblock
860 \iftoggle{bbx:related}
861   {\usebibmacro{related:init}%
862     \usebibmacro{related}}
863   {}%
864 \usebibmacro{finentry}}

```

7.4.9 Online works

Compared with the standard styles, the main difference is that the organization's address is printed and we support the library macro.

```

867 \DeclareBibliographyDriver{online}{%
868   \usebibmacro{bibindex}%
869   \usebibmacro{begentry}%
870   \usebibmacro{author/editor+others/translator+others}%
871   \setunit{\printdelim{nametitledelim}}\newblock
872   \usebibmacro{title}%
873   % \newunit
874   % \printlist{language}%
875   \newunit\newblock
876   \usebibmacro{byauthor}%
877   \newunit\newblock
878   \usebibmacro{byeditor+others}%
879   \newunit
880   \printfield{note}%
881   \newunit\newblock
882   \usebibmacro{library}%
883   \newunit\newblock
884   \usebibmacro{organization+location+date}%
885   \newunit\newblock
886   \usebibmacro{doi+eprint+url}%
887   \newunit\newblock
888   \usebibmacro{addendum+pubstate}%
889   \setunit{\bibpagerefpunct}\newblock
890   \usebibmacro{pageref}%
891   \newunit\newblock
892   \iftoggle{bbx:related}
893     {\usebibmacro{related:init}%
894       \usebibmacro{related}}
895     {}%
896   \usebibmacro{finentry}}

```

7.4.10 Reports

Compared with the standard styles, the main differences are that we use a special macro for printing the type, series and number in parentheses, and we support the library field.

```

898 %t
899 \DeclareBibliographyDriver{report}{%
900   \usebibmacro{bibindex}%
901   \usebibmacro{begentry}%
902   \usebibmacro{author}%
903   \setunit{\printdelim{nametitledelim}}\newblock
904   \usebibmacro{title}%
905   % \newunit

```

```

906 % \printlist{language}%
907 \newunit\newblock
908 \usebibmacro{byauthor}%
909 \newunit\newblock
910 \usebibmacro{series+type+number}%
911 \newunit\newblock
912 \printfield{note}%
913 \newunit\newblock
914 \usebibmacro{institution+location+date}%
915 \newunit\newblock
916 \usebibmacro{chapter+pages}%
917 % \newunit
918 % \printfield{pagetotal}%
919 \newunit\newblock
920 \iftoggle{bbx:isbn}
921   {\printfield{isrn}}
922   {}%
923 \newunit\newblock
924 \usebibmacro{library}%
925 \newunit\newblock
926 \usebibmacro{doi+eprint+url}%
927 \newunit\newblock
928 \usebibmacro{addendum+pubstate}%
929 \setunit{\bibpagerefpunct}\newblock
930 \usebibmacro{pageref}%
931 \newunit\newblock
932 \iftoggle{bbx:related}
933   {\usebibmacro{related:init}%
934   \usebibmacro{related}}
935   {}%
936 \usebibmacro{finentry}}

```

7.4.11 Theses

```

938 \DeclareBibliographyDriver{thesis}{%
939   \usebibmacro{bibindex}%
940   \usebibmacro{begentry}%
941   \usebibmacro{author}%
942   \setunit{\printdelim{nametitledelim}}\newblock
943   \usebibmacro{title}%
944   % \newunit
945   % \printlist{language}%
946   \newunit\newblock
947   \usebibmacro{byauthor}%
948   \newunit\newblock
949   \printfield{note}%
950   \newunit\newblock
951   \printfield{type}%
952   \newunit
953   \usebibmacro{institution+location+date}%
954   \newunit\newblock
955   \usebibmacro{chapter+pages}%
956   % \newunit
957   % \printfield{pagetotal}%
958   \newunit\newblock
959   \iftoggle{bbx:isbn}
960     {\printfield{isbn}}
961     {}%
962   \newunit\newblock
963   \usebibmacro{doi+eprint+url}%
964   \newunit\newblock
965   \usebibmacro{addendum+pubstate}%

```

```

966 \setunit{\bibpagerefunct}\newblock
967 \usebibmacro{pageref}%
968 \newunit\newblock
969 \iftoggle{bbx:related}
970   {\usebibmacro{related:init}%
971    \usebibmacro{related}}
972   {}%
973 \usebibmacro{finentry}}

```

7.4.12 Audiovisual materials

The audio and video drivers are based on misc.

```

975 \DeclareBibliographyDriver{audio}{%
976   \usebibmacro{bibindex}%
977   \usebibmacro{begentry}%
978   \usebibmacro{author/editor+others/translator+others}%
979   \setunit{\printdelim{nametitledelim}}\newblock
980   \usebibmacro{title}%
981   \newunit\newblock
982   \usebibmacro{series+number}%
983   \ifboolexpr{
984     test {\iffieldequalstr{type}{TV}}
985     or
986     test {\iffieldequalstr{type}{Radio}}
987   }{%
988     \setunit{\addspace}%
989     \usebibmacro{isonline}}{}%
990 % \newunit
991 % \printlist{language}%
992 \newunit\newblock
993 \printfield{type}%
994 \newunit\newblock
995 \usebibmacro{byauthor}[given-family:full]%
996 \newunit\newblock
997 \usebibmacro{byeditor+others}[given-family:full]%
998 \newunit\newblock
999 \printfield{howpublished}%
1000 \newunit\newblock
1001 \printfield{note}%
1002 \newunit\newblock
1003 \usebibmacro{publisher+location+date}%
1004 \newunit\newblock
1005 \usebibmacro{doi+eprint+url}%
1006 \newunit\newblock
1007 \usebibmacro{addendum+pubstate}%
1008 \setunit{\bibpagerefunct}\newblock
1009 \usebibmacro{pageref}%
1010 \newunit\newblock
1011 \iftoggle{bbx:related}
1012   {\usebibmacro{related:init}%
1013    \usebibmacro{related}}
1014   {}%
1015 \usebibmacro{finentry}}

```

7.4.13 Images

The driver for image is based on misc. The main difference is the support for the library field.

```

1017 \DeclareBibliographyDriver{image}{%
1018   \usebibmacro{bibindex}%
1019   \usebibmacro{begentry}%

```

```

1020 \usebibmacro{author/editor+others/translator+others}%
1021 \setunit{\printdelim{nametitledelim}}\newblock
1022 \usebibmacro{title}%
1023 % \newunit
1024 % \printlist{language}%
1025 \newunit\newblock
1026 \usebibmacro{byauthor}%
1027 \newunit\newblock
1028 \usebibmacro{byeditor+others}%
1029 \newunit\newblock
1030 \printfield{howpublished}%
1031 \newunit\newblock
1032 \printfield{type}%
1033 \newunit
1034 \printfield{note}%
1035 \newunit\newblock
1036 \usebibmacro{collection+shelfmark}%
1037 \newunit\newblock
1038 \usebibmacro{organization+location+date+library}%
1039 \newunit\newblock
1040 \usebibmacro{doi+eprint+url}%
1041 \newunit\newblock
1042 \usebibmacro{addendum+pubstate}%
1043 \setunit{\bibpagerefpunct}\newblock
1044 \usebibmacro{pageref}%
1045 \newunit\newblock
1046 \iftoggle{bbx:related}
1047   {\usebibmacro{related:init}%
1048    \usebibmacro{related}}
1049   {}%
1050 \usebibmacro{finentry}}

```

7.4.14 Case reports

```

1052 \DeclareBibliographyDriver{jurisdiction}{%
1053   \savebibmacro{title}%
1054   \xapptobibmacro{labeltitle}{%
1055     \setunit*{\addspace}%
1056     \usebibmacro{casenumber}%
1057   }{}{}%
1058   \usebibmacro{bibindex}%
1059   \usebibmacro{begentry}%
1060   \usebibmacro{eucheck}%
1061   \usebibmacro{author}%
1062   \setunit{\printdelim{nametitledelim}}\newblock
1063   \usebibmacro{title}%
1064   % \newunit
1065   % \printlist{language}%
1066   \newunit\newblock
1067   \usebibmacro{byauthor}%
1068   \newunit\newblock
1069   \printfield{note}%
1070   \setunit{\addspace}%
1071   \usebibmacro{reporter}%
1072   % \newunit
1073   % \printfield{pagetotal}%
1074   \newunit\newblock
1075   \printfield{institution}%
1076   \newunit\newblock
1077   \iftoggle{bbx:isbn}
1078     {\printfield{isrn}}
1079     {}%

```

```

1080 \newunit\newblock
1081 \usebibmacro{doi+eprint+url}%
1082 \newunit\newblock
1083 \usebibmacro{addendum+pubstate}%
1084 \setunit{\bibpagerefpunct}\newblock
1085 \usebibmacro{pageref}%
1086 \newunit\newblock
1087 \iftoggle{bbx:related}
1088   {\usebibmacro{related:init}}%
1089   \usebibmacro{related}}
1090 {}%
1091 \usebibmacro{finentry}%
1092 \restorebibmacro{title}}

```

7.4.15 Legislation

```

1094 \DeclareBibliographyDriver{legislation}{%
1095   \usebibmacro{bibindex}%
1096   \usebibmacro{begentry}%
1097   \usebibmacro{eucheck}%
1098   \usebibmacro{author}%
1099   \setunit{\printdelim{nametitledelim}}\newblock
1100   \usebibmacro{title}%
1101   % \newunit
1102   % \printlist{language}%
1103   \newunit\newblock
1104   \usebibmacro{byauthor}%
1105   \newunit\newblock
1106   \usebibmacro{journal+series+volume+number+chapter+pages}
1107   \newunit\newblock
1108   \printfield{note}%
1109   \newunit\newblock
1110   \usebibmacro{institution+location+date}%
1111   \newunit\newblock
1112   \printfield{pagetotal}%
1113   \newunit\newblock
1114   \iftoggle{bbx:isbn}
1115     {\printfield{isrn}}
1116     {}%
1117   \newunit\newblock
1118   \usebibmacro{doi+eprint+url}%
1119   \newunit\newblock
1120   \usebibmacro{addendum+pubstate}%
1121   \setunit{\bibpagerefpunct}\newblock
1122   \usebibmacro{pageref}%
1123   \newunit\newblock
1124   \iftoggle{bbx:related}
1125     {\usebibmacro{related:init}}%
1126     \usebibmacro{related}}
1127   {}%
1128   \usebibmacro{finentry}}

```

7.4.16 Unpublished and miscellaneous works

```

1130 \DeclareBibliographyDriver{booklet}{%
1131   \usebibmacro{bibindex}%
1132   \usebibmacro{begentry}%
1133   \usebibmacro{author/editor+others/translator+others}%
1134   \setunit{\printdelim{nametitledelim}}\newblock
1135   \usebibmacro{title}%
1136   % \newunit

```

```

1137 % \printlist{language}%
1138 \newunit\newblock
1139 \usebibmacro{byauthor}%
1140 \newunit\newblock
1141 \usebibmacro{byeditor+others}%
1142 \newunit\newblock
1143 \printfield{howpublished}%
1144 \newunit\newblock
1145 \printfield{type}%
1146 \newunit\newblock
1147 \printfield{note}%
1148 \usebibmacro{collection+shelfmark}%
1149 \newunit\newblock
1150 \usebibmacro{organization+location+date+library}%
1151 \newunit\newblock
1152 \usebibmacro{chapter+pages}%
1153 % \newunit
1154 % \printfield{pagetotal}%
1155 \newunit\newblock
1156 \usebibmacro{doi+eprint+url}%
1157 \newunit\newblock
1158 \usebibmacro{addendum+pubstate}%
1159 \setunit{\bibpagerefpunct}\newblock
1160 \usebibmacro{pageref}%
1161 \newunit\newblock
1162 \iftoggle{bbx:related}
1163   {\usebibmacro{related:init}%
1164    \usebibmacro{related}}
1165   {}%
1166 \usebibmacro{finentry}}

```

The letter driver is used for emails. It is based loosely on the one for articles. The particular foible with this type is that the date must be printed complete at the start.

```

1168 \DeclareBibliographyDriver{letter}{%
1169   \usebibmacro{bibindex}%
1170   \usebibmacro{begentry}%
1171   \usebibmacro{author/translator+others}%
1172   \setunit{\printdelim{nametitledelim}}\newblock
1173   \usebibmacro{title}%
1174   % \newunit
1175   % \printlist{language}%
1176   \newunit\newblock
1177   \usebibmacro{byauthor}%
1178   \newunit\newblock
1179   \usebibmacro{bytranslator+others}%
1180   \newunit\newblock
1181   \usebibmacro{journal+issuetitle}%
1182   \newunit\newblock
1183   \printfield{howpublished}%
1184   \newunit
1185   \printfield{note}%
1186   \newunit\newblock
1187   \usebibmacro{collection+shelfmark}%
1188   \newunit\newblock
1189   \usebibmacro{organization+location+date+library}%
1190   \newunit\newblock
1191   \usebibmacro{doi+eprint+url}%
1192   \newunit\newblock
1193   \usebibmacro{addendum+pubstate}%
1194   \setunit{\bibpagerefpunct}\newblock
1195   \usebibmacro{pageref}%
1196   \newunit\newblock

```

```

1197 \iftoggle{bbx:related}
1198   {\usebibmacro{related:init}%
1199   \usebibmacro{related}}
1200   {}%
1201 \usebibmacro{finentry}}
1202
1203 \DeclareBibliographyDriver{misc}{%
1204   \usebibmacro{bibindex}%
1205   \usebibmacro{begentry}%
1206   \usebibmacro{author/editor+others/translator+others}%
1207   \setunit{\printdelim{nametitledelim}}\newblock
1208   \usebibmacro{title}%
1209   % \newunit
1210   % \printlist{language}%
1211   \newunit\newblock
1212   \usebibmacro{byauthor}%
1213   \newunit\newblock
1214   \usebibmacro{byeditor+others}%
1215   \newunit\newblock
1216   \printfield{howpublished}%
1217   \newunit\newblock
1218   \printfield{type}%
1219   \newunit
1220   \printfield{note}%
1221   \newunit\newblock
1222   \usebibmacro{collection+shelfmark}%
1223   \newunit\newblock
1224   \usebibmacro{organization+location+date+library}%
1225   \newunit\newblock
1226   \usebibmacro{doi+eprint+url}%
1227   \newunit\newblock
1228   \usebibmacro{addendum+pubstate}%
1229   \setunit{\bibpagerefpunct}\newblock
1230   \usebibmacro{pageref}%
1231   \newunit\newblock
1232   \iftoggle{bbx:related}
1233     {\usebibmacro{related:init}%
1234     \usebibmacro{related}}
1235     {}%
1236   \usebibmacro{finentry}}

```

The unpublished driver is used for miscellaneous unpublished written material. It differs from the standard version by supporting `maintitle` and `booktitle`, and including a label at the end. The unpublished label is delegated to a macro in case future versions of the style place conditions on whether it is displayed.

```

1238 \DeclareBibliographyDriver{unpublished}{%
1239   \usebibmacro{bibindex}%
1240   \usebibmacro{begentry}%
1241   \usebibmacro{author}%
1242   \setunit{\printdelim{nametitledelim}}\newblock
1243   \usebibmacro{title}%
1244   % \newunit
1245   % \printlist{language}%
1246   \newunit\newblock
1247   \usebibmacro{byauthor}%
1248   \newunit\newblock
1249   \ifnameundef{editor}{-}{\usebibmacro{in:}}%
1250   \usebibmacro{bookeditor}%
1251   \newunit\newblock
1252   \usebibmacro{maintitle+booktitle}%
1253   \usebibmacro{byeditor+others}%
1254   \newunit\newblock

```

```

1255 \printfield{howpublished}%
1256 \newunit\newblock
1257 \printfield{type}%
1258 \newunit\newblock
1259 \usebibmacro{event+venue+date}%
1260 \newunit\newblock
1261 \printfield{note}%
1262 \newunit\newblock
1263 \usebibmacro{collection+shelfmark}%
1264 \newunit\newblock
1265 \usebibmacro{organization+location+date+library}%
1266 \newunit\newblock
1267 \usebibmacro{isunpublished}%
1268 \newunit\newblock
1269 \usebibmacro{doi+eprint+url}%
1270 \newunit\newblock
1271 \usebibmacro{addendum+pubstate}%
1272 \setunit{\bibpagerefpunct}\newblock
1273 \usebibmacro{pageref}%
1274 \newunit\newblock
1275 \iftoggle{bbx:related}
1276   {\usebibmacro{related:init}%
1277    \usebibmacro{related}}
1278   {}%
1279 \usebibmacro{finentry}}

```

7.4.17 Special drivers

```

1281 \DeclareBibliographyDriver{shorthand}{%
1282   \usedriver
1283     {\DeclareNameAlias{sortname}{default}}
1284     {\thefield{entrytype}}%
1285   \finentry}
1286
1287 \newbool{bbx@inset}
1288 \DeclareBibliographyDriver{set}{%
1289   \booltrue{bbx@inset}%
1290   \entryset{}{}%
1291   \newunit\newblock
1292   \usebibmacro{setpageref}%
1293   \finentry}

```

7.4.18 Aliases

We define some handy semantic aliases.

```

1295 \DeclareBibliographyAlias{mvbook}{book}
1296 \DeclareBibliographyAlias{bookinbook}{inbook}
1297 \DeclareBibliographyAlias{suppbook}{inbook}
1298 \DeclareBibliographyAlias{mvcollection}{collection}
1299 \DeclareBibliographyAlias{suppcollection}{incollection}
1300 \DeclareBibliographyAlias{movie}{audio}
1301 \DeclareBibliographyAlias{music}{audio}
1302 \DeclareBibliographyAlias{mvproceedings}{proceedings}
1303 \DeclareBibliographyAlias{reference}{collection}
1304 \DeclareBibliographyAlias{mvreference}{reference}
1305 \DeclareBibliographyAlias{suppperiodical}{article}
1306 \DeclareBibliographyAlias{review}{article}
1307 \DeclareBibliographyAlias{standard}{manual}
1308 \DeclareBibliographyAlias{software}{misc}
1309 \DeclareBibliographyAlias{video}{audio}

```

```
1310 \DeclareBibliographyAlias{*}{misc}
```

7.5 Name handling

The handling of CJK names is based on code supplied to TeX.sx by Moritz Wemheuer in answer to [question 320738](#).

The CJK part is printed after the anglicized name. If the name is also annotated as ‘cjk’ (see ‘Data Annotations’ in the biblatex manual), it is always printed in family-given order with no intermediate punctuation.

```
1312 \newbibmacro*{name:cjk-given-family}[3]{%
1313   \ifitemannotation{cjk}{%
1314     \usebibmacro{name:delim}{#2#1#3}%
1315     \usebibmacro{name:hook}{#2#1#3}%
1316     \mkbibnamefamily{#1}\isdot
1317     \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}}%
1318     \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
1319   }{%
1320     \usebibmacro{name:delim}{#2#1#3}%
1321     \usebibmacro{name:hook}{#2#1#3}%
1322     \ifdefvoid{#2}{}{\mkbibnamegiven{#2}\isdot\bibnamedelimd}%
1323     \mkbibnamefamily{#1}\isdot
1324     \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
1325   }%
1326 }
1327 \newbibmacro*{name:cjk-family-given}[3]{%
1328   \ifitemannotation{cjk}{%
1329     \usebibmacro{name:delim}{#2#1#3}%
1330     \usebibmacro{name:hook}{#2#1#3}%
1331     \mkbibnamefamily{#1}\isdot
1332     \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}}%
1333     \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
1334   }{%
1335     \usebibmacro{name:delim}{#1}%
1336     \usebibmacro{name:hook}{#1}%
1337     \mkbibnamefamily{#1}\isdot
1338     \ifboolexpe{%
1339       test {\ifdefvoid{#2}}
1340       and
1341       test {\ifdefvoid{#3}}
1342     }{
1343       {\revsdnamepunct}%
1344       \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
1345       \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
1346     }%
1347   }
}
```

We update the given-family and family-given name formats to support the above CJK macros.

```
1349 \DeclareNameFormat{given-family}{%
1350   \ifdefvoid{namepartcjk}{%
1351     \ifgiveninits{%
1352       \usebibmacro{name:given-family}
1353       {\namepartfamily}
1354       {\namepartgiveni}
1355       {\namepartprefix}
1356       {\namepartsuffix}%
1357     }{%
1358       \usebibmacro{name:given-family}
1359       {\namepartfamily}
1360       {\namepartgiven}
1361       {\namepartprefix}
```

```

1362     {\namepartsuffix}%
1363   }%
1364 }{%
1365   \ifgiveninits{%
1366     \usebibmacro{name:cjk-given-family}
1367     {\namepartfamily}
1368     {\namepartgiveni}
1369     {\namepartcjk}%
1370   }{%
1371     \usebibmacro{name:cjk-given-family}
1372     {\namepartfamily}
1373     {\namepartgiven}
1374     {\namepartcjk}%
1375   }%
1376 }%
1377 \usebibmacro{name:andothers}%
1378 }
1379
1380 \DeclareNameFormat{family-given}{%
1381   \ifdefvoid{\namepartcjk}{%
1382     \ifgiveninits{%
1383       \usebibmacro{name:family-given}
1384       {\namepartfamily}
1385       {\namepartgiveni}
1386       {\namepartprefix}
1387       {\namepartsuffix}%
1388     }{%
1389       \usebibmacro{name:family-given}
1390       {\namepartfamily}
1391       {\namepartgiven}
1392       {\namepartprefix}
1393       {\namepartsuffix}%
1394     }%
1395   }{%
1396     \ifgiveninits{%
1397       \usebibmacro{name:cjk-family-given}
1398       {\namepartfamily}
1399       {\namepartgiveni}
1400       {\namepartcjk}%
1401     }{%
1402       \usebibmacro{name:cjk-family-given}
1403       {\namepartfamily}
1404       {\namepartgiven}
1405       {\namepartcjk}%
1406     }%
1407   }
1408   \usebibmacro{name:andothers}%
1409 }

```

With videos, names in credits are printed in full.

```

1411 \DeclareNameFormat{given-family:full}{%
1412   \ifdefvoid{\namepartcjk}{%
1413     \usebibmacro{name:given-family}
1414     {\namepartfamily}
1415     {\namepartgiven}
1416     {\namepartprefix}
1417     {\namepartsuffix}%
1418   }{%
1419     \usebibmacro{name:cjk-given-family}
1420     {\namepartfamily}
1421     {\namepartgiven}
1422     {\namepartcjk}%

```

```

1423 }%
1424 \usebibmacro{name:andothers}%
1425 }

```

Names are usually reversed, but not in the `bookeditor` position.

```

1427 \DeclareNameAlias{author}{family-given}
1428 \DeclareNameAlias{editor}{family-given}
1429 \DeclareNameAlias{translator}{family-given}
1430
1431 \DeclareNameWrapperAlias{author}{family-given}
1432 \DeclareNameWrapperAlias{editor}{family-given}
1433 \DeclareNameWrapperAlias{translator}{family-given}
1434
1435 \DeclareNameAlias{bookeditor}{given-family}

```

There are no spaces between initials.

```

1437 \renewcommand*{\bibinitdelim}{}

```

We add support for the standard author–year dash check.

```

1439 \newbibmacro*{bbx:dashcheck}[2]{%
1440   \ifboolexpr{
1441     test {\iffieldequals{fullhash}{\bbx@lasthash}}
1442     and
1443     not test \iffirstonpage
1444     and
1445     (
1446       not bool {bbx@inset}
1447       or
1448       test {\iffieldequalstr{entrysetcount}{1}}
1449     )
1450   }
1451   {#1}
1452   {#2}}

```

The `author`, `editor` and `translator` macros are mostly the same as the standard author–year definitions, with the exception that we add support for the `nameaddon` field for authors.

```

1454 \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
1455 \renewbibmacro*{author}{%
1456   \ifboolexpr{
1457     test \ifuseauthor
1458     and
1459     not test {\ifnameundef{author}}
1460   }
1461   {\usebibmacro{bbx:dashcheck}
1462     {\bibnamedash}
1463     {\usebibmacro{bbx:savehash}%
1464       \printnames{author}%
1465       \iffieldundef{nameaddon}
1466       {}
1467       {\setunit{\addspace}%
1468         \printfield{nameaddon}}%
1469     \iffieldundef{authortype}
1470     {\setunit{\printdelim{nameyeardelim}}}
1471     {\setunit{\printdelim{authortypedelim}}}}%
1472   \iffieldundef{authortype}
1473   {}
1474   {\usebibmacro{authorstrg}%
1475     \setunit{\printdelim{nameyeardelim}}}}%
1476   {\global\undef\bbx@lasthash
1477     \usebibmacro{labeltitle}%
1478     \iftoggle{bbx:labelistitle}{\setunit{\printdelim{nonameyeardelim}}{}}}%

```

```

1479 \usebibmacro{date+extradate}}
1480
1481 \renewbibmacro*{editor}{%
1482 \usebibmacro{bbx:editor}{editorstrg}}
1483 \renewbibmacro*{editor+others}{%
1484 \usebibmacro{bbx:editor}{editor+othersstrg}}
1485 \newbibmacro*{bbx:editor}[1]{%
1486 \ifboolexpr{
1487 test \ifuseeditor
1488 and
1489 not test {\ifnameundef{editor}}
1490 }
1491 {\usebibmacro{bbx:dashcheck}
1492 {\bibnamedash}
1493 {\printnames{editor}}%
1494 \setunit{\printdelim{editortypedelim}}}%
1495 \usebibmacro{bbx:savehash}}%
1496 \usebibmacro{#1}%
1497 \clearname{editor}%
1498 \setunit{\printdelim{nameyeardelimiter}}}%
1499 {\global\undef\bbx@lasthash
1500 \usebibmacro{labeltitle}%
1501 \iftoggle{bbx:labelistitle}{\setunit{\printdelim{nonameyeardelimiter}}{}}}%
1502 \usebibmacro{date+extradate}}
1503
1504 \renewbibmacro*{translator}{%
1505 \usebibmacro{bbx:translator}{translatorstrg}}
1506 \renewbibmacro*{translator+others}{%
1507 \usebibmacro{bbx:translator}{translator+othersstrg}}
1508 \newbibmacro*{bbx:translator}[1]{%
1509 \ifboolexpr{
1510 test \ifusetranslator
1511 and
1512 not test {\ifnameundef{translator}}
1513 }
1514 {\usebibmacro{bbx:dashcheck}
1515 {\bibnamedash}
1516 {\printnames{translator}}%
1517 \setunit{\printdelim{translatortypedelim}}}%
1518 \usebibmacro{bbx:savehash}}%
1519 \usebibmacro{#1}%
1520 \clearname{translator}%
1521 \setunit{\printdelim{nameyeardelimiter}}}%
1522 {\global\undef\bbx@lasthash
1523 \usebibmacro{labeltitle}%
1524 \iftoggle{bbx:labelistitle}{\setunit{\printdelim{nonameyeardelimiter}}{}}}%
1525 \usebibmacro{date+extradate}}

```

With collections, editors appear in natural order between ‘In’ and the title, followed by ‘ed.’

```

1527 \newbibmacro*{bookeditor}{%
1528 \ifnameundef{editor}{}{%
1529 \printnames[bookeditor]{editor}%
1530 \setunit*{\addcomma\space}%
1531 \usebibmacro{editor+othersstrg}%
1532 \clearname{editor}%
1533 }}

```

We change the by* macros so that the format can be changed with an option.

```

1535 \renewbibmacro*{byauthor}[1][byauthor]{%
1536 \ifboolexpr{
1537 test \ifuseauthor
1538 or

```

```

1539     test {\ifnameundef{author}}
1540   }{}
1541   {\usebibmacro{bytypestrg}{author}{author}%
1542     \setunit{\addspace}%
1543     \printnames[#1]{author}}}
1544
1545 \renewbibmacro*{byeditor}[1][byeditor]{%
1546   \ifnameundef{editor}
1547   {}
1548   {\usebibmacro{bytypestrg}{editor}{editor}%
1549     \setunit{\addspace}%
1550     \printnames[#1]{editor}%
1551     \newunit}%
1552   \ifstrequal{#1}{byeditor}{%
1553     \usebibmacro{byeditora}%
1554     \usebibmacro{byeditorb}%
1555     \usebibmacro{byeditorc}
1556   }{%
1557     \usebibmacro{byeditora}[#1]%
1558     \usebibmacro{byeditorb}[#1]%
1559     \usebibmacro{byeditorc}[#1]}
1560
1561 \newbibmacro*{byeditora}[1][byeditora]{%
1562   \ifnameundef{editora}
1563   {}
1564   {\usebibmacro{bytypestrg}{editora}{editor}%
1565     \setunit{\addspace}%
1566     \printnames[#1]{editora}%
1567     \newunit}}
1568 \newbibmacro*{byeditorb}[1][byeditorb]{%
1569   \ifnameundef{editorb}
1570   {}
1571   {\usebibmacro{bytypestrg}{editorb}{editor}%
1572     \setunit{\addspace}%
1573     \printnames[#1]{editorb}%
1574     \newunit}}
1575 \newbibmacro*{byeditorc}[1][byeditorc]{%
1576   \ifnameundef{editorc}
1577   {}
1578   {\usebibmacro{bytypestrg}{editorc}{editor}%
1579     \setunit{\addspace}%
1580     \printnames[#1]{editorc}%
1581     \newunit}}

```

The style prints translator names (uniquely) in parentheses.

```

1583 \renewbibmacro*{bytranslator}[1][bytranslator]{%
1584   \ifnameundef{translator}
1585   {}
1586   {\setunit{\addspace}%
1587     \printtext[parens]{%
1588       \printnames[#1]{translator}%
1589       \setunit{\addcomma\space}%
1590       \bibcpstring{translator}%
1591       \clearname{translator}}}}
1592
1593 \renewbibmacro*{byeditor+others}[1][byeditor]{%
1594   \ifnameundef{editor}
1595   {}
1596   {\usebibmacro{byeditor+othersstrg}%
1597     \setunit{\addspace}%
1598     \printnames[#1]{editor}%
1599     \clearname{editor}%

```

```

1600   \newunit}%
1601   \ifstrequal{#1}{byeditor}{%
1602     \usebibmacro{byeditorx}%
1603     \usebibmacro{bytranslator+others}%
1604   }{%
1605     \usebibmacro{byeditora}[#1]%
1606     \usebibmacro{byeditorb}[#1]%
1607     \usebibmacro{byeditorc}[#1]%
1608     \usebibmacro{bytranslator+others}[#1]}
1609
1610 \renewbibmacro*{bytranslator+others}[1][bytranslator]{%
1611   \ifnameundef{translator}
1612   {\usebibmacro{withothers}}
1613   {\setunit{\addspace}%
1614     \printtext[parens]{%
1615       \printnames[bytranslator]{translator}%
1616       \setunit{\addcomma\space}%
1617       \bibcpstring{translator}%
1618       \clearname{translator}%
1619       \newunit
1620       \usebibmacro{withothers}}}

```

7.6 Dates

If the main publication date is missing, we fall back immediately to ‘n.d.’ rather than use the access date or anything like that.

```

1622 \DeclareLabeldate{%
1623   \field{date}
1624   \field{year}
1625   \literal{nodate}
1626 }

```

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

```

1628 \DeclareStyleSourcemap{
1629   \maps[datatype=bibtex]{
1630     \map[overwrite=true]{
1631       \step[notmatch=\regexp{nodate}, fieldsource=options, final]
1632       \step[fieldsource=sortyear, final]
1633       \step[fieldset=options, append, fieldvalue={,nodate}]
1634     }
1635     \map[overwrite=true]{
1636       \step[notfield=options, final]
1637       \step[fieldsource=sortyear, final]
1638       \step[fieldset=options, fieldvalue={nodate}]
1639     }
1640   }
1641 }

```

Dates are usually given bare. Times, when printed, are followed by the `hours` bibstring.

```

1643 \DeclareFieldFormat{datelabel}{#1}
1644 \DeclareFieldFormat{time}{#1-\bibstring{hours}}

```

The punctuation before the label year is controlled by the following commands, and should be a comma. The exceptions to this are `legislation` entries, where there should just be a space, and English/Welsh legal case reports, where there should be a period.

```

1646 \DeclareDelimFormat{nameyeardelim}{\addcomma\space}
1647 \DeclareDelimFormat[parencite,bib,biblist]{nameyeardelim}{\addcomma\space}
1648 \newcommand{\dononameyeardelim}{%

```

```

1649 \ifentrytype{legislation}{%
1650   \addspace
1651 }{%
1652   \ifentrytype{jurisdiction}{%
1653     \ifboolexpr{
1654       togl {bbx:eu-oj}
1655       or
1656       test {\iffieldequalstr{journaltitle}{ECR}}
1657       or
1658       test {\iffieldequalstr{type}{ECR}}
1659     }{%
1660       \addspace
1661     }{%
1662       \ifboolexpr{
1663         test {\ifkeyword{sc}}
1664         or
1665         togl {bbx:scotstyle}
1666       }{%
1667         \addcomma\space
1668       }{%
1669         \addperiod\space}}%
1670     }{%
1671       \addcomma\space}}
1672 \DeclareDelimFormat{nonameyeardelim}{\dononameyeardelim}
1673 \DeclareDelimFormat*[bib,biblist]{nonameyeardelim}{\dononameyeardelim}
1674 \DeclareDelimFormat[parencite]{nonameyeardelim}{%
1675   \ifboolexpr{
1676     test {\ifentrytype{jurisdiction}}
1677     or
1678     test {\ifentrytype{legislation}}
1679   }{\addspace}{\addcomma\space}}

```

The punctuation after the label year is controlled by the following commands, and should be a comma. The exceptions to this are `legislation` and `jurisdiction` entries, where there should just be a space if the label is the title.

```

1681 \DeclareDelimFormat{nametitledelim}{%
1682   \ifboolexpr{
1683     (
1684       test {\ifentrytype{jurisdiction}}
1685       or
1686       test {\ifentrytype{legislation}}
1687     ) and
1688     togl {bbx:labelistitle}
1689   }{\addspace}{\addcomma\space}}
1690 \DeclareDelimFormat[bib,biblist]{nametitledelim}{%
1691   \ifboolexpr{
1692     (
1693       test {\ifentrytype{jurisdiction}}
1694       or
1695       test {\ifentrytype{legislation}}
1696     ) and
1697     togl {bbx:labelistitle}
1698   }{\addspace}{\labelnamepunct}}

```

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

```

1700 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
1701   \iffieldundef{#2month}{}%
1702   \printtext[#{#2date]}%

```

```

1703 \datecircaprint
1704 \iffieldundef{#2yeardivision}{%
1705 \csuse{mkbibdate#1}{-}{#2month}{#2day}%
1706 \blx@printtime{#2}{-}%
1707 }{%
1708 \csuse{mkbibyeardivisiondate#1}{-}{#2yeardivision}}%
1709 \dateuncertainprint
1710 \iffieldundef{#2endmonth}{-}{%
1711 \iffieldequalstr{#2endmonth}{-}{%
1712 \mbox{\bibdaterangesep}%
1713 }{%
1714 \bibdaterangesep
1715 \enddatecircaprint
1716 \iffieldundef{#2yeardivision}{%
1717 \csuse{mkbibdate#1}{-}{#2endmonth}{#2endday}%
1718 \blx@printtime{#2}{end}%
1719 }{%
1720 \csuse{mkbibyeardivisiondate#1}{-}{#2endyeardivision}}%
1721 \enddateuncertainprint}}}}

```

There is a potential problem for `\mknoyeardaterangetrunc`, in that if the year and endyear are missing, it cannot tell if they are the same, so if the months are the same but the years are different, the range would be erroneously compressed. However, the only reason the year should be missing is that it is in the label, so we test `labelyear` instead.

```

1722 \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
1723 \iffieldundef{#2month}{-}{%
1724 \printtext[#{#2date}]{%
1725 \datecircaprint
1726 \iffieldundef{#2yeardivision}{%
1727 \ifboolexpr{
1728 test {\ifdateyearsequal{label}{labelend}}
1729 and
1730 test {\iffieldsequal{#2month}{#2endmonth}}
1731 }{%
1732 \csuse{mkbibdate#1}{-}{#2day}%
1733 }{%
1734 \csuse{mkbibdate#1}{-}{#2month}{#2day}}%
1735 }{%
1736 \csuse{mkbibyeardivisiondate#1}{-}{#2yeardivision}}%
1737 \dateuncertainprint
1738 \iffieldundef{#2endmonth}{-}{%
1739 \iffieldequalstr{#2endmonth}{-}{%
1740 \mbox{\bibdaterangesep}%
1741 }{%
1742 \bibdaterangesep
1743 \enddatecircaprint
1744 \iffieldundef{#2yeardivision}{%
1745 \csuse{mkbibdate#1}{-}{#2endmonth}{#2endday}%
1746 }{%
1747 \csuse{mkbibyeardivisiondate#1}{-}{#2endyeardivision}}%
1748 \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.

```

1749 \xpatchcmd{\mkdaterangefull}{%
1750 \iffieldundef{#2year} {\blx@nounit}%
1751 }{%
1752 \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
1753 }{\@tempswafalse}{\@tempswatrue}%
1754 \if@tempswa

```

```

1755 \xpatchcmd{\mkdaterangefull}{%
1756   \iffieldundef{#2year} {}%
1757 }{%
1758   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
1759 }-{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefull}}%
1760 \fi
1761 \xpatchcmd{\mkdaterangetrunc@i}{%
1762   \iffieldundef{#2year} {\blx@nunit}%
1763 }{%
1764   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
1765 }{\@tempswafalse}{\@tempswatrue}%
1766 \if@tempswa
1767   \xpatchcmd{\mkdaterangetrunc}{%
1768     \iffieldundef{#2year} {}%
1769   }{%
1770     \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
1771   }-{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetrunc@i}}%
1772 \fi
1773 \xpatchcmd{\mkdaterangefullexta}{%
1774   \iffieldundef{#2year} {\blx@nunit}%
1775 }{%
1776   \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
1777 }{\@tempswafalse}{\@tempswatrue}%
1778 \if@tempswa
1779   \xpatchcmd{\mkdaterangefullexta}{%
1780     \iffieldundef{#2year} {}%
1781   }{%
1782     \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
1783   }-{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefullexta}}%
1784 \fi
1785 \xpatchcmd{\mkdaterangetruncextra@i}{%
1786   \iffieldundef{#2year} {\blx@nunit}%
1787 }{%
1788   \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
1789 }{\@tempswafalse}{\@tempswatrue}%
1790 \if@tempswa
1791   \xpatchcmd{\mkdaterangetruncextra}{%
1792     \iffieldundef{#2year} {}%
1793   }{%
1794     \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
1795   }-{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetruncextra@i}}%
1796 \fi

```

By default, title–year combinations are not disambiguated, so we fix that too.

```

1797 \DeclareFieldFormat{extraalpha}{%
1798   \iffieldnums{labelyear}
1799   {\mknumalph{#1}}
1800   {\mkbibparens{\mknumalph{#1}}}}
1801 \DeclareLabelalphaTemplate{
1802   \labelelement{
1803     \field{label}
1804     \field{labelname}
1805     \field{labeltitle}
1806   }
1807   \labelelement{
1808     \field{labelyear}
1809   }
1810 }
1811 \xpatchcmd{\mkdaterangefullexta}{%
1812   \printfield{extradate}%
1813 }{%
1814   \printfield{extraalpha}%

```

```

1815 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefulleextra once}}%
1816 \xpatchcmd{\mkdaterangefulleextra}{%
1817   \printfield{extradate}%
1818 }{}%
1819   \printfield{extraalpha}%
1820 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefulleextra twice}}%
1821 \xpatchcmd{\mkdaterangefulleextra}{%
1822   \printfield{extradate}%
1823 }{}%
1824   \printfield{extraalpha}%
1825 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefulleextra thrice}}%
1826 \xpatchcmd{\mkdaterangetruncextra@i}{%
1827   \printfield{extradate}%
1828 }{}%
1829   \printfield{extraalpha}%
1830 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetruncextra@i once}}%
1831 \xpatchcmd{\mkdaterangetruncextra@i}{%
1832   \printfield{extradate}%
1833 }{}%
1834   \printfield{extraalpha}%
1835 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetruncextra@i twice}}%
1836 \xpatchcmd{\mkdaterangetruncextra@i}{%
1837   \printfield{extradate}%
1838 }{}%
1839   \printfield{extraalpha}%
1840 }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetruncextra@i thrice}}%

```

7.7 Title block

Most titles are set in italics, but some are set roman and unquoted.

```

1842 \DeclareFieldFormat{sentencecase}{\MakeSentenceCase*{#1}}
1843 \DeclareFieldFormat{midsentencecase}{\MakeSentenceCase*{#1}}
1844 \DeclareFieldFormat{title}{\mkbibemph{#1}}
1845 \DeclareFieldFormat
1846   [article,inbook,incollection,inproceedings]%
1847   {title}{#1}
1848 \DeclareFieldFormat
1849   [reference,mvreference]%
1850   {title}{\iftoggle{bbx:labelistitle}{#1}{\mkbibemph{#1}}}
1851 \DeclareFieldFormat
1852   [inreference]%
1853   {title}{\iftoggle{bbx:labelistitle}{\mkbibemph{#1}}{#1}}
1854 \DeclareFieldFormat
1855   [inreference]%
1856   {booktitle}{\iftoggle{bbx:labelistitle}{#1}{\mkbibemph{#1}}}
1857 \DeclareFieldFormat
1858   [patent,thesis]%
1859   {title}{\mkbibemph{#1}}
1860 \DeclareFieldFormat
1861   [audio,video,music,video]%
1862   {title}{\ifboolexpr{
1863     test {\iffieldequalstr{type}{TV}}
1864     or
1865     test {\iffieldequalstr{type}{Radio}}
1866   }{#1}{\mkbibemph{#1}}}
1867 \DeclareFieldFormat
1868   [unpublished]%
1869   {title}{\iffieldundef{booktitle}{\mkbibemph{#1}}{#1}}
1870 \DeclareFieldFormat
1871   [letter]%
1872   {title}{\iffieldundef{journalttitle}{\emph{#1}}{#1}}

```

Versions are printed with ‘v.’ in parentheses.

```
1874 \DeclareFieldFormat{version}{\mkbibparens{\bibcsstring{version}#1}}
```

The `titleaddon` field follows the title after a space and wrapped in brackets. Version 1 of this style encouraged people to supply the brackets manually, so we strip them off if they have been supplied.

```
1876 \DeclareFieldFormat{titleaddon}{\mkbibbrackets{%
1877   \IfBeginWith{#1}{[}{%
1878     \IfEndWith{#1}{]}{%
1879       \StrBetween{#1}{[}{]}%
1880       }{#1}%
1881     }{#1}%
1882   }}
```

Subtitles are set off with a colon

```
1884 \renewcommand*{\subtitlepunct}{\addcolon\space}
```

The `maintitle+title` and `title+issuetitle` are intended to be unchanged from the standard definitions.

```
1886 \newbibmacro*{maintitle+title}{%
1887   \iffieldsequal{maintitle}{title}
1888   {\clearfield{maintitle}%
1889     \clearfield{mainsubtitle}%
1890     \clearfield{maintitleaddon}}
1891   {\iffieldundef{maintitle}
1892     {}
1893     {\usebibmacro{maintitle}%
1894       \newunit\newblock
1895       \iffieldundef{volume}
1896         {}
1897         {\printfield{volume}%
1898           \printfield{part}%
1899           \setunit{\addcolon\space}}}}}%
1900 \usebibmacro{title}%
1901 \newunit}
1902
1903 \newbibmacro*{title+issuetitle}{%
1904   \usebibmacro{periodical}%
1905   \setunit*{\addspace}%
1906   \iffieldundef{series}
1907     {}
1908     {\newunit
1909       \printfield{series}%
1910       \setunit{\addspace}}}%
1911 \usebibmacro{volume+number+eid}%
1912 \setunit{\addspace}%
1913 \usebibmacro{issue+date}%
1914 \setunit{\addcolon\space}%
1915 \usebibmacro{issue}%
1916 \newunit}
```

We need to supply a new `title` macro. The standard version puts default unit punctuation between the `title` and `titleaddon` fields, but we need a space. We also need to add conditional code for printing the automatic ‘[Online]’ label.

```
1918 \renewbibmacro*{title}{%
1919   \ifboolexpr{
1920     test {\iffieldundef{title}}
1921     and
1922     test {\iffieldundef{subtitle}}
1923   }{%
1924     \ifboolexpr{
```

```

1925     test {\ifentrytype{legislation}}
1926     and
1927     test {\iffieldundef{journaltitle}}
1928   }{%
1929     \setunit*{\addspace}%
1930     \usebibmacro{isonline}%
1931   }{%}
1932 }{%
1933   \printtext[title]{%
1934     \printfield[sentencecase]{title}%
1935     \setunit{\subtitlepunct}%
1936     \printfield[midsentencecase]{subtitle}%
1937     \setunit{\addspace}}%
1938   \printfield{titleaddon}%
1939   \setunit*{\addspace}%
1940   \printfield{version}\clearfield{version}%
1941   \ifboolexpr{
1942     test {\iffieldundef{entrysubtype}}
1943     or (
1944       test {\ifentrytype{legislation}}
1945       or
1946       test {\ifentrytype{jurisdiction}}
1947     )
1948   }{%
1949     \ifboolexpr{
1950       test {\iffieldundef{journaltitle}}
1951       and
1952       test {\iffieldundef{booktitle}}
1953       and (
1954         test {\iffieldundef{library}}
1955         or
1956         test {\ifentrytype{image}}
1957         or
1958         test {\ifentrytype{audio}}
1959         or
1960         test {\ifentrytype{video}}
1961         or
1962         test {\ifentrytype{music}}
1963         or
1964         test {\ifentrytype{movie}}
1965       )
1966       and (
1967         not (
1968           test {\iffieldequalstr{type}{TV}}
1969           or
1970           test {\iffieldequalstr{type}{Radio}}
1971         )
1972         or
1973         test {\iffieldundef{series}}
1974       )
1975     }{%
1976       \setunit*{\addspace}%
1977       \usebibmacro{isonline}%
1978     }{%}
1979   }{%
1980     \setunit*{\addspace}%
1981     \printfield{entrysubtype}}
1982 }%
1983 }

```

Similar changes are needed for the `booktitle` and `maintitle` macros.

```

1985 \renewbibmacro*{booktitle}{%
1986   \ifboolexpr{
1987     test {\iffieldundef{booktitle}}
1988     and
1989     test {\iffieldundef{booksubtitle}}
1990   }{}{%
1991     \printtext[booktitle]{%
1992       \printfield[sentencecase]{booktitle}%
1993       \setunit{\subtitlepunct}%
1994       \printfield[midsentencecase]{booksubtitle}%
1995       \setunit{\addspace}%
1996     }%
1997     \printfield{booktitleaddon}
1998     \setunit*{\addspace}%
1999     \usebibmacro{isonline}%
2000   }%
2001 }
2002
2003 \renewbibmacro*{maintitle}{%
2004   \ifboolexpr{
2005     test {\iffieldundef{maintitle}}
2006     and
2007     test {\iffieldundef{mainsubtitle}}
2008   }{}{
2009     \printtext[maintitle]{%
2010       \printfield[sentencecase]{maintitle}%
2011       \setunit{\subtitlepunct}%
2012       \printfield[midsentencecase]{mainsubtitle}%
2013       \setunit{\addspace}%
2014     }%
2015     \printfield{maintitleaddon}%
2016   }%
2017 }

```

In the standard author–year styles, if a title is promoted to the head of a reference (due to missing authors/editors), the subtitle and titleaddon fields are discarded. In Harvard (Bath), the whole block is moved (with some cosmetic differences).

```

2019 \DeclareLabeltitle[inreference]{%
2020   \field{shorttitle}
2021   \field{booktitle}
2022   \field{title}
2023 }
2024 \DeclareFieldFormat{entrysubtype}{\mkbibbrackets{#1}}
2025 \providetoggle{bbx:labelistitle}
2026 \newbibmacro*{labeltitle}{%
2027   \iffieldundef{label}{%
2028     \ifboolexpr{
2029       test {\ifentrytype{inreference}}
2030       and
2031       not test {\iffieldundef{booktitle}}
2032     }{%
2033       \toggletrue{bbx:labelistitle}%
2034       \printtext[booktitle]{%
2035         \printfield[sentencecase]{booktitle}%
2036         \setunit{\booksubtitlepunct}%
2037         \printfield[midsentencecase]{booksubtitle}}%
2038       \clearfield{booktitle}\clearfield{booksubtitle}%
2039     }{%
2040       \ifboolexpr{
2041         test {\iffieldundef{title}}
2042         and
2043         test {\iffieldundef{subtitle}}

```

```

2044 }{}{%
2045   \toggletrue{bbx:labelistitle}%
2046   \printtext[title]{%
2047     \printfield[sentencecase]{title}%
2048     \setunit{\subtitlepunct}%
2049     \printfield[midsentencecase]{subtitle}%
2050     \setunit{\addspace}}%
2051   \clearfield{title}\clearfield{subtitle}}%
2052 \printfield{titleaddon}%
2053 \ifboolexpr{
2054   test {\ifentrytype{legislation}}
2055   or
2056   test {\ifentrytype{jurisdiction}}
2057 }{}{%
2058   \setunit*{\addspace}%
2059   \printfield{version}\clearfield{version}%
2060   \iffieldundef{entrysubtype}{%
2061     \ifboolexpr{
2062       test {\iffieldundef{journaltitle}}
2063       and
2064       test {\iffieldundef{booktitle}}
2065       and (
2066         test {\iffieldundef{library}}
2067         or
2068         test {\ifentrytype{image}}
2069         or
2070         test {\ifentrytype{audio}}
2071         or
2072         test {\ifentrytype{video}}
2073         or
2074         test {\ifentrytype{music}}
2075         or
2076         test {\ifentrytype{movie}}
2077       )
2078       and (
2079         not (
2080           test {\iffieldequalstr{type}{TV}}
2081           or
2082           test {\iffieldequalstr{type}{Radio}}
2083         )
2084         or
2085         test {\iffieldundef{series}}
2086       )
2087     }{%
2088       \setunit*{\addspace}%
2089       \usebibmacro{isonline}%
2090     }{}%
2091   }{}%
2092   \setunit*{\addspace}%
2093   \printfield{entrysubtype}}}%
2094 }{}%
2095 \printfield{label}%
2096 }}

```

Online resources are clearly tarred and feathered with an ‘[Online]’ label. The `isonline` macro prints this label if the resource has a URL and does nothing otherwise. We add a safeguard to stop it being used repeatedly.

```

2098 \newtoggle{bbx:onlineshown}
2099 \newbibmacro*{isonline}{%
2100   \ifboolexpr{(
2101     test {\iffieldundef{doi}}
2102     and

```

```

2103     test {\iffieldundef{url}}
2104     and
2105     test {\iffieldundef{urlyear}}
2106     and
2107     not test {\ifentrytype{online}}
2108   ) or
2109   togl {bbx:onlineshown}
2110 }{}{%
2111   \bibstring[\mkbibbrackets]{online}%
2112   \toggletrue{bbx:onlineshown}}

```

7.8 Events

Events are printed as date then venue with no intermediate punctuation.

```

2114 \newbibmacro*{event+venue+date}{%
2115   \printfield{eventtitle}%
2116   \setunit*{\addspace}%
2117   \printfield{eventtitleaddon}%
2118   \ifboolexpr{
2119     test {\iffieldundef{venue}}
2120     and
2121     test {\iffieldundef{eventyear}}
2122   }
2123   {}
2124   {\setunit{\addcomma\space}%
2125     \printeventdate
2126     \setunit*{\addcomma\space}%
2127     \printfield{venue}%
2128     \newunit}}

```

7.9 Journals

The journal title is in sentence case rather than title case.

```

2130 \xpatchbibmacro{journal}{%
2131   \printfield[titlecase]{journaltitle}%
2132 }{%
2133   \printfield[sentencecase]{journaltitle}%
2134 }{}{\wlog[WARNING: biblatex-bath failed to patch journal macro]}
2135 \xpatchbibmacro{journal}{%
2136   \printfield[titlecase]{journalsubtitle}%
2137 }{%
2138   \printfield[sentencecase]{journalsubtitle}%
2139 }{}{\wlog[WARNING: biblatex-bath failed to patch journal macro]}

```

The journal title is followed by a comma. The issue number is separated from the volume by parentheses rather than a dot. The pubstate is in the volume position.

```

2141 \newbibmacro*{journal+issuetitle}{%
2142   \usebibmacro{journal}%
2143   \setunit*{\addspace}%
2144   \usebibmacro{isonline}%
2145   \setunit*{\addcomma\space}%
2146   \iffieldundef{series}
2147   {}
2148   {\newunit
2149     \printfield{series}%
2150     \setunit{\addcomma\space}}%
2151   \usebibmacro{volume+number+eid}%
2152   \setunit{\addspace}%
2153   \usebibmacro{issue+date}%

```

```

2154 \setunit{\addcolon\space}%
2155 \usebibmacro{issue}%
2156 \setunit{\addcomma\space}%
2157 \printfield{pubstate}%
2158 \newunit}
2159
2160 \newbibmacro*{volume+number+eid}{%
2161 \printfield{volume}%
2162 \printfield[parens]{number}%
2163 \setunit{\addcomma\space}%
2164 \printfield{eid}}

```

7.10 Monograph containers and entry titles

```

2166 \newbibmacro*{maintitle+booktitle}{%
2167 \iffieldundef{maintitle}
2168 {}
2169 {\usebibmacro{maintitle}%
2170 \newunit\newblock
2171 \iffieldundef{volume}
2172 {}
2173 {\printfield{volume}%
2174 \printfield{part}%
2175 \setunit{\addcolon\space}}}%
2176 \usebibmacro{booktitle}%
2177 \newunit}

```

7.11 Series, types and numbering

Types are always printed longhand.

```

2179 \DeclareFieldFormat{type}{\ifbibstring{#1}{\biblstring{#1}}{#1}}
2180 \DeclareFieldFormat[software]{type}{\mkbibbrackets{#1}}
2181 \DeclareFieldFormat{series}{\MakeSentenceCase*{#1}}
2182 \DeclareFieldFormat
2183 [audio,video,music,video]%
2184 {series}{\ifboolexpr{
2185 test {\iffieldequalstr{type}{TV}}
2186 or
2187 test {\iffieldequalstr{type}{Radio}}
2188 }{\mkbibemph{\MakeSentenceCase*{#1}}}{\MakeSentenceCase*{#1}}}
2189 \DeclareFieldFormat
2190 [audio,video,music,video]%
2191 {number}{\ifboolexpr{
2192 test {\iffieldequalstr{type}{TV}}
2193 or
2194 test {\iffieldequalstr{type}{Radio}}
2195 }{\mkbibemph{#1}}{#1}}
2196 \DeclareFieldFormat[legislation,jurisdiction]{series}{#1}

```

The forceparens format ensures the punctuation tracker doesn't override semantically important parentheses.

```

2197 \DeclareFieldFormat{forceparens}{( #1 )}

```

Unlike the standard styles, we print a comma between series and number.

```

2199 \newbibmacro*{series+number}{%
2200 \printfield{series}%
2201 \setunit*{\addcomma\space}%
2202 \printfield{number}%
2203 \newunit}

```

We also supply a version that incorporates the `type` field.

```

2205 \newbibmacro{manual:series+type+number}{%
2206   \iffieldundef{series}{%
2207     \newunit\newblock
2208     \printfield{type}%
2209     \setunit{\addspace}%
2210     \printfield{number}%
2211   }{%
2212     \setunit{\addcomma\space}%
2213     \usebibmacro{series+number}%
2214     \newunit\newblock
2215     \printfield{type}%
2216   }%
2217 }

```

We provide a wrapper macro for printing archival collections and locators.

```

2219 \newbibmacro*{collection+shelfmark}{%
2220   \ifboolexpr{
2221     test {\iffieldundef{library}}
2222     or (
2223       test {\iffieldundef{collection}}
2224       and
2225       test {\iffieldundef{shelfmark}}
2226     )
2227   }{
2228     \usebibmacro{series+number}%
2229   }{
2230     \printfield{collection}%
2231     \setunit*{\addcomma\space}%
2232     \printfield{shelfmark}%
2233     \newunit}}

```

Reports use a special macro for printing the `type`, `series` and `number` in parentheses.

```

2235 \newbibmacro{series+type+number}{%
2236   \ifboolexpr{
2237     test {\iffieldundef{series}}
2238     and
2239     test {\iffieldundef{type}}
2240     and
2241     test {\iffieldundef{number}}
2242   }{ }{%
2243     \printtext [parens]{%
2244       \printfield{series}%
2245       \IfStrEqCase{\thefield{series}}{%
2246         {C}{\printunit*{\addot\space}}%
2247         {Cd}{\printunit*{\addot\space}}%
2248         {Cmd}{\printunit*{\addot\space}}%
2249         {Cmnd}{\printunit*{\addot\space}}%
2250         {Cm}{\printunit*{\addot\space}}%
2251       }{%
2252         \setunit*{\addcomma\space}%
2253         \printfield{type}%
2254         \setunit*{\addspace}%
2255         \IfBeginWith{\thefield{series}}{HL}}{%
2256         \printfield [forceparens]{number}%
2257       }{%
2258         \printfield{number}%
2259       }}

```

7.12 Publication block

The standard publisher macro is fine.

```
2261 \newbibmacro*{publisher+location+date}{%
2262   \printlist{location}%
2263   \iflistundef{publisher}
2264     {\setunit*{\addcomma\space}}
2265     {\setunit*{\addcolon\space}}%
2266   \printlist{publisher}%
2267   \setunit*{\addcomma\space}%
2268   \usebibmacro{date}%
2269   \newunit}
```

We put a wrapper around the standard institution macro so that it prints the publisher field instead if present, and prepends the institution.

```
2271 \newbibmacro*{plain:institution+location+date}{%
2272   \printlist{location}%
2273   \iflistundef{institution}
2274     {\setunit*{\addcomma\space}}
2275     {\setunit*{\addcolon\space}}%
2276   \printlist{institution}%
2277   \setunit*{\addcomma\space}%
2278   \usebibmacro{date}%
2279   \newunit}
2280 \newbibmacro*{institution+location+date}{%
2281   \iflistundef{publisher}{%
2282     \usebibmacro{plain:institution+location+date}%
2283   }{%
2284     \printlist{institution}%
2285     \newunit
2286     \usebibmacro{publisher+location+date}}}
```

As an additional hack for social media entries where the date is preceded by a comma, we tweak the punctuation logic for `organization+location+date`.

```
2288 \newbibmacro*{organization+location+date}{%
2289   \iflistundef{publisher}{%
2290     \printlist{location}%
2291     \iflistundef{organization}
2292       {\setunit*{\addcomma\space}}
2293       {\setunit*{\addcolon\space}}%
2294     \printlist{organization}%
2295     \iflistundef{location}
2296       {\setunit{\addcomma\space}}%
2297       {\setunit*{\addcomma\space}}%
2298     \usebibmacro{date}%
2299     \newunit
2300   }{%
2301     \printlist{organization}%
2302     \newunit
2303     \usebibmacro{publisher+location+date}}}
```

We use the library field for databases and preprint repositories, as well as streaming services and physical archives for the visual arts.

```
2305 \DeclareFieldFormat{library}{\mkbibemph{#1}}
2306 \DeclareFieldFormat[image]{library}{#1}
2307 \newbibmacro*{library}{%
2308   \iffieldundef{library}{}%
2309   \printfield{library}\clearfield{library}%
2310   \setunit*{\addspace}%
2311   \usebibmacro{isonline}}
2312 \newbibmacro*{location+library}{%
```

```

2313 \iffieldundef{library}{%
2314   \iffieldundef{institution}{}%
2315   \printlist{institution}%
2316   \setunit{\addcomma\space}%
2317   \printlist{location}%
2318 }%
2319 }{%
2320   \printfield{library}\clearfield{library}%
2321   \setunit*\addcomma\space}%
2322   \printlist{location}}

```

The following macro includes availability from a physical archive.

```

2325 \newbibmacro*{organization+location+date+library}{%
2326   \ifboolexpr{
2327     test {\iffieldundef{library}}
2328     or
2329     not test {\iflistundef{publisher}}
2330 }{%
2331   \printlist{location}\clearfield{location}%
2332   \setunit*\addcolon\space}%
2333 }{}%
2334 \iflistundef{publisher}{%
2335   \iflistundef{organization}{
2336     \printlist{location}%
2337   }{%
2338     \printlist{organization}}
2339 }{%
2340   \printlist{publisher}%
2341 }%
2342 \setunit{\addcomma\space}%
2343 \usebibmacro{date}%
2344 \newunit
2345 \usebibmacro{location+library}}

```

Here is the `isunpublished` macro used by the `unpublished` driver. It can be renewed if displaying the string needs to be suppressed or made conditional.

```

2347 \newbibmacro*{isunpublished}{%
2348   \bibstring{unpublished}}

```

7.13 Pinpointing

We remove the space between ‘p.’ and the page numbers, and allow a couple of letters for representing newspaper columns.

```

2350 \renewcommand*\ppspace{}
2351 \DeclareNumChars{ab}
2352
2353 \newbibmacro*{chapter+pages}{%
2354   \printfield{chapter}%
2355   \setunit{\bibpagespunct}%
2356   \printfield{eid}%
2357   \setunit{\bibpagespunct}%
2358   \printfield{pages}%
2359   \newunit}
2360
2361 \newbibmacro*{note+pages}{%
2362   \printfield{note}%
2363   \setunit{\bibpagespunct}%
2364   \printfield{pages}%
2365   \newunit}

```

7.14 Addenda

```
2367 \newbibmacro*{addendum+pubstate}{%
2368   \printfield{addendum}%
2369   \newunit\newblock
2370   \printfield{pubstate}}
```

7.15 Access and URLs

URLs are prefaced by a ‘from’ statement, and the URL date is enclosed in brackets rather than parentheses.

```
2372 \DeclareFieldFormat{url}{\bibsentence\bibstring{urlfrom}\addcolon\space\url{#1}}
2373 \DeclareFieldFormat{doi}{\bibsentence\bibstring{urlfrom}\addcolon\space\url{https://doi.org/#1}}
2374 \DeclareFieldFormat{pseudourl}{\bibsentence\bibstring{urlfrom}\addcolon\space#1}
2375 \DeclareFieldFormat{urldate}{\mkbibbrackets{\bibstring{urlseen}\space#1}}
```

Since URLs and DOIs are presented in exactly the same way, we combine them such that the DOI overrides the URL. We also allow the `library` field to be used as a fallback URL.

```
2377 \renewbibmacro*{url}{%
2378   \iffieldundef{doi}{%
2379     \ifboolexpr{
2380       test {\iffieldundef{url}}
2381       and not
2382       test {\iffieldundef{urlyear}}
2383     }{\printfield[pseudourl]{library}}{\printfield{url}}%
2384   }{%
2385     \printfield{doi}%
2386   }}
2387 \newbibmacro*{doi+eprint+url}{%
2388   \iftoggle{bbx:eprint}
2389   {\usebibmacro{eprint}}
2390   {}%
2391   \newunit\newblock
2392   \iftoggle{bbx:url}
2393   {\usebibmacro{url+urldate}}
2394   {}}
```

7.16 Standards

A special quirk with standards is that they are often best known by their number, so it comes at the head of the reference if no authors are specified.

To achieve this cleanly with correct sorting, we copy the number into `sortkey` as a simple fix (providing neither `author` nor `sortkey` are already specified). We then move the number to `label` so that citations come out correctly and the date (if given) is put in the right place.

```
2396 \DeclareStyleSourceMap{%
2397   \maps[datatype=bibtex]{%
2398     \map[overwrite=false]{
2399       \pertype{standard}
2400       \step[notfield=author,
2401         fieldsource=number,
2402         final]
2403       \step[fieldset=sortkey,
2404         origfieldval]
2405     }
2406     \map[overwrite=false]{
2407       \pertype{standard}
2408       \step[notfield=author,
2409         fieldsource=number,
2410         fieldtarget=label]
```

```

2411 }
2412 }}
2413 \ExecuteBibliographyOptions [standard] {useeditor=false}

```

7.17 Case reports

We provide a test to see if a work was published in the Official Journal of the EU; if so, the title is not italic (unless reporting a decision of the European Commission).

```

2415 \newtoggle{bbx:eu-oj}
2416 \newbibmacro*{eucheck}{%
2417   \IfBeginWith{\thefield{journaltitle}}{OJ}{%
2418     \toggletrue{bbx:eu-oj}%
2419   }}
2420 \DeclareFieldFormat[jurisdiction,legislation]{title}{%
2421   \ifboolexpr{
2422     togl{bbx:eu-oj}
2423     and
2424     not test {\iffieldequalstr{type}{Commission Decision}}
2425   }{#1}{\mkbibemph{#1}}

```

The year is printed in square brackets, unless the case is Scottish, in which case the year is printed bare, or a volume number is present, in which case the year is printed in parentheses. With ECR and OJ cases, however, the year is always printed in square brackets despite the presence of a volume number. We provide a `year-essential` option for forcing the brackets/parentheses choice, and `scottish-style` for activating Scottish style.

```

2427 \newtoggle{bbx:scotstyle}
2428 \DeclareEntryOption[boolean]{scottish-style}[true]{%
2429   \settoggle{bbx:scotstyle}{#1}}
2430 \newtoggle{bbx:year-essential}
2431 \DeclareEntryOption[boolean]{year-essential}[true]{%
2432   \settoggle{bbx:year-essential}{#1}}
2433 \DeclareFieldFormat[jurisdiction]{datelabel}{%
2434   \ifboolexpr{
2435     test {\iffieldundef{volume}}
2436     or
2437     togl {bbx:year-essential}
2438     or
2439     togl {bbx:eu-oj}
2440     or
2441     test {\iffieldequalstr{journaltitle}{ECR}}
2442   }{%
2443     \ifboolexpr{
2444       test {\ifkeyword{sc}}
2445       or
2446       togl {bbx:scotstyle}
2447     }{%
2448       #1%
2449     }{%
2450       \mkbibbrackets{#1}}%
2451   }{%
2452     \mkbibparens{#1}}

```

A case number should normally go after the title and before the year, but Version 1 of this style used `number` with `type` at the end of the reference. (It relied on the case number being given in the `issue` field.) To maintain backwards compatibility, we rely on a ‘trick’ that case numbers are usually only present in EU cases where a page number is always provided. (And we support the `oscola` semantics for numbering European Commission cases.) We have to be a bit careful to ensure the last print command prints something otherwise `(no)nameyear delim` will not be triggered.

```

2454 \DeclareFieldFormat[jurisdiction]{issue}{\mkbibparens{#1}}
2455 \newbibmacro*{casenumber}{%
2456   \iffieldundef{issue}{%
2457     \ifboolexpr{
2458       test {\iffieldundef{pages}}
2459       or
2460       test {\iffieldundef{number}}
2461     }{}{%
2462       \iffieldundef{userb}{%
2463         \printfield[parens]{number}%
2464         \clearfield{number}%
2465       }{%
2466         \printfield[parens]{userb}%
2467         \setunit{\addspace}%
2468         \printfield{type}%
2469         \setunit*{\addspace}%
2470         \printfield{number}%
2471         \clearfield{type}\clearfield{number}}}%
2472   }{%
2473     \printfield{issue}}

```

For ease, if ‘Commission’ is given as the institution, this is deleted but the type is set to ‘Commission Decision’.

```

2474 \DeclareStyleSourcemap{
2475   \maps[datatype=bibtex]{
2476     \map[overwrite=false]{
2477       \step[match=\regexp{Commission}, fieldsource=institution, final]
2478       \step[fieldset=type, fieldvalue={Commission Decision}]
2479       \step[fieldset=institution, null]
2480     }
2481     \map[overwrite=false]{
2482       \step[fieldsource=casenumber, final]
2483       \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
2484       \step[fieldsource=casenumber, fieldtarget=userb]
2485     }
2486   }
2487 }

```

Law reports have a special way of printing journals, volume and page numbers. Here are several macros implementing this: a deprecated one using type/number and three proper ones using journaltitle, for UK journals, ECR and OJ respectively. The reporter macro chooses between them (again, this is a little messy for backwards compatibility).

```

2489 \newbibmacro{jurisdiction:type+number}{%
2490   \usebibmacro{journal}%
2491   \setunit*{\addspace}%
2492   \ifboolexpr{
2493     test {\iffieldundef{type}}
2494     and
2495     test {\iffieldundef{number}}
2496   }{}{%
2497     \printfield{volume}%
2498     \setunit*{\addperiod\space}%
2499     \printfield{type}%
2500     \setunit*{\addspace}%
2501     \printfield{number}}
2502 \DeclareFieldFormat[jurisdiction]{journaltitle}{%
2503   \iftoggle{bbx:eu-oj}{\mkbibemph{#1}}{#1}}
2504 \DeclareFieldFormat[jurisdiction,legislation]{volume}{#1}
2505 \DeclareFieldFormat[jurisdiction,legislation]{pages}{#1}
2506 \newbibmacro{journal+volume+pages}{%
2507   \printfield{volume}%
2508   \setunit{\addperiod\space}%

```

```

2509 \printfield{journaltitle}%
2510 \setunit*{\addspace}%
2511 \printfield{pages}%
2512 }
2513 \newbibmacro{eu:journal+volume+pages}{%
2514 \printfield{journaltitle}%
2515 \setunit{\addspace}%
2516 \printfield{volume}%
2517 \setunit*{\printtext{--\allowbreak}}%
2518 \printfield{pages}%
2519 }
2520 \newbibmacro{eu:journal+series+volume+pages}{%
2521 \printfield{journaltitle}%
2522 \setunit{\addspace}%
2523 \printfield{series}%
2524 \clearfield{series}%
2525 \printfield{volume}%
2526 \setunit*{\printtext{/}}%
2527 \printfield{pages}%
2528 }
2529 \newbibmacro{reporter}{%
2530 \iffielddundef{journaltitle}{%
2531 \usebibmacro{jurisdiction:type+number}%
2532 }{%
2533 \iffieldequalstr{journaltitle}{ECR}{%
2534 \usebibmacro{eu:journal+volume+pages}%
2535 }{%
2536 \iffieldequalstr{journaltitle}{OJ}{%
2537 \iffielddundef{series}{%
2538 \usebibmacro{jurisdiction:type+number}%
2539 }{%
2540 \usebibmacro{eu:journal+series+volume+pages}%
2541 }%
2542 }{%
2543 \usebibmacro{journal+volume+pages}%
2544 }}}}

```

It's not a feature of Harvard (Bath), but OSCOLA puts the institution in parentheses at the end.

```

2546 \DeclareFieldFormat[jurisdiction]{institution}{\mkbibparens{#1}}

```

7.18 Legislation

Legislation is mostly formatted like a report, except there is no `nametitledelim` there is no `date+extradate`. There is also some variation in how the series/number/chapter information is punctuated.

```

2548 \DeclareFieldFormat[legislation]{datelabel}{%
2549 \iftoggle{bbx:eu-oj}{%
2550 \mkbibbrackets{#1}%
2551 }{#1}}
2552 \DeclareFieldFormat[legislation]{labeldate}{%
2553 \iftoggle{bbx:labelistitle}{\printtext [title] {#1}}{#1}}
2554 \DeclareFieldFormat[legislation]{chapter}{\biblcsstring{legalchapter}#1}
2555 \newbibmacro*{journal+series+volume+number+chapter+pages}{%
2556 \iftoggle{bbx:eu-oj}{%
2557 \setunit{\addspace}%
2558 \usebibmacro{eu:journal+series+volume+pages}%
2559 }{%
2560 \iffieldequalstr{entrysubtype}{secondary}{%
2561 \setunit{\addcomma\space}%
2562 \printfield{number}%

```

```

2563     \clearfield{number}%
2564     \printunit{\addcomma\space}%
2565 }{%
2566     \ifboolexpr{
2567         test {\iffieldundef{series}}
2568         and
2569         test {\iffieldundef{type}}
2570     }{%
2571         \iffieldundef{number}{%
2572             \setunit{\addcomma\space}%
2573             \printfield{chapter}%
2574         }{%
2575             \setunit{\addspace}%
2576             \printtext [parens]{%
2577                 \printfield{number}%
2578                 \setunit*{\addcomma\space}%
2579                 \printfield{chapter}}}%
2580     }{%
2581         \iffieldundef{chapter}{\setunit{\addspace}}%
2582         \printtext [parens]{%
2583             \printfield{series}%
2584             \setunit{\addcomma\space}%
2585             \printfield{type}%
2586             \setunit*{\addspace}%
2587             \printfield{number}%
2588             \setunit*{\addcomma\space}%
2589             \printfield{chapter}}}}}}

```

7.19 Related items

This is intended to be unchanged from the standard (author–year) definition.

```

2591 \newcounter{bbx:relatedcount}
2592 \newcounter{bbx:relatedtotal}
2593
2594 \newbibmacro*{related:init}{%
2595     \csundef{bbx:relatedloop}}
2596
2597 \newbibmacro*{begrelated}{%
2598     \booltrue{bbx@inset}}
2599
2600 \newbibmacro*{endrelated}{%
2601     \usebibmacro*{bbx:savehash}}
2602
2603 \newbibmacro*{begrelatedloop}{}
2604 \newbibmacro*{endrelatedloop}{}
2605
2606 \def\ifrelatedloop{%
2607     \ifboolexpr{ test {\xifinlistcs{\strfield{entrykey}}{bbx:relatedloop}}
2608         or test {\xifinlistcs{\strfield{clonesourcekey}}{bbx:relatedloop}} }}
2609
2610 \newbibmacro*{related}{%
2611     \ifboolexpr{ test {\iffieldundef{related}} or test {\ifrelatedloop} }
2612     {}
2613     {\ifcsundef{begrelateddelim\strfield{relatedtype}}
2614         {\printunit{\begrelateddelim}}
2615         {\printunit{\csuse{begrelateddelim\strfield{relatedtype}}}}}%
2616     \usebibmacro{begrelated}%
2617     \def\bbx@tempa{}%
2618     \setcounter{bbx:relatedtotal}{0}%
2619     \def\do##1{%
2620         \entrydata{##1}{%

```

```

2621     \ifrelatedloop
2622     {}
2623     {\stepcounter{bbx:relatedtotal}%
2624     \gappto{\bbx@tempa}{##1,}}}%
2625 \docsvfield{related}%
2626 \restorefield{related}{\bbx@tempa}%
2627 \ifnumgreater{\value{bbx:relatedtotal}}{0}
2628 {\listcsxadd{bbx:relatedloop}{\strfield{entrykey}}%
2629 \iffieldundef{clonesourcekey}
2630 {}
2631 {\listcsxadd{bbx:relatedloop}{\strfield{clonesourcekey}}}%
2632 \setcounter{bbx:relatedcount}{0}%
2633 \def\do{%
2634 \stepcounter{bbx:relatedcount}%
2635 \ifnumgreater{\value{bbx:relatedcount}}{1}
2636 {\ifcsundef{relateddelim\strfield{relatedtype}}
2637 {\printunit{\relateddelim}}
2638 {\expandafter\expandafter\expandafter\expandafter\expandafter
2639 \expandafter\expandafter\printunit
2640 \expandafter\expandafter\expandafter\expandafter\expandafter
2641 \expandafter\expandafter}%
2642 \csuse{relateddelim\strfield{relatedtype}}}}
2643 {}}%
2644 \iffibmacrodef{related:\strfield{relatedtype}}
2645 {\appto{\do}{\usebibmacro{related:default}}}
2646 {\appto{\do}{\usebibmacro*{related:\strfield{relatedtype}}}}%
2647 \iffieldformatundef{related:\strfield{relatedtype}}
2648 {\def\bbx@tempa{related}}
2649 {\def\bbx@tempa{related:\strfield{relatedtype}}}%
2650 \iffieldformatundef{relatedstring:\strfield{relatedtype}}
2651 {\def\bbx@tempb{relatedstring:default}}
2652 {\def\bbx@tempb{relatedstring:\strfield{relatedtype}}}%
2653 \printtext[\bbx@tempa]{%
2654 \usebibmacro{begrelatedloop}%
2655 \iffieldundef{relatedstring}
2656 {\ifboolexpr{
2657 test {\ifnumgreater{\value{bbx:relatedtotal}}{1}}
2658 and
2659 test {\iffibxstring{\thefield{relatedtype}s}}
2660 }
2661 {\printtext[\bbx@tempb]{%
2662 \bibstring[\mkrelatedstringtext]{\thefield{relatedtype}s}}
2663 \iffieldbibstring{relatedtype}
2664 {\printtext[\bbx@tempb]{%
2665 \bibstring[\mkrelatedstringtext]{\thefield{relatedtype}}}}
2666 {}}}
2667 {\iffieldbibstring{relatedstring}
2668 {\printtext[\bbx@tempb]{%
2669 \bibstring[\mkrelatedstringtext]{\thefield{relatedstring}}}
2670 {\printfield[\bbx@tempb]{relatedstring}}}%
2671 \docsvfield{related}%
2672 \usebibmacro{endrelatedloop}}}%
2673 {}%
2674 \usebibmacro{endrelated}}

```

7.20 Bibliography formatting

We allow the bibliography look more like the Bib_TE_X default.

```

2676 \DeclareFieldFormat{shorthandwidth}{#1}
2677 \setlength{\bibhang}{0pt}
2678 \setlength{\bibitemsep}{1em plus 0.2em minus 0.2em}

```

```

2679 \renewcommand*{\bibfont}{\normalfont\normalsize}
2680
2681 \defbibenvironment{bibliography}
2682   {\list
2683    {}
2684    {\setlength{\leftmargin}{\bibhang}%
2685     \setlength{\itemindent}{-\leftmargin}%
2686     \setlength{\itemsep}{\bibitemsep}%
2687     \setlength{\parsep}{\bibparsep}}
2688   {\endlist}
2689   {\item}
2690
2691 \defbibenvironment{shorthand}
2692   {\list
2693    {\printfield[shorthandwidth]{shorthand}}
2694    {\setlength{\labelwidth}{\shorthandwidth}%
2695     \setlength{\leftmargin}{\labelwidth}%
2696     \setlength{\labelsep}{\biblabelsep}%
2697     \addtolength{\leftmargin}{\labelsep}%
2698     \setlength{\itemsep}{\bibitemsep}%
2699     \setlength{\parsep}{\bibparsep}%
2700     \renewcommand*{\makelabel}[1]{##1\hss}}
2701   {\endlist}
2702   {\item}
2703
2704 \InitializeBibliographyStyle{\global\undef\bbx@lasthash}

```

7.21 Sorting

This source map helps with correct sorting of anonymous `inreference` entries.

```

2706 \DeclareStyleSourceMap{%
2707   \maps[datatype=bibtex]{%
2708     \map{%
2709       \pertype{inreference}
2710       \step[notfield=author, final]
2711       \step[fieldsource=booktitle]
2712       \step[fieldset=sorttitle, origfieldval]
2713     }%
2714   }%
2715 }%

```

8 Implementation: data model

We add support for a CJK component of names.

```

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

```

We add some fields for compatibility with `biblatex-manuscripts-philology` and `biblatex-oxref`.

```

21 \DeclareDatamodelFields [type=field,datatype=literal]{collection,shelfmark}
22 \DeclareDatamodelEntryfields [booklet,image,map,unpublished]{collection,shelfmark}

```

9 Implementation: General English language localization

The strings are mostly the same except for the following changes. Note that month names are never abbreviated.

```

20 \InheritBibliographyExtras{english}
21 \DeclareBibliographyStrings

```

```

22 {inherit           = {english}
23 ,editors          = {{editors}{eds}}
24 ,version          = {{version-}{v\addot}}
25 ,inpreparation   = {{preprint}{preprint}}
26 ,submitted        = {{preprint}{preprint}}
27 ,urlseen          = {{Accessed}{Accessed}}
28 ,january          = {{January}{January}}
29 ,february         = {{February}{February}}
30 ,march            = {{March}{March}}
31 ,april            = {{April}{April}}
32 ,may              = {{May}{May}}
33 ,june             = {{June}{June}}
34 ,july             = {{July}{July}}
35 ,august           = {{August}{August}}
36 ,september       = {{September}{September}}
37 ,october          = {{October}{October}}
38 ,november         = {{November}{November}}
39 ,december         = {{December}{December}}
40 ,patreq           = {{patent application}{pat\addot\ appl\addot}}
41 ,patreqde         = {{German patent application}{German pat\addot\ appl\addot}}
42 ,patreqeu         = {{European patent application}{European pat\addot\ appl\addot}}
43 ,patreqfr         = {{French patent application}{French pat\addot\ appl\addot}}
44 ,patrequk         = {{British patent application}{British pat\addot\ appl\addot}}
45 ,patrequs         = {{U.S\addotsspace patent application}{U.S\addotsspace pat\addot\
    appl\addot}}

```

These are the new strings we define in this style.

```

46 ,online           = {{Online}{Online}}
47 ,hours            = {{hours}{hrs\addot}}
48 ,at               = {{at}{at}}
49 ,unpublished      = {{unpublished}{unpublished}}
50 ,legalchapter     = {{chapter}{c\addot}}
51 ,director         = {{director}{dir\addot}}
52 ,directors        = {{directors}{dir\addot}}
53 ,bydirector       = {{directed by}{directed by}}
54 ,performer        = {{}}{}
55 ,performers       = {{}}{}
56 ,byperformer     = {{}}{}
57 ,reader           = {{reader}{reader}}
58 ,readers          = {{readers}{readers}}
59 ,byreader         = {{read by}{read by}}
60 ,conductor        = {{conductor}{cond\addot}}
61 ,conductors       = {{conductors}{cond\addot}}
62 ,byconductor      = {{conducted by}{conducted by}}
63 }

```

10 Implementation: British English language localization

We use the standard version with a few changes. We display the day as a cardinal number instead of an ordinal. The date is separated from the time by a period, not just a space, and the time separator is a period instead of a colon.

```

20 \InheritBibliographyExtras{british}
21 \DeclareBibliographyExtras{%
22   \protected\def\mkbibdatelong#1#2#3{%
23     \iffieldundef{#3}
24     {}
25     {\thefield{#3}%
26     \iffieldundef{#2}{}\nobreakspace}}%
27   \iffieldundef{#2}
28   {}

```

```

29     {\mkbibmonth{\thefield{#2}}}%
30     \iffieldundef{#1}{\space}}%
31   \iffieldbibstring{#1}
32     {\bibstring{\thefield{#1}}}
33     {\dateeraprintpref{#1}\stripzeros{\thefield{#1}}}%
34   \renewrobustcmd*{\bibdatetimesep}{\addperiod\space}%
35   \renewrobustcmd*{\bibtimesep}{\addperiod}%
36   }
37
38 \DeclareBibliographyStrings
39 {inherit      = {english}
40 }

```

11 Implementation: citation style

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

```

20 \RequireCitationStyle{authoryear-comp}

```

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

```

21 \ExecuteBibliographyOptions{uniquename=init}

```

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

```

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

```

We need to suppress the display of ‘n.d.’ in citations if the `nonodate` toggle is true.

```

23 \xpatchbibmacro{cite:labeldate+extradate}{%
24   \iffieldundef{labelyear}%
25 }{%
26   \ifboolexpr{
27     togl {bbx:nonodate}
28     and
29     not test {\iflabeldateisdate}}%
30 }{\wlog{WARNING: biblatex-bath failed to patch cite:labeldate+extradate}}

```

We activate the `label-is-title` toggle if the `labeltitle` is printed.

```

31 \providetoggle{bbx:labelistitle}
32 \xpatchbibmacro{cite:label}{%
33   \printtext[bibhyperref]{\printfield[citetitle]{labeltitle}}%
34 }{%
35   \toggletrue{bbx:labelistitle}%
36   \printtext[bibhyperref]{\printfield[citetitle]{labeltitle}}%
37 }{\wlog{WARNING: biblatex-bath failed to patch cite:label}}

```