

# Resources

David Osborne

## Books (free online)

- James Long & Paul Teetor (2019) *R Cookbook*. <https://rc2e.com/>
- Winston Chang (2018) *R Graphics Cookbook*. <https://r-graphics.org/>
- Garrett Golemund & Hadley Wickham (2016) *R for Data Science*. <https://r4ds.had.co.nz/>
  - uses Tidyverse
- Julia Silge and David Robinson (2017) *Text Mining With R*. <https://www.tidytextmining.com/>
- Robin Lovelace *et al.* (2019) *Geocomputation with R*. <https://r.geocompx.org/>
- Yihui Xie (2022) *RMarkdown: the Definitive Guide*. <https://bookdown.org/yihui/rmarkdown/>

## Books (in print)

- Brunsdon & Comber (2014) *An Introduction to R for Spatial Analysis & Mapping*. London: SAGE Publications.
- Carlson (2017) *Quantitative Methods in Archaeology Using R*. Cambridge: Cambridge University Press.

## Guides

- R Studio cheatsheets: <https://www.rstudio.com/resources/cheatsheets/>
- *Finding your way to R*: <https://education.rstudio.com/learn/>
- Bookdown: <https://bookdown.org/>
- Winston Chang: *Cookbook for R*. <http://www.cookbook-r.com>
- Quarto: <https://quarto.org/>

## Subject-related guides

- Mike Baxter (2015) *Notes on Quantitative Archaeology and R*. [https://www.academia.edu/12545743/Notes\\_on\\_Quantitative\\_Archaeology\\_and\\_R](https://www.academia.edu/12545743/Notes_on_Quantitative_Archaeology_and_R)
- Ben Marwick (2018) *Using R and Related Tools for Reproducible Research in Archaeology*. <http://www.practicereproducibleresearch.org/case-studies/benmarwick.html>
  - in Kitces *et al.* (eds.) (2018) *The Practice of Reproducible Research: Case Studies and Lessons from the Data-Intensive Sciences*. <http://www.practicereproducibleresearch.org/>
- Ismay and Kim (2018) *A modern dive into data with R: An introduction to statistical and data sciences via R*. <https://moderndive.com/index.html>
- Chester Ismay (2018) *Statistical inference: a Tidy approach*. [https://ismayc.github.io/talks/ness-infer/slide\\_deck.html#1](https://ismayc.github.io/talks/ness-infer/slide_deck.html#1)
- Rchaeology Community resources list: <https://rchaeology.github.io/resources/archaeology/>
  - Mastodon: @Rchaeology@archaeo.social
- CRAN Task Views: <https://www.stats.bris.ac.uk/R/> then click on Task Views

## Examples

- R graph gallery: <https://www.r-graph-gallery.com>
- Ben Marwick's @archpaperscode Twitter bot: <https://twitter.com/archpaperscode> (<https://github.com/benmarwick/ctv-archaeology#publications-that-include-r-code>)
- Tidy Tuesday 2022 examples gallery: <https://github.com/deepdk/TidyTuesday-2022>
  - Tom Mock explains the Tidy Tuesday project at <https://www.youtube.com/watch?v=H8rhQOj7vDY>

## Video

- Simon Jackson's *Wrangling Data in the Tidyverse* (useR! 2018 workshops & tutorials)
  - Part 1 (1:16:10): <https://www.youtube.com/embed/E-Vvg8uzcVM>
  - Part 2 (1:11:43): <https://www.youtube.com/embed/DwWH1mTerOc>

## Packages

- Tidyverse <https://www.tidyverse.org/>
  - ggplot2: <https://ggplot2.tidyverse.org>
  - Paper: Wickham *et al.* (2019) <https://doi.org/10.21105/joss.01686>
- [ggcharts](#) — simple ggplot2-based visualisation

## Reusable code, open science, reproducibility

- Code quality: Trisovic, A. *et al.* (2022) A large-scale study on research code quality and execution. *Scientific Data* 9, 60
  - See *Best practices and recommendations* section

## Tools

- [Rstudio IDE](#) — widely-used Integrated Development Environment for R
- [Tabula](#) — extracting CSVs from PDFs
- [GitHub](#) — for version control
- [Github Pages](#) — for websites
- ChatGPT — just joking =:o

## Teaching materials (for the tutors)

- RStudio Education: <https://education.rstudio.com/teach/>