

# Creating accessible illustrations

Illustrations are a useful way of conveying complex information to a reader. A good illustration should aid the reader by presenting information in an easy-to-digest manner. Clear and concise illustrations will help the reader to understand information more easily than a text description alone. Overly-complicated or busy illustrations can distract or detract from a reader's understanding.

## The three As of good illustration

If your illustration is both attractive and accurate, it will automatically be more accessible: 1+2=3.

1. Attractive
2. Accurate
3. Accessible

## Principles of good illustration

### Attractive:

- **Keep it clean.** Avoid unnecessary clutter in drawings. Use a key or legend to minimise labels. Label only elements that are referred to in the text.
- **Use space.** Ensure the illustration is large enough to easily fit all of the information you need to show.
- **Simplify.** If you have too much information in your illustration, try splitting the information over multiple figures.
- **Be consistent.** Use colours and fonts in a consistent manner. Try to keep your supplementary information (key, scales, north arrow) in the same place on the page.

### Accurate:

- **No ambiguity or false information.** The illustration forms part of the archaeological record and should be verifiable against the data.
- **Remember key information.** North arrows, scale bar, co-ordinates and other standard information should be included where required. Scale bars and coordinates should be at useful and usable intervals.
- Conjectural elements should be apparent

### Accessible:

- **Select appropriate fonts.** Try to minimise the amount of font families you use. A sans-serif font is ideal for labels, and considered to be more universally accessible. A serif font might additionally be used to distinguish types of information. For example, base map labels might be serif and labelled elements over the map might be sans-serif. Avoid using italics as they are more difficult to read. Try to keep labels at a consistent size, but use a sensible hierarchy of sizes if required.
- **Keep it clean, simplify, use space.**
- **Colour.** Consider colour contrast and how others perceive colour.
- In print, consider how the illustration will fit alongside any written content, for example how it will sit on a page if for a printed output. For example, if using a double column page layout, a single column figure may work better. Try to avoid landscape figures where the reader is forced to rotate the page.

### Accessible illustrations

When creating an illustration it is important to remember that not all readers will be able to understand or experience the illustration in the same way. Some readers may see the illustration differently, such as people with colour-blindness. Other readers may not see the illustration at all, such as readers who rely on screen reading or other assistive technology. For this reason it is important that information is not represented exclusively through illustration.

In order to maximise accessibility in an illustration, consider the following:

#### Selection of colour - colour blind awareness, global conventions

Consider users who see colour differently. Approximately 1 in 12 men and 1 in 200 women have some form of colour-blindness.

Use colour-blind preview filters or colour checkers to determine if your colours are easily distinguishable. Some softwares and websites allow for colourblind previews.

There are some global conventions in colour use. For example, water is blue. Adhere to global conventions as far as possible, so as not to confuse the reader.

Some outputs (increasingly rarely) are black/ white or greyscale only. Avoid using 50 shades of grey. Use pattern fills carefully – they can appear very different on screen to on the page or in PDF.

### Colour contrast

Ensure adequate contrast between text and background colours using a colour contrast checker. On busy backgrounds, such as maps, you may wish to place a solid background (sometimes called a halo) under text.

As well as contrast, in print you will need to consider the ink weight on the page. Do not use less than 10% ink saturation as it may not be visible. Ideally aim for 15% ink saturation or higher.

### Font size

Never use a font size smaller than 6pt. 7–10pt is ideal for labelling. Oversized labels can distract from details. Consider the overall viewing scale of your figure when choosing font size, eg at full-screen 7pt on an A3 figure is too small to read.

### Line weights

In both print and digital outputs, low lineweights risk being invisible. In print a lineweight of 0.25pt should only be used with 100% ink saturation (eg 100% black (K)).

In pdf, low lineweights (sub 1pt) can disappear, particularly if on a vertical or horizontal plane

### Alternative (alt) text

Where an image is presented online, it should also include alternative (alt) text, as specified by w3.org. Alt text is read by screen readers to give readers with sight limitations an understanding of the content.

For simple images and illustrations, alt text should be a concise description of what the image shows. It should not duplicate the caption. For PDFs, alt text can be added to illustrations in Microsoft Word, Adobe Illustrator or Adobe Indesign.

Some images contain a lot of information. Examples include:

- graphs and charts.
- maps.
- illustrations where the page text relies on the user being able to understand the image.

In addition to the alt text a longer description would be required for a non-sighted reader to understand the illustration. This might be as simple as directing a reader to the source data for a graph, or a list of locations for a map.

It is important that no illustration shows information that cannot be found from another source; the illustration is there to enhance and clarify the reader's understanding. This might be within the text itself or at another linked source.

### More information on accessibility

There are guidelines and standards for creating accessible web content, including illustrations. These are agreed by the World Wide Web Consortium (W3C).

WebAIM.org have a useful overview of considerations for accessibility in digital content.

In print there is no single standard. Often organisations or publications will have their own house style, which will include conventions for how illustrations should be presented. The principles outlined above are true for creating good illustrations in both print and digital media, regardless of individual house styles.

### Resources

- Colour blind safe palettes: <https://davidmathlogic.com/colorblind>
- Colour contrast (print and digital) <https://legibility.info/contrast-calculator>
- Adobe colour (contrast and colour blind previewer)  
<https://color.adobe.com/create/color-contrast-analyzer>
- Online colour blind previewer (upload image)  
<https://www.color-blindness.com/coblis-color-blindness-simulator/>
- Adobe Illustrator colour blind preview: View> Proof setup> Colour blindness (see overleaf for screenshot)
- 2025 Graphic Archaeology Group talk: Creating accessible illustrations  
<https://www.archaeologists.net/events-training/training/recordings>

### References

- W3.org standards: <https://www.w3.org/TR/WCAG21/#perceivable>
- Paul Tol's notes on colours for colour blindness:  
<https://sronpersonalpages.nl/~pault/>
- Gov.uk accessible content guidance:  
<https://www.gov.uk/guidance/guidance-and-tools-for-digital-accessibility#designing-accessible-content>
- Colour blindness: [colourblindawareness.org/colour-blindness/](http://colourblindawareness.org/colour-blindness/)
- AHI interpretation panel guidance:  
[https://ahi.org.uk/wp-content/uploads/2021/11/AHI\\_BPG\\_02\\_Interpretation\\_Panels\\_2021.pdf](https://ahi.org.uk/wp-content/uploads/2021/11/AHI_BPG_02_Interpretation_Panels_2021.pdf)

