Cartographic Techniques for GIS Users

Matt Frost, Marshall Miller & Associates
Think for print.

Planning saves paper.
How to “unlearn” the limitations of the medium?

Imitate pre-GIS techniques.

Avoid the default styles.

Account for difference in printed version.
Use a style library.

It’s much easier to avoid the defaults when you have your own styles defined.
Old tricks are good ones.

GIS tools can reproduce effects like river hatching and 2-sided shading.

Source: Greenwood's map of London
Graphic hacks:
Buffer shorelines to create river engraving lines.

Copy and offset polygons to create the effect shown here.
Label boundary lines, not areas.

Example: USGS quads label state and county boundary lines, but tax districts are labeled as areas.
You can download line features and layers from mwfrost.com.
Label quad corners instead of areas.
Colors will always print differently.

Plot a color chart for each plotter.
Test different type sizes for readability.

Make an “eye chart” or use mine.
Color

Subtlety is more than just a matter of taste.

Source: Cross's New Plan of London, 1850
provided by David Hale/MAPCO
Restraint allows detailed callout.

The red details are effectively highlighted because the rest of the map is muted in color.

When everything is emphasized, nothing is.

Source: British Library, Ordnance Survey Drawing 2, Mounts Bay, Cornwall
A watercolor wash.
Resources are available for download at mwfrst.com.