

3b – A Guide to Pictograms

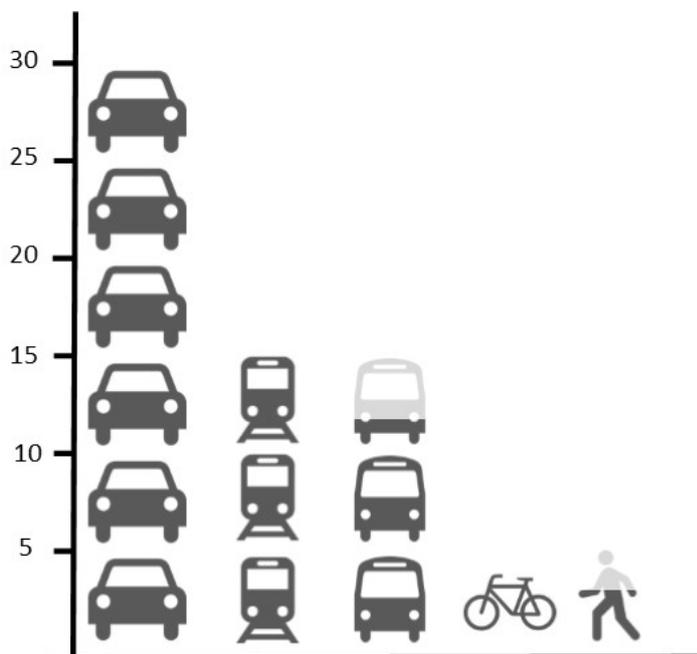
A pictogram involves the use of a symbol in place of a word or statistic.

Why would we use a pictogram?

Pictograms can be very useful when trying to interpret data. The use of pictures allows the reader to easily see the frequency of a geographical phenomenon without having to always read labels and annotations. They are best used when the aesthetic qualities of the data presentation are more important than the ability to read the data accurately.

Pictogram bar charts

A normal bar chart can be made using a set of pictures to make up the required bar height. These pictures should be related to the data in question and in some cases it may not be necessary to provide a key or explanation as the pictures themselves will demonstrate the nature of the data inherently. A key may be needed if large numbers are being displayed – this may also mean that ‘half’ sized symbols may need to be used too.



How people travelled to Tourist Attraction A

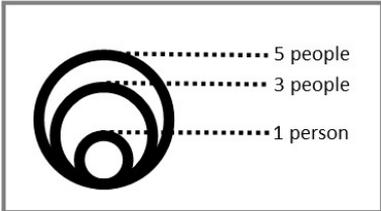


Proportional shapes and symbols

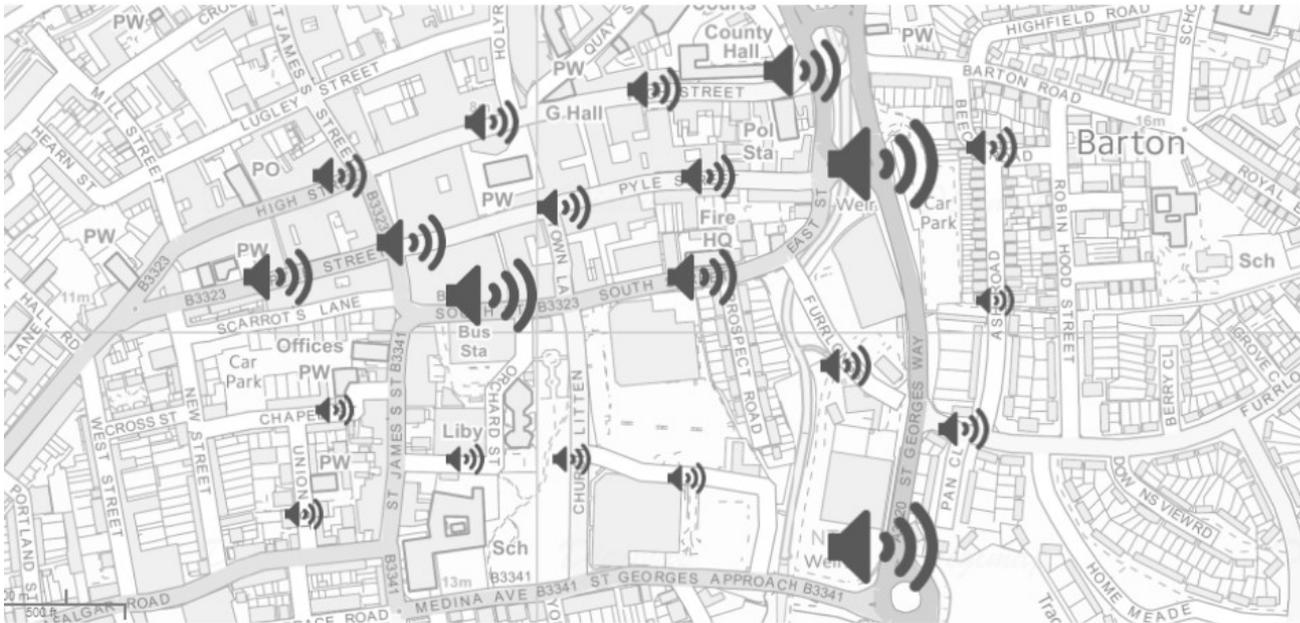
Scaling the size of the picture to represent the amount or frequency of something within a data set can be an effective way of visually representing data. The symbol should be representative of the data in question, or if the data does not lend itself to a particular symbol, a simple shape like a circle or square can be equally effective.

How people scored when answering the following question:

“What environmental impact do you feel the new supermarket will have on site A?”



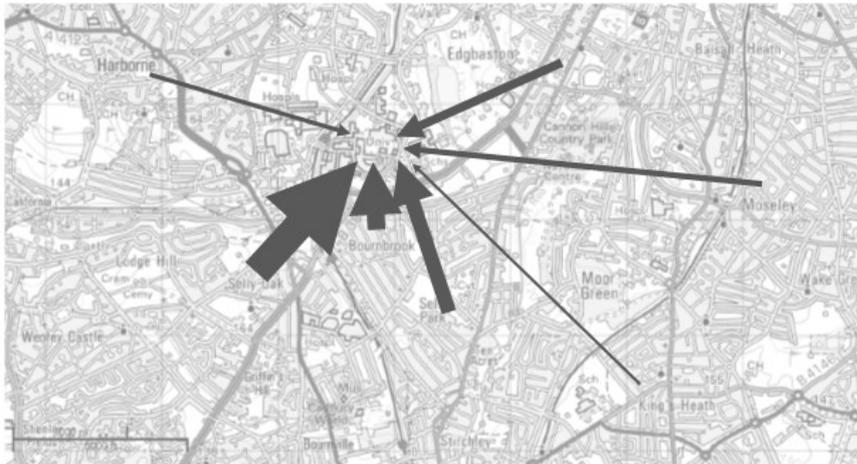
Proportional symbols can work well with GIS, where the symbols can be placed on different sites on the map to show a geospatial connection to the data. Providing a key with a scale to the size of the symbols may not be necessary if the relative values of the shapes is the main point of the data presentation. If precise data needs to be read from the proportional symbol, then it may not be the best data presentation method to use in the first place.



A map to show relative noise levels across Newport town centre

Flow lines

Flow lines (sometimes called desire lines) are arrows drawn on a map which show a connection between two places. The size of the arrow (its width) is proportional to the frequency of that connection. For example, a wider arrow may show that a large number of people travel from Town B to Town A, while a narrower arrow will show that fewer travel from Town C.

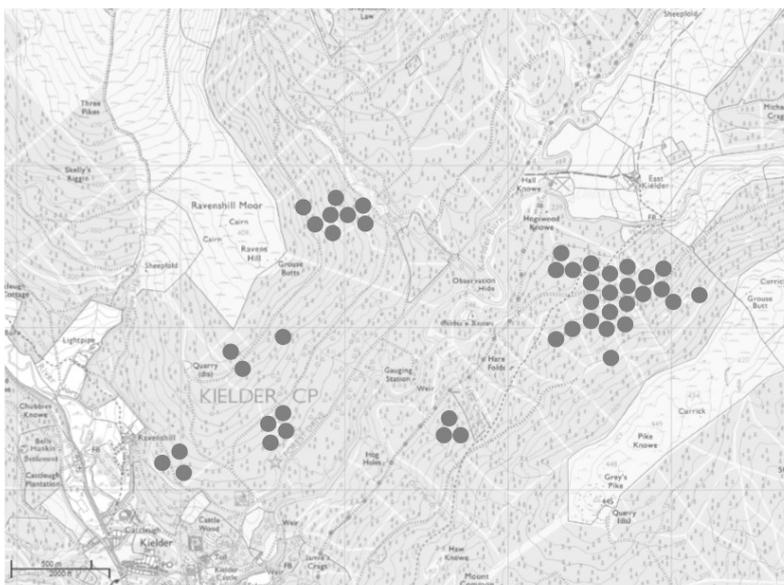


Where the questionnaire respondents had travelled from to visit the university that day

As with proportional shapes, a scale bar may not be necessary if only the relative differences between the arrows needs to be displayed. Flow lines can also be used with maps to produce effective GIS based data presentation.

Dot maps

Dot maps are frequency distribution maps where the amount of a variable is shown by the number of dots there are in a particular location. A single dot may represent a single occurrence of a phenomenon or a dot may represent a set number: the amount should be indicated in the map's key.



● = 5 occurrences of Species A observed



Dot maps work best when they are representing a large spatial scale: trying to create a dot map for a small area, like a single street in a town may simply result in a lot of dots singularly spaced and a feel for the distribution of a variable will not be easy to read. With more data samples and a wider area under observation, a pattern may be more identifiable.