Orienteering Queensland

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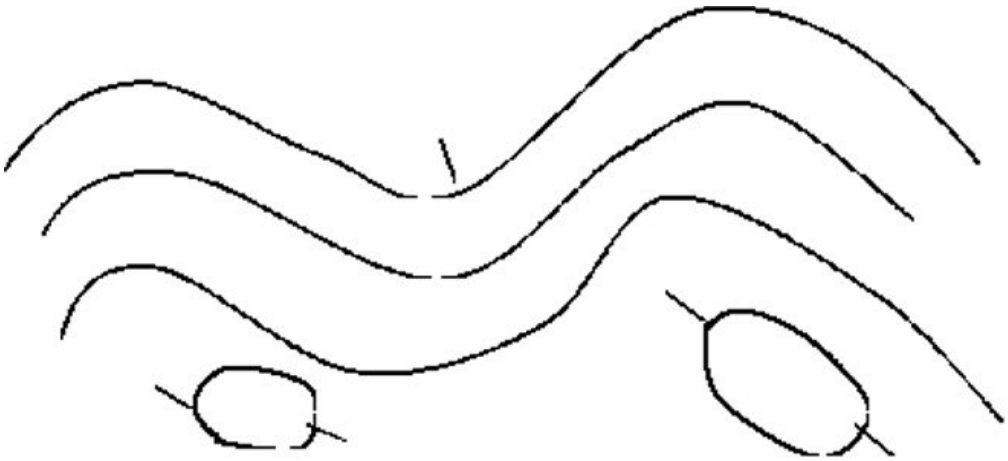
CONTOURS

- (master these and you master orienteering) by Clive Pope

This term includes contours, indexed contours and form lines.
The brown contour lines on a map are the only map symbols that do not actually represent something tangible in the field. The symbol for a boulder is a black dot on the map and in the field you will find a huge piece of stone - but nowhere will you find stacks of spaghetti-like brown things.
Brown is the colour used for earthy things e.g. earth banks, termite mounds etc.

Brown contour lines are used by the mapper to represent all points on the ground of the same elevation above sea level. The actual height above sea level is not important in orienteering maps and therefore is not written on the contours. On orienteering maps, they are usually 5 metres apart in height.
The mapper's use of contours is the most widely accepted way of representing the physical shape of the ground mapped - its ups and downs. **Every fifth contour is drawn more heavily and is known as an indexed contour.** Contours and indexed contours are identical in the information they give the orienteer about the shape of the land but indexed contours make it easier for the orienteer to estimate changes in elevation between two controls and help in route choice.

Form lines are drawn as a broken line and are actually two and a half metre contour lines half way between the existing 5 metre contours. If you drew them all in, the map would be difficult to read so they are **only used in places to show a noticeable change in earth shape**. It would be easy to fall into a four metre deep depression that would not show if only the 5 metre contours were drawn. Joking aside, a feature of this size is an important aid to navigation and should be mapped. In fact sometimes mappers twist the truth a little to help draw a clearer picture for the orienteer. Suppose a knoll only rose 2 metres above the previous contour then it will usually be shown to indicate where the highest area on the knoll is. (poetic licence or bush art or both).



If you travel along, or parallel to a contour line you are travelling on the level. If you are travelling across them you are either going uphill or downhill. The closer the lines are together the steeper the land. Because water runs downhill, we can identify lower land by the larger watercourses. The higher land generally features some hilltops, identified by closed circles. In between there are usually systems of spurs and gullies. Gullies and minor watercourses usually show sharp v-shaped contours, which, point uphill. Ridges tend to have broad u-shaped contours, which point downhill.

Sounds simple but on some maps up or down can be difficult to predict from the map. To make it easier for the orienteer to read contours on some maps the mapper adds **tag lines** to the contours. **These tag lines are about a millimetre long**, **are at right angles to the contour and the free end always point DOWN HILL.** The usual use for these tag lines is in indicating the differences between knolls and depressions. Again, these lines point DOWNHILL.

The circle on the left with tags pointing down represents a knoll - on the right a depression while the tag on the contour points down the gully. All these tags are important here because nothing else indicates which way is down / up.