

Foundational Skills Series

Determining Direction without a Compass



The Shadow Tip Method

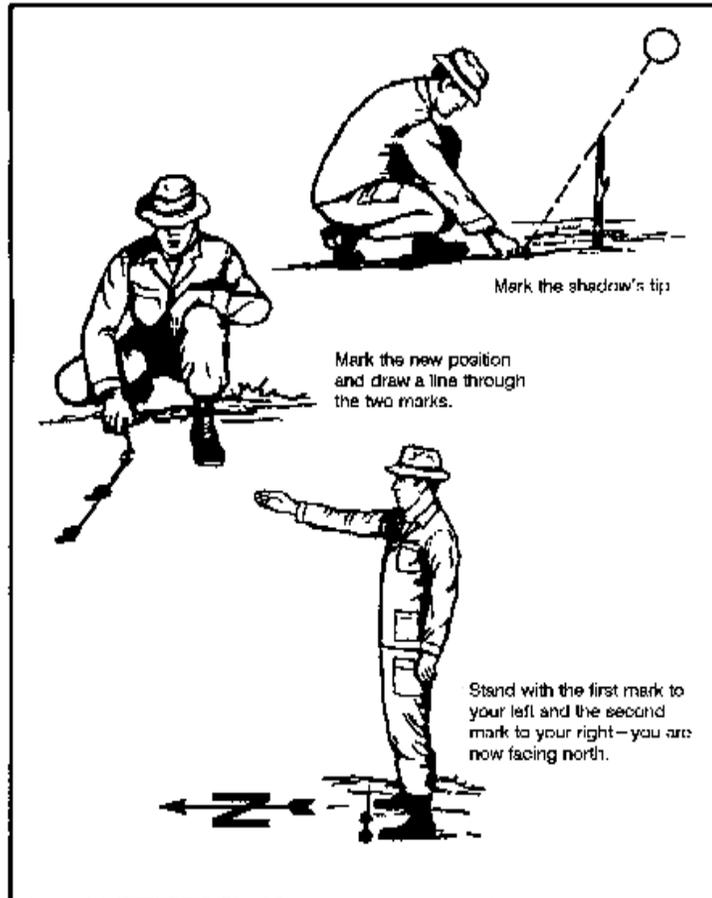
This method is simple and accurate and consists of four steps. Find a straight stick about 1 foot long, and a level spot free of brush where the stick can cast an unobstructed shadow.

Step 1:

Place the stick or branch into the ground at a level spot where it will cast a shadow. Mark the shadow tip with a stone, or twig. This first shadow mark is always west - everywhere on earth.

Step 2:

Wait 10 to 15 minutes until the shadow tip moves a few centimeters. Mark the shadow tip's new position in the same way as the first.



Step 3:

Draw a straight line through the two marks to obtain an approximate east-west line.

Step 4:

Stand with the first mark (west) to your left and the second mark to your right you are now facing north. This fact is true everywhere on earth.

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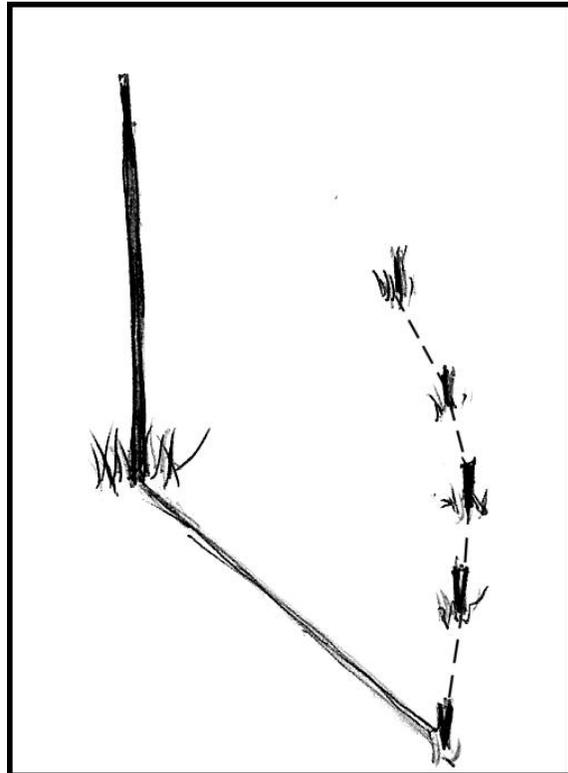
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There is also an alternate method which is more accurate but requires more time. Set up your shadow stick and mark the first shadow in the morning. Use a piece of string to draw a clean arc through this mark and around the stick.

At midday, the shadow will shrink and disappear. In the afternoon, it will lengthen again and at the point where it touches the arc, make a second mark. Draw a line through the two marks to get an accurate east-west line.

The sun always rises in the east and sets in the west, but not exactly due east or due west. There are variations due to latitude - distance from the earth's equator, and some seasonal variations.



In the northern hemisphere, the sun will be due south when at its highest point in the sky, or when an object casts no easily visible shadow.

With practice, you can use shadows to determine direction and even the approximate time of day.