



指南針

Magnetic Compass

The Chinese were using compasses to chart their course at sea almost two centuries before news of the Chinese invention reached Europe. As early as 500 B.C., both the Chinese and the ancient Greeks had discovered that a mineral called lodestone was magnetically attracted to iron. To create a south-pointing compass, the Chinese used a pointer—in the shape of a spoon or ladle—made of magnetic lodestone and a bronze plate with directions on it. The spoon was placed on the center of the plate, where it rotated and pointed south. The device was adapted for navigation as sea, as well as for “geomancy,” a way of laying out buildings to conform to the earth’s energy. By the ninth century, the spoon of the early compass was replaced by figures in the shape of a fish, or tortoise, and then later by magnetized needles. Eventually, the fish-shaped magnetized needle was placed on the surface of a bowl of water and was an effective navigation technique. The earliest European reference to a magnetic compass similar to the Chinese was in 1187.