

The Scytale

The Scytale (snake – pronounced ‘skittle’) is a device used to decode a message which has been ‘encoded’ using transposition. Transposition is an obfuscation technique which changes the order of elements of the ‘plain text’ message but does not actually alter the components themselves. For example: AITNALTA could be the implementation of a rudimentary transposition cipher where the letters are transmitted in reverse. By reversing this process, you uncover the plaintext message: ATLANTIA. Dr. Kahn (1996) describes a wide variety of such systems in *The Codebreakers*, one of which is the scytale. Most, if not all, major works addressing the history or antiquity of cryptography reference the scytale. Porta, in particular, provides a simple but efficient description of the device as, paraphrasing, a cylinder of wood which a parchment is wrapped around, and a message written upon (see the image below). Once unwound from this cylinder the message is not recoverable unless the parchment is wrapped around a cylinder of the same diameter. Aeneas (450 B.C.E) describes several methods of concealing messages in clothing, a hem for example, or on common equipment such as a horse’s harness.

Given that the first recorded description of the scytale was by Archilochus the Greek, in the 7th century B.C.E., it is not unreasonable that these techniques may be combined so that you have both a clandestine mode of transport as well as an encoding system which would not stand out to the casual observer.

The yellow belt on the table is provided to show, in the simplest and most obvious manner possible, how these period techniques could be used in the modern middle ages. Try wrapping the belt around present objects to see if you can find the hidden message.



(Porta, 1563)