



BEFORE HITLER

This is no Nazi emblem. It was unearthed in the floor of a villa destroyed in Greek Olynthus in 348 B.C.

ARCHAEOLOGY

N and Z Turned Backward Clue to Swastika "Magic"

Rotation Symmetry Which Makes Swastika the Same When Turned Upside Down May Account for Popularity

THE swastika, which Nazi Germany uses as its insignia, turns up in archaeological findings in almost every land. Its oldest appearance, thus far, is on a painted cup from Susa in Mesopotamia, made earlier than 3000 B.C. In Asiatic Turkey, metal workers of 2000 B.C. used the same design in copper standards. In Greek Olynthus, destroyed

348 B.C., the floor of a villa unearthed not long ago revealed a swastika, and in the same room the inscription "Aphrodite kale," meaning love is beautiful. The swastika appears on Buddhist art in India. And in second century China it was a sun symbol. Ancient Hebrews used it, and with Indians in America it has been a popular design.

Why this cross with hooked arms should be one of the oldest designs in the world and one of the most fascinating for mankind is a puzzle. A University of Michigan physicist, Prof. S. A. Goudsmit has offered a psychological clue. He suggests that, when you see an uneducated person's printing of capital N, Z, or S reversed, you have a glimpse into primitive and ancient confusion over "rotation symmetry."

Sorting out the letters of the alphabet, he finds that in eight there is no symmetry at all. In seven, the left half is the mirror image of the right. In four, the lower half mirrors the upper. But three, the significant N, S, and Z, can be rotated over half a circle without changing, and look the same upside down. The remaining four letters combine all the characters mentioned.

Prof. Goudsmit thinks the rotation symmetry of N, S, and Z is probably harder to grasp than the mirror reflection symmetry of a M or an A. This may explain why many ancient magic symbols, which must be made just so, followed rotation symmetry over a half, third, or quarter of a circle. And it may help us to understand why various people independently were attracted by symbols like the swastika.

Science News Letter, August 12, 1939

MEDICINE

Sulfanilamide May Be Dangerous In Syphilis

SECOND case of a patient dying from acute hemolytic anemia resulting from the use of sulfanilamide, new chemical remedy effective in a large variety of diseases, is reported by Dr. Simon Koletsky of Cleveland. (*Journal, American Medical Association, July 22*)

In both this and the previously reported case the patient had syphilis. Dr. Koletsky raises the question as to whether some alteration in the blood-forming mechanism of the body incident to syphilis may be responsible for the fatal outcome.

Science News Letter, August 12, 1939

ASTRONOMY

Return of 1788 Comet Is Believed Discovered

A COMET, located in the east just before sunrise on a line between the bright stars Capella and the "twins" Castor and Pollux has been discovered by a French observer, Roger Rigollet. It had a very fast motion (eight times the

SCIENCE NEWS LETTER SUBSCRIPTION COUPON

To Science News Letter, 2101 Constitution Avenue, Washington, D. C.

Start Renew my subscription to SCIENCE NEWS LETTER for 1 year, \$5 2 years, \$7

Name _____

Street Address _____

City and State _____

(No extra postage to anywhere in the world)