

An Intense Auroral Z-Pinch Recorded in Antiquity on Southwestern Artifacts

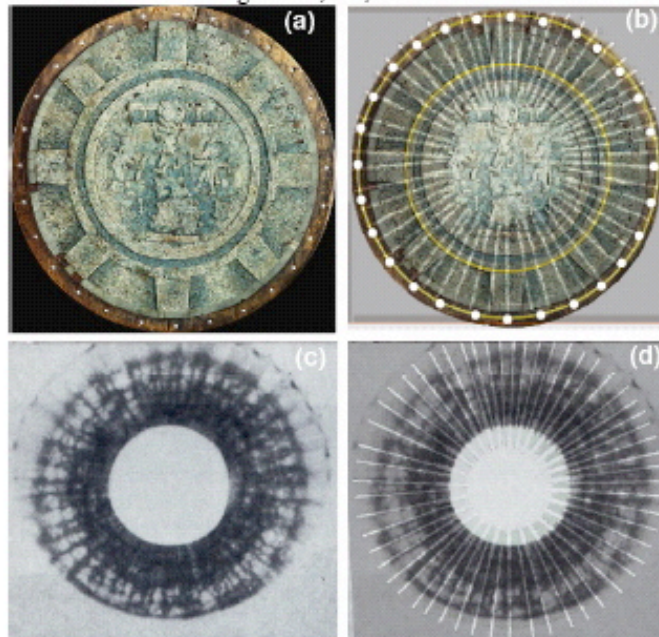
©2006 IEEE. Personal use of this material is permitted. However, permission to reprint/republish this material for advertising or promotional purposes or for creating new collective works for resale or redistribution to servers or lists, or to reuse any copyrighted component of this work in other works must be obtained from the IEEE.

AN INTENSE AURORAL Z-PINCH RECORDED IN ANTIQUITY ON SOUTHWESTERN ARTIFACTS

Alfred H. Qöyawayma, *Member IEEE*
Qöyawayma Ceramics and Epigraphics
Prescott, Arizona 86301

Anthony L. Peratt, *Fellow IEEE*
Los Alamos National Laboratory
Los Alamos, NM 87545 USA

A direct correlation of several tens of morphologies of Z-Pinch instabilities to archaic petroglyphs, thought to date to 5000 – 4000 BCE, has been made. The accuracy of the petroglyphs in depicting MHD instabilities suggests the influx to Earth of intense plasma¹ visible as highly collimated synchrotron light from sub-gigaampere currents.² Here we analyze an ancient Mixtec ceremonial shield or chimalli (Fig. a) from a cave in Acatlan, Mexico, in terms of intense auroral sheath structure. The chimalli is a 30 cm wooden shield of concentric circles and inner pattern. The outer centric contains 28 holes adjacent to a ring of 56 pairs (112) of polished turquoise stones. For comparison, some hundreds of petroglyphs found on all continents having 56 outer dots or rays and concentric circles provide a universal comparison template. The template is shown overlaid on the chimalli (Fig. b). Thin multi-megaampere plasma sheathes most always show 56 current filaments, Figure c depicting 56 adjacent pairs (overlay, Fig. d). Fast 3D PIC simulations of the interacting currents show a rapidly evolving complex center subject to cultural interpretation, the most creative found between 15 and 25 deg. north, i.e., Mesoamerica and India.



1. T. Gold, "Large Solar Outburst in the Past", *Pontificiae Academiae Scientiarvm*, V.25, p.159, The Vatican, 1962.

2. A. L. Peratt, *Trans. Plasma Sci.* Vol.31, N.6, 2003.