

1056-C1-1887      **Valerie Ng** (ngv@beloit.edu), B-09-05 Opal Damansara Condo, Jalan PJU 3, Sunway Damansara, Malaysia, and **Darrah Chavey\*** (chavey@beloit.edu), Beloit College, 700 College St., Beloit, WI 53511. *Symmetry Preference and Meaning in Tibetan Sand Mandalas.*

Tibetan sand mandalas generally have a 4-fold symmetry on the main elements of their designs. But looking more closely, we can see additional symmetries on individual elements within the mandala. The statistical distribution of these symmetries is quite different from what we see in other art forms, and apparently reflects purposes of the design. In addition, there are “near-perfect” color-interchanging symmetries where the violations of perfect color symmetry reflect both the construction techniques for the mandala and cultural values of the Buddhist monks who created it. Mathematical techniques thus give us the ability to gain additional cultural meaning from these designs that is not always apparent from traditional artistic and cultural analysis. (Received September 22, 2009)