Title: Mathematics and Early Art

Abstract:

The relationship of mathematics to art can be overt or covert. The undisguised use of geometrical instruments provided Greek and Roman architecture with its rectangular and circular forms. Perspective - revived during the Renaissance -, cubism, Escher's tilings and computer-generated art involve applications of mathematical methods or ideas.

A covert involvement of mathematics with art lies nearer home. Germanic animal themes cross-bred with alternating knots gave us 'zoomorphic interlace', the ornamentation style of the 'Tara' brooch, Book of Durrow and so on. This talk will explore what mathematical basis, if any, underlies this ornamental motif.