



Ethnomathematics Digital Library (www.ethnomath.org)



A Component of the National **STEM Digital Library (NSDL) Funded by the National Science Foundation** 



A Program of Pacific Resources for **Education and Learning** 

Promoting Educational Excellence

**Ethnomathematics** 



The artwork of the children of the Pacific represents important themes in PREL's work: creativity, learning, diversity, and working together. The artwork on this page was created by Joseph Rapig, age 12, Dalipebinaw Elementary School, Yap State. The artwork inside was created by Rob Swanson, age 10, from Maris Stella School, Republic of Palau.

acific Resources for Education and Learning (PREL) is an independent, nonprofit 501(c)(3) corporation that serves schools across the U.S. and its affiliates from Rhode Island to Palau. PREL works collaboratively with schools and school systems to provide services that range from curriculum development to assessment and evaluation. PREL's main office is located in Honolulu, Hawai'i, with service centers in American Samoa. the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, and Yap), Guam, the Republic of the Marshall Islands, and the Republic of Palau.



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# **Funding**

The National Science Foundation (NSF) is extensively involved in science, technology, engineering, and mathematics education (STEM). The Ethnomathematics Digital Library (EDL) has been funded by the NSF as a collections project of the National STEM Digital Library (NSDL). The EDL is directed and administered by Pacific Resources for Education and Learning (PREL).

## **Purpose**

Ethnomathematics is an academic discipline® that explores the interaction between mathematical concepts (for example, number systems, measurement, and geometry) and the indigenous communities or other groups (for example, professions, religions, ethnic groups, and sports) in which they arise.

A basic premise is that mathematical concepts develop in response to cultural activities. In the Pacific region, for example, these activities might include architecture and building, decorative arts, kinship relationships, navigation, quilting and weaving, tattooing, and toys and games.

The EDL is a resource network and interactive learning community for ethnomathematics, with emphasis on the indigenous mathematics of the Pacific region.

## Goals

The EDL has three primary goals:

 To identify, review, seek copyright clearance, digitize, index, and archive high quality ethnomathematics materials (with emphasis on Pacific island communities), regardless of their current location or format;



- To provide an online database of these materials that is reliable, searchable across a range of parameters, and easily accessible to regional, national, and international users;
- To promote a virtual ethnomathematics curriculum and research exchange network that fosters the development of culturally sensitive mathematics curricula and informs future research directions.

### **Clients and Services**

The EDL provides ethnomathematics information relevant to the following groups of users:

- students and teachers in elementary and secondary schools;
- undergraduates, graduate students, and faculty in institutions of higher education;
- curriculum developers and publishers;
- researchers and scholars.

The EDL encourages users to apply this information (for example, to carry out student projects, to customize curriculum materials, or to undertake related research) and to submit their own materials for inclusion.

#### **Partners**

PREL oversees the development of the EDL. The following collaborative partners provide support through the Pacific Ethnomathematics Collections Network (PECN):

- Australian Academy of Science:
- Ohio State University's Eisenhower
   National Clearinghouse for Mathematics and Science Education;
- University of Guam;
- University of Hawaii at Mānoa;
- University of the South Pacific.

Other interested groups are invited to join.

### **Contact Information**

The Ethnomathematics Digital Library website is at www.ethnomath.org. The program is under the leadership of Dr. Nancy Lane, Principal Investigator. For further information, contact Pacific Resources for Education and Learning, 1099 Alakea Street, 25th Floor, Honolulu, Hawai'i 96813; phone: (808) 441-1400; email: lanen@prel.org.

If you have ethnomathematics materials of interest to the collection, please contact PREL or one of the partners:

- Ms. Marian Heard (marian.heard@science.org.au) at the Australian Academy of Science in Canberra;
- Dr. Nick Goetzfridt (ngoetzfr@uog9.uog.edu) at the University of Guam;
- Ms. Jane Barnwell (barnwell@hawaii.edu) at the University of Hawai'i at Mānoa;
- Ms. Elizabeth Reade Fong (fong\_e@usp.ac.fj) at the University of the South Pacific in Fiji.