

An introduction to the tradition of 'sona' sanddrawings from East Angola and neighbouring areas of Congo and Zambia will be presented, as well as a discussion of the reconstruction of mathematical aspects of the 'sona' (for instance, algorithms and chain rules for 'sona'). Examples of the use of 'sona' in mathematics education will be presented. It will be shown how the analysis of 'sona' led to the discovery of new concepts as Lunda-designs and Liki-designs that display interesting symmetries and conducts to the introduction of several types of matrices with attractive visual properties.

Literature:

Paulus Gerdes: Une tradition géométrique en Afrique - Les dessins sur le sable, L'Harmattan, Paris, 1995 (3 volumes)

Paulus Gerdes: Ethnomathematik am Beispiel der Sona Geometrie, Spektrum Verlag, Heidelberg, 1997

Paulus Gerdes: Geometry from Africa, The Mathematical Association of America, Washington DC, 1999