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Marcia Ascher* (aschaca@clarityconnect.com), Ithaca, NY 14850. *Figures on the threshold - the kolam tradition of Tamil Nadu (southern India)*.

The kolam tradition, as practiced by the women of Tamil Nadu, has been ongoing for at least five hundred years. In the tradition, figures made with rice powder are drawn daily upon the thresholds of houses. The figures and procedures for drawing them are passed on from mothers to daughters. Of particular mathematical interest are drawings which involve the transformation and superimposition of basic subunits and families of figures whose members can be derived from each other in patterned ways. Replicating the figures and their growth patterns became a challenge to computer scientists who were creating picture languages and studying formal language theory. Thus, the kolam provide an exemplar of the way that mathematical ideas in a traditional setting can reach beyond their own cultural boundaries to enrich and contribute to contemporary theoretical endeavors. (Received September 13, 2000)