**BRANKO GRÜNBAUM**, University of Washington, Seattle, WA 98195, USA *Are all symmetry groups present in the Alhambra, and related questions* 

The question which of the seventeen wallpaper groups are represented in the fabled ornamentation of the Alhambra has been raised and discussed quite often, with widely diverging answers. Some of the arguments from these discussions will be presented in detail. This leads to the more general problem about the validity and meaning of the answers to such questions. The second part of the presentation will deals with the approaches to symmetry in ornaments of various cultures that should replace the mechanical counting of the wallpaper groups that occur. A more reasonable investigation would deal with symmetries as they may be considered and understood by the people of the societies in question. Such an approach to the remarkable orderly decorations of ancient Peruvian fabrics will be presented.