are the cases of discrete artificial bars. The probable prototype design is a series of artificial bars consisting of specifically shaped bumps whose longitudinal axes are shore parallel and are laid on the bottom at predetermined spacings in the offshore direction. The process of determining the optimum spacing is defined by Kirby as tuning the barfield. The study assumes that the bed is non-movable, thus the seaward propagation of additional bars in the form of sand waves as proposed by Davies and Heathershaw (1984) and scour between the bars will not affect the reflection characteristics of the topography. In addition to the directional spectrum comparison with previous solutions to the problem, the numerical model was used to predict the reflection characteristics of a bar patch to be verified in a laboratory study using normally incident waves. The laboratory study is presented in Chapter 5.