In the areal context of the desert Coachella Valley of Southern California, two questions were examined: (1) Do different vegetation interest groups have a varying knowledge and use of vegetation? It was hypothesized that farmers would know about crops and major weeds; landscaper/developers would know about introduced ornamentals and symbolic native species; conservationists/botanists would know about native species; recreationists would vary from little to large knowledge of the Coachella Valley flora; indigenous people (members of the Cahuilla Indian tribe) would know about native species. (2) How do old and new concepts about deserts influence the use of vegetation in desert areas, specifically the Coachella Valley? The Coachella Valley was well-suited for the study, with recent Euro-American settlement (1880's), a well-documented history of human and botanical introductions, a detailed anthropological research base, and a neatly delineated area being bordered with mountains and Salton Sea. Historical materials, both scholarly and popular, were examined for information about changing attitudes towards deserts and vegetation. An interview was developed, including an informal questionnaire, a photo-recognition task, and where possible a field-recognition task, of native and introduced Coachella Valley vegetation. Thirty-one people were interviewed, as members of one of the five vegetation interest groups. Regarding plant-recognition from photographs, farmers conformed to expectations. Landscaper/developers refused to name individual plants, preferring the aesthetic of the whole, with low vegetation recognition scores. Conservationist/botanists scored high and the two Cahuilla representatives scored low for all species. Recreationists scored better than expected. It was found that field-recognition provided a fuller understanding of an individual's vegetation knowledge. Previous environmental experience in a dry environment is linked to a higher score on desert native species, as is a dislike of desert urbanization. Other measures are discussed. The historical materials suggest that old and new concepts about deserts (desert as hell, paradise, refuge, potential garden) influence the complex and conflicting views people have about appropriate desert vegetation and housing. Certain exotic plant species have come to symbolize differing land-use interests in today's patchwork Coachella Valley.