

Abstract

THE Point of Pines area of east-central Arizona was occupied from as early as 2000 B.C. to about A.D. 1450. Agriculture was of minor importance at first, but began to be of significance in subsistence by the 4th century of the Christian era. The 15 years of intensive research at Point of Pines by the University of Arizona provide a framework within which to judge the functions and age of the extensive field systems still traceable in the area. Neither agricultural tools nor plant remains provide satisfactory evidence for the extent, techniques, or location of prehistoric farming. Study of surviving fields and associated water control systems offers valuable additional information.

Since classifications of fields and water control systems by Hack and Stewart are not entirely satisfactory, a new classification is presented for agricultural remains at Point of Pines and many other places in Southwestern United States and adjacent Mexico. *Terraces* (sometimes called "check dams") are low walls across small intermittent stream channels which hold small plots of soil and cause the occasional flow of water to soak in rather than be lost down the channel. *Linear borders* are approximately parallel or concentric alignments of stones extending along gentle slopes to reduce erosion and slow runoff. *Grid borders* are similar to linear borders, but with lines of stones approximately perpendicular to each other, a type of field border rare at Point of Pines, but sometimes very extensive elsewhere in the Southwest. *Boundary markers* are large stones standing on end which are believed to have served as markers for the limits of fields. *Field houses* are one-room structures associated with prehistoric fields, serving for summer shelter of farmers and temporary storage of the harvest.

Maps, descriptions, and measurements are used to present the evidence at ten locations

near Point of Pines which are representative of scores of similar sites in the region. These sites suggest that each village, and perhaps each family, farmed a variety of locations simultaneously as insurance against crop losses. In addition to fields marked by terraces or stone borders, much larger areas of bottomlands and prairie were undoubtedly farmed. Although dating of a field system is difficult, for lack of clearly associated artifacts of chronological significance, the distribution of fields in relation to settlements suggests that neither terraces nor borders were built much before A.D. 1000. It is even more difficult to estimate total acreage farmed, but data from observations of the Hopi indicate that the large population of the Point of Pines area in the 14th and 15th centuries probably required the fullest use of available farmland. Comparisons with other parts of the Southwest show that although the Point of Pines people used only a few of the techniques that must have been known to them through contacts of trade and travel, they used with great skill those techniques well suited to their region. No form of irrigation was practiced.

Only partial answers are offered for such questions as the relationships between the farming system and social structure, village pattern, cultural development, population growth, and the abandonment of the area. Nevertheless, a few generalizations can be made about prehistoric control and use of water for agriculture in the Southwest: most of the systems were small, perhaps the work of a single man or kin group; they were technically simple; and through variations to suit local conditions, they were relatively effective. Since soil, rainfall, and temperature were beyond the control of the Point of Pines farmers, their management of water distribution was important in their successful use of the area over a long span of time.