

SECTION B: PALEOBOTANY

“... vegetation has two aspects: It is part of the living world that is studied for its own sake, and it is also the biological setting that, combined with the physical setting, forms the total environment of all life.”

E.C. Pielou.

In this section the nearly continuous accumulation of rich organic sediments in the Page-Ladson site complex is seen as a series of snapshots of ancient vegetation. In turn those samples of vegetation are interpreted as proxy records of environmental change. These paleobotanical studies are divided by size range into two rather distinct disciplines, one microphytic and the other macrophytic. Chapter 6 features pollen, stomata, and charcoal as the subject materials. Chapter 7 reports on a wide variety of larger plant parts ranging from wood to leaves, nuts, and seeds.

These two botanical approaches are complementary. Palynological data tend to sample a broader area than macrophytic data, with wind-pollinated trees such as pine and oak predominating. For this reason Chapter 6 readily connects environmental history at Page-Ladson with the regional late Pleistocene picture ranging from Central Florida into the Florida Panhandle and adjacent parts of the Gulf of Mexico. The macrophytic chapter, on the other hand, features vegetation that lived immediately adjacent to the sinkhole site of deposition. This consists of a diverse set of trees and shrubs that lived in sheltered bottomland. It also reflects some of the immediate cultural modifications of wood and also samples digesta of mastodons. It is less sensitive to regional shifts in climate, hydrology, and edaphic change away from the site. Both chapters relate their evidence to modern samples of living plant communities, and both convincingly construct the changing environments around the Page-Ladson site and the region during the late Pleistocene and the early Holocene.

Part of the change recorded in these chapters represents the ecological impact of the earliest people in Florida. The charcoal samples in particular are sensitive to disturbance by clearing. They show increasing inputs during the early Holocene even when the background rain of pollen and water-level data indicate more mesic (less fire-prone) natural conditions. Similarly an important subset of the wood specimens, ranging from small wedges to great hollow logs, shows clear evidence of modification by humans during several time intervals.