

Introduction

David Ferro, R.A

Coquina, a limestone conglomerate material named for the shells of the small mollusks it contains, was used as building stone in St. Augustine as early as 1598 for construction of a powder house. This was the beginning of a building tradition that extended into the 1930s along Florida's Atlantic Coast.

In the St. Augustine vicinity, Castillo de San Marcos, Fort Matanzas, the Old City Gates, the Cathedral, Spanish and British Period residential structures, property line walls and tombs were constructed of coquina quarried on Anastasia Island. To the south in New Smyrna, a large storehouse and wharf were constructed of coquina at the ill-fated 1770s Turnbull colony. Around 1816, John Addison constructed a kitchen house of coquina on his plantation on the Tomoka River. The material was also used in the construction of mill structures on sugar plantations in the 1820s and 1830s. Examples are the Bulow, Dunlawton and New Smyrna Sugar Mills. In these early structures, the porous coquina was protected by lime plaster. With the exception of a few residences that have been restored in St. Augustine, the coquina masonry of these structures is today exposed to the elements and is slowly deteriorating.

The Edward Porcher House in Cocoa is an early 20th century residential example of the use of coquina. Through the 1930s, the material was used for construction of foundation piers, entire structures for various uses, and as a decorative material. In the 1930s, significant public works in the region were constructed of coquina. Two examples are Government House in St. Augustine and the Daytona Beach Bandshell, both WPA projects. In these 20th century examples, the coquina was never protected by a plaster finish. The bandshell exhibits serious deterioration and is the subject of a current stabilization effort.

In addition to the numerous resources in Florida, historic coquina structures and quarries have been identified in the southern coastal region of North Carolina. At present, there are no known quarries or structures constructed of the material elsewhere.

Although coquina is one of the simplest of building materials, issues relating to its preservation are complex. There is little known research on coquina as a building material. Federal state and local government site managers, and private groups responsible for stewardship of coquina are faced with a broad range of threats to this fragile material, ranging from natural erosion to damage from vibration induced by vehicular traffic. Of possible preservation and stabilization measures known, which would be most effective in addressing threats to historic coquina resources, with the least chance for long-term adverse effects.

The Florida Division of Historical Resources has a special interest in identifying the most appropriate preservation and conservation treatments for this material. Some of the most important historical resources in the state are constructed of coquina. Most are in coastal areas where they are exposed to a severe natural environment. While governmental and private stewards of these resources struggle to "do the right thing" in their preservation efforts, with no

solid scientific data, it is not possible to know the long-term effects of treatment actions taken today. A recent well-meaning proposal put forth for preservation of historic coquina at one Florida property could have actually accelerated the rate of failure of the material over the long term.

To address this problem, the Florida Division of Historical Resources, in conjunction with the Florida Trust for Historic Preservation, Castillo de San Marcos National Monument, and the National Center for Preservation Technology and Training have co-sponsored the symposium Conservation and Preservation of Coquina.

This symposium was planned to complement the Conservation and Preservation of Tabby symposium conducted by the State of Georgia in 1998. The January 2000 symposium provided an opportunity, over a three-day period, for participants representing the disciplines of history, historic preservation, architecture, archaeology, and geology, as well as craftsmen with hands-on experience, to discuss:

- a. the pathology of coquina;
- b. its use in historic structures;
- c. causes of its deterioration;
- d. recent and current preservation treatments; and
- e. additional research needs.

The symposium format combined formal presentations and round table discussions with an opportunity to visit several coquina resources located between St. Augustine and New Smyrna Beach. Technical presentations from the symposium have been documented in these proceedings, and may be accessed on the Internet at www.flheritage.com.

Visit <http://www.ncptt.nps.gov/> for information about the programs of the National Center for Preservation Technology and Training.