

Fig. 1 Digital elevation model of Ashley Schiff Park Preserve. On the east side is the present Nicolls Road. In the northeast corner of the park along the west side of Nicoll's road is the Old Nicolls Road. This picture clearly shows where the road has eroded the underlying sediments. The dark blue line is the trail to the Old Nicolls Road from the yellow trail

INTRODUCTION:

This walk follows the Old Nicolls Road within the Ashley Schiff Park Preserve on the Stony Brook University campus. The preserve is a 26 acre wooded area that preserves evidence

of Long Islands geology as well as its history. The path leads to a dirt road that may have been used as early as the 1700's. This section of the preserve offers an opportunity to explore the science and the history of the area.

LOCATION:

The early road you see before you runs in a North/South direction. It connected with Oxhead Road in the South and with Lower Sheep Pasture Road to the North (see cover map, red line). The section of road within the Ashley Schiff Preserve is less than 0.2 miles in length. The section you see before you runs from just south of the underpass, which leads to Stony Brook University Hospital to the North and is cut by Nicolls Road to the South.

HISTORY:

Colonial Times

The English began settling on Long Island, in the mid-1600's. Travel during this time was primarily by boat to and from eastern and western Long Island and New England to the North. The use of horse and wagon was soon established with the development of dirt roads. Most of the population at this time were either farmers or fishermen.

Farming:

As farming techniques improved, farming became a way of life on eastern Long Island. Farming became more of a local commodity as western Long Island farms were then providing food products for rapidly growing New York City. The easterners used newly constructed dirt path roads called "carpaths" to connect the farms with town centers and with the coast. These early roads were also used to transport cordwood for shipment to New York City and Connecticut by boat via the Long Island Sound. The cordwood was traded for horse manure, which was shipped back for use as fertilizer on the farms back east. Long Island wood was used extensively in the outlying larger townships for energy often as charcoal, and as building construction material.

The motorcar:

After Henry Ford revolutionized the manufacturing of the motorcar, cars became more and more accessible to Long Islanders. Throughout the 1900's many roads were built which opened access to eastern Long Island. As the population and traffic began to increase, the need for more roads increased and were built in concert. In 1964 County Road 97, Nicolls Road, was constructed to serve the growing need to link major East/West roadways, as well as serve the rapidly growing Stony Brook University (www.nycroads.com/roads/CR-97/). The road was named after Sir Richard Nicoll's, the first governor of New York in 1664, and continues to be a major traffic route today. Much of the present day Nicolls road between Oxhead Road and Lower Sheep Pasture Road was built on top of the old cartroad, erasing evidence of its existence. However, the section you stand on today, was preserved.

GEOLOGY:

Long Island was formed as a result of the Wisconsin glacial period ending approximately 20,000 years ago. These glaciers left behind massive moraines, including the Stony Brook Moraine, upon which you stand at this site. Evidence of this glacier activity is all around you in the topographic features and the underlying sediments. The southward moving glaciers brought the material you stand on from the north, including the large boulders within the forest here. The interface between the base of a glacier and the underlying sediments is known as till. The underlying sediments on campus are dominantly sands and gravels deposited by streams in front of the glacier. As the glacier advanced, it covered these sands and gravels leaving a layer of till at the surface. Till, which is commonly about three feet thick in this area, is composed of a heterogeneous mixture of clay, silt, sand, pebbles, cobbles, and boulders. Because till was compressed by hun-

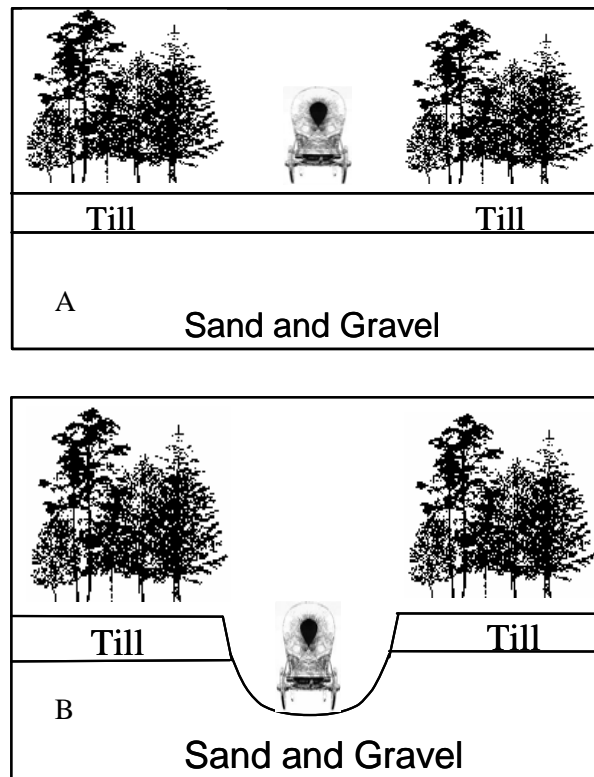
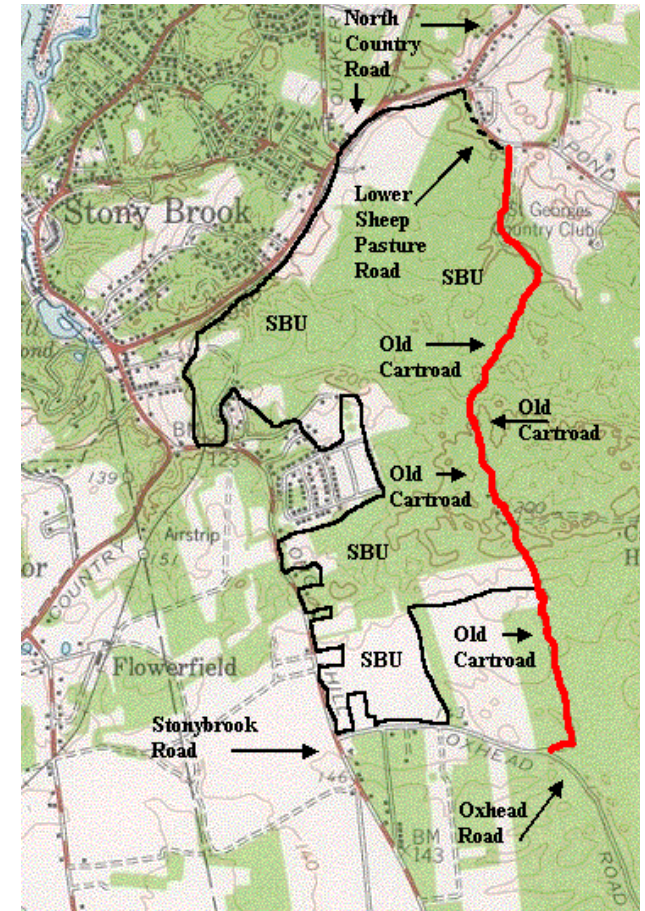


Fig. 2 When the road was first traveled the wagons traveled on top of the till (A). With time travel down the slope here resulted in the wagon wheels cutting through the till into the less resistant sand and gravel

dreds of feet of overlying ice it is very compact and resistant to erosion. This thin veneer of till at the surface has allowed for the preservation of the glacial topographic features on campus. The till along the old road has been cut by the traffic along this once active thoroughfare exposing the more easily eroded sands and gravels. This activity has resulted in the steep slopes you see at this site.

Copies of this guide and guides to other science walks may be downloaded at www.geo.sunysb.edu/esp/



From USGS 15' Map of Stony Brook 1955-6

History and Geology of old Nicolls Road

William Marrs

Earth Science Research Project
Summer 2006

