

Roof Slab Quarry Panel

An outcrop of jagged vertical boulders in the adjacent Robbins Conservation Land may be the source of the rock slabs that form the roof of the Nashoba Brook Stone Chamber. The chamber is located a half mile downstream from this site.

During the restoration of that chamber in the summers of 2006 and 2007, the masons advised us to look for possible sources for the roof slabs. There are nine of these, rectangular and of various sizes. They have not been shaped with metal tools, and their size implies a nearby source. Three slabs exposed during the restoration showed signs of weathering. Together, these features suggested an outcrop of layered, or sedimentary, rock as a source.

The chamber's walls are laid up with field stones generously supplied from the nearby ground and streambed. But there is no obvious source for slabs of rock the size of the roof slabs near the chamber site. Rounded boulders would not have served for the roof; irregular bulges would have prevented overlapping them so that rain water and snow melt would drain away. Also, wide slabs were needed to span the walls of both the corridor and the interior room. The chamber's roof, in fact, has perfect drainage and spans pre-built walls.

The colonists quarried stone. So did Native Americans using a passive technique: Water poured into naturally occurring cracks in ledges would alternately freeze and thaw, forcing the cracks apart. Wooden wedges placed into the widening cracks eventually broke off smaller pieces. However, this technique is unlikely to have produced large slabs with rectangular shapes and the observed weathering.

During the chamber reconstruction, many volunteers assisted; among these was a physician/amateur geologist who commented, as our masons had already told us, that the stone in the roof slabs did not match the granite in the large quarry located nearby in the Acton Town Forest along Quarry Road in North Acton. Later, some restoration project participants stumbled upon the rocky outcrop of vertical slabs shown in the photo [Figure 2]. Some of the original 'teeth' are missing; others lie on the ground where they fell, eroded loose by wind and water. Our physician/geologist confirmed that the stone in the outcrop matches that in the roof slabs.

The straight-line distance from this possible quarry to the chamber is short, and both sites are close to the Nashoba Brook. It is reasonable to assume this small outcrop could have provided the roof slabs. Even such large stones could have been moved on log rollers to the brook's marshland, and from there, during the winter, moved the remaining distance over the ice to the chamber site. Builders sophisticated enough to have raised such slabs and set them onto previously constructed stone walls, without knocking those down, surely would have had the expertise to move the slabs in wintertime.

It can never be known whether this outcrop is the source of the chamber's roof slabs. Ideas presented here are educated guesses; no historical documents have been found that attest

who the original chamber builders were, or when they did their building. But the observed facts are consistent with a scenario that could have been carried out by colonial farmers with oxen, or by Native Americans without. That scenario demonstrates the ingenuity that governed extraordinary building feats carried out just a few centuries ago without the technologies available today.