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A PREHISTORIC SOAPSTONE QUARRY AND QUARTZ-TOOL QUARRY OF THE LATE ARCHAIC CULTURAL PERIOD IN THE BERKSHIRES OF WESTERN MASSACHUSETTS

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ABSTRACT

Serpentinite masses occur in bedrock on the flank of the Precambrian- (1.1 billion years old) cored Berkshire massif in western Massachusetts near the town of Westfield. While doing geology field work on these serpentinites during 1981-82, I discovered a ~6-foot thick belt of talc schist (*i.e.*, steatite or soapstone), a layered metamorphic rock dominantly comprised of the mineral talc, a sheet silicate with an unusually low hardness (1 on Moh's Scale of Hardness). The metamorphic layers (foliation) have an orientation that is near vertical, comparable to the attitude of the foliation of the micaceous country rock, a muscovite schist.

The talc schist occurs within several feet of serpentinite and is thought to represent a metamorphic reaction between serpentinite and intrusive igneous rocks. The metamorphism may have occurred during either the Devonian Acadian or Permian Alleghany orogenies. Other distinct mineralogical zones occur adjacent to serpentinite and the country rocks. The masses of serpentinite are comprised mostly of serpentine minerals with minor accessory talc and trace amounts of titanomagnetite and are essentially nonlayered. The mineralogy of the talc schist is dominantly talc with trace amounts of magnetite and is relatively strongly layered.

A probable route of travel by early Native American caribou hunters and much later stone-bowl makers during the Late Archaic Period likely included travel up the Connecticut River valley from Long Island Sound and the Atlantic coast. The Berkshire massif is immediately adjacent to the relatively flat land of the Connecticut River valley and was accessible by aborigines for exploration. The Little River valley would have given access to Westfield Mountain where I discovered the steatite outcrop with the evidence for stone-bowl quarrying. Inverted bowl forms both intact and demolished were observed in the steatite outcrop.

I later found that a W. F. Fowler of the Massachusetts Archaeological Society had excavated the site during 1937-1940. He reported evidence for stone-bowl and stone-pipe making. In addition he identified a quartz tool quarry near the steatite quarry and found three caches of quarry tools. Most were made from the quartz but the local serpentinite and basalt from the ancient lava flow of the Connecticut lowlands also were found. Approximately 500 quarry tools were discovered. These tools as well as soapstone bowls and pipes will be reviewed during the presentation.