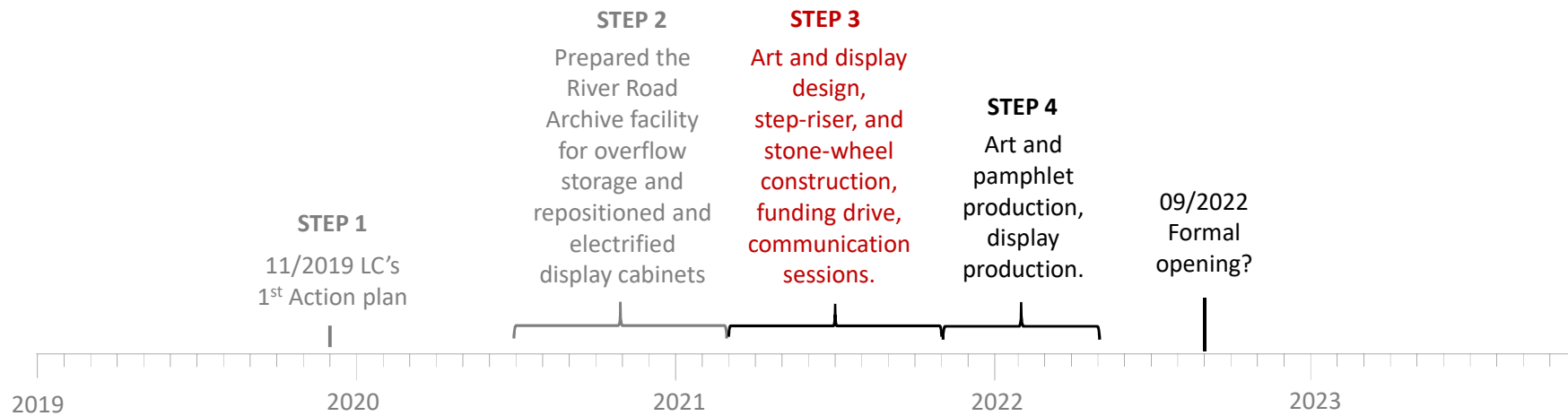


# 2019-2023 The Flemington Public Library Archeological Display

Hunterdon County Historical Society (HCHS), Flemington, NJ

As augmented in 2019-2022 by

Roger Ahrens, John Allen, Ben Brandner, Ed Fimbel, Gregory Herman, and Mark Zdepski



Timeline

**3 – 36" x 24" hanging panels and 1 - 24" x 36" panel**

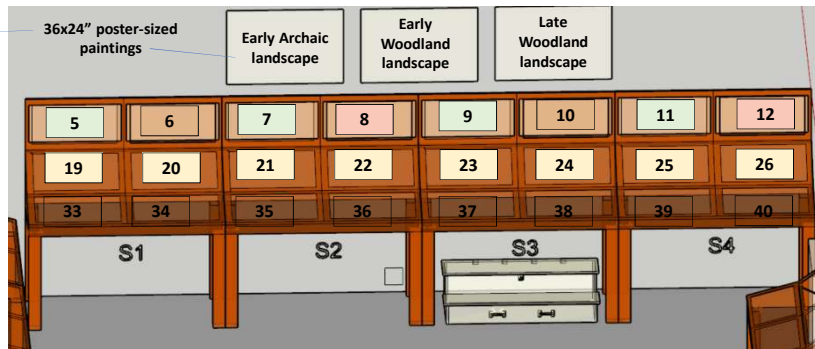
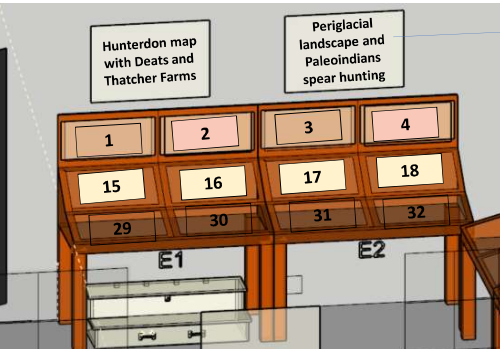
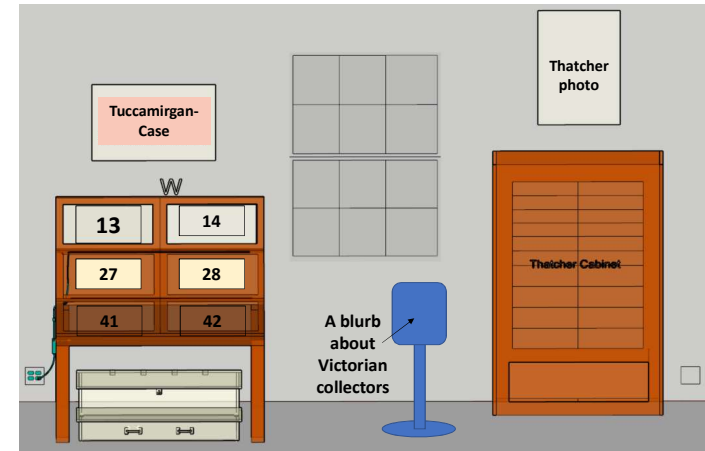
- HCHS collections Deats-Thatcher { 1. Map of Hunterdon showing Deats and Thatcher Farms highlighted
- PaleoIndian and Early Archaic {
- Middle to Late Archaic { 4. LEFT -  
5. CENTER -  
6. RIGHT -
- Middle to Late Archaic { 7. LEFT -  
8. CENTER -  
9. RIGHT -
- Early to Late Woodland { 10. CENTER -
- John C. Thatcher cabinet { 11. CENTER -

**14 – 28.5 x 12" cabinet panels**

- Introduction and PaleoIndian { E1 Left - American Indian archeology introduction by Veit?  
E1 Right -
- Early Archaic { E2 Left -  
E2 Right -
- Middle Archaic { S1 Left -  
S1 Right -  
S2 Left -
- Late Archaic { S2 Right -  
S3 Left -
- Early to Late Woodland { S3 Right -  
S4 – Left -  
S4 – Right -  
W – Left -  
W – Right -
- Contact {

- 1  
HCHS and the Deats-Thatcher Collection
- 2  
Deats scene digging up cache blades
- 3  
Fluted points and Paleoindians
- 4  
Blurb about Plenge Site with map showing fluted points
- 5  
??
- 6  
Blurb about Archaic innovations for environmental adaptation  
The atl-atl, and bola
- 7  
??
- 8  
Archaic lifeways scene
- 9  
??
- 10  
Blurb about pottery and agriculture
- 11  
??
- 12  
Woodland lifeways scene
- 13  
Lenape blurb
- 14  
Indian quote

Early Woodland Moundbuilders?



**EAST**

**SOUTH**

**WEST**

- 15 and 29 Local marked material
- 17 and 18 Hafted spear and knife
- 19 and 20 Atl atl and boa
- 21 and 22 Tool variations?
- 23 and 24 Hoes?
- 25 and 26 Bow and arrow
- 27 and 28 Musket / steel knife
- 16 and 30 Deats argillite blade cache
- 31 and 32 Fluted points and earliest tools
- 33 and 34 Full-groove axes, etc.
- 35 and 36 3/4-groove axes, etc., point styles
- 37 and 38 Pottery and Basketry, hoes?
- 39 and 40 Points, celts, hoes, mortars, pestles, etc.
- 41 and 42 Peace pipe, canon balls, etc.

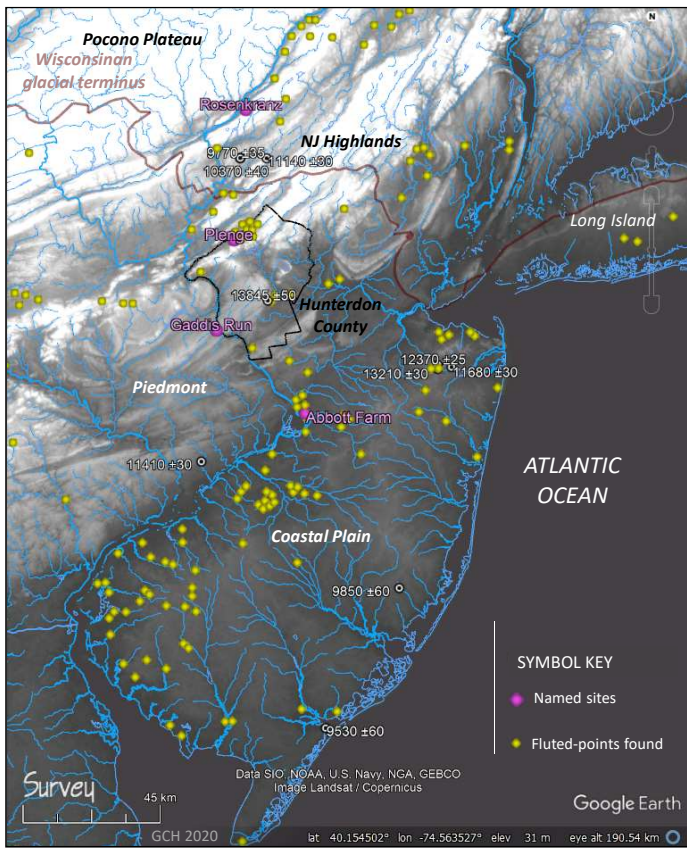


## Multiple Periods of Prehistoric Human Occupation in North America

The North American continent has a long history of human occupation by different groups of people dating back 15,000 years ago when the thick, continental ice sheets still covered much of Canada but had retreated from their maximum southern limit that had extended deep into the northern third of the present United States.

The glacial retreat opened ice corridors through and along which early humans migrated from other continents into the Americas. The exact origins, as well as the route and timing of the earliest human migrations continue to be the subject of much scholarly discussion, although a general consensus based on modern human DNA studies is that at least three migration groups arrived from the Berangia land route, although there is compelling evidence for coastal group migrations.

**Paleoindians** left behind characteristic, 'fluted' stone artifacts associated with North America's **Clovis Culture** that was first identified in the western USA but subsequently found to be more widespread in the Eastern USA. Most of the Late-Pleistocene large mammals vanished about 12,500 years ago and Paleo-Indians seemed to have done the same about 4,000 later, or evolved into different cultural groups.



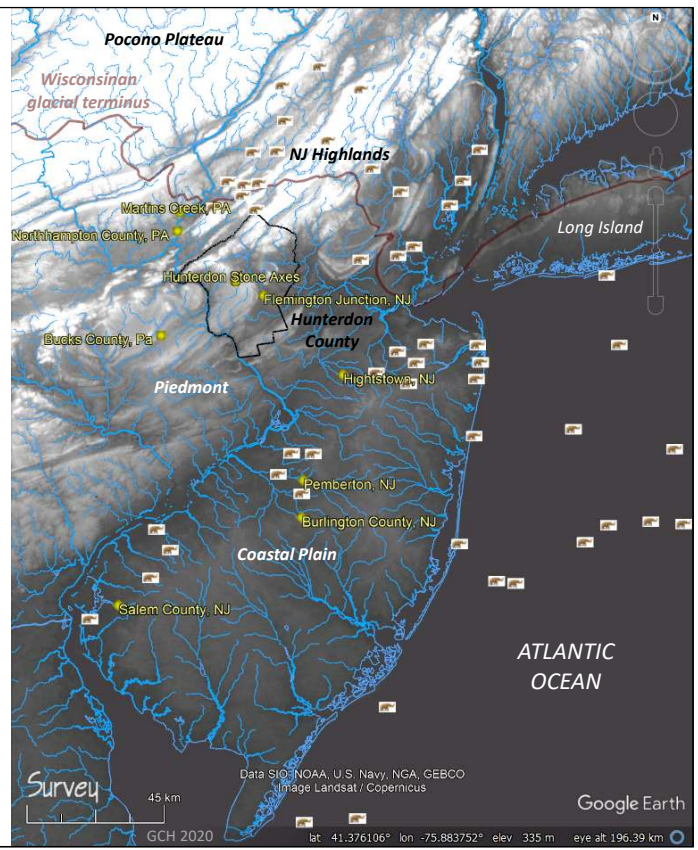
**Maps centered on New Jersey showing Paleindian sites with fluted points (left) and where mammoth, and mastodon remains are reported (right)**

Yellow dots are locations where fluted points are reported. Named sites of interest are highlighted pink, and locations with Carbon-14 (C<sup>14</sup>) radiometric-age dates relative to the present reference year 2000 that were obtained from Pleistocene to Early Holocene fossilized or organic remains.

The many fossil remains recovered from the Atlantic Ocean continental shelf also indicates Paleindian activity there with the traces now submerged. The ocean levels were lower then and glacial-ice sheets much larger than now. The Wisconsin glacial terminus is estimated to be about 18,000 to 26,000 years old when the region was the coldest.

The map to the left includes locations where lithic material held by the Hunterdon County Historical Society originates.

NOTE: The base imagery is adapted from the 2000 Shuttle Radar Topography Mission (SRTM) acquired by the Endeavor space shuttle. Data points are posted at 1 arc-second (~30 meters or 98 feet). Elevations are colored to range from 0 m (sea-level; darkest gray) to 274 m (~900 ft – bright white) with altitudes exceeding 400 m (~1300 ft) on the Pocono Plateau . The imagery was added to a Google Earth project..

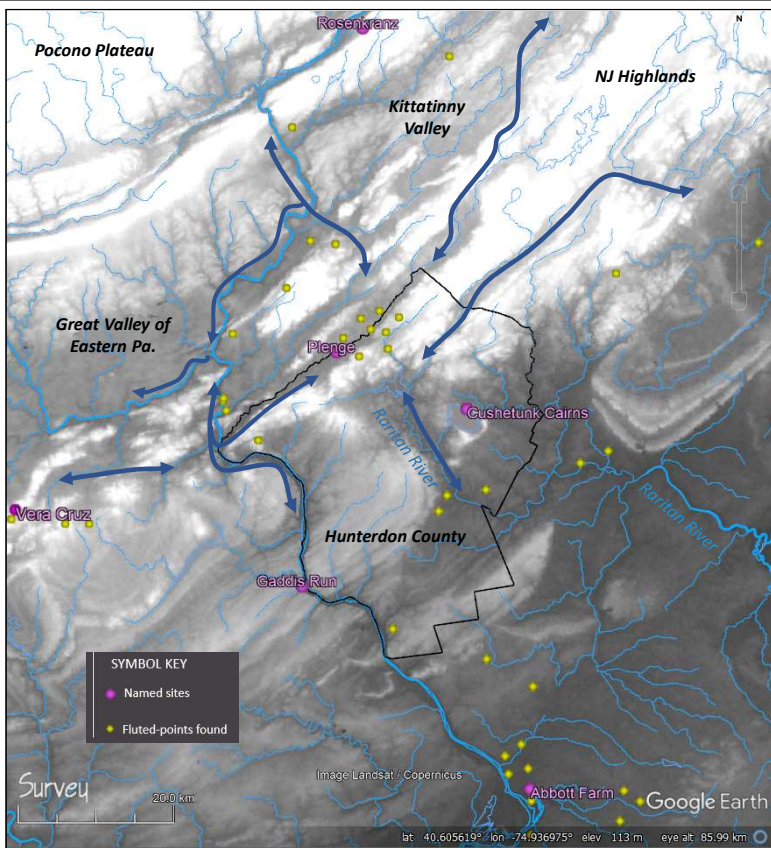


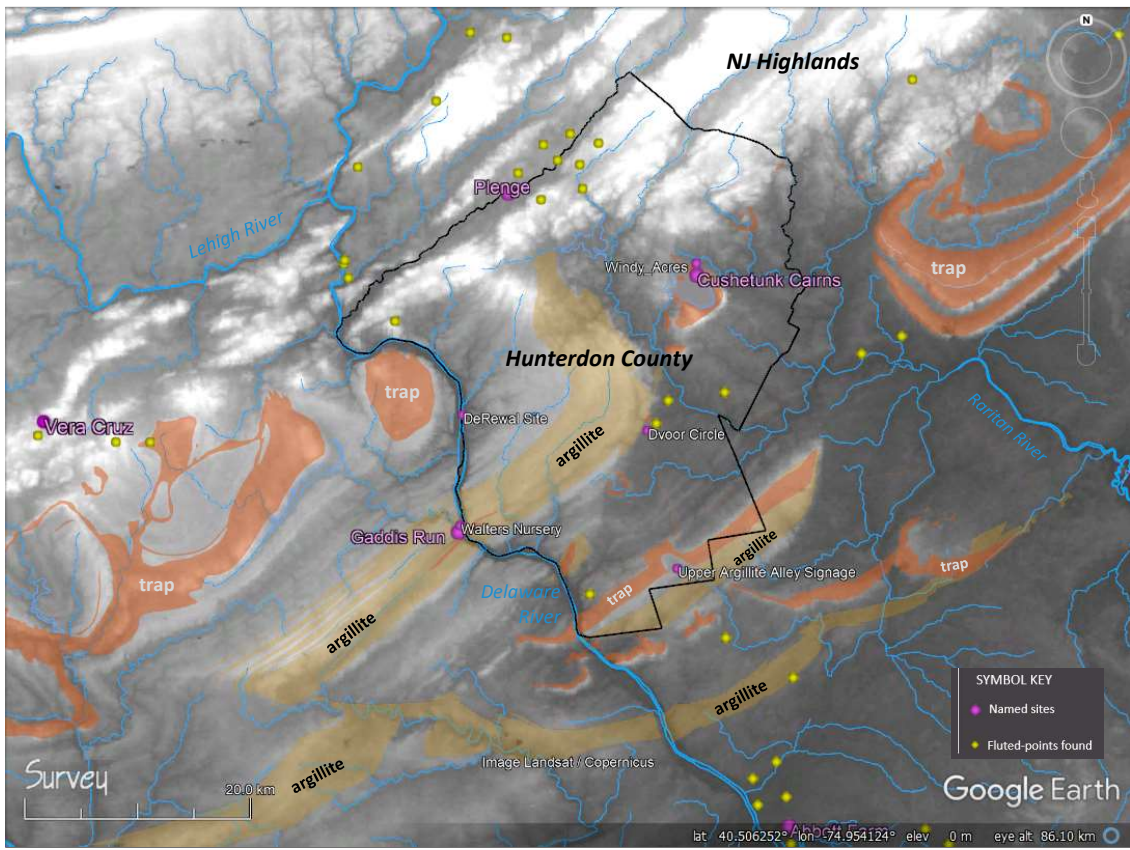
## The Plenge Site (28WA636)

The Plenge site is the largest known Paleoindian site in New Jersey. Located along the Musconetcong River along the northern border of Hunterdon County, the site covers over 22 acres in Warren County, but the nearby concentration of fluted points makes the area special. According to Dr. Joseph Gingerich at Ohio University, nearly every known Paleoindian point type in eastern North America has been recorded at this site. The first fluted points were surface finds in the 1960s by the Zielger, Staats, and Stanley family residents. Dayton Staats soon contact Dr. Herbert Kraft at Seton Hall University in the 1960s where he found over 700 diagnostic Paleo-Indian artifacts. The collection was donated by Mr. Len Ziegler to the Smithsonian Institute in Washington D.C. in 2019.

Paleoindian sites and land usage in New Jersey are generally considered to be small, seasonal occupations focused along major surface-water drainages. Only five Paleo-Indian sites in New Jersey have been the focus of professional investigations and reports so far. The scarcity and lack of study of these sites limits what cultural insights can be gained from them. But the diversity and abundance of material analyzed from the Plenge Site offers fascinating clues into the regional social networks because the oldest lithic materials commonly includes Normanskill Slate and Onondaga chert that are sourced from northern areas reaching into the Hudson Valley. In time, these materials were replaced in abundance by more localized lithic materials including Eastern Pennsylvania jasper from Vera Cruz and Macungie Pennsylvania to the west.

As seen on the map, the Plenge site sits at a critical physiographic junction between the limestone valleys of the northern highlands, the Great Valley of Eastern Pennsylvania, and the headwaters of the Raritan River drainage leading southward through Hunterdon County into fertile plains of the piedmont. It is part of a reoccurring occupation area located along the northern edge of Hunterdon County where major rivers and footrails leading to different regions intersect.





### Hardyston jasper and Gaddis Run argillite

Gaddis Run and Vera Cruz are two documented, nearby prehistoric stone quarries in Eastern Pennsylvania, with the former bordering Hunterdon along the Delaware River at Point Pleasant, Pa across the river from Byram, NJ.

As early cultures acclimated to their setting during the onset of the Archaic period around 10,000 years ago, they searched for local rocks and stones that were of hard, uniform, and durable nature that could be used for their tools and weaponry. When superior material were found, the locations were shared and soon evolved into village centers where focused lithic quarrying and production occurred. Reoccurring activity at sites like Gaddis Run and Vera Cruz probably lasted hundreds of centuries.

**Jasper point**



2 cm

*Paleozoic Jasper* was mined from several jasper-source sites in close proximity within Lehigh and Berks Counties, Pennsylvania that show continuous quarrying beginning with the Paleo-Indian.

An unusual variety of hard, *Triassic argillite* was quarried at Gaddis Run beginning sometime later, and which is the best preserved and most focused argillite quarry in the area. It was first reported by Henry Chapman Mercer in 1895.

**Argillite core**

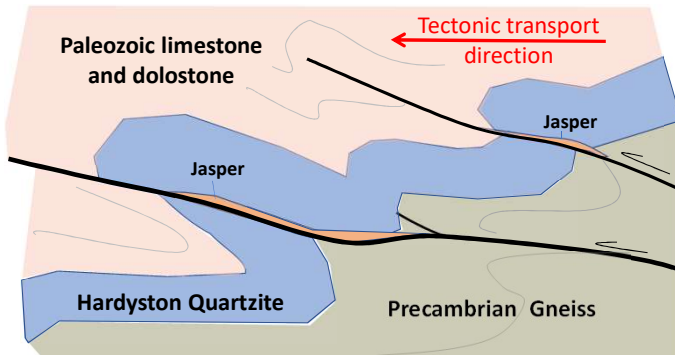


2 cm

Base image is compiled 2000 SRTM data. Elevations range from 5 m in the south (gray) to over 400 m in the north (white)

**Hardyston jasper** is reddish-brown or brownish-orange microcrystalline quartz that was formed during a Paleozoic mountain-building episode when viscous, hydrous, mixtures of silica (quartz) and iron were mobilized and deposited along faults during tectonic transport of mountain blocks. The jasper is locally deposited along a major stratigraphic contact between chemically distinct bedrock layers that become stacked and juxtaposed in the fault system. The layers include silica- and iron-rich basement rocks (gneisses and granite) and overlying carbonate sedimentary strata floored by the Hardyston Quartzite. The spotty geological occurrence and details of these natural deposits are masked by deep soil development and cultural overprinting from agriculture, transportation infrastructure, and suburban development.

#### GEOLOGIC PROFILE



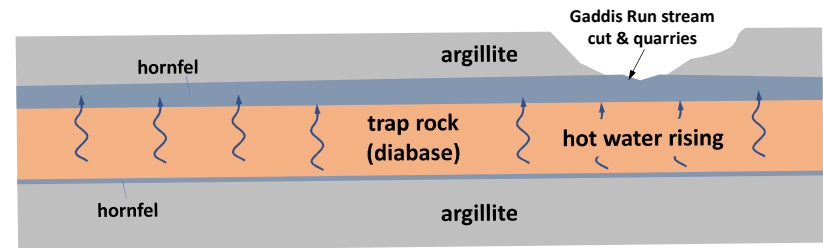
Paleozoic jasper deposits are focused in the Hardyston Quartzite along faults separating major lithic groups



Vera Cruz jasper park

**Argillite** is an abundant, comparatively hard, relatively homogenous and isotropic sedimentary rock that can be shaped and molded in many directions. Blocks, cobbles, and splinters of argillite were honed into sharp, durable tools and weapons by the American Indians of this region. It is the most common stone material represented in the HCHS collection of Indian artifacts, especially those of local origin. Argillite is most commonly shades of gray and brown but can also be red, purple, green, and blue.

**Gaddis Run** became a focused area of argillite stone production because the rock here has superior hardness and workability. The sedimentary rock here is actually a hornel, a slightly 'cooked' and hardened version of argillite formed along the boundary with an underlying, igneous sill that crystallized 200 million years ago.



First, Jurassic trap (diabase) is injected as magma between layers of argillite. As the magma cools and crystallizes into rock, hot water is released and migrates into surrounding rocks resulting in contact metamorphism. Hornfel has a hardness of about 6 compared to argillite at 5, quartz at 7, and diamond at 10 (the hardest).

## PERIGLACIAL TUNDRA AND PALEOINDIANS



## BOREAL FOREST AND ARCHAIC INDIANS



## WOODLAND FOREST AND THE LENAPE

