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# The Seasonal Round of Quarry Activities: Modeling the Presence of Exotic Raw Materials Discovered Between Two Contiguous Physiographic Provinces.

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## Résumé

The impact of petrofabric on prehistoric quarrying is evident in the Great Valley Sequence of the Pennsylvania-New Jersey-New York tristate. Investigations of outcrop and fabric characteristics that impact prospection and extraction support the inference that bedrock quarrying involves considerable orchestration (LaPorta et al, 2017). Applying ethnographic analogies of hand-operated bedrock quarry operations (LaPorta, 2004), the authors tentatively flesh out various tasks and procedures required to prospect and develop a quarry around annual subsistence activities. The following is based upon the presence of first-tectonic cycle cherts occurring as artifacts on archaeological sites throughout the Hudson River estuary. Conversely, basalt and diabase axes and adzes are excavated on archaeological sites in the Great Valley, where no basalt naturally occurs.

During late autumn, after the hunting of large mammals, chert discoveries are assayed. Plug-and-feather applications are initiated at future Zone 1 quarry extraction sites (LaPorta, 2005). Maintenance of base camps, processing of hide/meat, and re-tooling of instruments typically begins in the early winter and continues throughout the cold season (LaPorta et al., 2017).

Early spring witnesses preparation of the quarry camp, which requires fire wood gathering, tree felling, scaffolding and stone-wall maintenance, and gathering of glacial erratics for the production quarry tools and instruments (LaPorta et al., 2017). Initiation of Zone 1 extraction is modelled as beginning in early to middle March.

Southward migration of populations, to the fisheries of the Hudson estuary, occurs after Zone 1 extraction and involves transportation of chert, syenite, venison and hides. Quartz vein, mica, graphite, red ochre, serpentine and steatite are gathered during the prolonged stay in the estuary. Construction and maintenance of fish weirs, alewife traps, and estuary base camps occur in the spring through summer (LaPorta et al., 2017). Quarrying, or bartering, for basalt, serpentine and steatite for the production of adzes, celts, axe blades, and stone pipes might occur in early August. By mid-August, northward migration back to base camps transports sweet-grass baskets, shell, turtle carapaces, shark teeth/skin, clay, quartz,

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mica, serpentine and basalt for the production of subsistence items, as well as for tribute and bride-wealth.

The return of the fall shows renewed maintenance of the principal base camp, mammal hunting, nut/seed and fire wood gathering. The annual cycle starts anew with the announcement from the elders that chert is required (LaPorta et al., 2017). Chert assaying, and plug-and-feathering of outcrops, starts the extraction process again in preparation for quarrying next spring.

**Mots-Clés:** chert, quarries, extraction, distribution systems