barbs. Haft-element variation is not equally performing for these functions.

Rorabaugh's forte is statistical analysis, and he uses it to test the hypothesis that restricted learning results in low stylistic richness and evenness as well as low variation in measurements of projectile points. The book describes methods of harvesting data from existing publications and museum collections, and it presents the results of statistical analyses of projectile-point type frequencies and metric variability. It considers factors such as lithic raw material quality and the transition from dart-and-atlatl technology to bow-and-arrow technology in assessing variability by subregion within the Salish Sea as well as by time period. The results show stylistic evenness (but not richness), and metric variation corresponds to expectations for more restricted knowledge during the later periods.

Rorabaugh provides an in-depth discussion of critiques of cultural transmission studies and addresses key problems of sample-size effects, refurbishment of projectile points, material quality, and adoption of bow-and-arrow technology. Rorabaugh also discusses diachronic technological changes, including reduction in projectile-point size, introduction of stemmed haft elements, and transition from lanceolate to triangular projectile point outline forms. He also suggests a regional stylistic or symbolic grammar in projectile point technologies based on uniformity throughout the Salish Sea.

I am not convinced that projectile-point change over time, by itself, is a good indicator of changes in modes of technical knowledge transmission and its implications for the structure of society. However, Rorabaugh has contributed important ideas about lithic technology and its relationship to the evolution of late Holocene society of the Salish Sea.

Hunters of the Mid-Holocene Forest: Old Cordilleran Culture Sites at Granite Falls, Washington. JAMES C. CHATTERS, JASON B. COOPER, and PHILIPPE D. LETOURNEAU. 2020. Utah Anthropological Papers 134. University of Utah Press, Salt Lake City. xiii + 205 pp. $55.00 (paperback), ISBN 978-1-64769-006-9. $44.00 (e-book), ISBN 978-1-64769-007-6.

Reviewed by Ron L. Adams, Historical Research Associates Inc., Seattle, Washington

James Chatters and colleagues make a significant contribution to the study of the Old Cordilleran culture of the Puget Sound region of northwestern North America in *Hunters of the Mid-Holocene Forest*. As the title suggests, the Old Cordilleran phase broadly coincides temporally with the early to mid-Holocene in the Puget Sound region. The authors focus on the early part of the Old Cordilleran (referred to as the Olcott period), and they address research questions relating to settlement, subsistence, and environmental adaptations —topics for which knowledge is currently limited largely due to postdepositional bioturbation and chemical weathering that commonly affect older sites in the region.

The book is divided into 14 chapters that present a comprehensive overview of a CRM study of two camp sites (45SN28 and 45SN303) investigated for a roadway project in Granite Falls, Washington. The first three chapters provide overviews of the project, the subject sites, and the Olcott period in regional context. These chapters are followed by an introduction to the project's research questions (Chapter 4), which are divided into seven analytical categories: settlement and community patterns, technology, lithic sourcing, chronology, subsistence, paleoecology, and adaptive strategies. In Chapters 5 through 13, the authors discuss the results of the excavations, stratigraphic analyses, specialized material culture analyses, chronology, and paleoenvironmental studies geared to address the project's research questions. The conclusion (Chapter 14) summarizes the contributions of the study to each of the research questions.

As acknowledged by the authors, sites 45SN28 and 45SN303 are not without the postdepositional impacts and chemical weathering that plague the archaeology of the Northwest Coast, especially with respect to older sites. These issues particularly affected interpretations related to subsistence (the subject of Chapter 11), given that chemical weathering appears to have resulted in a very small faunal assemblage and obliterated any identifiable protein residues on lithic artifacts. Similarly, bioturbation impacts seem to have rendered cultural features largely unidentifiable, although a notable exception (discussed in Chapter 10) is an apparent earth oven at 45SN303, which is one of the oldest features of that type found in the Pacific Northwest.

The technological analysis and sourcing of lithic artifacts discussed in Chapters 8 and 9 likely comprise the greatest contribution these two Granite Falls sites can offer to the regional study of the Olcott period. More than 13,000 lithic artifacts were analyzed from sites 45SN28 and 45SN303. The toolstone represented in the assemblage was primarily fine-grained volcanic rock available in the local vicinity in glacial outwash plains. The authors go on to suggest that the camp locations were selected, in part, due to their proximity to this lithic material, which is an apt interpretation given the overall paucity of good-quality toolstone in the Puget Sound region.

The technological analysis of the tools and debitage is indicative of a core-and-blade toolmaking industry.

https://doi.org/10.1017/aaq.2021.161 Published online by Cambridge University Press

Among the formed tools recovered, the majority were laurel leaf-shaped projectile points that appeared to be deliberately fashioned long and thick in order to increase their use life, given that many had been repaired repeatedly and curated. Many of the projectile points were also serrated around the edges, which would have increased their effectiveness in penetrating animal flesh and reducing the likelihood of bending. The authors also postulate that the lack of antecedents to the core-and-blade toolmaking industry at Granite Falls could have implications pertaining to the number of human migratory events into North America.

The sites' chronologies were established through various methods discussed in Chapter 12. Stylistic cross-dating of projectile points, obsidian hydration, and thermoluminescence dating from fire-modified rock indicate that the two Granite Falls sites were occupied during a time frame (approximately 9700–7700 BP) consistent with other Olcott sites in the region. This would have been a time, based on the pollen analyses discussed in Chapter 13, marked by a fire-prone environment with Douglas fir, grand fir, and likely a scattering of permanent open meadows and oak woodlands. This environment would have contained ample wild game and plant foods suitable for highly mobile groups that would have characterized the Olcott period.

The strength of the study outlined in this book stems from the comprehensiveness of the analyses conducted. Although certain data categories had limitations resulting from postdepositional impacts, the various lines of inquiry explored enabled the authors to present a plausible model for environmental adaptations during the Olcott period in the Granite Falls area that has relevant implications for groups associated with the Old Cordilleran culture in the Puget Sound region more broadly. Overall, this work fills important knowledge gaps and is a worthy resource for scholars researching early to mid-Holocene human adaptations on the Northwest Coast.

Revealing Great Cahokia, North America's First Native City: Rediscovery and Large-Scale Excavations of the East St. Louis Precinct. THOMAS E. EMERSON, BRAD H. KOLDEHOFF, and TAMIRA K. BRENNAN, editors. 2018. Studies in Archaeology 12. Illinois State Archaeological Survey, Champaign. xxxi + 535 pp. $100.00 (hardcover), ISBN 978-1-930487-55-0.

Reviewed by Mark J. Wagner, Southern Illinois University

This very impressive volume presents the results of the large-scale archaeological investigations conducted in the East St. Louis area of the American Bottom of Illinois between 2008 and 2012 as part of the New Mississippi River Bridge Project (NMRBP) linking Illinois and Missouri. The results of this project are little short of amazing. As the authors note, investigation of the 28.5 ha project area resulted in the recovery of over one million artifacts as well as the identification of over 7,000 pit features and houses spanning the late precontact to historic periods. The results of investigations of precontact period contexts are presented in 14 separate chapters authored by 23 specialists on such diverse topics as bioarchaeology, changes in ceramic and lithic assemblages spanning the period from roughly AD 900 through 1250, craft production, and botanical remains that inform on the subsistence practices and structure construction of the site inhabitants.

This volume is clearly intended to appeal to both the general public and the professional archaeological community, and it succeeds admirably on both fronts. The many full-color photographs, maps, and artifact drawings as well as the use of nontechnical language and sidebars help render the book accessible to the general public, which, it should be remembered, paid for these highway-related investigations. As someone who has spent most of their career working on cultural resource management projects similar to the NMRBP, I feel strongly that archaeologists who work on these types of taxpayer-supported investigations have an obligation to convey the results of their work to the general public via public talks or publications, and I commend the Illinois Department of Transportation (IDOT) for doing so in this case.

Chapters 3–7 and 9–12 of the volume—which discuss the archaeological investigations, ancient landscape, ceramic and lithic analyses, community plan, craft production, and other topics—should appeal to both the professional community and members of the public who have interests in the archaeology and material culture of the American Bottom.

Chapters 1–2, 8, and 13–14, which consider the rise, organization, and decline of the various late precontact Mississippian mound centers of the American Bottom (referred to as "Greater Cahokia" by the coeditors and contributing authors), will find a home with advanced undergraduate and graduate students as well as professional archaeologists. Sites such as the East St. Louis Mound Group, located on the east side of the Mississippi River but formerly thought to have been a community that was distinct from Cahokia itself, are now seen as "precincts" within Greater Cahokia. The NMRB and earlier investigations also found evidence of a large-scale fire that destroyed the structures of the East St. Louis Precinct in the late twelfth century AD that may have been associated with a ritual reorganization of Greater Cahokia as a whole (Timothy Pauketat, Chapter 5).

https://doi.org/10.1017/aaq.2021.161 Published online by Cambridge University Press