



University
of Victoria

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Master of Arts

of

JOHN MURRAY

BA (Stony Brook University, 2014)

**“Exploring Handaxe Function at Shishan Marsh – 1: Combining
Qualitative and Quantitative Approaches Using the Edge Damage
Distribution Method”**

Department of Anthropology

August 2, 2017

10:00 A.M.

David Turpin Building

A144

Supervisory Committee:

Dr. April Nowell, Department of Anthropology, University of Victoria (Supervisor)

Dr. Yin-Man Lam, Department of Anthropology, UVic (Member)

Mr. Daniel Stueber, Primitive Skills Practitioner (Outside Member)

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Dr. Bruce Hardy, Department of Anthropology, Kenyon College

Chair of Oral Examination:

Dr. Kenneth Stewart, Department of Economics, UVic

Abstract

Handaxes are some of the longest lasting and most iconic stone tools throughout human evolution. Appearing in the early Pleistocene, these bifacially flaked tools persisted around one and a half million years and span across all of the Old World, from Africa to eastern Asia. Despite their ubiquitous nature, relatively little is known about their function. Handaxes are often speculated to be multi-functional tools which were selected for due to their large cutting edge; however, only a handful of use-wear studies have attempted to elucidate their use in the archaeological record. The lack of experimental use-wear studies surrounding handaxe function is due to preservation issues and the fact that manufacturing and curating handaxes compounds the ambiguity of microwear signatures. The methodology undertaken in this research provides a pathway to overcoming these obstacles through experimental archaeology in conjunction with low powered microscopy, image-based GIS, and statistical hypothesis testing. In particular, this thesis investigates handaxe function at an assemblage scale ($n = 56$) in a late Lower Paleolithic to Middle Paleolithic archaeological site called Shishan Marsh – 1 (SM-1) in al-Azraq, Jordan. Experimental handaxes ($n = 22$) were replicated and used in various activities such as butchery, plant processing, woodworking, shellfish processing, and digging. The results of this research corroborates the idea of handaxes being used as multifunctional tools. These results have implications for handaxe function, hominin tool use in a desert refugia, and provides a new pathway to investigate inter-site variability in handaxe use.