



Universiteit
Leiden
The Netherlands

Beyond prometheus: pursuing the origins of fire production among early humans

Sorensen, A.C.

Citation

Sorensen, A. C. (2018, December 13). *Beyond prometheus: pursuing the origins of fire production among early humans*. Retrieved from <https://hdl.handle.net/1887/67525>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/67525>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/67525> holds various files of this Leiden University dissertation.

Author: Sorensen, A.C.

Title: Beyond prometheus: pursuing the origins of fire production among early humans

Issue Date: 2018-12-13

**Beyond Prometheus:
Pursuing the origins of fire production among early humans**

Proefschrift

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof. mr. C.J.J.M. Stolker
volgens besluit van het College voor Promoties
te verdedigen op 13 december 2018
klokke 10:00 uur

door

Andrew Charles Sorensen
Geboren te Mason City, Iowa
in 1982

Promotores:

Prof. dr. J.W.M. Roebroeks (Universiteit Leiden)

Prof. dr. A.L. van Gijn (Universiteit Leiden)

Promotiecommissie:

Prof. dr. C. Hofman (Universiteit Leiden)

Prof. dr. J. Kolen (Universiteit Leiden)

Prof. dr. T. van Kolfschoten (Universiteit Leiden)

Dr. V. Rots (Université de Liège, Belgium)

Prof. dr. M. Soressi (Universiteit Leiden)

Dr. A. Turq (Musée National de Préhistoire, Les Eyzies, France)

Dr. A. Verpoorte (Universiteit Leiden)

This research has been made possible through a ‘PhDs in the Humanities’ grant awarded by the Netherlands Organisation for Scientific Research (NWO), with additional funding provided by the Stichting Nederlands Museum voor Anthropologie en Praehistorie (SNMAP) and by Wil Roebroeks from his SPINOZA (NWO) and Royal Netherlands Academy of Arts and Sciences (KNAW) budgets.

Cover design: A great lightning bolt—hand of the gods, bringer of fire—dwarfs a Neandertal enjoying his night-time campfire (front). But unbeknownst to the gods, our Neandertal protagonist is no longer reliant on their merciful, though all too infrequent gift of fire, but is now making it for himself (reverse). Photo composition produced by the author, with assistance by Bas de Geus, from images modified after a photo of lightning © Paul Moulton (pdmphotos.wordpress.com), and the retouched photo composition ‘Hombre Neandertal’ © José Emilio Toro Pareja (torografic.com), both used with permission. The QR code on the reverse links to the author’s ResearchGate profile.

CONTENTS

Chapter 1 — Introduction.

Chapter 2 — On the relationship between climate and Neandertal fire use during the Last Glacial in SW France.

Chapter 3 — fiReproxies: A computational model providing insight into heat-affected archaeological lithic assemblages.

Chapter 4 — Fire production in the deep past: The expedient strike-a-light model.

Chapter 5 — Neandertal fire-making technology inferred from microwear analysis.

Chapter 6 — Conclusion.

Appendices — Supplementary information for the scientific publications comprising this dissertation.

Summary

Samenvatting

Acknowledgements

Curriculum Vitae