

Table of Contents

Acknowledgements 7

Introduction 9

 Brief Introduction, Research Questions, and Structure 9

 Ground Stone Tool (GST): Definition and Terminology 10

 Geographic, Chronological, and Environmental Context 11

 The Middle-Upper Palaeolithic Transition: Neanderthals and Modern Humans Meeting in the Levant .. 12

 Subsistence and Settlement Patterns during the Middle Palaeolithic 14

 Ground Stone Tools in the Middle Palaeolithic of the Levant 15

 Understanding the Function of Lithic Tools 16

Brief History of Research 19

 The Middle Palaeolithic Research in the Levant 19

 The Development of Use-wear Studies 20

 The Ground Stone Tool Research 22

 Experiments in Ground Stone Tool Studies 23

Methods 25

 Methods and Brief Main Tasks Description 25

 Sorting and Sampling 25

 Residue Sampling and Cleaning 26

 Use-wear Analysis 26

 3D Scanning and Spatial GIS Analysis 30

 Experiments 33

Archaeological Sites: Selected Case Studies 39

 Nesher Ramla 39

 Site Presentation 39

 Geographic and Geological Context 40

 Archaeological Context 40

 Far’ah II 41

 Site Presentation 41

 Geographic and Geological Context 42

 Archaeological Context 42

 Ein Qashish 43

 Site Presentation 43

 Geographic and Geological Context 43

 Archaeological Context 43

Results 45

 Experimental Results 45

 Percussive Experiments 46

 Grinding Experiment 49

 Experimental Summary and Quantitative Approach 50

 Archaeological Results 58

 Nesher Ramla Results 58

 Far’ah II Results 70

 Ein Qashish Results 78