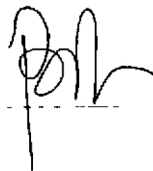


AN ETHNOARCHAEOLOGICAL STUDY OF BLACKSMITHING
IN BASAK, CEBU CITY

A Thesis
Presented to
The Faculty of the Graduate School
University of San Carlos

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in **ANTHROPOLOGY**



by

JOCELYN B GERRA

June 1994

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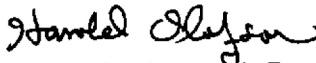
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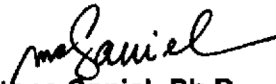
This thesis entitled AN ETHNOARCHAEOLOGICAL STUDY OF BLACKSMITHING IN BASAK, CEBU CITY, prepared and submitted by Ms. Jocelyn B. Gerra in partial fulfillment of the requirements for the degree Master of Arts in Anthropology has been examined and is recommended for acceptance and approval for Oral Examination.

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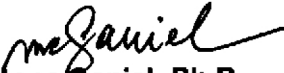

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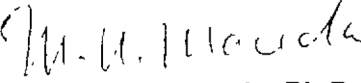

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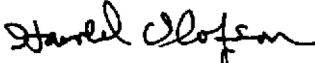
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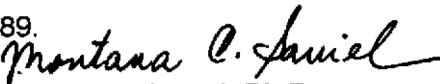

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Accepted and approved in the partial fulfillment of the requirements for the degree of Master of Arts in **ANTHROPOLOGY**.

Comprehensive Examination Passed December 16, 1989.


18 March 1993
Date of Oral Examination


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JOCELYN B GERRA

ABSTRACT

Ethnoarchaeological methodology was used in a study of the formation of blacksmithing archaeological sites in Basak, Cebu City, Philippines. This study revolved around the need to determine how contemporary activities go into the technological processes of the production in blacksmith shops to produce archaeologically relevant patterns of material culture in specific work areas. The hypothesis of this work were as follows:

1. In the Cebuano blacksmithing shop, work processes of tool production form residue that are likely to be archaeologically relevant.
2. Residue variations in the workflow of smithing activities can be distinguished.
3. Smithing activities will result in modifications of the work-space floor that can serve as indices for those activities.
4. Primary activities (from metal cutting to the completion of smithing) and secondary activities (shaping and sharpening) lead to the formation of specific locations within the workshop that can be distinguished from each other
5. Primary activities are located centrally in the workshop while secondary activities are located on the periphery.

Ethnoarchaeological research involves the combination of the methods of ethnography like participant observation and interviews with key informants, and the

basic method in archaeological work of outlining the site's boundaries and specific work areas on a site map

The study was conducted from November 1989 to March 1991. The findings of the study were as follows.

1. Hypothesis 1 is confirmed; tool-making activities form residues that are archaeologically relevant.
2. Hypothesis 2 is substantiated. Residue variations in the work-flow of smithing activities can be distinguished
3. Hypothesis 3 is also substantiated. Smithing activities will result in modifications of the work-space floor.
4. Hypothesis 4, that primary and secondary activities lead to the formation of specific, archaeologically relevant/distinguishable locations within the workshop, is borne out.
5. Hypothesis 5 is also shown to have been an accurate guess, that primary activities have a more central location than secondary ones.

Additionally, in the course of the study, it was discovered that a slag-like residue is a normal side result of the blacksmithing process. Its appearance resembles slag found in Lapu-Lapu/Magallanes site in downtown Cebu City thought to be the result of smelting. Sample from Basak and from the Lapu-Lapu/Magallanes sites were analyzed for element composition and surface structure to be able to spot the similarities and differences of the samples. The result give rise to the possibility that the Lapu-Lapu/Magallanes slag have been the result of blacksmithing, not smelting. The findings though is of cautionary nature until further tests with a larger sample can be

made. These samples were analyzed through the use of SEM and EDAX at the Institute of Geology and Paleontology of the University of Hamburg.

In conclusion, the study has shown that direct observation of a living society permits an assessment of how an archaeological record is being formed. It has shown that ethnoarchaeology allows the documentation of present day behavior of the blacksmiths and the smithing process to see the debris-generating behavior that enters the archaeological record. It is a way of arriving at explanations that are alternative to the static archaeological record to which archaeologists in the past limited themselves. It helps in interpreting the past by posing relevant questions and possible alternative explanations.

The study has also shown the relevance and importance of the interdisciplinary approach and cooperation of experts and the use of sophisticated analysis to study an ethnoarchaeological problem, in this case the comparative analysis of the slag samples.

TABLE OF CONTENTS

TITLE PAGE	i
APPROVAL SHEET	ii
ACKNOWLEDGEMENTS	iii
ABSTRACTS	vi
TABLE OF CONTENTS	ix
LIST OF FIGURES	xii
LIST OF PLATES	xiii
CHAPTER 1. AREA OF RESEARCH	1
Rationale of the Study	1
Theoretical Background	2
Conceptual Framework	9
Statement of the Problem and Hypotheses	12
Significance of the Study	13
Scope and Limitation of the Study	14
Methodology	16
Definition of Terms	22
Organization of the Study	22
CHAPTER 2. THE PHYSICAL STRUCTURE AND EQUIPMENT OF TWO BASAK BLACKSMITH WORKSHOPS	24
Introduction	24
Description of Study Sites	25
Silva's Hunting Knife Shop	25
Mulo Abarquez Garden Tools Supply	27
Types of Equipment and Work Areas	29
Primary Structures and Equipment: The Forge	30
The Hearth	30
The Bellows	31
The Anvil	33
The Water Trough	34
Secondary Equipment	35

The Grinding and Polishing Machine	35
The Mold	37
The Furnace	37
Equipment for Handle and Case Making	38
The Water Trough	40
Maintenance of Equipment	41
Repair of the Hearth	41
Repair of the Furnace	42
Summary	43

CHAPTER 3. THE SOCIAL ORGANIZATION OF

WORK-FLOW IN THE BLACKSMITH WORKSHOP 45

Introduction	45
The Manager	45
The Blacksmith	46
The Blacksmith Assistant	47
The Handle and Case Makers	48

CHAPTER 4 . THE PROCESS OF

TOOL PRODUCTION 50

Introduction	50
Primary Processes in the Forging of the Blades	52
The Cebu Bolo	52
The Bolo for Weeding	54
The Bolo with Curved Tip	55
The Hunting Knife	55
The Samurai Sword	56
The Pick Mattock	56
Secondary Processes in the Completion of Metal Tools	57
Grinding and Polishing Machines	57
Handle Attachment	58
Tempering	61
Packaging	62