

**DISEASE, DEVELOPMENT, AND DEFINING INDIGENOUS IDENTITY:
THE EMERGENCE OF MACHUPO VIRUS
IN POST-REVOLUTIONARY BOLIVIA**

Michelle Welty Moore

**A Thesis Submitted to the
University of North Carolina Wilmington in Partial Fulfillment
Of the Requirements for the Degree of
Master of Arts**

Department of History

University of North Carolina Wilmington

2005

Approved by

Advisory Committee

Chair

Accepted by

Dean, Graduate School

TABLE OF CONTENTS

ABSTRACT	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
LIST OF TABLES	vii
LIST OF FIGURES	ix
INTRODUCTION	1
Historiography	3
Methodology	15
CHAPTER I DEFINING INDIGENOUS IDENTITY	21
Physical Geography	29
The Ideological Mapping of the Lowlands	33
The Physical Mapping of the Lowlands	45
The Madeira-Mamore Railroad	51
CHAPTER II: THE DEVELOPMENT OF THE EASTERN LOWLANDS	64
The Indigenous Population of Eastern Bolivia	65
Directed Colonization	83
Andean Indian Programme	84
Alto Beni Project	88
Spontaneous Colonization	93
Sponsored Colonization	95
The Effect of Development on the Indigenous Population	104

CHAPTER III: HISTORICAL EPIDEMIOLOGY OF BOLIVIA.....	108
Lowland Diseases	109
Post-Revolutionary Disease Conditions	117
Viral Hemorrhagic Fevers	119
CHAPTER IV: THE EMERGENCE OF MACHUPO VIRUS.....	123
Case History of Emergence	129
Western Aid in the Isolation of Machupo Virus.....	134
Traditional Medicine.....	144
EPILOGUE.....	152
BIBLIOGRAPHY.....	157

ABSTRACT

One of the four Latin American Hemorrhagic Fevers, Machupo virus, emerged in 1959 as a hemorrhagic disease in the lowlands of eastern Bolivia. The primary factor in the emergence of Machupo virus into the human population was the development of the eastern lowlands, brought about by Bolivia's National Revolution in 1952. The *Movimiento Nacionalista Revolucionario* (MNR) government encouraged mass migration to eastern Bolivia in the form of resettlement programs in an attempt to stimulate the development of agriculture. By 1959 when Machupo virus first emerged, the MNR had distributed over 400,000 parcels of uncultivated land under the Agrarian Reform Act. The resultant clearing of uncultivated lands by the indigenous population was the primary factor in the emergence of Machupo virus.

The United States government, in response to the burgeoning communist threat in the middle of the twentieth century, provided direction, technological assistance, and economic aid in the colonization and development of Eastern Bolivia, the region endemic to Machupo virus. Focus shifted from indigenous resettlement to immigration in order to provide a population the West perceived as capable of successful agricultural development. This shift was in response to the image of Indians provided for the West in the accounts of nineteenth-century travel writers who explored the economic advantages of the eastern lowlands. Travel writers ascribed an identity to the indigenous population resulting in a status of less than second-class citizenship in the eyes of the West, limiting them to subsistence agriculture, which contributed to the emergence of Machupo virus.

ACKNOWLEDGEMENTS

Special gratitude is due to Dr. Hal Langfur, my thesis committee chairman, to whom I owe my interest in the assignation of cultural identity. I was first exposed to the study of cultural identity in a seminar conducted by Dr. Langfur in 2001, on forging colonial identity in Latin America. Since then Dr. Langfur has provided continued intellectual stimulation, guidance, and ideas in pursuing the study of colonial identity. I am also deeply indebted for the valuable suggestions he offered in bringing this work to a conclusion.

I would like to thank Dr. Lisa Pollard for introducing me to the interpretation of travel writing as a genre of literature in a seminar on the West and world outside in 2002. She challenged me to think “outside the box,” by introducing the work of Edward Said and Michael Foucault. Sincere appreciation is extended to Dr. William McCarthy, who offered prompt constructive comments and editorial advice in the preparation of this study. Finally, I would like to thank the staff of the History Department, who went out of their way to lend assistance and support, to listen to me when I felt I could no longer continue, and for their continuous encouragement throughout the scope of this project.

DEDICATION

I would like to dedicate this project to my father, Robert Leon Welty, whose unconditional love, support, and encouragement endowed me with the confidence to pursue my goals and develop my potential throughout my life. I am forever indebted to him for teaching me how to find a healthier and more satisfying life. Special thanks go to my mother, Mary Hrib Welty, and my sons, Kevin and Jeremy Moore, who provided me with the opportunity to complete this project by providing loving caring for my father as he struggled with lung cancer in the last days of his life.

Special recognition goes to my cherished friend and partner, William Edward Godwin II, who offered continuous moral support, patience, and understanding through many long months of research and writing. I also acknowledge my dear friend, Cheryl Bennis Ford, who stood by my side throughout the scope of this entire project. I am eternally grateful.

LIST OF TABLES

Table		Page
1.	Selected Nineteenth Century Travel Writers	28
2.	Missions Located in the Department of Beni (1875)	43
3.	Mission Population of the Lowlands (1766)	67
4.	Indigenous Population of the Jungle of Bolivia (1950)	69
5.	Population Growth in Bolivia (1831-1950)	70
6.	Household Occupants and Bedrooms (1950)	73
7.	Abandonment Rate of Haciendas (1838-1877)	74
8.	Cost of Living Index and Exchange Rates (1938-1952).....	75
9.	U.S. Food Aid, Loans, and Grants (1954-1970).....	81
10.	Santa Cruz Development Survey Team (1954)	87
11.	Distribution of Colonists (1966)	101
12.	Cattle in the Department of Beni (1958)	102
13.	Population of Bolivia for the Principal Departments and Capital Cities (1900-1976).....	105
14.	Eastern Indian Tribes and Populations (1980).....	106
15.	Reported Plague Cases (1921-1938).....	110
16.	Selected Diseases in Bolivia (1949-1964).....	112
17.	Cost of Anti-Malaria Campaign (1942-1950)	114
18.	Pre-Revolutionary Disease Reports (1949-1952).....	115
19.	Births and Deaths in the Capital Cities of Bolivia (1950-1951).....	116

20.	Selected Diseases Under the MNR (1962-1965).....	115
21.	Economic Activity in the Department of Beni (1950).....	123
22.	List of Diagnostic Signs Manifest in Skinned Cuy.....	149

LIST OF FIGURES

Figure	Page
I. Alto Beni Colonization Zone	90
II. Advertisement for Immigrants to the Eastern Lowlands	97
III. Endemic Regions for South American Viral Hemorrhagic Fevers	120
IV. Hospital Boat on the Beni River	126
V. Department of Beni.....	127