## CRANIOFACIAL MORPHOLOGY OF THAI ADULTS WITH CLASS III MALOCCLUSION

WORANAT AMNUAIPHANWILAI

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE
IN ORTHODONTICS

Copyright by Chiang Mai University

A I GRADUATE SCHOOL CHIANG MAI UNIVERSITY

SEPTEMBER 2003

## CRANIOFACIAL MORPHOLOGY OF THAI ADULTS WITH CLASS III MALOCCLUSION

WORANAT AMNUAIPHANWILAI

THIS THESIS HAS BEEN APPROVED

TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF SCIENCE

IN ORTHODONTICS

**EXAMINING COMMITTEE** 

D. Jolikashun

CHAIRPERSON

Asst. Prof. Dhirawat Jotikasthira

Surachar Dechlanuchern MEMBER

Assoc. Prof. Surachai Dechkunakorn

Penamu Unlikamu
MEMBER

3 September 2003

Dr.Peerasak Malikaew

© Copyright by Chiang Mai University

## **ACKNOWLEDGEMENT**

I wish to express my thanks to my advisor, Lecturer Duangsamorn Charuchinda for her valuable advice and helpful guidance throughout this investigation.

My sincere appreciation is expressed to Dr. Peerasak Malikaew for his professional advice in the design and interpretation for the statistical analyses. I would also like to thank Assistant Professor Dhirawat Jotikasthira for his kindness and proof of this thesis.

I would like to thank the staff of the Department of Orthodontics, Faculty of Dentistry, Chiang Mai University; Associate Professor Virush Patanaporn at Virush-Kobkul Dental Clinic, Assistant Professor Kowit Poolsin at Smile Line Dental Clinic, Lecturer Wiganda Khemaleelakul at Ban For Fun Dental Clinic and Dr. Somchai Duangtaweesub for permitting the use of their patients' lateral cephalograms throughout this research.

I am greatly indebted to the Graduate School, Chiang Mai University, Thai Association of Orthodontists and Dr. Somchai Duangtaweesub for the funding supporting this study.

Special thanks are extended to my lovely friends: Dr. Donjai Chawanaputorn, Dr. Weena Panichakul, Dr. Siriporn Leuwitoonwechakit, and Dr. Sutti Malaiwijitnont for permitting the use of their patients' lateral cephalograms.

Finally, I am heartly gratitude to my parents, sisters and brother for their loves, understandings and spiritual supports. I dedicate this thesis to them.

Woranat Amnuaiphanwilai