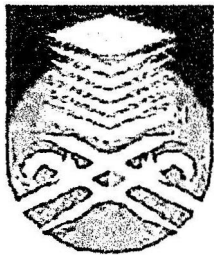

HISTORY OF METALLURGICAL DEVELOPMENT OF KERIS

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OCTOBER 2002

ACKNOWLEDGEMENT

I would like to express my sincere gratitude and appreciation to these people for their continuous support, generous guidance, help, patience and encouragement during the duration of the thesis preparation until its completion:

1. My supervisor, Associate Professor Ir. Dr. Mohamad Nor Berhan and my co supervisor, Dr Darius Gnanaraj Solomon.
2. My parents and the rest of the family.
3. Mr. Asri from Warisan Antik.
4. All National Museum librarians.
5. All staffs of Museum of Archaeology, Lembah Bujang
6. All staffs of Faculty of Mechanical Engineering UiTM
7. My friends, especially my partner, Ms. Yusniza bte Yem, and my best friends Mr Aman Shah bin Siraj and Ms Noraini bte Kasbon.

ABSTRACT

Keris is known to everyone as the national weapon of Malay people. It has substantial claims to being the most sanguinary weapon in history. In Malaysia, nearly everyone has seen and handled keris at least the twenty-first century imitation for the tourist trade. The art of keris is not deniable since almost every single part of the weapon exhibits the high quality of art value. People are most likely look at this value of keris since it can be clearly observed. But, there is something that people normally do not know about the legendary weapon. In fact, Malaysians also do not aware about the technical properties of their symbol of pride. Therefore, there should be an effort to recognize the properties of keris in order to let people gain more knowledge and appreciate the weapon.

This project is an initial effort of finding the technical properties of keris whilst the root and history are not left behind. In order to meet the requirements of the objectives for this project, a couple of testing is carried out. All those testing are followed by detail discussion regarding the behaviours of the well-known weapon. Finally the conclusion is made up and it is so interesting to notice that all goals of the project are successfully accomplished.

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CHAPTER I

INTRODUCTION

1.1 Definition

Metallurgy is the art and science of making metals and alloys in forms and with properties suitable for practical use. The layman thinks of metallurgy as dealing with the reduction of metals from there ones. The field of is actually broader than this conception and maybe conveniently divided into three branches:

- Chemical metallurgy
- Physical metallurgy
- Mechanical metallurgy

These three branches of metallurgy are interrelated. Consequently, a fundamental knowledge of chemistry, thermodynamics and mechanics is necessary for a proper understanding of metallurgy.

Mechanical metallurgy is a branch of a wider subject known as material science and engineering, which deals with all materials such like metals, ceramics, glasses, organic plastics and polymers, wood and stone. Mechanical metallurgy deals with all aspect of thus subject, in particular with mechanical working, the testing of mechanical properties, the relationship