

UNIVERSITI TEKNOLOGI MARA

**POST FIRING REDUCTION METHOD:
AN INNOVATION FOR STANDARDIZED
RAKU GLAZE EFFECT**

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Thesis submitted in fulfillment
of the requirements for the degree of
Master of Art & Design

Faculty of Art & Design

April 2016

ABSTRACT

Raku has progressed gloriously over these years influencing many potters through its traditional and conventional firing methods. Raku is significant in a way which involves simplicity, spontaneity that we can say is endless. Raku is an essence of ceramic that presents a laid back firing method that produces variety of unexpected effects that will surprise due to the simplest firing method that the firing it was conducted. It had lead the researcher to modify the firing methods from producing spontaneous glaze effect to obtaining a planned glaze effect, and achieving a standardized one. This research involves a range of ceramic process including Raku kiln, glazing and firing experiments. Intended for this research, a Raku kiln was built to cater glaze firing experiments for small test pieces. Raku conventional reduction methods were innovated to obtain a reduction atmosphere that would be able to alter the glaze to a standardized effect for all test pieces. The main issue of Raku is the random glaze effect produced from it reduction methods. This issue has been made as this research's motivation due to the realized potential of Raku that was suitable for this research. 10 experiments were conducted for this research using 2 Raku kilns to acquire the required glaze effect hence the proper reduction atmosphere that would be the foundation of the glaze effect transformation. The reduction atmosphere was created through an innovative post firing reduction method of inserting combustible material into the kiln and the kiln was sealed while producing smoke. The smoke appearance during reduction process was the main factor that could modify the glaze effect if all the involving factors such as the firing temperature, amount of combustible material used and the reduction temperature atmosphere are a suitable combination. Therefore this research gives us anticipation that through an altered method of post firing reduction, we can achieve a planned standardized effect for Raku glaze.

ACKNOWLEDGEMENT

First and foremost may I praise Allah S.W.T the most merciful and loving for His gift of joy, patience, perseverance and serenity in completing my research.

First of all, I would like to give my sincere thanks to my principle supervisor, Associate Professor Abdul Rahim Bin Jalil due to his patient guidance and has poured uncountable advices in completing and amending my thesis. There were definitely many lacking along the way but without his help I could not have finished my dissertation successfully. I would also like to thank my co-supervisor, Mr. Mohamad Rizal Bin Salleh who had provided intelligent suggestions to improve the quality of this dissertation. Special thanks to Mr. Masaaki Shibata for his assistance and guidance in building Raku kiln hence giving me the opportunity to work on the Raku kiln as an interesting research and for encouragement and support from the initial to the final level enabled me to develop an understanding of the research.

Not to forget all the knowledge that I have gained during my previous learning experiences that have made me what I am today. Special thanks to all my diploma lecturers from Universiti Teknologi MARA Seri Iskandar campus and all my degree lecturers in Universiti Teknologi MARA Shah Alam campus.

I also thank the Department of Industrial Ceramic for the resources and facilities especially the head of department, Mr. Zuraidy Abd Rahim. I would also like to thank my colleagues and friends in the Formgiving Design Research Lab for their endless and tireless encouragements.

Finally, I would like to express my deepest gratitude and appreciation to my husband, Mohd Rashdan Bin Ujang for his endless support, encouragement, understanding, tolerance, and sacrifices made during my study period as well as my son Ar-Rafael bin Mohd Rashdan who encouraged me to do my best. I am also greatly indebted and appreciate very much to my beloved father, mother, brother and my sisters, big thanks for their support and encouragement.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF STUDY

Raku is a low temperature, rapid firing that has been practiced since 450 years ago. Many of the most stunning Raku pieces have been preserved at the Raku Museum in Kyoto Japan (Watkins & Wandless, 2004). Raku has been an inspiration to many potters as well as ceramic artists whom are captivated by its unique beauty but also for its humble spontaneous fabrication process. Raku may be simple in its own way however Raku became effortless through years and years of practice of its method that some has become identities for its practitioners creating new trends to be followed. Many famous Raku methods are also discovered serendipitously and later refined. All these practices are important as Raku is very hands on from the beginning until the end of the process.

Throughout these years, Raku have been phenomenal in the ceramic field. It started with Zen Buddhism which has created a philosophy known as Zen philosophy that is capable of merging temporal task together with deeply spiritual belief. A philosophy was created through a direct involvement with the materials and process. This particular philosophy relates to art by the concept of a direct self experience to acknowledge the pleasure, enjoyment, ease and comfort which came to be as how Raku is defined (Tyler & Hirsch, 1975).

Historically, Raku was mainly known for its teaware product that was used for drinking tea during tea ceremonies. Figure 1.1 is an example of a Raku tea bowl, one of the teaware item. There are numerous tea ceremonies that celebrate special occasions in Japan throughout the whole year. Different types of Raku products were used by the top hierarchy society for a specific purpose or during different seasons of Japan.