

**UNIVERSITI TEKNOLOGI MARA**

**PALM OIL BASED WAX AS AN  
ALTERNATIVE RESIST AGENT FOR  
BATIK CANTING**

**HAMDAN BIN HAJI LIAS**

**MA Art & Design**

**November 2007**

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ALTERNATIVE RESIST AGENT  
FOR BATIK CANTING**

**HAMDAN BIN HAJI LIAS**

Thesis submitted in fulfillment of the requirements  
for the degree of  
**Master of Design Technology**

**Faculty of Art & Design**

**November 2007**

## **Candidate's Declaration**

I declare that the work in this thesis was carried out in accordance with the regulations of University Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

In the event that my thesis be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree to be subjected to the disciplinary rules and regulations of University Teknologi MARA.

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## **ABSTRACTS**

Paraffin wax has been used as a resist agent by the batik manufacturers in Malaysia since 1930. The wax together with chemicals rosin acted as a resist agent in making the batik canting, batik cop and batik printing. Due to inadequate supplies of paraffin wax which happened in 1965, this research focused to identify an alternative to paraffin wax in order to minimize the dependency of batik canting industry towards paraffin wax. An alternative to paraffin identified in this study is Palm oil based wax which the samples of it were taken from the Malaysian Palm Oil Board (MPOB). There were eleven experiments conducted to determine that the Palm oil based wax is capable to substitute paraffin as a resist agent for batik canting. The capabilities of Palm oil based wax were tested to see the effectiveness of the Palm oil based wax as a resist agent on three different types of fabrics namely satin silk, rayon and cotton with three different sizes of canting tools. Each fabric required different proportion of Palm oil based wax and rosin to act as an effective resist agent. The effective resist agent basically is able to block out the dyes from dispersing from the outline that drawn by the batik wax.