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**AN INVESTIGATION OF ANODISED ALUMINIUM DECORATIVE
APPLICATION AS A TECHNIQUE FOR MALAY CONTEMPORARY
CRAFT PRACTICE**

JEFFRY AZHA SAIDIN

A thesis submitted to the University of
Northumbria at Newcastle in partial fulfilment of
the requirements for the degree of

DOCTOR OF PHILOSOPHY

School of Design
University of Northumbria at Newcastle

August 2004

Vol.11 (Appendices)

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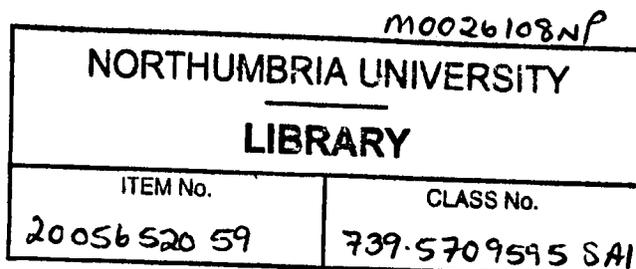
Poor text in the original
thesis.

Some text bound close to
the spine.

Some images distorted

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APPENDIX 1

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- Research Plan of “An Investigation of Anodised Aluminium
Decorative Application as a Technique for Malay
Contemporary Craft Practice

APPENDIX 1

CONTENTS

- Research Plan of “An Investigation of Anodised Aluminium
Decorative Application as a Technique for Malay
Contemporary Craft
Practice

RESEARCH PLAN

PHASE 1

FIRST PHASE OF RESEARCH PROJECT		METHODOLOGY	
RESEARCH OBJECTIVES	RESEARCH QUESTIONS		
To describe the historical and contemporary practice of batik decoration	What is batik?	<p>STAGE 1 (RESEARCH)</p> <p>Literature search of the history of development and application.</p>	
To describe the development of anodised aluminium decorative methods	What is anodised aluminium?		Review of previous local and global surveys concerning the geographic distribution, the industrial and socio-economic context of aluminium resources and usage.
To review and describe Malaysian craft practices in particular regard to those involving applied surface decoration	What are the Malaysian craft practices? Which practices lend themselves to batik types of decoration?	<p>STAGE 2 (SURVEY)</p> <p>Compilation and categorization of secondary sources data from the Malaysian Handicraft Development Corporation and primary sources data from showrooms concerning the range of contemporary Malay craft artefacts. (Crafts Council)</p>	<p>STAGE 3 (QUALITATIVE QUESTIONNAIRE)</p> <p>Questionnaire survey using semi-structured interviews and open-ended questions will be carried out with the Malaysian craft practitioners/collaborators (craft makers, designers and educators) identified from stage 2 (Oppenheim). The criterion for the selection of the craft practitioners is based on their having made a significant contribution towards Malaysian craft design. The questions to be posed concern the nature of their craft practice. The development of the questionnaire will be based on the critical factors related to purpose, process and people, company culture and people in the craft industries (Champy). The purpose of the survey is to provide data on batik types of decoration and to identify specific areas of craft practice that potentially lend themselves to experimentation with surface decoration. The data will be compiled for cross reference analysis and synthesis. of the case studies finding will be explained qualitatively (Miles and Huberman). Another purpose of this stage is that the researcher will identify the sample range of collaborators for the experimental case studies in Stage 5</p>

SECOND PHASE OF RESEARCH 2 PROJECT		PHASE 2
RESEARCH OBJECTIVES	RESEARCH QUESTIONS	METHODOLOGY
<p>To produce a compendium of experimental process and results concerning the interaction of batik dyes and aluminium anodizing</p>	<p>Can batik decorative dyes and procedures be integrated with anodised aluminium?</p>	<p style="text-align: center;">STAGE 4 (EXPERIMENTAL PROCESS)</p> <p>EXPERIMENT 1 Experiment on the application of Malaysian batik reactive dyes using them as colour in the process of anodising types of aluminium. Data from the experiments will be recorded using a log book describing and comparing the : aluminium type, the shade of the dyed used, dyeing time, volume and temperature of the water used with variations in the results of the experiment.(Wells, LaPlantz)</p> <p>EXPERIMENT 2 Experiment on the decorative application of Malaysian batik reactive dyes using the knowledge from the Experiment 1. Data will be recorded using a log book describing:</p> <p><i>the specification and formulation of the print paste (medium used in the controlled application of the dye during the colouring process) in relation to the patterning method, compared with the nature of the result. (Hughes and Rowe)</i></p> <p>Knowledge from both experiments will assist the researcher to develop an understanding of the range, versatility and appropriateness of the integrated process in terms of the sustainable quality that can be achieved from its application as a decorative medium. Compilation from both experiments will be a source of reference for the decorative application of the integrated process in the case studies in Stage 5.</p>

PHASE 3

THIRD PHASE OF RESEARCH PROJECT 3

RESEARCH QUESTIONS	METHODOLOGY
<p>Does the integrated craft procedure offer these kinds of value to the future development of the Malay craft industry?</p>	<p>STAGE 5 (CASE STUDIES OF CRAFT PRACTICE)</p> <p>The craft practitioners selected in Stage 3 will test and validate the integrated process developed in Stage 4 by carrying out case study projects based in their own field of craft practice. The data gathered from the case studies will include an analysis of the receptivity (Osgood) of the decorative application technique to specific areas of Malaysian craft design and practice using Semantic Differential score questionnaire. This was derived from the presentation of visual evidence of practice of the Experimental Process. The craft practitioner was encouraged to explore the decorative process of anodised aluminium with reference to the guided material of the technique. This will lend an opportunity to produce decorative samples (Mcniff, Lomax and Whitehead)</p> <p>A semi-structured interview (Openheim) will be used to seek information from the case study craft practitioners, based upon their hands on experience. In order to find their general appreciation of the process and their recommendations, the key areas for the questions will focus on the appropriateness of anodised aluminium for craft practice, the suitability of the decorative process, the cost effectiveness and the effectiveness of guidelines and reference material provided by the researcher. Cross case analysis of the case study interview responses (Yin) will be gathered from the recommendations of craft practitioners presented in the craft workshop.</p>
<p>Can recommendations be formed which suggest a new method of decorative application can be provided for the Malay craft industry?</p>	<p>Peer review meetings of the proposed collaborators (Mcniff, Lomax and Whitehead) will be held in this penultimate stage to ascertain final recommendations the commercial and educational value of the decorative procedure to craft artefacts.</p> <p>Conclusions will be drawn about the recommendations concerning the appropriateness of the integrated craft practice as a translator of Malay craft aesthetic cultural value.</p>
	<p>STAGE 6</p> <p>The determination of guidelines and recommendations through the correlation of the case studies with the literature search and surveys. Production of the thesis.</p>
<p>The final presentation for the examination will involve a written thesis including documentation and illustration of the experimental artefacts created during the research, which exhibit the findings of the investigation.</p>	

APPENDIX 2

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- Karyaneka Board of Director Sales Report- Craft Outlet
January 1999 to July 1999

Table 2.1

Karyaneka Board of Director Craft Sales Outlet-January 1999 to July 1999

PRODUCT CATEGORY	KARYANEKA OUTLET									
	KBK	SUBANG	MELAKA	L'KAWI	KLIA	BB PLAZA	CORP	PROMO	AGENT	SPORTS
BATIK	36.5%	43.9%	31.6%	32.3%	32.8%	55.7%	-	20.2%	-	14.7%
WEAVING	8.8%	2.5%	20.2%	13.9%	13.4%	22.2%	5.1%	4.8%	2.1%	7.1%
SILVER	4.2%	32.5%	3.1%	2.9%	0.3%	-	-	-	-	-
CERAMIC	3.6%	.65%	3.9%	13.5%	3.2%	4.6%	-	4.9%	20.2%	19.1%
BATIK POTTERY	4.0%	0.8%	4.0%	3.4%	-	1.1%	0.1%	0.5%	-	4.7%
BRASS	.1%	.2%	1.8%	.9%	-	-	-	-	-	-
EMBROIDERY /WOVEN	14.4%	3.9%	-	2.3%	-	.9%	76.9%	-	-	-
WOOD CARVING	3.9%	.1%	3.9%	3.7%	2.4%	2.9%	1.7%	-	-	-
CRYSTALLITE	.9%	.2%		1.9%		5.4%	-	-	-	38.2%
OTHERS	23.6%	15.5%	31.5%	25.2%	48%	7.2%	16.2%	69.7%	77.7%	16.2%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Karyaneka

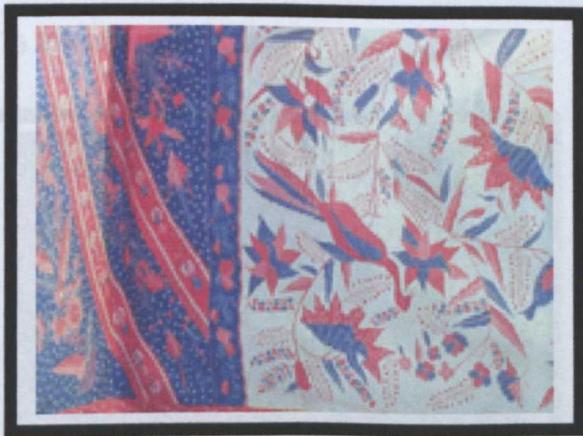
APPENDIX 3

CONTENTS

- Selected Craft Survey Images from Identified Region of Malaysia focusing on the speciality of the regions such as the Region of Kelantan, Terengganu, Perak, Pahang, Negeri Sembilan, Selangor and Kedah.



REGION : KELANTAN



a) Printed Batik

c) Hand drawn Batik



d) Hand drawn Batik



b) Silverware





REGION : PERAK

a) Black Ceramic



b) Embroidery



c) Painted Ceramic



d) Embroidery



Map of Malaysia

REGION : TERENGGANU

a) Antique Furniture

a) Brocaded cloth



c) Printed Batik

c) Printed Batik



b) Brass



d) 'Pandanus' weaving





REGION : PAHANG

a) Antique Furniture



b) Household Utility Woodcarving



c) Frame Woodcarving



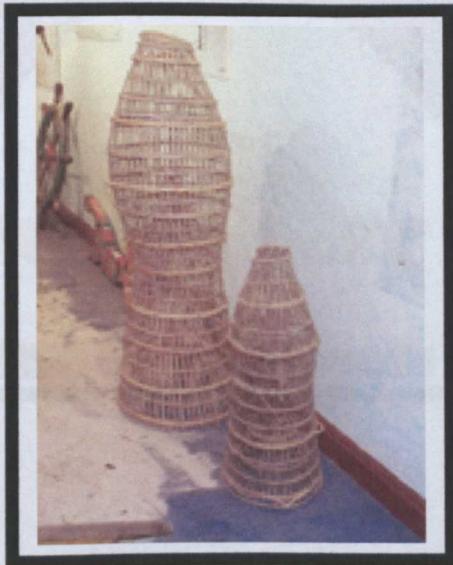
d) Floral Woodcarving





REGION : KEDAH

a) Floating Bamboo Fish Trap



b) Bamboo Fish Trap

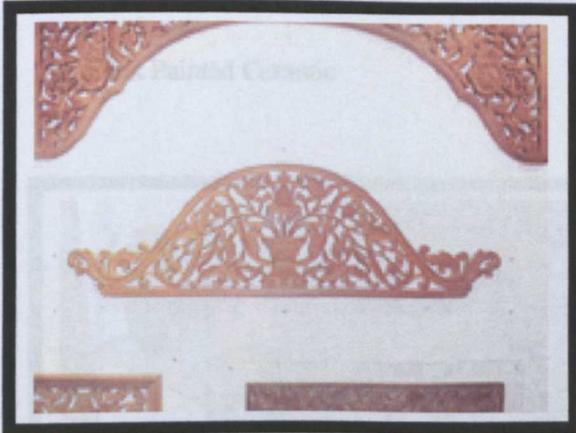


b) Decorative Bamboo



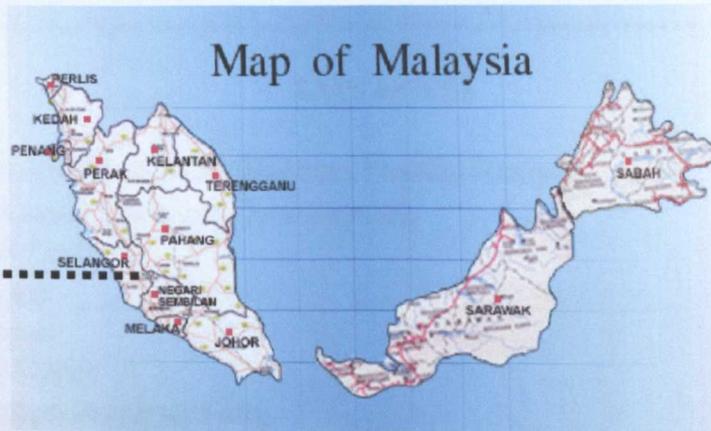
REGION : N.SEMBILAN

a) Architectural Wood Carving



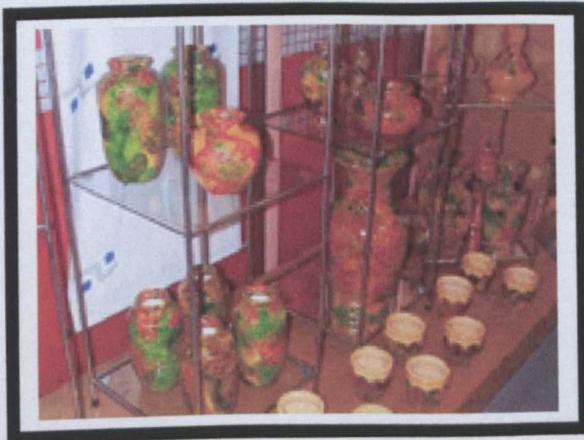
b) Bamboo and Rattan Weaving





REGION : SELANGOR

a) Batik Painted Ceramic



b) Decorative Batik Painted Ceramic



APPENDIX 4

CONTENTS

- Qualitative Interview Meta-Matrices Process Analysis
- Semi-Structured Interview Questionnaire
- Transcribe Text
 - Educator
 - Designer
 - Craft Maker
- Meta-Matrices Analysis Form
 - Educator
 - Designer
 - Craft Maker

**QUALITATIVE INTERVIEW
META-MATRICES PROCESS ANALYSIS**

A. TRANSCRIBING

as the interview of the respondents were conducted in a Malay language, the text were transcribed in Malay and followed with the English translation for the analysis process.

B. TRANSFER TRANSCRIBE TEXT INTO META-MATRICES FORMAT

-STAGE 1

assemble transcribe text into three columns

-STAGE 2

identified central theme by underlining relevant statement from the respondents with reference to the critical factors applied in the questionnaire.

-STAGE 3

analysis of the relevant statement from all of the respondents (educators, designers and craft makers) view to conclude the summary of the findings.

SEMI-STRUCTURED INTERVIEWS QUESTIONNAIRE

PURPOSE

1. Q. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?
2. Q. When did you start your craft/design profession which you have established?
3. Q. What is the nature of your specialization? Is it different from what you have gained from your craft education or profession?
4. Q. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?
5. Q. How many types of craft artefacts have you produced or designed since you became established?

PROCESS AND PERFORMANCE

6. Q. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.
7. Q. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?
8. Q. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

9. Q. What is your opinion regarding the use of aluminium as a craft material?
10. Q. In your production or designing, what types of decorative elements do you use that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

FACULTY OF ART AND DESIGN

11. Q. What techniques do you use to apply those elements or themes to your craft artefacts?

Q1. As a craft practitioner/designer/educator, have you attended any craft course? If so, where do you

COMPANY'S CULTURE

12. Q. What is your role in craft production? Do you give responsibility to others to handle this stage?

Q1. Craft/design professions which you have

PEOPLE

13. Q. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

Q1. What is the nature of your specialization? It is different from what you

14. Q. Which craft artefacts do you consider to be successful products from you or your team?

Whatever I've learned seems to be very relevant and is not that different except that some of the techniques in school were better but less practical, so the years of experience and the observation has made us less updated the techniques, which I originally learned.

Q4. Are you involved in selling or distributing your products? If yes, what range of artefacts and prices and where do you market them?

INTERVIEWEE: ASSOCIATE PROFESSOR ZAHARI ZAIN
SENIOR LECTURER
FINE METAL DEPT
FACULTY OF ART AND DESIGN
UNIVERSITI TEKNOLOGI MARA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where do you gain your experience?

I studied Jewellery Design & Manufacturing in the University Of Ulster back in 1970 and the course took 3 years.

Q2. When did you start your craft/design profession which you have established?

I started teaching crafts in 1974 just after my graduation and I've been teaching ever since at the School of Art & Design, the only school of Art in Malaysia.

Q3. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

Whatever I've learned seems to be very relevant and is not much different except that some of the techniques in school were a little bit less practical, so the years of experience and the observation has more or less updated the techniques, which I originally learned.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

The prices of the products that we develop and produce, with the idea of sales, range from a few of dollars to thousands of dollars, some products which are for mass production we sell at a very low price, those which are "one-off" we can price as we like, depending on the hours we spend and what the design involves.

Q5. How many types of craft artefacts have you produced or design since you became established?

About thirty pieces for the public, both big pieces and small pieces.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

Yes, I do have a very small make-shift craft workshop for which I do not get any financial support and all the materials I acquire through my personal finances.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

Well, being a craftsman in metalwork, I don't limit myself to a particular material, I have used various materials from metals to wood to composites and most of the raw materials can be obtained locally.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

Currently, I have seen the usage of aluminium in household and architectural products but not in craft production.

Q9. What is your opinion regarding the use of aluminium as a craft material?

It depends on the articles that you want to produce. If you are talking about mass production you may not call it craft, but if talking about "one-off" there is no reason for not using aluminium but the handling process of the material will be rather difficult especially, when it comes to soldering and welding all sorts of things, otherwise there is no limitation.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

We do think of all cultural aspects but as a designer I do not see that a motif should reflect whether it is cultural or contemporary. So, in order not to lose our originality we use some elements of cultural motif and transfer them into contemporary practice whether it is suitable for the location or not.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

In metalwork what we normally do are things like etching, 'repousse' work and even piercing as a decorative technique.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

Of course as a craft production set up, we train the craftsmen to do as best as we can and in giving them proper training, we also give them some kind of responsibility.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

Well it seems to be a team based kind of organization, nevertheless most of the people work as individuals because there is no proper control of the organization.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

Well, we have designed a couple of maces for the universities and of course the maces were made by a number of people and they were put together based on one design and most probably one of the products can be said to be successful.

INTERVIEWEE: ASSOCIATE PROF. ZAHARAH OSMAN

SENIOR LECTURER

TEXTILE DEPT

FACULTY OF ART AND DESIGN

UNIVERSITI TEKNOLOGI MARA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where do you gain your experience?

I started off as a textile designer after getting my diploma at Mara Institute of Technology and then I pursued my degree and later on my masters in the United Kingdom at Central School of Art, I majored and specialized in printed on hand painted fabrics using discharge and dispersed dye on silk. Then I moved on to batik, which I found to be an avenue that has not been tapped when I was a student in the textile department at the Central School. I know that this was going to be a new area and that it was what I was going to teach when I got back to Malaysia. I have also attended a few short courses on batik and crafts organised by the Ministry of Trade and Tourism.

Q2. When did you start your craft/design profession which you have established?

I started teaching in February 1976 and I am now teaching resist textile techniques.

Q3. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

Yes, I do and it's fully funded by myself.

Not so much different because I started off with a printed textile but doing hand painting is more similar to what I am doing now because I am focusing more on hand painted fabrics i.e batik but combining resist technique with other forms of resist technique with batik to produce a slightly higher level of batik fabric for high end crafts.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

I do, I teach textile in the university but I have my own workshop, I also sell crafts on my own as a designer. I still produce textile design or batik design for fabric especially on silk, on different kinds of silk and the prices vary from item to item so I think it is rather vague to put prices in here and I always treat them as a "one-off" design because we really take time and effort to deal with each project separately. I have done commissions for a lot of people. Most ask for really exclusive work for themselves e.g for their own clothing or for corporate gifts to be given as a present for a diplomat or even friends abroad. Other work includes contemporary batik work art pieces or art forms for the National Bank.

Q5. How many types of craft artefacts have you produced or design since you became established?

If it is in the university, we teach all kinds of product design ranging from fabric to scarf's, pants, even wall hangings and also I think on visual paper work. Other than that on my own I produce art forms or painting or even wall hangings or a combination of fibre and batik art works.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

Yes, I do and it's fully funded by myself.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

In my craft workshop these would be based as batik and my main materials would be wax, white cloth, silk and cotton, and reactive dyes. So I do have problems sometime in getting white fabric because I am normally short of supplies.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

I do not know about aluminium and its use in the crafts specifically. The kind by products I have seen using aluminium include: household item like aluminium railings and curtains and other things. I don't think I have seen anyone doing anything with aluminium in the crafts.

Q9. What is your opinion regarding the use of aluminium as a craft material?

It's a new material and I think it should be researched into. I think it's a good material to use provided we know the do's and don'ts of aluminium before you involve yourself in producing items.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

Personally I would love contemporary works, a combination of contemporary and cultural but sometimes I do move into purely traditional or traditional decorative elements where I feel strong support for this dying craft and if a people like us, if we don't go into this I think we are not supporting the

handicraft people especially in Malaysia. We are losing out on traditional Malay fabrics like 'songket' weaving, even hand painted batik, if we don't really go into it and help these people, the result would be the craft die. Personally in my own capacity, I would like to do a mix of both contemporary and cultural work.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

Depends on the kind of work I am producing. If it's purely a revival of traditional fabric then I would try and understand the traditional way of producing this fabric but I would delegate more of the technology process about the product because these fabrics are historical, you don't really know how people produce them by looking at historical material but you have to adjust here and there as how to produce this fabric.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

I would like to be a producer of craft, I would not say that I am a leader but I am learning as I am producing and I would give responsibility to others especially to my employees down line but they would understand my end product, the quality that we are trying to achieve, the themes we employ, so it's purely me and my team and we work together. For me alone I can't because I don't have the time to spare on my work. If I have a craft maker full time then it's would be different, I am doing more on a part time basis but my workers will be full time. So supervision by me will be a hundred percent but my production line will have to cater for my needs and to the market that I am bringing artefacts into.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I would say team based and individualistic.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

So far I have produced ladies apparel, art works, decorative items but basically the thing that goes well because I am only concentrating on a small production line, is ladies hand drawn apparel. I would say that is my niche. I would not venture into other things because I have enough problems working in this small area but I would like to be the best in this area so I have already attempted to streamline what I want to produce and this is true unless I have an offer or want to go for production of other things.

RESPONDENT CATEGORY: EDUCATOR

INTERVIEWEE : PROFESSOR DR. TAMYEZ BAJURI

SENIOR LECTURER

TEXTILE DEPT

FACULTY OF ART AND DESIGN

UNIVERSITI TEKNOLOGI MARA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where do you gain your experience?

I started my inclination towards the crafts, when I was still very young but my formal education in craft is mainly in industrial or product design. I think I must have been involved in seven years of education in Art & design from bachelors level until my PhD and I did that when I was in the U.K. So my experiences were mainly base on academic study, but nevertheless I also have been involved in advising about craft activities, promotion standards and everything in Malaysia. My actual education started in 1973 - 1975, my masters and PhD studies were from 1984-1988 at the Manchester Metropolitan University. The core area of the studies at that time was Industrial Design research.

Q2. When did you start your craft/design profession which you have established?

I don't actually have a company that is involved in making crafts but generally in Malaysia craft industries started about 30-40 years ago but began to be much more active about 20 years ago when the government pushed the area of craft to retain Malaysian identity and to promote this identity overseas

as ambassadors for the Malaysian culture. A lot of crafts have been introduced based on elements traditional in Malay design.

Q3. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

The nature of my specialization is within design. So in the crafts, this basically involves design in totality with the exception of the method of production, which is probably different because industrial products involve mass manufacturing processes. This is a good thing because crafts involve culture and elements of tradition so the method of production has to be done in manner to retain aesthetics of the design.

Q4. Are you involved in selling or commissioning craft? If yes, what range of artefacts and prices and where do you market them?

I am involved in promoting craft artefacts and one of the things that has been done through the promotion is having crafts displayed in almost all the trade centres overseas by MIDA especially in London, Paris, Germany, Australia or some parts of the Asian countries. The best Malaysian crafts are actually displayed so that the people in the trade centres have to promote them through exhibitions of local Malaysian crafts.

Q5. How many types of craft artefacts have you produced or designed since you became established?

I don't actually produce artefacts. Generally, when people talk about the crafts in Malaysia they mean 3D artefacts of crafts. These involve fabric because it is used in 3D e.g toys, bags, hats and now also weaving. Besides weaving in metal and some other materials, what is important in Malaysia is that crafts people experiment with all the natural resources, for example we can use plant leaves to make anything, also any other materials that are

available here such as rattan or bamboo. Wood is specially common and they even experiment with rubber wood which has begun to be very popular now.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

Most of the craft workshops in Malaysia were initially supported by the Ministry of Entrepreneur. There have been special grants where a loan is given as an initial incentive in terms of money to start a workshop etc. If the crafts people feel that they need to expand they need to apply again, and some craft makers are now doing very well from this support by the government's enterprise scheme. I think the government has even promoted different crafts and set up craft centres. However, they have assessed everything to make sure that only viable good crafts are extended for research and development.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

I think now mengkuang leaves, bamboo, rattan and wood are the main materials and of course brass. People in Sarawak, East Malaysia mainly use bamboo, rattan and mengkuang leaves and they transform them that into bags and some other souvenir items and I believe the quality has been of a high standard. I was involved in the assessment of some of the craft things designed in Sabah and Sarawak (East Malaysia) and I realized that they have moved into design rather than making crafts for craft sake. Their move into design involves elements of function and improving methods of production, so the quality is very good. This is something that we should be proud of.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

No, I don't think people actually talk about aluminium as a material for craft use because aluminium has always been associated with modern technology. Aluminium is not a traditional technology, it is not a traditional material, is a modern material. They use it for building, for some modern utensils and everything. If someone is interested to actually research into the use of aluminium as a craft material, I think it is very exciting, something very innovative and so far through my knowledge not a single company in the Malaysian Craft Centre is actually experimenting with the use of aluminium in this context.

Q9. What is your opinion regarding the use of aluminium as a craft material?

There is nothing wrong with this but people might be surprised if someone tries to experiment with aluminium because they believe that, the metal is just mainly for modern technology, even though I said that it could be a surprise because they are not used to it. I think that people will be very happy if aluminium could be used as a craft maybe some other modern materials should be considered for craft applications rather than just for technological products. So, I would support this if someone is really interested in trying to do research and development or in trying to find ways about how aluminium could be exploited to the maximum making it a breakthrough for the crafts.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft practice?

I think now, if we take as examples some of the work done by the Royal Selangor (Pewter company), most of the decorative item are still based on local motifs, local traditions. There are different types of traditions in Malaysia-the Malays, the Chinese and Indian cultures. It is difficult to merge all the three traditions into one, and one should also not forget the culture in the East of Malaysia like Kadazan but I think there have always been

elements based on local cultures and local cultures in Malaysia are very rich. These are derived from colours, fabric, motif anything that anyone could think of.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

Most of the techniques used are basic traditional techniques but it would be interesting if more modern techniques could be researched i.e the usage of aluminium in craft work because aluminium is a material which has its own constraint and limitations and the process of colouring has always been used in anodising. They can use different colours and some of the colours generated through aluminium are colours which are not available or which are not possible to be seen in other crafts, which is a new thing, someone could actually introduce new colours in aluminium and in that way enrich the aesthetic of the craft.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

In methods of production there are different methods of approach, one is "one-off", Under normal circumstances they would start with "one-off", where you just treat craft making like a fine art, whether you like it or not you just do it but after that you tend to change the thing so that you actually can sell that craft. If someone were to involve aluminium in craft production, one has to really know the limitation of the material, what can the material do, and how it can be associated with other materials.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I think in design what is important is an open management. This means that not only the designer but the people in marketing have to be involved as well. Sometimes you come up with a very good design but people in marketing might find it difficult to accept it. So you have to change the design based on the amount of money one has and craft is very unique in the sense that anyone could come out with ideas which is not necessarily the designer. However, at the end of the day it's always designers that make decisions for the best craft products. I think it's very important and not the decision made by people in the management or finance but it must be concluded by the designer.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

The best crafts that are generated, are designed holistically including people in management, people in the production and most importantly people in marketing. If aluminium is a new material use for the craft industry then someone should really promote it and money has to be spent to promote it as a craft and prove that it can actually introduce new design concepts, a new form of aesthetic in design because no one has done this in the past. I think that is the challenge for aluminium.

RESPONDENT CATEGORY: DESIGNER

INTERVIEWEE: YUSSOF AHMAD

GRAPHIC RESEARCH AND DEVELOPMENT

MALAYSIAN HANDICRAFT DEVELOPMENT

CORPORATION (MHDC)

KUALA LUMPUR, MALAYSIA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where do you gain your experience?

The crafts, with which I am involved, relate to the making of artefacts from dried flowers. I have attended a special course on dried flowers from MARDI where I learned a basic process of using natural flowers and then transform them to dried flowers.

Q2. When did you start your craft/design profession which you have established?

I started my carrier as a graphic designer with MHDC after my training in UiTM.

Q3. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

Although there is a difference in specialization at the moment, I still use some of the graphic elements in my current work.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

The nature of my craft making involve three types of activities: selling, commissioning and making. I produce varieties of design and turn them into product for sale. Most of the crafts are mainly for home deco using dried flowers. I use a frame and reflective mirror as part of the representation, to give an impact of 3 dimensional forms. The existing products designed by other craft makers use vases to display dried flowers, but in my case it is quite different.

Q5. How many types of craft artefacts have you produced or designed since you became established?

I have produced so many designs, of which I think 200-300 are large-scale frames of dried flower and also quite a number of smaller frames.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

Yes, I do have a workshop that I have set-up. At the moment, I am not receiving any financial aid from the government. All the investment I have made for these crafts have been acquired through my own finances.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

The main material used in this craft is a mostly dried flower and these are locally available. Besides this, I also incorporate dried flowers with shells, which are abundant at our local beach. I am not facing any difficulties of material supply for these crafts.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

When we talk about aluminium, I think it is very rare. Malaysian crafts are more traditional in nature, and in metalworking from a historic point of view, our craft practitioners, especially the Malay, have been using brass and silver in their craft production. Aluminium, I think is for the new generation and can be explored by other races. We associate crafts with Malay identity. My view is that when we talk of Malaysian crafts made from aluminium, these cannot be categorized as traditional Malay crafts.

Q9. What is your opinion regarding the use of aluminium as a craft material?

There are no limitations of materials in craft making. It depends on the creativity of the individuals to manipulate the use of aluminium as a craft based materials. If aluminium can be developed through a good product design, then it should be no problem.

Q10. In your production or designing, what types of decorative element do you use that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

I think my approach to craft work is more towards the contemporary. In these crafts the arrangement and composition of dried flowers is significant to the viewers as it will help to create certain moods when displayed. Here I blend it with the additional use of colours to the dried flowers by using an air brush to create light to present it like scenery when displayed in a frame.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

I used to relate nature in my craft pieces and this represents scenery. The arrangement of dried flowers is very crucial for each of my craft pieces. I try

to present it in a more aesthetical approach not just to show the beauty of dried flowers.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

In this craft making, I normally consider myself as an advisor, designer and craft maker. If we have a production line we have to distribute our task to the person that we trust. So I delegate my work to others down line. A good brief is very important to make sure that the end product meets the specification.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I work more on a team base. There are many stages, which are required before getting to an end product, so this needs many processes where production line people are involved.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

I usually design my work for local hotels and participate in local crafts exhibit ions. I was also given an opportunity to decorate props for one of the television stations. My latest involvement is with KLIA international airport, to decorate the interiors of the craft shops in the airport.

RESPONDENT CATEGORY: DESIGNER

INTERVIEWEE: FARIDAH SALEHAN
COORDINATOR BATIK CRAFT INCUBATOR
SCHEME
MALAYSIAN HANDICRAFT DEVELOPMENT
CORPORATION (MHDC)
RAWANG, SELANGOR, MALAYSIA

Q.1 As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

Before running this workshop, I had four years training in a textile department, which specialised in batik making at UiTM, Faculty of Art and Design. That was from 1976 to 1980.

Q2. When did you start your craft/design profession which you have established?

In 1981, I started my carrier as a designer with MHDC and I have attended many crafts workshops. After many years with MHDC, I was given responsibility to handle Kraf Holding.

Q3. What is the nature of your specialization? Is it different from what you have gained from your craft education or profession?

There is no change made in my specialization and I am still within the area of the craft profession, which I have attained from UiTM.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

The final products produced here involve selling and commissioning. We also do some technical demonstration on batik to the visitors especially hand painted. The prices of commissioning work depend on the nature of the design. We usually charge a very high price for complicated design, which is a “one-off” type of production. The price ranges from Ringgit 300-400 for this category. A very simple design comes to about Ringgit 160-280 per pair.

Q5. How many types of craft artefacts have you produced or designed since you became established?

I have produced many batik designs, which I think have accumulated to 400-500 designs. Each of the designs is introduced with a new approach, concept and variations.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

No, I don't have craft workshop. Most of the production is done within the training centre in Kraf Holding.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

In batik the industry the common materials used are cloth, wax, dye, fixer and reactive dyes. Fabric is sometimes imported from China.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen of any crafts produced using aluminium?

Crafts material from aluminium is very rare in Malaysia. I have seen aluminium products used in our modern type of design for example in household items like containers but not on traditional crafts.

Q9. What is your opinion regarding the use of aluminium as a craft material?

I think we should expand the use of any potential materials. In metalworking we shouldn't rely on brass and silver. This crafts need a lot of attention in maintaining their products for example their lustre. Aluminium I am still not sure....

Q10. In your production or designing, what types of decorative element support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craftworks?

Our daily activities here focus on batik painting. So decorative elements play a prime role here, where our approached is more toward a contemporary design of batik. We used floral and geometrical pattern in our design with vibrant colours from reactive dyes.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

Although there exist new inventions on batik painting by SIRIM, but we still prefer the traditional hand painted as a technique of production. It seems in line with our mission to train the younger generations with the traditional method.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

Besides designing, I was also responsible for managing the batik production of this subsidiary company of MHDC. Here training was given to the interested individuals in batik making and while in training they also help us in producing the crafts. With my guardian, I give them the opportunity to explore their skill base on my design specifications.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I believe in teamwork base type of organization. At present I welcome any comments from my staff and trainers because I believe this will help us to improve our management and the craft products that we are engaged with.

Q14. Which craft artefacts do you consider to be successful products from you or your team?

At the moment our company are highly recognized in undertaking special order type of batik making. We have received orders from BBMB and also from the Ministry department, as we know batik is an official costume in Malaysian government agency. So our recent order from the Prime Minister's department is our great achievement for our company.

RESPONDENT CATEGORY: DESIGNER

INTERVIEWEE: ABU BAKAR MUDA

METALWORK RESEARCH AND DEVELOPMENT

MALAYSIAN HANDICRAFT DEVELOPMENT

CORPORATION (MHDC)

KUALA LUMPUR.MALAYSIA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

After my exposure as a designer, I furthered my studies in UiTM, where my deep interest at that time was more in ceramic practice. My product design in ceramics basically derived from the input of current demands in this area, which are more emphasized on home decoration such as flower vases and smaller gift items. I can see at the moment that there are current interests among the Malaysian community in this area. Obviously with the breeding of creative graduates from UiTM, I have showed an efficient and productive skill in ceramic design. The course, which I have attended, took me four years where the knowledge I gained stretches from basic to practical aspects of design and the production of ceramics. My interest is more in glazing techniques. I think ceramics should go a more decorative look in terms of colour than that which is acceptable in local and global markets.

Q2. When did you start your craft/design profession which you have established?

I started my career with MHDC in 1981 as a designer and I was involved in metal work, wood, and ceramic design.

Q3. What is the nature of your specialization? Is it different from what you have gained from your craft education or profession?

In 1990 I upgrade my qualification and gained my BA Hons from UiTM which specialized in ceramics and it give me experience after my move to Karyaneka in designing, sales and marketing.

Q4. Are you involved in selling or commissioning craft artifacts? If yes, what range of artefacts and prices and where do you market them?

Currently, besides designing, I am also involved in sales and marketing, after my transfer from MHDC to Karyaneka. We have six Karyaneka showroom outlets which display varieties of Malaysian crafts. This crafts originate from different parts of the states in the country. The product available here range from batik, songket (brocaded cloth), wood, weaving, metalwork etc. And some of these crafts utilized materials that are available in the country for example weaving involves the use of pandanus leaves. Lampshades, flower vases are some examples of the ceramic products displayed on the shelves.

Q5. How many types of craft artefact have you produced or design since you became established?

I think there are many designs that I have produced since my establishment as a designer. I have been designing for twenty years in this area. Roughly my estimation is about one thousand designs which are mostly home deco products.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

No, I don't have any workshop or make any ceramic products. The nature of my work now is more on designing. Production of my design items relies on

the craft makers in ceramic which we have identified from their experience and the quality of work they have produced. We also trace their activities through MHDC from where they sometimes get a support. We also give an opportunity to the younger generation in this field to encourage them as well as supporting them to maintain their business.

Q7. What are the main materials used in your craft artifacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

Most of the ceramic materials are available locally for example; white clay but for ceramic use in slip casting we imported clay from overseas. In Malaysia there are quite a number of places that have been identified where this natural clay can be found, for example in the northern part like Perak and Kedah, and in the southern part, Johor.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

.Although I have practised as a designer for twenty years I have never come across a craft product made from aluminium. I think in Malaysia the crafts people are used to in metal are made from copper, silver, bronze and brass. Aluminium is not in the list.

Q9. What is your opinion regarding the use of aluminium as a craft material?

As a designer I am very optimistic about the future use of any materials. In metalwork I think we can't rely on silver, brass etc. for the making of craft products but we must explore new materials, possibly aluminium as I can see it has its own characteristics. Furthermore, we have seen aluminium being

used in cooking utensils and it is quite cheap too compared to stainless steel for example spoons and forks from aluminium.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

I still maintain traditional elements in my design with a greater percentage of floral motifs such as *kerawang*, *pucuk rebung* from nature. Sometimes I also combine geometrical motif found in Islamic design and ethnic motif from the eastern part of Malaysia especially from Iban and Bidayuh culture.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

We must look at contemporary and traditional motifs as an important style in our craft design. We must maintain traditional elements to preserve our identity such as the use of nature and the elements of the Malay culture. It will diminish if we as designers don't preserve this. We should also considered contemporary aspects in order to attract the global market because in the current trend of crafts design, both elements need to be blended.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

In my nature of work, I always concentrate on designing and trying to understand what people need in the market. After final approval from the management and marketing side then the production people will handle the finished product according to my specifications. Also my role here is to see that the craft products which I have designed are of the right quality before it can be an acceptable to the market.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I am confident working as a team because in dealing with crafts or any other aspect of product design, we must have an input from the both internal team members and external groups to receive feedback and comments.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

There are varieties of craft products in our showroom and sale analysis showed that batik still leads as a marketable product either from local or global audiences. I think batik has successfully appealed to the taste of customers by its traditional and contemporary approach. In ceramics the trend now seems to exploit batik for home décor.

RESPONDENT CATEGORY: CRAFT MAKER

INTERVIEWEE: WAN MAHADI WAN ISMAIL
WANISMA CRAFT AND TRADING
KG.LADANG SEKOLAH
KUALA TERENGGANU. MALAYSIA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

My experience in brassware craft originates from my father and since my school days. After completing my secondary school education, I attended a high tech course on metal casting

Q2. When did you start your craft/design profession which you have established?

In 1990, after my training in UiTM in metalwork and jewellery design, I started my career until today as a brassware maker.

Q3. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

My nature of specialization is only in brass making using traditional method of lost wax casting.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

According to the history of our family business, ours is the fifth generation after it was first introduced from the Funan community. So the craft artefacts that we have produced seem to be involved in direct selling, a supplier and

manufacturer. As we have been established for a number of years and have a contact with MHDC, some of our products are distributed locally and to other parts of the Malaysian states. We also have our own showroom where people, especially tourists can directly purchase craft souvenirs.

Q5. How many types of craft artefacts have you produced or designed since you became established?

I have maintained traditional design for the products as people still appreciate these designs and its quite a number of designs that I have produced since I started my craft business. The craft products range from gifts and souvenirs, household items and special orders from customers.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your crafts work.

The current workshop that I am using now was first initiated from my father's ancestors. This workshop covers part of our housing property where we work and live. So far I have not received any financial support from any government agency.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

Brass is the main material used for my craft production. Since my father started this craft, we usually get a supply from the craft society. Quite recently, the brass craft makers are facing a difficulty in the price fluctuation of the material, which has resulted in the closure of a number of this business. From 150 craft makers, only 10 have survived due this sudden change. I am afraid this craft might diminish in the future if the government cannot tackle this problem.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

Currently, I have seen aluminium in the making of gates for example the Royal Sultan Palace. I think they used a sand casting technique for this kind of production.

Q9. What is your opinion regarding the use of aluminium as a craft material?

I think in our daily use of household items, aluminium is one of the main materials these are being made from, and I don't see it is impossible to be used as a craft material.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

In our production we still used the old moulds, so there are less floral elements in this craft but the traditional look is still maintained through the overall shape of the craft products.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

As we are doing lost wax casting type of productions it's difficult to get a sharp floral design on the surface but we still maintain the quality.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

I am heading this craft business since my father's sudden departure. I was responsible for sales and marketing, production and the financial management of the company.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

As this is a family business I work as a team with my family and the crafts people

Q14. Which craft artefacts do you considered to be successful products from you or your team?

I considered all the craft products that we have produced to be successful artefacts as it relates our history in the traditional crafts of brass making.

RESPONDENT CATEGORY: CRAFT MAKER

INTERVIEWEE: KAMARUZAMAN

SEMASA BATIK

KOTA BHARU, KELANTAN

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

I have attended several craft courses organized by MHDC but sometimes I send my designer. I gain experience from my family.

Q2. When did you start your craft/design profession which you have established?

My batik crafts is a family business which we were started in the year 1911. Most of the employees here come from our own family tree.

Q3. What is the nature of your specialization? Is it different from what you have gained from your craft education or profession?

We only specialized in batik making and this have been 10 years of our existence.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

We are the producer of batik . We do our own sales and marketing. We also consider ourselves as a supplier to the local people in this state. The prices range varies from different items for example hand painted batik (batik ukir) we sell it in pairs which cost Ringgit 150.00 and batik sarong for Ringgit 10.00

Q5. How many types of craft artefacts have you produced or designed since you became established?

There are too many designs to mention but we are always aware of the trends that people need in this industry.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

We do have our own workshop and we didn't acquire any financial help from the government.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

In batik making of course we need cloth as a base materials like silk and cotton, dyes, wax and chemicals. Some of the materials are from local suppliers and sometimes imported from overseas.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

This is the first time I have heard about the use of aluminium.

Q9. What is your opinion regarding the use of aluminium as a craft material?

I think this has to be researched. Currently we have existing crafts from silver, brass and pewter. If aluminium can be used as a craft material then there is an opportunity to combine this with metal crafts and I think this is something new.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

In peoples' life styles they look for something beautiful and in the batik crafts we deal with the design of cloth to make apparel. The history of decorative application shows that flora elements are still the most motif used in batik. But today there have some changes in design trends of batik where creative designers have combined floral with geometric patterns, which create a contemporary approach. So we have to follow this style by combining the traditional with the contemporary so that this can be acceptable to the local and global markets.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

We produce traditionally hand painted batik and silk screening process.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

I am responsible for the management of this company. As this is a family business, we spread our tasks evenly and this has been our practice since we started our business.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

We work as a team in a family because this can help to improve our management.

Q14. Which craft artefacts do you consider to be successful products from you or your team

Batik is related to textiles and if we concentrate only on gift items we cannot make much profit. So we go for fashion apparel that can give us a better profit margin. So our success is more in batik fashion.

INTERVIEWEE: HJ.ABU BAKAR

BAKARIM KREATIF

JALAN SUSUR, OFF JALAN PETOLA,

PORT GARDEN, PORT KLANG,

SELANGOR. MALAYSIA

Q1. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

I had my training in ITM from 1973 to 1977. It's a four-year course, one year on basic design and three years specialized in metal work and jewellery design. After completing my studies, I worked with Mariwasa a company that supply medals for government award. At the same time, I also work part time as a jeweller at Fariz Gem in Kuala Lumpur.

Q2. When did you start your craft/design profession which you have established?

I started this craft business in 1979 and this is almost twenty - two years ago.

Q3. What is the nature of your specialization? Is it different from what you have gained from your craft education or profession?

As the knowledge I gained from my training was in metal work and jewellery design, I think I am still in the same profession except my specialization is currently more on souvenirs and gifts item.

Q4. Are you involved in selling or commissioning craft artefacts? If yes, what range of artefacts and prices and where do you market them?

My main craft business at the moment concentrates on the making of gifts and souvenirs item. All of these products are special orders from government agencies, the private sector and individuals. Some of the examples are the design and making of miniatures of the Malay dagger, Malaysian kite, etc.

Q5. How many types of craft artefacts have you produced or designed since you became established?

I couldn't mention the number of designs which I have produced since I started my craft business. The nature of my craft business is mainly dependant on customer orders. Every customer has their own concept or need for the souvenirs and they have their own budget for certain orders. But there are some cases where they need my opinion for the cost of the souvenirs to be given which includes design and production.

Q6. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

To set this workshop, I received a loan from MARA, a local bank and government agency where the total cost is estimated Ringgit 82,000 that included machinery and materials. At the moment, the size of the workshop (22'x80') in which I am working is a little bit congested due to the addition of new equipment and I have a plan to expand it.

Q7. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

In this craft our main materials are copper, brass, acrylic and resin. So far I have no difficulties in getting those supplies because I don't depend on one supplier.

Q8. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

I have seen some of the crafts made from aluminium but this is not in abundance as compared to crafts from copper, silver, pewter and brass. It's in the form of Islamic calligraphy on plain aluminium.

Q9. What is your opinion regarding the use of aluminium as a craft material?

If we use aluminium alone as a craft without decoration on it, I think it's not interesting. My point of view is that aluminium is very light and easy scratch and it must have a protective coat to avoid this. I have experienced using aluminium in one of the project that combined with resin. The advantage of aluminium is that it is better than copper because it releases heat very fast. The end products of the casting process, a success with aluminium compared to copper, the resin tend to crack. In terms of piercing, aluminium a little harder to cut because of its softness but it's good in polishing.

Q10. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

Floral motifs are mainly used in my crafts and there are no objections from my customers. Of course there are geometrical motifs to blend with it. Company logos are sometimes part of the motifs but overall the application of motifs depends greatly on my customers need.

Q11. What techniques do you use to apply those elements or themes to your craft artefacts?

My crafts work has a mixture of contemporary and traditional approaches. The use of traditional elements represents most of the styles in my crafts and to create a contemporary look, I have to combine them with other materials such as resin casting.

Q12. What is your role in craft production? Do you give responsibility to others to handle this stage?

As the crafts deal with metals, I used etching and silk screening for the decorative process. Other than that piercing is often used to create a positive and negative image on metal. I have no hesitation to transfer this knowledge to my craft maker as they are an important asset to the company.

Q13. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

I work as individual but of course sometimes I have to delegate my job when I am busy but I must ensure that I have given them a project brief before hand.

Q14. Which craft artefacts do you considered to be successful products from you or your team?

I have done many craft projects with the government, the private sector and individuals. I feel proud of one particular government project with TNB, which I feel was a success for the company due to the way we manage to deliver the goods before the dateline and receive an appreciation for the quality of crafts that we have produced.

META-MATRICE ANALYSIS FORM

APPENDIX 4

QUESTION:1

FACTOR: PURPOSE

RESPONDENT CATEGORY:CRAFT MAKER

1. Q. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

RESPONDENT 1:BAKARIM

I had my training in ITM from 1973 to 1977. Its a four year course, one year on basic design and three years specialized in metal work and jewellery design. After completing my studies, I worked with Mariwasa a company that supply medals for government awards. At the same time, I also work part time as a jeweller at Fariz Gem in Kuala Lumpur.

- training in ITM from 1973 to 1977

- specialized in metal work and jewellery design

RESPONDENT 2:KAMARUZAMAN

I have attended several craft courses organized by MHDC but sometimes I send my designer. I gain experience from my family.

- several craft courses organized by MHDC

RESPONDENT 3:WAN MAHADI

My experience in brassware craft originates from my father and since my school days. After completing my secondary school education, I attended a high tech course on metal casting

- brassware craft originates from my father
- high tech course on metal casting

META-MATRICE ANALYSIS FORM

QUESTION:2

FACTORS: PURPOSE

RESPONDENT CATEGORY: CRAFT MAKER

2. Q. When did you start your craft/design profession which you have established?

RESPONDENT 1: BAKARIM

I started this craft business in 1979 and this is almost twenty two years ago.

- craft business in 1979
- twenty two years

RESPONDENT 2: KAMARUZAMAN

My batik crafts is a family business which we were started in the year 1911 Most of the employees here come from our own family tree.

- family business
- started in the year 1911

RESPONDENT 3: WAN MAHADI

In 1990,after my training in UiTM in metalwork and jewellery design, I started my career until today as a brassware maker.

- 1990,after my training in UiTM

META-MATRICE ANALYSIS FORM

QUESTION:3

FACTORS: PURPOSE

RESPONDENT CATEGORY: CRAFT MAKER

3. Q. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

RESPONDENT 1: BAKARIM

As the knowledge I gained from my training was in metal work and jewellery design, I think I am still in the same profession except my specialization is currently more on souvenirs and gifts item.

- the same profession

RESPONDENT 2: KAMARUZAMAN

We only specialized in batik making and this have been 10 years of our existence.

- specialized in batik making

RESPONDENT 3: WAN MAHADI

My nature of specialization is only in brass making using traditional method of lost wax casting.

- specialization is only in brass

META-MATRICE ANALYSIS FORM

QUESTION:4

FACTORS: PURPOSE

RESPONDENT CATEGORY: CRAFT MAKER

4. Q. Are you involved in selling or commissioning craft artifacts? If yes, what range of artifacts and prices and where do you market them?

RESPONDENT 1: BAKARIM

My main craft business at the moment concentrates on the making of gifts and souvenirs item. All of these products are special orders from government agencies, the private sector and individuals. Some of the examples are the design and making of miniatures of the Malay dagger, Malaysian kite, etc.

- the making of gifts and souvenirs item
- special orders from government agencies

RESPONDENT 2: KAMARUZAMAN

We are the producer of batik . We do our own sales and marketing. We also consider ourselves as a supplier to the local people in this state. The prices range varies from different items for example hand painted batik (batik ukir) we sell it in pairs which cost Ringgit 150.00 and batik sarong for Ringgit 10.00

- own sales and marketing
- a supplier to the local people

RESPONDENT 3: WAN MAHADI

According to the history of our family business, ours is the fifth generation after it was first introduced from the Funan community. So the craft artifacts that we have produced seem to be involved in direct selling, a supplier and manufacturer. As we have been established for a number of years and have a contact with MHDC, some of our products are distributed locally and to other parts of the Malaysian states. We also have our own showroom where people, especially tourists can directly purchase craft souvenirs.

- involved in direct selling, a supplier and manufacturer
- distributed locally and to other parts of the Malaysian states.

META-MATRICE ANALYSIS FORM

QUESTION:5

FACTORS: PURPOSE

RESPONDENT CATEGORY: CRAFT MAKER

5. Q. How many types of craft artifacts have you produced or designed since you became established?

RESPONDENT 1: BAKARIM

I couldn't mention the number of designs which I have produced since I started my craft business. The nature of my craft business is mainly dependant on customers orders. Every customer has their own concept or need for the souvenirs and they have their own budget for certain orders. But there are some cases where they need my opinion for the cost of the souvenirs to be given which includes design and production.

- dependant on customers orders

- Every customer has their own concept or need

RESPONDENT 2: KAMARUZAMAN

There are too many designs to mention but we are always aware of the trends that people need in this industry.

- are too many designs

RESPONDENT 3: WAN MAHADI

I have maintained traditional designs for the products as people still appreciate these design and its quite a number of designs that I have produced since I started my craft business. The craft products range from gifts and souvenirs , household items and special orders from customers.

- maintained traditional designs for the products

- gifts and souvenirs , household items and special orders from customers

META-MATRICE ANALYSIS FORM

QUESTION:6

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

6. Q. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

RESPONDENT 1: BAKARIM

To set this workshop, I received a loan from MARA, a local bank and government agency where the total cost is estimated at Ringgit 82,000 that includes machinery and materials. At the moment, the size of the workshop (22'x80') in which I am working is a little bit congested due to the additional of new equipment and I have a plan to expand it.

- received a loan from MARA, a local bank and government agency

RESPONDENT 2: KAMARUZAMAN

We do have our own workshop and we didn't acquire any financial help from the government.

- have our own workshop

RESPONDENT 3: WAN MAHADI

The current workshop that I am using now was first initiated from my father's ancestors. This workshop covers part of our housing property where we work and live. So far I have not received any financial support from any government agency

- current workshop
- first initiated from my father's

META-MATRICE ANALYSIS FORM

QUESTION:7

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

7. Q. What are the main materials used in your craft artifacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

RESPONDENT 1: BAKARIM

In this craft our main materials are copper, brass, acrylic and resin. So far I have no difficulties in getting those supplies because I don't depend on one supplier.

RESPONDENT 2: KAMARUZAMAN

In batik making of course we need cloth as a base materials like silk and cotton, dyes, wax and chemicals. Some of the materials are from local suppliers and sometimes imported from overseas.

RESPONDENT 3: WAN MAHADI

Brass is my main material used for my craft production. Since my father started this craft, we usually get a supply from the craft society. Quite recently, the brass craft makers are facing a difficulty in the price fluctuation of the material which has resulted in the closure of a number of businesses. From 150 craft makers, only 10 have survived due to this sudden change. I am afraid this craft might diminish in the future if the government cannot tackle this problem.

- no difficulties in getting those supplies

- local suppliers and sometimes imported from overseas.

- we usually get a supply from the craft society
- facing a difficulty in the price fluctuation of the material

META-MATRICE ANALYSIS FORM

QUESTION: 8

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

8. Q. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminium?

RESPONDENT 1: BAKARIM

I have seen some of the crafts made from aluminium but this is not in abundance as compared to crafts from copper, silver, pewter and brass. It's in the form of islamic calligraphy on plain aluminium.

- have seen some of the crafts made from aluminium but this is not in abundance

RESPONDENT 2: KAMARUZAMAN

This is the first time I have heard about the use of aluminium.

- first time I have heard

RESPONDENT 3: WAN MAHADI

Currently, I have seen aluminium in the making of gates for example the Royal Sultan Palace. I think they used a sand casting technique for this kind of production.

- seen aluminium in the making of gates

META-MATRICE ANALYSIS FORM

QUESTION:9

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

9. Q. What is your opinion regarding the use of aluminium as a craft material?

RESPONDENT 1: BAKARIM

If we use aluminium alone as a craft without decoration on it, I think it's not interesting. My point of view is that aluminium is very light and scratchable and it must have a protective coat to avoid this. I have experienced using aluminium in one of the projects that combine with resin. The advantage of aluminium is that it is better than copper because it releases heat very fast. The end products of the casting process resulted a success using aluminium comparable to the use of copper, the resin tend to crack. In term of piercing, aluminium is a little harder to cut because of its softness but it's good in polishing.

- aluminium alone as a craft without decoration on it, I think it's not interesting
- experienced using aluminium better than copper because it releases heat

RESPONDENT 2: KAMARUZAMAN

I think this has to be researched. Currently we have existing crafts from silver, brass and pewter. If aluminium can be used as a craft material then there is an opportunity to combine this with metal crafts and I think this is something new.

- has to be researched
- an opportunity to combine this with metal crafts

RESPONDENT 3: WAN MAHADI

I think in our daily use of household items, aluminium is one of the main materials being these are being made from and I don't see it is impossible to be used as a craft material.

- daily use of household items, aluminium is one of the main materials

META-MATRICE ANALYSIS FORM

QUESTION:10

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

10.Q. In your production or designing, what type of decorative elements that support the esthetical value of your craft? Do you use cultural or contemporary motifs in your present craft?

RESPONDENT 1: BAKARIM

Floral motifs are mainly used in my crafts and there are no objections from my customers. Of course there are geometrical motifs to blend with it. Company logos are sometimes part of the motifs but overall the application of motifs depends greatly on my customers needs.

- Floral motifs are mainly used in my crafts
- overall the application of motifs depends greatly on my customers needs

RESPONDENT 2: KAMARUZAMAN

In peoples' life styles they look for something beautiful and in batik crafts we deal with designing of cloth to make apparel. The history of decorative application shows that flora elements are still the most motif used in batik. But today there have been some changes in design trends of batik where creative designers have combined floral with geometric patterns, which create a contemporary approach. So we have to follow this style by combining the traditional with the contemporary so that this can be acceptable to the local and global markets.

- flora elements are still the most motif used in batik
- combining the traditional with the contemporary

RESPONDENT 3: WAN MAHADI

In our production we still used old moulds, so there are less floral elements in this craft but the traditional look is still maintained through the overall shape of the craft products.

- used old moulds
- the traditional look is still maintained

META-MATRICE ANALYSIS FORM

QUESTION:11

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: CRAFT MAKER

11. Q. What techniques do you use to apply those elements or themes to your craft artifacts?

RESPONDENT 1: BAKARIM

My craft work has a mixture of contemporary and traditional approaches. The use of traditional elements represents most of the styles in my crafts and to create a contemporary look, I have to combine them with other materials such as resin casting.

- mixture of contemporary and traditional approaches
- traditional elements create a contemporary look

RESPONDENT 2: KAMARUZAMAN

We produce traditionally hand painted batik and silk screening processes.

- produce traditionally hand painted batik

RESPONDENT 3: WAN MAHADI

As we are doing lost wax casting type of productions it's difficult to get a sharp floral design on the surface but we still maintain the quality.

- lost wax casting type of productions

META-MATRICE ANALYSIS FORM

QUESTION:12

FACTORS: COMPANY'S CULTURE

RESPONDENT CATEGORY: CRAFT MAKER

12. Q. What is your role in craft production? Do you give responsibility to others to handle this stage?

RESPONDENT 1: BAKARIM

As the crafts deal with metals, I used etching and silk screening for the decorative process. Other than that piercing is often used to create a positive and negative image on metal. I have no hesitation to transfer this knowledge to my workers as they are an important asset to the company.

- transfer this knowledge to my workers

RESPONDENT 2: KAMARUZAMAN

I am responsible for the management of this company. As this is a family business, we spread our tasks evenly and this has been our practice since we started our business.

- responsible for the management
- spread our tasks evenly

RESPONDENT 3: WAN MAHADI

I am heading this craft business since my father's sudden departure. I was responsible for sales and marketing, production and the financial management of the company.

- responsible for sales and marketing, production and the financial management

META-MATRICE ANALYSIS FORM

QUESTION:13

FACTORS: PEOPLE

RESPONDENT CATEGORY: CRAFT MAKER

13.Q. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

RESPONDENT 1: BAKARIM

I work as individual but of course sometimes I have to delegate my job when I am busy but I must ensure that I have given them a project brief before hand.

- work as individual
- delegate my job when I am busy

RESPONDENT 2: KAMARUZAMAN

We work as a team in a family because this can help to improve our management.

- work as a team in a family

RESPONDENT 3: WAN MAHADI

As this is a family business I work as a team with my family and the crafts people

- I work as a team with my family

META-MATRICE ANALYSIS FORM

QUESTION:14

FACTORS: PEOPLE

RESPONDENT CATEGORY: CRAFT MAKER

14. Q. Which craft artifacts do you consider to be successful products from you or your team?

RESPONDENT 1:BAKARIM

I have done many craft projects with the government, the private sector and individuals. I feel proud of with one of the government project with TNB which I feel was a success for the company due to the way we managed to deliver the goods before the dateline and received an appreciation for the quality of crafts that we have produced.

- done many craft projects with the government, the private sector and individuals

RESPONDENT 2: KAMARUZAMAN

Batik is related to textiles and if we concentrate only on gift items we cannot make much profit. So we go for fashion apparel that can give us a better profit margin. So our success is more in batik fashion.

- success is more in batik fashion.

RESPONDENT 3: WAN MAHADI

I considered all the craft products that we have produced to be successful artifacts as it relates our history in the traditional crafts of brass making.

- all the craft products
- relates our history in the traditional crafts of brass making.

META-MATRICE ANALYSIS FORM

QUESTION:1

FACTORS: PURPOSE

RESPONDENT CATEGORY: EDUCATORS

Q. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where do you gain your experience?

RESPONDENT-ZAHARI

RESPONDENT 2:ZAHARAH

RESPONDENT 3:TAMYEZ

I studied Jewellery Design & Manufacturing in the University Of Ulster back in 1970 and the course took 3 years.

I started off as a textile designer after getting my diploma at Mara Institute of Technology and then I pursued my degree and later on my masters in the United Kingdom at Central School of Art, I majored and specialized in printed textiles on hand painted fabrics using discharge and dispersed dye on silk. Then I moved on to batik which I found to be an avenue that has not been tapped when I was a student in the textile department the Central School.I know that this was going to be a new area and that it was what I was going to teach when I got back to Malaysia. I have also attended a few short courses on batik and crafts organised by the Ministry of Trade and Tourism.

I started my inclination towards the crafts, when I was still very young but my formal education in craft is mainly in industrial or product design. I think I must have been involved in seven years of education in Art & design from bachelors level until my PhD and I did that when I was in the U.K. So my experiences were mainly base on academic study, but nevertheless I also have been involved in advising about craft activities, promotion standards and everything in Malaysia. My actual education started in 1973 - 1975, my masters and PhD studies were from 1984-1988 at the Manchester Metropolitan University. The core area of the studies at that time was Industrial Design research.

studied Jewellery Design course took 3 years

textile designer

majored and specialized in printed textiles

industrial or product design

involved in advising about craft activities, promotion standards

META-MATRICE ANALYSIS FORM

QUESTION: 2

FACTORS: PURPOSE

RESPONDENT CATEGORY: EDUCATORS

Q. When did you start your craft/design profession which you have established?

RESPONDENT 1:ZAHARI

I started teaching crafts in 1974 just after my graduation and I've been teaching ever since at the School of Art & Design, the only school of Art in Malaysia.

teaching crafts in 1974

RESPONDENT 2:ZAHARAH

I started teaching in February 1976 and I am now teaching resist textile techniques.

teaching in February 1976

RESPONDENT 3:TAMYEZ

I don't actually have a company that is involved in making crafts but generally in Malaysia craft industries started about 30-40 years ago but began to be much more active about 20 years ago when the government pushed the area of craft to retain Malaysian identity and to promote this identity overseas as ambassadors for the Malaysian culture. A lot of crafts have been introduced based on elements traditional in Malay design.

don't actually have a company

META-MATRICE ANALYSIS FORM

QUESTION: 3

FACTORS: PURPOSE

RESPONDENT CATEGORY: EDUCATORS

Q. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

RESPONDENT 1:ZAHARI

Whatever I've learned seems to be very relevant and is not much different except that some of the techniques in school were a little bit less practical, so the years of experience and the observation has more or less updated the techniques, which I originally learned.

relevant and is not much different experience and the observation, updated the techniques

RESPONDENT 2:ZAHARAH

Not so much different because I started off with a printed textile but doing hand painting is more similar to what I am doing now because I am focusing more on hand painted fabrics i.e batik but combining resist technique with other forms of resist technique with batik to produce a slightly higher level of batik fabric for high end crafts.

printed textile but doing hand painting is more similar to what I am doing

RESPONDENT 3:TAMYEZ

The nature of my specialization is within design. So in the crafts, this basically involves design in totality with the exception of the method of production, which is probably different because industrial products involve mass manufacturing processes. This is a good thing because crafts involve culture and elements of tradition so the method of production has to be done in manner to retain aesthetics of the design.

my specialization is within design.

META-MATRICE ANALYSIS FORM

QUESTION: 4

FACTORS: PURPOSE

RESPONDENT CATEGORY: EDUCATORS

Q. Are you involved in selling or commissioning craft artefacts? If yes, what range of artifacts and prices and where do you market them?

RESPONDENT 1:ZAHARI

The prices of the products that we develop and produce, with the idea of sales, range from a few of dollars to thousands of dollars, some products which are for mass production we sell at a very low price, those which are "one-off" we can price as we like, depending on the hours we spend and what the design involves.

RESPONDENT 2:ZAHARAH

I do, I teach textile in the university but I have my own workshop, I also sell crafts on my own as a designer. I still produce textile design or batik design for fabric especially on silk, on different kinds of silk and the prices vary from item to item so I think it is rather vague to put prices in here and I always treat them as a "one-off" design because we really take time and effort to deal with each project separately. I have done commissions for a lot of people. Most ask for really exclusive work for themselves e.g for their own clothing or for corporate gifts to be given as a present for a diplomat or even friends abroad. Other work includes contemporary batik work art pieces or art forms for the National Bank.

mass production we sell at a very low price, those which are "one-off" we can price as we like

I also sell crafts on my own as a designer treat them as a "one-off" design done commissions for a lot of people

RESPONDENT 3:TAMYEZ

I am involved in promoting craft artifacts and one of the things that has been done through the promotion is having crafts displayed in almost all the trade centers overseas by MIDA especially in London, Paris, Germany, Australia or some parts of the Asian countries. The best Malaysian crafts are actually displayed so that the people in the trade centers have to promote them through exhibitions of local Malaysian crafts.

promoting craft artifacts

META-MATRICE ANALYSIS FORM

QUESTION: 5

FACTORS: PURPOSE

RESPONDENT CATEGORY: EDUCATORS

Q. How many types of craft artifacts have you produced or design since you became established?

RESPONDENT 1:ZAHARI

About thirty pieces for the public, both big and small pieces.

RESPONDENT 2:ZAHARAH

If it is in the university, we teach all kinds of product design ranging from fabric to scarfs, pants, even wall hangings and also I think on visual paper work. Other than that on my own I produce art forms or painting or even wall hangings or a combination of fibre and batik art works.

RESPONDENT 3:TAMYEZ

I don't actually produce artifacts Generally, when people talk about the crafts in Malaysia they mean 3D artefacts of crafts. These involve fabric because fabric it is used in 3D e.g toys, bags, hats and now also weaving. Besides weaving in metal and some other materials, what is important in Malaysia is that crafts people experiment with all the natural resources, for example we can use plant leaves to make anything, also any other materials that are available here such as rattan or bamboo. Wood specially common and they even experiment with rubber wood which has begun to be very popular now.

big and small pieces.

scarfs, pants, even wall hangings

don't actually produce artifacts

crafts people experiment with all the natural resources

META-MATRICE ANALYSIS FORM

QUESTION: 6

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

RESPONDENT 1: ZAHARI

Yes, I do have a very small make-shift craft workshop for which I do not get any financial support and all the materials I acquire through my personal finances.

RESPONDENT 2: ZAHARAH

Yes, I do and it's fully funded by myself.

RESPONDENT 3: TAMYEZ

Most of the craft workshops in Malaysia were initially supported by the Ministry of Entrepreneur. There have been special grants where a Iqan is given as an initial incentive in terms of money to start a workshop etc. If the crafts people feel that they need to expand they need to apply again, and some craft makers are now doing very well from this support by the governments enterprise scheme. I think the government has even promoted different crafts and set up craft centers. However, they have assessed everything to make sure that only viable good crafts are extended for research and development.

small make-shift craft workshop
personal finances

fully funded by myself

initially supported by the Ministry of Entrepreneur

META-MATRICE ANALYSIS FORM

QUESTION: 7

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

RESPONDENT 1:ZAHARI

Well, being a craftsman in metalwork, I don't limit myself to a particular material, I have used various materials from metals to wood to composites and most of the raw materials can be obtained locally.

RESPONDENT 2:ZAHARAH

In my craft workshop these would be based as batik and my main materials would be wax, white cloth, silk and cotton, and reactive dyes. So I do have problems sometime in getting white fabric because I am normally short of supplies.

RESPONDENT 3:TAMYEZ

I think now mengkuang leaves, bamboo, rattan and wood are the main materials and of course brass. People in Sarawak, East Malaysia mainly use bamboo, rattan and mengkuang leaves and they transform them that into bags and some other souvenir items and I believe the quality has been of a high standard. I was involved in the assessment of some of the craft things designed in Sabah and Sarawak (East Malaysia) and I realized that they have moved into design rather than making crafts for craft sake. Their move into design involves elements of function and improving methods of production, so the quality is very good. This is something that we should be proud of.

don't limit myself to a particular material
raw materials can be obtained locally

batik and my main materials
problems sometime in getting white fabric

mengkuang leaves, bamboo, rattan and wood are the main materials and of course brass

META-MATRICE ANALYSIS FORM

QUESTION: 8

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen any crafts produced using aluminum?

RESPONDENT 1: ZAHARI

Currently, I have seen the usage of aluminium in household and architectural products but not in craft production.

RESPONDENT 2: ZAHARAH

I do not know about aluminum and its use in the crafts specifically. The kind of products I have seen using aluminium include : household item like aluminium railings and curtains and other things. I don't think I have seen anyone doing anything with aluminum in the crafts.

RESPONDENT 3: TAMYEZ

No, I don't think people actually talk about aluminum as a material for craft use because aluminum has always been associated with modern technology. Aluminum is not a traditional technology, it is not a traditional material, is a modern material. They use it for building, for some modern utensils and everything. If someone is interested in actually researching the use of aluminum as a craft material, I think it is very exciting, something very innovative and so far through my knowledge not a single company in the Malaysian Craft Centre is actually experimenting with the use of aluminum in this context.

aluminium in household and architectural products but not in craft production.

I do not know about aluminum

seen using aluminium include : household item like aluminium railings and curtains

aluminum has always been associated with modern technology building, for some modern utensils through my knowledge not a single company in the Malaysian Craft Centre is actually experimenting with the use of aluminum in this context.

META-MATRICE ANALYSIS FORM

QUESTION: 9

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. What is your opinion regarding the use of aluminum as a craft material?

RESPONDENT 1:ZAHARI

It depends on the articles that you want to produce. If you are talking about mass production you may not call it craft, but if talking about "one-off" there is no reason for not using aluminium but the handling process of the material will be rather difficult especially, when it comes to soldering and welding all sorts of things, otherwise there is no limitation.

RESPONDENT 2:ZAHARAH

It's a new material and I think it should be researched into. I think it's a good material to use provided we know the do's and don'ts of aluminium before you involve yourself in producing items.

RESPONDENT 3:TAMYEZ

There is nothing wrong with this but people might be surprised if someone tries to experiment with aluminium because they believe that, the metal is just mainly for modern technology, even though I said that it could be a surprise because they are not used to it. I think that people will be very happy if aluminium could be used as a craft maybe some other modern materials should be considered for craft applications rather than just for technological products. So, I would support this if someone is really interested in trying to do research and development or in trying to find ways about how aluminium could be exploited to the maximum making it a breakthrough for the crafts.

mass production you may not call it craft, the handling process of the material will be rather difficult

I think it should be researched into

they believe that, the metal is just mainly for modern technology

aluminium could be exploited to the maximum making it a breakthrough for the crafts.

META-MATRICE ANALYSIS FORM

QUESTION: 10

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. In your production or designing, what type of decorative elements that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craft practice?

RESPONDENT 1: ZAHARI

We do think of all cultural aspects but as a designer I do not see that a motif should reflect whether it is cultural or contemporary. So, in order not to lose our originality we use some elements of cultural motif and transfer them into contemporary practice whether it is suitable for the location or not.

do think of all cultural aspects use some elements of cultural motif and transfer them into contemporary practice

RESPONDENT 2: ZAHARAH

Personally I would love contemporary works, a combination of contemporary and cultural but sometimes I do move into purely traditional or traditional decorative elements where I feel strong support for this dying craft and if a people like us, if we don't go into this I think we are not supporting the handicraft people especially in Malaysia. We are losing out on traditional Malay fabrics like songket weaving, even hand painted batik, if we don't really go into it and help these people, the result would be the craft die. Personally in my own capacity, I would like to do a mix of both contemporary and cultural work.

I would love contemporary works, a combination of contemporary and cultural purely traditional or traditional decorative

RESPONDENT 3: TAMYEZ

I think now, if we take as examples some of the work done by the Royal Selangor (Pewter company), most of the decorative items are still based on local motifs and local traditions. There are different types of traditions in Malaysia-the Malays, the Chinese and Indian cultures. It is difficult to merge all the three traditions into one, and one should also not forget the culture in the East of Malaysia like Kadazan but I think there have always been elements based on local cultures and local cultures in Malaysia are very rich. These are derived from colours, fabric, motif anything that anyone could think of.

most of the decorative items are still based on local motifs and local traditions local cultures in Malaysia are very rich

META-MATRICE ANALYSIS FORM

QUESTION: 11

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: EDUCATORS

Q. What techniques do you use to apply those elements or themes to your craft artefacts?

RESPONDENT 1:ZAHARI

In metalwork what we normally do are things like etching, 'repousse' work and even piercing as a decorative technique.

RESPONDENT 2:ZAHARAH

It depends on the kind of work I am producing. If it's purely a revival of traditional fabric then I would try and understand the traditional way of producing this fabric but I would delegate more of the technology process about the product because these fabric are historical data so you don't really know how people produced then by looking at historical material but you have to adjust here and there as to how to produce this fabric.

metalwork

decorative technique.

depends on the kind of work I am producing

RESPONDENT 3:TAMYEZ

Most of the techniques used are basic traditional techniques but it would be interesting if more modern techniques could be researched i.e the usage of aluminum in craft work because aluminum is a material which has its own constraints and limitations and the process of colouring has always been used in anodizing. They can use different colours and some of the colours generated through aluminum are colours which are not available or which are not possible to be seen in other crafts, which is a new thing, someone could actually introduce new colours in aluminum and in that way enrich the aesthetic of the craft.

Most of the techniques used are basic traditional techniques but it would be interesting if more modern techniques

through aluminum are colours which are not available or which are not possible to be seen in other crafts

META-MATRICE ANALYSIS FORM

QUESTION: 12

FACTORS: COMPANY'S CULTURE

RESPONDENT CATEGORY: EDUCATORS

Q. What is your role in craft production? Do you give responsibility to others to handle this stage?

RESPONDENT 1: ZAHARI

Of course as a craft production set up, we train the craftsmen to do as best as we can and in giving them proper training, we also give them some kind of responsibility

RESPONDENT 2: ZAHARAH

I would like to be a producer of craft, I would not say that I am a leader but I am learning as I am producing and I would give responsibility to others especially to my employees down line but they would understand my end product, the quality that we are trying to achieve, the themes we employ so it's purely me and my team and we work together. For me alone I can't because I don't have the time to spare on my work. If I have a craft maker full time then it's would be different, I am doing more on a part time basis but my workers will be full time. So supervision by me will be a hundred percent but my production line will have to cater for my needs and to the market that I am bringing artefacts into.

train the craftsmen

am a leader

give responsibility to others
supervision by me will be a hundred percent

RESPONDENT 3: TAMYEZ

In methods of production there are different methods of approach, one is "one-off", Under normal circumstances they would start with "one-off", where you just treat craft making like a fine art, whether you like it or not you just do it but after that you tend to change the thing so that you actually can sell that craft. If someone were to involve aluminum in craft production, one has to really know the limitation of the material, what can the material do, and how it can be associated with other materials.

If someone were to involve aluminum in craft production, one has to really know the limitation of the material, what can the material do, and how it can be associated with other materials.

META-MATRICE ANALYSIS FORM

QUESTION: 13

FACTORS: PEOPLE

RESPONDENT CATEGORY: EDUCATORS

Q. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

RESPONDENT 1:ZAHARI

Well it seems to be a team based kind of organization, nevertheless most of the people work as individuals because there is no proper control of the organization.

RESPONDENT 2:ZAHARAH

I would say team based and individualistic.

RESPONDENT 3:TAMYEZ

I think in design what is important is an open management. This means that not only the designer but the people in marketing have to be involved as well. Sometimes you come up with a very good design but people in marketing might find it difficult to accept it. So you have to change the design based on the amount of money one has and craft is very unique in the sense that anyone could come out with ideas which is not necessarily the designer. However, at the end of the day it's always designers that make decisions for the best craft products. I think it's very important and not the decision made by people in the management or finance but it must be concluded by the designer.

it seems to be a team based kind

team based and individualistic.

I think in design what is important is an open management.

META-MATRICE ANALYSIS FORM

QUESTION: 14

FACTORS: PEOPLE

RESPONDENT CATEGORY: EDUCATORS

Q. Which craft artifacts do you considered to be successful products from you or your team?

RESPONDENT 1:ZAHARI

Well, we have designed a couple of maces for the universities and of course the maces were made by a number of people and they were put together based on one design and most probably one of the products can be said to be successful.

RESPONDENT 2:ZAHARAH

So far I have produced ladies apparel, art works, decorative items but basically the thing that goes well because I am only concentrating on a small production line, is ladies hand drawn apparel. I would say that is my niche. I would not venture into other things because I have enough problems working in this small area but I would like to be the best in this area so I have already attempted to streamline what I want to produce and this is true unless I have an offer or want to go for production of other things.

we have designed a couple of maces

So far I have produced ladies apparel

RESPONDENT 3:TAMYEZ

The best crafts that are generated, are designed holistically including people in management, people in the production and most importantly people in marketing. If aluminium is a new material for the craft industry then someone should really promote it and money has to be spent to promote it as a craft and prove that it can actually introduce new design concepts, a new form of aesthetic in design because no one has done this in the past. I think that is the challenge for aluminium.

The best crafts that are generated, are designed holistically including people in management, people in the production and most importantly people in marketing

META-MATRICE ANALYSIS FORM

QUESTION:1

FACTORS: PURPOSE

RESPONDENT CATEGORY: DESIGNER

1. Q. As a craft practitioner/designer/educator, have you attended any craft courses? If yes, where and how long was the course? If no, where did you gain your experience?

RESPONDENT 1: BAKAR

After my exposure as a designer, I further my studies in UiTM, where my deep interest at that time was more in ceramic practice. My product design in ceramics basically derived from the input of current demands in this area which are more emphasized more on home decoration such as flower vase and smaller gift items. I can see at the moment that there are current interests among the Malaysian community in this area. Obviously with the breeding of creative graduates from UiTM, have showed an efficient and productive skill in ceramic design. The course which I have attended took me four years where the knowledge I gained stretches from basic to practical aspects of design and the production of ceramics. My interest is more in glazing techniques. I think ceramics should go a more decorative look in terms of colour than that which is acceptable in local and global markets.

I further my studies in UiTM, four years where the knowledge I gained stretches from basic to practical aspects of design and the production of ceramics

RESPONDENT 2: FARIDAH

Before running this workshop, I had four years training in a textile department which specialised in batik making at UiTM, Faculty of Art and Design. That was from 1976 to 1980.

training in a textile department

RESPONDENT 3: YUSSOF

The crafts, with which I am involved, relate to the making of artefacts from dried flowers. I have attended a special course on dried flowers from MARDI where I learned a basic process of using natural flowers and then transform them to dried flowers

attended a special course on dried flowers from MARDI

META-MATRICE ANALYSIS FORM

QUESTION:2

FACTORS: PURPOSE

RESPONDENT CATEGORY: DESIGNER

2. Q. When did you start your craft/design profession which you have established?

RESPONDENT 1:BAKAR

I started my career with MHDC in 1981 as a designer and I was involved in metalwork, wood, and ceramic design.

career with MHDC in 1981

metalwork, wood, and ceramic design.

RESPONDENT 2:FARIDAH

In 1981, I started my carrier as a designer with MHDC and I have attended many crafts workshops. After many years with MHDC, I was given responsibility to handle Kraf Holding.

designer with MHDC

RESPONDENT 3:YUSSOF

I started my carrier as a graphic designer with MHDC after my training in UiTM.

with MHDC after my training in UiTM.

META-MATRICE ANALYSIS FORM

QUESTION:3

FACTORS: PURPOSE

RESPONDENT CATEGORY: DESIGNER

3. Q. What is the nature of your specialization? It is different from what you have gained from your craft education or profession?

RESPONDENT 1: BAKAR

In 1990 I upgrade my qualification and gained my BA Hons from UiTM which specialized in ceramics and it give me experience after my move to Karyaneka in designing, sales and marketing.

specialized in ceramics
designing, sales and marketing.

RESPONDENT 2: FARIDAH

There is no change made in my specialization and I am still within the area of the craft profession, which I have attained from UiTM.

no change made in my specialization

RESPONDENT 3: YUSSOF

Although there is a difference in specialization at the moment, I still use some of the graphic elements in my current work.

difference in specialization

META-MATRICE ANALYSIS FORM

QUESTION:4

FACTORS:

RESPONDENT CATEGORY:

4. Q. Are you involved in selling or commissioning craft artefacts? If yes, what range of artifacts and prices and where do you market them?

RESPONDENT 1: BAKAR

Currently, besides designing, I am also involved in sales and marketing after my transfer from MHDC to Karyaneka. We have six Karyaneka showroom outlets which display varieties of Malaysian crafts. This crafts originate from different parts of the states in the country. The products available here range from batik, songket (brocaded cloth), wood, weaving, metalwork etc. And some of these crafts utilized materials that are available in the country for example weaving involves the use of pandanus leaves. Lampshades, flower vases are some examples of the ceramic products displayed on the shelves.

RESPONDENT 2: FARIDAH

The final products produced here involve selling and commissioning. We also do some technical demonstration on batik to the visitors especially hand painted. The prices of commissioning work depend on the nature of the design. We usually charge a very high price for complicated design, which is a "one-off" type of production. The price ranges from Ringgit 300-400 for this category. A very simple design comes to about Ringgit 160-280 per pair.

RESPONDENT 3: YUSSOF

The nature of my craft making involves three types of activities: selling, commissioning and making. I produce varieties of design and turn them into product for sale. Most of the crafts are mainly for home deco using dried flowers. I use a frame and reflective mirror as part of the representational, to give an impact of 3 dimensional form. The existing products designed by other craft makers use vases to display dried flowers, but in my case it is quite different.

besides designing, I am also involved in sales and marketing

involve selling and commissioning

selling, commissioning and making.

META-MATRICE ANALYSIS FORM

QUESTION: 5

FACTORS: PURPOSE

RESPONDENT CATEGORY: DESIGNER

5. Q. How many types of craft artifacts have you produced or designed since you became established?

RESPONDENT 1: BAKAR

I think there are many designs that I have produced since my establishment as a designer. I have been designing for twenty years in this area. Roughly my estimation is about one thousand designs which are mostly home deco products.

are many designs
one thousand designs

RESPONDENT 2: FARIDAH

I have produced many batik designs, which I think have accumulated to 400-500 designs. Each of the designs is introduced with a new approach, concept and variations.

produced many batik designs
400-500 designs

RESPONDENT 3: YUSSOF

I have produced so many designs, of which I think 200-300 are large scale frames of dried flower and also quite a number of smaller frames.

produced so many designs
200-300 are large scale frames

META-MATRICE ANALYSIS FORM

QUESTION: 6

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

6. Q. Do you have your own craft workshop? If yes, do you gain any financial support from any agency in running your craft work.

RESPONDENT 1: BAKAR

No, I don't have any workshop or make any ceramic products. The nature of my work now is more on designing. Production of my design items relies on the craft makers in ceramic which we have identified from their experience and the quality of work they have produced. We also trace their activities through MHDC from where they sometimes get support. We also give an opportunity to the younger generation in this field to encourage them as well as supporting them to maintain their business.

No, I don't have any workshop

Production of my design items relies on the craft makers in ceramic

RESPONDENT 2: FARIDAH

No, I don't have craft workshop. Most of the production is done within the training centre in Kraf Holding.

I don't have craft workshop done within the training centre

RESPONDENT 3: YUSSOF

Yes, I do have a workshop that I have set up. At the moment, I am not receiving any financial aid from the government. All the investment I have made for these crafts have been acquired through my own finances.

I do have a workshop my own finances.

META-MATRICE ANALYSIS FORM

QUESTION: 7

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

7. Q. What are the main materials used in your craft artefacts? Do you combine materials? Is there any difficulty in getting the materials supplied?

RESPONDENT 1: BAKAR

Most of the ceramic materials are available locally for example; white clay but for ceramic use in slip casting we imported clay from overseas. In Malaysia, there are quite a number of places that have been identified where this natural clay can be found, for example, in the northern part like Perak and Kedah, and in the southern part of Johor.

materials are available locally
slip casting we imported clay from overseas

RESPONDENT 2: FARIDAH

In the batik industries the common materials used are cloth, wax, dye, fixer and reactive dyes. Fabric is sometimes imported from China.

Fabric is sometimes imported from China.

RESPONDENT 3: YUSSOF

The main material used in this craft is mostly dried flowers and these are locally available. Besides this, I also incorporate dried flowers with shells, which are abundant at our local beach. I am not facing any difficulties of material supply for these crafts.

these are locally available

META-MATRICE ANALYSIS FORM

QUESTION: 8

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

8. Q. The history of metalworking crafts shows that they were made from brass and silver. In your experience, have you heard or seen of any crafts produced using aluminium?

RESPONDENT 1: BAKAR

Although I have practised as a designer for twenty years I have never come across a craft product made from aluminium. I think in Malaysia the crafts people are used to in metal are made from copper, silver, bronze and brass. Aluminium is not in the list.

RESPONDENT 2: FARIDAH

Crafts material from aluminium is very rare in Malaysia. I have seen aluminium products used in our modern type of design for example in household items like containers but not on traditional crafts

RESPONDENT 3: YUSSOF

When we talk about aluminium, I think it is very rare. Malaysian crafts are more traditional in nature and in metalworking from a historic point of view, our craft practitioners, especially the Malay, have been using brass and silver in their craft production. Aluminium, I think is for the new generation and can be explored by other races. We associate crafts with Malay identity. My view is that when we talk of Malaysian crafts make from aluminium, these cannot be categorized as traditional Malay crafts.

I have never come across a craft product made from aluminium

aluminium is very rare
household items like containers

aluminium, think it is very rare
Malay, have been using brass and silver in their craft production. Aluminium, I think is for the new generation
Malaysian crafts make from aluminium, these cannot be categorized as traditional Malay crafts.

META-MATRICE ANALYSIS FORM

QUESTION:9

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

9. Q. What is your opinion regarding the use of aluminum as a craft material?

RESPONDENT 1: BAKAR

As a designer I am very optimistic about the future use of any materials. In metalwork I think we can't rely on silver, brass etc. for the making of craft products but we must explore new materials, possibly aluminium as I can see it has its own characteristics. Furthermore, we have seen aluminium being used in cooking utensils and it is quite cheap too compared to stainless steel for example spoons and forks from aluminium.

we can't rely on silver, brass etc. for the making of craft products but we must explore new materials, possibly aluminium as I can see it has its own characteristics

RESPONDENT 2: FARIDAH

I think we should expand the use of any potential materials. In metalworking we shouldn't rely on brass and silver. This crafts need a lot of attention in maintaining their products for example their luster. Aluminium I am still not sure....

expand the use of any potential materials. In metalworking we shouldn't rely on brass and silver

RESPONDENT 3: YUSSOF

There are no limitations of materials in craft making. It depends on the creativity of the individuals to manipulate the use of aluminium as a craft base materials. If aluminium can be developed through a good product design, then it should be no problem.

If aluminium can be developed through a good product design

META-MATRICE ANALYSIS FORM

QUESTION: 10

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

10.Q. In your production or designing, what types of decorative element do you use that support the aesthetical value of your craft? Do you use cultural or contemporary motifs in your present craftwork?

RESPONDENT 1: BAKAR

I still maintain traditional elements in my design with a greater percentage of floral motifs such as *kerawang*, *pucuk rebung* from nature. Sometimes I also combine geometrical motifs found in Islamic design and ethnic motif from the eastern part of Malaysia especially from Iban and Bidayuh culture.

traditional elements a greater percentage of floral motifs
also combine geometrical motifs

RESPONDENT 2: FARIDAH

Our daily activity here is more on batik painting. So decorative elements play a prime role here, where our approaches here toward a contemporary design of batik. We used floral and geometrical pattern in our design with vibrant colours from reactive dyes.

our approaches here toward a contemporary design of batik

RESPONDENT 3: YUSSOF

I think my approach to craft work is more towards the contemporary. In these crafts the arrangement and composition of dried flowers is significant to the viewers as it will help to create certain moods when displayed. Here I blend it with the additional use of colours to the dried flowers by using an air brush to create light to present it like scenery when displayed in a frame.

my approach to craft work is more towards the contemporary

META-MATRICE ANALYSIS FORM

QUESTION: 11

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

11. Q. What techniques do you use to apply those elements or themes to your craft artefacts?

RESPONDENT 1: BAKAR

We must look at contemporary and traditional motifs as an important style in our craft design. We must maintain traditional elements to preserve our identity such as the use of nature and the elements of the Malay culture. It will diminish if we as designer didn't preserve this. We should also considered contemporary aspects in order to attract the global market because in the current trend of crafts design, both elements need to be blended.

contemporary and traditional motifs as an important style in our craft design

should also considered contemporary aspects

RESPONDENT 2: FARIDAH

Although there exist new inventions on batik painting by SIRIM, but we still prefer the traditional hand painted as a technique of production. It seems in line with our mission to train the younger generations with the traditional method.

we still prefer the traditional hand painted as a technique

RESPONDENT 3: YUSSOF

I used to relate nature in my craft pieces and this represents scenery. The arrangement of dried flowers is very crucial for each of my craft piece. I try to present it in a more aesthetical approach not just to show the beauty of dried flowers.

I used to relate nature in my craft pieces

META-MATRICE ANALYSIS FORM

QUESTION:12

FACTORS: COMPANY'S CULTURE

RESPONDENT CATEGORY: DESIGNER

12.Q. What is your role in craft production? Do you give responsibility to others to handle this stage?

RESPONDENT 1: BAKAR

In my nature of work, I always concentrate on designing and trying to understand what people need in the market. After final approval from the management and marketing side then the production people will handle the finished product according to my specifications. Also my role in here is to see that the craft products which I have designed are of the right quality before they can be acceptable to the market.

always concentrate on designing and trying to understand what people need in the market according to my specifications

craft products which I have designed are of the right quality

RESPONDENT 2: FARIDAH

Besides designing, I was also responsible for managing the batik production of this subsidiary company of MHDC. Here training was given to the interested individuals in batik making and while in training they also help us in producing the crafts. With my guardian, I give them the opportunity to explore their skill base on my design specifications.

managing the batik production
explore their skill base on my design specifications.

RESPONDENT 3: YUSSOF

In this craft making, I normally consider myself as an advisor, designer and craft maker. If we have a production line we have to distribute our task to the person that we trust. So I delegate my work to others down line. A good brief is very important to make sure that the end product meets the specification.

consider myself as an advisor, designer and craft maker
to distribute our task to the person

META-MATRICE ANALYSIS FORM

QUESTION: 13

FACTORS: PROCESS & PERFORMANCE

RESPONDENT CATEGORY: DESIGNER

13.Q. In organizing your daily activities, how would you describe the type of organization that your company is? Example hierarchical, flat, open management, team based or individualistic.

RESPONDENT 1: BAKAR

I am confident working as a team because in dealing with crafts or any other aspect of product design, we must have an input from the both internal team members and external groups to receive feedback and comments.

confident working as a team

RESPONDENT 2: FARIDAH

I believe in teamwork base type of organization. At present I welcome any comments from my staff and trainers because I believe this will help us to improve our management and the craft products that we are engaged with.

teamwork base type of organization

RESPONDENT 3: YUSSOF

I work more on a team base. There are many stages, which are required before getting to an end products, so this needs many processes where production line people are involved.

work more on a team base

META-MATRICE ANALYSIS FORM

QUESTION: 14

FACTORS: PEOPLE

RESPONDENT CATEGORY: DESIGNER

14. Q. Which craft artifacts do you considered to be successful products from you or your team?

RESPONDENT 1: BAKAR

There are varieties of craft products in our showroom and sale analysis has showed that batik still lead as a marketable product either from local or global audiences. I think batik has successfully appealed to the taste of customers by its traditional and contemporary approach. In ceramics, the trend now seems to exploit batik for home décor.

I think batik has successfully appealed to the taste of customers by its traditional

RESPONDENT 2: FARIDAH

At the moment our company are highly recognized in under taking special order type of batik making. We have received orders from BBMB and also from the Ministry department, as we know batik is an official costume in Malaysian government agency. So our recent order from the Prime Minister's department is a great achievement for our company.

recent order from the Prime Minister's department is a great achievement for our company.

RESPONDENT 3: YUSSOF

I usually design my work for local hotel and participate in local crafts exhibit ions. I was also given an opportunity to decorate prop for one of the television stations. My latest involvement is with KLIA international airport, to decorate the interiors of the craft shops in the airport.

latest involvement is with KLIA international

APPENDIX 5

CONTENTS

- Daily Used Items Made of Aluminium
- Experimental Logbook
- Experimental 1 –Single Colour Analysis
- Experimental 11-Multi-Colour Analysis
- National Standard for Drinking Water Quality-Ministry of Health Malaysia
- Northumbrian Water

Daily Used Items Made of Aluminium

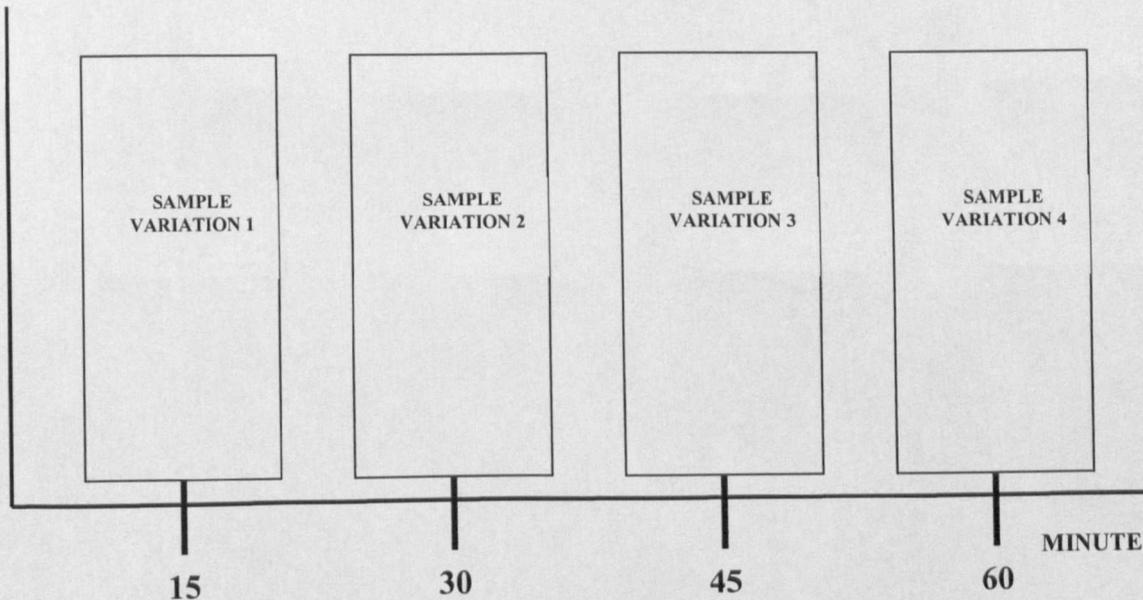
Table 5.2

NO	ITEM	ALUMINIUM ALLOY
1	Zippers	5056 H14 wire
2	Eylets and ferrules	3004, 5050 sheet
3	Aluminium ferrules as furniture leg	3003, 5052, 6063
4	Branches-artificial Christmas trees	5005-H19 wire
5	Needles-artificial Christmas trees	5050-H19 foil
6	Canister sets	3003
7	Clothes hangers	5357-H36
8	Mop, brush, car washing handles	6063-T6, 6063 T832
9	Covers on hair dryer blower	3003 sheet
10	Housings /heating mechanism	3003 sheet
11	Houseware fans and heater fans	5050 sheet
12	Portable electric heater reflectors	1100 sheet
13	Mail boxes and house numbers	3003 pattern sheet
14	Storage cabinets/lockers	3000 and 5000 series sheet
15	Commercial furniture for restaurants	6060 -T6, 6063-T6 extrusions
16	Offices and institutions	6061 T4
17	Camping, fishing and hunting supplies	3003, 3105, 5052, 3003, 3005 welded tube
18	Jewellery	1000 series, 5405
19	Disposable oven liners, burner drip pans	1145 foil
20	Removable burner reflectors, drip pans	3004 sheet
21	Appliance mouldings and handles	6063, 6463 extrusions
22	Vacuum cleaner wands	3003, 6063 tube
23	Vacuum cleaner canisters	3003 sheet
24	Air conditioner fin stock	1100, 1145
25	Air conditioner fan blades	5050, 5052
26	Refrigerator compartment doors, dip	5x57-0, H25 sheet
27	Trays, door racks	6063-T42 extrusions
28	Refrigerator fin stock, refrigerant lines and defroster tubes	1100, 3003, 7072
29	Sheet refrigerator shelves	5005, 5357
30	Refrigerator shelf wires	1345 hard-drawn temper wire
31	Refrigerator shelf frames	6063-T42
32	Ice trays	1100, 3003 sheet
33	Cooking utensils, food handling equipment	3003, 3004, 5052
34	Coffee pot shells	3003, 5357 deep drawn
35	Household foil	1100
36	Pen and pencil parts	5050
37	Large size knitting needles	3000-H18 tube
38	Smaller size knitting needles	1100, 3003, 5052, 5056 wire
39	Firearms (receivers)	6061-T6
40	Open gun sights	2024-T4 extrusions
41	Telescopic sights	6061-T6 tube
42	Revolver frame	2014-T61 forging
43	Arrows	2024
44	Badminton racket frames	6061-T6, 7178-T6
45	Skis	7178-T6, 7075-T6 sheet
46	Ski poles	7178-T6, 2014 -T6, 6063-T832 tube
47	Above ground swimming sidewalls	3003, 3015
48	Large institutional in-ground pools	5050 sheet
49	Pool ladders, diving boards, cleaning equipment, pool furniture	6061, 6063
50	Camera tripods	6063 tubing
51	Containers for packaging and storing film	1100 sheet, 3003 extrusion
52	Radio chassis	3003, 5052
53	Outdoor television antennas	3003, 6063 tube
54	Pipe wrenches (18-60 inch length)	2014 - T6
55	Lawn/garden equipment handles	6063 - T832, 3003 - H18 tube
56	Pole saws, tree trimmers (telescoping handles)	3003 hard drawn tube

Sources: David laPlantz

COLOUR ANALYSIS
COLOUR TYPE:

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

**Experimental
 Procedure**

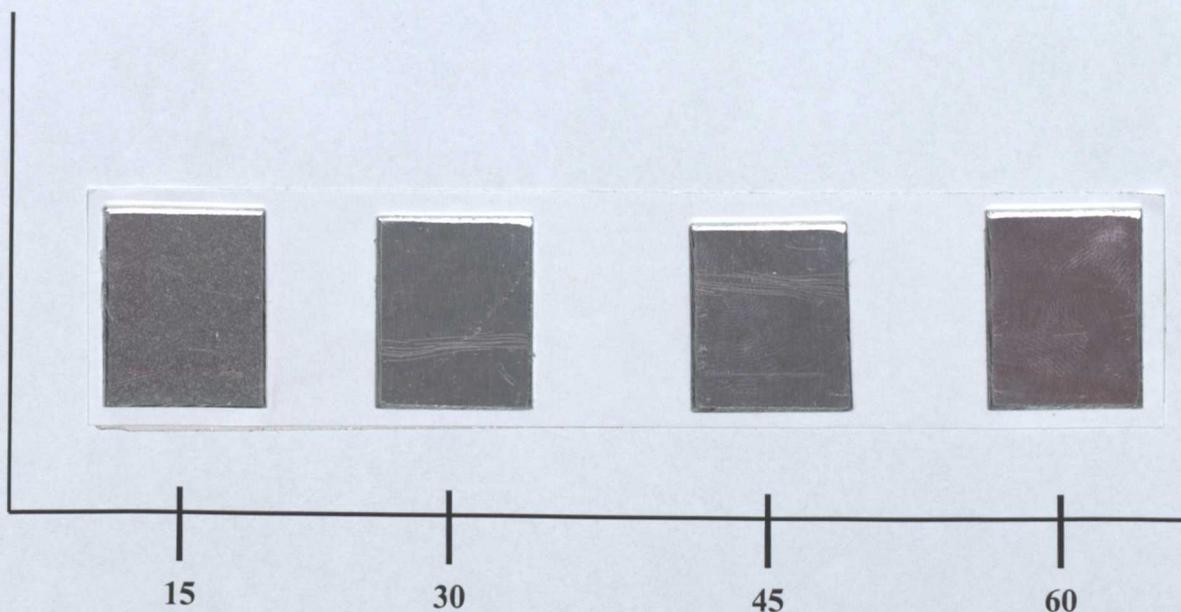
Results

TABLE DESCRIPTIONS	
ALUMINUM TYPE	
COLOR CODE	
WEIGHT	
DYING TIME SEQUENCE (IN MINUTE)	
VOLUME OF WATER	
WATER TEMPERATURE	
pH	

Table 5.1

COLOUR ANALYSIS ORANGE 3B

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Orange 3B.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	ORANGE 3B
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 °C
pH	6

Experimental Procedure

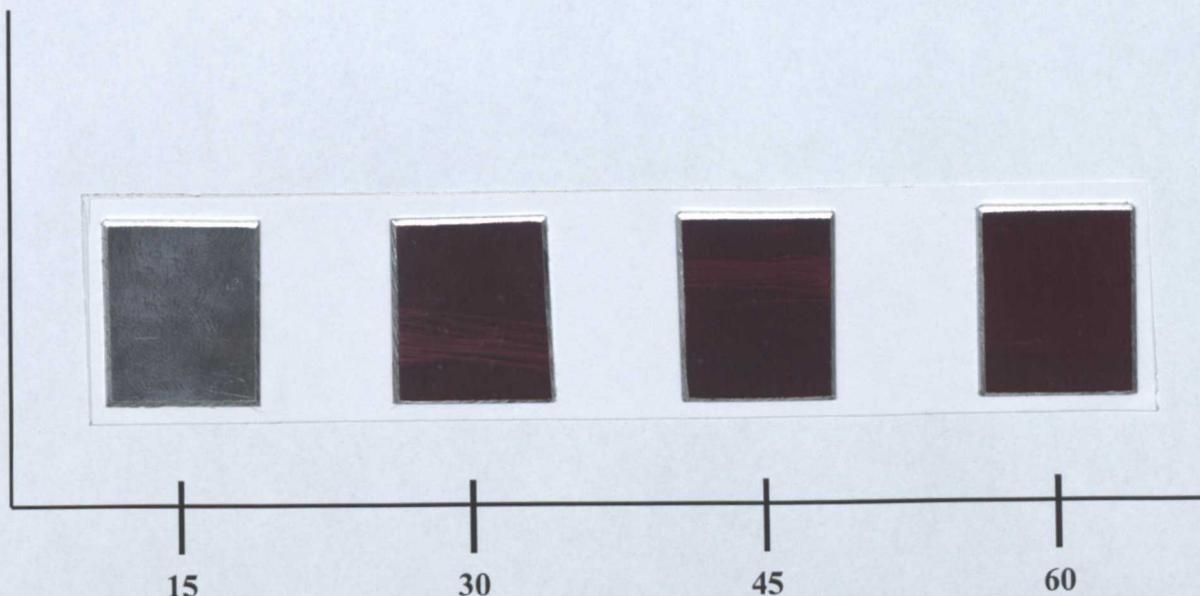
Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 °C with a pH of 6.

Results

Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Orange 3B. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provides a darker colour range.

COLOUR ANALYSIS BLACK

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Black.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	BLACK
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 °C
pH	6

Experimental Procedure

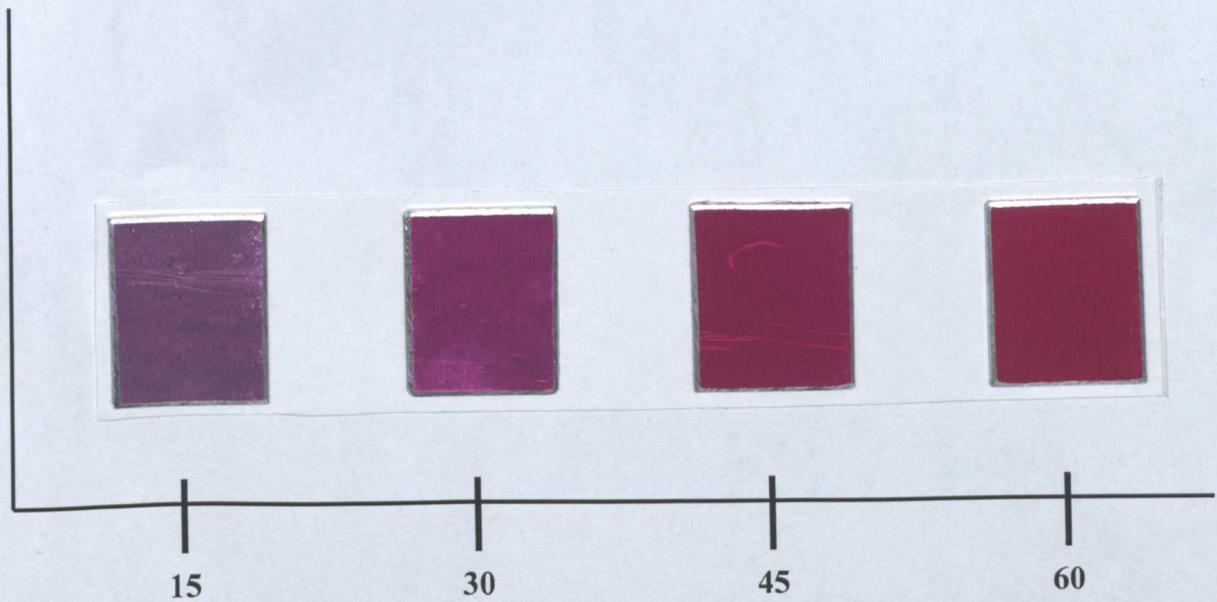
Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 °C with a pH of 6.

Results

Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Black. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provides a darker colour range.

COLOUR ANALYSIS BRILLIANT RED

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Brilliant Red.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	BRILLIANT RED
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 ° C
pH	6

Experimental Procedure

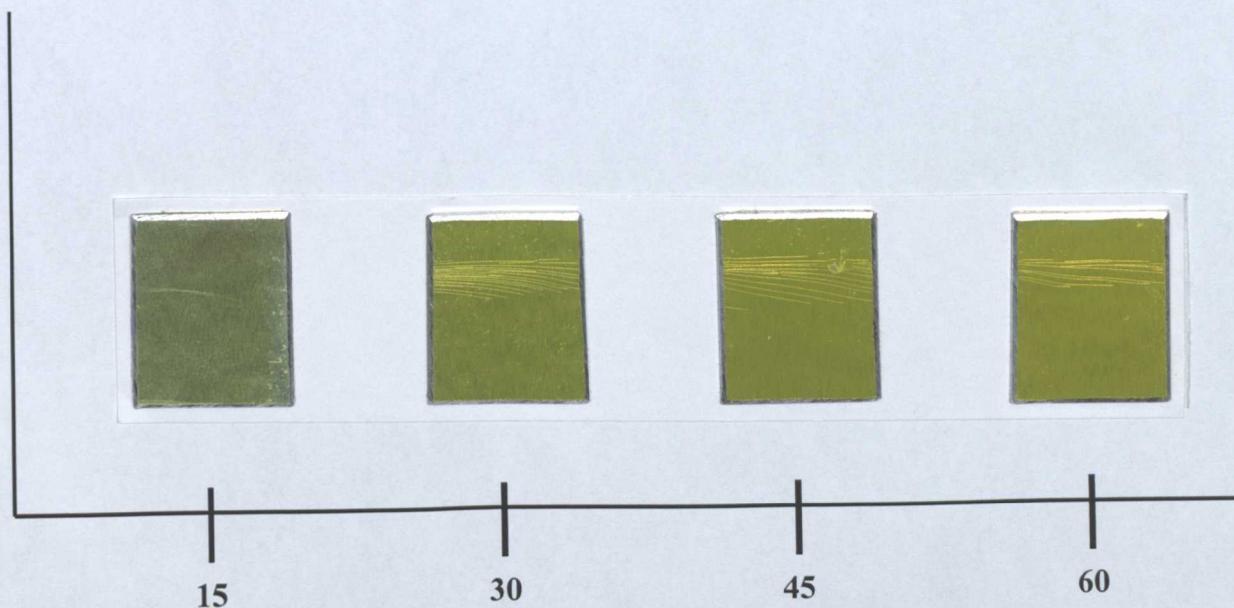
Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 ° C with a pH of 6.

Results

Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Brilliant Red. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provides a darker colour range.

COLOUR ANALYSIS YELLOW FG

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Yellow FG.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	YELLOW FG
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 degree C
pH	6

Experimental Procedure

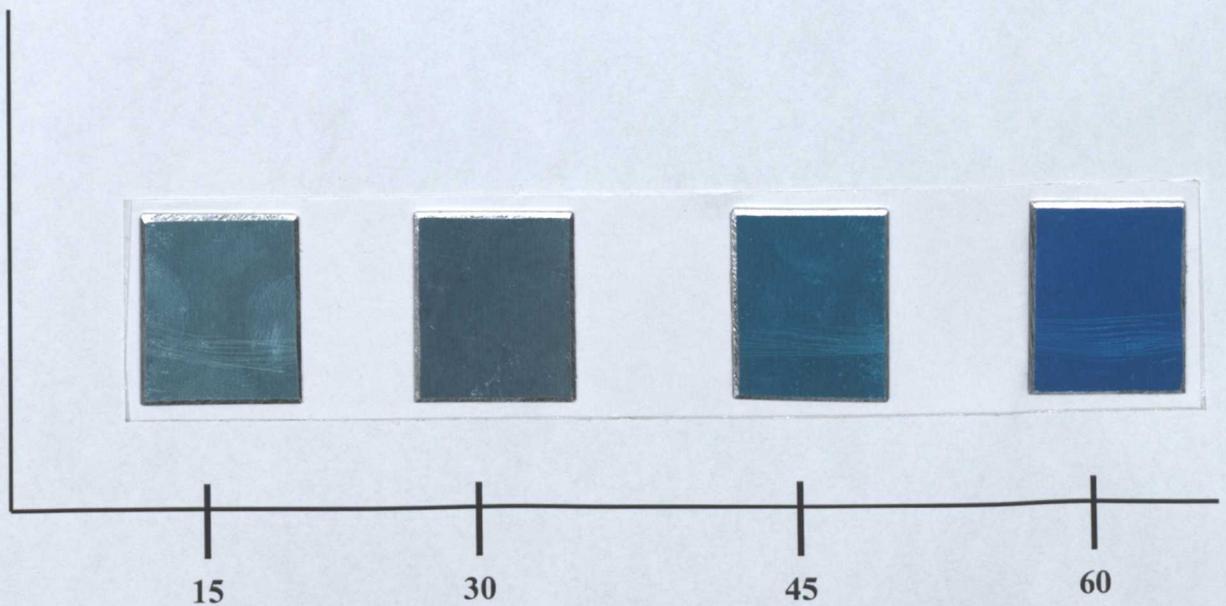
Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66^o C with a pH of 6.

Results

Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Yellow FG. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provides a darker colour range.

COLOUR ANALYSIS TURQUOISE BLUE

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Turquoise Blue.

Experimental Procedure

Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 °C with a pH of 6.

Results

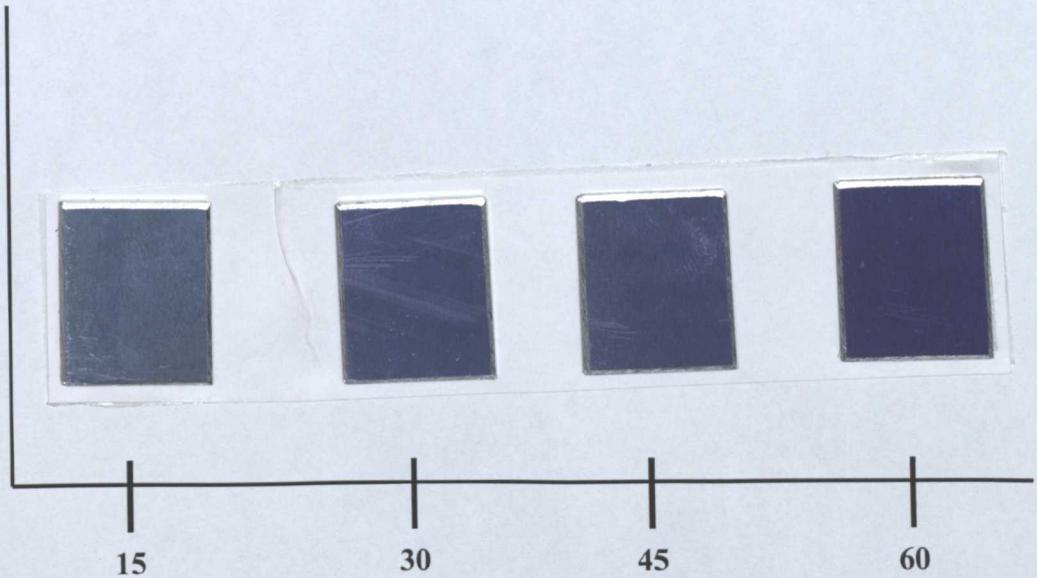
Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Turquoise Blue. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provides a darker colour range.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	TURQUOISE BLUE
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 °C
pH	6

COLOUR ANALYSIS BRILLIANT BLUE

COLOR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Brilliant Blue.

Experimental Procedure

Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 °C with a pH of 6.

Results

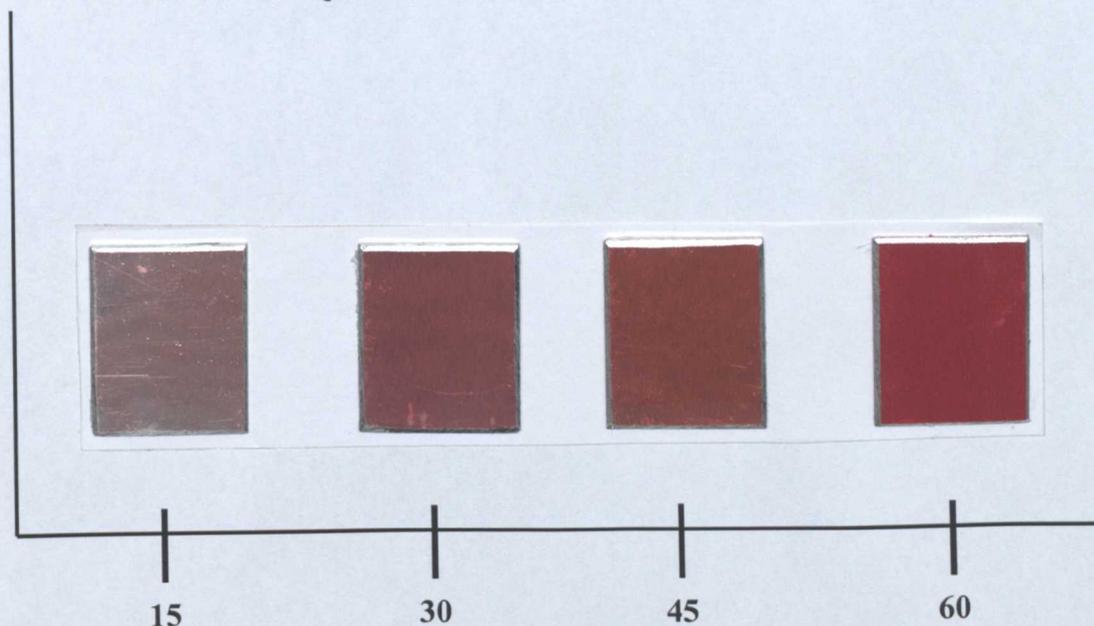
Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Brilliant Blue. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provide a darker colour range.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	BRILLIANT BLUE
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 °C
pH	6

COLOUR ANALYSIS BRILLIANT ORANGE

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Brilliant Orange.

Experimental Procedure

Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 °C with a pH of 6.

Results

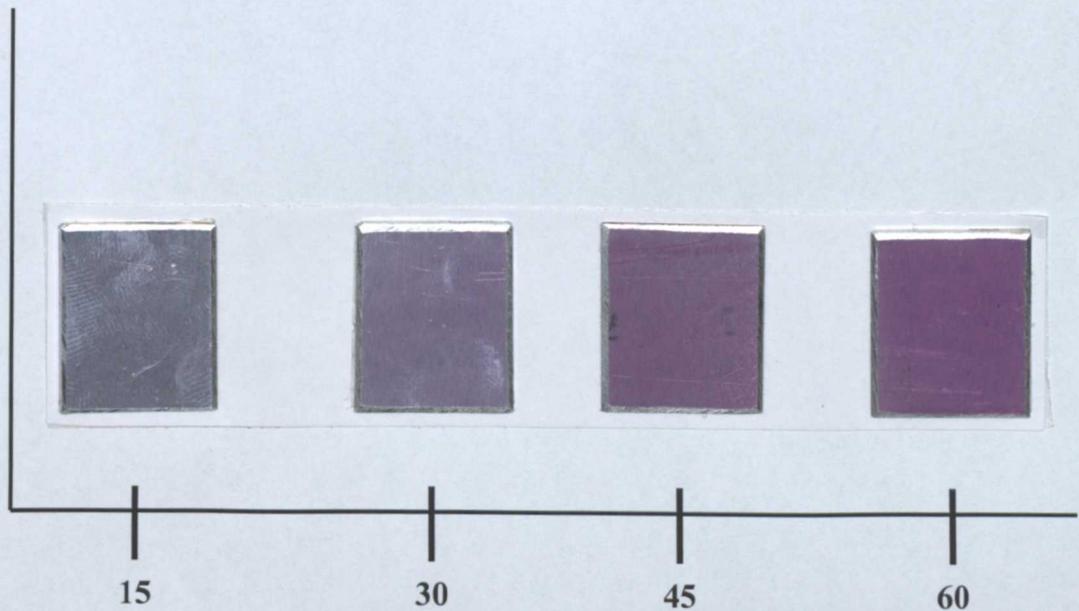
Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Brilliant Orange. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provide a darker colour range.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	BRILLIANT ORANGE
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 °C
pH	6

COLOUR ANALYSIS BRILLIANT VIOLET

COLOUR SEQUENCE AT 15 MINUTES INTERVAL



Introduction

The figure above shows a sequenced colour samples from Brilliant Orange.

TABLE DESCRIPTIONS

ALUMINUM TYPE	1000 SERIES
COLOR CODE	BRILLIANT VIOLET
WEIGHT	2 GRAMS
DYING TIME SEQUENCE (IN MINUTE)	15,30,45,60
VOLUME OF WATER	1 LITRE
WATER TEMPERATURE	66 ° C
pH	6

Experimental Procedure

Four coupons (4x 11 cm) were prepared within 15 minutes of interval, in the anodising bath. Each of these coupons was then used to test the colour variation. The samples used aluminium 1000 series with a thickness of 1 mm. Each of the coupons was immersed within 1-3 minutes in the dye bath with a dye concentration of 2 grams per litre of water. The temperature of the water used measuring 66 ° C with a pH of 6.

Results

Each four coupons have produced its own colour variations; result from the four sequence of immersion time in the anodising process. The intensity of colour produced from the result produced a shading of Brilliant Violet. The 15 minutes coupon, shows the lighter colour compared to other coupons. This emphasizes that the longer the immersion time in the anodising bath, provide a darker colour range

EXPERIMENT 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: GREEN (MIXTURE OF YELLOW FG &
TURQUOISE BLUE)

DS5



Introduction

The sample explores batik dyes with anodised aluminium series 1000. Green backgrounds were used as a base with the application of a stylised floral motif to create a contrasting pattern between dyes and surface barrier (permanent marker). The base colour used in this sample achieved from the reaction of primary colours Turquoise Blue and Yellow FG as a result of the sequences of immersion.

Experimental Procedure of DS5 Samples

Prepared anodised piece coupon measuring 11 x 4cm with an immersion time of 45 minutes to create a base colour. Here the design was applied on a green base using a permanent marker to produce a decorative illustration. The ink of the marker pen penetrated evenly to the base colour without any defects on the pattern being drawn. Hand engraving machines were used to outline the detail of the pattern. The part being engraved reflects the metallic quality of aluminium, which enhances the aesthetic value of the sample. The colour is then sealed by immersing it in warm boiling water for about 30 minutes to prevent the colour from leaching.

Result

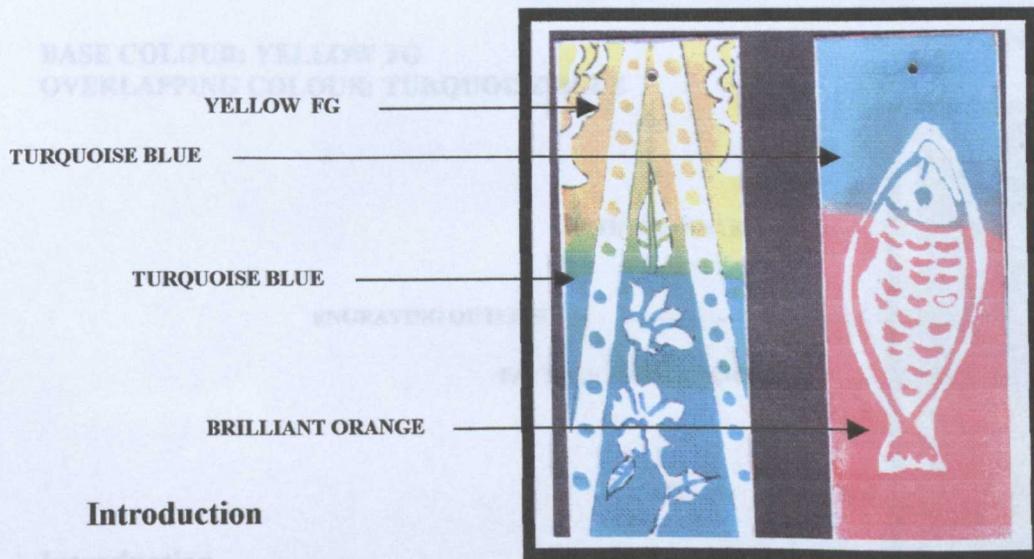
Single base colour seems to be effective with the use of a permanent marker to illustrate the decorative motif but it is not washable. The touch of the engraving technique helps to display the decorative pattern more effectively due to its metallic quality after the process.

EXPERIMENT 11

MULTI-COLOUR ANODISED DECORATIVE SAMPLES

PARTITION COLOURS: TURQUOISE BLUE AND YELLOW (DS7A)

PARTITION COLOURS: TURQUOISE BLUE AND BRILLIANT ORANGE (DS7B)



Introduction

These samples explore batik dyes with anodised aluminium series 1000. Both samples were explored using the partition of two contrasting colours. For sample DS 7A, the partition is illustrated by the use of primary colours Yellow FG and Turquoise Blue, while DS 7B utilised Brilliant Orange and Turquoise Blue. Floral pattern depicted geometrical and floral elements thus exploring the ability of tyre paint as a surface barrier to create detail pattern.

Experimental Procedure of DS7A and DS7B Samples

Both anodised aluminium coupons measured 4 x 11cm and have a 30 minutes interval time. To create a partition of colours, the coupon was first immersed halfway to allow the first colour to be absorbed. As the first colour dried, the coupon is then immersed in a second colour. At this point, the sample is then ready to be applied with a surface barrier by applying the design on the sample. For this sample fast drying paint was used as a surface barrier. A watercolour brush is then used to decorate the surface. After completing the surface pattern, a hair dryer is used to speed up the drying process. Immerse the samples in the caustic etch solution by agitating the samples using a ready-made hook attach to the sample (See Chapter 5). The exposed surface allows the caustic soda to etch leaving the surface pattern blocked by the paint. The end result of the pattern will appear, as the paint is washed out with a white spirit.

Results

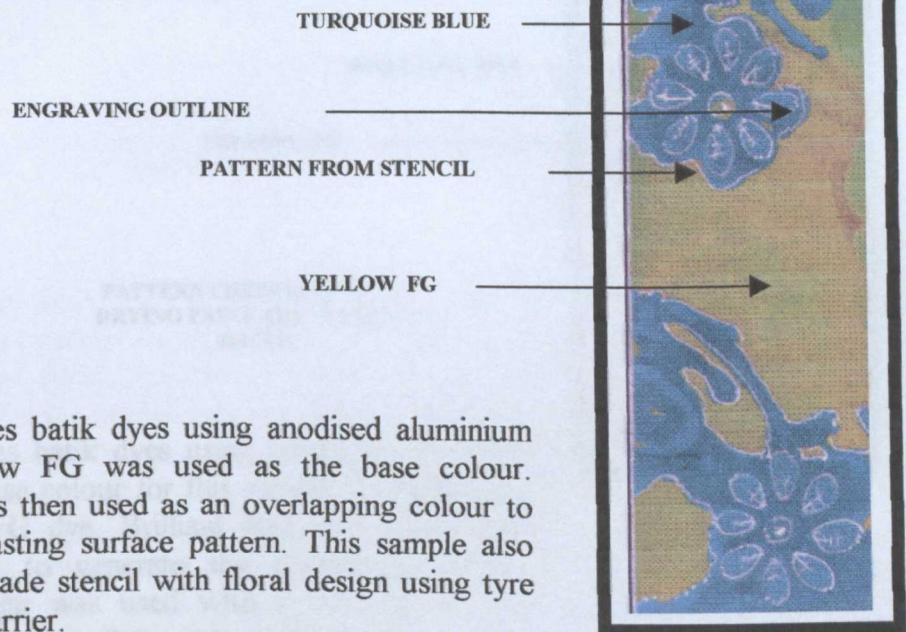
The etching process has a potential to be applied as a decorative pattern. The partition of colours, provide a variation of colour resulting from the surface etching. The etching surface also enriches the use of the material as it clearly displays the natural colour of aluminium.

EXPERIMENT 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

EXPERIMENT 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: YELLOW FG
OVERLAPPING COLOUR: TURQUOISE BLUE

DS 11



Introduction

The sample explores batik dyes using anodised aluminium series 1000. Yellow FG was used as the base colour. Turquoise Blue was then used as an overlapping colour to generate the contrasting surface pattern. This sample also explored a ready-made stencil with floral design using tyre paint as a surface barrier.

Experimental Procedure of DS 11 Samples

The colourless anodised aluminium sample size 4 x 11cm was selected from a 30-minute interval time variation coupon (See Single-Colour Analysis, APPENDIX 5). Base colour produced for this sample resulted from the immersion of the sample in Yellow FG dye bath for 1-3 minutes. By agitating the sample the colour was then evenly distributed and allowed to dry or alternatively a hair dryer was used to speed up the drying process. By using a sponge, paper stencil and fast drying paint, the pattern was transferred. The fast drying paint that absorbed to the sponge, press it on top of the pattern stencil, resulting in a decorative pattern to the base colour. The paint was then allowed to dry before immersion in the second colour, Turquoise Blue. As the immersion began, the second colour emerged leaving the base colour in the surface barrier, to produce a greenish colour. When the colour was dry, the entire surface was washed with white spirit, which revealed the two contrasting colours (See Illustration above). The sample is then ready for sealing in boiling water.

Results

The anodised coupon has the ability to absorb dyes and create surface pattern by using a paper stencil. As the pattern achieved from the stencil change during transfer, it is advisable to test on other type of stencil materials. Hand engraving machines were used to detailed the outline of the surface patterns.

EXPERIMENT 11

MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: YELLOW FG

OVERLAPPING COLOUR: BRILLIANT RED

DS4

ENGRAVING OUTLINE

BRILLIANT RED

YELLOW FG

PATTERN CREATED BY FAST
DRYING PAINT AND MEDIUM
BRUSH



Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Yellow FG dye. Brilliant Red was used as an overlapping colour to generate the contrasting surface pattern. Petal design was used with a combination line pattern to create variation of elements on the sample

Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Yellow FG dye. Brilliant Red was used as an overlapping colour to generate the contrasting surface pattern. Petal design was used with a combination line pattern to create variation of elements on the sample

Experimental Procedure of DS 4 Samples

The sample used an anodised aluminium samples size 4 x 11cm. To provide a base colour, the whole surface of the coupon is then immersed in a Brilliant Red dye for 1-3 minutes. By agitating the sample, it allows the dye to be penetrated onto the surface. A watercolour brush and fast drying paint is then used to create a surface pattern. Allow the surface to dry before immersing the coupon into the next colour. After the immersion of the second colour (Brilliant Violet) the surface of the coupon were covered with a new base colour. Fast dry paint is then applied again as a resist on top of the second colour. After the paint dry, immerse the coupon in the final dye bath containing black dye. The colour penetrated to the surface where there was no resist paint covering, giving another colour scheme of Brilliant Red. The pattern was then detailed using a hand-engraving machine. The contour lining of the engraving pattern revealed the aluminium as a base material.

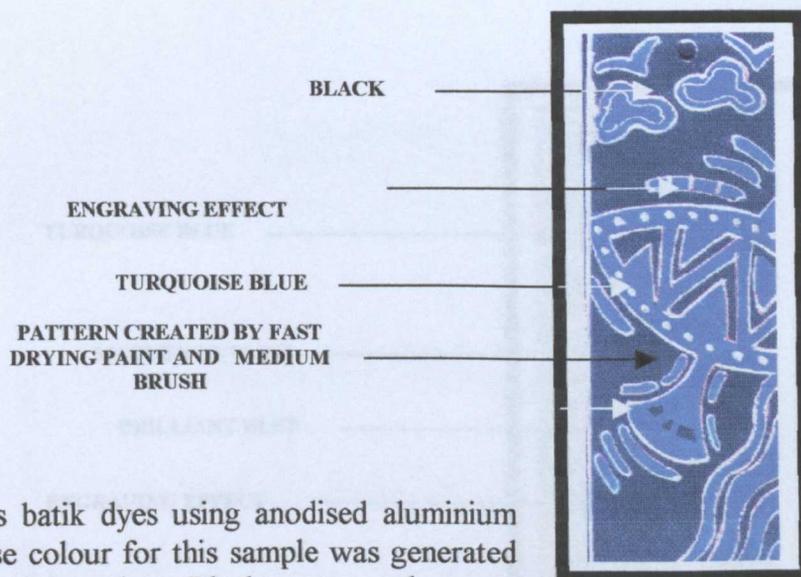
Results

The anodised coupon has the ability to absorb three colours, which generate multi-colour decorative patterns. With additional touch from hand engraving, it helps in detailing the pattern and enhancing the functional use of aluminium as base material in the process.

EXPERIMENT 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: TURQUOISE BLUE
OVERLAPPING COLOUR: BLACK

DS8



Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Turquoise Blue dye. Black was used as an overlapping colour to generate the contrasting surface pattern. Design created in this sample explores 'kite' design, a famous cultural activity in the East Coast of Malaysia. Additional designs were added to compliment the main theme related to the nature of kite activity depicting cloud and birds.

Experimental Procedure of DS 8 Samples

The sample used a 60-minute variation of anodised aluminium sample size 4 x 11cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a Turquoise Blue dye bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then use to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Black) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects.

Results

The anodised coupon has the ability to absorb two colours, which generate multi-colour decorative pattern from the usage of Turquoise Blue and Black. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

EXPERIMENT T 11

MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: TURQUOISE BLUE

OVERLAPPING COLOUR: BRILLIANT BLUE

DS9

TURQUOISE BLUE

MARKER OUTLINE

BRILLIANT BLUE

ENGRAVING EFFECT



Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Turquoise Blue dye. Brilliant Blue was used as an overlapping colour to generate the contrasting surface patterns. Permanent marker were used to illustrate detail outline of the design.

Experimental Procedure of DS 9 Samples

The sample used a 60-minute variation of anodised aluminium sample size 4 x 11cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a Turquoise Blue dye bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then use to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Brilliant Blue) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects. Permanent Marker was used to detailed the patterns after the engraving process

Results

The anodised coupon has the ability to absorb two colours, which generate multi-colour decorative pattern from the usage of Turquoise Blue and Black. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

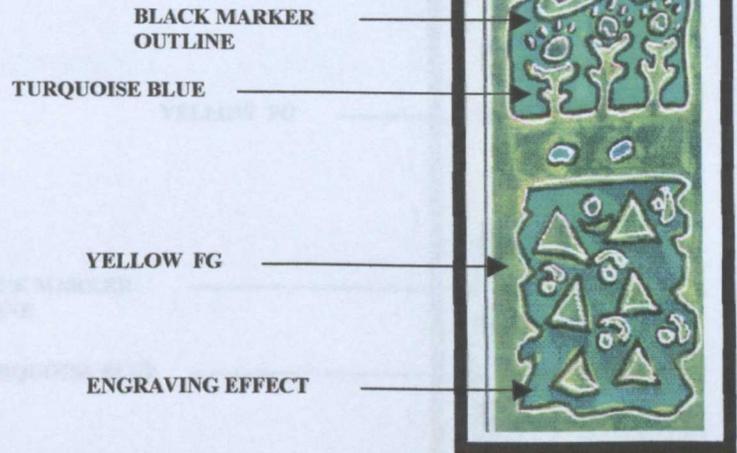
EXPERIMENT 11

MULTI-COLOUR ANODISED DECORATIVE SAMPLES

DS10

BASE COLOUR: TURQUOISE BLUE

OVERLAPPING COLOUR: BRILLIANT BLUE



Introduction

Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Yellow FG Turquoise Blue dye. was used as an overlapping colour to generate the contrasting surface pattern. Floral and geometrical elements were explored with detail outline from permanent marker and hand engraving.

Experimental Procedure of DS 10 Samples

The sample used a 60-minute variation of anodised aluminium sample size 4 x 11cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a dye Yellow FG bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then use to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Turquoise Blue) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects. Permanent Marker was used to detailed the patterns after the engraving process

Results

The anodised coupon has the ability to absorb two colours, which generate multi-colour decorative pattern from the usage of Turquoise Blue and Yellow FG. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

EXPERIMENT 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

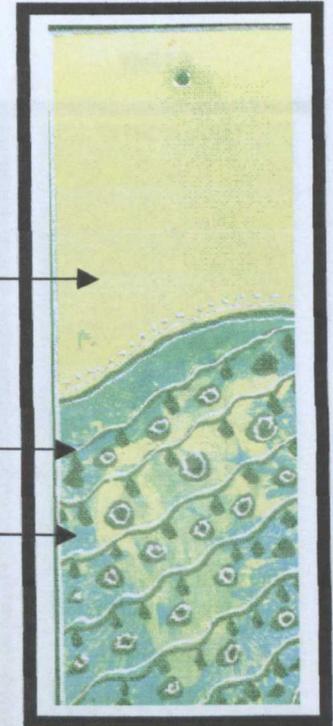
BASE COLOUR: TURQUOISE BLUE
OVERLAPPING COLOUR: YELLOW FG

DS 11

COMBINATION OF BLACK MARKER
AND ENGRAVING OUTLINE

TURQUOISE BLUE

YELLOW FG



Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Turquoise Blue dye. Yellow FG was used as an overlapping colour to generate the contrasting surface pattern. The sample explored detail pattern from the use of line and geometric shape with the support from hand engraving and permanent marker.

Experimental Procedure of DS 11 Samples

The sample used a 60-minute variation of anodised aluminium sample size 4 x 11 cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a Turquoise dye bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then used to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Yellow FG) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects. Permanent Marker was used to detail the patterns after the engraving process.

Results

The anodised coupon has the ability to absorb two colours, which generate multi-colour decorative pattern from the usage of Turquoise Blue and Yellow FG. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

EXPERIMENT T 11 MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: BLACK
OVERLAPPING COLOUR: TURQUOISE BLUE

DS12

TURQUOISE BLUE

ENGRAVING OUTLINE
AND MARKER

BLACK



Introduction

The sample explores batik dyes using anodised aluminium series 1000. The base colour for this sample was generated by using Black. Turquoise Blue was used as an overlapping colour to generate the contrasting surface patterns. Variation of geometrical elements try to portray batik style with detail outline from hand engraving and permanent marker.

Experimental Procedure of DS 12 Samples

The sample used a 30 minutes variation of anodised aluminium sample size 4 x 11cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a Black dye bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then use to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Turquoise Blue) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects.

Results

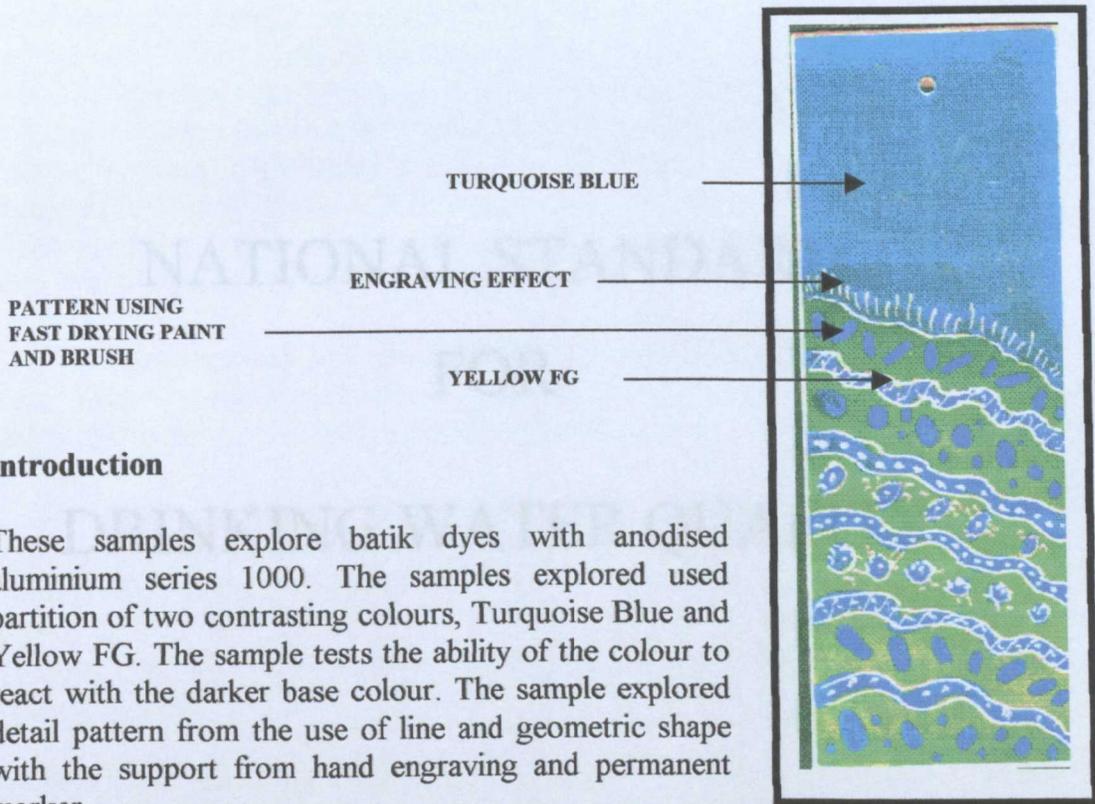
The anodised coupon has the ability to absorb two colours, which generate multi-colour decorative pattern from the usage of Turquoise Blue and Black. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

EXPERIMENT 11

MULTI-COLOUR ANODISED DECORATIVE SAMPLES

BASE COLOUR: TURQUOISE BLUE
OVERLAPPING COLOUR: YELLOW FG

DS 13



Introduction

These samples explore batik dyes with anodised aluminium series 1000. The samples explored used partition of two contrasting colours, Turquoise Blue and Yellow FG. The sample tests the ability of the colour to react with the darker base colour. The sample explored detail pattern from the use of line and geometric shape with the support from hand engraving and permanent marker.

Experimental Procedure of DS 13 Samples

The sample used a 45-minutes variation of anodised aluminium sample size 4 x 11cm (See **Single-Colour Analysis Variation, APPENDIX 5**). In order to provide a base colour, the whole surface of the coupon was then immersed in a Turquoise dye bath for 1-3 minutes. By agitating the sample, it allows the dye to penetrate onto the surface. A watercolour brush and fast drying paint were then use to create a surface pattern. The surface was allowed to dry before immersing the coupon into the next colour. After the immersion of the second colour (Yellow FG) a new base colour occupied the surface of the coupon. To get a detail of the pattern, the entire surface is washed with white spirit resulting in two contrasting colours. It is then immersed in the boiling water to secure the dye from leaching. The patterns are then detailed by using a hand-engraving machine, which traces the outline of the design. Engraving also helps to produce additional patterns such as linear or dotted effects.

Results

The anodised coupon has the ability to absorb two colours although it was tested from a darker colour scheme of Turquoise Blue as the base colour. The engraving technique helps in highlighting the pattern and enhancing the functional use of aluminium as the base material in the process.

NATIONAL STANDARD
FOR
DRINKING WATER QUALITY

ENGINEERING SERVICES DIVISION
MINISTRY OF HEALTH MALAYSIA

REVISED IN DECEMBER 2000

PREFACE

Seventeen years ago, in response to the need for a realistic and appropriate set of guidelines regarding safe and portable water supply throughout Malaysia. The Drinking Water Quality Surveillance Unit, Engineering Services Division, Ministry of Health Malaysia prepared a set of guidelines. This was done under the guidance of experts from the World Health Organization, Western Pacific Regional Centre for the promotion of Environmental Planning and Applied Studies (WHO)/PEPAS. A panel comprising of representatives from Public Works Department (PWD), Department of Chemistry (DOC) and Department of Environment (DOE) which are agencies directly or indirectly involved in the surveillance of drinking water quality in this country, was formed to vet through this set of guidelines, after which the National Guidelines for Drinking Water Quality 1983 was published.

The following year saw the launching and implementation of the National Drinking Water Quality Surveillance Programme throughout the nation resulting in an increase in the number of workers involved in water quality.

The ensuing years saw an increase in experience and expertise among the workers, as well as increase in awareness of the complex inter-relationships that determine water quality. Coupled with the advancement and progress that has developed in the field, the Federal Committee for the National Drinking Water Surveillance Programme felt a need to review the National Guidelines for Drinking Water Quality, 1983.

This led to the formation of a technical sub-committee in November 1988 that had the specific task for reviewing the National Guidelines for Drinking Water Quality, 1983. In the review and development of the Revised Edition of the National Guidelines for Drinking Water Quality 1989, efforts were made to reflect the experiences gained in the field as well as new knowledge in water treatment technology and health sciences. The development of this revised edition was made possible with the contributions of the committee under the invaluable guidance and technical advice of WHO/PEPAS consultant, Dr Paul Guo.

The application of the Revised Edition of the National Guidelines for Drinking Water Quality 1990 was instrumental for an increased and more effective surveillance and this led to the provision of drinking water that is both safe and pleasant to use.

After 10 years of implementation and in keeping pace with new developments in the field of water quality, the Engineering Services Division, Ministry of Health undertook the task of reviewing the National Guidelines for Drinking Water Quality, 1990. A technical subcommittee was formed in 1998. Reviewing was based on new scientific information as well as new chemicals found in drinking water as available in the WHO Guidelines for Drinking Water Quality, 1993-1998. A literature search was also performed and drinking water quality guidelines in several different countries were compared before the National Drinking Water Quality Standards, 2000 was drawn up. The views of the National Technical Committee for Drinking Water Quality (KMAM) were also incorporated in the revision of the guidelines.

As with the previous guidelines will be reviewed in future to keep in pace with further technological developments and available scientific knowledge. The Drinking Water Quality Surveillance Unit, Engineering Services Division, Ministry of Health Malaysia thank the members of the technical sub-committee and the National Technical Committee for KMAM for their invaluable input in the development of the National Drinking Water Quality Standards, 2000.

CONTENTS

1. Introduction
2. Definition of terms
3. Quality Requirements
4. Procedures recommended to achieve the drinking water quality standards.

List of Abbreviations

MOH	-Ministry of Health Malaysia
UDWQS	-Unit of Drinking Water Quality Surveillance
WHO	-World Health Organization
PEPAS	-Promotion of Environmental Planning and Applied Studies
PWD	-Public Works Department
WSD	- Water Supply Department
WB	-Water Board
DOC	-Department of Chemistry
DOE	-Department of Environment
DID	-Department of Drainage and Irrigation
DOL	-Department of Labour
NQWQSP	-National Drinking Water Quality Surveillance Programme

1. INTRODUCTION

- 1.1 Water for drinking, culinary and other domestic use should be safe, palatable and aesthetically appealing. The aim of this document is thus, to set limits to constituents that may be present in water which may be hazardous to health or objectionable to the physical senses of the consumer.
- 1.2 This document is divided into the following sections:-
- (i) definition of terms
 - (ii) quality requirements and
 - (iii) recommended procedures
- 1.3 The raw water quality criteria included in this document is intended to assist users in determining the appropriate treatment needed for raw water in order to produce water that will conform with the drinking water quality standards. The possible users include:-
- (i) Water Authorities
 - (ii) Ministry of Health
 - (iii) Department of Chemistry
 - (iv) Department of Environment
 - (v) Other agencies
 - (vi) Public Organisations
 - (vii) Private Organisations
- 1.4 The drinking water quality standards are applicable to all water intended for human consumption. This includes drinking water from all public water supply systems, tank supplies and water used for bottled drinks and ice manufacturing.
- 1.5 The procedures recommended such as the protection of source, treatment of water, sanitary survey, monitoring, record keeping etc., have been included here as guidelines for the relevant authorities as means of achieving the drinking water quality standards. Detailed procedures for every activity of surveillance is given in the Manual on Drinking Water Quality Surveillance.
- 1.6 In drawing up these guidelines, the 2nd edition of the WHO Drinking Water Quality Guidelines, 1993/96/98 was used as the main reference.
- 1.7 Those who are interested in the rationale by which recommended standard values were derived should refer to Volume 2 of WHO Drinking Water Quality guidelines, 1996.

- 1.8 The values described herein are not to be regarded as legal standards, but it is hoped that judicious use of these standards and criteria will result in the provision of a safe and wholesome drinking water to the consumer.

2. DEFINITION OF TERMS

- 2.1 Conventional Treatment includes the following water treatment processes namely screening, straining, aeration, coagulation and flocculation, sedimentation, filtration and disinfection.
- 2.2 Public Water Supply is defined as a water supply system that either:
- (i) has 15 or more service connections or
 - (ii) regularly serve an average of 25 or more people daily for at least 60 days each year.

This definition encompasses all water supply systems supplied by different agencies which varies with their capacity or in the type of treatment process employed. The categories of water supply systems are:-

- (i) Urban water supply systems
 - (ii) Rural water supply
 - (iii) Local authority water supply
 - (iv) Privately owned water supply
 - (v) Water Authorities
 - (vi) Water Authorities/MOH
- 2,3 Recommended Raw Water Criteria sets out the maximum/minimum levels of characteristics and constituents in raw water, which if exceeded will require special treatment. For raw water with constituents below the recommended criteria, only conventional water treatment is necessary.
- 2.4 Recommended Raw Water Criteria sets out the maximum/minimum levels of characteristics and constituents in drinking water, necessary to ensure maximum protection of the health and well-being of the consumer. Most of these levels are based on the WHO Guidelines for Drinking Water, 1996.
- 2.5 Special Treatment includes the following additional unit water treatment process namely, presedimentation, predisinfection activated carbon absorption, ion exchange, reverse osmosis, electro dialysis, fluoridation, etc.
- 2.5.1 Surveillance Agency shall mean the Ministry of Health Malaysia.
- 2.6 Water Authorities shall mean the Public Works Department, Water Supply Department, the Water Board, privatised or the corporatised water bodies.

- 2.7 Water Purveyor shall mean the waterworks or any person or agency supplying water to the public and shall include hotel management, army camps, SEDC, estate management etc.
- 2.8 Water Supply System includes the works and auxiliaries for collection, conveyance, treatment, storage and distribution of the water from the source of supply to the consumer and tap.

3. QUALITY CRITERIA AND STANDARDS

3.1 Raw Water Quality Criteria

- 3.1.1 Table 1 column 1 lists the recommended criteria for physical, chemical, radiochemical and microbiological constituents of raw water which will be suitable as potable source after undergoing conventional treatment.
- 3.1.2 If a raw water source has a quality that conforms with the recommended standards set in the drinking water quality standards (Table 2 Column 1) then it can be supplied with minimal treatment, which in most cases involves disinfection only.
- 3.1.3 If a raw water source has quality that does not conform with the recommended raw water quality criteria, then appropriate action shall be taken to identify and overcome the problem to allow for continued operation of conventional treatment. Special treatment should only be considered as a last resort.

3.2 Drinking Water Quality Standards

- 3.2.1 Drinking water must be clearer, and does not have objectionable taste, colour and odour. It must be pleasant to drink and free from all harmful organisms, chemical substances and radionuclides in amounts which could constitute a hazard to the health of the consumer.
- 3.2.2 The quality of drinking water is measured in terms of its physical, chemical, radiochemical and microbiological characteristics. Table 2 lists some of these characteristics with their recommended standards, which shall not be exceeded for maximum protection of the consumer.
- 3.2.3 If the characteristics or constituents in water after repeated sampling exceed the recommended standards listed in Table 2, then it shall be investigated by the personnel of the Health Department and the water purveyor immediately to ascertain the cause and to remove the source of contamination. If these measures fail repeatedly, the public shall be notified and possibly an alternative source of supply should be sought.
- 3.2.4 The parameters listed in Table 2 does not carry equal weight of significance. More attention is to be given to

parameters relating to the bacteriological quality and chemical toxicity of the water. The other important parameter is residual chlorine.

3.3 Expression of Results

- 3.3.1 Results of chemical analysis shall be expressed in terms of milligrams per litre (mg/l) or parts per million (ppm).
- 3.3.2 Turbidity shall be expressed in Nephelometric Turbidity Units (NTU).
- 3.3.3 Colour shall be expressed in units based on the platinum cobalt scale, reported in TCU (True Colour Units).
- 3.3.4 Volumes shall be expressed in millilitres or litre (ml or l).
- 3.3.5 Temperature shall be expressed in degree centigrade (°C).
- 3.3.6 Radioactivity shall be expressed in Bacquerel/litre (Bq/l).
- 3.3.7 For micro-organisms, estimation of bacteria shall be given in terms of Most Probable Number per 100 ml (MPN/100 ml) for the multiple-tube fermentation method and in colonies per 100 ml for the membrane filter method.
- 3.3.8 In reporting results of chemical analysis, the accuracy and precision of method shall be indicated whenever possible. This includes the proper use of significant figures and the indication of confidence limits.

4. PROCEDURES RECOMMENDED TO ACHIEVE THE DRINKING WATER QUALITY STANDARDS

4.1 Protection of Source

- 4.1.1 The quality of wastewater discharge upstream of water supply sources shall conform with the standard A levels listed in the Environmental Quality (Sewage and Industrial Effluents) Regulations 1979 (see Table 2)
- 4.1.2 In the case of parameters not listed under Standard A, Schedule 3 of the Environmental Quality (Sewage and Industrial Effluents) regulations 1979, the parameter limits listed in the Environmental Quality (Prescribed Premises) (Crude Palm Oil) Regulations 1977 [see Table 4] and Environmental Quality (Prescribed Premises) Raw natural Rubber) Regulations 1978 [see Table 5 & Table 6] as well as the National Interim Water Quality Standard for Malaysia shall be used as a guide to determine the discharge standard for control and enforcement purposes.
- 4.1.3 The responsibility for the protection of the intake shall be with the water purveyor while the preservation of the raw water quality of the source is within the jurisdiction of the Department of Environment with joint responsibility and cooperation of the other agencies such as Department of Agriculture, Veterinary Department, Local Authorities, Land and Mines Department etc.
- 4.1.4 The Ministry of Health, the Department of Environment and other relevant agencies shall be informed of all sources for new public water supply.
- 4.1.5 Monitoring of water sources shall be carried out regularly to detect any deterioration in raw water quality and its impact on the treatment plant concerned. This monitoring of raw water quality shall be carried out in conjunction with sanitary surveys.

4.2 Preventive Measures

- 4.2.1 Water treatment plants must be well designed and maintained and upgraded if necessary in order to prevent and minimise operation deficiencies or functional failures which may lead to the production of unsatisfactory water.
- 4.2.2 Service reservoirs must be so constructed, maintained and adequately protected so as to minimise contamination from human and animal activities.

- 4.2.3 When designing, constructing or maintaining a distribution system, special consideration must be given to ensure that the distribution system does not become a contamination source and is relatively inert to the water conveyed.
- 4.2.4 The responsibility of maintaining water quality within the private premises shall be with the consumer.

4.3 Treatment

- 4.3.1 When the raw water quality at the intake of a supply exceeds the recommended criteria listed in Table 1 Column 1, special treatment of water is required to ensure satisfactory sanitary quality.
- 4.3.2 Where applicable the methods of treatment shall include screening, microstraining, aeration, coagulation and flocculation, sedimentation, filtration, fluoridation, disinfection, or any other physical or chemical process or any combination thereof that may be required.
- 4.3.3 The water purveyor is required to engage qualified and competent personnel for carrying out plant operation and maintenance. They are to maintain proper records and also to ensure plant safety and cleanliness.
- 4.3.4 The following tests are required for process control : pH, colour, turbidity, residual chlorine, fluoride, jar test and shall be carried out within the treatment plant.
- 4.3.5 The above mentioned tests shall be carried out by trained plant operators who are to be supervised regularly (at least once in 3 months) by a chemist or a qualified laboratory staff. In the case of rural water supplies, there should be at least one trained plant operator. The recommended methods for in-plant testing given in the Manual on Drinking Water Quality Surveillance (see 4.3) shall be followed..

4.4 Sanitary Service

- 4.4.1 Sanitary survey is on- the- site inspection and evaluation of all conditions, devices and practices in the water supply system that pose or could pose a danger to the health and well being of the consumer.
- 4.4.2 Sanitary surveys for each treatment plant still be undertaken on a regular basis (at least once a year) by personnel from the water purveyors and the Department of Health who shall also act as the coordinator. Where necessary, personnel from the department of environment or any other relevant agency shall provide assistance and cooperation.
- 4.4.3 In addition, sanitary surveys shall also be conducted:

- i) When new sources are being developed
- ii) When repeated laboratory analysis of a water sample has results exceeding the recommended maximum levels.
- iii) When there is an outbreak of water diseases
- iv) When there is significant change of events that could affect the water quality (e.g beginning of a raining season, new development in a watershed etc.

4.4.4 The general recommendations on sanitary survey given in the Manual on Drinking Water Surveillance (sec 5) shall be followed. The survey may be partial or complete depending on circumstances.

4.5 Monitoring

4.5.1 Design of Monitoring Programme

4.5.1.1 The monitoring programme shall be designed so that any temporal variations, both systematic and random, in the quality of the water can be detected, and it should ensure that data collected is representative of the water quality throughout the whole system.

4.5.1.2 The monitoring programme shall be in accordance with the defined methods as prescribed by the surveillance agency. Table 1 Column 11 and Table 2 Column 11 lists respectively the recommended frequency for each parameter for raw and drinking water.

4.5.2 Sample Size

The number of samples for bacteriological sampling per month developed by the U.S. Public Health Service shall be adopted here as a guide to determine the total number of samples required monthly for a water supply system (See Fig.1)

4.5.3 Sample Locations

Sample or samples shall be taken from points in the water supply system which are as representative as possible of that supply. This shall include points at the intake, the treatment plant outlet, the reservoir outlet, the main pipeline as well as the rest of the distribution inclusive of the consumer's tap. (See sec.2 of the Manual on Drinking Water Quality Surveillance)

4.5.4 Sampling Procedures

4.5.4.1 Samples shall be collected in either glass, plastic bottles or thiobags with the appropriate pre-treatment (such as additives and sterilisation). Appropriate sampling devices

shall be employed for sampling of water especially from lakes, reservoirs and wells. Great care shall be taken during sampling and transport of the sample in order to prevent contamination or change in composition. The volume of water collected shall be sufficient for the required analysis. The sampler shall complete the appropriate forms (Form S1, S2, S3, see Manual on Drinking Water Quality Surveillance) signed and sent with the samples to the laboratory. The general recommendations on sampling procedures described in the Manual on Drinking Water Quality Surveillance (sec.3) shall be followed.

4.5.4.2 The sample boxes shall be sealed, and remain so until they are opened for analysis at the laboratory.

4.5.4.3 The sample shall be sealed, and remain so until they are opened for analysis at the laboratory.

4.5.4.4 The sample box shall be forwarded to the analytical laboratory as quickly as possible. It must reach the laboratory within 24 hours of sampling.

4.5.5 Laboratory Procedures

4.5.5.1 The water samples must be attended to immediately when it reaches the laboratory.

4.5.5.2 The water samples upon reaching the laboratory shall be analysed as soon as possible. Bacteriological samples shall be examined, if possible on site or within 24 hours after collection. However, physical parameters, such as pH, residual chlorine, turbidity and colour shall be measured on site. The other parameters shall be measured at the laboratory as soon as possible (preferably within 72 hours after collection).

4.5.5.3 Laboratory examination of water : All laboratories shall use the methods recommended in the "Standard Methods for the Examination of Water and Waste Water" published by the American Public Health Association or any other Standard Methods recommended by the Department of Chemistry. Reference should be made to the latest edition.

4.5.6 Field Procedures

4.5.6.1 Field examination of water: All field testing kits must be standardised, where required, with the Department of Chemistry before being put into use. The methods of the

field test kits shall be followed in detail as recommended by the manufacturer.

4.6 Reporting of Results, Record Keeping and Data Evaluation

4.6.4 Reporting of Results

4.6.4.1 Upon completion of tests on the sample, all results shall be reported in the accompanying form (Form S1, S2, S3) and be signed by the analyst. In the case of field testing, results shall be reported immediately in the monthly summary report by the Health Inspector.

4.6.4.2 Routine samples with results exceeding the recommended standards for bacteria (Table 2 Column 1) shall be reported immediately by the analyst through telephone or facsimile to the following agencies.

- (i) the affected water purveyor, or in the case of Water Authorities, the state office, who shall then inform by telephone the district office and by writing to the Federal Water Authorities.
- (iii) the State Health Office who shall immediately inform by telephone the District Health Office and by writing to the Unit of Drinking Water Quality Surveillance, Ministry of Health Malaysia.

4.6.4.3 Routine samples with results exceeding the recommended standards for chemical parameters shall be reported within 14 days of collection to the following agencies:

- (i) the water purveyor or in the case of the Water Authorities, the district office who shall inform by writing to the State and Federal Authorities.
- (ii) the District Health Office who shall then inform by writing to the State Medical and health Services Department.

4.6.4.4 For a routine sample with normal results, it shall be reported within 30 days of collection to the following agencies:

- (i) the water purveyor concerned or in the case of the Water Authorities, the district office.

- (ii) the District Health Office (DHO) who shall then inform by writing to the State Medical and Health Services Department (SMHSD).

4.6.5 Record Keeping

4.6.5.1 Monthly summary reports sent by the District Health Offices shall be compiled and sent to the Unit of Drinking Water Quality Surveillance, Ministry of Health Malaysia by the State Medical Services Department. All data pertaining to drinking water quality shall be retained, analysed and filed for as long as they may be useful. (Minimum of 5 years).

4.6.5.2 The maintenance of accurate and complete records shall be an integral part of the surveillance of drinking water quality. Apart from the recording of analytical results, the following shall also be recorded:

- (i) information on construction and location of the water supply and its auxiliary structures;
- (ii) Details of treatment, operation and maintenance;
- (iii) Sanitary survey reports;
- (iv) Reports on corrective actions taken

4.6.6 The keeping of records shall not become an end in itself but a part of a greater aim i.e. in evaluating system performance and planning improvements.

4.7 Remedial Action Procedures

Upon receiving reports of violations to the recommended standards in drinking water, the District Health Office shall liaise with the District Water Authorities or the Water Purveyor concerned to investigate the probable cause. The line of action may involve one or a combination of the following procedures:

- (i) re-sampling the affected area
- (ii) carrying out a sanitary survey
- (iii) carrying out a detailed engineering system investigation. Assistance may be sought from the State or Federal Agencies.

Following the investigation carried out, the remedial actions that may be recommended may involve one or a combination of the following procedures:

- (i) flushing of the pipelines or service reservoirs
- (ii) increased chlorine dosage
- (iii) correction of chemical dosage
- (iv) use of alternative source of water
- (v) major correction measures undertaken based on findings of engineering investigation
- (vi) notification and advice to the public
- (vii) terminating the supply.

Specific remedial action required for non-compliance of residual chlorine is detailed in the Manual on Drinking Water Quality Surveillance.

4.8 Medical Examination of Staff Employed by Waterworks

- 4.8.4 Care should be exercised in the selection of waterworks staff/personnel as well as contractors and their staff who are to be employed on jobs where a risk to the safety of the water supply is likely to arise. The clinical history of each person, particularly with reference to any infection capable of being waterborne, should be thoroughly investigated.
- 4.8.5 Individual medical records for every plant operator and contractor employed in the plant should be maintained for easy reference and following-up action.
- 4.8.6 Prior to employment, the worker should be sent to the District health Office and a rectal swab and stool examination made to ascertain that he is free from infection by waterborne diseases. The rectal swab and stool sample should be carried out 3 times in 3 successive days or once a week over a period of 3 weeks. Laboratory results should be recorded in his medical record.
- 4.8.7 He should not be so employed unless physical and medical examination shows the absence of infection by waterborne diseases.
- 4.8.8 Information on all vaccinations received by prospective employees must be recorded. Those requiring boosters or other vaccinations not received so far, must be given to the employee if recommended by the Medical Officer of Health examining the prospective employee.
- 4.8.9 If any employee is known to have any clinical signs and symptoms of any waterborne disease (diarrhoea), he is required to be examined and certified fit by a Government Medical Officer of Health before he resumes work at the treatment plant.
- 4.8.1 Standing arrangement should also be made to ensure that each member of the staff is examined every 6 months and certified fit by the Government Medical Officer of Health. The procedures

recommended are as listed in the Manual on Drinking Water quality Surveillance (PK1, PK2 & PK3)

TABLE 1

RECOMMENDED RAW WATER QUALITY CRITERIA AND FREQUENCY OF MONITORING

PARAMETERS	COLUMN I	COLUMN II			COLUMN III
	ACCEPTABLE VALUE	FREQUENCY TO BE MONITORED			SOURCE OF REFERENCE
		Mg/l (unless otherwise stated)	SURFACE	GROUND	
TOTAL COLIFORM	5000 efu/100ml	W	M	M	WHO1
TURBIDITY	100 NTU	W	M	M	WHO2
COLOUR	300 TCU	W	M	M	WHO1
PH	5.5-9.0	W	M	M	MAL
TOTAL DISSOLVED SOLIDS	1500	M	Y/4	Y/4	WHO1
BIOLOGICAL OXYGEN DEMAND	6	M	Y/4	Y/4	WHO1
CHEMICAL OXYGEN DEMAND	10	M	Y/4	Y/4	WHO1
CHLORIDE	250	M	Y/4	Y/4	MAL
ANIONIC DETERGENT MBAS	1.0	M	Y/4	Y/4	WHO1
AMMONIA (AS N)	1.5	M	Y/4	Y/4	WHO1
NITRATE (AS N)	1.0	M	Y/4	Y/4	MAL
TOTAL NITROGEN N (-N03)	1.0	M	Y/4	Y/4	WHO1
IRON (AS Fe)	1.0	M	Y/4	Y/4	WHO1
FLUORIDE	1.5	M	Y/4	Y/4	WHO1
HARDNESS	500	M	Y/4	Y/4	MAL
MERCURY	0.001	Y/4	Y/4	Y/4	MAL
CADMIUM	0.003	Y/4	Y/4	Y/4	MAL
SELENIUM	0.01	Y/4	Y/4	Y/4	WHO1
ARSENIC	0.01	Y/4	Y/4	Y/4	MAL
CYANIDE	0.07	Y/4	Y/4	Y/4	MAL
LEAD	0.05	Y/4	Y/4	Y/4	MAL
CHROMIUM	0.05	Y/4	Y/4	Y/4	WHO1
SILVER	0.05	Y/4	Y/4	Y/4	MAL
COPPER	1.0	Y/4	Y/4	Y/4	MAL
MANGANESE	0.2	Y/4	Y/4	Y/4	MAL
MAGNESIUM	150	Y/4	Y/4	Y/4	MAL
SODIUM	200	Y/4	Y/4	Y/4	MAL
ZINC	3	Y/4	Y/4	Y/4	MAL
SULPHATE	250	Y/4	Y/4	Y/4	MAL
MINERAL OIL	0.8	Y/4	Y/4	Y/4	MAL
PHENOL	0.002	Y/4	Y/4	Y/4	WHO1

W INDICATES PARAMETERS TO BE MONITORED AT LEAST ONCE A WEEK
M INDICATES PARAMETERS TO BE MONITORED AT LEAST ONCE A MONTH
Y/4 INDICATES PARAMETERS TO BE MONITORED AT LEAST ONCE IN 3 MONTHS
Y INDICATES PARAMETERS TO BE MONITORED AT LEAST ONCE A YEAR
WHO1 REFERS TO WHO INTERNATIONAL STANDARDS FOR DRINKING WATER 1963
WHO2 REFERS TO WHO GUIDELINES FOR DRINKING WATER QUALITY VOL 1 & 2 1984
MAL REFERS TO VALUES ADAPTED FOR MALAYSIAN CONDITIONS



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Schools - chill out

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SULPHATE, MAGNESIUM, SODIUM AND POTASSIUM - naturally occurring in a range of the geology of water through minerals

MANGANESE - occurs naturally and is an essential part of our diet. It may also come from the corrosion of steel over water pipes

IRON - occurs naturally and is essential in the diet. It may also come from the corrosion of steel over water pipes causing a rusty brown appearance to the water

ALUMINIUM - found naturally in the earth. It is used in the 'brilliant' process at some works in the North East to remove naturally occurring aluminium

NITRATES - occur naturally from both natural and agricultural sources. High concentrations are removed by sophisticated treatment processes to give it safe for drinking with low nitrate levels

PHOSPHORUS - occurs naturally and is essential in the diet. It is added to treated water in some areas to protect the taste of tap water against bacterial growth

COPPER AND ZINC - present in tap water due to corrosion with domestic plumbing systems

LEAD - treated water is usually free from lead. Lead is a harmful material and is still common in many older properties. We treat the water to make it safe. The best way to deal with lead pipes is to replace them

CHLORINE - small amounts of chlorine are added to treated water to kill any harmful bacteria present and to keep the water safe on its way to your tap

FLUORIDE - added to water supplies in the North East of England at the request of the local health authority

PESTICIDES - used in agriculture and on lawns. High concentrations are removed by sophisticated treatment processes

PAH (polycyclic aromatic hydrocarbon) - may occur due to the corrosion of the fringes of old cast iron pipes

BACTERIA - FROM THE TAP: Most tap water is safe to drink. It is not possible to see bacteria on its way to your home or as it passes through a tap tap.

A to Z

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- Where it comes from
- How we treat it
- Supplying it to you
- Using it
- Checking the quality
- Your tap water
- Why add chlorine
- Is fluoride added
- Water hardness
- Tap versus bottled

NWL SEARCH

Go

Your tap water



What's in your tap water?

In addition to H₂O your water contains a number of substances. Most of these are perfectly harmless and that water would taste foul if they weren't there (try tasting distilled water if you're not convinced!). Others are safe in the minute concentrations found in tap water.

The substances we have to check for include:

CALCIUM - occurs naturally especially where the water flows through limestone or chalk

SULPHATE, MAGNESIUM, SODIUM AND POTASSIUM - naturally occurring as a result of the passage of water through minerals

MANGANESE - occurs naturally and is an essential part of our diet; may also come from the corrosion of cast iron water mains

IRON - occurs naturally and is removed at the treatment works; may also come from the corrosion of cast iron water mains causing a rusty brown colouration to the water

ALUMINIUM - found naturally in all water sources; chemical aluminium is used in the treatment process at some works in the North East to remove naturally-occurring aluminium

NITRATES - occur naturally from both mineral and soil processes and from agricultural activity; where present they are removed by sophisticated treatment or reduced to safe levels by mixing with low-nitrate water

PHOSPHORUS - occurs naturally and in fertilisers and detergents; phosphate is added to treated water in some areas to protect the uptake of lead from domestic plumbing systems processes

COPPER AND ZINC - presence is largely due to contact with domestic plumbing systems

LEAD - treated water is virtually lead free; lead was used as a plumbing material and is still common in many older properties; we treat the water to make it less likely to absorb lead from plumbing but the safest way to deal with lead pipes is to replace them

CHLORINE - small amounts are added to the water as it leaves the treatment works to kill any harmful bacteria present and to keep the water safe on its way to your tap

FLUORIDE - occurs naturally in some sources; is added to some supplies in the North East of England at the request of the local health authority

PESTICIDES - may be found in water from land that has been intensively farmed; where present they removed by sophisticated treatment processes

PAH (polynuclear aromatic hydrocarbons) - may result from the corrosion of the linings of old cast iron mains

BACTERIA - if found they indicate that the water has been contaminated on its way to your home or as it passes through a dirty tap

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- Where it comes from
- How we treat it
- Supplying it to you
- Using it
- Checking the quality
- Your tap water
- Why add chlorine
- Is fluoride added
- Water hardness
- Tap versus bottled

NWL SEARCH

Go

Water hardness

Why some water is hard

If your water comes from underground limestone or chalk rocks then the chances are that it is hard. The hardness is caused by the presence of minerals dissolved from the rocks by the water.

Water hardness is not harmful and is actually better for your health than soft water from rivers and reservoirs.

If your water is hard you will notice that your kettle and other water heating appliances become furred up with a white scale. You may also find this scale in your bath, sink and shower. It isn't harmful but can be a bit of a nuisance. Hard water can also affect appliances like washing machines, dishwashers and steam irons.

Below is a table of water hardness in your region by treatment area, along with the measurement of hardness in degrees Clarke, for use with dishwashers and washing machines.

Water hardness by treatment area
(Hardness is measured in degrees Clarke)

This document gives you information on our water hardness areas broken down by town.

The hardness value assigned to each area is explained below ranging from 1 (soft water) to 22+ (very hard).

Hardness value table

Value	Description
1-3	Soft water
4-7	Moderately soft
8-11	Medium
12-15	Moderately hard
16-22	Hard
22+	Very hard

Water hardness zones (North)

Name	Zone	Hardness	Description
Allendale & Hexham	N71	6	Soft
Allenheads	N35	6	Soft
Barnard Castle	T01	7	Medium
Beacon Lough	N16	8	Medium
Bedlington	R09	8	Medium
Berwick	N50	13	Medium
Billingham	T07	8	Medium
Birney Hill	N18	8	Medium
Bishop Auckland	W10	4	Soft
Blanchland	W01	4	Soft
Blyth A	N26	13	Medium
Blyth B	N27	10	Medium
Blyth C	N28	8	Medium
Boulby	T31	3	Soft
Burnhope Pipeline	S15	4	Soft
Burnhopefield	W07	4	Soft
Byker	N20	9	Medium



Byness	N29	2	Soft
Cambo	R07	15	Hard
Carr Hill A	N14	9	Medium
Carr Hill B	N15	15	Hard
Carshield	N34	1	Soft
Cartington & Thropton	R15	7	Medium
Chester Le Street	W04	4	Soft
City Centre	N07	12	Medium
Cleveland Hills	T40	7	Soft
Consett & Chopwell	W31	4	Soft
Crook & Esh Winning	W08	4	Soft
Darlington North	T02	11	Medium
Darlington South	T03	10	Medium
Durham	W34	6	Soft
Easington North	S14	26	Hard
Easington Peterlee	S13	9	Medium
Easington South	S12	34	Hard
Easington	T22	34	Hard
East Cleveland	T44	4	Medium
Fenham A	N01	8	Medium
Fenham B	N02	11	Medium
Fenham C	N03	12	Medium
Fenham D	N04	8	Medium
Fenham E	N05	11	Medium
Fenham F	N06	11	Medium
Glendale	N60	4	Soft
Grangetown	T17	7	Medium
Gravitaion Mains	R05	8	Medium
Gunnerton	N49	5	Soft
Halton Lea Gate	N33	11	Soft
Haltwhistle & Featherstone	N70	5	Soft
Harlow Hill	N25	12	Medium
Hebron Castle Morpeth	R03	10	Medium
Hebron Wansbeck	R02	10	Medium
Heddon	N21	11	Medium
Hemlington & Coulby Newham	T11	8	Medium
Hexham & Corbridge	N72	5	Soft
Hillend	R06	8	Medium
Langley	N32	5	Soft
Loftus & Carlin How	T45	3	Soft
Longbank East	T36	8	Medium
Longbank West	T37	8	Medium
Low Service A	N08	11	Medium
Low Service B	N09	11	Medium
Low Service C	N10	7	Medium
Low Service D	N11	12	Medium
Middlesborough North	T15	8	Medium
Middlesbrough Central	T12	7	Medium
Morpeth	R08	9	Medium
North Tyneside East	R11	9	Medium
North Tyneside South East	R12	9	Medium
North Tyneside West	R10	9	Medium
Nunthorpe	T14	9	Medium
Otterburn	N13	3	Soft
Port Clarence	T47	3	Soft
Redcar	T16	8	Medium
Rochester	N30	4	Soft
Rothbury & Longhorsley	R16	7	Medium
Sacrison	W14	6	Soft
Sadberge	T18	8	Medium
Sedgefield & Aycliffe	T45	4	Soft
Slaggyford	N37	4	Soft
Slaley	N34	4	Soft
Spennymoor	W18	6	Soft
Stanley & Annfield Plain	W32	4	Soft
Stannington	N24	10	Medium
Stockton North	T43	9	Medium
Stockton South	T39	7	Medium
Stonehaughshields	N36	24	Hard
Sunderland East	S09	20	Hard
Sunderland Fulwell	S08	21	Hard
Sunderland North	S07	24	Hard
Sunderland Pallion	S10	19	Hard
Sunderland Stonegate	S11	28	Hard

**PAGE
MISSING
IN
ORIGINAL**

Name	Hardness	Description
Barsham	29 - 35	Very Hard
Broome & Bungay	24 - 33	Very Hard
Coldfair Green	28 - 31	Very Hard
Eye	30 - 31	Very Hard
Gt Yarmouth Sth	21 - 23	Hard / Very Hard
Hacheston	31 - 33	Very Hard
Halesworth	24 - 27	Very Hard
Ilketshall	24 - 32	Very Hard
Lound	17 - 31	Hard / Very Hard
Ormesby	22 - 25	Hard / Very Hard
Parham	28 - 32	Very Hard
Redgrave	24 - 27	Very Hard
Rickinghall	35 - 41	Very Hard
Saxmundham & Benhall	31 - 34	Very Hard
Shadingfield Tower	31 - 33	Very Hard
Southwold	27 - 30	Very Hard
Syleham	28 - 31	Very Hard
Walpole	31 - 39	Very Hard

One way of dealing with the problems caused by hard water is to consider fitting a water softener. There are various regulations concerning these, both their installation and use, so you must check with us if you are seriously considering a water softener and certainly before you buy one. Contact us to find out more.

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APPENDIX 6

CONTENTS

- Sample Semantic Differential Score Questionnaire
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- Guided Material-Anodising Manual
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- Anodising Samples produced by Craft Practitioners in Kelantan
- Peer Review Transcript
- Peer Review Meta-Matrices

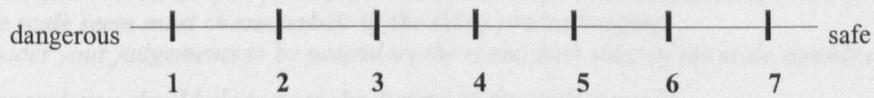
Questionnaire Answering Guidelines

INSTRUCTIONS

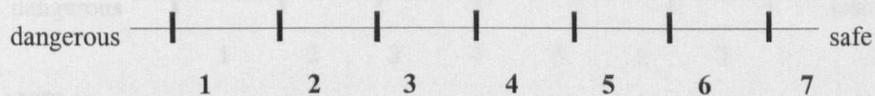
The purpose of this study questionnaire is to measure your personal views and judgements by asking you to indicate these against a series of descriptive scales. On each page of the questionnaire you will find a different concept to be judge and beneath it a set of scales. You are to rate a concept against each of these rating scales in the order they are set out.

Here is an example of how you are to use these rating scales:

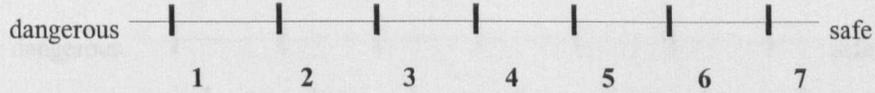
If you feel that your judgement of a concept is very closely related to one end of a rating scale, you should place your check-mark as follows:



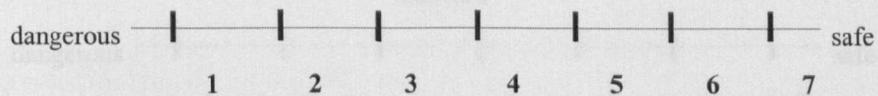
or



If you feel that the concept is quite closely related to one or other end of the scale (but not extremely), you should place your check-mark as follows:



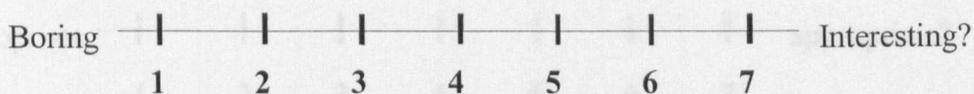
or



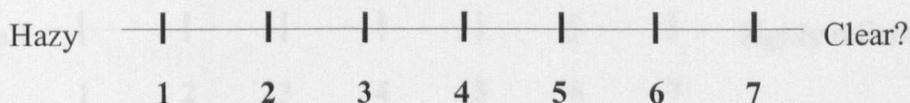
If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), the you should place your check-mark as follows:

Index 1: Effectiveness of Presentation

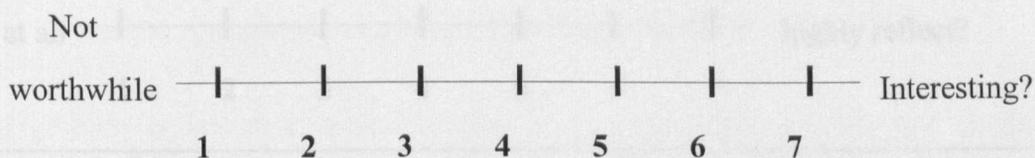
Q.1 Was the presentation-



Q.2 Was the presentation-

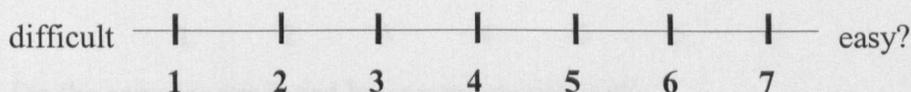


Q.3 Was the presentation-

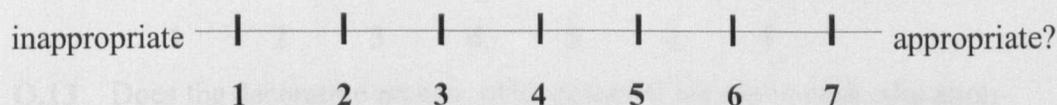


Index 2: Understanding the Process of Anodising Aluminium

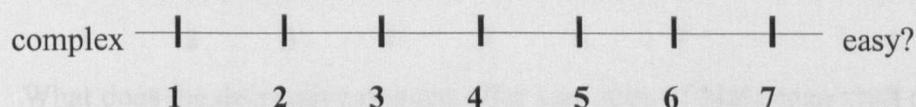
Q.4 Was the explanation of the process easy to follow-



Q.5 Is the colour demonstrated from the samples appropriate on aluminium-

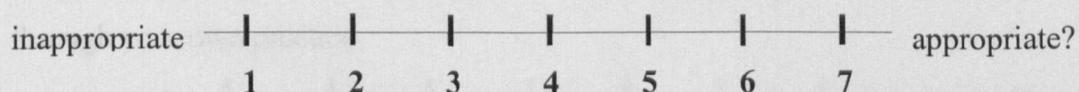


Q.6 How complex is the process



Index 3: Cultural Value

Q.7 Are the colour schemes appropriate to the decoration of traditional artefacts-



Q.8 Are the colour schemes appropriate to the decoration of contemporary artefacts-

inappropriate — | — | — | — | — | — | — appropriate?
1 2 3 4 5 6 7

Q.9 Do the colour schemes reflect traditional Malaysian cultural values-

not at all — | — | — | — | — | — | — highly reflect?
1 2 3 4 5 6 7

Q.10 Do the colour schemes reflect contemporary Malaysian cultural values-

not at all — | — | — | — | — | — | — highly reflect?
1 2 3 4 5 6 7

Index 4: Market Value

Q.11 Is the decorative process time consuming

uneconomical — | — | — | — | — | — | — economical?
1 2 3 4 5 6 7

Q.12 Do the samples produced have market potential-

not at all — | — | — | — | — | — | — highly marketable?
1 2 3 4 5 6 7

Q.13 Does the decorative process offer potential for use in craft education-

not at all — | — | — | — | — | — | — high potential?
1 2 3 4 5 6 7

Q.14 What does the decorative process offer your area of Malaysian craft practice-

not at all — | — | — | — | — | — | — high potential?
1 2 3 4 5 6 7

Q.15 Would you be interested in experimenting with this decorative technique through your own practice-

uninterested — | — | — | — | — | — | — interested?
1 2 3 4 5 6 7

VISUAL CASE STUDY TRANSCRIPT

Question for Semi-structure interview-visual case study

Q4. Was the explanation of the process easy to follow?

Q14. What does the decorative process offer your area of Malaysian craft practice?

DESIGNER (YUNUS SEMAN)

SPECIALIZATION: METALWORK

Q4. Was the explanation of the process easy to follow?

There is a certain technical part that is not clear but the rest is quite understandable.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I might try this out in my next craft product design.

DESIGNER (SABARIAH ZULKIFLI)

SPECIALIZATION: GRAPHIC

Q4. Was the explanation of the process easy to follow?

Everything is all right with the presentation but when involved with technical information, I'm a bit concerned about the colouring process, which is technical and which I found some difficulty in understanding but I gained a rough idea of the technology. Another factor might be lack of exposure on this technique.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I have an interest to apply this technique to my craftwork in the future.

DESIGNER: YUSAK

SPECIALIZATION: FOREST BASED

Q4. Was the explanation of the process easy to follow?

The presentation is understandable with the assistance of the decorative samples that have been presented. I think the process and the material might offer an opportunity to our craft industry.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I think there is a possibility for the combination of aluminium as an added value within my area of craft practice and it needs to be explored. So far I have combined brass and glass with my wooden box design.

DESIGNER: SALMAH AHMAD

SPECIALIZATION: BATIK

Q4. Was the explanation of the process easy to follow?

I found some difficulty with the technical explanation especially with the sequence of the colouring process of anodised aluminium. I would suggest some form of manual of the technique to be given at the event of the presentation. This might help the participants to gain a much clearer picture of what has been presented.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I think the combination of batik dyes and aluminium that has been experimented with in the decorative samples has effectively portrayed some elements of batik technique, which I normally do on fabric. I would be interested to apply this technique to my own batik designs due to the material characteristics and variation of colours.

EDUCATOR: ABD. RAZAK SHAMSUDDIN

SPECIALIZATION: BATIK

Q4. Was the explanation of the process easy to follow?

In terms of the process from my perspective, I prefer the explanation through video rather than the PowerPoint presentation. But in terms of the technical information, I would more elaboration in detail, especially for the preparation of the colouring formula for the decorative process.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I can see the potential of the process from the samples and I would like to try this in a commercial way.

EDUCATOR: ALIAS YUSSOF

SPECIALIZATION: METALWORK

Q4. Was the explanation of the process easy to follow?

I think the explanation is fine and I can follow what has been presented, except there needs to be a hand-out or manual of the decorative process. I think the decorative samples are very helpful...

Q14. What does the decorative process offer your area of Malaysian craft practice?

In my present practice, I have been doing some collage work from multicoloured paper and metal. After attending the presentation, I can see the opportunity for me to explore aluminium due to its capability to accept colour and create a pattern.

EDUCATOR: RUZAIKA BASAREE

SPECIALIZATION: FINE ART

Q4. Was the explanation of the process easy to follow?

The decorative process that has been presented is quite simple and with the video presentation of the technique I gained even more information. As the topic presented is about a process, I think we should have a guide book or manual for us to refer to which should include preparation, type of dyes, colouring ingredients etc.....

Q14. What does the decorative process offer your area of Malaysian craft practice?

As a fine artist, the approach is more on installation work, I have been working more on traditional elements of Malaysian architecture and mostly the material used is wood. I will consider the use of aluminium in my work in the future but to anodise a huge size of aluminium is impossible. I think there is a limitation to the use of aluminium in my current approach but for small-scale installation it might be possible.

CRAFTMAKER: AZLI (TERENGGANU)

SPECIALIZATION: GLASS

Q4. Was the explanation of the process easy to follow?

I have a clear vision of the presentation with the support from your decorative samples and video presentation but technically I still need to experience the practicality of the process.

Q14. What does the decorative process offer your area of Malaysian craft practice?

Currently I'm working on glass but I also have other materials that blend with it such as brass and wood. If the decorative process is simple and the availability of materials is cheap, I might explore this in my future craftwork.

CRAFTMAKER: OTHMAN WAGIMAN

SPECIALIZATION: ALUMINIUM

Q4. Was the explanation of the process easy to follow?

I think the colouring process is quite simple and through explanation, video presentation and samples, I have the understanding of the basic principle of the technique.

Q14. What does the decorative process offer your area of Malaysian craft practice?

I have been working with aluminium but more on casting technique, which has a rough finish. I also apply normal paint on aluminium. After attending this workshop it inspired me and I feel I would try to do some decorative work from this technique.

CRAFTMAKER: AMRAN GHAZALI (MHDC CASTER)

SPECIALIZATION: BRASS

Q4. Was the explanation of the process easy to follow?

There are some technical aspect I still don't understand, especially the anodising procedure and the colouring process but in general I can visualize through your video presentation....

Q14. What does the decorative process offer your area of Malaysian craft practice?

I have been working in the field of decorative brass casting and I'm totally consume involved with this metal for my craft production. I can see from the samples displayed there is a potential to have a mix material between brass and aluminium or aluminium and silver or aluminium with other craft materials. I think the opportunity is for the younger generation to explore.....

CRAFT MAKER: FARIDAH MD.NOR

SPECIALIZATION: BATIK

Q4. Was the explanation of the process easy to follow?

This is my first experience attending this craft course organized by MHDC as I'm new to the craft business. The presentation of the colouring process is simple and it would be much better with the help of literature to illustrate the process.

Q14. What does the decorative process offer your area of Malaysian craft practice?

As the technique presented the use of batik dyes in the colouring process of aluminium, it is very related to my existing craftwork but the only difference is I'm printing on fabric. I think it can be extended to other batik craft products seeing the samples displayed and the opportunity to combine these with fabrics because of the lightweight of aluminium.

CRAFTMAKER: MOHD.DAUD YUSSOF

SPECIALIZATION: SILVER

Q4. Was the explanation of the process easy to follow?

The video presentations of the process that were delivered, give me some general views of the decorative technique and it is good to have this kind of craft knowledge presented at events like this. To fully understand the technique that has been presented, I have to engage with it in the craft workshop.

Q14. What does the decorative process offer your area of Malaysian craft practice?

The demand for silver crafts is very slow, due to the slow corresponding demand in the craft markets. Currently, my concentration of craftwork is focused on jewellery and silverware. In the past there were no attempts made to combine any colourful surface decoration on both products except the use of coloured stones in jewellery. I can see the potential of aluminium from the decorative samples and consider combining it with silver and I might try it with silver filigree work.

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: DESIGNERS	
Was the explanation of the process easy to follow?			
RESPONDENT 1: YUNUS (METAL)		RESPONDENT 2: SABARIAH (GRAPHIC)	
<p>There is a certain <u>technical part</u> that is not clear but the rest is quite understandable.</p>		<p>Everything is all right with the presentation but when involved with <u>technical information</u>, I'm a bit concerned about the colouring process, which is technical and which I found some difficulty in understanding but I gained a rough idea of the technology. Another factor might be <u>lack of exposure</u> on this technique.</p>	
KEYWORD			
technical part		technical information lack of exposure	

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: DESIGNERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 1: YUNUS (METAL)	RESPONDENT 2: SABARIAH (GRAPHIC)	
I <u>might try</u> this out in my next craft product design.	I <u>have an interest</u> to apply this technique to my craft work in the future.	
KEYWORD		
might try	have the interest	

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: DESIGNERS
Was the explanation of the process easy to follow?		
RESPONDENT 3: YUSAK (FOREST)	RESPONDENT 4: SALMAH (BATIK)	
<p>The presentation is <u>understandable with the assistance of the decorative samples</u> that have been presented. I think the process and the material might offer an opportunity to our craft industry.</p>	<p>I found some <u>difficulty with the technical explanation</u> especially with the sequence of the colouring process of anodised aluminium. I would suggest some form of <u>manual of the technique</u> to be given at the event of the presentation. This might help the participants to gain a much clearer picture of what has been presented.</p>	
KEYWORD		
<p>understandable with the assistance from the decorative samples</p>	<p>manual of the technique</p>	<p>difficulty with the technical explanation</p>

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: DESIGNERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 3: YUSAK(FOREST)	RESPONDENT 4: SALMAH (BATIK)	
I think there is a possibility for the combination of aluminium as <u>an added value</u> within my area of craft practice and it needs to be explored. So far I have combined brass and glass with my wooden box design.	I think the combination of batik dyes and aluminium that have been experimented with in the decorative samples have effectively portrayed some elements of batik technique, which I normally do on fabric. I would be <u>interested to apply</u> this technique to my own batik designs due to the material characteristics and variation of colours.	
KEYWORD		
as an added value	interested to apply	

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: EDUCATORS
Was the explanation of the process easy to follow?		
RESPONDENT 1: RAZAK (BATIK)	RESPONDENT 2: ALIAS (METAL)	
<p>In terms of the process from my perspective, I prefer the explanation through video rather than the PowerPoint presentation. But in terms of the <u>technical information</u>, I would more <u>elaboration in detail</u>, especially for the preparation of the colouring formula for the decorative process.</p>	<p>I think the explanation is fine and I can follow what has been presented, except there needs to be a <u>hand-out or manual</u> of the decorative process. I think the decorative samples are very helpful...</p>	
KEYWORD		
<p>technical information, I would more elaboration in detail</p>	<p>a hand-out or manual</p>	

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: EDUCATORS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 1: RAZAK (BATIK)	RESPONDENT 2: ALIAS (METAL)	
I can see the potential of the process from the samples and I would like to <u>try this in a commercial way.</u>	In my present practice, I have been doing some collage work from multicoloured paper and metal. After attending the presentation, I can see the <u>opportunity for me to explore</u> aluminium due to its capability to accept colour and create a pattern.	
KEYWORD		
like to try this in a commercial way.	opportunity for me to explore	

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: EDUCATORS
Was the explanation of the process easy to follow?		
RESPONDENT 3: RUZAIKA (F.ART)		
<p>The decorative process that has been presented is quite simple and with the video presentation of the technique I gained even more information. As the topic presented is about a process, I think we should <u>have a guide book or manual for us to refer to</u> which should include preparation , type of dyes, colouring ingredients etc.....</p>		
KEYWORD		
<p>have a guideline manual for us to refer</p>		

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: EDUCATORS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 3: RUZAIKA (F.ART)		
<p>As a fine artist, the approach is more on installation work, I have been working more on traditional elements of Malaysian architecture and mostly the material used is wood. <u>I will consider the use of aluminium</u> in my work in the future but to anodise a huge size of aluminium is impossible. I think there is a limitation to the use of aluminium in my current approach but <u>for small-scale installation</u> it might be possible.</p>		
KEYWORD		
I will consider the use of aluminium		for small-scale installation

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: C.MAKERS
Was the explanation of the process easy to follow?		
RESPONDENT 1: AZLI (GLASS)		RESPONDENT 2: OTHMAN (ALUM)
<p>I have a <u>clear vision</u> of the presentation with the support from your decorative samples and video presentation but <u>technically I still need to experience the practicality</u> of the process.</p>		<p>I think the colouring process is quite simple and through explanation, video presentation and samples, I have the <u>understanding of the basic principle</u> of the technique.</p>
KEYWORD		
<p style="text-align: center;">clear vision</p> <p>technically I still need to experience the practicality</p>		<p style="text-align: center;">understanding of the basic principle</p>

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: C.MAKERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 1: AZLI (GLASS)	RESPONDENT 2: OTHMAN (ALUM)	
<p>Currently I'm working on glass but I also have other materials that blend with it such as brass and wood. If the decorative process is simple and the availability of materials is cheap, I <u>might explore this in my future craftwork.</u></p>	<p>I have been working with aluminium but more on casting technique, which has a rough finish. I also apply normal paint on aluminium. After attending this workshop it inspired me and I feel <u>I would try to do some decorative work</u> from this technique.</p>	
KEYWORD		
<p>might explore this in my future craft work.</p>	<p>I would try to do some decorative work</p>	

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: C.MAKERS
Was the explanation of the process easy to follow?		
RESPONDENT 3: AMRAN (BRASS)	RESPONDENT 4: FARIDAH (BATIK)	
<p>There are <u>some technical aspect</u> I still don't understand, especially the anodising procedure and the colouring process but in general I can visualize through your video presentation....</p>	<p>This is my first experience attending this craft course organized by MHDC as I'm new to the craft business. The presentation of the colouring process is simple and it would <u>be much better with the help of literature to illustrate the process.</u></p>	
KEYWORD		
<p>some technical aspect</p>	<p>be much better with the help of literature to illustrate process.</p>	

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: C.MAKERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 3: AMRAN (BRASS)	RESPONDENT 4: FARIDAH (BATIK)	
<p>I have been working in the field of decorative brass casting and I'm totally consume involved with this metal for my craft production. I can see from the samples displayed there is a potential to have a mix material between brass and aluminium or aluminium and silver or aluminium with other craft materials. I think <u>the opportunity is for the younger generation to explore.....</u></p>	<p>As the technique presented the use of batik dyes in the colouring process of aluminium, it is very related to my existing craftwork but the only difference is I'm printing on fabric. I think it can be extended to other batik craft products seeing the samples displayed and the <u>opportunity to combine these with fabrics</u> because of the lightweight of aluminium.</p>	
KEYWORD		
<p>the opportunity is for the younger generation</p>	<p>opportunity to combine this with fabrics</p>	

QUESTION: 4	SD CONCEPTS: UNDERSTANDING OF THE ANODISING PROCESS	RESPONDENT CATEGORY: C.MAKERS
Was the explanation of the process easy to follow?		
RESPONDENT 5: DAUD (SILVER)		
<p>The video presentations of the process that were delivered, <u>give me some general views of the decorative technique</u> and it is good to have this kind of craft knowledge presented at events like this. To fully understand the technique that has been presented, I have to engage with it in the craft workshop.</p>		
KEYWORD		
<p>give me some general view of the decorative technique</p>		

QUESTION: 14	SD CONCEPTS: MARKET POTENTIAL	RESPONDENT CATEGORY: C.MAKERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 5: (SILVER)		
<p>The demand for silver crafts is very slow, due to the slow corresponding demand in the craft markets. Currently, my concentration of craftwork is focused on jewellery and silverware. In the past there were no attempts made to combine any colourful surface decoration on both products except the use of coloured stones in jewellery. I can see the potential of aluminium from the decorative samples and consider combining it with silver and <u>I might try it with silver filigree work.</u></p>		
KEYWORD		
I might try it with silver filigree work		

**SEMI-STRUCTURE INTERVIEW
CASE STUDY-HANDS ON EXPERIENCE OF CRAFT PRACTITIONERS**

CRAFT MAKER: AMRAN GHAZALI

SPECIALIZATION: BRASS

Q7. Are the colour schemes appropriate to the decoration of traditional artefacts?

In my opinion, the colour achieved from my experimental pieces is acceptable for decorative purposes, which have some similarities with the batik dyes I have seen. This new technique is unique due to its capability to overlap pattern as in batik making and it is appropriate to say that it can be explored for the decoration of traditional craft artefacts.

Q8. Are the colour schemes appropriate to the decoration of contemporary artefacts?

By viewing the colour schemes, I feel it is appropriate to contemporary approaches because it can relate to existing aluminium products, for example in architecture and household utilities. The form as we can see is more geometrical in shape and within these forms we can make some modifications and transfer some traditional elements onto the surface.

Q.11 Is the decorative process time consuming?

The experimental process, which I have gone through takes about 45 minutes. If we are going for mass production, this amount of time is still reasonable to apply because we can produce it at a very large scale within a short period. This is what I can see from the racking presented in the first session.

Q.12 Do the samples produced have market potential?

It depends on the type of aluminium craft you plan to produce. In my experience the price range is within Ringgit 5 to Ringgit 10 and this is a good price to start with.

Q.14 What does the decorative process offer your area of Malaysian craft practice?

After experiencing the anodised aluminium workshop, I feel I would like to try taking advantage of applying this technology into my craft practice. The reasons for this is because its simplicity in setting up the workshop, which only requires a small space, low cost materials and equipment.

CRAFT MAKER: JUHARI ABDULLAH

SPECIALIZATION: WOOD

Q7. Are the colour schemes appropriate to the decoration of traditional artefacts?

The colour schemes, which I have produced from the craft workshop, have some similarities with the ready-made samples that you have presented. I also applied some traditional elements to my experimental piece and personally feel it can portray a traditional type of craft artefact.

Q8. Are the colour schemes appropriate to the decoration of contemporary artefacts?

To me colour is not a crucial part in my craftwork because whatever I produce depends on the attractiveness of the design. In this case I would say this technique is adaptable to contemporary or traditional or both approaches.

Q.11 Is the decorative process time consuming?

As this technique is very new to me, I find the process is very economical for example the time taken for the colouring process as it consume very little dyes. Other factors that I notice is the reusable of the same chemical (caustic soda) for etching as part of the decorative process.

Q.12 Do the samples produced have market potential?

I think the decorative samples that have been produced from the craft workshop as well as your collections, I saw there is a potential this type of crafts work to be marketed. I would suggest we have to go for small craft items to test the market with a reasonable price.

Q.14 What does the decorative process offer your area of Malaysian craft practice?

My aim at the moment is to diversify my craft product using varieties of materials, design and technical knowledge including my experience gain from the anodising workshop.

CRAFT MAKER: ABD.AZIZ AWANG

SPECIALIZATION: BATIK

Q7. Are the colour schemes appropriate to the decoration of traditional artefacts?

As a batik maker, I feel there are some similarities within the colour schemes of anodised aluminium that has been achieved through the samples and the experiments that I have experience in this workshop. As it can be painted, it has the opportunity to receive any traditional elements to be decorated.

Q8. Are the colour schemes appropriate to the decoration of contemporary artefacts?

I am used to fabric in my career but to see this effect on metal is very interesting. In applying decorative motif to the fabric, I also have some references from MHDC. As aluminium can be transformed into various shapes like other metals, it depend on the designers creativity to control the appearance of the craft products whether they wanted it to be traditional or contemporary depending on what colour schemes they choose.

Q.11 Is the decorative process time consuming?

To me the process is not time consuming if we have a proper type of production

Q.12 Do the samples produced have market potential?

This has to be tested within 'Karyaneka' and we might produce a small type of souvenirs like a key chain or easy to carry item for the start.

Q.14 What does the decorative process offer your area of Malaysian craft practice?

After experiencing the anodising workshop, I have a monumental interest.....

CRAFT MAKER: MOHD. DAUD YUSSOF

SPECIALIZATION: SILVER

Q7. Are the colour schemes appropriate to the decoration of traditional artefacts?

I think the colour schemes have a little contrast within fabric and aluminium but I can see that there is potential to integrate it with batik by applying the decorative elements to give a traditional look.

Q8. Are the colour schemes appropriate to the decoration of contemporary artefacts?

I think there is no limitation for aluminium, as it can adapt with contemporary or traditional type of decoration from what I have seen in the presentation and the samples that we have pro

Q.11 Is the decorative process time consuming?

As there are variations of time that aluminium can be coloured, so there are alternative for me to choose within that time limit and I think mass production will help to reduce the production time.

Q.12 Do the samples produced have market potential?

As the colour is attractive and it has potential to portray traditional or contemporary look, I would think the potential for the market is there by giving a good quality result.

Q.14 What does the decorative process offer your area of Malaysian craft practice?

The interest is there but due to my age, I don't think I can adopt this technique with my current crafts work. However, I think the younger generations or those beginning to start craft business should consider this opportunity.

**INTERVIEW ANALYSIS FORM- HANDS-ON EXPERIENCE
BRASS AND SILVER**

QUESTION: 7	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: C.MAKERS
<p>Are the colour schemes appropriate to the decoration of traditional artefacts?</p>		
<p>RESPONDENT 1: AMRAN (BRASS)</p>	<p>RESPONDENT 2: DAUD(SILVER)</p>	
<p>In my opinion, the colour achieved from my experimental pieces <u>is acceptable for decorative purposes</u>, which have some similarities with the batik dyes I have seen. This new technique is unique due to its capability to overlap pattern as in batik making and it is appropriate to say that <u>it can be explored for the decoration of traditional craft artefacts.</u></p>	<p>I think the colour schemes contrast a little with fabric and aluminium but I can see that there is potential <u>to integrate it with batik</u> by applying <u>the decorative elements to give a traditional look.</u></p>	
<p>KEYWORD</p>		
<p>it can be explored for the decoration of traditional craft artefacts</p> <p>is acceptable for decorative purposes</p>	<p>the decorative elements to give a traditional look</p> <p>to integrate it with batik</p>	

QUESTION: 8	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: C.MAKERS
<p>Are the colour schemes appropriate to the decoration of contemporary artefacts?</p>		
RESPONDENT 1: AMRAN (BRASS)	RESPONDENT 2: DAUD(SILVER)	
<p>By viewing the colour schemes, I feel <u>it is appropriate to contemporary approaches</u> because it can relate to existing aluminium products, for example in architecture and household utilities. The form as we can see is more geometrical in shape and within this these forms we can make some modifications and transfer some traditional elements onto the surface.</p>	<p>I think there is <u>no limitation for aluminium</u>, as it can adapt with contemporary or traditional types of decoration from what I have seen in the presentation and the samples that we have produced.</p>	
KEYWORD		
<p>I feel it is appropriate to contemporary approaches</p>	<p>no limitation for aluminium</p>	

QUESTION: 11	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY:C.MAKERS
Is the decorative process time consuming?		
RESPONDENT 1: AMRAN (BRASS)	RESPONDENT 2: DAUD(SILVER)	
<p>The experimental process, which I have gone through, takes about 45 minutes. If we are going for mass production, this <u>amount of time is still reasonable</u> to apply because we can produce it at a very large scale within a short period. This is what I can see from the racking presented in the first session.</p>	<p>As there are variations in the time that it takes aluminium to be coloured, so there are <u>alternatives for me to choose</u> within that time limit and I think mass production will help to reduce the production time.</p>	
KEYWORD		
amount of time is still reasonable	alternative for me to choose	

QUESTION: 12	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY:C.MAKERS
Do the samples produced have market potential?		
RESPONDENT 1: AMRAN (BRASS)	RESPONDENT 2: DAUD(SILVER)	
<p>It depends on the type of aluminium craft you plan to produce. In my experience the price range is within <u>Ringgit 5 to Ringgit 10 and this is a good price to start with.</u></p>	<p>As <u>the colour is attractive and it has potential to portray</u> traditional or contemporary looks, I would think the potential for the market is there by giving a good quality result.</p>	
KEYWORD		
<p>Ringgit 5 to Ringgit 10 is a good price to start with</p>	<p>the colour is attractive and it has potential to portray</p>	

QUESTION: 14	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY:C.MAKERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 1: AMRAN (BRASS)	RESPONDENT 2: DAUD (SILVER)	
<p>After experiencing the anodised aluminium workshop, I feel I would like to try taking advantage of applying this technology into my craft practice. The reasons for this is because of <u>its simplicity in setting up the workshop</u>, which only requires a small space, low cost materials and equipment.</p>	<p>The interest is there but due to my age, I don't think I can adopt this technique with my current craftwork. However, <u>I think the younger generation or those beginning to start a craft business</u> should consider this opportunity.</p>	
KEYWORD		
its simplicity in setting up the workshop	I think the younger generations or those beginning to start craft business	

**INTERVIEW ANALYSIS FORM- HANDS-ON EXPERIENCE
BATIK AND WOOD**

QUESTION: 7	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: C.MAKERS
<p>Are the colour schemes appropriate to the decoration of traditional artefacts?</p>		
RESPONDENT 3: AZIZ(BATIK)		RESPONDENT 4: JUHARI(WOOD)
<p>As a batik maker, I feel there are <u>some similarities within the colour schemes</u> of anodised aluminium that have been achieved through the samples and the experiments that I have conducted in this workshop. As it can be painted, it has the <u>opportunity to receive any traditional elements to be decorated</u></p>	<p>The colour schemes, which I have produced from the craft workshop, have some similarities with the ready-made samples that you have presented. I also applied some traditional elements to my experimental piece and <u>personally feel it can portray a traditional type of craft artefact.</u></p>	
KEYWORD		
<p>some similarities within the colour schemes</p> <p>opportunity to receive any traditional elements to be decorated</p>	<p>personally feel it can portray a traditional type of craft artefacts</p>	

QUESTION: 8	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY:C.MAKERS
<p>Are the colour schemes appropriate to the decoration of contemporary artefacts?</p>		
RESPONDENT 3: AZIZ (BATIK)	RESPONDENT 4: JUHARI (WOOD)	
<p>I am used to fabric in my career but to see this effect on metal is very interesting. In applying decorative motif to fabric, I also have some references from MHDC. As aluminium can be transformed into various shapes like other metals, it depends on the designers creativity to control the appearance of the craft products whether <u>they wanted it to be traditional or contemporary depending on what colour schemes they choose.</u></p>	<p>To me colour is not a crucial part in my craftwork because whatever I produce depends on the attractiveness of the design. In this case I would say this technique is <u>adaptable to contemporary or traditional or both approaches.</u></p>	
KEYWORD		
<p>they wanted it to be traditional or contemporary depending on what colour schemes they choose</p>	<p>adaptable to contemporary or traditional or both approaches</p>	

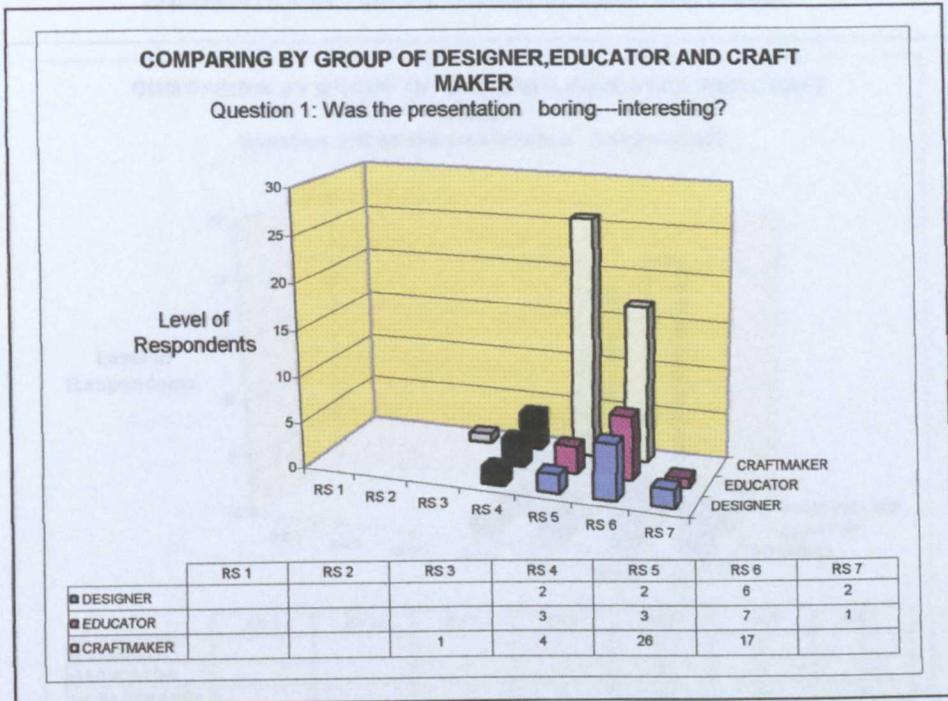
QUESTION: 11	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY:C.MAKERS
Is the decorative process time consuming?		
RESPONDENT 3: AZIZ(BATIK)	RESPONDENT 4: JUHARI (WOOD)	
To me <u>the process is not time consuming</u> if we have a proper type of production		As this technique is very new to me, I find the process <u>is not time consuming</u> , for example the time taken for the colouring process is short as it uses very little dye. Other factors that I noticed, is the reuse of the same chemical (caustic soda) for etching as part of the decorative process.
KEYWORD		
the process is not time consuming		is not time consuming

QUESTION: 12	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY:C.MAKERS
Do the samples produced have market potential?		
RESPONDENT 1: AZIZ(BATIK)	RESPONDENT 2: JUHARI (WOOD)	
<p><u>This has to be tested within 'Karyaneka' and we might produce a small type of souvenir like a key chains or easy to carry items for the start.</u></p>	<p>I think the decorative samples that have been produced from the craft workshop as well as your collections, show that there is a potential for this type of craftwork to be marketed. I would suggest we have to <u>go for small craft items to test the market with a reasonable price.</u></p>	
KEYWORD		
<p>This has to be tested within 'Karyaneka'</p>	<p>go for small craft items to test the market with a reasonable price</p>	

QUESTION: 14	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY:C.MAKERS
What does the decorative process offer your area of Malaysian craft practice?		
RESPONDENT 3: AZIZ (BATIK)	RESPONDENT 4: JUHARI (WOOD)	
After experiencing the anodising workshop, I <u>have monumental interest.....</u>		My aim at the moment is to <u>diversify my craft products using varieties</u> of materials, design and technical knowledge, including my experience gained from the anodising workshop
KEYWORD		
have monumental interest		diversify my craft product using varieties

**SEMANTIC DIFFERENTIAL SCORE
OF CRAFT PRACTITIONERS COMPARING BY GROUP
(DESIGNER, EDUCATOR AND CRAFTMAKER)**

SEMANTIC DIFFERENTIAL SCORE



QUESTION 1 (Was the presentation boring—interesting?)

The purpose of this question was to find the craft practitioner's reaction toward the topic and the time consumed by the presentation using the PowerPoint, video and material evidence in relation to the decorative application of anodised aluminium.

EXPLANATION

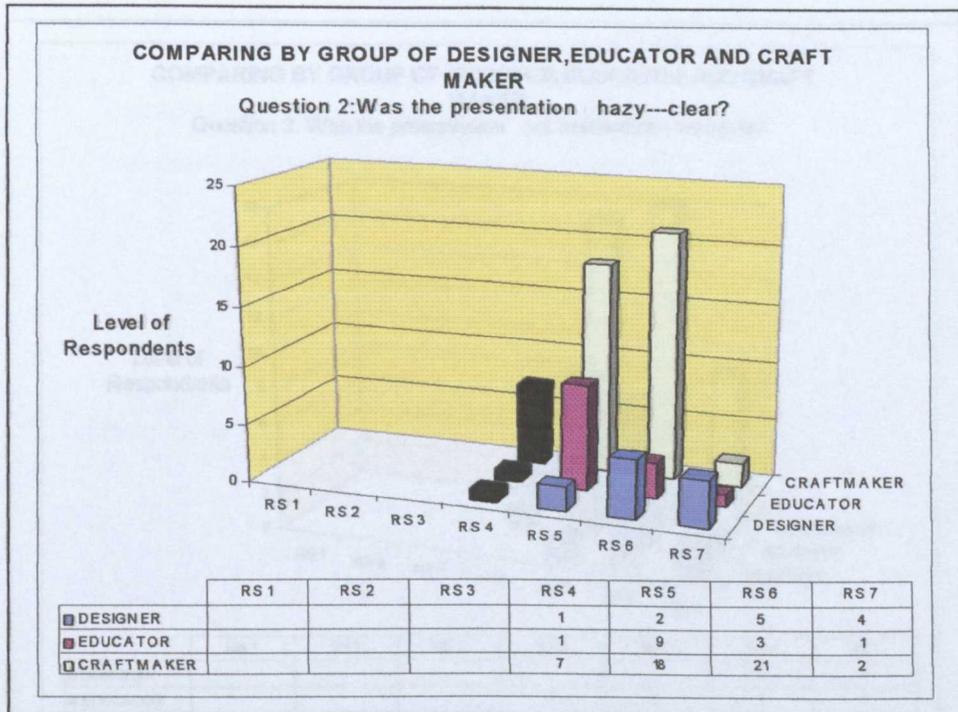
The above graph indicates the rating scales scored by Group A (Designer), B (Educator) and C (Craft maker) of craft practitioners. The results are as follows:

- One respondent from Group C selected the unfavourable rating scale of 3 (Negative Score). Nine respondents from the three groups decided on a neutral response for this question, i.e. the rating scales of 4 (Neutral). Thirty-one respondents from all groups favour the rating scale of 5 (Positive Score). Thirty respondents selected the favourable pole by responding to the rating scales of 6 (Positive Score) and finally three respondents totally agreed by selecting the highest rating scales of 7 (Positive Score).

CONCLUSION

The majority of the respondents from all of the groups have indicated that they favour the question, which concluded that they agreed to the presentation as an interesting topic.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 2 (Was the presentation hazy---clear?)

The purpose of this question was to find whether the topic presented was effectively understood by the craft practitioner's.

EXPLANATION

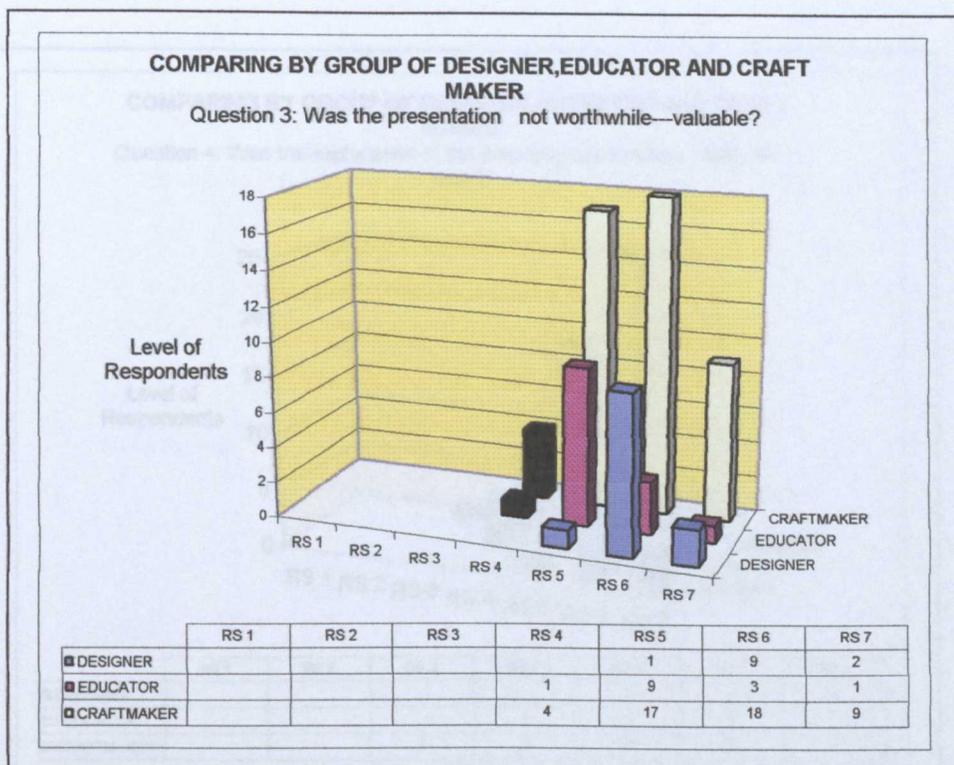
The above graph indicates the response from Group A (Designer), Group B (Educator) and Group C (Craft Maker). The results are explained as below:

- Nine respondents from all groups preferred a neutral to the question which i.e. rating scale of 4 (Neutral). Twenty-nine respondents favoured the rating scale of 5 (Positive Score) and another twenty-nine respondents selected a favourable response by selecting the rating scale of 6 (Positive Score). Finally seven respondents selected the favourable polar with the choice of rating scale 7 (Positive Score).

CONCLUSION

The findings show that all groups agreed to 'favourable' rating scales as the majority of craft practitioners responded to the positive polar of the answer. This indicates their collective view was that the material presented was 'clearly' understood.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 3 (*Was the presentation not worthwhile—valuable?*)

The purpose of this question was to find whether the craft practitioners appreciation of the topic presented offered them a meaningful value to their craftwork as a decorative technique.

EXPLANATION

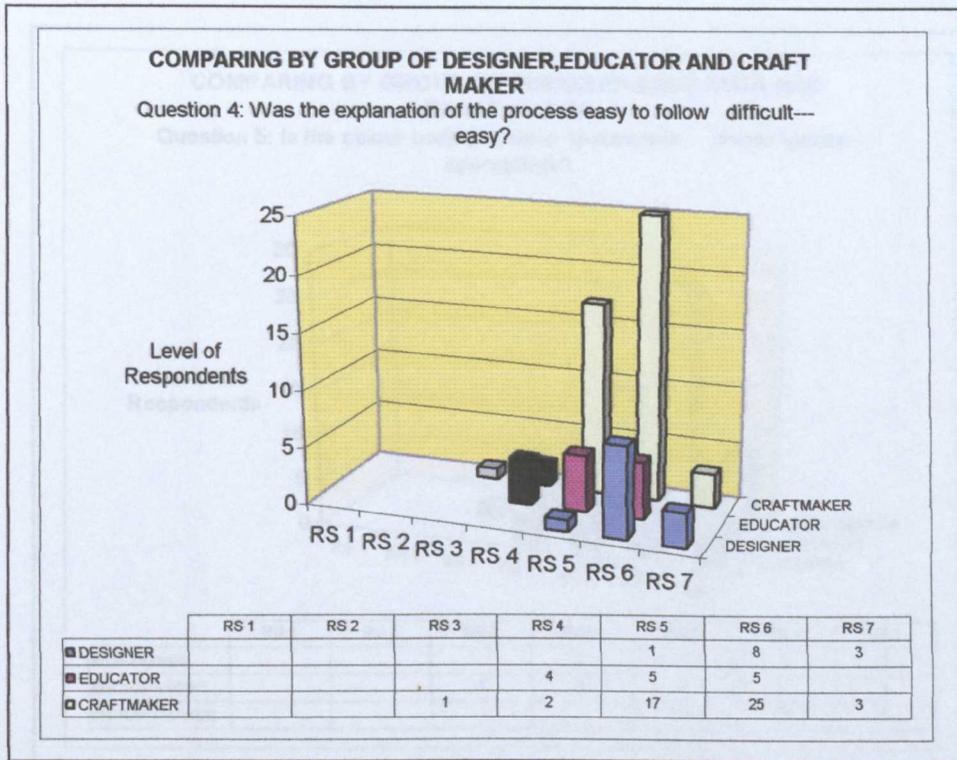
The table above, illustrates the comparative score against the rating scales value of 1,2,3 which represent Negative Score, value 4 as Neutral and value 5,6,7 represent Positive Score between Group A (Designer), Group B (Educator) and Group C (Craft Maker). The result of the rating are describe below:

- Five respondents chose to be neutral by responding to the rating scale 4(Neutral Score). Twenty-seven respondents selected the 'favourable' response with the rating scale of 5 (Positive Score). The highest numbers of thirty respondents strengthened the 'favourable' response with the choice of rating scale 6(Positive Score). Finally, twelve respondents choose the highest rating scale of 7(Positive Score).

CONCLUSION

The above results show that all the groups a favourable response to the question. This indicates their appreciation of the topic, which is very 'valuable' to their craft practice

SEMANTIC DIFFERENTIAL SCORE



QUESTION 4 (*Was the explanation of the process easy to follow difficult---- easy?*)

The purpose of this question was to rate the craft practitioners quality of visual experience and understanding of the anodising aluminium process that was presented through by PowerPoint and Video.

EXPLANATION

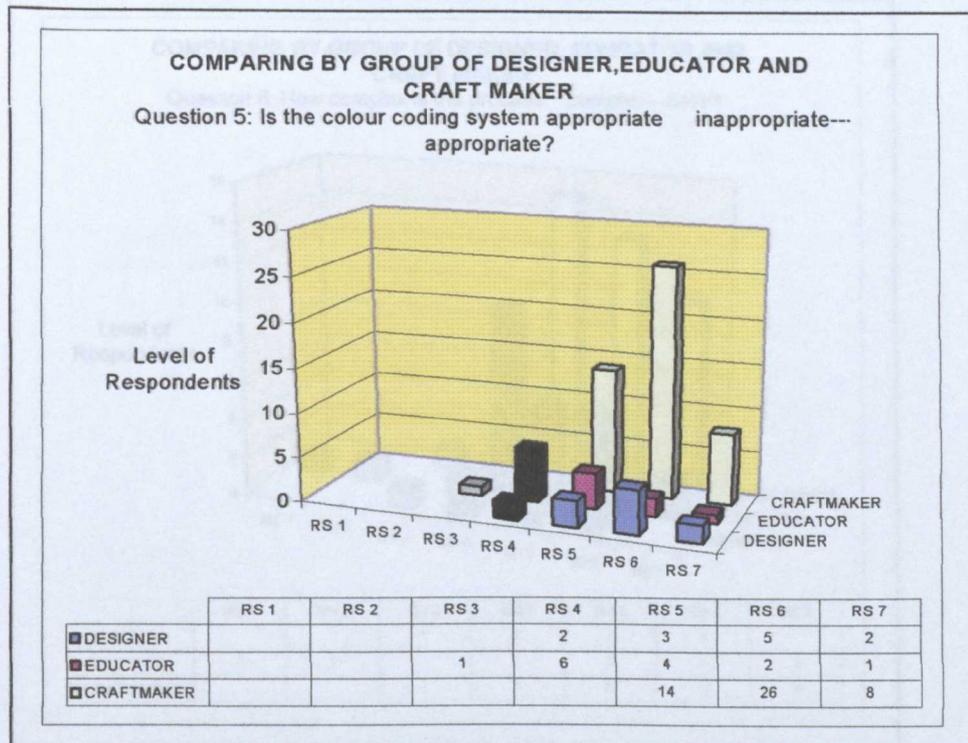
The table above, illustrates the comparative score against the rating scales value of 1,2,3 which represent Negative Score, value 4 as Neutral and value 5,6,7 represent Positive Score between Group A (Designer), Group B (Educator) and Group C (Craft Maker). The result of the score were described below:

- Only one respondent from Group C response to the rating scale of 3(Negative Score). Six respondents selected the rating scale of 4(Neutral).Twenty-three respondents were in 'favour' with the choice of rating scale 5(Negative Score). Thirty-eight respondents outnumber the rest that responded to the rating scale of 6(Positive Score). Finally, nine respondents responded to the highest rank of rating scale 7(Positive Score).

CONCLUSION

The majority of the respondents made a favourable response to the question, which implies their ease of understanding the briefing of the decorative technique of anodised aluminium process.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 5 (Is the colour coding system appropriate inappropriate-----appropriate?)

Besides visual presentation, the researcher also provided a few samples of material evidence of the anodising decorative process to the respondents. Most of the samples utilized various colours of 'batik' dyes of which the craft practitioners were aware and knowledgeable. The purpose of the question was to find craft practitioner's views on the appropriateness of the colour coding system that had been used.

EXPLANATION

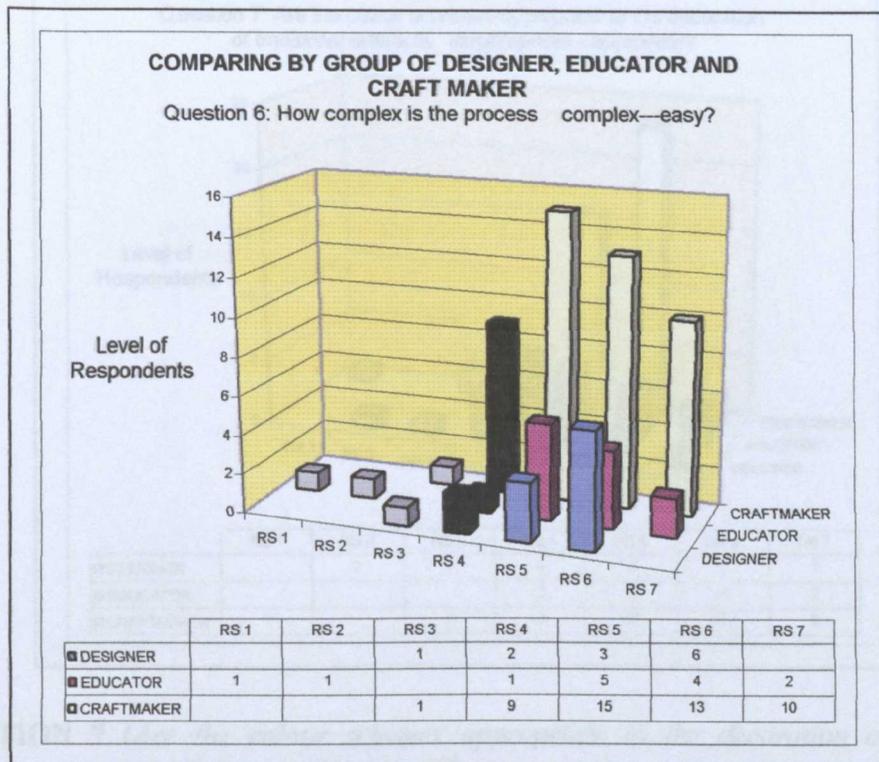
Various response to the rating scales from the three groups are describe below:

- One respondent from Group B (Educator) considered that the coding system was inappropriate by selecting an unfavourable response based rating scale 3 (Negative Score). Eight respondents were 'neutral' to the question, and responded to the rating scale of 4 (Neutral). Twenty-one respondents selected the 'favourable' response of the rating scale of 5 (Positive Score). Thirty-three respondents were strongly in favour and selected the rating scale of 6 (Positive Score). and finally, eleven respondents chose the highest rating scale of 7 (Positive Score)..

CONCLUSION

The results show a positive response to the question, which favours the coding system in the decorative samples of anodised aluminium as being 'appropriate'.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 6 (How complex is the process complex—easy?)

The purpose of the question is to find the craft practitioner's technical understanding of the anodising process, as a procedural requirement before their hands-on experience in the craft workshop.

EXPLANATION

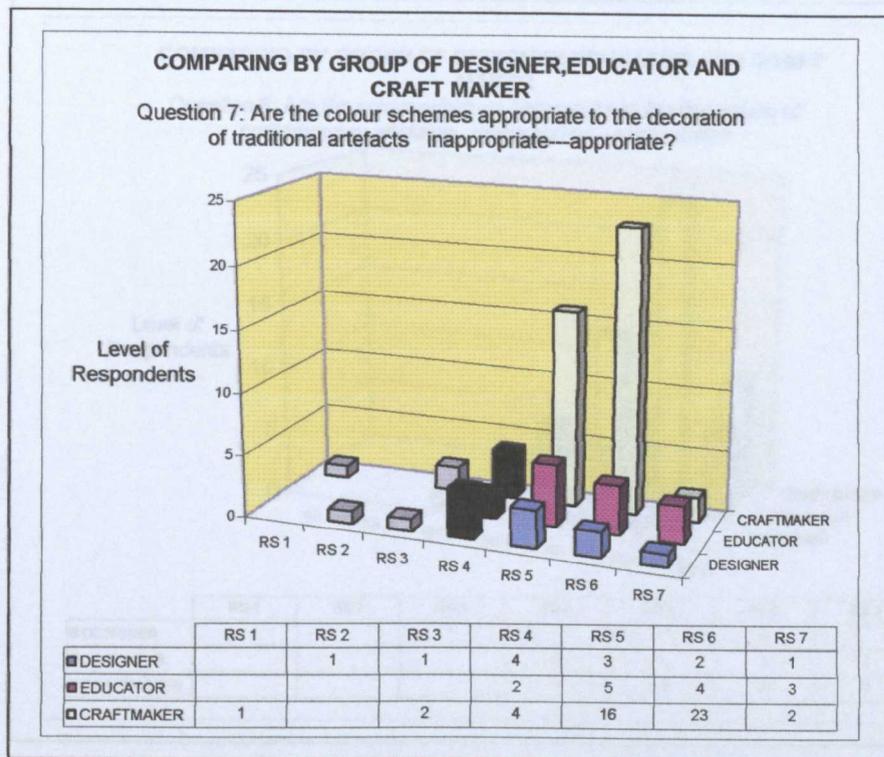
The above graph explained the rating scales scored between Group A (Designer), Group B (Educator) and Group C (Craft Maker) of craft practitioners:

- Only Group B responded to the rating scales of 1 and 2 (Negative Score) with one respondent for each scale, while Group A and Group C had one respondent each to rating scale 3 (Negative Score). These denote a negative attitude to the complexity of the process. There are twelve respondents choosing 'neutral' to the question with the rating scale of 4 (Neutral). Twenty-three respondents favoured to the rating scale of 5 (Positive Score), the positive polar of the scale. Another twenty-three respondents increase the positive polarity with their response to the rating scale of 6 (Positive Score). Finally, twelve respondents make their choice to the highest rating scales of 7 (Positive Score).

CONCLUSION

The results of the rating scales from all the groups indicate a general favourable response to the question, which shows that the technical information of the anodising process delivered to them, is not a complicated procedure to understand, although there are a few respondents that find some complexity with it.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 7 (*Are the colour schemes appropriate to the decoration of traditional artefacts inappropriate—appropriate?*)

This question was raised to find the craft practitioners' view about the decorative effect applied to the surface of aluminium with reference to the sample material provided by the researcher, whether it has the potential to provide a cultural value to Malaysian craft artefacts.

EXPLANATION

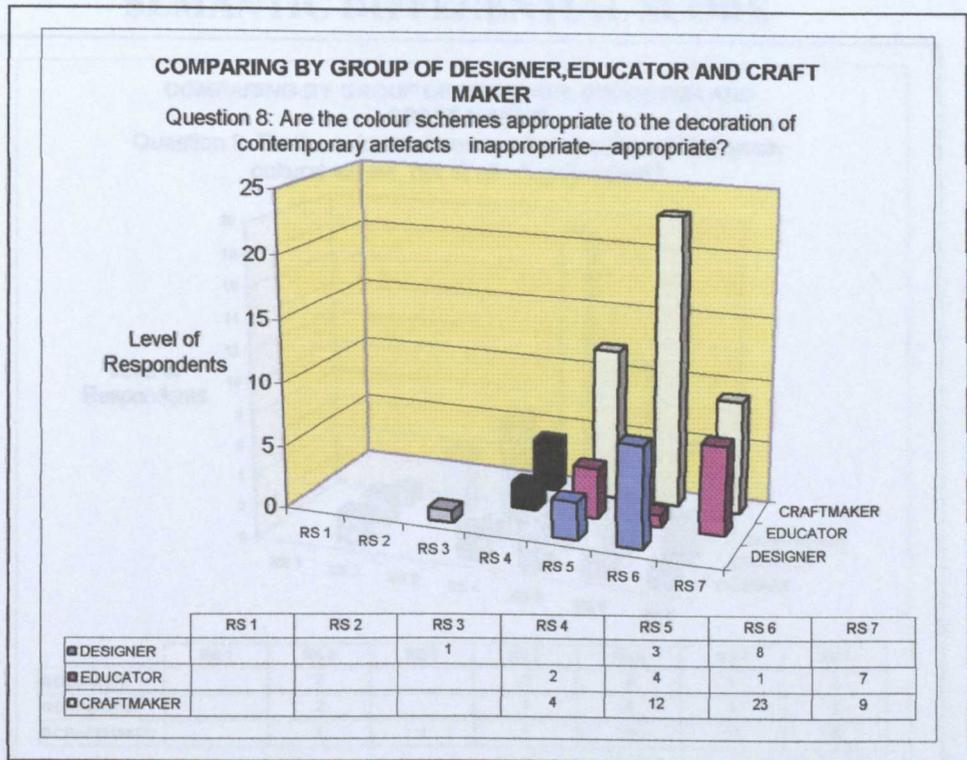
The above graph represent the rating scales scored by three groups of craft practitioners. The result of the scores are describe below:

- One respondent from Group C (Craft maker) selected to the rating scale of 1(Negative Score), one respondent from Group A (Designer) and three respondents from Group A and Group C responded to the rating scales of 2 and 3(Negative Score) respectively. These indicate their choice was towards the negative polar, which means they viewed the decorative effect to be inappropriate in terms of the colour schemes for traditional craft artefacts. There were also neutral response to the question, which saw ten respondents from the three groups choose the rating scale of 4(Neutral). The positive polar on the other hand received a various choices of the rating scales 5,6 and 7(Positive Score). Twenty-four respondents selected the rating scale of 5(Positive Score), while another twenty-nine respondents selected the rating scale of 6. Finally, six respondents selected the highest rating scale of 7 (Positive Score).

CONCLUSION

The results scored by all of the groups indicates that their collective view on the appropriateness of the colour schemes that has been tested on the surface of the anodised aluminium is that it has potential to be used as a surface decoration for traditional craft artefact.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 8 (Are the colour schemes appropriate to the decoration of contemporary artefacts inappropriate—appropriate?)

The purpose of this question is to find the craft practitioners view on the surface decoration applied to the surface of aluminium with reference to the sample material provided by the researcher, whether the colour schemes have the potential to provide a cultural value to the decoration of contemporary craft artefacts.

EXPLANATION

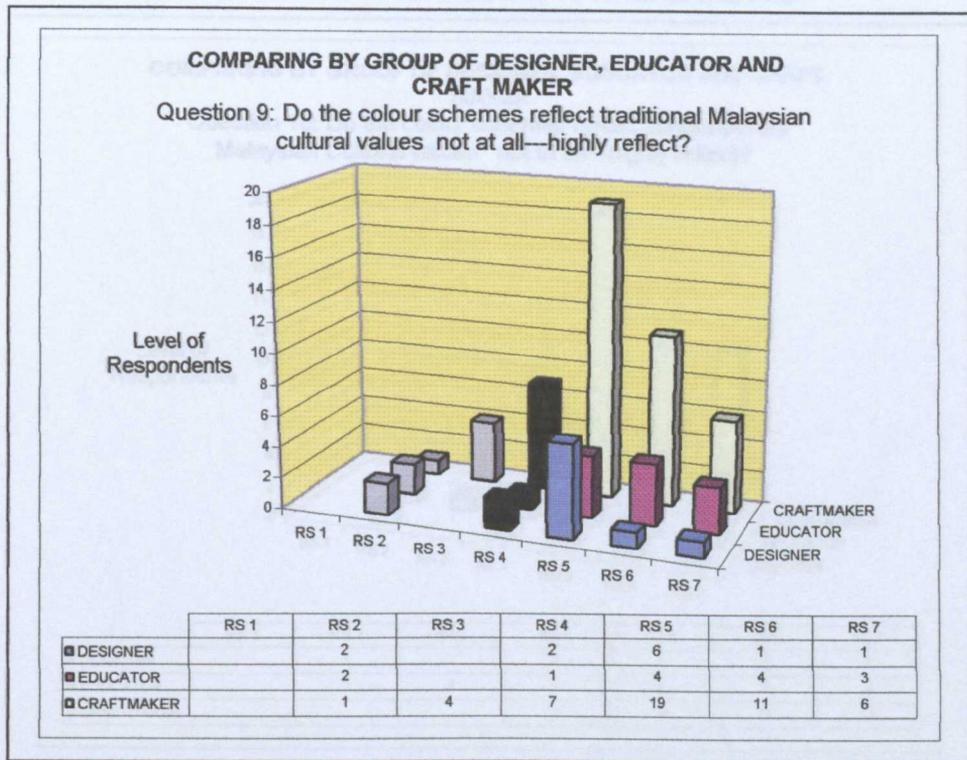
The above graph illustrates various scores as rating scales responded to by three groups of craft practitioners. The result are describe below:

- There was only one unfavourable score from one respondent in Group A (Designer) that represents negative response on the rating scale 3. Six respondents from Group B (Educator) and Group C (Craft maker) responded to the rating scale of 4(Neutral), which indicate their neutral decision to the question. The positive scales saw nineteen respondents favour the rating scales of 5(Positive Score), followed by thirty-two respondents with the rating scale of 6(Positive Score). Finally, sixteen respondents increased the positive polarity to the question by selecting the response to the highest rating scale of 7(Positive Score).

CONCLUSION

The result indicates that majority of the groups are in favour of the positive responses to the rating scales, which shows that the colour schemes produced on the surface of the aluminium provides for a potential use in the decoration of contemporary artefacts

SEMANTIC DIFFERENTIAL SCORE



QUESTION 9 (*Do the colour schemes reflect traditional Malaysian cultural values not at all—highly reflect?*)

The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any traditional value to the Malaysian craft.

EXPLANATION

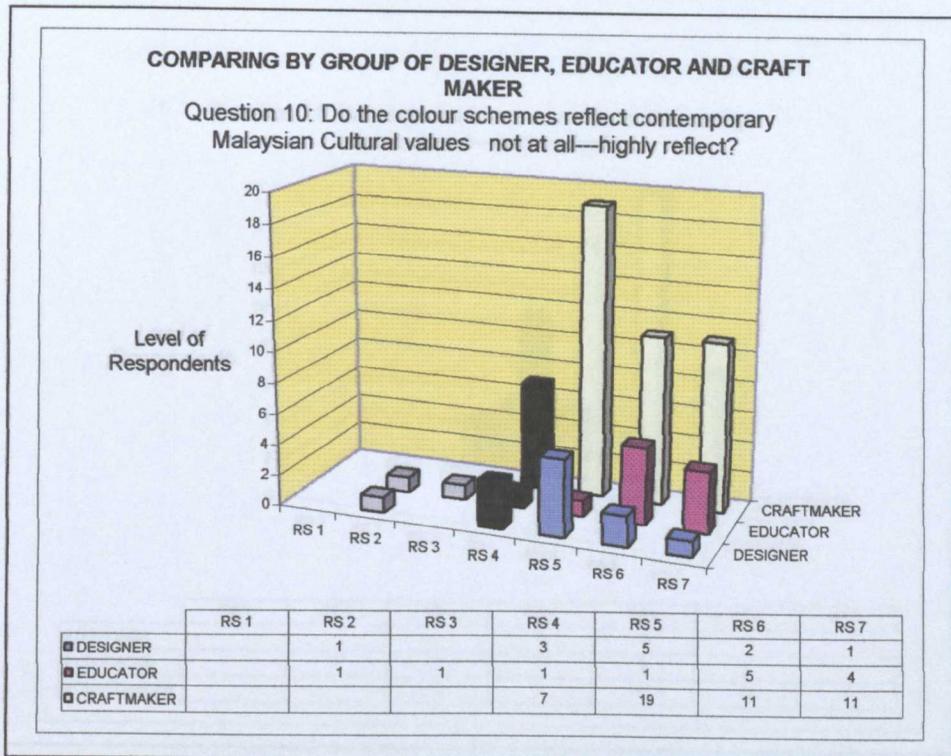
The graph shown above, represent rating scales between the groups of craft practitioners. The result of the score are describe as below:

- Five respondents selected the negative pole of the rating scale with the choice of rating scale 2(Negative Score) together with four respondents in the same category with the rating scale of 3(Negative Score). Ten respondents are neutral to the answer with the selection of rating scale 4(Neutral). In the positive polar saw twenty-nine respondents favour to the rating scales of 5(Positive Score). Another sixteen respondents, selected the rating scale of 6(Positive Score). Finally, ten respondents choose the highest rating scale of 7(Positive Score).

CONCLUSION

The majority of the responses to this question were in favour of positive ratings, which means that their collective view on the appropriateness of the colour schemes displayed in the samples, was that they 'highly reflect' traditional Malaysian cultural values.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 10 (*Do the colour schemes reflect contemporary Malaysian cultural values not at all-----highly reflect?*)

The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any contemporary value to the Malaysian craft.

EXPLANATION

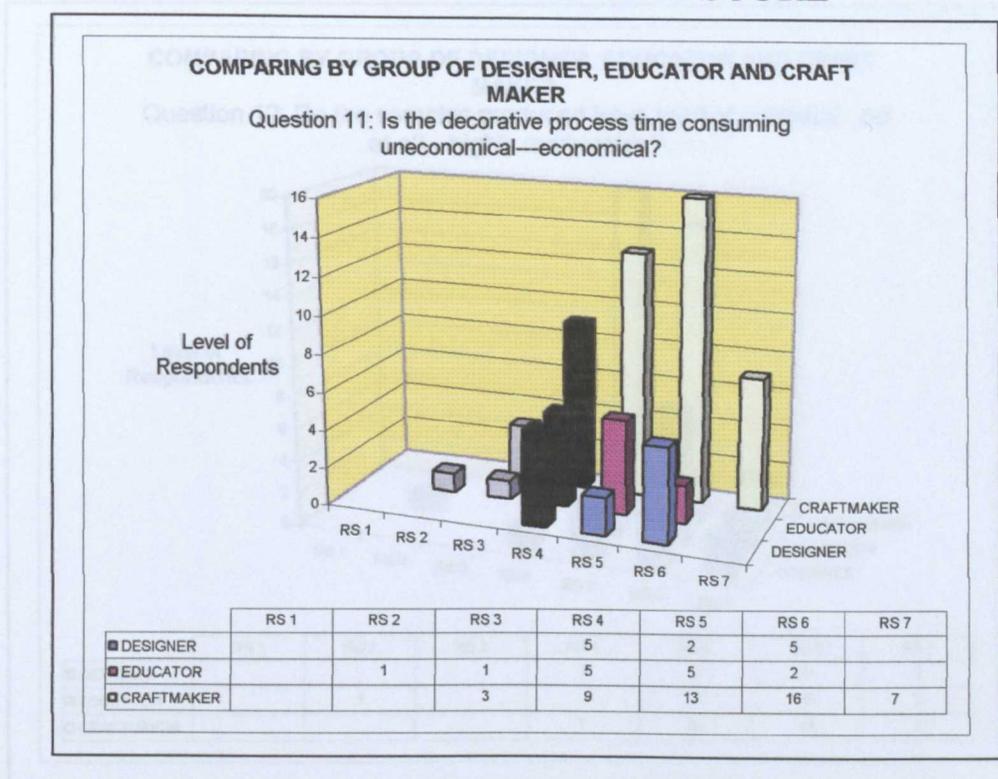
The graph shown above represents the rating scales, between the groups of craft practitioners. The results of the score are described below:

- Two respondents selected to the rating scale of 2(Negative Score), one from Groups A (Designer) and Group B (Educator) followed by one respondent from Group B with the rating scale of 3(Negative Score). These respondents represent the negative pole of the rating scale. Eleven respondents were neutral to the answer selecting the rating scale of 4(Neutral). Twenty-five respondents selected the positive end of the rating scale of 5(Positive Score), followed by eighteen respondents selecting the rating scale of 6(Positive Score). Finally, sixteen respondents made their choice the highest rating scale of 7(Positive Score).

CONCLUSION

The graph shows that the result generated from the rating scale indicate that the collective of the three groups of respondents agreed that the colour schemes potentially reflect contemporary Malaysian cultural values.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 11 (*Is the decorative process time consuming uneconomical----- economical?)*

The purpose of this question was to find whether the visual explanation of the anodising process presented through PowerPoint and video, has any economic value to the crafts practitioners in relation to the time it takes during the sequence of the production process as demonstrated by the researcher.

EXPLANATION

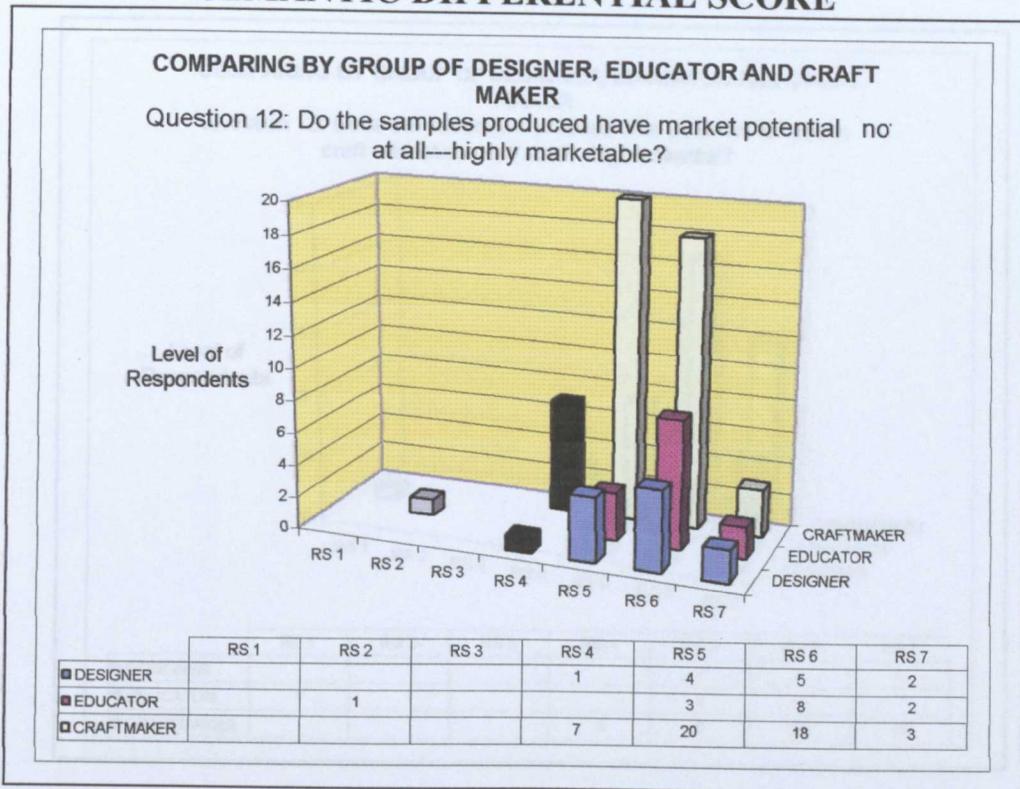
The above graph shows the various responses to the rating scales from the three groups of craft practitioners. The results are described below:

- There were five respondents that selected the negative pole of the rating scales i.e: 2 and 3(Negative Score). Nineteen respondents selected a neutral answer with the rating scale of 4(Neutral). While twenty respondents made positive responses, selecting the rating scale of 5(Positive Score). Another twenty-three respondents selected to the rating scale of 6(Positive Score). The last seven respondents were also highly in favour to the positive pole with their response to the rating scale of 7(Positive Score).

CONCLUSION

The results indicate that the majority of the respondents were in favour of a positive response to the question. This means that their collective view was that the 'economic' value of the anodising process had been demonstrated through the visual presentation.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 12 (Do the samples produced have market potential not at all—highly marketable?)

The purpose of the question was in relation to market potential, to find the crafts practitioners' views on whether the decorative samples of anodised aluminium provided have the potential to be marketed. The samples displayed various elements of Malaysian decorative motif resembling the nature of current craft.

EXPLANATION

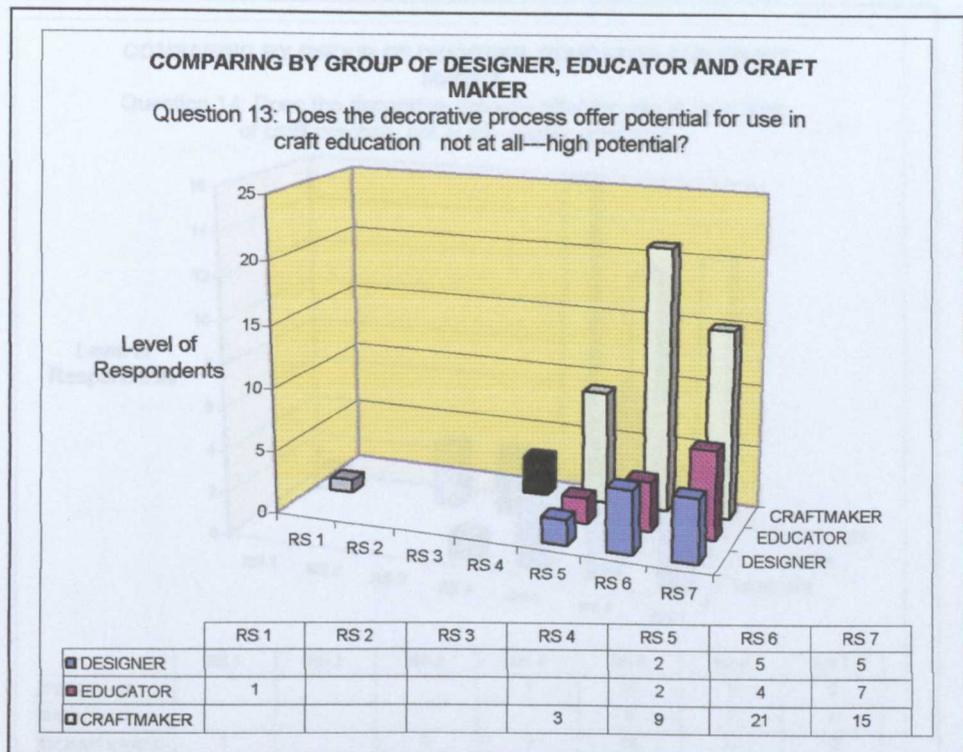
The above graph explained various score of rating scales from the group of craft practitioners. The results of the score are described below:

- One respondent from Group B (Educator) selected the rating scale 2 (Negative Score), which is considered as the negative pole. Eight respondents remained neutral choosing the rating scale of 4 (Neutral). Twenty-seven respondents were in favour and selected the rating scale of 5 (Positive Score), which put them to the positive pole of the answer. Thirty-one respondents increase the positive score selecting rating scale 6 (Positive Score). Finally, seven respondents selected the highest rating scale of 7 (Positive Score).

CONCLUSION

From the results above, indicate that the majority of craft practitioners sided to the positive pole of the rating scales which means that the consensus agreed that the samples of anodised aluminium represent potentially marketable decorative craft products in the future.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 13 (*Does the decorative process offer for use in craft education not at all—high potential*)

The purpose of this question was to find if craft practitioners' believe that the decorative technology can be assimilated as part of craft education in the Malaysian community.

EXPLANATION

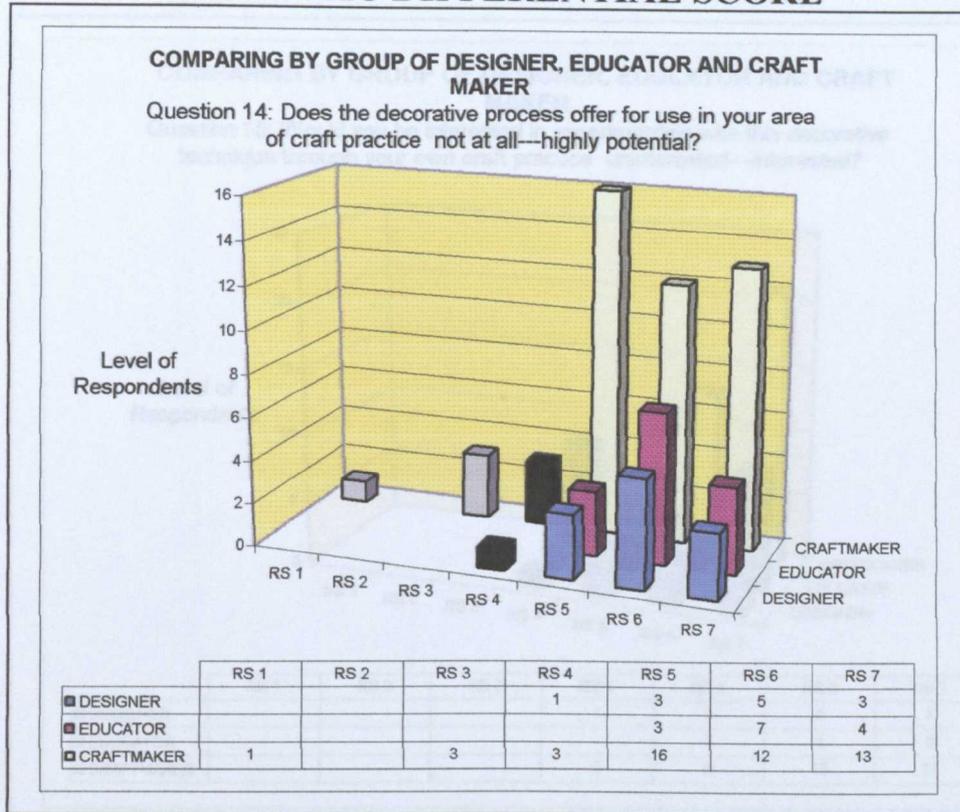
The above graphs show various responses of rating scales from the three groups of craft practitioners. The results are described below:

- One respondent from Group B (Educators) selected the only response in the negative pole. Three respondents from Group C (Craft maker) have selected the rating scale of 4(Neutral) indicating their neutrality to the question. Thirteen respondents selected the positive pole of the answer by selecting rating scale 5(Positive Score). While another thirty respondents increase responses to the positive pole answer by selecting rating scale 6(Positive Score). Finally, twenty-seven respondents selected the highest rating scale of 7(Positive Score).

CONCLUSION

The above results illustrate that the consensus of craft practitioners favoured the positive pole of the question rating scale. This suggest that they believe the decorative process provides an opportunity for craft education in Malaysia.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 14 (*Does the decorative process offer for use in your area of Malaysian craft practice not at all-----highly potential?*)

The purpose of this question was to find if craft practitioners' believe that the decorative process that has been introduced and demonstrated represents the opportunities for them in their area of craft practice.

EXPLANATION

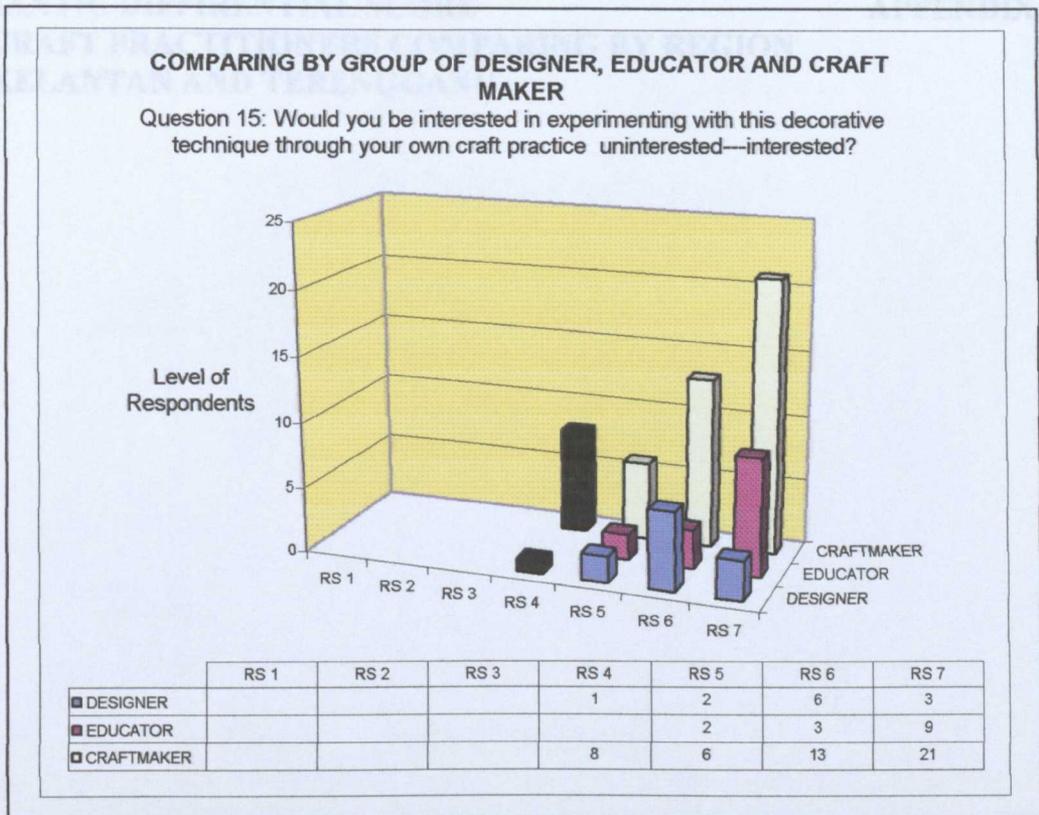
The above graph shows how the three groups of craft practitioners responded to the rating scale. The results are described below:

- One respondent together with another three respondents in Group C (Craft maker), selected the negative pole of the answer i.e.: rating scale of 1 and 3 (Negative Score). Four respondents selected the neutral position to the answer, which can be seen from Group A (Designer) and C. In the positive pole of the rating scale, twenty-two have chosen the rating scales of 5 (Positive Score) followed by another twenty-four respondents in favour of rating scale 6 (Positive Score). The highest rating scale of 7 (Positive Score), selected by twenty respondents.

CONCLUSION

From the results above, indicate that the majority of craft practitioners sided to the positive pole of the rating scales which means that the consensus agreed that the decorative process provides the opportunities for them in their area of craft practice.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 15 (*Would you be interested in experimenting with this decorative technique through your own craft practice uninterested----- interested?*)

The purpose of the question was to find out if the craft practitioners' would be interested in experimenting with the decorative technique through their own craft practice after viewing the visual presentation of the process.

EXPLANATION

- Nine respondents selected the rating scale of 4(Neutral) with Group C (Craft maker) recording eight respondents and one respondent from Group A (Designer) indicating their neutral position to the answer. Ten respondents were favour of the rating scale of 5(Positive Score) and another twenty-two respondents selected a rating scale of 6(Positive Score), which reflects their positive response to the question. Thirty-three respondents also favoured the positive answer with the highest rating scale of 7.

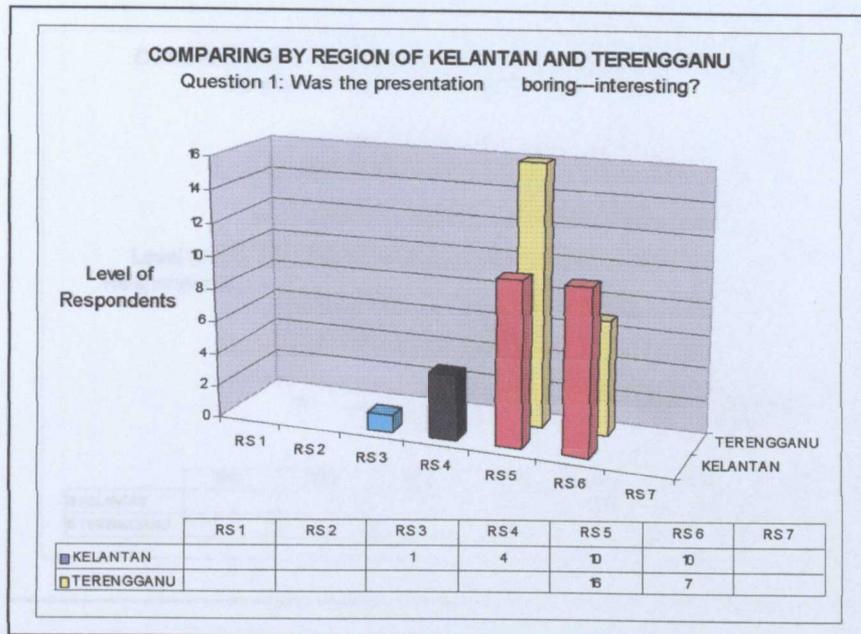
CONCLUSION

The above results indicate that the consensus of craft practitioners were interested in experimenting with the decorative technique in their craft practice.

**SEMANTIC DIFFIRENTIAL SCORE
OF CRAFT PRACTITIONERS COMPARING BY REGION
OF KELANTAN AND TERENGGANU**

APPENDIX 6

SEMANTIC DIFFERENTIAL SCORE



QUESTION 1 (Was the presentation boring—interesting?)

The purpose of this question was to find the craft practitioner's reaction toward the topic and the time consumed by the presentation using the PowerPoint, video and material evidence in relation to the decorative application of anodised aluminium.

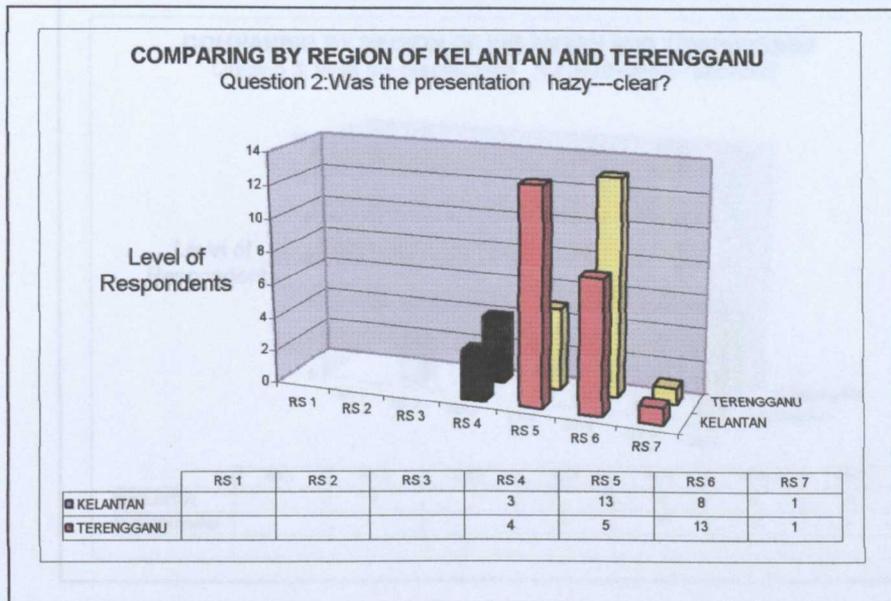
EXPLANATION

- Kelantan craft practitioner's responded to the rating scales RS 3, 4, 5, and 6. The results show the rating scale 3 (Negative Score) selected by one respondent and 4 (Neutral) with four respondents, which reflects the unfavourable and undecided reactions compared to rating scale of 5 and 6 (Positive Score) which are favourable. The results show a greater bias to the view that the presentation was 'interesting'.
- Terengganu craft practitioners responded to the rating scale of RS 5, and 6. Out of 23 respondents, 16 respondents selected rating scales 5 (Positive Score) and 7 respondents selected rating scale 6 (Positive Score). The results also show that this group thought that the presentation was 'interesting'.

CONCLUSION

The majority of the respondents from both regions have indicated that they favour the question, which concluded that they agreed to the presentation as an interesting topic.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 2 (Was the presentation Hazy-----Clear?)

The purpose of this question was to find whether the topic presented was effectively understood by the craft practitioner's.

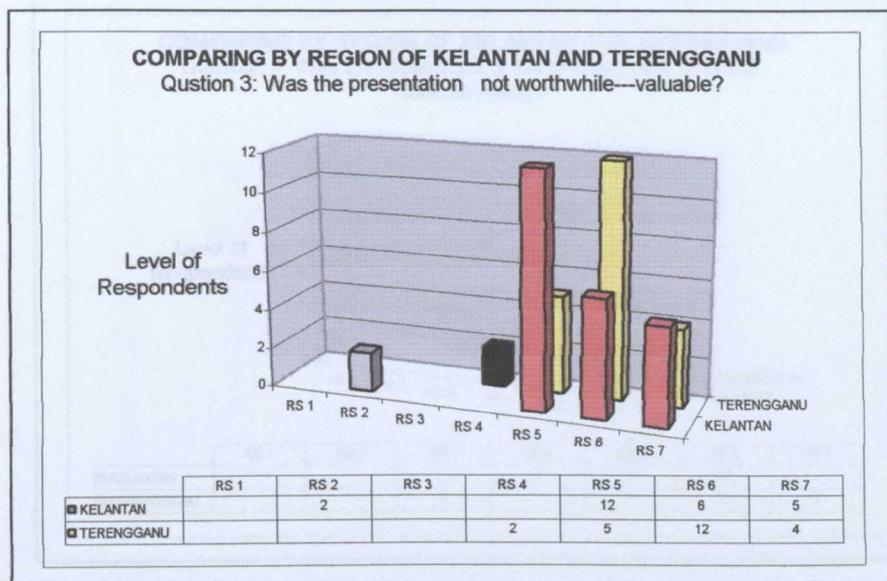
EXPLANATION

- Craft practitioners from Kelantan responded to the rating scale RS 4, 5, 6, and 7. Three respondents selected rating scale 4 (Neutral), which shows that they were undecided to the question. Thirteen respondents selected rating scale 5 (Positive Score), eight respondents chose rating scale 6 (Positive Score) and one respondent to rating scales 7 (Positive Score). The results show that most of the craft practitioners from this group were clear about the topic presented.
- The craft practitioner from Terengganu shows some similarity in their pattern of response to the rating scale except that the numbers of respondents for each scale scored differ. The graphs display scores against the rating scale of 4, 5, 6, and 7. Four respondents selected rating scale 4 (Neutral), which mean that they were undecided about the question. Thirteen respondents selected rating scale 6 (Positive Score) exceeding the response rate from Kelantan craft practitioners.

CONCLUSION

From the above table, both regions of craft practitioners indicated that they thought that the presentations were 'clear' and that they understood of the content of the material delivered to them. This can be seen from the results of the table above showed that the highest number of respondents selected rating scale of 5 and 6 although there are seven respondents in total which indicate their neutral position for this question.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 3 (*Was the presentation Not worthwhile-----valuable?*)

The purpose of this question was to find whether the craft practitioners' appreciation of the topic presented offered them a meaningful value to their craftwork as a decorative technique.

EXPLANATION

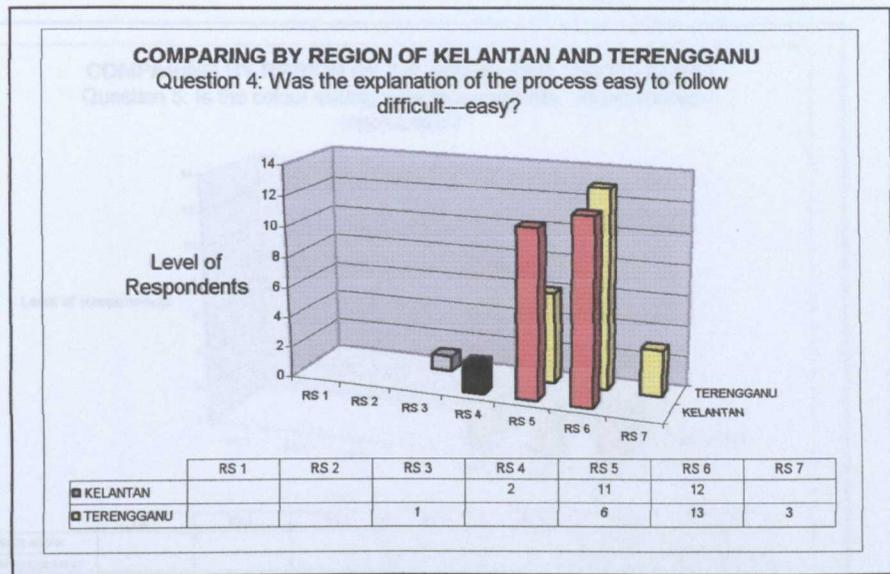
From the table presented shows:

- The Kelantan craft practitioners responded to rating scale RS 4, 5, 6, and 7. Only two respondents selected rating scale 4 (Neutral) which shows they were 'undecided' to. But twelve respondents selected rating scale 5 (Positive Score), six respondents selected rating scale 6 (Positive Score) and five respondents rating scales 7 (Positive Score) which can be summarized as favourable responses to the 'value' of the presentation.
- The Terengganu craft makers also responded only to rating scales RS 4, 5, 6, and 7. Although there were similarities in term of rating scales with the Kelantan craft makers, the highest number of twelve respondents from this region favour to rating scales 6. Four respondents selected rating scale 7 (Positive Score) and five respondents selected rating scale 5. Two respondents 'undecided' and chose a neutral response to the question.

CONCLUSION

The score for this question concluded that the presentation are very 'valuable' to both regions of Kelantan and Terengganu craft makers.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 4 (*Was the explanation of the process easy to follow difficult—easy?*)

The purpose of this question is to find the craft practitioners visual experience responding to their understanding of the anodising process that was presented through PowerPoint and video

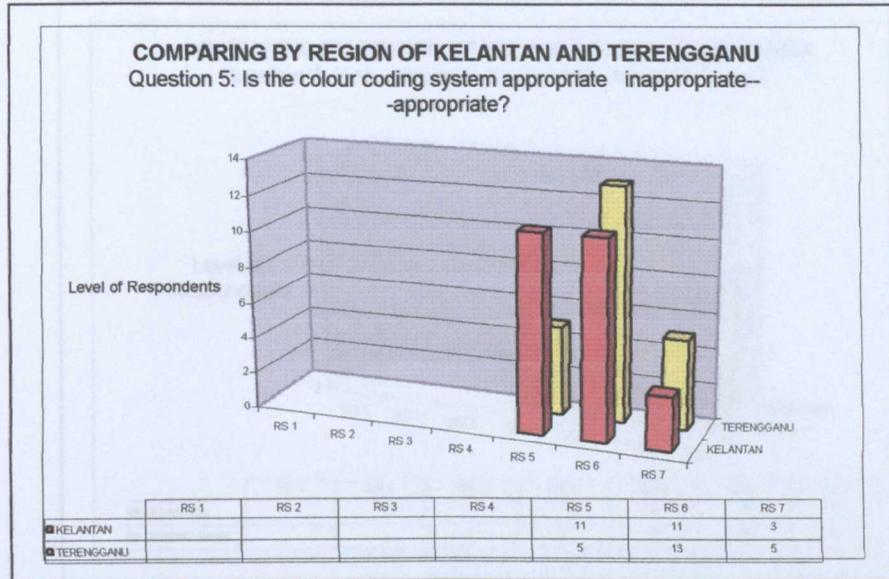
EXPLANATION

- The Kelantan craft practitioners responded to the three rating scales RS 4, 5, and 6 where the highest number of 12 respondents selected rating scale 6 (Positive Score), 11 respondents selected scale 5 (Positive Score) and 2 respondents selected the neutral response to the question.
- Terengganu craft practitioners responded the four rating scales RS 3, 5, 6 and 7. One respondent, selected an 'unfavourable' response on scale of 3 (Negative Score) and twenty-three selected 'favourable' responses, the highest number chose rating scales 6 (Positive Score).

CONCLUSION

With reference to the graph rating scales score for both regions of craft practitioners, it is concluded that the majority of the respondents thought that the process was 'easy' to follow. This indicates their visual understanding of the anodising process, which has been presented.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 5 (*Is the colour coding system appropriate* *Inappropriate-----*
appropriate?)

Besides visual presentation, the researcher also provided a few samples of material evidence of the anodising decorative process to the respondents. Most of the samples utilized various colours of 'batik' dyes of which the craft practitioners were aware and knowledgeable. The purpose of the question was to find craft practitioner's views on the appropriateness of the colour coding system that had been used.

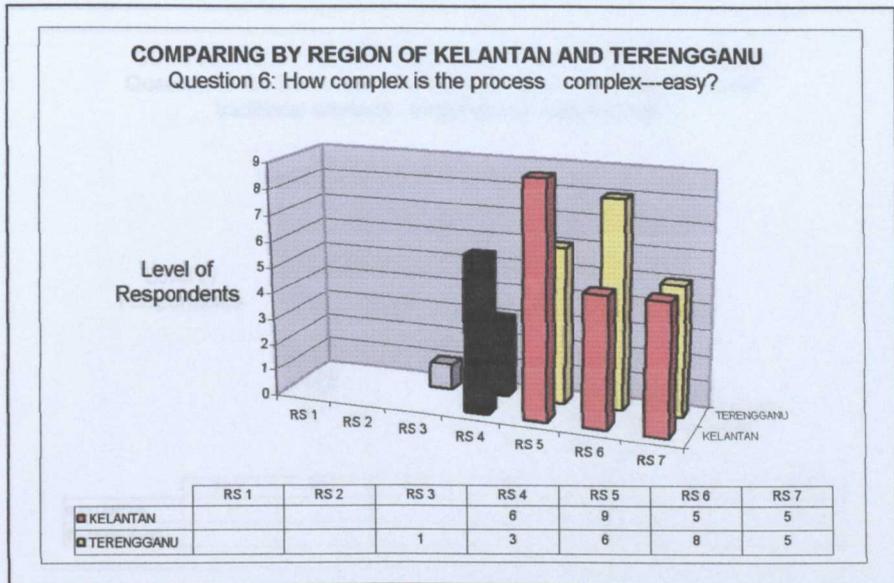
EXPLANATION

- The Kelantan craft practitioners responded to three rating scales RS 5, 6, and 7. Equal number of eleven respondents favour to the rating scales of 5 and 6. Only three respondents selected to rating scales 7.
- Terengganu craft practitioners also responded to three rating scales of 5, 6 and 7. Thirteen respondents selected rating scale 6 (Positive Score), 5 respondents selected rating scale 7 (Positive Score) and another five respondents selected rating scale 5 (Positive Score).

CONCLUSION

The results show a positive response from both regions to the question, which favours the coding system in the decorative samples of anodised aluminium as being 'appropriate'.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 6 (How complex is the process complex----- easy?)

The purpose of the question was to find the craft practitioner's technical understanding of the anodising process, as a procedural requirement before their hands-on experience in the craft workshop.

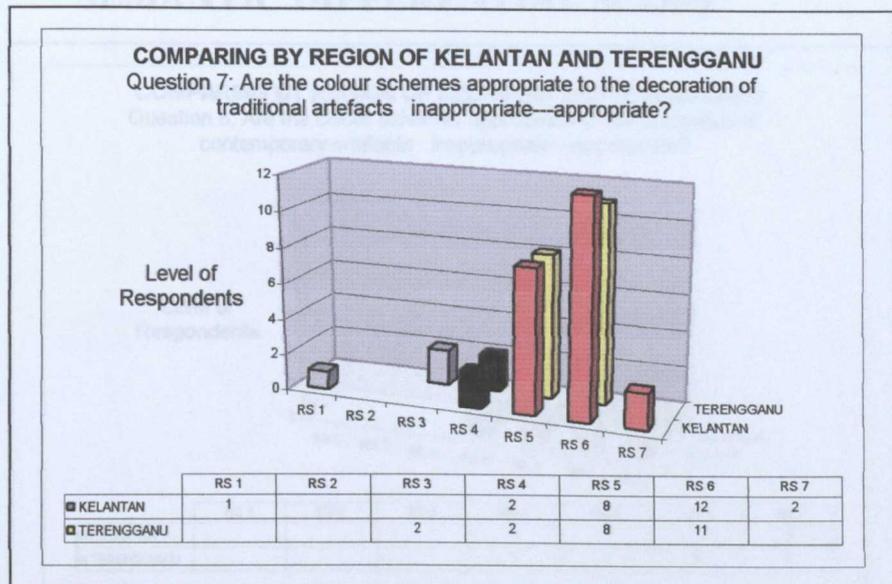
EXPLANATION

- The Kelantan craft practitioners responded to three rating scales RS 5, 6, and 7. Eleven respondents selected rating scale of 5 and 6 (Positive Score). Only five respondents selected rating scale of 7 (Positive Score).
- Terengganu craft practitioners responded to five scales ranging from RS 3, 4, 5, 6, and 7. The different of the score from this region saw 'unfavourable' response from one respondent which selected rating scale of 3 (Negative Score) and three respondents selected neutral response to the rating scale 4 (Neutral).

CONCLUSION

The results of the rating scales from both regions indicate a general favourable response to the question, which shows that the technical information of the anodising process delivered to them, is not a complicated procedure to understand, although there is one respondent that find some complexity with it.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 7 (*Are the colour schemes appropriate to the decoration of traditional artefacts inappropriate----- appropriate?*)

This question was raised to find the craft practitioners' view about the decorative effect applied to the surface of aluminium with reference to the sample material provided by the researcher, whether it has the potential to provide a cultural value to Malaysian craft artefacts.

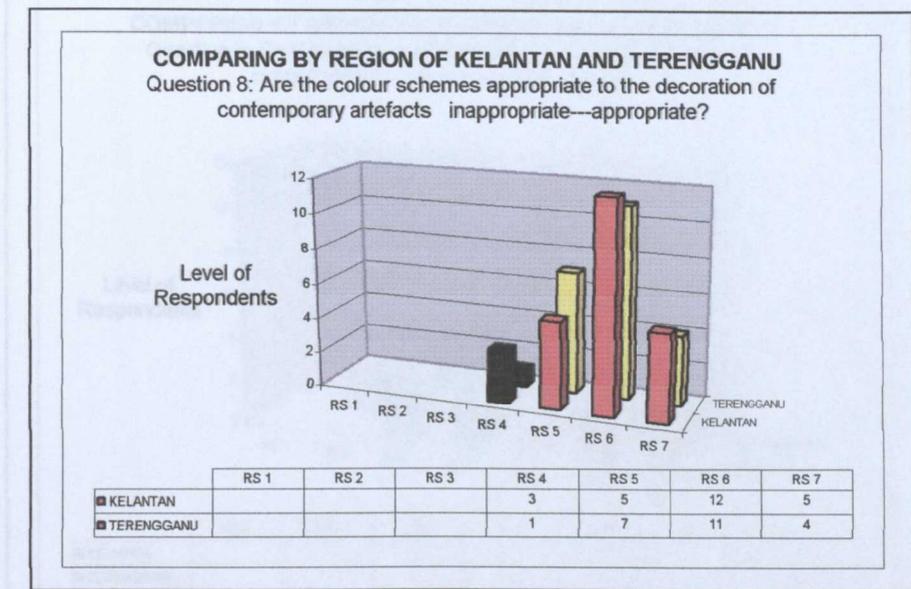
EXPLANATION

- The Kelantan craft practitioners responded to five rating scales RS 1, 4, 5, 6 and 7. The lowest rating scale of 1 showed 'unfavourable' response by one respondent, two respondents, selected neutral response to scale 4 (Negative Score). Eight respondents selected rating scale 5 (Positive Score). Twelve respondents selected rating scale 6 (Positive Score) and two respondents selected rating scale of 7 (Positive Score).
- Terengganu craft practitioners responded to four rating scales ranging from RS 3, 4, 5, and 6. The highest number of eleven respondents selected rating scale 6 (Positive Score), eight respondents selected rating scale 5 (Positive Score). Two respondents in neutral which selected rating scale 4 (Neutral) while two other respondents selected 'unfavourable' response to rating scale 3 (Negative Score).

CONCLUSION

The results scored by both regions indicates that their collective view on the appropriateness of the colour schemes that has been tested on the surface of the anodised aluminium is that it has potential to be used as a surface decoration for traditional craft artefacts.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 8 (Are the colour schemes appropriate to the decoration of contemporary artefacts inappropriate-----appropriate?)

The purpose of this question is to find the craft practitioners view on the surface decoration applied to the surface of aluminium with reference to the sample material provided by the researcher, whether the colour schemes have the potential to provide a cultural value to the decoration of contemporary craft artefacts.

EXPLANATION

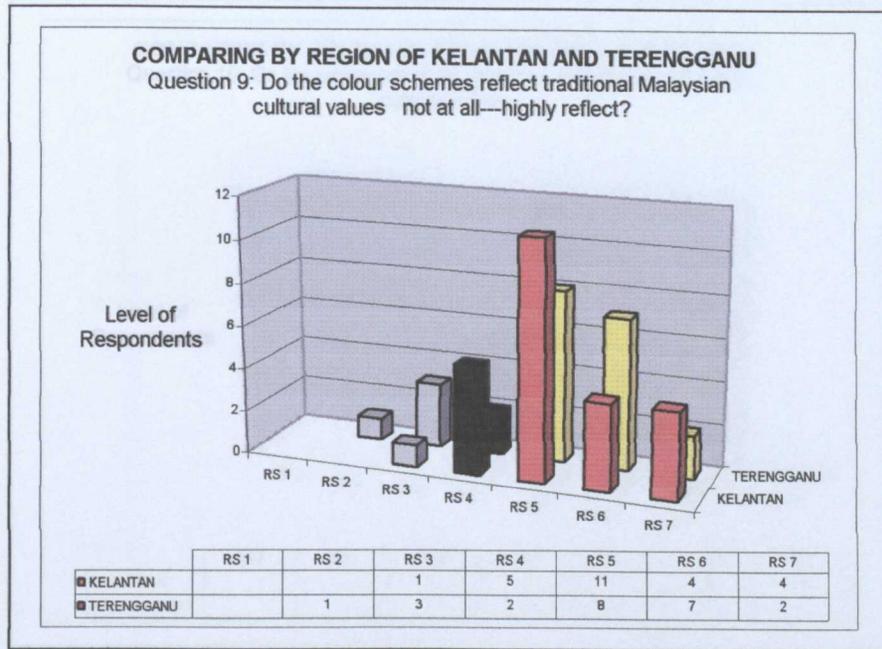
EXPLANATION

- Kelantan craft practitioners responded their choice to four rating scales RS4, 5, 6 and 7. Three respondents shows neutral response selected rating scale 4 (Neutral). Five respondents selected rating scale of 5 (Positive Score). Twelve respondents strengthen the positive response by selecting rating scale 6 (Positive Score) and finally five respondents selected rating scale of 7 (Positive Score), which indicate their response to the appropriateness of the colour schemes to the decoration of contemporary artefacts.
- Terengganu craft makers also responded to four rating scales RS 4, 5, 6 and 7. Only one respondent response to neutral but the rest were favourable to the question. Seven respondents make selected rating scale of 5 (Positive Score). Eleven respondents the highest numbers selected rating scale 6 (Positive Score). Finally four respondents selected rating scale 7(Positive Score).

CONCLUSION

The result indicates that both regions are in favour of the positive responses to the rating scales, which shows that the colour schemes produced on the surface of the aluminium provides for a potential use in the decoration of contemporary artefacts.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 9 (*Do the colour schemes reflect traditional Malaysian cultural values not at all-----highly reflect?*)

The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any traditional value to the Malaysian craft.

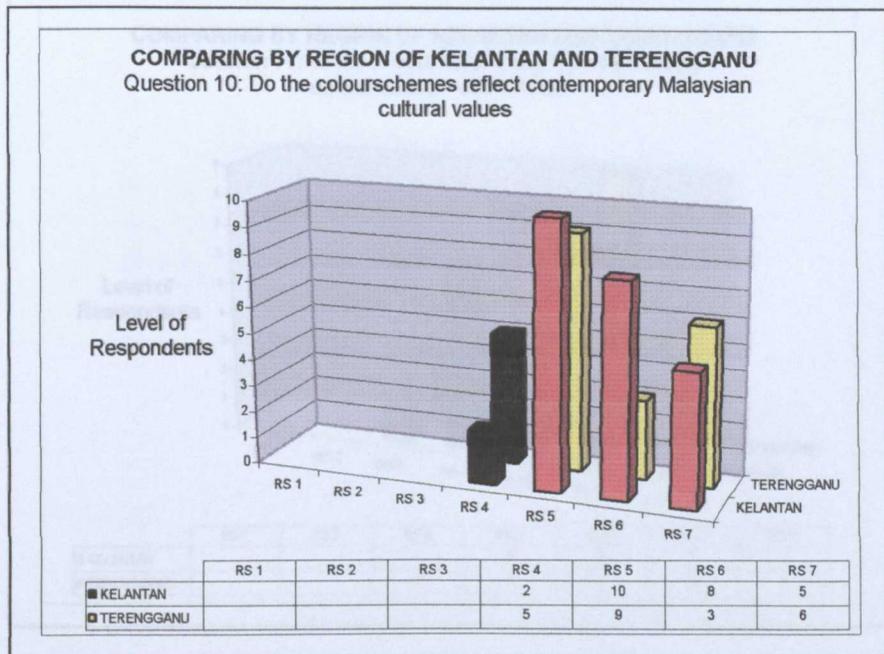
EXPLANATION

- Kelantan craft practitioners responded to five rating scales RS 3, 4, 5, 6, and 7. There were mix responses, with one respondent selected rating scale 3 (Negative Score), which indicates an ‘unfavourable’ response. While five respondents are neutral to the question with the selection of rating scale 4 (Neutral). From the ‘favourable’ side of the scale, eleven respondents selected their responses to scales 5 (Positive Score). Four respondents selected rating scale 6. Finally, four respondents selected rating scale 7 (Positive Score)..
- Terengganu craft practitioners responded a wider choice of rating scales RS 2,3,4,5 and 7. From these choices, only one respondent selected rating scale 2 (Negative Score). Three respondents selected rating scale 3 (Negative Score) which categorize the four respondents into ‘unfavourable’ side of the scales. Two respondents in neutral with their choice of the rating scales of 4 (Neutral). On the ‘favourable’ side of the scales indicates the highest number of respondents, where eight respondents selected rating scale 5 (Positive Score). Seven respondents selected rating scale 6 (Positive Score) and finally, two respondents selected rating scale 7 (Positive Score).

CONCLUSION

Both regions responses to this question were in favour of positive ratings, which means that their collective view on the appropriateness of the colour schemes displayed in the samples, was that they ‘highly reflect’ traditional Malaysian cultural values.

SEMANTIC DIFFERENTIAL SCORE



- **QUESTION 10** (Do the colour schemes reflect contemporary Malaysian cultural values not at all-----highly reflect?)
- The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any contemporary value to the Malaysian craft.

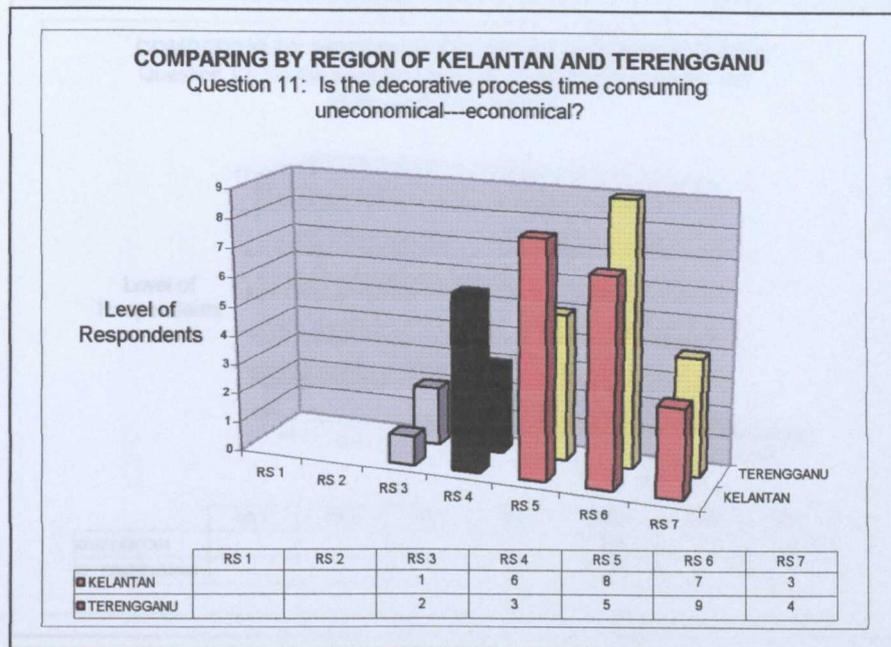
EXPLANATION

- Kelantan craft practitioners responded to four choices of rating scales RS 4, 5, 6, and 7. Two respondents selected rating scale 4 (Neutral) which indicate their neutral response to the question. While ten respondents give their positive selection to rating scale 5 (Positive Score), eight respondents selected rating scale 6 (Positive Score) and finally five respondents give their highest selection to rating scale 7 (Positive Score).
- Terengganu craft practitioners have the same pattern of scoring which responded to the rating scales RS 4, 5, 6, and 7. Five respondents response neutral with their selections to rating scale 4 (Neutral). Nine respondents, the highest number of respondents that selected rating scale 5 (Positive Score), three respondents response to scale 6 (Positive Score), and finally six respondents selected rating scale 7 (Positive Score).

CONCLUSION

The graph shows that the result generated from the rating scale indicate that the collective view of the craft practitioners' form both region agreed that the colour schemes potentially reflect contemporary Malaysian cultural values.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 11 (*Is the decorative process time consuming uneconomical---economical?*)

The purpose of this question was to find whether the visual explanation of the anodising process presented through PowerPoint and video, has any economic value to the crafts practitioners in relation to the time it takes during the sequence of the production process as demonstrated by the researcher.

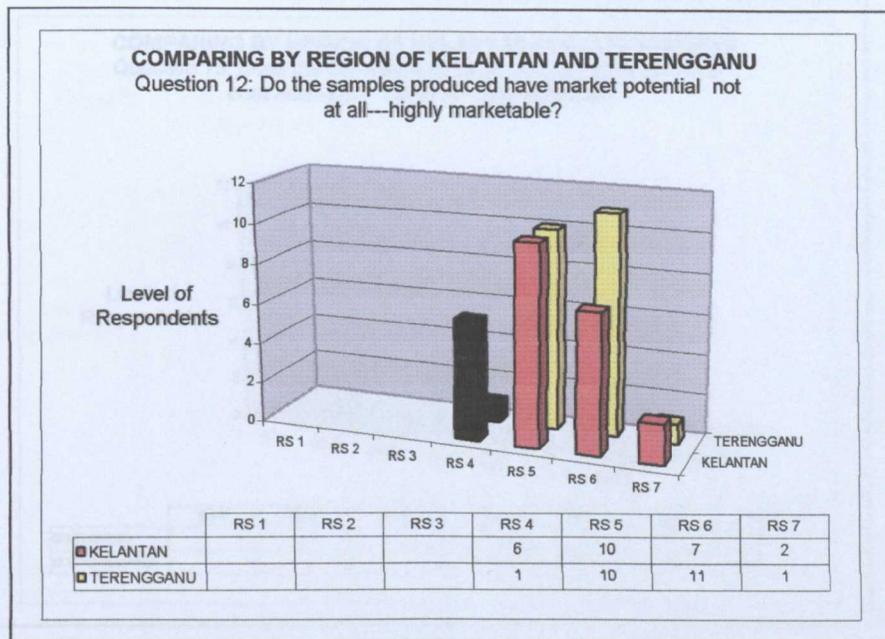
EXPLANATION

- There was a spread of responses to the rating scales by the Kelantan craft practitioners. From the graph above, the respondents have made their selection of rating scales RS 3, 4, 5, 6 and 7. One respondent selected 'unfavourable' response to scale 3. Six respondents in neutral response with the selection of rating scale 4. Eight respondents the highest number that selected rating scale 5. Seven respondents response to positive pole, selected rating scales 6. Finally, three respondents selected scales 7.
- Terengganu craft practitioners share a similarity in responding to rating scales. Two respondents selected 'unfavourable' response to rating scale 3 (Negative Score). Three respondents response to neutral by selecting rating scale 4 (Neutral). Five respondents in selected rating scale 5 (Positive Score), the highest numbers of nine respondents make their selection to rating scale 6 (Positive Score). Finally, four respondents selected rating scale 7 (Positive Score).

CONCLUSION

The results indicate that the majority of the respondents from both region were in favour of a positive response to the question. This means that their collective view was that the 'economic' value of the anodising process had been demonstrated through the visual presentation.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 12 (*Do the samples produced have market potential not at all-----
-----highly marketable?*)

The purpose of the question was in relation to market potential, to find the crafts practitioners' views on whether the decorative samples of anodised aluminium provided have the potential to be marketed. The samples displayed various elements of Malaysian decorative motif resembling the nature of current craft.

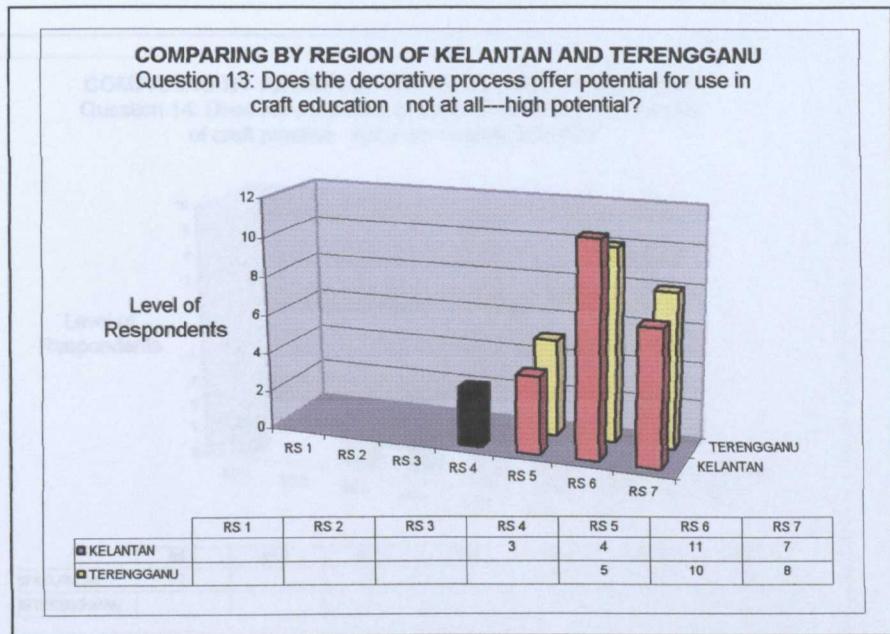
EXPLANATION

- Kelantan craft practitioners responded to four rating scales of RS 4, 5, 6 and 7. From the responses, six respondents were neutral to rating scale 4 (Neutral). Ten respondents selected rating scales 5 (Positive Score). Seven respondents selected rating scale 6 and finally, two respondents selected scale of 7 (Positive Score).
- Terengganu craft practitioners produced a similar response to the selection of rating scales. They also responded to four rating scales of 4, 5, 6 and 7. Only one respondent with neutral response to the question, while ten respondents selected rating scale 5 (Positive Score), which indicate their 'favourable' response. Eleven respondents selected rating scale 6 (Positive Score). Only one respondent selected rating scales 7 (Positive Score).

CONCLUSION

From the results above, indicate that the majority of craft practitioners from both region sided to the positive pole of the rating scales which means that the consensus agreed that the samples of anodised aluminium represent potentially marketable decorative craft products in the future.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 13 (*Does the decorative process offer potential for use in craft education not at all-----high potential?*)

The purpose of this question was to find if craft practitioners' believe that the decorative technology can be assimilated as part of craft education in the Malaysian community.

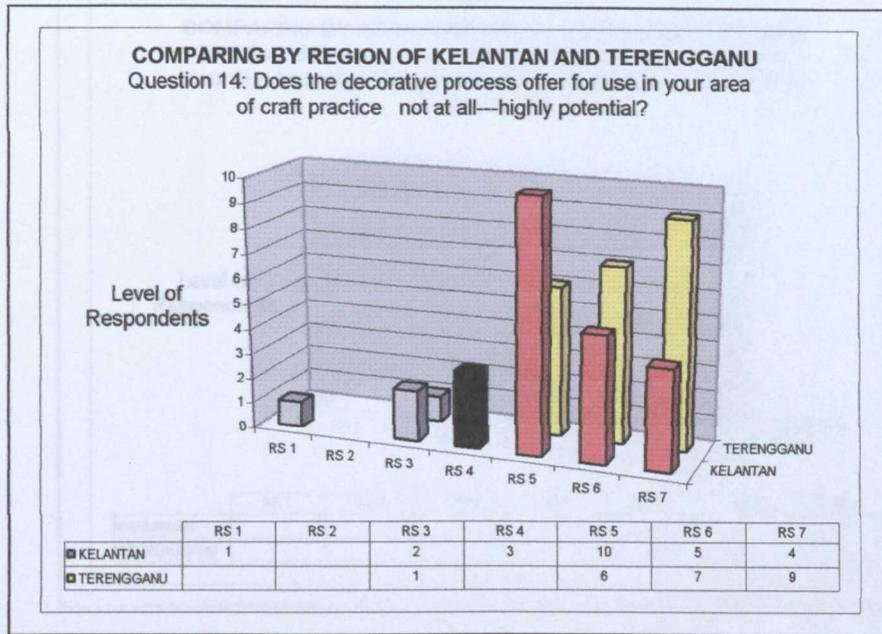
EXPLANATION

- Kelantan craft practitioners responded to the rating scales of RS 4, 5, 6 and 7. Three respondents 'undecided' to the question selected rating scale 4 (Neutral). Four respondents selected rating scale 5 (Positive Score). Another eleven respondents selected rating scale 6 (Positive Score) and finally seven respondents selected rating scale 7(Positive Score) which strengthen the favourable response.
- Terengganu craft practitioners minimize their response to three rating scale of RS 5, 6, and 7. This indicates their 'favourable' response where five respondents selected rating scale 5 (Positive Score). Ten respondents, the highest number selected rating scale 6 (Positive Score). Finally eight respondents selected rating scales 7(Positive Score).

CONCLUSION

The above results illustrate that the consensus of craft practitioners from both regions favoured the positive pole of the question rating scale. This suggests that they believe the decorative process provides an opportunity for craft education in Malaysia.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 14 (*Does the decorative process offer for use in your area of Malaysian craft practice not at all—highly potential?*)

The purpose of this question was to find if craft practitioners' believe that the decorative process that has been introduced and demonstrated represents the opportunities for them in their area of craft practice.

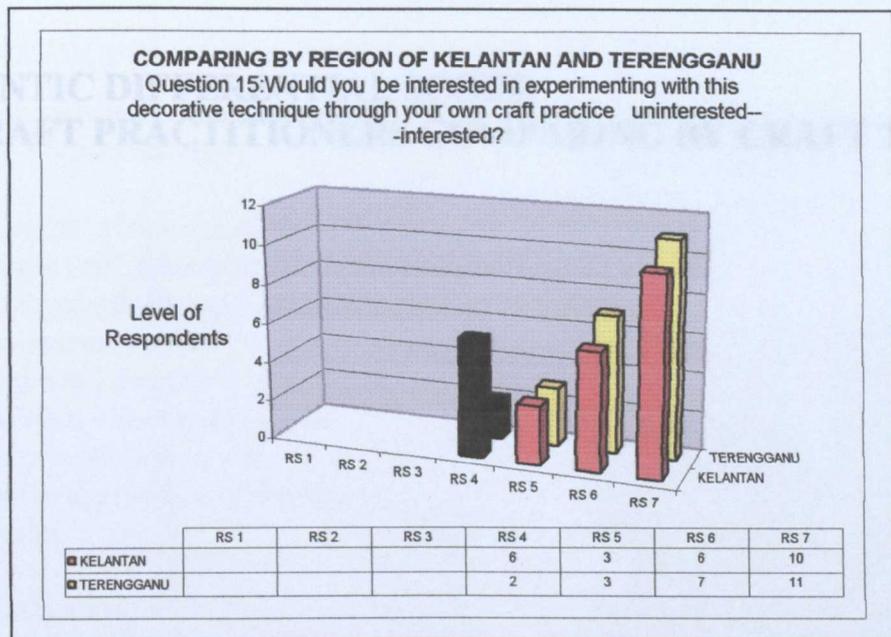
EXPLANATION

- The Kelantan craft practitioners responded to six rating scales to this question. Only one respondent selected the rating scales 3 which reflects the unfavourable position. Three respondents in neutral response selected rating scale 4. While ten respondents, the highest number to select rating scale 5. Five respondents selected rating scales 6 and finally, four respondents selected rating scale 7.
- The Terengganu craft practitioners responded to the rating scales of RS 3,5,6 and 7. Only one respondents 'unfavourable' to the question selecting rating scale 3 (Negative Score). Six respondents selected rating scale 5 (Positive Score). Seven respondents selected rating scale 6 (Positive Score), followed by another nine respondents selected rating scale 7 (Positive Score).

CONCLUSION

From the results above, indicate that the majority of craft practitioners from both regions sided to the positive pole of the rating scales which means that the consensus agreed that the decorative process provides the opportunities for them in their area of craft practice.

SEMANTIC DIFFERENTIAL SCORE



QUESTION 15 (*Would you be interested in experimenting with this decorative technique through your own craft practice *uninterested-----interested?**)

The purpose of the question was to find out if the craft practitioners' would be interested in experimenting with the decorative technique through their own craft practice after viewing the visual presentation of the process.

EXPLANATION

- The Kelantan craft practitioners responded to the scales of RS 4, 5, 6 and 7. Six respondents feel undecided selecting rating scale 4. Three respondents selected rating scales 5. Six respondents added the favourable scale, selected rating scale and finally ten respondents selected rating scale 7.
- Terengganu craft practitioners show similarity in responses to the rating scales of of RS 4,5, 6 and 7. Two respondents selected rating scale 4, which reflects their neutral position to the question. Three respondents selected rating scales 7. Seven respondents selected rating scale 6. Finally, eleven respondents selected rating scales 7.

CONCLUSION

The above results indicate that the consensus of craft practitioners from both regions were interested in experimenting with the decorative technique in their craft practice.

**SEMANTIC DIFFERENTIAL SCORE
OF CRAFT PRACTITIONERS COMPARING BY CRAFT TYPES**

SEMANTIC DIFFERENTIAL SCORE

QUESTION 1

(Was the presentation boring-----interesting?)

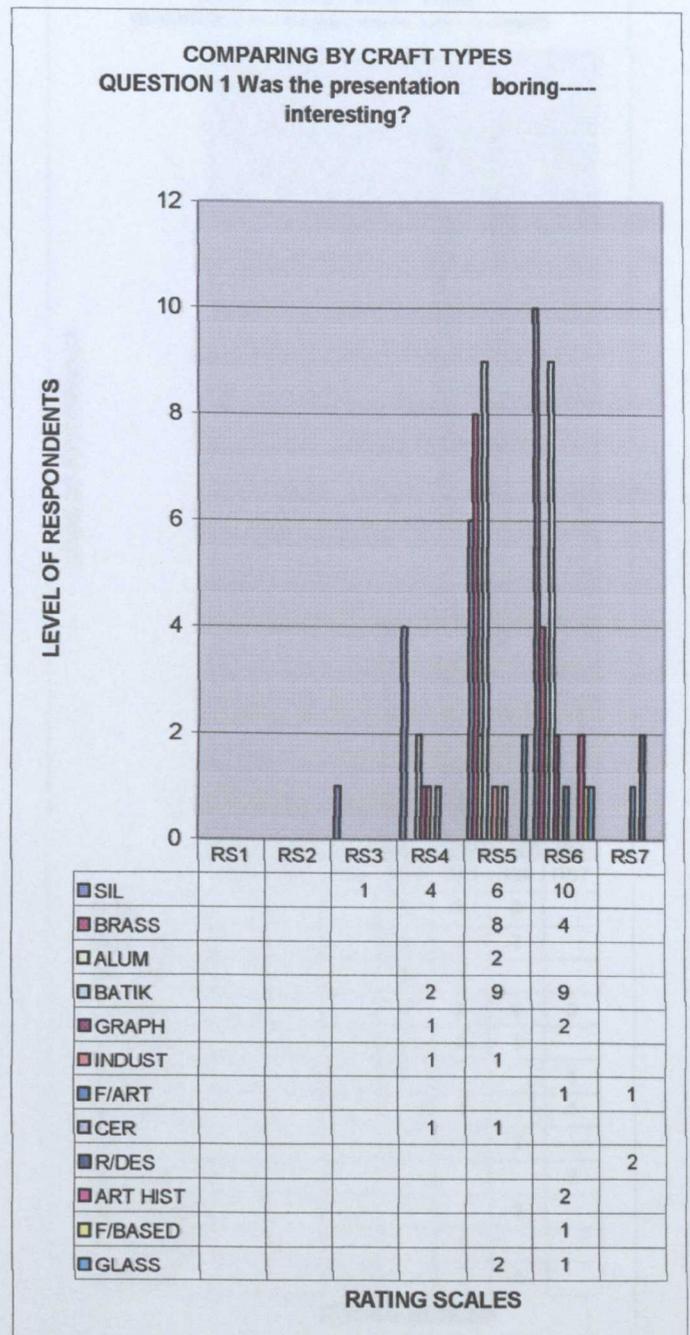
The purpose of this question was to find the craft practitioner's reaction toward the topic and the time consumed by the presentation using the PowerPoint, video and material evidence in relation to the decorative application of anodised aluminium.

EXPLANATION

One respondent from Craft Type: Silver selected the unfavourable rating scale of 3(Negative Score). Nine respondents from five craft types decided on a neutral response for this question, i.e.: the rating scales of 4 (Neutral). Thirty respondents from seven craft types favour the rating scale of 5 (Positive Score). Thirty respondents from eight craft types selected the favourable pole by responding to the rating scales of 6(Positive Score) and finally three respondents totally agreed by selecting the highest rating scales of 7(Positive Score).

CONCLUSION

The majority of the respondents from craft types have indicated that they favour the question, which concluded that they agreed to the presentation as an interesting topic.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 2

(Was the presentation hazy----
---clear?)

The purpose of this question was to find whether the topic presented was effectively understood by the craft practitioner's.

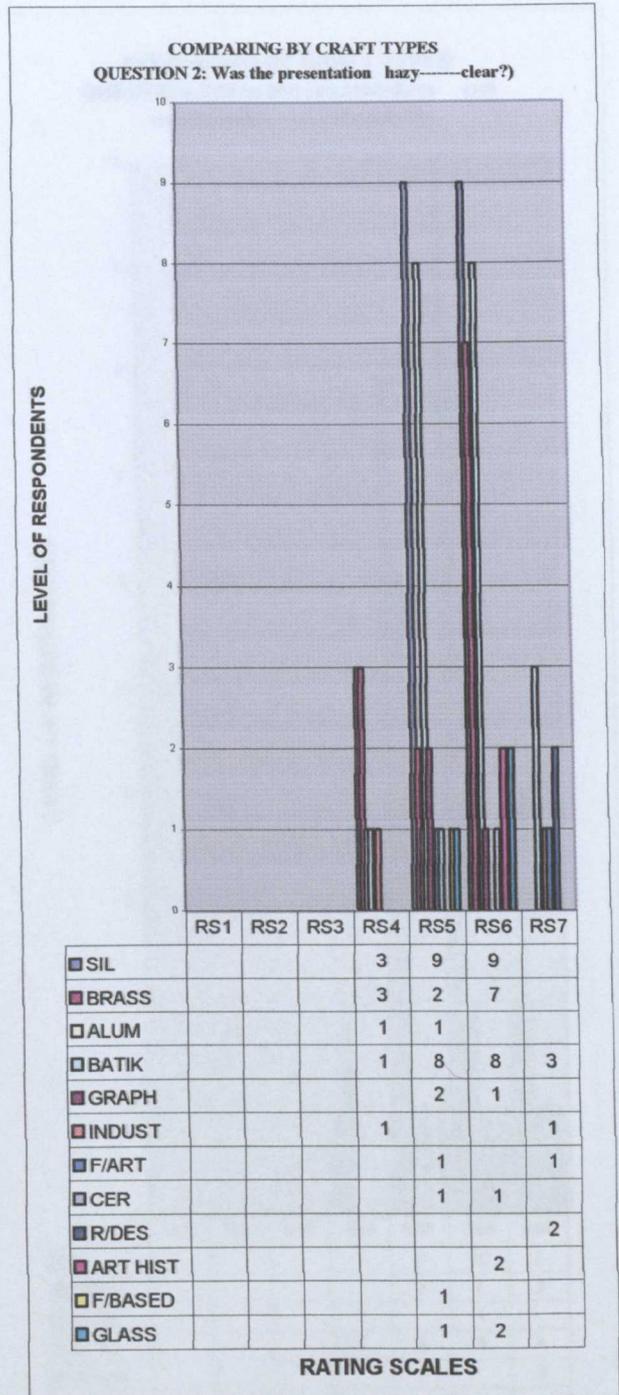
EXPLANATION

The results are explained as below:

Nine respondents from four craft types preferred a neutral to the question which i.e.: rating scale of 4 (Neutral). Twenty-nine respondents from nine craft types favoured the rating scale of 5 (Positive Score) and another twenty-nine respondents from seven craft types selected a favourable response by selecting the rating scale of 6 (Positive Score). Finally seven respondents from four craft types selected the favourable polar with the choice of rating scale 7 (Positive Score).

CONCLUSION

The findings show in this analysis agreed to 'favourable' rating scales as the majority of craft types responded to the positive polar of the answer. This indicates their collective view that the material presented was 'clearly' understood.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 3

(Was the presentation not worthwhile-----valuable?)

The purpose of this question was to find whether the craft practitioners' appreciation of the topic presented offered them a meaningful value to their craftwork as a decorative technique.

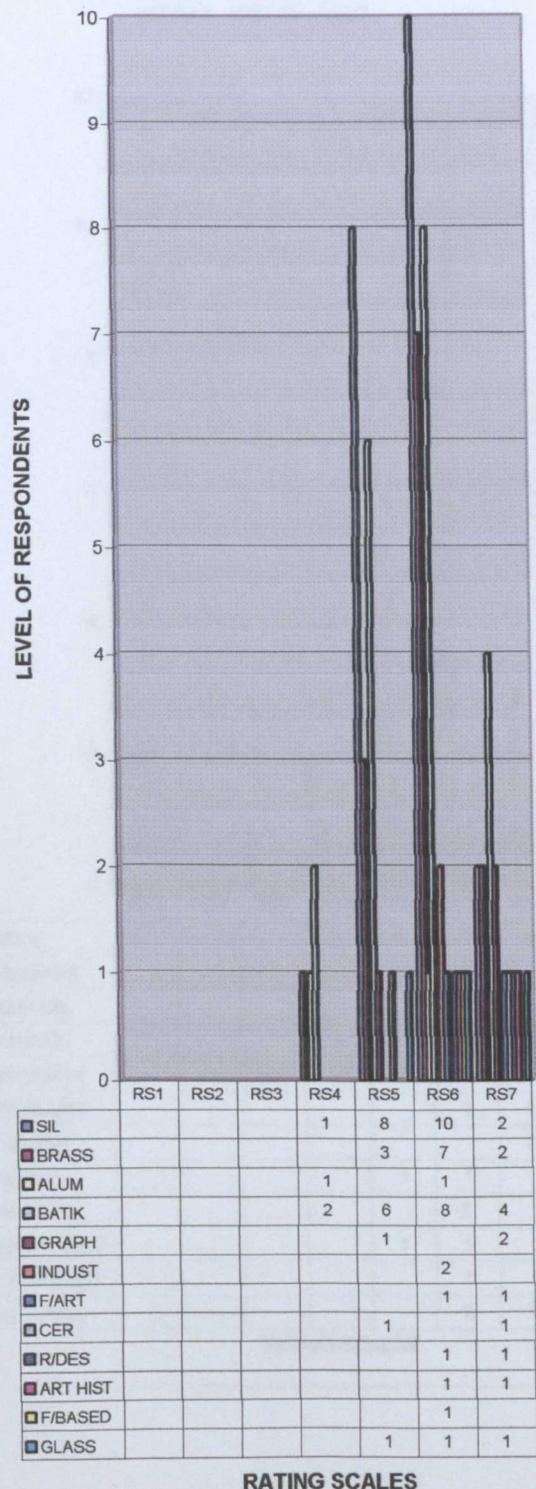
EXPLANATION

Five respondents from four craft types chose to be neutral by responding to the rating scale 4 (Neutral Score). Twenty-seven respondents from six craft types selected the 'favourable' response with the rating scale of 5 (Positive Score). The highest numbers of thirty respondents from ten craft types strengthened the 'favourable' response with the choice of rating scale 6 (Positive Score). Finally, twelve respondents from eight craft types chose the highest rating scale of 7 (Positive Score).

CONCLUSION

The above results show that all the groups a favourable response to the question. This indicates their appreciation of the topic, which is very 'valuable' to their craft practice

COMPARING BY CRAFT TYPES
QUESTION 3: Was the presentation not worthwhile-----valuable?)



SEMANTIC DIFFERENTIAL SCORE

QUESTION 4

(Was the explanation of the process easy to follow difficult--- easy?)

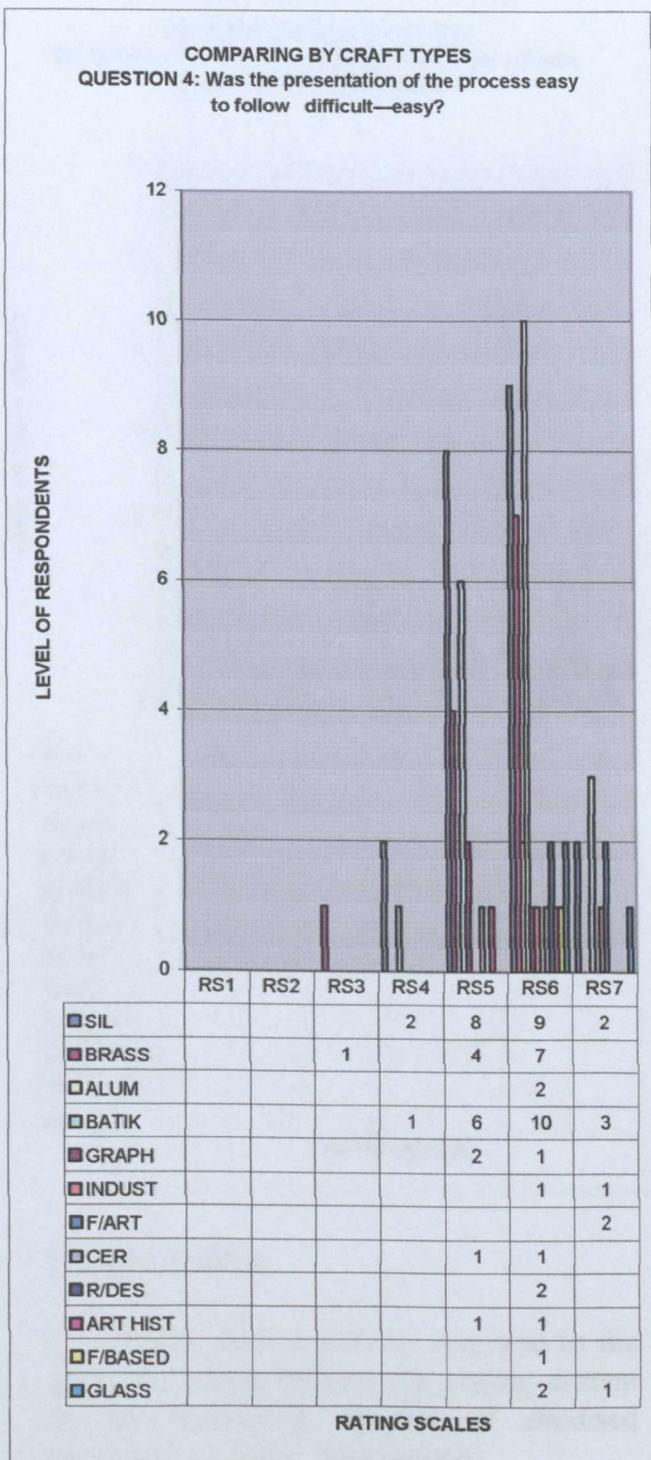
The purpose of this question was to rate the craft practitioners' quality of visual experience and understanding of the anodising aluminium process that was presented through by PowerPoint and Video.

EXPLANATION

Only one respondent from craft type silver response to the rating scale of 3(Negative Score). Six respondents from four craft types selected the rating scale of 4(Neutral). Twenty-three respondents from six craft types were in 'favour' with the choice of rating scale 5(Negative Score). Thirty-eight respondents from eleven craft types outnumber the rest that responded to the rating scale of 6(Positive Score). Finally, nine respondents from five craft types responded to the highest rank of rating scale 7(Positive Score)

CONCLUSION

The majority of the respondents from different craft background made a favourable response to the question, which implies their ease of understanding the briefing of the decorative technique of anodised aluminium process.



SEMANTIC DIFFERENTIAL SCORE

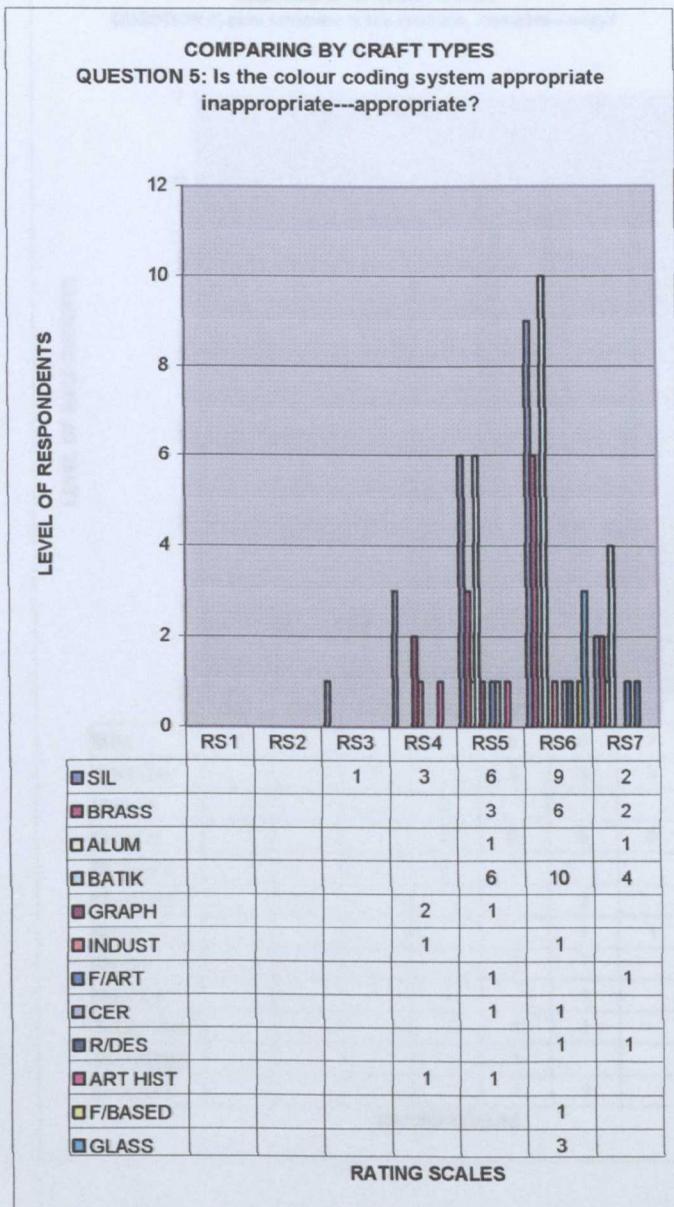
QUESTION 5

(Is the colour coding system appropriate inappropriate--
-----appropriate?)

Besides visual presentation, the researcher also provided a few samples of material evidence of the anodising decorative process to the respondents. Most of the samples utilized various colours of 'batik' dyes of which the craft practitioners were aware and knowledgeable. The purpose of the question was to find craft practitioner's views on the appropriateness of the colour coding system that had been used.

EXPLANATION

One respondent from craft types i.e.: silver considered that the coding system was inappropriate by selecting an unfavourable response based rating scale 3 (Negative Score). Eight respondents from four craft types were 'neutral' to the question, and responded to the rating scale of 4(Neutral). Twenty-one respondents from eight craft types selected the 'favourable' response of the rating scale of 5(Positive Score). Thirty-three respondents represent eight craft types were strongly in favour and selected the rating scale of 6(Positive Score). and finally, eleven respondents from six craft types chose the highest rating scale of 7(Positive Score).



CONCLUSION

The results show a positive response to the question, which favours the coding system in the decorative samples of anodised aluminium as being 'appropriate'.

SEMANTIC DIFFERENTIAL SCORE

QUESTION 6

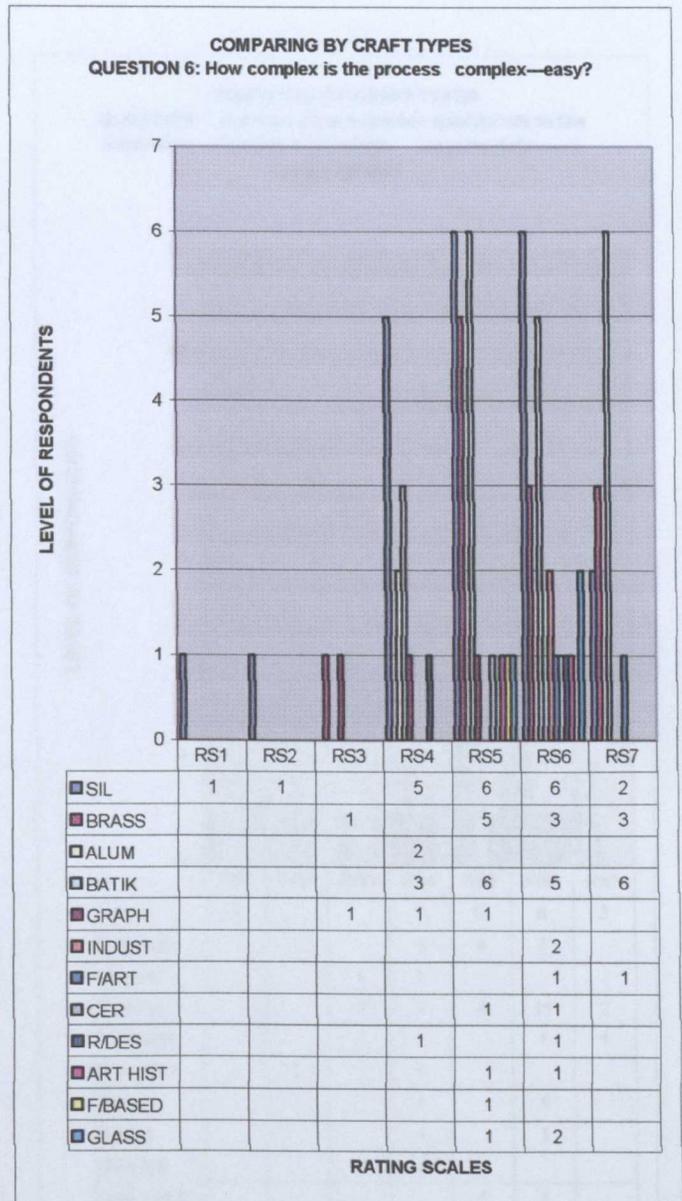
(How complex is the process complex-----easy?)

The purpose of the question is to find the craft practitioner's technical understanding of the anodising process, as a procedural requirement before their hands-on experience in the craft workshop.

EXPLANATION

Only craft type from silver responded to the rating scales of 1 and 2 (Negative Score) with one respondent for each scale, while two craft types had one respondent each to rating scale 3 (Neutral Score). These denote a negative attitude to the complexity of the process.

There are twelve respondents from five craft types choosing 'neutral' to the question with the rating scale of 4 (Neutral). Twenty-three respondents from eight craft types favoured to the rating scale of 5 (Positive Score), the positive polar of the scale. Another twenty-three respondents ten craft types increase the positive polarity with their response to the rating scale of 6 (Positive Score). Finally, twelve respondents from four craft types make their



CONCLUSION

The results of the rating scales from all the groups indicate a general favourable response to the question, which shows that the technical information of the anodising process delivered to them, is not a complicated procedure to understand, although there are a few respondents that find some complexity with it.

SEMANTIC DIFFERENTIAL SCORE

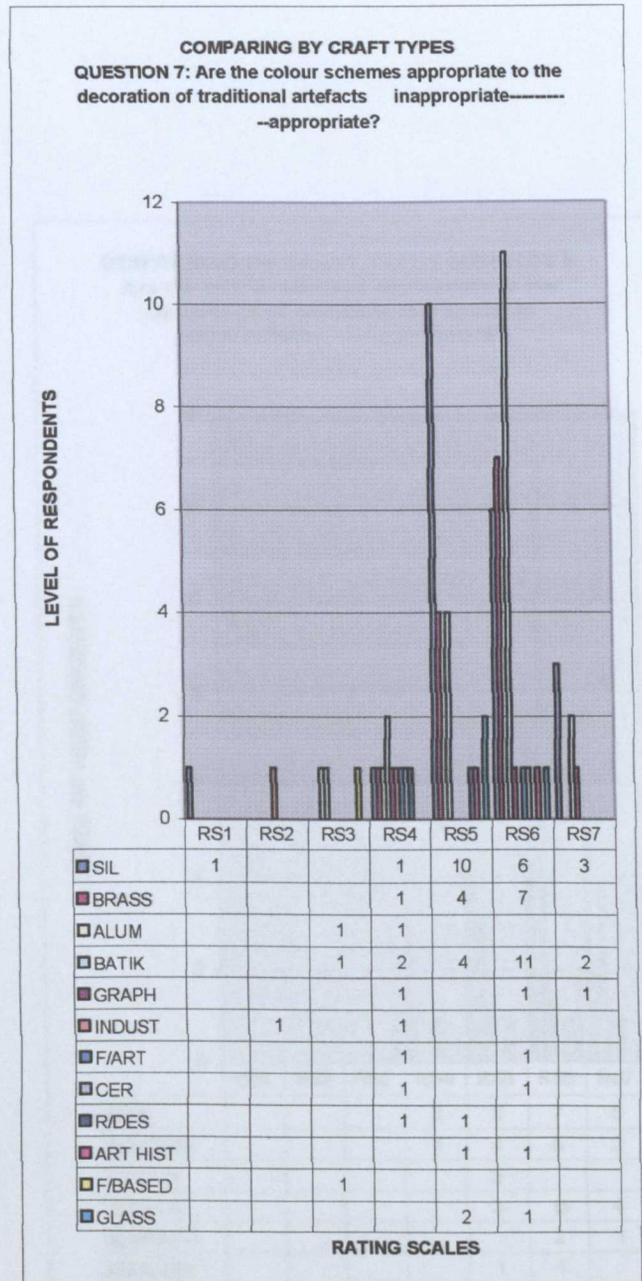
QUESTION 7

(Are the colour schemes appropriate to the decoration of traditional artefacts inappropriate----- appropriate?)

This question was raised to find the craft practitioners' view about the decorative effect applied to the surface of aluminium with reference to the sample material provided by the researcher, whether it has the potential to provide a cultural value to Malaysian craft artefacts.

EXPLANATION

One respondent from craft types silver selected to the rating scale of 1 (Negative Score), one respondent from craft type industrial design and two respondents from two craft types selected rating scale 2 and 3 (Negative Score). These indicate their choice was towards the negative polar, which means they viewed the decorative effect to be inappropriate in terms of the colour schemes for traditional craft artefacts. There were also neutral response to the question, which saw ten respondents from nine craft types choose the rating scale of 4 (Neutral). The positive polar on the other hand received a various choices of the rating scales 5, 6 and 7 (Positive Score). Twenty-two respondents six craft types selected the rating scale of 5 (Positive Score), while another twenty-nine respondents from eight craft types selected the rating scale of 6. Finally, six respondents from three craft types selected the highest rating scale of 7 (Positive Score).



CONCLUSION

The results scored by all of the groups indicates that their collective view on the appropriateness of the colour schemes that has been tested on the surface of the anodised aluminium is that it has potential to be used as a surface decoration for traditional craft artefacts.

SEMANTIC DIFFERENTIAL SCORE

QUESTION 8

(Are the colour schemes appropriate to the decoration of contemporary artefacts inappropriate-----appropriate?)

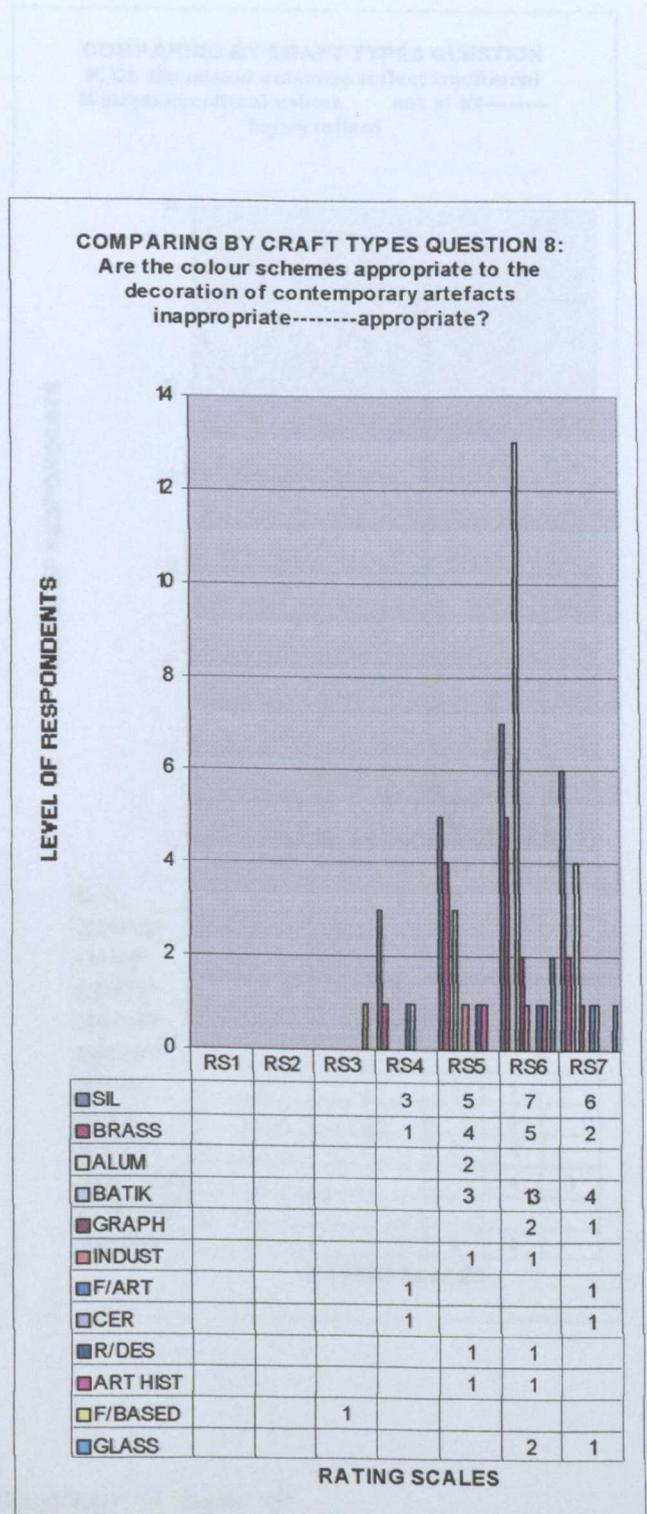
The purpose of this question is to find the craft practitioners view on the surface decoration applied to the surface of aluminium with reference to the sample material provided by the researcher, whether the colour schemes have the potential to provide a cultural value to the decoration of contemporary craft artefacts.

EXPLANATION

There was only one unfavourable score from one respondent in craft types i.e.: silver that represents negative response on the rating scale 3. Six respondents from four craft types responded to the rating scale of 4(Neutral), which indicate their neutral decision to the question. The positive scales saw seventeen respondents from seven craft types favour the rating scales of 5(Positive Score), followed by thirty-two respondents from eight craft types with the rating scale of 6(Positive Score). Finally, sixteen respondents from seven craft types increased the positive polarity to the question by selecting the response to the highest rating scale of 7(Positive Score).

CONCLUSION

The result indicates that majority of the groups are in favour of the positive responses to the rating scales, which shows that the colour schemes produced on the surface of the aluminium provides for a potential use in the decoration of contemporary artefacts.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 9

(Do the colour schemes reflect traditional Malaysian cultural values not at all-----highly reflect?)

The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any traditional value to the Malaysian craft.

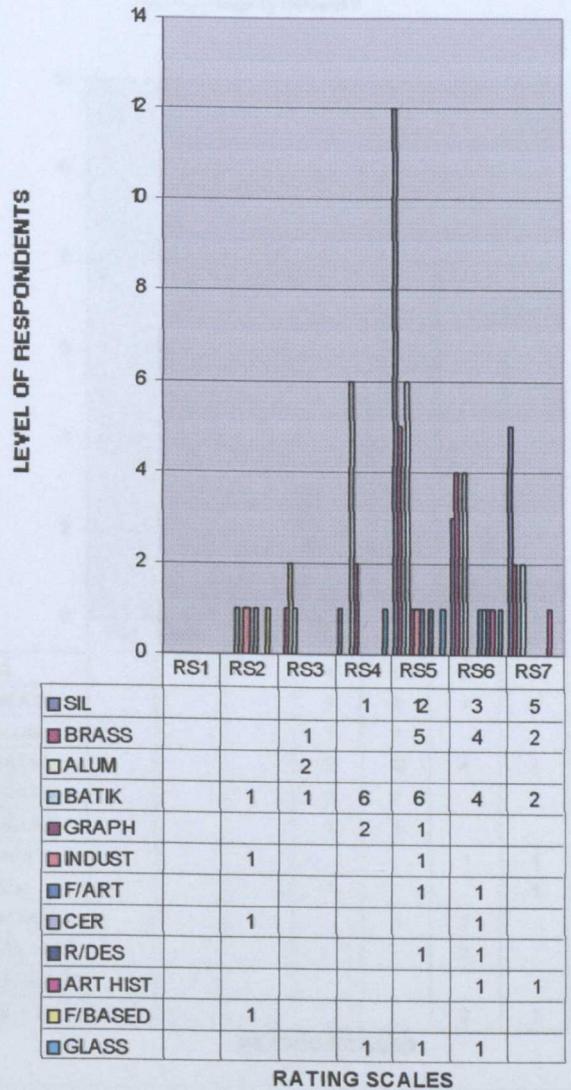
EXPLANATION

Four respondents from four craft types selected the negative pole of the rating scale with the choice of rating scale 2(Negative Score) together with four respondents from three craft types with the rating scale of 3(Negative Score). Ten respondents from three craft types are neutral to the answer with the selection of rating scale 4(Neutral). In the positive polar saw twenty-eight respondents from eight craft types favour to the rating scales of 5(Positive Score). Another sixteen respondents from eight craft types, selected the rating scale of 6(Positive Score). Finally, ten respondents from four craft types choose the highest rating scale of 7(Positive Score).

CONCLUSION

The majority of the responses to this question were in favour of positive ratings, which means that their collective view on the appropriateness of the colour schemes displayed in the samples, was that they 'highly reflect' traditional Malaysian cultural values.

COMPARING BY CRAFT TYPES QUESTION 9: Do the colour schemes reflect traditional Malaysian cultural values not at all-----highly reflect



SEMANTIC DIFFERENTIAL SCORE

QUESTION 10

(Do the colour schemes reflect contemporary Malaysian cultural values not at all-----highly)

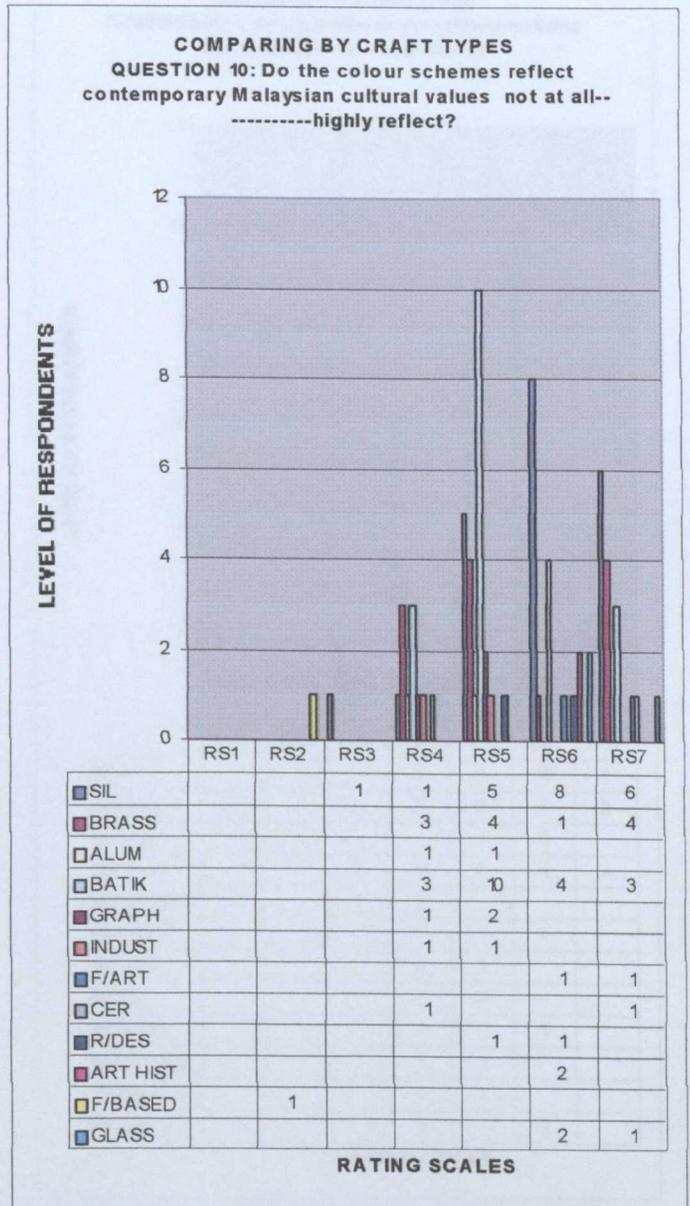
The purpose of this question was to find the craft practitioners views regarding the colour schemes achieved from the material evidence provided by the researcher, convey any contemporary value to the Malaysian craft.

EXPLANATION

One respondent from craft types, forest based selected to the rating scale of 2(Negative Score) and one respondent from craft types silver response to the rating scale of 3(Negative Score). These respondents represent the negative pole of the rating scale. Eleven respondents from seven craft types were neutral to the answer selecting the rating scale of 4(Neutral). Twenty-four respondents from seven craft types selected the positive end of the rating scale of 5(Positive Score), followed by nineteen respondents from seven craft types selecting the rating scale of 6(Positive Score). Finally, sixteen respondents from six craft types made their choice the highest rating scale of 7(Positive Score).

CONCLUSION

The graph shows that the result generated from the rating scale indicate that the collective of the three groups of respondents agreed that the colour schemes potentially reflect contemporary Malaysian cultural values.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 11

(Is the decorative process time consuming uneconomical-----economical?)

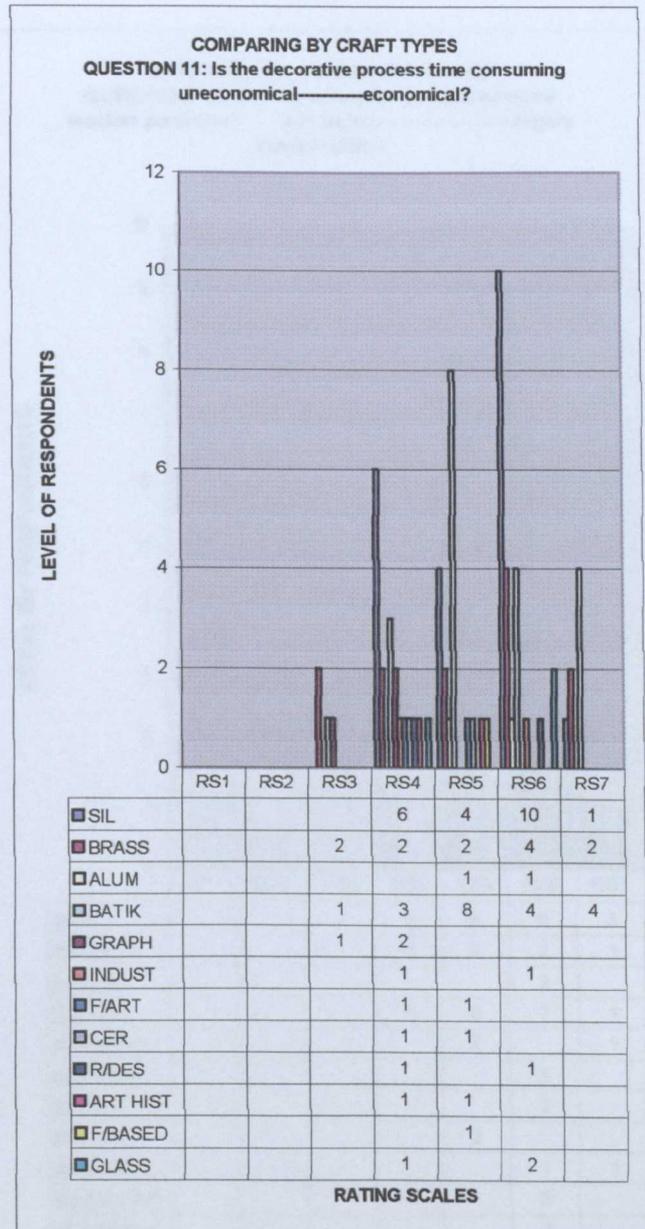
The purpose of this question was to find whether the visual explanation of the anodising process presented through PowerPoint and video, has any economic value to the crafts practitioners in relation to the time it takes during the sequence of the production process as demonstrated by the researcher.

EXPLANATION

There were five respondents that selected the negative pole of the rating scales i.e: 2 and 3(Negative Score). Nineteen respondents selected a neutral answer with the rating scale of 4(Neutral). While twenty respondents made positive responses, selecting the rating scale of 5(Positive Score). Another twenty-three respondents selected to the rating scale of 6(Positive Score). The last seven respondents were also highly in favour to the positive pole with their response to the rating scale of 7(Positive Score).

CONCLUSION

The results indicate that the majority of the respondents were in favour of a positive response to the question. This means that their collective view was that the 'economic' value of the anodising process had been demonstrated through the visual presentation.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 12

(Do the samples produced have market potential not at all-----highly marketable?)

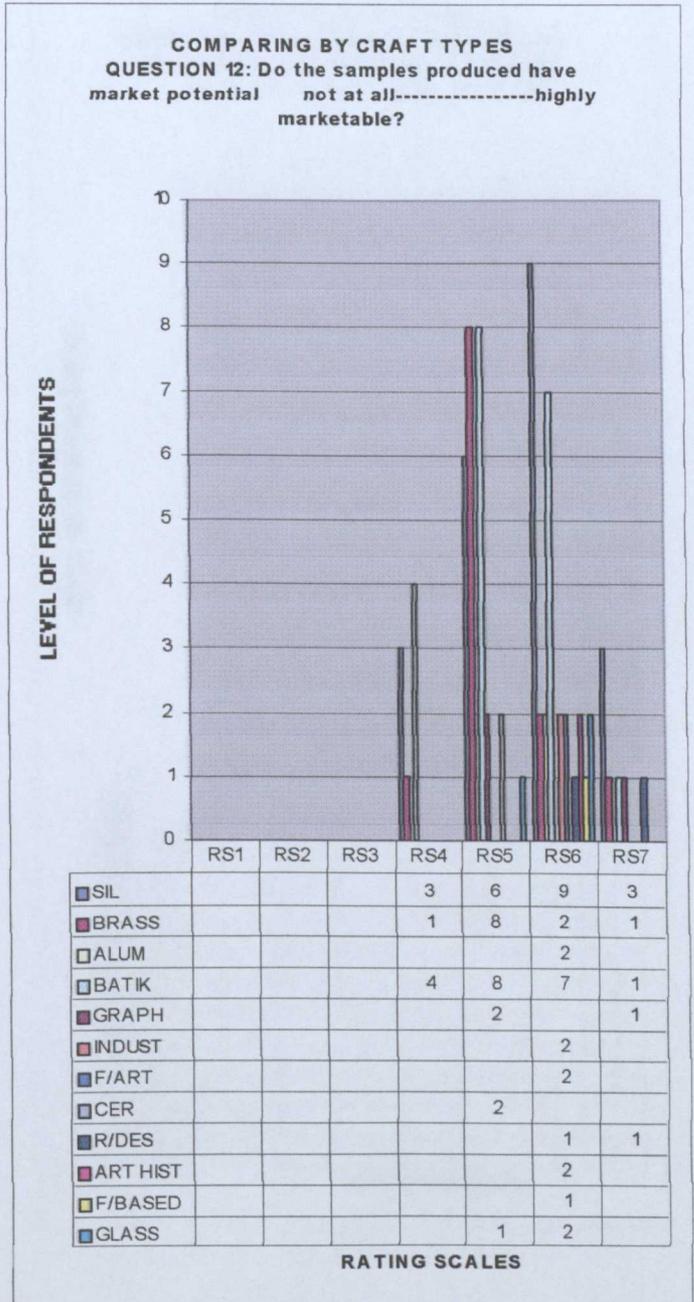
The purpose of the question was in relation to market potential, to find the crafts practitioners' views on whether the decorative samples of anodised aluminium provided have the potential to be marketed. The samples displayed various elements of Malaysian decorative motif resembling the nature of current craft.

EXPLANATION

Eight respondents from three craft types selected neutral to the question choosing the rating scale of 4 (Neutral). Twenty-seven respondents from six craft types were in favour and selected the rating scale of 5 (Positive Score), which put them to the positive pole of the answer. Thirty-one respondents from ten craft types increase the positive score selecting rating scale 6 (Positive Score). Finally, seven respondents from five craft types selected the highest rating scale of 7 (Positive Score).

CONCLUSION

From the results above, indicate that the majority of craft practitioners sided to the positive pole of the rating scales which means that the consensus agreed that the samples of anodised aluminium represent potentially marketable decorative craft products in the future.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 13

(Does the decorative process offer potential for use in craft education not at all-----high potential?)

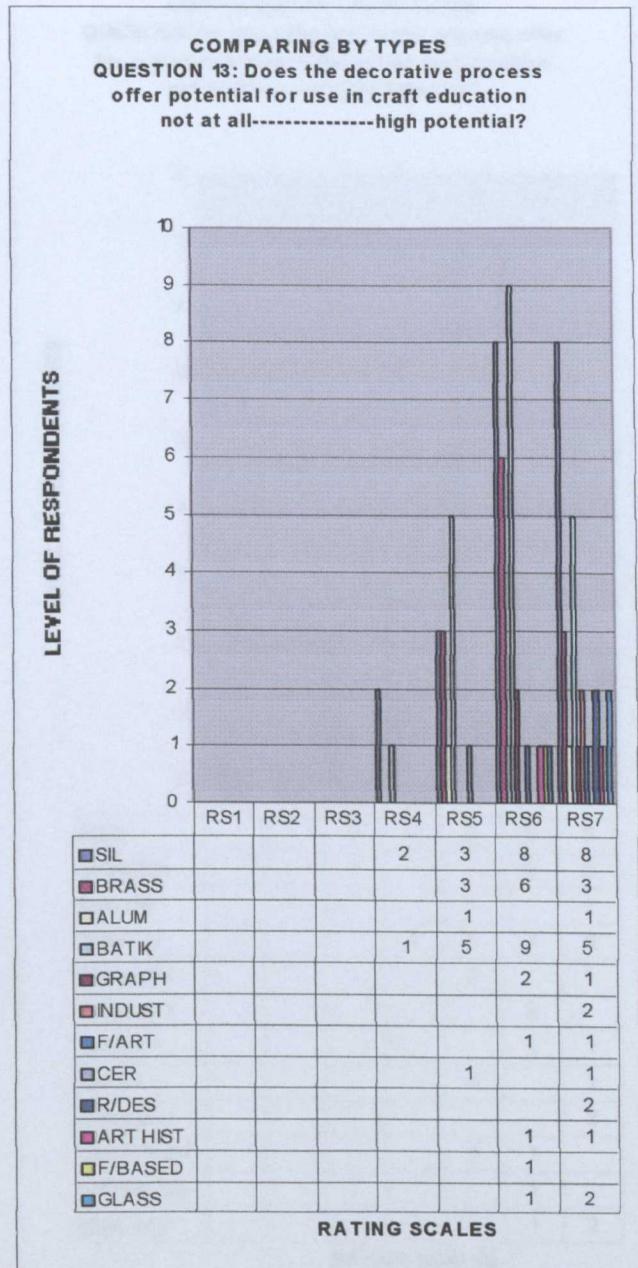
The purpose of this question was to find if craft practitioners' believe that the decorative technology can be assimilated as part of craft education in the Malaysian community.

EXPLANATION

Three respondents from two craft types have selected the rating scale of 4 (Neutral) indicating their neutrality to the question. Thirteen respondents' five craft types selected the positive pole of the answer by selecting rating scale 5 (Positive Score). While another twenty-nine respondents eight craft types increase responses to the positive pole answer by selecting rating scale 6 (Positive Score). Finally, twenty-seven respondents eleven craft types selected the highest rating scale of 7 (Positive Score).

CONCLUSION

The above results illustrate that the consensus of craft practitioners favoured the positive pole of the question rating scale. This suggests that they believe the decorative process provides an opportunity for craft education in Malaysia.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 14

(Does the decorative process offer for use in your area of Malaysian craft practice not at all-----highly potential?)

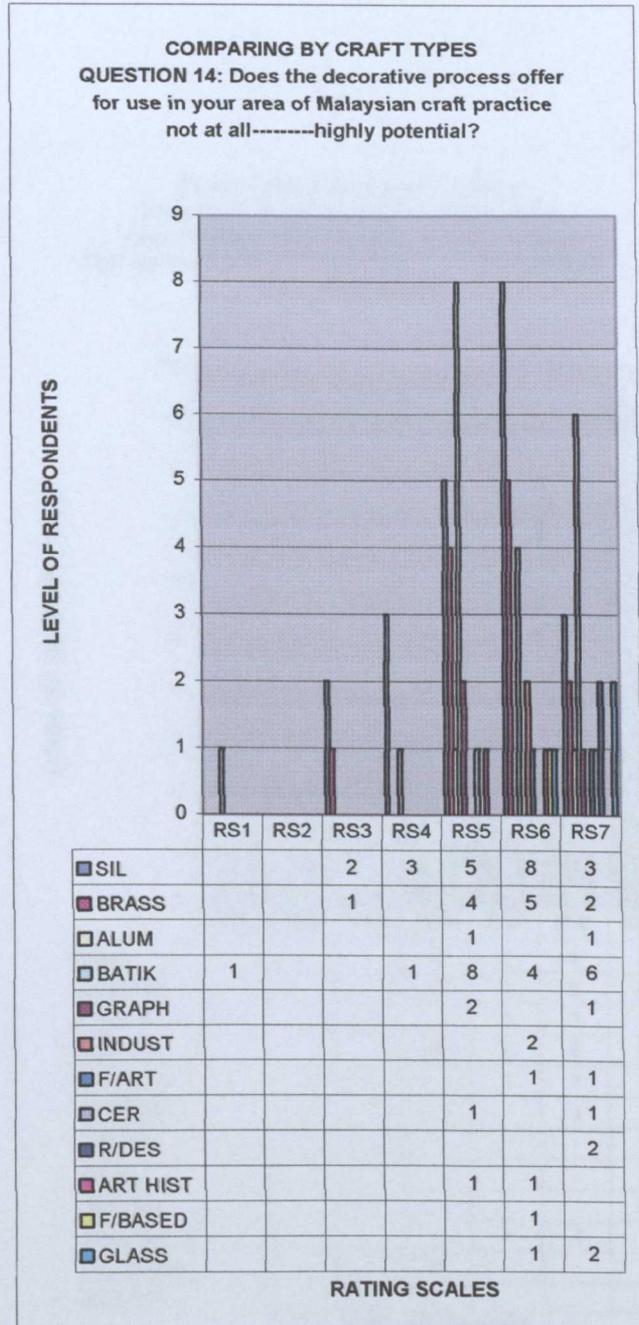
The purpose of this question was to find if craft practitioners' believe that the decorative process that has been introduced and demonstrated represents the opportunities for them in their area of craft practice.

EXPLANATION

One respondent from craft types batik together with another three respondents from two craft types selected the negative pole of the answer i.e.: rating scale of 1 and 3 (Negative Score). Four respondents from two craft types selected the neutral position to the answer. In the positive pole of the rating scale, twenty-two from seven craft types have chosen the rating scales of 5 (Positive Score) followed by another twenty-four respondents in favour of rating scale 6(Positive Score). The highest rating scale of 7(Positive Score), selected by nineteen respondents from nine craft types.

CONCLUSION

From the results above, indicate that the majority of craft practitioners sided to the positive pole of the rating scales which means that the consensus agreed that the decorative process provides the opportunities for them in their area of craft practice.



SEMANTIC DIFFERENTIAL SCORE

QUESTION 15

(Would you be interested in experimenting with this decorative technique through your own craft practice uninterested-----interested?)

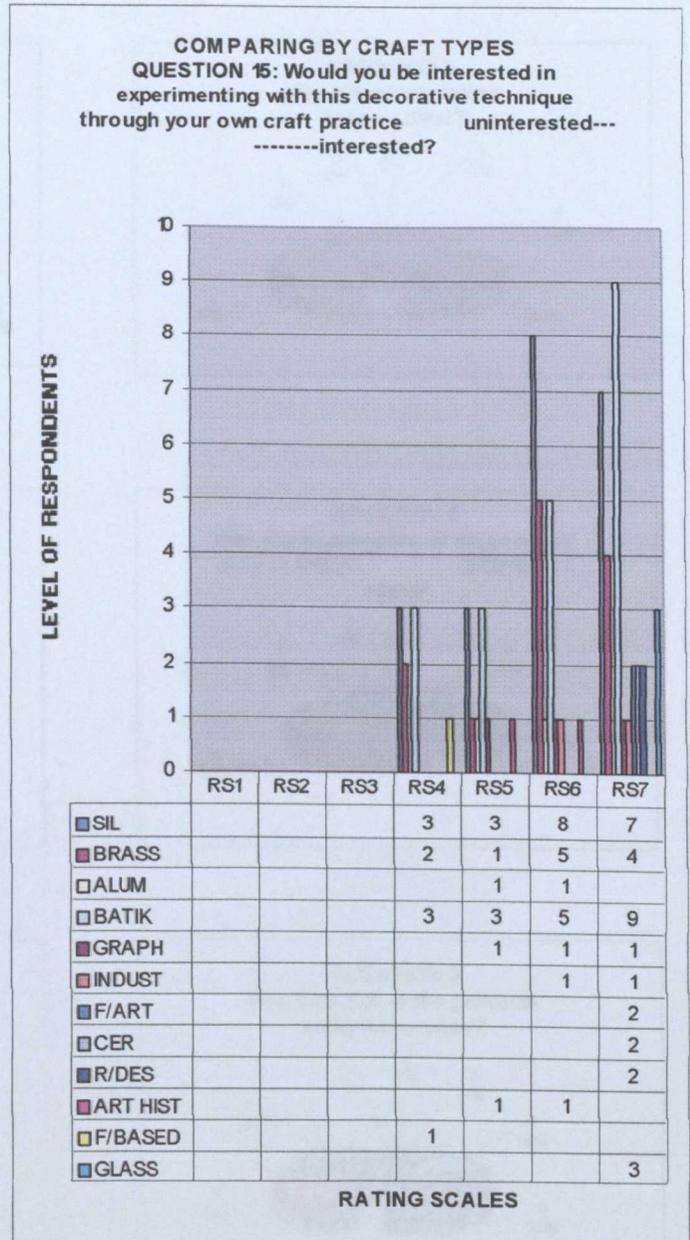
The purpose of the question was to find out if the craft practitioners' would be interested in experimenting with the decorative technique through their own craft practice after viewing the visual presentation of the process.

EXPLANATION

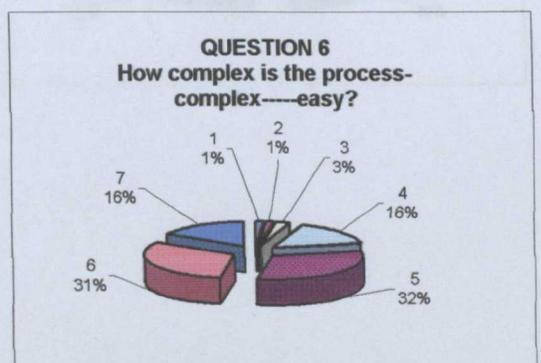
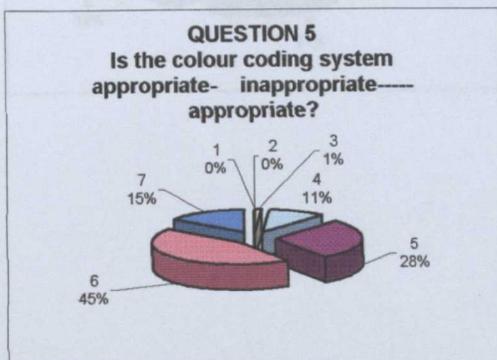
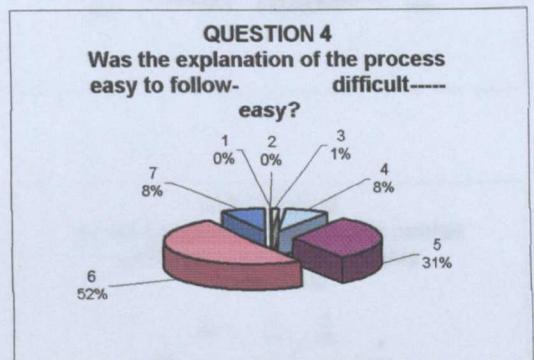
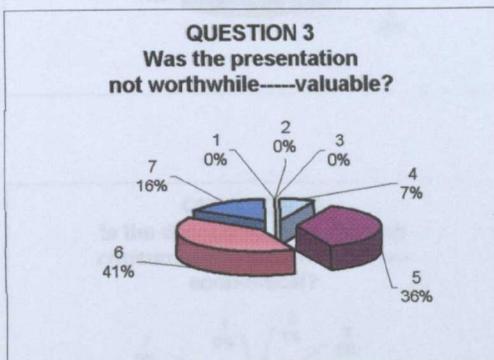
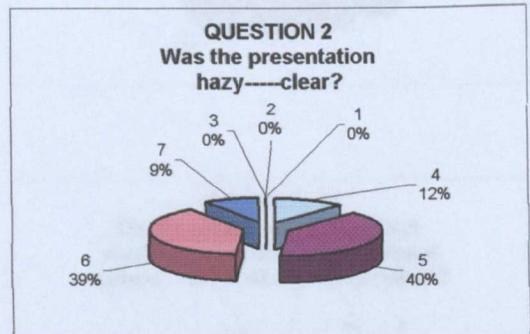
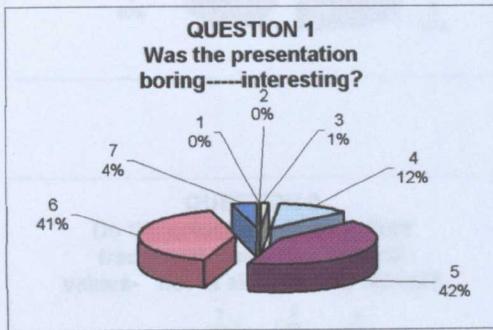
Nine respondents from four craft types selected the rating scale of 4 (Neutral) indicating their neutral position to the answer. Ten respondents from six craft types were favour of the rating scale of 5 (Positive Score) and another twenty-two respondents from seven craft types selected a rating scale of 6 (Positive Score), which reflects their positive response to the question. Thirty-one respondents from nine craft types also favoured the positive answer with the highest rating scale of 7.

CONCLUSION

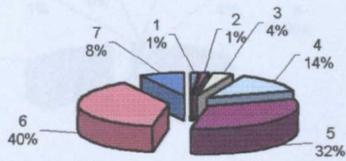
The above results indicate that the consensus of craft practitioners were interested in experimenting with the decorative technique in their craft practice



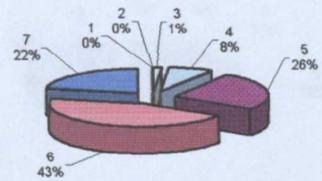
PERCENTAGE DISTRIBUTION OF PIE CHART BY GROUP (EDUCATOR, DESIGNER AND CRAFT MAKER) ON THE SELECTION OF RATING SCALES FROM QUESTION 1 TO 15



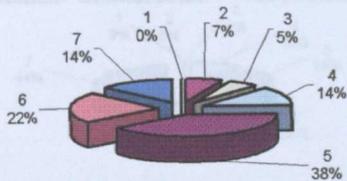
QUESTION 7
 Are the colour schemes appropriate to the decoration of traditional artefacts inappropriate—appropriate?



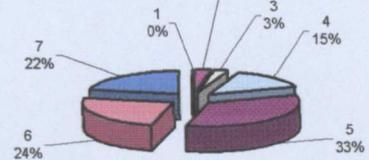
QUESTION 8
 Are the colour schemes appropriate to the decoration of contemporary artefacts inappropriate—appropriate?



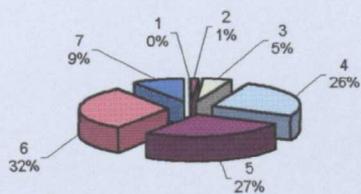
QUESTION 9
 Do the colour schemes reflect traditional Malaysian cultural values- not at all—highly reflect?



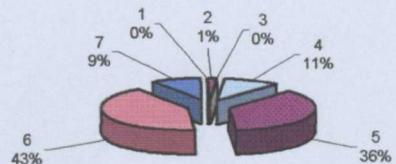
QUESTION 10
 Do the colour schemes reflect contemporary Malaysian cultural values- not at all—highly reflect?

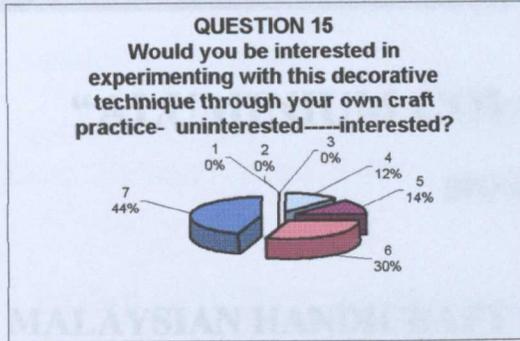
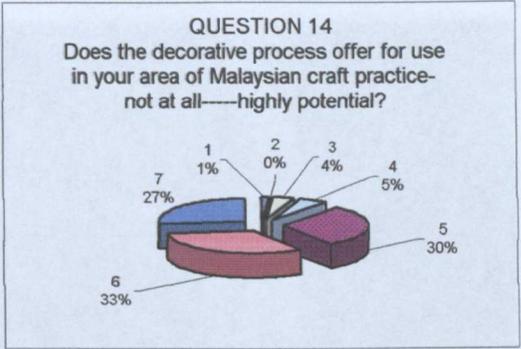
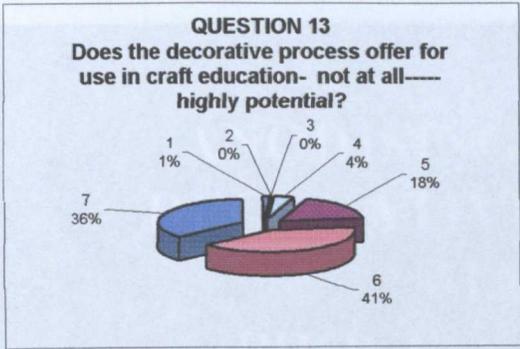


QUESTION 11
 Is the decorative process time consuming- uneconomical—economical?



QUESTION 12
 Do the samples produced have market potential- not at all—highly marketable





**ANODISING ALUMINIUM
DECORATIVE APPLICATION
MANUAL
(PROCESS AND RECIPE)**

“ALUMINIUM COLOURING WORKSHOP”

SPONSORED BY

**MALAYSIAN HANDICRAFT DEVELOPMENT CORPORATION
TERENGGANU BRANCH
SUTRA BEACH RESORT
TERENGGANU**

29th. April- 30th. April 2002

PREPARED BY

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SHAH ALAM, SELANGOR
MALAYSIA**

ANODISING ALUMINIUM DECORATIVE APPLICATION MANUAL (PROCESS AND RECIPE)

1. STEP 1 - CAUSTIC ETCH

Procedure:

Etch aluminium sample in Caustic bath solution by immersing the sample using aluminium-racking wire (either L or C shape wire) for 2-3 minutes to clean the surface.

Chemical preparation:

Caustic Soda(Sodium Hydroxide) powdered or crystal form mix with tap water.
Ratio 20 grams (Caustic Soda): 2 litre (Water)

2. STEP 2 - CAUSTIC RINSE

Procedure:

Rinsing the sample in the container or running water for 2-3 minutes to clean traces of caustic soda.

Chemical preparation:

This section only required water to clean the surface of the metal. If using container please make sure that the sample is immerse below the level of the water to avoid any contamination to the following process.

3. STEP 3 – NITRIC DIP

Procedure:

Neutralise the coupon for a minimum of 2-3 minutes by Immersing in a solution of Nitric acid.

Chemical preparation:

Ratio 1 litre (water) : 390 grams (Nitric acid)
Note: Add acid to water not reversed.

4.STEP 4 - NITRIC RINSE

Procedure:

Rinsing the sample in the container or running water for 2-3 minutes to clean traces of Nitric acid.

Chemical preparation:

This section only required water to clean the surface of the metal. If using container please make sure that the sample is immerse below the level of the water to avoid any contamination to the following process.

5.STEP 5 - ANODISING

Procedure:

The sample is placed in the anodising bath containing Sulphuric acid mixture with water. The sample to be anodised is attached to the copper bar at the anode (positive) contact using red alligator clip. The cathode (negative) indicated by black alligator clip, contact to a lead sheet at the side of the bath. The voltage is set at 12-15 volts and the current density is between 10-25 amps.

The sample is immersed between 15 to 60 minutes. Longer immersion will results in darker shade during dyeing process. To achieve successful result, a good contact of the sample to the positive anode is very crucial.

Chemical preparation:

To prepare anodising bath required:
Ratio 1 litre (water) : 360 grams (Sulphuric acid)
Always add acid to water not reversed.

6.STEP 6 – ANODISED RINSE

Procedure:

Rinsing the sample in the container or running water for 2-3 minutes to clean traces of Sulphuric acid. To fasten the dyeing process, a blower hair dryer can be used.

Chemical preparation:

This section only required water to clean the surface of the metal. If using container please make sure that the sample is immerse below the level of the water to avoid any contamination to the following process.

7.STEP 7 - DYEING

Procedure:

The sample ready for dyeing process is immersed into a desired colour preferably from light to dark shade. It is up to the individual to explore the colour variation but care must be taken prior to second colour by allowing the sample to dry. This is to avoid a contamination of colours. Agitate the sample to gain full penetration of colour to the surface for 2-3 minutes.

Chemical preparation:

Mix dye in cold or hot water with a temperature of 66 ° C.
Ratio for the mixture 1 litre (Water) : 2 grams (Dye).

8.STEP 8 – SEALING

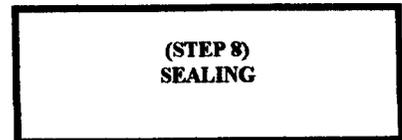
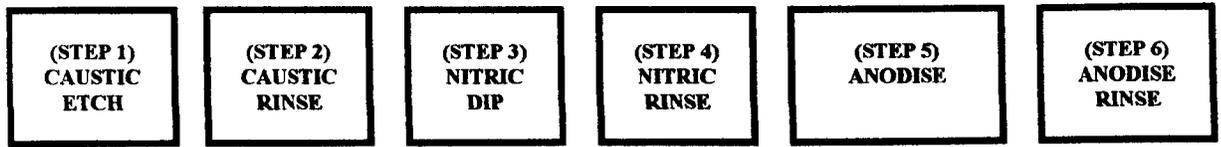
Procedure:

Place the sample in the boiling water for at least one hour to secure the sealing process. Successful sealing indicate the colour still intact to the surface of anodised sample. Lacquer spray can also be used to prevent the surface from scratches as well provide a long lasting coating.

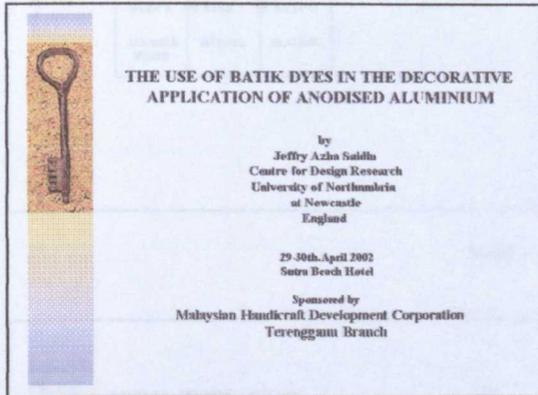
Chemical preparation:

Use stainless pot with boiling water to seal the sample. Water level is 1/3 capacity of the container being used.

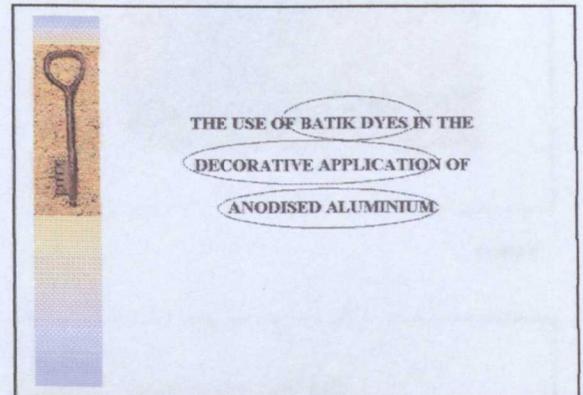
LAYOUT OF ANODISED ALUMINIUM PROCESS



**SLIDES PRESENTATION:
CASE STUDIES OF MALAYSIAN CRAFT PRACTICE**



SLIDE 1



SLIDE 2



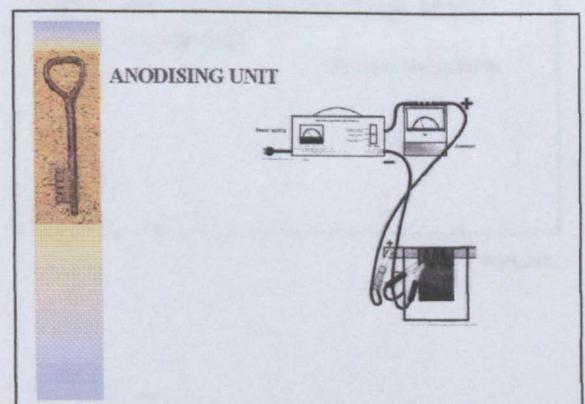
SLIDE 3



SLIDE 4



SLIDE 5



SLIDE 6



ANODISED ALUMINIUM PROCESS

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
CAUSTIC ETCH	CAUSTIC RINSE	NITRIC DIP	NITRIC RINSE	ANODISE
STEP 6	STEP 7	STEP 8		
ANODISE RINSE	DYEING	SEALING		

SLIDE 7



METAL WORK- SILVER



SLIDE 8



METAL WORK- BRASS



SLIDE 9



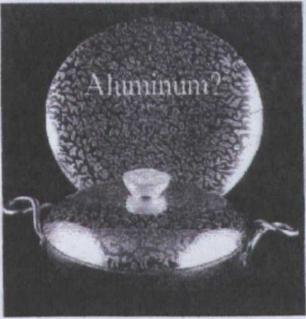
METAL WORK- PEWTER



SLIDE 10



Aluminum?



SLIDE 11



Status of aluminum in craft :

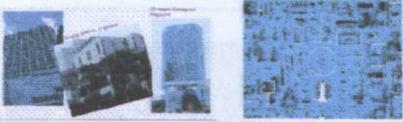
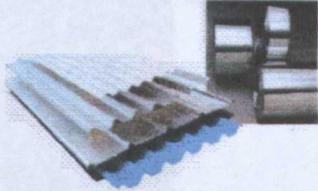
Aluminium remains neglected as it still conjures up the image of the saucepan

Elizabeth Goring(1999)

SLIDE 12



ALUMINIUM IN MALAYSIAN MARKET

SLIDE 13



ALUMINIUM EXTRUSION



SLIDE 14



ALUMINIUM EXTRUSION



SLIDE 15



ALUMINIUM IN ARCHITECTURE



SLIDE 16



ALUMINIUM IN HOUSEHOLD PRODUCTS



SLIDE 17



POTENTIAL OF ALUMINIUM IN CRAFT MAKING
 EXAMPLES OF WORK by *Jane Adam*

SLIDE 18



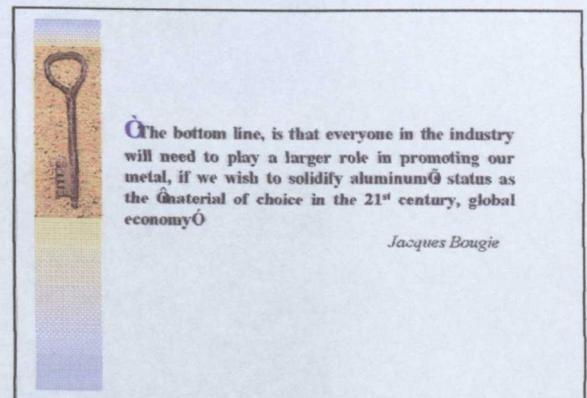
SLIDE 19



SLIDE 20

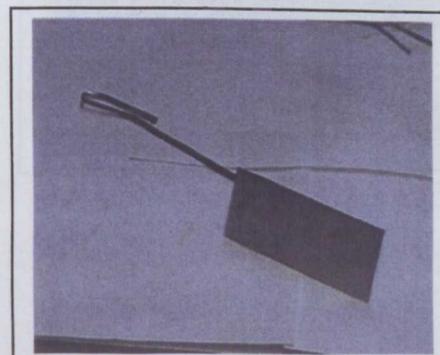
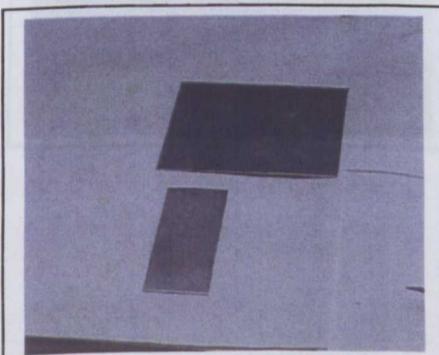
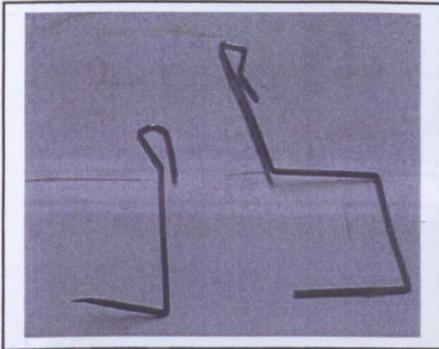


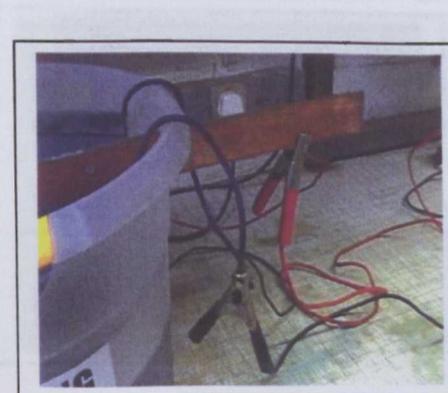
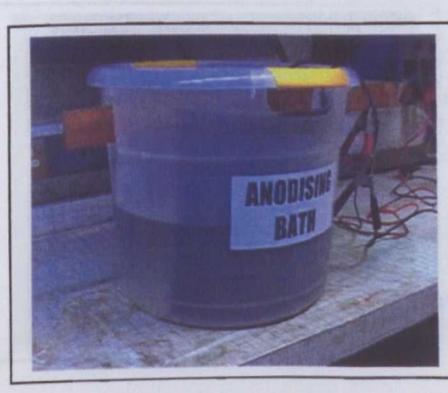
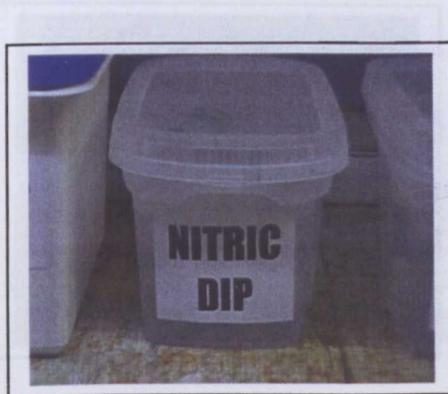
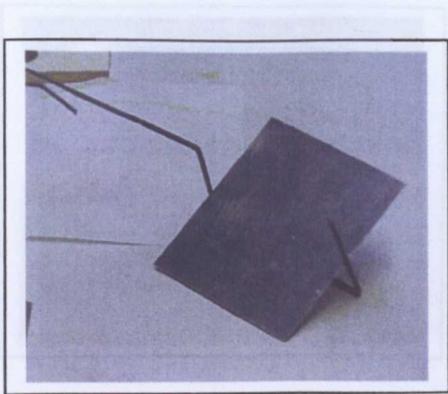
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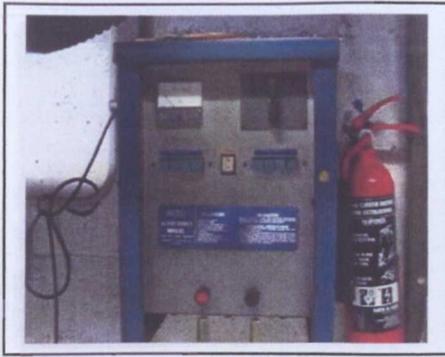


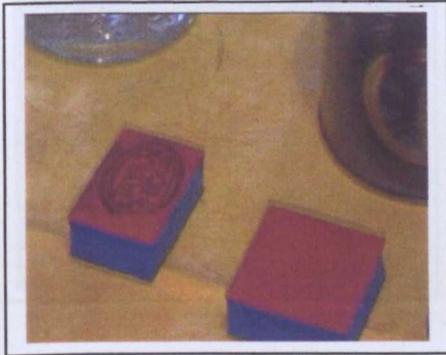
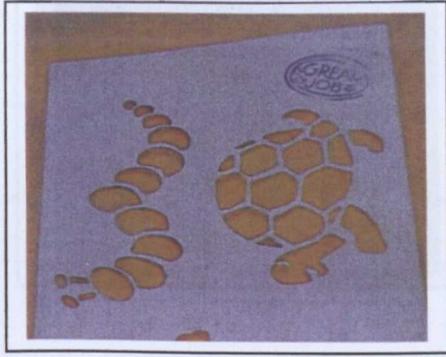
SLIDE 22

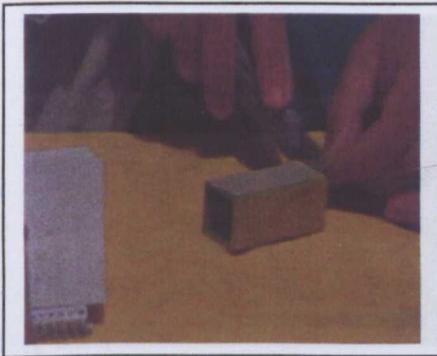
**CASE STUDIES OF MALAYSIAN CRAFT PRACTICE:
VIDEO PRESENTATION IMAGES OF ANODISED ALUMINIUM
DECORATIVE APPLICATION PROCESS**













CASE STUDIES OF CRAFT PRACTICE

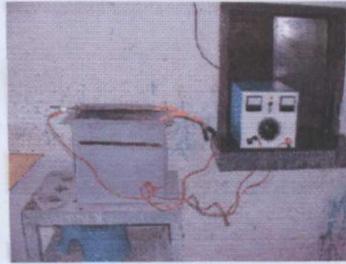
Researcher preparing anodising set-up
at MHDC, Terengganu



A



B



C



D



E

KEY TO ILLUSTRATIONS :

- A. Researcher preparing setting-up anodising bath
- B. Chemical preparation
- C. Testing anodising equipment
- D. Testing samples
- E. Anodising layout and equipment

CASE STUDIES OF CRAFT PRACTICE

Researcher preparing anodising set-up at MHDC, Terengganu



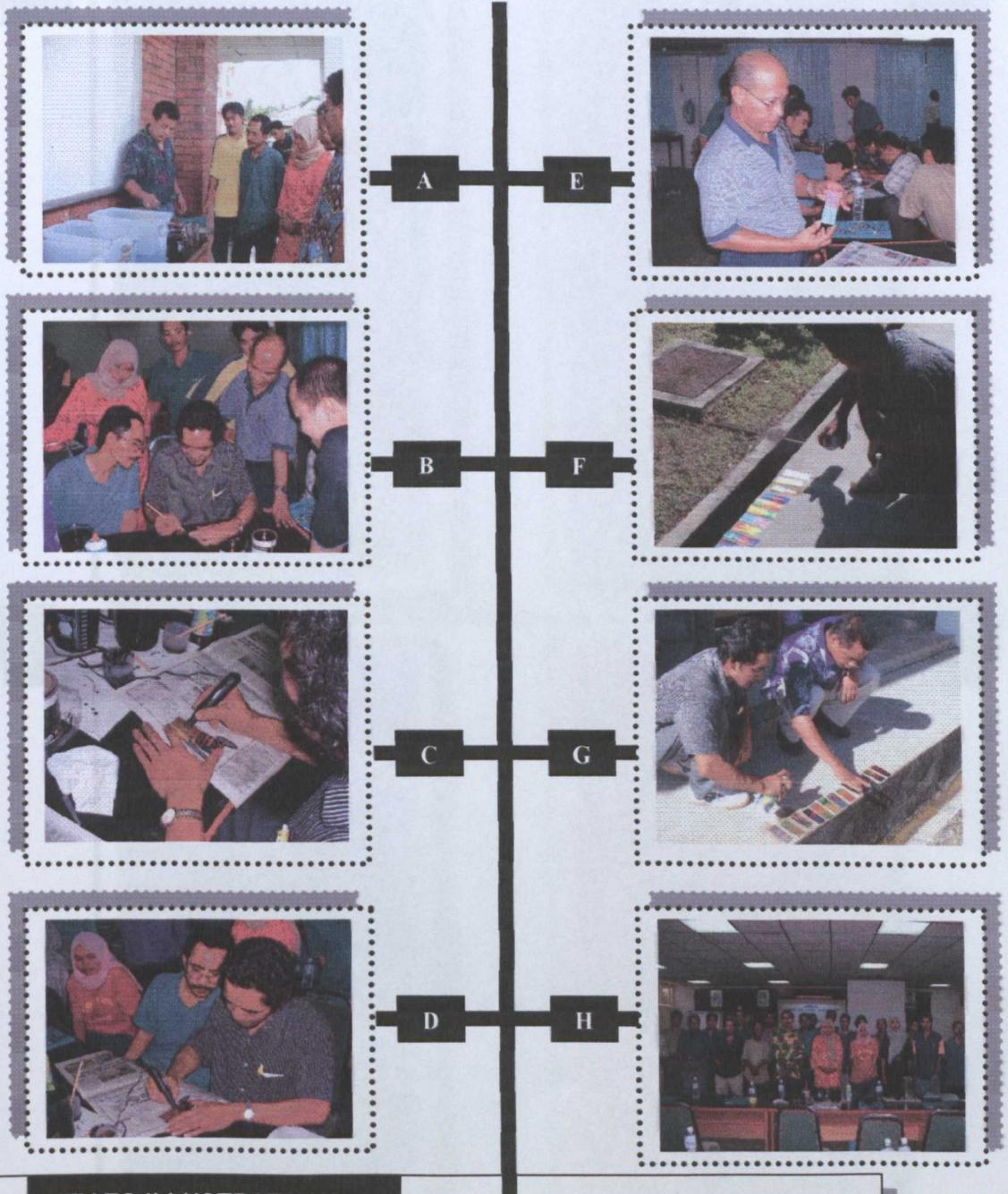
KEY TO ILLUSTRATIONS :

- A. Craft practitioners preparing anodising bath.
- B. Craft practitioners preparing sample to be anodised.
- C. Attaching aluminium sample for anodising.
- D. Mixing batik dyes for colouring.
- E. Colouring of anodised samples.
- F. Completed single colour sample by craft practitioners
- G. Detailing decorative sample using engraving machine.



CASE STUDIES OF CRAFT PRACTICE

Researcher preparing anodising set-up
at MHDC, Kelantan



KEY TO ILLUSTRATIONS:

- A. Researcher preparing equipment demonstrate the anodising process.
- B. Craft practitioners applying a design on an anodising sample using fast drying paint.
- C. Detailing their design using an engraving tool.
- D. Final touch of the engraving process.
- E. Completed multi-colour anodising samples with decorative motif.
- F. A batch of anodising samples from craft practitioners work prepared for coating
- G. Craft practitioners coating the anodising samples.
- H. Group photo of craft practitioners involved in the workshop organised with the help of MHDC.

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Terengganu



KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. JUHARI ABDULLAH
- B. ABD.HALIM
- C. MOHD.RAFI
- D. MOHD.AMIN

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Terengganu

A



B



C



D



KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. ARFAH
- B. HAJI MUDA
- C. AMRAN GHAZALI
- D. HAJI RAHIM

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Terengganu

A



B



C



D



KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. M.NOOR ENDOT
- B. AHMAD NAZAR
- C. JAAFAR
- D. SHIDA

SERIES OF ANODISING SAMPLES
 produced by craft practitioners in the Region of Terengganu

A



B



C



D



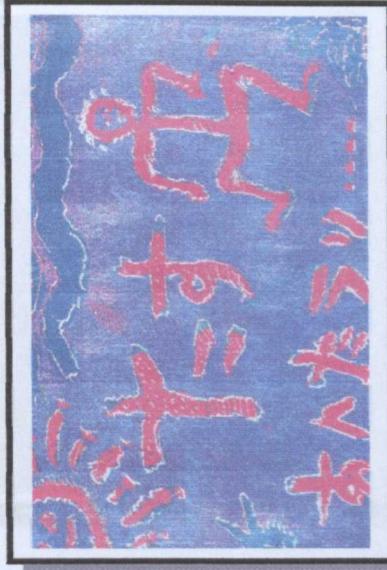
**KEY TO THE NAMES OF CRAFT PRACTITIONERS
 WHO PRODUCED THE SAMPLES:**

- A. SITI MARIAM MOHD. ALI
- B. NOR AZMI
- C. W. MAHADI
- D. DAIK

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Terengganu

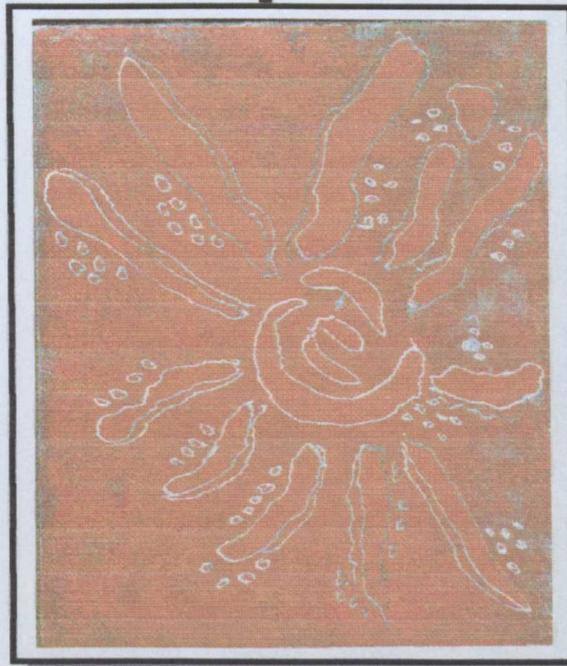
A



B



C



KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. TG AZLIN
- B. ZUHI
- C. OTHMAN WAGIMAN

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Terengganu

A



B



C

**KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:**

- A. HJ.RAHIM
- B. SITI MARIAM
- C. NORIEN FADHILAH

SERIES OF ANODISING SAMPLES
 produced by craft practitioners in the Region of Kelantan



KEY TO NAME OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. MOHD. DAUD YUSOFF
- B. AZROUL
- C. ZAKARIA SEMAN
- D. WAN ZAMAKHSARI

SERIES OF ANODISING SAMPLES
 produced by craft practitioners in the Region of Kelantan

A



B



C



D



**KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO
 PRODUCED THE SAMPLES:**

- A. MIKE HAROUN
- B. A.BAKAR BAHAMAN
- C. TENGKU AZIZ
- D. NOOR AINI

SERIES OF ANODISING SAMPLES

produced by craft practitioners in the Region of Kelantan



KEY TO THE NAMES OF CRAFT PRACTITIONERS WHO PRODUCED THE SAMPLES:

- A. MOHD.NASIR
- B. ABD.HALIM JAAFAR
- C. MOHD.ASRI
- D. KB CRAFT

RESPONDENT 1: Y.M. RAJA FUZIAH RAJA TUN UDA**Q 9. Do the colour schemes reflect traditional Malaysian cultural values?**

As I can see from the samples that you have a workable range of colours and the effect of the colour combinations mean that some fuse very well, although certain colours do not. With the decorative elements that you have explored, I suggest that you should determine the appropriate use of colours, in terms of the choice of colour that can reflect traditional value. As we know and I understand, using aluminium will be a new approach for our craft practitioners, in term of its design application for traditional crafts and direction, this depend very much on the market, what that should be studied in terms of its reaction to this form of craft development.

Q 10. Do the colour schemes reflect contemporary Malaysian cultural values?

By looking at the samples, without decorative elements, aluminium can also portray a contemporary look just by using a single colour that you have explored with batik dyes. Again, I would stress the importance of form in the making of the craft product in the future. I would suggest that you engage in another project with MHDC, creating a craft product in a more 3-dimensional form to explore the possibilities in both approaches.

Q 12. Do the samples produced have market potential?

In relation to my previous answer, you should study more on ‘form’, building up prototypes, which will determine whether you can capture traditional market or contemporary markets. You can have either traditional or contemporary approaches and it depends on the design, to whom you are pitching for in the Malaysian market. You have to know to whom you are

selling, either local or global customers, and they must have a choice in selecting the product. So the buying habit is quite important.

Q 13. Does the decorative process offer potential for use in craft education?

I think it depends on the syllabus of the craft institution itself. If it's an existing method, I think we can say that we should introduce the technique and maybe we can move on from an existing industry like brassware or batik. We can also look at the usefulness of the technique to be included in the curriculum as a base from which the students can lend themselves exploring the design, colour and form.

Q 9. Do the colour schemes reflect traditional Malaysian cultural values?

Colours play an important role in any product. The samples, that you have presented seem to reflect Malaysian cultural values due to the use of decorative elements and there are some similarities to the approach of batik. Traditional values are very crucial in our craft products in order to preserve our cultural heritage. So colour and our local motifs should be maintained in any aspect of craft product.

Q 10. Do the colour schemes reflect contemporary Malaysian cultural values?

This is another approach in craft that we must not exclude, if we are to diversifying our craft products. Like batik there has been various form of product from traditional to contemporary. There must be a balance between these two approaches in order to enrich our craft product. I think aluminium has the potential for a contemporary approach due to its flexibility to accept colours and the application of decorative pattern on its surface.

Q 12. Do the samples produced have market potential?

In the crafts world we have to be creative and innovative when trying to penetrate the local or global markets. From the samples, I can see the potential of it to be developed and marketed. The quality should be top priority with the right price on it, I don't think it should be a problem to get such products on the shelves in craft outlets.

Q 13. Does the decorative process offer potential for use in craft education?

I think it can be extended to various levels of our community, for example in school, higher educational institutions and craft organizations. Like other

crafts, a form of syllabus or manual of the technique should be prepared as a reference or guideline to the makers or individuals who are interested in exploring this technique or starting up their own business.

Q 9. Do the colour schemes reflect traditional Malaysian cultural values?

My first impression of the samples was that, I was struck by the metallic quality of the colours, furthermore with the overlapping of decorative motifs. To me any materials that have surface decoration with our traditional elements will of course represent the style of our national identity.

Q 10. Do the colour schemes reflect contemporary Malaysian cultural values?

Most of your samples display varieties of our traditional elements. You should also focus on the contemporary type of design but I can see the potential of it from your previous collections in the photograph. Tie and dye effects will give you a contemporary look on aluminium and minimize the use of decorative motif, to have both impacts.

Q 12. Do the samples produced have market potential?

I think it has market potential if you relate the product with batik as I can see from your decorative samples. May be you can create some costume accessories that can go along with batik for example a pin for a batik dress, this market is currently being monopolized by imported costume jewellery from Hong Kong, Taiwan and China. The tourist market is another potential area beside our local need. I think with a right price, a good quality product and design, I'm positive there will be a good response from the public.

Q 13. Does the decorative process offer potential for use in craft education?

We have quite a number of Art and Design schools in Malaysia especially private institutions. But as a priority you should expose the process to UiTM as you were part of their academic team and can explore various forms and style with the students made from aluminium with or without decorative elements. This will expand the use of aluminium in the crafts as well as giving them knowledge and experience about the technology.

Q 9. Do the colour schemes reflect traditional Malaysian cultural values?

Basically, the samples are presented is in a more traditional manner and the base is different compared to existing craft examples of bamboo or brass. I think this is something new and another extension to the utilisation of material in craft practice.

Q 10. Do the colour schemes reflect contemporary Malaysian cultural values?

As you know aluminium in global use is considered as a modern material. You can see a current trend of using aluminium in the Malaysian market in terms of its application in commercial production such as household utilities, which replace the use of steel. From that factor, I think this new application in craft practice using aluminium can be considered as a contemporary kind of art. Like other metals of its group, the surface can be decorated and it can represent either traditional or contemporary characters or a combination of both elements.

Q 12. Do the samples produced have market potential?

I think there is potential, if we really plan with the production system but you have to compare cost price with other craft materials in order to compete. I would suggest you go for mass production types of product as this will reduce the cost and look into the possibility of using aluminium extrusion beside flat sheet. Our staff in the company are also exploring extrusion forms to make personalized items for office use in certain organization but we were only limited to single colour types of products compared to your decorative samples.

Q 13. Does the decorative process offer potential for use in craft education?

Currently, I think this is something new to our craft and should be introduced to the community so that this can be further exploited, which will create business opportunities for those interested to venture or to add to their current craft product range.

Q 9. Do the colour schemes reflect traditional Malaysian cultural values?

The colour schemes are quite exciting. My interest is the dual tone colour that has been achieved from the samples. I think it can go for a traditional value and this depend on the creativity of the designer or artist to explore the variation of our traditional elements.

Q 10. Do the colour schemes reflect contemporary Malaysian cultural values?

As I can see the trend in product design, especially the crafts, there must be a contemporary approach adding to our traditional values so that people will have some varieties in buying craft products. As the colour of the decorative samples you have presented, provides an interesting colour I think it will help to reflect contemporary collections that display our cultural values.

Q 12. Do the samples produced have market potential?

On the industrial side of application, in previous years people in the industry wanted to replace metal for plastics in their production. Now aluminium has become a popular metal to compete with plastic because of its lightweight characteristic and its durability. I think this craft has a potential to absorb colour, therefore it will be interesting to explore like batik and become an added value to its group of metal crafts.

Q 13. Does the decorative process offer potential for use in craft education?

From what I can see, the samples and your verbal explanation of the decorative process needs to undergo various procedures. This can be compiled as a manual, guideline or syllabus in the subject of art and craft. You have to classify the procedure in a production manual, for example a

contrast between the system of production for larger and smaller volumes. So people have a choice to prepare for getting financial support to set up the plant, for example.

QUESTION: 9	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect traditional Malaysian cultural values?		
RESPONDENT 1: RAJA FUZIAH	RESPONDENT 2: SHAHRUDIN	
<p>As I can see from the samples that you have a workable range of colours and the effect of the colour combinations mean that some fuse very well, although certain colours do not. With the decorative elements that you have explored, I suggest that <u>you should determine the appropriate use of colours, in terms of the choice of colour that can reflect traditional value.</u> As we know and I understand, using aluminium will be a new approach for our craft practitioners, in term of its <u>design application for traditional crafts and direction, this depend very much on the market,</u> what that should be studied in terms of its reaction to this form of craft development.</p>	<p>Colours play an important role in any product. The samples, that you have presented seem to reflect Malaysian cultural values due to the use of decorative elements and there are some similarities to the approach of batik. <u>Traditional values are very crucial in our craft products</u> in order to preserve our cultural heritage. So colour and <u>our local motifs should be maintained</u> in any aspect of craft product.</p>	
KEYWORD		
<p>you should determine the appropriateness use of colours, in term of the choice of colour that can reflect the traditional value</p> <p>design application for traditional crafts and direction this depend very much on the market</p>	<p>Traditional value are very crucial in our craft products</p> <p>our local motifs should be maintained</p>	

QUESTION: 10	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect contemporary Malaysian cultural values?		
RESPONDENT 1: RAJA FUZIAH	RESPONDENT 2: SHAHRUDIN	
<p>By looking at the samples, <u>without decorative elements, aluminium can also portray a contemporary</u> look just by using a single colour that you have explored with batik dyes. Again, I would stress the importance of form in the making of the craft product in the future. I would suggest that you engage in another project with MHDC, creating a craft product in a more 3-dimensional form to explore the possibilities in both approaches.</p>	<p>This is another approach in craft that we must not exclude, if we are to diversifying our craft products. Like batik there has been various form of product from traditional to contemporary. There <u>must be a balance between these two approaches in order to enrich our craft product</u>. I think aluminium has the potential for a contemporary approach due to its flexibility to accept colours and the application of decorative pattern on its surface.</p>	
KEYWORD		
<p>without decorative elements, aluminium can also portray a contemporary</p>	<p>must be a balance between these two approaches in order to enrich our craft product</p>	

QUESTION: Q12	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Do the samples produced have market potential?		
RESPONDENT 1: RAJA FUZIAH		RESPONDENT 2: SHAHRUDIN
<p>In relation to my previous answer, you <u>should study more on ‘form’, building up prototypes, which will determine whether you can capture traditional market or contemporary markets.</u> You can have either traditional or contemporary approaches and it depends on the design, to whom you are pitching for in the Malaysian market. You have to know to whom you are selling, either local or global customers, and they must have a choice in selecting the product. So the buying habit is quite important.</p>	<p>In the crafts world we have to be creative and innovative when trying to penetrate the local or global markets. <u>From the samples, I can see the potential of it to be developed and marketed.</u> The quality should be top priority with the right price on it, I don't think it should be a problem to get such products on the shelves in craft outlets.</p>	
KEYWORD		
<p>should study more on ‘form’, building up prototypes, which will determine whether you can capture traditional market or contemporary</p>	<p>From the samples, I can see the potential of it to be developed and marketed</p>	

QUESTION: 13	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Does the decorative process offer potential for use in craft education?		
RESPONDENT 1: RAJA FUZIAH	RESPONDENT 2: SHAHRUDIN	
<p>I think it depends on the syllabus of the craft institution itself. If it's an existing method, I think we can say that <u>we should introduce the technique and maybe we can move on from an existing industry like brassware or batik</u>. We can also look at the usefulness of the technique to be included in the curriculum as a base from which the students can lend themselves exploring the design, colour and form.</p>	<p>I think <u>it can be extended to various levels of our community</u>, for example in school, higher educational institutions and craft organizations. Like other crafts, a form of syllabus or manual of the technique should be prepared as a reference or guideline to the makers or individuals who are interested in exploring this technique or starting up their own business.</p>	
KEYWORD		
<p>that we should introduce the technique and may be we can move on from an existing industry like brassware or batik</p>	<p>it can be extended to various levels of our community</p>	

QUESTION: 9	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect traditional Malaysian cultural values?		
RESPONDENT 3: DR.ZAINI	RESPONDENT 4: BOEY	
<p>My first impression of the samples was that, I was struck by the metallic quality of the colours, furthermore with the overlapping of decorative motifs. To me <u>any materials that have surface decoration with our traditional elements will of course represent the style of our national identity.</u></p>	<p>Basically, <u>the samples are presented is in a more traditional manner</u> and the base is different compared to existing craft examples of bamboo or brass. I think this is something new and another extension to the utilisation of material in craft practice.</p>	
KEYWORD		
<p>any materials that have surface decoration with our traditional elements will of course represent the style of our national identity</p>	<p>the samples are presented is in a more traditional manner</p>	

QUESTION: 10	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect contemporary Malaysian cultural values?		
RESPONDENT 3:DR.ZAINI	RESPONDENT 4: BOEY	
<p>Most of your samples display varieties of our traditional elements. You should also focus on the contemporary type of design but I can see the potential of it from your previous collections in the photograph.</p> <p><u>Tie and dye effects will give you a contemporary look on aluminium and minimize the use of decorative motif</u>, to have both impacts.</p>	<p>As you know aluminium in global use is considered as a modern material. You can see a current trend of using aluminium in the Malaysian market in terms of its application in commercial production such as household utilities, which replace the use of steel. From that factor, I think <u>this new application in craft practice using aluminium can be considered as a contemporary kind of art.</u></p> <p>Like other metals of its group, the surface can be decorated and it can represent either traditional or contemporary characters or a combination of both elements.</p>	
KEYWORD		
<p>Tie and dye effect will give you a contemporary look on aluminium and minimize the use of decorative motif</p>	<p>this new application in craft practice using aluminium can be considered as a contemporary kind of art</p>	

QUESTION: Q12	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Do the samples produced have market potential?		
RESPONDENT 3: DR.ZAINI	RESPONDENT 4: BOEY	
<p>I think it has market potential if you relate the product with batik as I can see from your decorative samples. May be you can create some costume accessories that can go along with batik for example a pin for a batik dress, this market is currently being monopolized by imported costume jewellery from Hong Kong, Taiwan and China. The tourist market is another potential area beside our local need. I think <u>with a right price, a good quality product and design, I'm positive there will be a good response from the public.</u></p>	<p><u>I think there is potential, if we really plan with the production system</u> but you have to compare cost price with other craft materials in order to compete. <u>I would suggest you go for mass production types of product as this will reduce the cost and look into the possibility of using aluminium extrusion beside flat sheet.</u> Our staff in the company are also exploring extrusion forms to make personalized items for office use in certain organization but we were only limited to single colour types of products compared to your decorative samples.</p>	
KEYWORD		
<p>with a right price, good quality product and design, I'm positive there will be a good respond from the public</p>	<p>. I would suggest you go for mass production types</p> <p>I think there is potential, if we really plan with the production system</p>	

QUESTION: 13	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Does the decorative process offer potential for use in craft education?		
RESPONDENT 3: DR.ZAINI	RESPONDENT 4: BOEY	
<p>We have quite a number of Art and Design schools in Malaysia especially private institutions. But as a priority you should expose the process to UiTM as you were part of their academic team and <u>can explore various forms and style with the students made from aluminium with or without decorative elements</u>. This will expand the use of aluminium in the crafts as well as giving them knowledge and experience about the technology.</p>	<p>Currently, I think this is something new to our craft and <u>should be introduced to the community so that this can be further exploited</u>, which will create business opportunities for those interested to venture or to add to their current craft product range.</p>	
KEYWORD		
<p>can explore various forms and style with the students made from aluminium, with or without decorative elements</p>	<p>should be introduced to the community so that this can be further exploited</p>	

QUESTION: 9	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect traditional Malaysian cultural values?		
RESPONDENT 5: SYED FADZIL		
<p>The colour schemes are quite exciting. My interest is the dual tone colour that has been achieved from the samples. I <u>think it can go for a traditional value</u> and this depend on the creativity of the designer or <u>artist to explore the variation of our traditional elements.</u></p>		
KEYWORD		
<p>think it can go for a traditional value</p>		<p>artist to explore the variation of our traditional elements.</p>

QUESTION: 10	SD CONCEPTS: CULTURAL VALUE	RESPONDENT CATEGORY: PEER
Do the colour schemes reflect contemporary Malaysian cultural values?		
RESPONDENT 5: SYED FADZIL		
<p>As I can see the trend in product design, especially the crafts, there must be a contemporary approach adding to our traditional values so that people will have some varieties in buying craft products. As the colour of the decorative samples you have presented, provides an <u>interesting colour I think it will help to reflect contemporary collections</u> that display our cultural values.</p>		
KEYWORD		
<p>interesting colour I think it will help to reflect contemporary collections</p>		

QUESTION: Q12	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Do the samples produced have market potential?		
RESPONDENT 5: SYED FADZIL		
<p>On the industrial side of application, in previous years people in the industry wanted to replace metal for plastics in their production. Now aluminium has become a popular metal to compete with plastic because of its lightweight characteristic and its durability. <u>I think this craft has a potential to absorb colour, therefore it will be interesting to explore like batik</u> and become an added value to its group of metal crafts.</p>		KEYWORD
	<p>I think this craft has a potential to absorb colour, therefore it will be interesting to explore like batik</p>	

QUESTION: 13	SD CONCEPTS: MARKET VALUE	RESPONDENT CATEGORY: PEER
Does the decorative process offer potential for use in craft education?		
RESPONDENT 5: SYED FADZIL		
<p>From what I can see, the samples and your verbal explanation of the decorative process needs to undergo various procedures. This <u>can be compiled as a manual, guideline or syllabus in the subject of art and craft.</u> You have to classify the procedure in a production manual, for example a contrast between the system of production for larger and smaller volumes. So people have a choice to prepare for getting financial support to set up the plant, for example.</p>		
KEYWORD		
<p>can be compiled as a manual, guideline or syllabus in the subject of art and craft</p>		