

AESTHETIC APPRECIATION OF KELANTAN HERITAGE
CERAMICS: AN INDICATOR FOR SUSTAINABILITY

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Abstract. Apart from creating clay objects with unlimited variety of shapes, the surface can also be decorated with patterns in many ways to enhance the overall appearance. As a result of this, surface decorations have been one of the major heritage values in ceramic studies. Thus, applying Gestalt theory and Golden section rule, this paper seeks to identify the unique heritage values in Kelantan traditional ceramics that can be sustained as genius loci. Pictorial data (decorative patterns) were collected by visiting six museums in Kelantan and the data were analyzed with the aid of PhiMatrix software. The result shows eleven (11) decorative patterns that conform to the golden section rule and the Gestalt principles of grouping elements. Hence, sustaining this heritage values will not only serve as identity, but also demonstrate the recognition of the beauty of the past.

Keywords: Aesthetic, Heritage ceramics, Surface decoration, Decorative motifs, Kelantan

Abstrak. Selain daripada membentuk objek tanah liat dalam pelbagai keadaan tanpa dibatasi oleh bentuk, permukaannya juga boleh dihiasi dengan pelbagai corak untuk meningkatkan penampilan produk secara menyeluruh. Hiasan atau corak yang dibentuk pada permukaan produk tanah liat telah dianggap sebagai salah satu daripada warisan yang tidak ternilai mutunya dalam kajian seramik. Oleh itu, merujuk kepada teori Gestalt dan peraturan "Golden Section", kertas kerja ini akan menerangkan dengan jelas tujuan untuk mengenal pasti nilai-nilai warisan seramik tradisional yang unik di Kelantan yang boleh dikekalkan sebagai "loкус genius". Data bergambar (corak hiasan) telah dikumpulkan dengan melawat enam muzium di Kelantan dan data telah dianalisis dengan bantuan perisian PhiMatrix. Hasilnya menunjukkan sebelas (11) corak hiasan yang mematuhi peraturan "golden section" dan prinsip-prinsip Gestalt dalam cara pengumpulan unsur. Oleh itu, usaha untuk mengekalkan nilai-nilai warisan ini akhirnya bukan sahaja akan menjadi identiti, tetapi juga menunjukkan pengiktirafan terhadap keindahan dan kepakaran seni pada masa lalu.

Keywords: Estetik, Warisan Seramik, Hiasan Permukaan, Motif Hiasan, Kelantan

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1.0

Introduction

Design motifs are fixed combinations of elements that are used to form larger components of the decoration (Rice, 1987). The element combined is the smallest self-contained component of the design. It is either manipulated or moved around as a single unit. Thus, the combinations of the design elements result in patterns or decorative styles which are often holistically analysed based on principles such as symmetry, proportion, etc. Design styles are often described using expressions such as representational, naturalistic, realistic, abstracts, iconic or geometric (Rice, 1987).

A style may reflect the aesthetic preferences or mirror significant features of the natural and social environment. Thus, decoration is a “visual communication that reproduces the principles and relationships by which a community structures and organizes its perceptions of the cosmos and social realities” (Munn, 1966 cited by Rice, 1987, 251). For example, ceramic art affords insight of the life and psychology of a people by its qualities (Rice, 2006); therefore, pottery design has been important in the study of the development of decorative art. According to Shepard (1985), the two distinct pottery design media (plastic and graphic) gives rich and varying records. Studying the decorative motifs and styles of pottery whether expressed in painting or in plastic decoration has yielded insight into the lifestyle of people as well as their aesthetic perceptions and ideological systems (Rice, 2006). According to Shepard (1985, 256), “pottery decoration shows the trials of the beginner, the work of the expert, the efforts of the copyist and the expression of the creator.”

Kelantan traditional ceramics are not only known for unique forms, but also the realistic traditional aesthetic concept of art in Malay (Tajul, Ramli, & Mohd, 2011). These aesthetic values, if sustained can play a significant role in maintaining identity; their preservation will demonstrate a recognition of the necessity of the past, and of the things that tell its story (Tanselle, 1998). However, to sustain the heritage values, designers must be sensitive to those unique qualities (e.g., aesthetic values), by identifying and analysing them based on proven design principles. According to Tuck (2010), the best design comes when proven principle works in harmony with art.

2.0 Literature Review

Based on forty-four (44) ceramics heritage wares discovered from the museums; six (6) unique decorative motifs were identified after analysing using PhiMatrix software and Gestalt theory. Gestalt is a psychological term which means “unified whole”; the theory attempt to describe the organisation of visual elements into groups or unified wholes when certain principles are applied. Gestalt theory has six basic principles of grouping elements (Tuck, 2010), these include: similarity, continuation, closure, proximity, pragnanz and symmetry.

- i Similarity: this occurs when objects/elements looks similar to one another, people often perceive them as group or patterns
- ii Continuation: is a grouping concept when the eye is compelled to move through one object and continue to another object
- iii Closure: Occurs when an object is incomplete or space is not completely enclosed. According to (Spokane, n.d.),
if enough of the shape is indicated, people perceive the whole by filling the missing information.
- iv Proximity: this occurs when elements are placed close together. They tend to be perceived as a group (Spokane, n.d.).
- v Pragnanz: This involves balancing of figure and ground by differentiating an object from its surrounding area.
- vi Symmetry: involves viewing objects as symmetrical shapes that form around their centre (Tuck, 2010).

However, none of these principles stands alone; all of them function in totality with one another (Tuck, 2010). Therefore, the proportionality concept needs to be applied to achieve a totality of function and aesthetic appeal. Thus, PhiMatrix Software was used to aid the analysis. PhiMatrix is a design and analysis software which uses proven principle (Phi proportion or Golden section rule) to unveil the beauty, harmony and balance of nature’s proportion in a design or artwork (“PhiMatrix™ Overview,” n.d.). Thus, the application of PhiMATRIX™ Software helps to identify unique heritage values in Kelantan ceramic wares that can be sustained as genius loci.

3.0 Decorative Analysis of Kelantan Heritage Ceramic

3.1 Motif One

This motif is discovered as surface decoration on Kelantan pottery ware called kukusan (Fig. 1). The design is a combination of two major elements (crescent/moon shape and dotted line) arranged in a repeated manner to form a design pattern. A review of the present Mambong pottery wares reveals that this motif is still being used to decorate their pottery wares.



Figure 1: The motif one

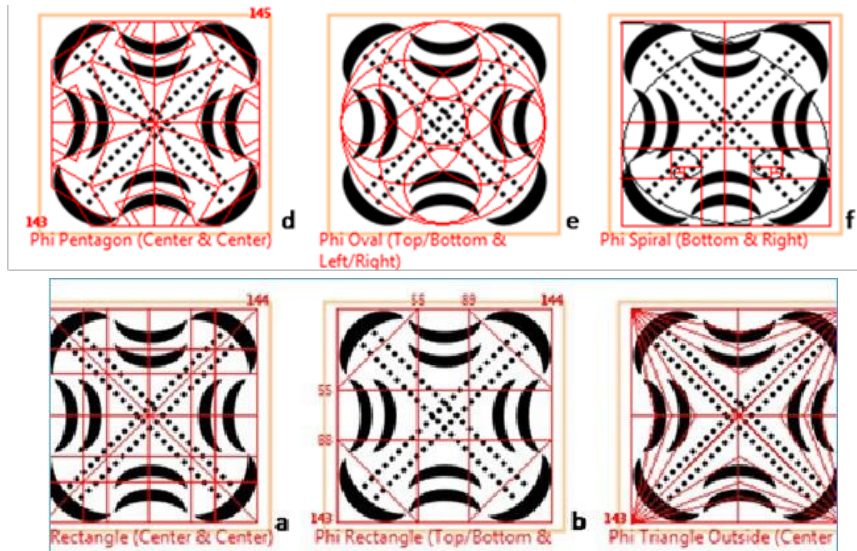
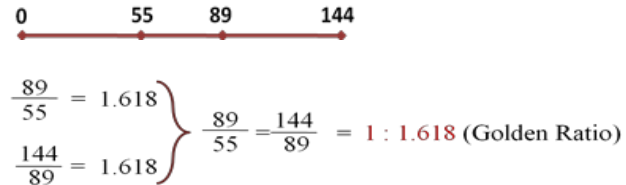


Figure 2: Motif one analyzed with PhiMatrix software

Five (5) gestalt principles were applied to create this design pattern. It had common elements (similarity) placed closed to each other (proximity). The connecting edges of the crescent shapes also revealed a continuation (Fig. 2d) and closure grouping (Fig. 2e); while the elements were arranged symmetrically (Fig. 2a, c, d).

When analysing using the Golden rule (Phi proportion), the design conforms to six Phi ratios, these includes; the Phi-rectangle when projected from the centre (Fig. 2a) and also when projected from the sides (Fig. 2b); the Phi-Triangle (Fig. 2c); Phi-Pentagon (Fig. 2d); Phi-Oval (Fig. 2e) and Phi-Spiral (Fig. 2f).

The conformant to Golden Section rule can also be proven mathematically using Fig. 2b;



$$\begin{array}{c}
 \mathbf{0} \qquad \mathbf{55} \qquad \mathbf{89} \qquad \mathbf{144} \\
 \hline
 \frac{89}{55} = 1.618 \\
 \frac{144}{89} = 1.618
 \end{array}
 \left. \vphantom{\begin{array}{c} \frac{89}{55} \\ \frac{144}{89} \end{array}} \right\} \frac{89}{55} = \frac{144}{89} = 1 : 1.618 \text{ (Golden Ratio)}$$

The calculation proves that the design pattern conforms to the golden section rule; the proportional ratio equals to the golden number (1.618). Thus, this decorative motif is seen as a heritage value with timeless beauty across culture and time.

3.2 Motif Two

This motif was discovered on a Kelantan pottery called “Guri”, which has been stored in the museum since 1984. The design is a combination of crescent shapes and dotted lines (Fig. 3).



Figure 3: The motif two

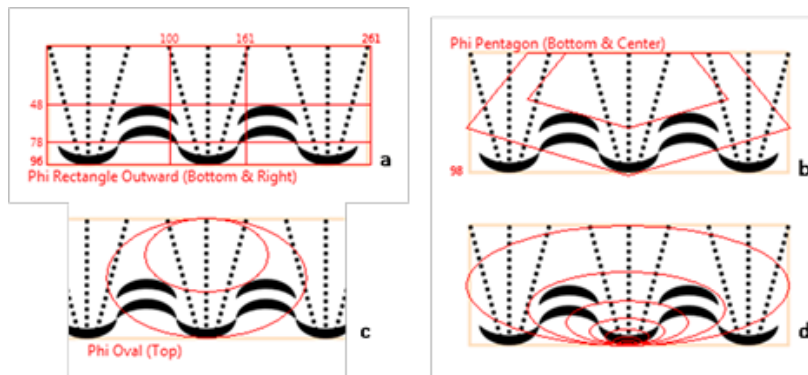



Figure 4: PhiMatrix analysis of motif two

The design pattern can be perceived from four (4) gestalt principles, these includes: similarity, continuation, closure and proximity grouping while symmetry grouping is not applicable. The design arrangement is asymmetrical (Fig. 4b, c, d). Analysing using Phi- Matrix software also revealed that the design pattern conformed to four (4) golden section rules. These include; Phi-Rectangle (Fig.

4a); the Phi-Pentagon (Fig. 4b); Phi-Oval projected from top (Fig. 4c) and projection from bottom (Fig. 4d). These can be proved from the Phi-ratio values in (Fig. 4a);

$$\left. \begin{array}{l} \frac{161}{100} = 1.61 \\ \frac{261}{161} = 1.62 \end{array} \right\} \frac{161}{100} \approx \frac{261}{161} \approx 1 : 1.618 \text{ (Golden Ratio)}$$


Although the proportional ratio of the design is not exactly the value of the Golden ratio (1.618); however, the values fall within the close range of golden ratio (1.61-1.62), making the differences negligible (Meisner, n.d.).

3.3 Motif Three

Just like motif two, this motif (3) was also discovered on Guri. Three elements were combined to create the design pattern; these include dotted lines, straight lines and circular shapes (Fig. 5)



Figure 5. The Motif Three

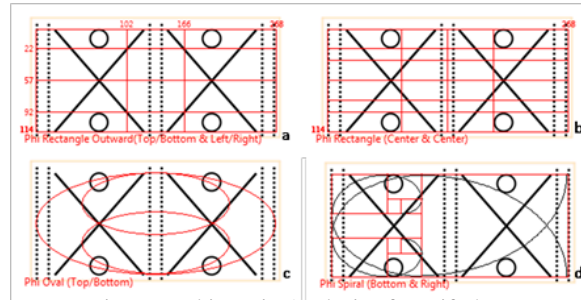


Figure 6. PhiMatrix Analysis of Motif Three

The grouping of the elements can be perceived mainly from the two gestalt principles. The presence of more than one common element in the design proves the similarity grouping while the dotted lines are evidence of closure grouping. However, other principles (proximity, symmetry, continuation and pragnanz) are highly intensified.

From the PhiMatrix analysis, the design pattern also conforms to Phi proportional ratio when projected outward (Fig. 6a) and from the centre (Fig. 6b) using Phi-Rectangle. There is also evidence of conformity to Phi-Oval (Fig. 6c) and Phi-Spiral (Fig. 6d). The conformant to Phi-proportion can also be proven mathematically as shown below:

$$\begin{array}{c}
 \mathbf{0} \qquad \mathbf{102} \qquad \mathbf{166} \qquad \mathbf{268} \\
 \hline
 \frac{166}{102} = 1.627 \\
 \frac{268}{166} = 1.614 \\
 \left. \begin{array}{l} \frac{166}{102} = 1.627 \\ \frac{268}{166} = 1.614 \end{array} \right\} \frac{166}{102} \approx \frac{268}{166} \approx 1 : 1.618 \text{ (Golden Ratio)}
 \end{array}$$

From the proportional ratio calculated, the values if rounded-up to one decimal place will give the same value has the golden number (1.6). Thus, the proportion of the design pattern conforms to the Phi proportional ratio (golden rule).

3.4 Motif
Four

This design is a combination of three design elements: the dotted line, crescent and star shape (Fig. 7). The design pattern can be perceived from five gestalt principles of grouping; this is based on the presence of similar elements; close arrangement (proximity); the dotted lines used (closure), and the flow of connection between the crescent and the dotted lines (continuation). The PhiMatrix analysis in Fig. 8 (c & d) shows that the pattern is symmetrical.

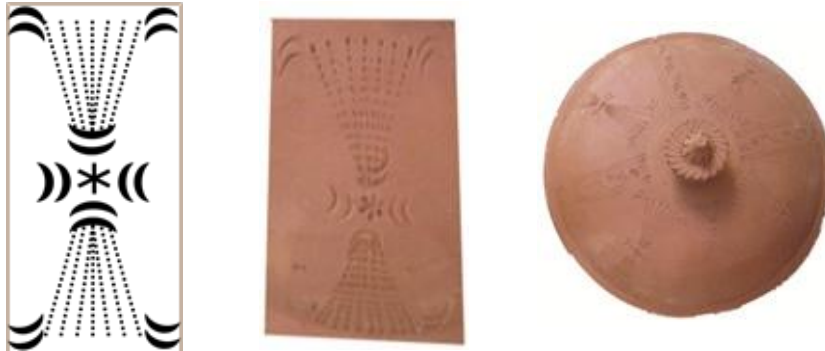


Figure 7: The motif four

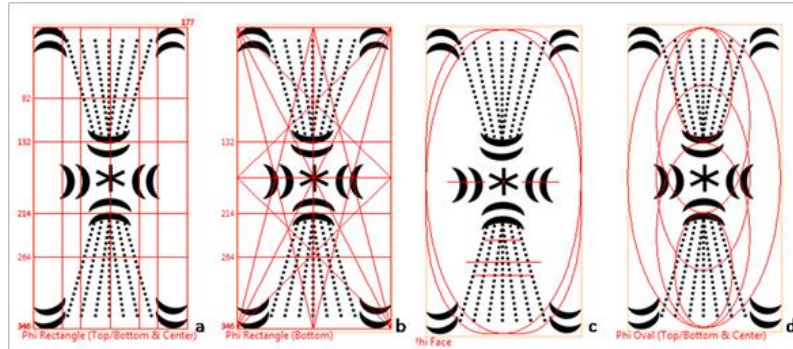


Figure 8: PhiMatrix analysis of motif four

Fig. 8 also revealed that the design pattern conformed to Phi-Rectangle when it was projected towards the centre (Fig. 8a) and bottom (Fig. 8b). Analysing using Phi-Face (Fig. 8c) and Phi-Oval (Fig. 8d), also shows that the pattern conforms to the Phi-proportion ratio. This was proven by calculation, using the PhiMatrix vertical values from Fig. 8a:

$$\begin{array}{l}
 0 \\
 82 \\
 132 \\
 214 \\
 264 \\
 346
 \end{array}
 \left. \begin{array}{l}
 \frac{214}{132} = 1.62 \\
 \frac{346}{214} = 1.62
 \end{array} \right\} \frac{214}{132} = \frac{346}{214} = 1 : 1.618 \text{ (Golden Ratio)}$$

The calculation above shows that the design proportion conforms to the golden section rule; i.e. the proportional value of the design (1.62) is equal to the golden number (1.618).

3.5 Motif
Five

Three elements are combined to form this design pattern, these include: dotted line, crescent and dot. From the totality concept of Gestalt Theory, this design can be perceived mainly from three gestalt principles. The repeated pattern creates similarity grouping while the close arrangement gives proximity and continuation (Fig. 9). However, the arrangement of the elements is asymmetrical (Fig. 4.23c).



Figure 9. The Motif Seven

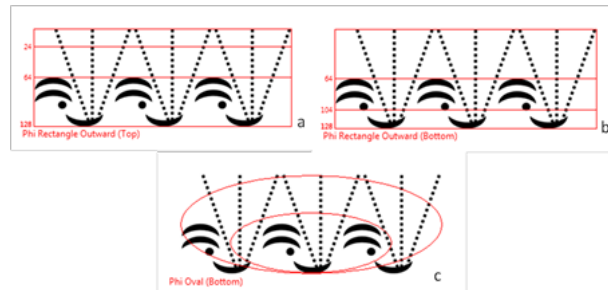
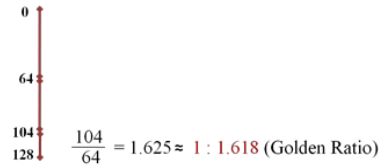


Figure 10. PhiMatrix Analysis of Motif Seven

Analysing using PhiMatrix software shows that the design pattern conforms to Phi proportion; this includes: Phi-Rectangle (Fig. 10a & b); and Phi-Oval (Fig. 10d). This can be proved mathematically using the PhiMatrix values from Fig. 10b:



$$\frac{104}{64} = 1.625 \approx 1 : 1.618 \text{ (Golden Ratio)}$$

The calculation above shows that the ratio of 104 to 64 (1.625) is almost equal to the golden number (1.618). The difference is negligible since when rounded to one decimal place, it gives the same value (1.6) (Meisner, n.d.).

3.6 Motif Six

This decorative pattern comprises of four elements: circle, line, crescent and a cross shape (Fig. 11). The elements are closely arranged, giving the pattern proximity grouping. The repetitive concept in the pattern is also evidence of similarity grouping while the centralize placement of the circular shapes reflects symmetrical grouping.



Figure 11. The Motif Nine

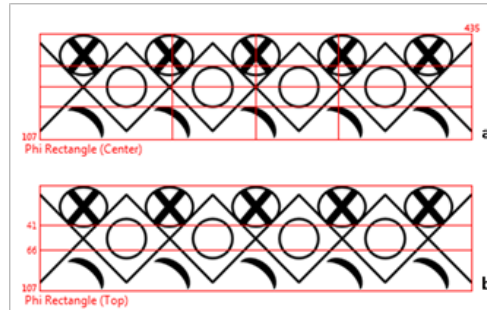


Figure 12. PhiMatrix Analysis of Motif Nine

Analysing using PhiMatrix software reveals that the arrangement of the elements conforms to the Phi-Rectangle proportional ratio (Fig. 12a & b). This can also be proven mathematically as shown below:

$$\begin{array}{l}
 0 \\
 41 \\
 66 \\
 107
 \end{array}
 \left. \begin{array}{l}
 \frac{66}{41} = 1.61 \\
 \frac{107}{66} = 1.62
 \end{array} \right\} \frac{66}{41} \approx \frac{107}{66} \approx 1 : 1.618 \text{ (Golden Ratio)}$$

From the calculation above, the proportional ratio of the design pattern (when rounded to one decimal place) is equal to the golden section number. This proves that the design arrangement proportionally conforms to the golden section rule.

4.0

Conclusions

One of the interesting discoveries from the decorative analysis is the conformant to their belief system. Most of the decorative patterns comprise of elements arranged in odd numbers (i.e. 1, 3, 5, etc) which is in line with the Islamic belief. The Hadith of Abu Huraira states that God is single and therefore He is pleased with odd or single numbers (HR. Al-Bukhari: 6410 and Muslim: 2677). The circular and crescent shapes in most of the patterns are also common motifs used among Muslims; while the proportional arrangements of the decorative patterns (which have been identified to conform to the golden section rule) prove their timeless beauty across culture and time. Thus, the conformant of these motifs to nature's order/proportion shows that the craftsmen are nature conscious. It is important to go beyond the traditional aspects of preserving and safeguarding ceramic heritage wares. The heritage values (aesthetic qualities) can be incorporated into contemporary products. This sustainable concept will not only preserve culture and history, but also enhance contemporary products.

References

- Meisner, G. B. (n.d.) (2013). Phi: The Golden Number. Retrieved August 25, 2013, from www.goldenumber.net
- Munn, N. (1966). Visual categories: An approach to the study of representational systems. *American Anthropologist*, 68(4), 936–950. PhiMatrix™ Overview. (n.d.). PhiPoint Solutions, LLC. Retrieved August 20, 2013, from <http://www.phimatrix.com/overview.htm>
- Rice, P. M. (1987). *Pottery Analysis: A sourcebook* (1st ed., p. 559). The University of Chicago Press, Ltd., London.
- (2006). *Pottery Analysis: A Sourcebook* (2nd ed., p. 584). The University of Chicago Press, Ltd., London.
- Shepard, A. O. (1985). *Ceramics for the Archaeologist* (p. 461). Braun-Brumfield, Inc., Ann Arbor, Michigan.
- Spokane. (n.d.). The Gestalt Theory. Graphic Design. Retrieved December 28, 2013, from <http://graphicdesign.spokanefalls.edu/tutorials/process/gestaltprinciples/gestaltprinc.htm>
- Tajul, S. S., Ramli, H., & Mohd, F. S. (2011). "Local Genius of Mambong Pottery in Kelantan, Malaysia". *International Journal of Humanities and Social Science*, 1(21), 147–155.
- Tanselle, G. T. (1998). *Literature and Artifacts*, Charlottesville, VA. Bibliographical Society of the University of Virginia.
- Tuck, M. (2010). "Gestalt Principles Applied in Design". Six Revisions. Retrieved December 28, 2013, from http://sixrevisions.com/web_design/gestalt-principles-applied-in-design/

