Creation of Arts Craft Pottery for Export Commodity: Based on Earthenware and Local Technology

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Abstract

Pottery industry has provided craftsmen in some regions of Indonesia with livelihood. There are many potential arts crafts pottery centres in the form of home industry. They represent people activity unit prone to changes such as global crisis in 2008 whose impact is still observable up to the present. Therefore, it is necessary to always create products with new designs for them to compete in global market.

The objective of the creation of new design in arts crafts pottery is to respond global trend change. Additionally, it increases non-oil and gas export and improve the economic status of craftsmen. The creation of various craft artistic products makes use of earthenware clay and local technology such as found in porcelain jugs and pots.

The exploration of the new design of the arts craft pottery may be carried out by observing global trends. Various interior elements are processed as inspiration source in creating earthenware form and character that sell well. It gives prototypes and the prototypes are applied in reproduction process, which was the creation of various derivative products.

The creation uses aesthetic and economic considerations through literature and in-field studies to find out the existing trends for further analysis in exploration, experiment and manifested in real form of local earthenware products of global nuances. Of course, the final step is market test.

Key words: arts crafts pottery, export commodity, earthenware and local skills.

INTRODUCTION

In some international exhibitions there are those who have special interest in arts crafts pottery. It is especially the case when the products follow the existing market trends. However, based on experiences in a number of international exhibitions it is observed that the creation of new designs with alternative values, especially to reach broader market is still weak. There is not any research and

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development in new designs among craftsmen who try to explore new designs with alternative values in responding global trends. Actually, there is huge market potential for earthenware products, especially those with high ethnicity value as Indonesian arts crafts pottery. Many craftsmen seem to only receive orders to make customized products following the pictures given by the buyers or to imitate the products of other craftsmen. Therefore, it is necessary to explore new designs of earthenware craft artistic product of alternative values by creating new products satisfying consumer’s needs and tastes. It is because earthenware crafts arts represent one of Indonesian export products that absorb many labours. The creation of the new designs is carried out through research and development of prototypes and the prototypes are promoted in international exhibitions such as IFFINA or Trade Expo Indonesia in Jakarta to attract international buyers representing importers of craft artistic products from Indonesia. Thus, an interaction takes place in offering the new designs in the effort to test the market and the possible orders.

The raw clay of the craft arts is earthenware clay and Indonesia has the biggest deposit of the clay from Sabang to Merauke islands. It is the primary clay for the production of earthenware craft artistic products that is available at low price. Even many of the earthenware craftsmen take the clay from the surrounding areas of the place where they live.

In general, the skill necessary in the production of the earthenware artistic products has long been mastered by the craftsmen for generations. At the beginning, they produce the earthenware products for functional purposes such as cooking vessels and stoves. They continue to produce the products to satisfy people’s daily household needs, especially kitchen utensils. They master the skills necessary to produce the traditional earthenware products till the time when fabricated plastic and metal products strictly compete with their products. It becomes harder for them to sell their products, while they have not mastered the skills in creating new earthenware products for artistic purposes. Still, their understanding of the earthenware artistic products deserves serious attention, while the demand of the market for the earthenware artistic products that follow the existing trends in design is promising. Though some craft art centres in Indonesia as Banyumulek of West Nusa Tenggara, Kasongan of Yogyakarta, Pleret of Purwakarta, Bayat of Klaten, and Klampok of Banjarnegara of Central Java still produce their products for export, their products face increasingly fierce competition with the products from Vietnam, Thailand, India and China.

International exhibitions in Europe are flooded by entrepreneurs from China and India. It is because wholesalers who usually accommodate and distribute the products in their areas face the same problem as the wholesaler in European
countries, America and Australia. Thus, they think that they have to expand their market into the countries. The domination of direct producer participants is clearly observed in such international exhibition. Consequently, it causes significant trade hierarchy pattern. The majority of the producers may serve as direct agents of the retailers in Western countries. It is because since 2011 there has been an indication that there was an increase in retail trade level. Probably, it was caused by the emergence of new opportunities for the retailers to select high quality products, especially the ones with new designs that sold well.

In such condition the pottery producers in some potential areas of Indonesia, especially Kasongan of Bantul, Banyumulek of Lombok, Pleret of Purwakarta of West Java decrease their production. One of the strategic efforts to increase their production is to create new designs of their pottery artistic products with strong Indonesian characteristics by adjusting colour, form and character to global market. The creation of arts crafts pottery for export aims at: (1) To create new forms and characters of the arts crafts pottery that are typical Indonesian, creative, innovative and in accordance with the characteristics, the nature, the form, and the characters found in international market. It is expected that such new products based on local clay and skills of Indonesia would have competitive advantages in global market competition. (2) To enrich new and more various designs. Indeed, the earthenware craft artistic products are now declining as a results of global crisis that it is necessary to enrich new variations in the effort to catch export market. (3) To improve the economic value of the arts crafts pottery that the products are accepted in export market and the economy of the craftsmen of the earthenware craft artistic products improves.

**LITERATURE STUDY**

The method used in the creation began with literature study related to the creation of pottery craft artistic product for export. There are many of such studies related to the local potential in the creation of the pottery craft artistic products. The study of creation aspect related to the creative process in creating the earthenware artistic products has been conducted by Ahmad Nizam in 2010. His study is entitled *Ethnic by Design of Panjangrejo Bantul Contemporary Earthenware*. He combined earthenware with metal elements. There are many of such designs offered for domestic consumers because they do not follow the existing global trend though the appearance of the metal-earthenware combined products has its unprecedented distinct values (Nizam, 2010: 1-109).

Design Trend books released by the Ministry of Small and Medium Enterprises Deputy Marketing Business Network Module Application entitled Trends in Product
Design Home Furnishing and Handicraft 2014. This book is a lot give info about design trends that will evolve in 2014. (Ministry of Cooperatives, 2014)

Other creative aspect that may serve as the reference is found in Yuliani’s study of the pottery craft artistic products in Jorong Galogandang Rambatan and Kanagarian Andalen of West Sumatra. The study aims at finding out the existence of the earthenware in West Sumatra concerning with the development of and the change in the forms and the functions of the earthenware craft artistic products and the influencing social, economic and cultural factors. The existence of West Sumatran earthenware represents the richness of local genius that has been developed as characteristic West Sumatran traditional earthenware. The study examines the existence of the West Sumatran earthenware in its historical perspective. The local earthenware represents traditional earthenware produced using local skills for generations (Yuliarni, 2010: 1-265).

Another reference of the creation of the earthenware craft artistic products is Taufik Akbar’s study of Talawi Sawahlunto clay. It was conducted with a good practice application. It examined the raw clay commonly used as the raw clay in producing bricks as the basis of its experiment of using it as the raw clay in producing earthenware products. The experiment was carried out to find out the elements contained in the clay by physically testing the clay in burning process and to formulate the processing method of the natural clay into ready raw clay. It was implemented in the experiment of various techniques as hand building, casting moulding, pressure moulding and even glazing process. It was highly relevant as the reference in creating prototypes, especially in preparing raw clays (Taufik Akbar, 2012: 1-116).

The study of Kasongan arts crafts pottery has been conducted by Guntur. He conducted the study emphasizing the development of the designs of Kasongan arts crafts pottery and their transformation. He identified the designs specifically developed in Kasongan. It represented the description of the development of Kasongan arts crafts pottery. The study of the creative aspect was entitled “Kasongan Earthenware and New Designs: Continuity and Transformation Related to Socio-cultural Context.” The bottom line was that the transformation of the Kasongan arts crafts pottery might take place because of internal and external aspects (Guntur, 2000: 1-302).

Other literatures are some books dealing with arts crafts pottery such as the one written by Peter Domer entitled The New Ceramics Trend and Tradition. The books deals with contemporary earthenware, especially those developed in America and Western countries. Additionally, it also deals with the development of forms, earthenware colours, and the models with extraordinary value (Domer, Peter, 1994: 1-232).
The work by Timbul Rajarjo entitled *Guci atau Vas dalam Perspektif Seni Gerabah* serves as primary reference in creating arts crafts pottery considering clay raw clay and technology. Following is the selected theme order: the problem and product identification and the exploration, the experiment and the forming (Raharjo, Timbul, 2001: 1-111).

Ambar Astutin in her book *Gerabah: Ilmu dan Proses Pembuatannya* presents complete description of the knowledge of creating process of earthenware. Especially, it describes the technological aspect of the creation of the arts crafts pottery. There are some processes in creating the earthenware with various techniques clearly described in the book, such as turning technique and twisting technique (Astuti, Ambar, 2008: 1-177).

The creating aspect will result in new discovery that is subsequently market-tested. Therefore, it is necessary to conduct more literature studies related to the business aspect of the export commodity of the arts crafts pottery. A book on export and import written by Amir M.S. describes among others: the position of our business commodity, price control, information technology advancement, non-oil and gas export barrier, improving competitiveness, obstacles and facilities (Amir M.S., 1986: 1-429).

**CREATION METHOD**

In meeting the objective, the creation method represents the process of explorative imagination based on various indications, experience and creativity that produces interesting arts that has typical characteristic of its creator. The creation results in new arts crafts pottery based on local clay and skills. Thus, it uses aesthetic and economic frameworks. Aesthetic framework represents the exploration of unique, creative and economic forms that give positive economic impact on craftsmen. Following is the processing chart: literature study and observation to collect data and information necessary in solving the creation problem related to the development of design trend and the potential of earthenware clay and also local skills in addition to the finishing characteristics desired by consumers. Process of visualizing ideas and concepts resulting from initial creative steps. The exploration and the experimentation are translated into alternative sketches, form experiment, form determination, and product finishing. The complete steps of the formation process began with raw clay preparation, tools preparation, turning forming process, moulding forming process, drying, burning, and finishing. During prototypes process are observed and notes are taken for refinement of the final products that satisfy consumer’s needs. Subsequently, the products are introduced to consumers in market testing through art.
shop display and then representational test is carried out by close evaluation of the market by producers and exporters.

Figure 01. Fish bone diagram of the flow chart of the creation process of new design of prototype.

The first step is to conduct in-field survey of the potential of earthenware local clay and the local traditional skills of the existing craftsmen to create earthenware and then they are identified and documented as initial new design clay. It is important because the local clay and skills include hand skills, patience, and high aesthetics well-known among international buyers. It can improve the dignity of Indonesian. The creation of new earthenware craft artistic products as a result of the organizing art of the local clay and skills can give difference nuance from the point of view of the characteristics of the clay, the form and the production skills.

The results of the in-field survey, especially those related to the emerging trends in Western countries are analyzed and evaluated as the basis of the initial determination of the trends. Once the identification of the designs based on the emerging trends in the designs has been in completion, the prototype of the earthenware craft artistic products is prepared, for example porcelain jug prototype. Also, it is necessary to put the emphasis on the ethnicity aspect of the earthenware processing involving hand skills of Indonesian earthenware craftsmen. The new products serve as the models with strong Indonesian ethnicity characters able to penetrate global market. For example, the creation of 10 new prototypes is market-tested. The test includes representational aspect as evaluated by the stakeholders close to the market, including producers and exporters.

THE CREATION PROCESS OF ARTS CRAFTS POTTERY OF EXPORT COMMODITY

World Trend of 2014

World trend emerges from human living preferences as the manifestation of joy, sadness, and apprehension and world changes that influence global living pattern of the people of the world. Though it is not necessarily true, there is a kind of
convention among designers to direct the preferences to certain designs. In general, the world trend of 2014 will try to find new pattern in establishing cultural identity of each of the participating countries by emphasizing their respective traditions with the theme “traditional revolution”. The trend results from fashion designers that are in fact more dynamic than house accessories of arts crafts pottery. Such change is marked by various statements and prediction of craft art observers. In the mean time, following categories are made:

1. **Demotic**

   The trend will emerge as predicted by pure colours of Africa well-known for its natural clays such as leaves and ground. It is very typical colours of indigenous culture of the continent. There is indicating sub-theme of totem that is more likely to be geometric and luxurious and of monumental impression. Meanwhile, the indigenous combines traditional and modern themes. The demotic will at least inspire cultural aspect that resembles African culture, the simple and unadorned typical tradition as found in Toraja motif of Sulawesi, Papua motive of West Papua, Indonesian ikats, batik and so on. It plays more with basic ornament of geometric pattern though the existing forms are of urban nature that is presented using local traditional elements. Therefore, the cultural elements are accentuated using strong local and monumental powers.

![Image of pottery vases](https://example.com/image.png)

**Figure 2. Some predictions as inspiration sources of world trend of 2014 under demotic sub-theme**

(Source: Pottery Vase, 1960s Retro Collectables. Geometric motif and brownies background colour downloaded on Thursday, August 15th, 2013)

2. **Cardio mind**

   The word cardio mind comes from cardio, which means heart or health that means give special meaning to comfort. It is an innovation inspired by health world with the preference of bright and clean colours. Its sub-theme is Hitec Naval that
tends to be close to transparent look, simple and light Matrix and Machine of masculine nuance, highly structured and of undaunted impression. World awareness of health and living comfort has become primary priority. The awareness is triggered by the increasingly big number of consumer products that are not good for health. There are many emerging certification of health and safe for human being required for the products that will be marketed in certain areas.

![Figure 3. The trend prediction with transparent, simple and structured construction nuance](http://latimesblogs.latimes.com/home_blog/design/page/54/, http://www.malqosa.com/ otomotif/salon-mobil-panggilan/, downloaded on Thursday, August 15th, 2013)

Picture A indicates the character of transparent of Hitec Naval with clean and light nuances, while picture B represents a pot of Pad Outdoor's Jet Age-style that is also of the characters of simple and light. The design is in general made of light weight aluminium clay and now made of non-corrosive earthenware. Meanwhile, picture C is indicative of highly structured construction with its distinct power.

3. **Sagacity**

The trend is inspired by fables or myths, fiction and fantasy. The development of film animation has manage to present stories coming from outside of ourselves and even something beyond our world as found in Japanese comics, Kho Ping Hoo from Kulon Progo, The Rabbit, Twilight, and so on. Usually, it uses natural colors and metal that give hard and dauntless. There are three sub-themes, viz. Emporium as found in kingdoms in fables that are elegant; Courteous representing monumental silhouette as kimono; and Vulcanize representing renewal process that makes use of Merapi volcano ground sediment color.
4. **Asylum**

The trend is more likely to express something personal without any like and dislike contents. It represents someone’s effort to appear differently by ignoring the existing basic design norms in visual arts. Everybody wants to appear differently, everybody is an artist so that what appears later on is more likely to be uncontrolled such as contrasting extreme and weird colors. It gives expressive colors, which may be bright and dark and of childish impression. Other themes also emerge such as unsynchronized combination of modern and traditional elements outside basic designing principles. Even, kinetic art is also chosen in more dynamic forms. Its sub-theme is *artivists* with bright colors, chaos adaptation or motif and color contrasts. Kitsch Garden is inspired by scrap book that there are overlaid design and colors that give vulgar and plebeian impression, though it is predicted to be the coming trend of 2014. On the contrary, there are the sub-theme emphasizing expression, both in terms of patterns and colors. There is also Soul Repair sub-theme that gives the impression of used and old fashioned stuffs that are repaired into new stuffs with bright colors.

![Figure 4. Pictures with strong colors and combined with contrast colors, book stack and old Vespa presented as artistic work.](http://uniezen.files.wordpress.com/2013/07/go7vhwa.jpg, downloaded on Thursday, August 15th, 2013)

5. **Botanical Art**

It is indicative of the return of sketching drawing technique and watercolour as used by European researchers in documenting Asian botanical richness. It uses typical sketches drawn using combined transparent colours and watercolour. The character will repeat in the coming design of 2014 as marked by the use of a lot of botanical decorative ornaments in its designs.

![Figure 4. Pictures with strong colors and combined with contrast colors, book stack and old Vespa presented as artistic work.](http://uniezen.files.wordpress.com/2013/07/go7vhwa.jpg, downloaded on Thursday, August 15th, 2013)
Figure 5. Botanical trend gives more impressions of skilled sketches and combined transparent colours than other realistic aspects. (http://dakuresort.com/blog/botanical-art-workshop/downloaded on August 20\textsuperscript{th}, 2013)

The mean theme of Traditional Revolution poses challenge in creating earthenware with the prediction of ethnicity basis. Of course, the rational of the aforementioned formulation can not automatically be implemented in the arts crafts pottery. Therefore, it is necessary to combine local and global considerations in the representation of the earthenware craft artistic products. The creation concept has its background in the effort to look for new designs inspired by the theme of Traditional Revolution that is globally understood. The creation concept relates to how Indonesian traditional values can speak something in global domain. Therefore, the design also offers general patterns that have been agreed.

THE EXPLORATION OF LOCAL EARTHENWARE CLAY AND TECHNOLOGY

1. Local Earthenware Clay

The exploration of earthenware clay is one of the bases in creating the form using turning technique. It uses usual clay as found in the production of bricks, earthen cooking pots and the likes. The clay is secondary one and contains ferrous oxide. The characteristics and the states of the clay are various. There is brittle clay because of excessive water content. Its burning colors is yellow, red, brown and black depending on the burning temperature and the ferrous oxide content. Its crude colors are red, brown, yellowish and grey.

The earthenware sediment content of the clay is different from one area to another. The earthenware sediment content in Yogyakarta is distributed in all of the existing districts, which are Bantul, Sleman, Kulon Progo and Gunung Kidul. Each of the districts has its own characteristics and hence it can not be used as single clay. It is necessary to combine the clays coming from some areas with the following compositions:
1. The clay from Godean, Sleman 25%.
2. The clay from Dlingo, Bantul 25%.
3. Fine sandy clay 50%.
2. Traditional Turning Technique
   a. Foot turning technique

The creation of the arts crafts pottery uses traditional techniques. One of the
techniques is the foot turning technique that is mastered by Indonesian craftsmen for
generations. It uses foot to turn the earthenware working piece of more than a meter
of height. It is common technique used in some areas of Indonesia such as Brebes of
Central Java. Many craftsmen from Brebes also work in other arts craft pottery
industry centres such as Kasongan of Bantul, Banyu Mulek of West Nusa Tenggara,
Pleret of Purwakarta, Klampok and others.

Figure 6. The processing of earthenware clay
(Photograph: Timbul Raharjo, 2005)

Figure 7. Foot turning technique
(Sketch: Timbul Raharjo, 2012)
b. Oblique Turning Technique

Oblique turning technique is unique because the craftsmen work the working piece in oblique position. It is common technique used in Pagerjurang village, Bayat of Klaten. The position of turning basis is also 30 degree oblique. The turning movement goes sideways using one of craftsmen’s feet, while the other foot turning the pedal sideways. The axis of the working base is connected by a rope that function to grip and to release the axis that turning move results.

![Oblique turning technique](image)

Figure 8. Oblique turning technique
(Sketch: Timbul Raharjo, 2012)

FORMING PROCESS

1. Alternative Sketch

The exploration step is made by drawing some sketches to match various forms with imaginations. The sketches are drawn in several variations. They are drawn in perspective that their whole form can be clearly observed because people do not observe the pictures as usual objects. Beam sensations go to retina and are transformed into energy and transferred to brain in which they are simultaneously translated into meaning that refers to the pictures. There is not any real object in the brain, but optical perception. Of course, the optical processes take place in eyes, but the perception represents the function of the brain. We cannot experience any sensations without any characterization in some ways or others, giving label and direct it to a meaning.
Figure 9. The sketch of a porcelain jug with geometric ornamental, traditional and modern motif and it is expected that the combination of the traditional and modern elements

(Sketch: Timbul Raharjo, 2013)

The earthenware work is in three dimensions and it is necessary to take special attention to harmony, which means the appropriateness of various compositional aspects. Though the compositional aspects have been considered in the sketching step there will always be something different in the actual working process.

Figure 10. Three designs with plain forms for clean colours.

(Sketch: Timbul Raharjo, 2013)
2. Clayization

a. Forming

The forming process includes forming the body and the decoration of the earthenware work. It uses the techniques commonly used in Indonesian earthenware craft centres, which is traditional turning technique. The traditional turning technique is carried out using hands and feet. The technique is commonly used in Malahayo village of Brebes, Central Java, while oblique turning technique is commonly used in Pagerjurang of Klaten (see Pictures 7 and 8). The techniques become traditions in creating cylindrical objects such as household utensils up to the present.
b. **Burning**

Earthenware is made of clay organic clay and it has gone through burning process into the expected products. The clay contains water that it is easy to give it forms and once the water contain is vaporized the earthenware is burned. During the burning process it hardens as a result of chemical process of adhering micro structure of the clay. It takes about 10 hours depending on the dimension of the earthenware. The earthenware burned at 900 °C get its terracotta colour as found in bricks. Excessive burning process will give the earthenware black colour or burnt and becomes brittle. The necessary temperature in the burning process is in the range of 800 °C – 1000 °C.

![Image of traditional burning furnace](image)

*Figure 14. Traditional burning furnace referred to as *dadahan* or field furnace uses dry straws and small branches firewood. (Photograph: Timbul Raharjo, 2013)*

c. **Finishing**

Finishing is the process of giving the earthenware final touch in order to achieve the expected product appearance. The process of creating earthenware prototype is carried out by painting it and sticking other natural clays on it. Wall pain and spray paint are applied to the earthenware because they are well-absorbed by the clay. They are of the kind of water-based paints and it is easy to create antique colours from them. The development of the finishing motif is the key to penetrate export market. Craftsmen use two kinds of finishing to serve their market. Local market is more likely to prefer the finishing with bright and shiny colours, while international market is more likely to prefer doff.
Figure 15. The finishing process using oil paint sprayed using air brush gun

(Photograph: Timbul Raharjo)

PRESENTATION AND ANALYSIS

The presentation and analysis of the prototype below are made on the same form and character basis. However, the exploration aspect of the ornamentation and the finishing becomes the determinant factor of the acceptance in international market or the coming trend of 2014. Thus, the presentation is made simultaneously with the finishing of different forms.

Figure 16. The resulting prototype of Group I

The design prototype refers to demotic design trend presenting totem, geometric, monumental and traditional and modern combination characters. Climbing plants as botanical ornament is characteristic of the prototype. It is expected that the prototype could inspire European buyers with one of the emerging trends
Cardiomin refers to health innovation with bright colours that gives transparent, masculine and dauntless impression. The third is ornamented using standard forms as its outline. It has got finishing touch.

The prototype is given finishing touch referring to Sagacity trend, which is a preference to fables. It is ornamented with golden climbing plants that give kingdom
nuance. Additionally, it gets volcanic colour that inspires natural volcano ground power.

![Image of pottery vessels]

Figure 19. The resulting prototype of Group 4

The prototype is made on personal freedom to achieve something as indicated by the free combination of colours for different appearance.

CONCLUSION AND RECOMMENDATION

The creation process has managed to clayize 10 prototypes of arts crafts pottery for export. High creativity and innovation earthenware craft artistic products will be able to satisfy international market needs. The references of how to understand international design trends, the clayization of the trends, the selection and the process of preparing earthenware clay, traditional forming technology and its application in new designs considering the emerging world trend have been presented.

The resulting prototypes have different characters because world trends are changing over time and world trend setters continuously create new designs by observing world living pattern. Thus, it is necessary to be sharp in predicting the coming trends in 2014. The present creation is the effort to meet the challenge.

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