

The Creation of Ceramic Crafts with Traditional Technology for Export Purpose Following Design Trend 2015

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ABSTRACT: This article reported the results of a study of the creation of ceramic crafts following design trend 2015. Ceramic craft arts have become one of Indonesian main export commodities. It used social, esthetic and design approaches. The creation method consisted in exploration of shapes as inspiration sources, alternative sketches, working drawings, and prototype preparation process. It gave 25 new prototypes as design standards of coming trend of 2015. The theme raised in 2015 would be Re+Habitat based on the prediction of Indonesian forecasting trends through the focus on the themes of Alliance, Biomimetics, Adroit and Veracious. Six designs would be created for each of the selected themes in the form of product samples. It might be one of the strategies in developing and improving ceramic craft arts, especially in the big ceramic craft art centers in Indonesia as an important part of populist economy.

KEYWORDS: creation, ceramic and design trend 2015.

1 RESULT PREDICTION

This paper was the result of the continuation of the study in 2013 that has produced 25 new alternative designs and their prototypes have been produced in the ceramic craft art center of Kasongan and Pleret Purwakarta, Indonesia. The result of the study had significant impact on the increase in the production from a container to two containers that contained 400 pieces of new products for each so that it might be considered that there was 100 percent increase. The creation of ceramic craft followed the existing design trend and hence it was able to give new nuances in the resulting products in addition to the new spirit of the craftsmen in producing the ceramic artistic crafts after the declining periode because of the global economic crisis in 2008 (Timbul Raharjo, 2013).

Design trend was created by designers by observing changes in human life both in the process of the human life and their behavior. They observed and along with forecasting team determine the coming trends. The trends were created by observing the emerging phenomena in the right time and place (Camara Municipal, ed., 2009). The right momen of the creation of the trends had significant impact on the success of the ternds. Additionally, the credibility of the team also played an important role in the creation of the trends. It was the case of the forecasting team in Paris, Frence that was of world class and different from the design forecasting experts in each countries with their understanding of the problems facing them in their home countries. Thus, in forecasting the coming trends they would considere which parts that were potential to bring new trends (Fitinline, 2014).

Trend forecasting such as Promostyle, PeclersParis or Stylesight in Europe, especially in Frence have been the standard in developing new world trends. Indonesian Trend Forecasting (ITF) predicted that the coming trends of 2015/2016 would raise the theme Re+Habitat as main theme. Based on several prior studies the emerging trends in Indonesia also followed the existing world trends. It was because there were many people in the world who changed places. They mixed and interaced. Therefore, they had similarities no matter where they lived. The similarities were clearly observed in their dress, speech and culture and so on. It was triggered by the presence of information technology that has become inseparable part of modern life. The information technology caused the absence of distance and all became close and interrelated (Khairiyah Sartika, 2014).

The questions of the creation that would be answered in these activities were (1) What were the influencing factors of the emergence of the trends in 2015? (2) What would be the emerging trends in 2015? (3) What were the trend themes according to ITF? (4) What was the process of materializing the trend in 2015 based on earthenware material and local technology? It was predicted that the study would give:

1. The prediction of the coming trends in 2015.
2. The creation of 25 ceramic artistic crafts as prototypes.
3. The use of local and traditional potential that were presented globally.

2 CREATION METHOD

It was necessary to consider the orientation of the understanding of the purpose of the creation of the products in order to effectively design them. In the prior study the design trend of 2014 was considered to as natural and antique. Meanwhile, the coming trend of 2015 was predicted to have similar characteristics though they would be more blurred and mixed as a result of changing world condition because of globalization that tended to be decentralistic in nature. In other words, it would be highly possible for the areas with the potential to create their own creative products while following the similarities with world trends. They used local culture inspiration to create products that were sold globally.

Consistent with prior pattern the study of the design trends of 2014, the study used esthetic and economic framework (Joko Subiharto, 2013). The two approaches were used to collect data. In-field data represented written and visual ones. They were real and represented what actually happened in field. It enabled easier construction and interpretation of various social changes in both tangible and intangible manners. Reading could be conducted freely as long as data appropriateness could be applied in the study so that they represented the design development pattern of the day (Denzim, 1997). The collection of the data in the creation of new ceramic artistic crafts was also carried out using literature study and observation of earthenware clay potentials and also the skills of the local ceramic crafts makers as important point of departure. The finishing characters were adjusted to consumers' interest that was predicted to take place in 2015 so that they could create artistic ceramic products that properly answered their needs.

Exploration and experimentation were translated into alternative sketches, shape experiments, shape establishment and product finishing. The complete stages were raw material preparation, tools and instruments preparation, spinning shaping process, casting shaping process, drying, burning and finishing.

During the materialization of the prototypes observations and recordings were conducted that it could produce ceramic artistic crafts that met the consumers' predicted interests in 2015. Additionally, market test was also conducted to introduce the products to the consumers by displaying the new products in art shops and then representational test was conducted with closer evaluation of the products along with producers and also exporters (Joko Subiharto, 2013).

3 CERAMICS AS EXPORT COMMODITY

At international level, it was common practice to sell ceramic products in a big quantity and packed in packing containers that were coordinated in export activity. The export activity of the artistic ceramic products reached countries as Netherlands, Italy, Spain, France, Australia, and Canada and Caribbean countries. The countries represented potential world markets and played a determinant role in globalization era. The sale of products in global market was inseparable of world trade rules. Globalization era was facing countries, companies, communities and individuals all over the world. Of course, they agreed to commit to better and well-ordered world trading process and hence they founded World Trade Organization (WTO). The free trade rules had logical consequences for every country involved. It had to protect itself against various changes that posed danger to its domestic trade and even the danger included environmental one such as disease spreading. Therefore, there was international agreement among the countries to formulate rules of trading zones as Asia Pacific Economic Cooperation (APEC), General Agreement on Tariff and Trade (GATT), and so on. Consequently, it was necessary for the creation of products for export purpose to follow the existing international standard that they were accepted by the exporting target countries or the target market. The craftsmen were required to understand causality aspects of the rules. Thus, they had to maintain the quality of their artistic ceramic products for international market. For example, they had to follow the standard packaging rules to prevent products that contained dangerous diseases. Canada was among the markets with strict rules of fumigation, which was International Standard Phytosanitary Measure (ISPM#15) and also Australia.

The rules and the stipulations of each country had the consequences for the commodity of artistic ceramic products that they must meet export quality standard. They were contained in export document such as fumigation certificate, Bill of Lading (BL), Certificate of Origin (COO), Invoice Packing List, and ISPM#15. The documents must be in the hands of buyers

before the containers arrived at the harbor of destination. Additionally, in addition to the documents the quality of the products, including the materials, the processing and the timeliness in shipping was very important. The condition of consumers' region was of course different from that of Indonesia. The commodity of the artistic ceramic products that seemed to be appropriate to use in Indonesia was not always so in the target countries with different culture, seasons, weather and trends. Thus, it was necessary to make a good and careful calculation of the aspects related to the quality of the commodity of the artistic ceramic products (Timbul Raharjo, 2008).

4 WORLD TREND IN 2015

Indonesian artistic ceramic products had in general competitiveness in international market. They had distinct characteristics, especially the availability of local raw materials and local technology. They were able to follow world trends because 90% of their market was international market. Therefore, the coming ceramic designs of 2015 also were adjusted to the international needs as characterized by the change in shape and finishing with improved color characters. It was necessary for designers to be able to make use of their experience and knowledge of various scientific areas, including social and humanity sciences. They had to be able to find the solution of the problem of the competitive global market for global products using creative ideas. The condition defined the role of the design in broader strategic context. The design became an important part of the effort to solve the problems in micro and medium scale business (*Usaha Mikro dan Menengah [UMKM]*). The solution included the characteristic shapes that followed the existing trends in interior and exterior arrangement styles. The enthusiasm of the designers in responding the design trend of 2015 was quite high consistent with the improvement in economy though some of them still focused on reproducing technique. However, some of them thought that it was necessary for entrepreneurs to creatively predict the coming trends to survive. The implementation of technology to improve ceramic productivity was required that the quality of the ceramics improved and had better competitiveness in international market. Therefore, information technology was highly required in predicting the world trends. The role of the designers was to manage the complexity, which was to send clear message to people, to uncover various correlations in establishing information context and sustainable communication with clients (Timbul Raharjo, 2012).

The design trends of 2015 were classified into four sub-trends with their own details, which were Alliance, Biomimetics, Adroit and Veracious. Each of the trends got its inspiration from local genius in the area of traditional arts and presented different concepts. The ceramic design trend referred to the change in other product trends as indicated by the fact that fashion trend was the most fluctuative one and the most developed one as compared to the design trend as house accessories. The fashion trend experienced change and development every year. Entering new year, there were always new trends that served as fashion reference for designers and fashion industry lovers. In general, observers were able to predict the coming trend earlier, especially the special team in trend forecasting (Khairiyah Sartika, 2014).

Re+Habitat was the theme to bring back a good agreement for community and environment. Habitat was a typical living place for an individual or a society. It was the place for living creature to proliferate. Essentially, it was physical environment for population of a species that was influenced and used by the species. It was physical environment in the surrounding areas of a species or population of species or a group of species or community on earth (KBBI, 1991). In this case the prefix "re" that meant repeating or bringing back to original position. It was closely related to the attitude and the behavior of the people of urban areas who more appreciated various things that have been out of their position, function and meaning. It was this trend that brought people around to be back to the right situation in different situation so that it represented the past truth that was presented in the present time.

4.1 ALLIANCE

Alliance meant in Indonesian *persekutuan*. In business science alliance was in generally defined as a combination or association of two individuals or more to own and to operate a business collectively for the purpose of getting profit. The theme alliance in design trend represented several things that were combined. More precisely, it was referred to as eclectic style that tended to combine old elements and new elements. It was also predicted by Indonesian forecasting team in Fashion Week 2014. As sub-theme trend, the alliance represented a combination of simpler elements and artistic elements of local genius applied in the motifs and complicated working technique.



Figure 1. The sub-theme alliance that was predicted to take place in 2015.

(Source: eclecticrends.com, www.pinterest.com, June 30th, 2014)

4.2 BIOMIMETICS

Biomimetics meant mimicking. It was the term used in biology and represented a scientific branch that tried to catch ideas from living creatures and then developed the ideas in technological products that got their inspiration from natural phenomena. Technological products such as machines or robots were principally different from natural biological elements. The machines and the robots represented dried and hard materials and were completely different from biological elements that were wet and soft. Design skill was required to create a machine, but a biological element was designed automatically and in a very complex manner. For example, a tree consisted of soft and wet parts and it designed itself during its growing period. It was necessary to develop a scientific branch called biomimetics to create technological products that mimicked biological elements. It was a scientific branch that got its inspiration from natural biological elements that were subsequently developed into artificial biological system-based products. The word mimetic meant to imitate and hence biomimetic meant to imitate biological system. In biomimetics and bioengineering technologists and researchers tried to mimic biological objects in creating smart and active objects that functioned like natural biological creatures (<http://www.kamusilmiah.com>, June 30th, 2014).



Figure 2. Natural biomimetic shapes that inspired the coming designs of 2015.

(Source: <http://www.squidoo.com>, blacklemag.com, voc.aliasclick.com)

4.3 ADROIT

Adroit might be translated into agile, energetic and so on. It represented a sub-theme of new development that sent the impression of speed and skills in solving problems in modern era. The design was mostly reflected on modern products characterized by agility and of slim impression such as automobile design or motorcycle design and household furnishings that were likely to have futuristic design. Even, monochrome colors and lines that gave slim, cheerful and agile were selected. The design trend was mostly found in the products such as motorcycle. The application of the design might also be found in ceramic products.



Figure 3. *The sub-theme adroit with its impression of agility that was predicted to take place in the coming product design of 2015.*

(Sumber: www.the-capsule.com, latimesblogs.latimes.com, suzukigunungsahari.blogspot.com)

4.4 VERACIOUS

Truth, honesty and sincerity were expensive things in this modern era and probably they were only found in a part of this global society. An increasingly complex condition forced one to tell lies while another element brought one to bay to cover truth in their effort to answer living needs. Therefore, people were yearning for truth, honesty and sincerity. Designs with the themes of truth, honesty and sincerity were predicted to have their place among people in 2015. Boredom and lies have been Lehman Brother's scandal of global finance and it raised human awarness of truth. It was this longing that inspired veracious designs.



Figure 4. *The veracious trend with its impression of honesty and sincerity and the strong willingness to be back to simplicity, love and nature*

(Source: // veraciousverves.blogspot.com/, designyoutrust.com, veraciousthoughts.wordpress.com, June 30th, 2014)

5 LOCAL EARTHENWARE MATERIALS AND LOCAL TECHNOLOGY

5.1 LOCAL EARTHENWARE MATERIALS

The exploration of earthenware materials in Indonesia was one of the bases in establishing spinning technique with the clay commonly used in producing bricks, earthenware and other ceramic products. The material was classified as secondary clay and contained ferrous oxide that gave terracotta color after burning. The characteristics and the condition of the material were typical. It depended on the method of extracting it wether it was mixed with other materials such as sand or not. There were plastical clay and fragile clay with excessive content of sands. Its burning colors were yellow, bright orange, red, brown to black, depending on the burning temperature and the ferrous oxide content. Its raw colors were red, brown, greenish and grey.

The earthenware sediments in the Special Region of Yogyakarta had different characteristics. They could be found in all of the districts of the region, including Bantul, Sleman, Kulon Progo and Gunung Kidul. Each of the districts had its own

characteristic earthenware raw material and it could not be used as single raw material. It was therefore necessary to mix some raw materials as found in Kasongan ceramic craft industry center. For example,

- a. The clay from Godean Sleman 25%.
- b. The clay from Dlingo Bantul 25%.
- c. Fine sandy clay 50%.

The composition might change with the results of the experiment with the clay. Traditional craftsmen have practiced various compositions directly by considering the plasticity of the clay with their “feeling” while they were folding it. They were able to determine whether it contained too much sand or it needed additional sand. They further tested it by burning it. Once the raw material has met the requirements related to cracks, shrinkage, and surface smoothness and strength, it could be used in ceramic production.



Figure 5. Traditionally, craftsmen extracted the clay manually by randomly digging ground and selecting which clay was the best. The location of clay mining in Pagerjurang, Klaten (Foto: Timbul Raharjo, 2013)

5.2 TRADITIONAL SPINNING TECHNIQUE

a) Foot Spinning Technique

Traditional techniques were used in producing ceramics. One of the techniques was food spinning technique that has been mastered by Indonesian craftsmen from generation to generation. They used their foot to spin the spinning table that enabled the production of big ceramic products, which were higher than a meter. The technique was commonly used by the ceramic craftsmen in the areas of Brebes of Central Java. Even, many of the craftsmen from Brebes worked in the artistic ceramic industry centers such as Kasongan Bantul, Banyumulek Nusa Tenggara Barat, Pleret Purwakarta, Klampok and so on.

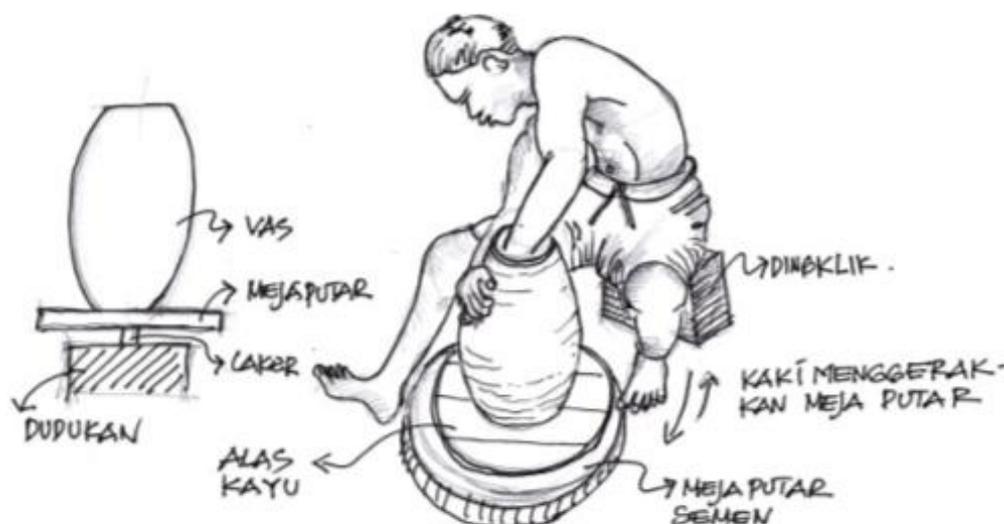


Figure 6. Foot spinning technique

The technique was commonly used in the production of ceramic products of big dimension up to the height of 2 meters. The craftsmen used their foot to spin the spinning table by moving it forward and backward as illustrated in the sketch above.

(Sketch: Timbul Raharjo, 2012)

b) Oblique Spinning

The oblique spinning technique was very unique. It enabled oblique working position. It was commonly used in Pagerjurang village, Bayat, Klaten. The position of the spinning table was approximately 30 degrees oblique. It was spinned using foot sideways, while the other foot driving a pedal sideways. The spinning table had an axis that was connected to a string. The string worked to hold and free the axis and gave the table spinning impact.



Figure 7. Oblique spinning technique

It was commonly used by the craftsmen in Pagerjurang, Klaten, Central Java. It was used in oblique position and the spinning table was spinned by a string connected to the spinning axis of the table and driven sideways using foot (Sketch: Timbul Raharjo, 2012)

6 THE MATERIALIZING PROCESS OF CERAMICS

6.1 ALTERNATIVE SKETCHES

Exploration was made by drawing several sketches of imagined shapes. Various alternative sketches were drawn. They were drawn in perspective drawings to catch complete shapes as imagined. It was because people did not see the drawings as regular objects. Light sensation went through retina to reach brain that almost simultaneously interpreted it into meaningful drawings. There was not any real object, but optical perception in the brain. Indeed, the optical process took place in eyes, but perception was the function of brain. We could not experience any sensation without characterization in some ways such as labeling and directing its meaning.

For practical purpose manifestations in our life such as homes, trees, boys, ground, and sky and so on had some levels. We could train perception to identify elements of a drawing by focusing our attention to shapes, colors, textures and dark and bright sides of the drawing. Actually, during the focus on the elements of a manifestation, for example its shape, the elements became manifested because they represented a sequence that gave a meaning. Meaningful manifestations in ceramic artworks represented a combination of the elements. Earthenware jug or vase as inspiration source was influenced by visual expression.

Designs were considered as the bases to make a further step into more freedom. The sketches enabled the creation of imagined shapes. The embryonic sketches were then standardized with clearer position and proportion. The sketches were drawn in different perspectives (front view, side view and top view). They served as reference in the forming process of the artistic ceramic products in order to avoid some mistakes in terms of proportion and other elements of the products. The ceramics were three dimensional ones and hence it was necessary to give serious attention to harmony among the elements (i.e., composition). However, it was often the case that in the actual process of the creation of the artistic ceramic products they were different.

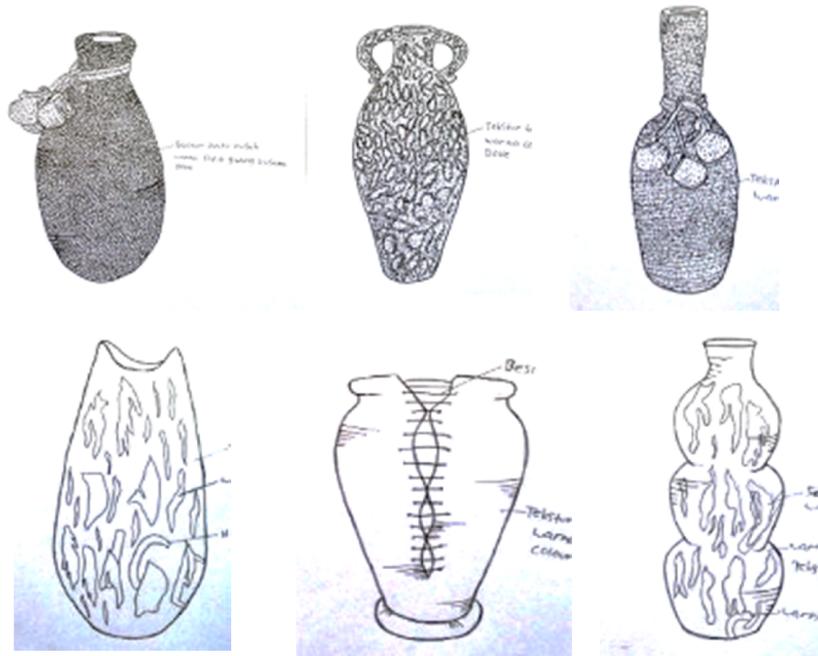


Figure 8. The sketches of the designs of the theme Alliance that would be developed in the finishing process using doft and antique touches. (Sketch: Awaludin, 2014)

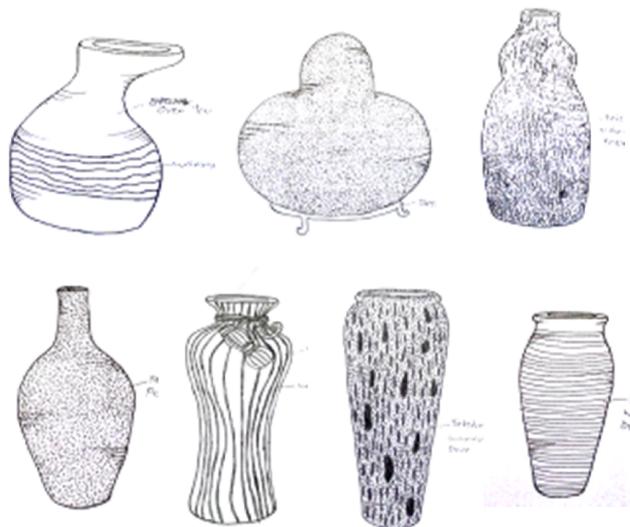


Figure 9. The sketches inspired by biomimetic shapes.

(Sketch: Awaludin, 2014)

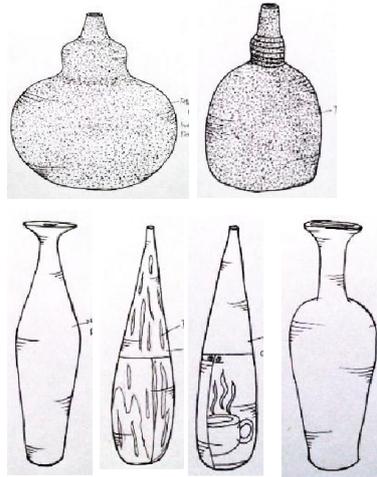


Figure 10. Alternative sketches inspired by the sub-thema Adroit

(Sketch: Awaludin, 2014)

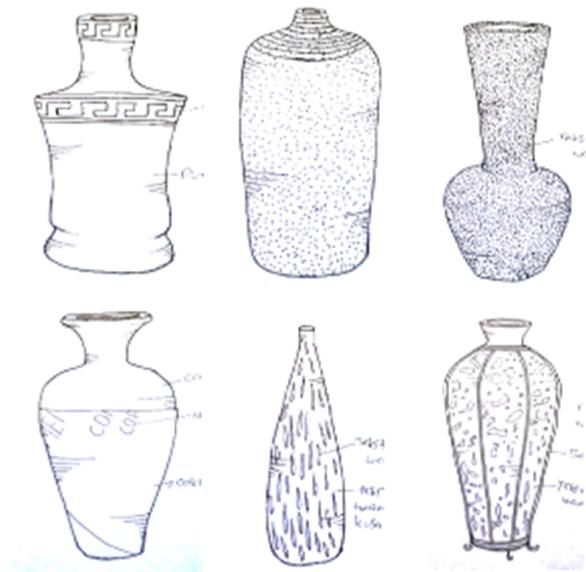


Figure 11. The sketche of desaon inspired by the theme Veracious

(Sketch: Awaludin, 2014)

6.2 SHAPING

Shaping was an important part of the creation process of artistic ceramic products because it enabled the creator to express their imagination. Followings were the steps in the foot spinning technique and oblique spinning technique:

1. Preparing raw materials and tools, which were earthenware clay that was mixed with find sand using mixing machine for even and high plasticity result.
2. Preparing spinning table, water, cloth (*dalim*), scraper (*secang*), cutting string, measuring tools, lining (*lemek*), etc.
3. Taking a handful raw material and shaping it into a ball of clay and putting it on the spinning table and then giving it bowl shape and extending it upward by spinning it to obtain a cylindrical shape with even thickness.
4. Modifying the cylindrical shape into the expected shape by referring to standard drawings.

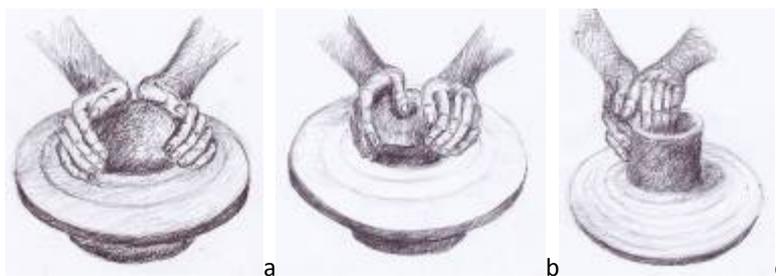


Figure 12. The shaping process using spinning table, consisting of: a. Preparing clay pattern, b. Making bowl shape, and c. Extending the bowl upward and making even thickness by spinning it.

(Sketch: Totok, 2013)

6.3 BURNING

Traditional burning was one of the burning techniques. It had high efficiency from the point of view of the availability of firewoods and the knowledge of the craftsmen of the burning process. The burning process took place in vessel furnace. It was of the kind of the furnace with fire that was directed upward and used firewoods and dried leaves as cover. It was commonly used in traditional ceramic centers in Indonesia so that its efficiency has long been proven.



Figure 13. Open vessel furnace with firewoods

(Photograph: Timbul Raharjo, 2013)

6.4 FINISHING

Finishing was a very important part in adapting to the existing design trends. First, the characteristics of the trends would be established. It enabled an object in old shape following the trends of prior years to be transformed and modified into the coming trends. Wall paints were used in the creation of the artistic ceramic products. The wall paints were processed using melamin burning and scrapping technique and then it was tried out in a technical exploration with paint combination and it resulted in the expected trends. Thus, each of the processes had its own consistency with market.

7 FINAL RESULTS/DISCUSSION

The final results of the creation were earthenware jugs with the colors that followed the predicted emerging world trends in 2015. Followings were the photographs of the products:



Figure 14. The resulting products of the theme Alliance that would be further developed in the finishing process with doft and antique touches. (Photograph: Awaludin, 2014)

It was predicted that earthenwar jugs as interior complementary decoration would be one of the important elements of spatial design in 2015, which put the emphasis on minimalist rooms. Consequently, classic and antique shapes of the theme Alliance would give special impression of togetherness to the interior part of modern houses



Figure 15. Biomimetics

(Photograph: Awaludin, 2014)

The appearance of the resulting artistic ceramic products represented the mimetic aspects of nature such as bee nests, coralline, cocoon, etc. The mimicking of the nature was made by considering antique elements that gave the impression of simplicity and nature loving that represented present life style.



Figure 16. Adroit

(Photograph: Awaludin, 2014)

Adroit was the representation of joy and characterized by sexy and agile looks that gave the impression of living enthusiasm. Global society wanted agility in almost every aspect of their life that gave them joy and fun.



Figure 17. Veracious

(Photograph: Awaludin, 2014)

Antique colors gave the impression of simplicity and honesty and simple shapes gave the impression of sincerity and genuine look. The earthenware jugs above represented social concern and longing for honesty that was increasingly rare.

8 CONCLUSION

The coming design trends that were set by experts or a group of people could be the standard designs in 2015. The prediction that was made in the creation gave the signal that the predicted trends would be able to provide producers with clear direction to the coming trends.

The successful creation of the 25 prototypes was very interesting experience because sometimes a finishing technique was found unwittingly and even it gave the product interesting characteristics. It was certain that the finishing has given new and unique characteristics that were different from those found in the prior products. Additionally, the huge local potential of the raw material and also local technology that has been long mastered by Indonesian craftsmen represented invaluable capital in developing world market. Therefore, it was necessary to annually create new designs in the effort to follow the predicted coming world trends.

REFERENCES

- [1] Bahagijo, Sugeng, ed., (2002), *Globalisasi Menghempas Indonesia*, LP3ES dan Perkumpulan Para Karsa, Jakarta.
- [2] Denzim, Norman K., (1997), *Qualitative Research*, terj. Dariyatno (2009), Pustaka Pelajar, Yogyakarta.
- [3] Fitinline (2014), "Kecenderungan Gaya Hidup 2014", platform untuk belajar tentang Fashion secara online (Fitinline.com). Yogyakarta.
- [4] Kamus Besar Bahasa Indonesia (KBBI), (1991), Departemen Pendidikan dan Kebudayaan, Balai Pustaka, Jakarta. Kamus Ilmiah (2014) Kliping Artikel Ilmiah Indonesia beserta Kamus Ilmiah Online dalam bidang ilmu teknologi, sains dan social, <http://www.kamusilmiah.com>.
- [5] Municipal, Camara (ed), (2009), *Mude: Museu Do Design E Da Moda*, Presselivre-Imprensa Livre S.A Customer Publishing Division Lisboa.
- [6] Naisbitt, John, (1995), *Megatrens Asia: Delapan Megatren Asia yang mengubah Dunia*, PT. Gramedia, Jakarta.
- [7] Raharjo, Timbul (2011), *Globalisasi Seni Kerajinan Keramik Kasongan*, Program Pascasarjana ISI Yogyakarta.
- [8] (2012), *Seni Kriya dan Kerajinan*, Penerbit Program Pascasarjana ISI Yogyakarta, Yogyakarta.
- [9] (2014). "Creative Batik Motif Design Based on Local Cultural Art and Natural, Environments, *ChinaUSA Journal*, Vol.13, No.1, 2014. David Publishing Company, New York, NY 10034.
- [10] Sartika, Khairiyah (2014) "Indonesia Tren Forecasting: Re+Habitat, Tren Fesyen 2015/2016", Artikel, Indonesia Fashion Week, Jakarta.
- [11] Subiharto, Joko, (2013), "Penciptaan Seni Kerajinan Gerabah Komudite Ekspor Berbasis Material Earthenware dan Teknologi Lokal", Penelitian Hibah Bersaing Tahun 1, Ditjen Pendidikan Tinggi (Dikti), Yogyakarta.
- [12] eclectictrens.com, www.pinterest.com, 30 Juni 2014
- [13] <http://veraciousverves.blogspot.com/>, designyoutrust.com, veraciousthoughts.wordpress.com, 30 Juni 2014
- [14] <http://www.squidoo.com>, blacklemag.com, voc.aliasclick.com
- [15] www.the-capsule.com, latimesblogs.latimes.com, suzukigunungsahari.blogspot.com