Ethnic Nuances on Etching Glass Arts as Aesthetic Elements of Interior in Surakarta

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Abstract Glass art with Etching Glass technique is generally made as a limited glass craft for small size souvenirs. With the creativity of craftsmen, glass etching can be developed as a work which functions as an interior aesthetic element with unique characteristic and combined with with ethnic nuances such as batik and classical art that develop in Surakarta. For this reason, aesthetic glass craft designs and improvements on production and marketing efforts are necessary. Using a qualitative methodology approach to several glass craftsmen in Surakarta, the design of etching glass craft was produced as a result of ancient or classic glass craft design development by mixing several glass craft techniques. These resulted glass craft products can be applied on the walls of the room and furniture as aesthetic elements of the interior that can be ordered for international marketing.

Keywords: glass craft, glass etching technique, ethnic nuances, interior aesthetic elements.

INTRODUCTION
Glass art in Indonesia ever experienced booming business in the 1990s. The art of glass etching as aesthetic interior elements is a creative industry work. Various painted glass and glass crafts products produced in the vicinity of Surakarta and in other areas in Indonesia are made both traditionally and in modern way. Alternatively, glass crafts potential in small industry created using simple technique (ethnic nuances etching techniques) that has limited utilization still exists. Therefore, etching glass art is not limited to souvenir products but it can be developed into aesthetic interior elements.

In several areas in Indonesia including Surakarta, ethnic affluence and traditional arts are preserved still. They comprise various ethnic crafts, which are quite dependable in small industries. The potency of etched glass crafts as souvenirs (mementos) and aesthetic interior elements, which has not been handled much in Surakarta, needs to be developed.

The problems gathered based on the research are focused on the existence and potency of the etching technique glass crafts development as products of glass painting arts in Surakarta. It undertakes to refer to ethnic art and culture as genius loci with appropriate design as required, to increase its productivity, and to market it.

There are several generated benefits. It acts as important documentation on the repertoire of ethnic nuances small-industry, especially Javanese ethnic nuances as listed in the shopping tour list found in Department of Industry Bureau and Department of Tourism of Surakarta. It also gives insight to craftsmen and crafts designers in efforts to meet the demand of the wider markets which is not limited to traditional or ethnic nuances crafts only. Instead, they comply with modern quality design standard that oriented to the demand of both local and export consumers.

THEORETICAL REVIEW
Glass etching is a process of eroding the unprotected surface of the glass using strong acid (HCL/hydrochloric acid) to create specific design on the glass surface. As an intaglio method in graphic arts, along with engraving method, etching is the most important technique in the history of the graphic artworks in the West (old master prints) and it still is widely used today. In Europe, the element of glass as crafts materials has been recognized by human since the century before Christ, namely since the eras of Egyptian, Mesopotamian, and Syrian in the form of vessel-shaped art works. Then, it evolved with mosaic processing technique and such (Frederic, 1970:14).

Around 13 Century during the Gothic era, numerous glass artworks were implemented on cathedral to convey the effect of light. (Ballaste, 1992:270). There is also coloring technique in which the color is mixed directly into the glass materials that are shaped using glassblowing technique. This technique was developed in Rome since around the 1920s (Frederic, 1970:24).

Other than Glass Painting technique, Glass and Lead technique, Stained Glass technique, Sand Blasting technique, and others, etched glass crafting is a technique and a media of glass painting art that can be processed as arts as well as crafts. The painting media are clear glass, tinted glass, textured glass, or smooth surface glass. The coloring is executed using various techniques such as painting,
spraying, dusting, screen printing or stamping (Frederic, 1970: 53).

The glass painting process and technique is accustomed to the design concept as well as to the glass forms whether it is glass sheet, tube-shaped glass, bottle-shaped glass and such. The glass coloring is either from the natural color of the glass itself or by color coating as requested by the design. There are three basic media to color glass namely water, diluted alcohol plus glycerin, and turpentine oil (Frederic, 1970: 51).

The Indonesian term of ‘kerajinan’ originated from Indonesian colonial era. According to Yusuf Efendi, Dutchman refers to handy craft as kunstverheid or arts and crafts (Efendi, 1986). Meanwhile, the term craft (handy craft) actually means expertise. Therefore craftsman means an expert who has expertise in certain skills.

Crafts is classified as useful arts, which is always connected to its practical traits/use, related to its shape. In other word, this kind of arts is created to complement the beauty of a particular form only (The Liang Gie, 1976: 65).

Aesthetic element means that it is a visual form of crafts and arts, which has an element of beauty that should be based on the craftsman’s technical ability. Meanwhile, the expression of the feelings which can be deemed as the art is only seen as decorative element or a combination between form, function, and art. In other word this brand of art is regarded as “minor art” (Bernard, 1962: 211).

To expand the glass crafts industry, market coordination is needed. The craftsmen, especially those who created etching glass as interior aesthetic element in Surakarta do not have it yet. It is also important to pay attention to design, quality, and types of raw material used in order to meet the market preferences for the crafts and arts products. (DEPERINDAG, 1997: 1-4, 10).

**RESEARCH METHOD**

The research was held in Surakarta and its surrounding area, since there are abundance ethnic-cultural arts which are derived from Javanese traditional values. It was held in 2016 and the group of etching glass craftsmen was chosen as research population and samples. In the research the population was guided to scientific paradigm, namely their natural setting. The compiled data were taken from the original sources, the researchers were the main instruments, and the purpose of the research was to reach the understanding. The data analysis was conducted inductively, and thus it was a qualitative research. The research strategy used the descriptive one through natural explanation and description of the findings as it was, giving more attention to process rather than to product since the meaning was taken as the basic concern. The research was a case study. Since the research focus had already determined prior to data collection execution, the research was an embedded case study (Sutopo, 1987: ).

The data were taken from various data sources namely: (1) the informants (five etching glass craftsmen), consumers/users, arts and crafts observers (discussions with arts lecturers, cultural observers and community leaders); (2) venues and events consisting of sales studios / workshops and the surrounding environment; archives and documents on etching glass crafts in the forms of texts, pictures, photographs, and other media; (4) the crafts which own Javanese nuances or the like. The data gathering technique were executed through: (1) Interview, (2) Direct Observation, (3) Sampling.

The research unit analysis was every object location where the handy crafts product activity took place. Since the research case encompassed several workshops, the research employed cross site analysis technique using interactive analysis model. The analysis model consisted of three components namely Data Reduction, Data Display, and Verification and Conclusion Drawing.

**RESULT AND DISCUSSION**

Surakarta has potency to be the preservation and development center of Javanese culture in particular and national culture in general, especially those related to cultural tourism and shopping tourism. Various handy crafts products that are characterized by Javanese or Solo ethnicity are created and developed to be sold in souvenir shops.

Craftsmen’s motivation as the basis of the development and growth of the handy crafts products are marked with the number of the craftsmen as also shown in the number of the glass craftsmen who employ various glass painting techniques. The number of the glass craftsmen in Surakarta is still limited, but the development as new handy crafts industry is quite fast since its beginning in around 1993s. Prior to that, several glass craftsmen who has worked in that field for decades only employed glass painting and engraving techniques.

At the beginning, several high school graduates such as Sunarya, Sugiarito, Joko Waskito, and Mery, came out with the idea to start handy crafts venture utilizing used glass / glass remnants. Employing their skills in the art of batik, in the beginning they produced several types of souvenir products such as tissue boxes, business cards boxes, pencil cases, candy boxes, and others. In 2005 some of them tried to develop etched glass crafts intended for aesthetic interior elements such as glass design on glass panes for window, door, ventilation, furniture, creating well ornamented products as aesthetic interior elements.

The process of creating etched glass crafts as an aesthetic interior element goes through several processes which begins with the design to establish the function of aesthetic elements, the quality and type of materials used, techniques / technology in the manufacturing process, and its beauty / aesthetics. On the other hand, the process of creating etched glass crafts can be described in detail as follows:

A. **Design**

Design drawing on a drawing paper is the first stage of the glass crafts productions. Sometimes, copy of existing design is also used. Product measurement as needed by its functions, decorative
ornaments, color and coloring materials, and other supporting materials such as adhesives and frames are determined. Out of the design, a prototype of master product is built, and then its result can be produced en masse as ordered. The popular decorative ornaments refer to ethnic batik motives especially classical or Javanese ones, but more general flora and fauna decorative ornaments are also developed.

B. Aesthetic Interior Element Function

Etched glass handy crafts which was limited only for souvenirs can be developed into aesthetic interior elements for residence as well as for public facility, especially in the form of attractive functional objects as well as small and medium sized ornaments. The main function is as ornament for the interior of the building. The types of etched glass created by the craftsman over the years are still limited to window and door glass pane, interior wall ornament, dressing table, and decorative lamp shade.

C. Quality and Types of Materials

The commonly used material is affordable clear glass material easily found in any hardware store. The main material for etched glass is clear and mirror glass 2mm - 5 mm - 10 mm thick. The material can be found in any hardware store since it is local quality glass. Some works combine local and imported materials.

The main ingredient in etching technique is chemical liquid HCL (hard water) which produces a doff / frosted surface on the glass. Screen printing inks, vinyl sticker sheets, and paraffin wax are used to mask the surface to create the ornament outline. Other necessary material is glass sealant. Paints available in the market are used to give the color; oil paints that are usually used on iron and wood surfaces such as Empra paint, acrylic paint, metallic / silver powder paint with a blend of “A” thinner oil, a kind of “ND” thinner which function is to produce high adhesion between the adhesive paint material with the glass surface.

D. Manufacturing Process Technology.

The manufacturing process for all aforementioned aesthetic interior element products are as follow: The earliest process is to make a design image or pattern on paper as a model that will be copied to the glass surface. The next step is to prepare the glass that is sized according to design requirements. The contour/outline of the design is copied on the glass. This contouring commonly uses paraffin wax, applied by “canting” (a pen like instrument to apply the wax to the material). The next step is to let it dry under the sun for about 20 minutes.

For the coloring process, Candytone paint, “ND” thinner oil, and Impra melamine are mixed. The mixture is applied using “canting klowongan”. The first color should be partially dry before adding another color and so on. After it finishes, it is dried under the sun for 30 to 60 minutes. The longer it is left under the sun, the result will be better and not easily faded.

The next step is the process to assemble the glass into a finished product that will be used as an aesthetic interior element such as window and door glass panes, dressing tables, and decorative lamp shades.

E. Aesthetics.

Proportionally, the presented forms are quite balanced in the terms of their length, width, and height. The Javanese ethnic nuances motifs that are used are adjusted to the glass plane, in order to best present the classical and primitive nuances. The colors tend to be a bit dirty-like / broken, but a bit lighter on some edge to create the light reflection illusion. Many flora and fauna patterns are applied on almost all types of products (fig. 1).

![Figure 1](image1.png)

Figure 1: (position: vertical)
Cabinet glass door adorned with flora and fauna patterns in bright colors and gilded edges (prada),
batik ethnicity nuances, Clear glass, 5 mm thick, etching glass technique,
Dimension : 40 cm x 50 cm

The color in the etched glass crafts is dominated by the gold color (prada) to give a contour on the motifs. The filler colors inside are correlated with the types of motifs. Batik ethnicity nuanced patterns tend to use natural and deep colors (green, brown, red, gold), while flora and fauna patterns tend to use bright colors (red, yellow, pink, green). On the other hand, classic or primitive patterns favor dark / broken color like dark brown, black, maroon, dark green (Fig. 1).

![Figure 2](image2.png)

Figure 2: (Position: vertical)
Etched glass on decorative table, flora and fauna patterns in bright red color.
Mirror 5 mm thick, etching and engraving techniques.
Dimension : 50 cm x 70 cm

Several classical motifs have the vintage nuance with the use of etching technique. The technique results in an impression of moldy and cloudy so the nuance of the product seems old or vintage (figure 2). This nuance is adjusted to the tastes of the foreign consumers / export demands. Several craftsmen produce their crafts by referring to ethnicity elements since their clients are more interested in unique products. For local consumers, the craftsmen tend to produce simple and slightly plain products.
F. Efforts to Increase Productivity

The efforts to increase productivity differ from one craftsman workshop to another in the terms of product quantity and quality. It depends on several aspects; manpower and range of equipment. The number of the manpower on each etching glass workshop in Surakarta ranges between 5 to 35 craftsmen.

The range of equipment on each craftsman workshop differs. Some only own manual equipment, resulted in slow production. Other craftsman workshop has mechanical and electrical equipment used to process their work, and therefore, leads to mass products.

Periodic training and guidance for the workers are expected to improve the craftsman skills. The workshop manager also intensifies work control and carries out quality control to achieve work productivity that can meet the expected quality standard.

G. Optimizing the Product Marketing.

For aesthetic interior element, the marketing system is still based on individual orders. Some entrepreneurs have received large export orders to foreign countries such as Germany, France, Australia, Belgium, the Middle East, The Hague, and others. Some craftsmen cater to export market by supplying products to bigger exporters. Exhibition opportunities in big cities such as Jakarta, Surabaya, and Bandung become a mean of promotion, in which they expect to meet the buyers and have better chance to get orders and to export their products. The use of marketing space in stores, super markets, galleries, including Solo, Sarinah Jakarta, Galeri Bandung, and Danar Hadi batik makes it possible for them to be known by buyers so that their product names and company addresses can be better known in the marketing system. Seeking cooperation with State Owned Enterprise (BUMN) is intended as a step to strengthen capital and marketing network so that it can strengthen the management of such cooperation, among others, with Peruri, Angkasa Pura, and Ventura programs.

DISCUSSION

The majority of the glass craftsmen are young adults who come from poor family and they are mainly school dropouts having high school education at the most. The products that they create show innovative potency and sufficient skills even though they only learn from their predecessors, parents, or friends experiences.

The main driver for the craftsmen to create glass arts and crafts is the wish to keep on trying/entrepreneurship in developing their ability in glass etching arts and crafts, with stimuli from the development of the potential of the tourism world which is derived from the distinctive Javanese traditions potential, especially handy crafts and batik motifs, especially Surakarta batik and its surroundings.

The motivation to establish creative industry business in glass arts and crafts especially as an aesthetic interior element that is interesting for the general public and domestic and foreign tourists, in particular it still refers to the typical elements of the region, especially those with Javanese ethnic nuances such as batik art motifs and classic nuances.

Despite the craftsman’s motivation and great opportunities, sometimes some obstacles still present, especially when getting more orders, the craftsman gets more problems to prepare the capital. As a consequence, the opportunity to increase the production volume does not get enough chance.

Etched glass making as aesthetic interior element passes through several design consideration processes, namely the function of the product as aesthetic interior element, the quality and types of the material used, techniques / technology in the manufacturing process and its beauty / aesthetics aspects.

The process to produce etched glass crafts is generally the same for all craftsman, starting from the design process to the processing technique stages as well as the material selection. The difference lies in the quality of the products due to the availability of equipment, skills, and experience of each craftsman.

Overall, the product type visualization refers to the function of interior aesthetic elements which tend to be practical or ornamental function with attractively shaped proportions. Its design motifs are dominated by ethnic / batik motifs, flora and fauna motifs, and classic and primitive motifs that create the vintage or handmade impression like the moldy or cloudy element on the glass. As a craft, the color composition tends to be batik nuances dominated by golden Prada, yellow, red, green, blue, brown from oil paints, both in transparent and doff color.

To improve the quality and the quantity of the productivity, each craftsman has different tips and strategy, both through continuity of direction and periodic refreshing chances. In general, they are lacking in their work discipline. Therefore, the strategy that is carried out is more on the intensity of work process control by the head of the craftsman or the manager.

The marketing system tends to be based on orders / individual orders and business buyers that reach beyond the region and even buyers in several other countries. In addition to marketing that is handled at home and in the showroom either self-owned or other shops and galleries, the marketing also takes advantage of trade and industry promotion exhibition events in several large cities. The marketing also handled through partnerships with State-owned enterprises (SOE/BUMN) and capital suppliers from banks to reach larger and wider markets.

CONCLUSIONS AND SUGGESTIONS

Based on the problems, objectives, and results of the research above, it can be concluded that: glass arts that has been present in Europe for centuries, can be developed into glass crafts through ethnic designs as small sizes souvenirs as well as aesthetic interior elements. There are some further conclusions,
namely: (1) Craftsmen in the work of etching glass crafts are based on their skills and motivation to create a handy craft industry that is functionally developed and is appealing to both general public and domestic and foreign tourists in particular. At the same time they introduce products that continually refer to regional elements with a Javanese ethnic design such as batik and flora-fauna art motifs; (2) Etching glass-making process technology is generally the same from the design process to the engineering stage, but a mixture of Engraving and Glass painting techniques have been developed to produce a classic or old-fashioned impression; (3) The effort to increase the quantity and quality are generally influenced by lack of work discipline and lack of quality control; (4) The marketing system is based on individual bookings as well as local and foreign businessmen. Marketing utilizes sales venues and promotional exhibitions supported by bank and SOE capital partnerships.

There are several suggestions, namely: (1) The Process needs to be followed up to be developed more functionally, (2) Glass art Etching techniques should continue to refer to the potency of ethnic art culture treasures to establish regional characteristics. (3) The craftsman needs promotional and capital support from related parties in order to develop a wider glass industry creative business.

REFERENCES