Re-Creation of Jombang's Glass Beads

Centaury Harjani
Department of Product Design, Duta Wacana Christian University;
Jl. Dr. Wahidin Sudirohusodo No.5-25, Kotabaru,
Daerah Istimewa Yogyakarta 55224
E-mail: centaury_h@staff.ukdw.ac.id

Abstract
Jombang's glass bead had its fruitfulness in 2000 and is still growing today. However, the current COVID-19 pandemic has forced several Jombang crafters to close their businesses and have stopped producing glass beads since the pandemic hit in 2020. The scarcity of raw materials is also a problem in the making of the glass beads in Jombang. Artisans tend to switch to other, more productive professions, such as raising livestock to survive. Only a few craftsmen can trade the beads by serving typical Kalimantan beads or selling the existing glass beads stock online. This stock needs to be reprocessed into other creations that can be developed during this pandemic. The research method used is observation, literature study, and experiment. Re-creation of glass bead creations that can be done is making mixed media jewellery, where the glass beads could be positioned as the point of interest in the creation like a gemstone. The re-creation of the glass bead leads to products of skills that have the beauty of the craft. The process of working and developing glass bead creations will be carried out independently by the community. Hopefully, this research results can inspire people to be creative using glass beads during the pandemic.

***Keywords**: glass beads, Jombang, re-creation, product of skill*

INTRODUCTION
The product design program has had a glass laboratory since 2015, and it needs to be developed. One of the potential glass crafts that can be studied and applied in this laboratory is the glass bead craft from Gudo, Jombang. Gudo Jombang's Glass Beads had its heyday in 2000 and is still growing today.

The current COVID-19 pandemic has forced several artisans to close their businesses and have stopped producing glass beads for more than a year. Artisans tend to switch professions such as livestock to survive. Some craftsmen can still trade by serving orders for typical Kalimantan beads or selling the remaining glass beads.

This research aims to find ways and alternatives to glass bead products that can be developed during this pandemic. The benefits of this research can be to apply the principles of using tools and techniques for producing Jombang glass beads in the glass materials laboratory of the product design study program and discovering alternative innovations for glass bead re-creation products.

MATERIALS AND METHOD

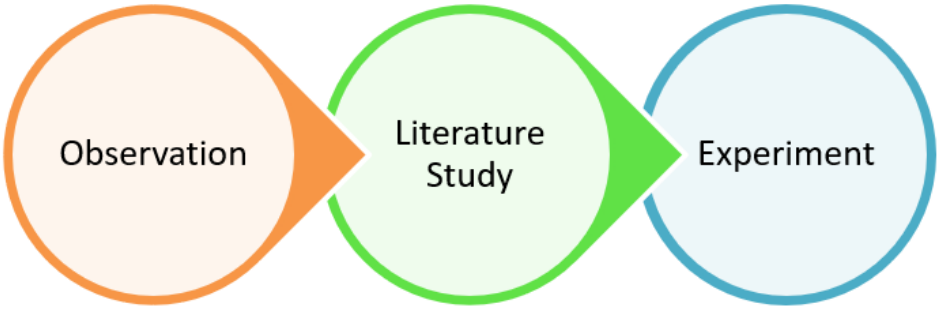

Figure 1. Method/Procedures in the Research

The research method used is observation, literature study, and experiment. Through this method, researchers can find glass bead processing data and discover the principles of glass bead making applied to the glass laboratory of product design programs. The direction of glass bead product development can also be known. Observations were carried out in two ways, the first coming directly to the location of the glass bead craftsman in Jombang and the second through online observation. The literature study directs discovery references to research on the development of glass products that have been done before. From this literature study, there is a finding that several researchers have also developed glass bead products focused on developing new forms of glass beads variant. Jombang glass bead artisans may not all be able to do this. Consequently, experiments in this study focus more on reprocessing existing glass beads for new creations.

FINDINGS/RESULTS

There is an impressive result of my observation; the form principle of processing methods in Jombang is a method developed independently by the craftsman. The Jombang glass bead craftsman, which has been developing since 2000, has local techniques for making glass beads. The production of various glass bead motifs is used local technique has, but the developed glass bead products are still less varied. These craftsmen need the knowledge to develop glass bead products, especially

during this pandemic; artisans need innovation in order to continue to develop glass bead crafts.

Figure 1. Jombang glass artisans make glass beads
Source: Personal documentation, 2021

Based on Noviani Rizky Ridariono (2018), Jombang artisans make glass bead products that are ready to be assembled or already assembled, such as key chains, bracelets, and necklaces. The glass bead village has distributed its products to several areas such as Kalimantan, Toraja, Jakarta, Bali and abroad. The primary material used is glass waste or glass recycling.

Figure 2. Jombang glass beads assembled bracelet
Source: Personal documentation, 2021

Fabulous glass beads still in demand are aesthetic glass beads with Kalimantan cultural values, such as *lamiang* and *tationg* (figure 3). Beads of this type are still in demand and are traded online to foreign countries. Cultural values make this Jombang glass bead more valuable.

Figure 3. IG Indomanik Online promoted Jombang glass beads *Lamiang* and *Tationg*
Source: Personal documentation, 2021

Comparing the results of observations and reference sources from the literature shows that the production technique and the various forms of Jombang glass beads are very close to the forms recorded in the literature.

Figure 5. The process of Jombang Glass Beads Making by artisans and The Examples of Jombang Glass Beads
Source: Sumarah Adhyatman dan Redjeki Arifin, 1996

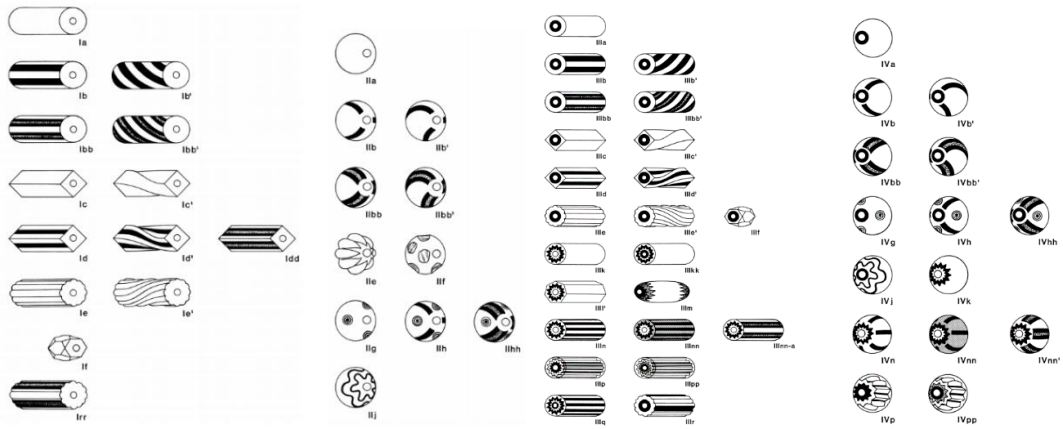

Figure 6. Drawn-Beads: Glass Bead Classification drawing by Dorothea Larsen
Source: Karlis Karklins, 2012

One thing that is very different between the literature data and observations appears in the equipment and the materials used. The essential difference obtained is in the combustion temperature. The tools on Jombang artisans with gas fuel can only reach temperatures around 900^0C while using a torch and adding O2 as fuel; the fuel temperature can reach 1.200^0C. This difference in combustion temperature determines the glass material that can be processed. The higher the combustion temperature, of course, the more types of glass that can be the primary material of beads, while the lower the fuel temperature, the more limited the types of glass that can be processed. Glass materials usually processed by glass bead craftsmen in Jombang are glass plates or glass waste from stained glass crafts. These materials can be added with dye during the melting process before being made into glass bars to be then shaped into glass beads and assembled into various accessories from glass beads.

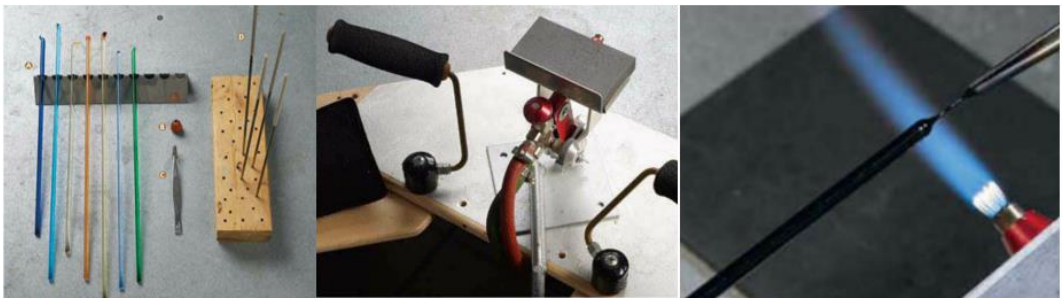

Figure 7. Glass Bead Making Tools and Materials
Source: Jeri L. Warharftig, 2011

The table below is a SWOT analysis of Jombang's glass bead products potential and the recommendation (table 1).

Table 1. Product Analysis of Jombang Glass Beads (source: researcher, 2021)

Product Analysis of Jombang's Glass Beads	
S- (Strengths)	*Skill* - The skills processing glass into various forms of glass bead categories.
W- (Weaknesses)	*Original* - No design development yet.
O- (Opportunities)	*Stock* - Many glasses bead supplies.
T- (Threats)	*Material* - Rare raw materials.
RECOMMENDATION	**-Development of design focus on glass bead supplies.** **-Glass beads are positioned as precious stones (aesthetic point interest).** **-Mix materials.**

DISCUSSION

Agate artisans from Solo (Central Java) was the pioneers who started making Jombang glass beads using tools assembled by the local Jombang community. The craftsmen made the tools by themselves, ranging from glass burning stoves, liquid beads release, and forming glass beads. It takes two months to master basic glass bead formation, and it takes more time to become more skilled at decorating various other glass beads. Variations in the shape of Jombang glass beads are very diverse, with the characteristics of Kalimantan and Toraja. Jombang's craftsman skills in making motifs on various forms of glass beads have been very honed. The glass used is used glass plates or waste from stained glass artisans. The glass used is only particular because the combustion temperature of the furnace used is not as high as using torches. However, technically, the people of Jombang have the skills to make a variety of beautiful glass beads.

Yudha Rismawan Puryanto and Eko Agus Basuki Oemar (2016) carry out innovation and creativity by developing bead designs that combine round beads and actual animal shapes, such as fish, birds, and turtles for jewellery. This decision is like the SWOT analysis recommendation. A suitable glass bead product to get re-creation is a Jewellery product. Therefore the experiment was carried out based on this recommendations from the SWOT analysis. Similar products already exist in the market need to be considered to develop products. Similar products need to be known in advance to determine the direction of glass bead product development, especially accessories/jewellery.

Figure 8. Red *Abon* Glass Bead Strand Development
Source: Personal documentation, 2021

Figure 9. Applique of Red *Abon* Glass Beads as Mask Decoration
Source: Personal documentation, 2021

Figure 10. Black *Abon* Glass Bead Strand Development
Source: Personal documentation, 2021

Figure 11. Mix-Pego Glass Bead Strand Development
Source: Personal documentation, 2021

Figure 12. Mix-Pego Glass Bead Strand Development
Source: Personal documentation, 2021

Figure 13. Colour Strip Glass Bead Strand Development
Source: Personal documentation, 2021

Figure 14. Blue Glass Bead Strand Development
Source: Personal documentation, 2021

CONCLUSION

Jewellery was selected to focus on products re-creations because many of the processed glass beads in Jombang are made into decorative products. Jombang glass beads have colour and beauty that can be juxtaposed with precious stones for titivating. Everyday items whose purpose is to beautify themselves are suitable targets for the Re-creation of Jombang glass beads. This research found that the combination of materials can enrich the diversification of Jombang glass beads products. The re-creation of the glass bead leads to products of skills that have the beauty of the craft. It is related to Paul statement "*for the beauty of workmanship, materials, and artistic devices, apart from the religious meanings*, to be found in the products of what was then called *art* (i.e. products of skill)".

REFERENCES

Adhyatman, Sumarah dan Redjeki Arifin. 1996. "*Manik-manik di Indonesia*." Yogyakarta: Penerbit Djambatan.

Karklins, Karlis. 2012. "Guide to the Description and Classification of Glass Beads Found in the Americas." *Beads: Journal of the Society of Bead Researchers*, Vol.24.

Puryanto, Yudha Rismawan dan Eko Agus Basuki Oemar. 2016. "Pengembangan Desain Kerajinan Manik-Manik Kacadi Galeri Griya Manik Gudo Jombang." *Jurnal Pendidikan Seni Rupa*, Volume 04 Nomor 03.

Mattick, Paul. 2003. "*Art is Its Time: Theories and Practices of Modern Aesthetics*." London: Routledge.

Ridariono, Noviani Rizky. 2018. "Perancangan Identitas Visual Kampung Manik-Manik Kaca di Desa Plumbon Gambang Kabupaten Jombang sebagai Upaya Meningkatkan Brand Awareness." *Skripsi*. Surabaya: Stikom.

Warhaftig, Jeri L. 2011. "*Creating Glass Beads: a new workshop to expand your beginner skills and develop your artistic voice*." New York: An Imprint of Sterling Publishing Co., Inc.