

**Quantity And Quality Of Production The Asri Art Bone Waste Carving**

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**ABSTRACT**

Asri art bone waste carving is one of the carving cow and buffalo bone waste which is an icon of Tampaksiring Village. Some problems faced by Asri are not having a place to store raw materials, the quantity of production is still relatively low, and product quality control is still lacking. To overcome these problems, the solutions provided are making raw material storage, providing production equipment, as well as making and assisting in the implementation of Standard Operating Procedures for production. The results of this activity are the quality of Asri's raw materials to be better maintained, the quantity of Asri's production has increased, and the quality of the products produced can be controlled.

**Keywords:** Asri Art Bone Waste Carving, Quantity, Quality, Production

**INTRODUCTION**

The natural beauty and culture of Bali Island make it one of the world's tourist paradise. Art is one of the biggest attractions for travelers who come to Bali, ranging from dance, sculpture, carving and painting. Carving or sculpture in the media of stone and wood is certainly common, but it is different with the work of art produced with bone media that is fairly unique. The skilled hands from residents in Tampaksiring Village, all bone parts can be turned into bone carving crafts that are of high selling value and make money. The product produced from bone carving handicraft is a regional superior product in Tampaksiring Village, Gianyar, Bali. According to Gianyar Public Relations, namely Cok Pariwirta (2014), "Ivory carving and bone typical of Tampaksiring Village, is one of the flagship who has become an icon of Tampaksiring Village". Crafts made from animal bones like those made by Tampaksiring people, are very popular with tourists and export markets.

According to the Head of the Bali Provincial Government Public Relations Bureau (2015), "Foreign exchange earnings from carving handicrafts made from bone is quite stable because the enthusiasts are also collectors of domestic and foreign art objects". As reported in the daily Nusa Bali (February 28, 2018) the volume and value of exports of bone crafts experienced a positive trend, namely in 2016 as many as 146 thousand pieces worth 413 thousand US dollars and in 2017 rose to 242 thousand pieces worth 684 thousand US dollars. According to the Chairman of the Indonesian Handycraft Entrepreneurs Association I Ketut Darma Siadja, by far the largest market for bone carving is the United States (Nusa Bali, 2018). Indeed the supply of bone raw material for carving is available abundance in Indonesia. Referring data from the Central Statistics Agency (2016), there are more than 16 million cow whose habitats are in Indonesia. Of that population, 7.22%, more precisely 1,16 million cow are slaughtered to meet national beef demand. With the slaughter of more than a million cows each year, it can be imagined how many cows' bones will become waste if not utilized properly.

One of the bone carving craftsmen business that is developing and known by the people of Tampaksiring Village is Asri, which was managed by Mr. I Wayan Suardana from 1993. Asri art bone waste carving is located at Br. Mantring, Tampaksiring Village, Gianyar Regency, Bali. The main raw material for making Asri art bone carving is cow and buffalo bone waste obtained from slaughterhouses in Tampaksiring Village. Cattle that are slaughtered in Tampaksiring Village are Balinese Cows, which generally have small bone sizes that can only be used as small accessories like necklaces, earrings, rings or any form of decoration. In connection with the need for bone raw materials for carving handicrafts with large sizes, such as cow or buffalo head displays, the Asri also brings bone raw materials from other regions such as from Darmasaba, Badung, Bali and Sumatra Island.

Asri has currently produced around hundreds types of bone carving crafts per month. The main products are bone carving crafts with various shapes and sizes made from cow and buffalo bone waste. The product produced is usually an order from the customer and is also used as store stock. Asri's product sales are mostly done in the showroom and most of the buyers are foreign tourists who are enjoying a vacation in Tampaksiring. From this tourist, he will tell his country about the superiority of bone carving handicraft products produced by Asri, so that the marketing process relies more on word of mouth. With this, UKM Asri can also sell overseas, by relying on relationships that have been impressed with the results of Asri art bone waste carving.

Asri has been established for approximately 26 years, and in the course of the business, Asri does not yet have a representative storage room for raw materials. The process of storage of Asri raw materials is still not optimal. Bone waste raw material is still just left on the floor in an open space. In the rainy season bone raw materials will be easily exposed to water because the bones are placed outside the room and allowed to be in direct contact with the ground so that the bones can be easily damaged, smelly and the quality of raw materials is no longer good. In addition to not having a place to store raw materials, another problem faced by Asri in the production activities carried out by Asri, the tools used have passed the economic age, so the quality of the output produced is less than optimal.

The equipment used is still simple and limited, so it is unable to sustain production with high capacity. These tools are foredom machines, grinding machines, bone piercing machines, drill bits, and sanding machines. Like for example a grinding machine that is more than 7 years old, so the results of cutting bones become less perfect, which makes the grinding process requires a longer time. The drill bit used is also rarely replaced and is often damaged, causing bone carving results often do not match the desired model. In the production process section of Asri do not yet have and apply standard operational procedures at each stage of its production, so the quality control that should have been carried out from the beginning did not run well. This will have an impact on the quality of the product produced.

Seeing the business potential of Asri, and the presence of several problems faced, it is felt necessary to provide business assistance and assistance from the government in this case DRPM DIKTI through the University of Mahasaraswati Denpasar, to be able to improve the quality and quantity of production from carving craft businesses Asri art bone waste, so that the production capacity and profitability of Asri also increased. The purpose of this community service activity at UKM Asri, is to improve the quality and quantity of Asri bone carving handicraft production by providing assistance in making storage places for better and representative raw materials, assistance in the procurement of production equipment and by providing standard operational procedures.

## **METHOD**

The method applied to transfer science and technology needed by Asri is to provide assistance by placing bussiness in the position of science, technology, economics on a global

scale. Based on the problems faced by Asri, it can be elaborated the selection of solutions (IPTEKS) given to overcome the priority problems faced by Asri that is:

1. In overcoming the problem of Asri that do not yet have a representative raw material storage area, solutions can be provided in the form of procurement and assistance in the supply of materials for the construction of storage warehouses.
2. Production equipment is limited and some have passed the economic age, so solutions can be given in the form of assistance in the procurement of production equipment and assistance in the use of production equipment.
3. Asri do not yet have to implemented a standard operational procedures at each stage of their production, the solution that can be given is in the form of assistance in making and implementing standard operational procedures in accordance with the stages of production.

In this activity to be able to realize the solutions offered are also very necessary the existence of time participation from Asri in every activity carried out as in the manufacture of operational standards for the production of parts. To determine the effectiveness of the activities before and after the activities carried out pre-test and post-test for all participants directly involved.

## **RESULTS AND DISCUSSION**

Community service is an element of the Tridharma of Higher Education. The implementation team of community service activities consists of four lecturers with each different field of science. The area of expertise of the team consists of the fields of economic development, management economics, law and engineering. The implementing team involved has sufficient experience in the field of community service. This community service is carried out at Asri, which is engaged in the business of making carving handicrafts from cow and buffalo bone waste. Asri is located at Br. Mantring, Tampaksiring, Gianyar, Bali. Activities in this service program begin with a meeting with Asri to discuss the service activities needed and to be carried out, as well as discussing the schedule and involvement of Asri in each program implementation. Activities that have been carried out at Asri are as follows:

### **1. Making Room (Warehouse) Storage of Raw Materials**

The availability of raw materials for bone carving crafts has not been accompanied by having a representative storage of raw materials. Bone raw material owned by Asri, is still just placed in an open space. In the rainy season bone raw materials will be easily exposed to water because the bones are placed outside the room and left in direct contact with the ground, so that the bones are easily damaged, smelly and the quality of raw materials is no longer good. The dedication team provides a solution to this problem by making a representative storage place or warehouse, avoiding heat and rain, so that the raw materials can be accommodated in one large room. With the solution provided by this service team, the quality of raw materials from Asri bone carving crafts can be better maintained and can increase the efficiency of time ordering raw materials which are usually done many times before having a storage place for raw materials. With time efficiency Asri can also reduce the cost of shipping raw materials imported from outside the Tampaksiring Village area.

### **2. Rejuvenation and Addition Types Of Production Equipment**

The current production capacity is still relatively low, this is due to the equipment used which has an economic age that has passed, so that the capacity and quality of the machine decreases and the number of existing machines is also limited, so it cannot support when the amount of production is high. Some equipment such as squatting and grinding machines are still rented from other parties. This has an impact on the productivity of these machines in producing products, causing energy waste, time and output results from the machine are also less than optimal. Like for example a grinding

machine that is more than 7 years old, so the results of cutting bones become less perfect, which makes the grinding process requires a longer time. The drill bits are rarely replaced and often suffer damage, causing bone carvings often do not fit the desired model, so it takes longer when sanding.

Based on this, the service team provided production equipment assistance in the form of bone cutting machines (grinding), bone punching machines (squatting machines), bone carving tools (drill bits), sanding machines, and bone engraving machines (Freedom). The following is a photo of the surrender of production equipment to Asri.



In figure 1 above is a photo of the surrender of production equipment such as grinding machines, squatting machines, sanding machines, and 8 freedom to Asri. With the addition of new production equipment from the service team, Asri can further increase its production capacity and can receive more bone carving handicraft orders. In addition to increased production capacity, of course, the presence of this production equipment will also be very useful in improving the quality of production of products produced by Asri.

### **3. Making the Standard Operational Procedure for the Production Section**

In the production process, it has not yet implemented the standard operational procedure at each stage of the production, so the quality control that should have been carried out from the beginning did not go well. To overcome this problem, the service team provided a solution in the form of assistance in making standard operational procedure. Standard operational procedure in Asri is made by first coordinating with the owner of Asri and observing the process that has been carried out during the production stages, so that the existing standard operational procedure is in accordance with the provisions and needs of the business unit. Standard operational procedure made aim to:

- a. As a standard way for employees to complete their tasks.
- b. Reducing the level of errors and omissions that may be done by employees in carrying out tasks.
- c. Improve the efficiency and effectiveness of the implementation of the duties and responsibilities of individual employees and business units as a whole.
- d. Helping employees become more independent and not dependent on management intervention, so that leadership involvement can be minimized.



- e. With the standard operational procedure for the production department, the quality of products produced by Asri can be more controlled.

The dedication activities that have been carried out by the dedication team have a significant impact on Asri's product quality and work productivity and provide direct benefits that are high motivation and enthusiasm from Asri's management in advancing the business so that later it will become a business capable of producing bone-crafted handicraft products more accepted nationally and internationally and ultimately can contribute to increased production, quality and turnover.

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the activities that have been carried out, it can be concluded that the devotion team has carried out activities namely rejuvenation and addition of production equipment such as bone cutting machines (grinding), bone punching machines (squatting machines), bone carving tools (drill bits), sanding machines , and bone carving machines (Foredom), the making of rooms (warehouses) where raw materials are stored, and the service team has also provided assistance in making Standard Operational Procedures at each stage of Asri bone carving handicraft production.

Based on all activities that have been carried out, it is recommended to Asri to always apply high work discipline to employees and always work according to the Standard Operating Procedures that have been set, so that what the business unit has planned can run according to plan.

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