



# A COMPARATIVE STUDY OF BRASS AND BELL METAL

## PRODUCTS WITH ITS SUBSTITUTES

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**ABSTRACT** *They study makes a comparasion of the cost of Brass and Bell metal products with its substitute and makes a detail study of the available substitute of brass and bell metal product. It also highlights the importance of brass and bell metal products and suggests modernization and product diversification of the craft.*

**KEYWORDS** *Rukha, Baitha, Basundhara, Darpani, Kunda*

**Introduction**

India has a history of rich and diverse cultural tradition. Among its diversity, the legacy of India's craft tradition always enjoys a special distinction owing to its beauty, dignity, form, style and aesthetics. Handicrafts in India are not just objects of utility or decoration, it is a part and parcel of the socio-economic and religious life of thousands of the craft communities spread across the country. To write about Indian Handicrafts is almost writing about the country itself. It is so vast, complex and colorful and yet with a simplicity and charm, difficult to attain under comparable conditions. It is well recognized that Indian handicrafts have very ancient origin and are of high quality. They have customarily received royal and aristocratic patronage and handicrafts artisans were honored by other communities.

Brass and bell metal industries in Odisha, India are intermingled with social and cultural heritage, geographical background and mode of living. In short, they bear a distinctive mark of the place to which the artisan belongs Brass and bell metal have been the most commonly used metals for the artisans of Odisha. Traditional utensils and fancy articles designed by these artisans are found in every household of Odia. They are used in temples and houses for religious and other purposes. The flexible brass fish of Ganjam, the cute brass figurine of Khalisahi, the brass and bell metal wares of cuttack, Khurda, Dhenkanal, Jajpur and Kantilo are typical examples of Orissa's metal ware, presenting a syntax of beauty and utility. The fine engravings on brass and bell metal utensils, bronze bangles and pots are important aspects of Odishan art. Artefacts made of metal, particularly brass and metal

find pride of place in the homes of Odisha. Beautiful lamps and lampstands are used during the worship of deities. Rice-measuring bowls made of brass are used in many homes. The artisans also make elephants and horses from brass and decorate them with intricate designs. Containers of brass for betel-chewers are designed both to be useful and ornamental. There are household articles and utensils made out of brass and bell metal and they are of different shapes and sizes. The brass were of Odisha reveals the high workmanship of the artisans and their flair innovation.

However, these industries have been facing a gradual decline overtime which is sharply contradicting the goal of industrialisation. The reason for this decline may be attributed to many factors such as scarcity of raw materials, lack of marketing consortia and brand image support, lack of support for finance and working capital, lack of infrastructural facilities etc. But one of the most important factor is the availability of substitute products. This traditional craft received a great set-back because of shift of demand for steel, aluminium and plastic products.

This paper makes a comparative study of Brass and Bell metal products with substitute products, one of the most important

factor that cause a shift in demand for steel, aluminium and plastic products that buying of brass and bell metal products becomes costly in comparison with its substitutes.

The following table makes a comparasion of the cost of the Brass and bell metal products with its substitutes.

**Comparative cost of the substitute Goods**

Year	Brass per kg.	Bell metal per kg.	Steel per kg.	Aluminium per kg.	Plastic per kg.	Fibre per kg.
1990-95	130	230	90	120	30 and above based on quality	40 and above based on quality
1995-2000	160	275	125	160	40 and above based on quality	50 and above based on quality
2000-05	220	350	150	200	50 and above based on quality	60 and above based on quality
2005-10	300	450	180	220	60 and above based on quality	70and above based on quality
2010-15	600	1100	200	250	90 and above based on quality	100 and above based on quality
2016-17	500	1050	220-350	270	100 and above based on quality	120 and above based on quality

(Source : Field survey)

The above table indicates that the cost of 1 kg material of substitute goods like steel and aluminium in comparison to Brass and Bell metal products is less and the substitute goods like plastic and fibre are sold in the market according to its quality. Similarly per peice, sometimes all the products of plastic and fibre is sold in the market. Consumers are attracted towards these products due to its colour, portability and as these are very light to handle. After use there availability of half cost to aluminium and steel when these are again sold in the market, as a result of which people of our state have diverted their minds easily to use such products. The position of the substitute products in comparison to Brass and Bell metal are as follows:

**Position of substitute products in comparison to Brass and Bell metal.**

Products	Positions
Steel	1st
Aluminium	2nd
Silver	3rd
Plastic	4th
Fibre	5th
Brass	6th
Bell metal	7th

**(Source : Field Survey)**

The above table shows that there is a preference for steel and aluminium products in comparison to Brass and Bell metal and in some extent also plastic and fibre among the consumers in their daily uses.

The following table explain the availability of similar products of substitute Goods of Brass and Bell Metal product.

**Brass and Bell Metal products and Similar Products of Substitute Goods**

Products of Brass and Bell metal	Substitute Goods for the same product
Big Honda (Brass)	Topia of Aluminium
Press Gara (Brass)	Gara of Aluminium
Rukha (Brass)	Rukha of Aluminium and Steel
Baitha (Brass)	Baitha of Aluminium, Steel and Plastic
Phula Dala (Brass)	Phula dala (Aluminium and Steel)
Puja Thalia (Brass)	Puja Thalia (Steel, Silver)
Thali (Bell Metal)	Tray (Steel, Aluminium & Fibre)
Gina, Tatia	Gina (Steel, Aluminium and Fibre)
Do Dharia Thali (Brass)	No substitute
Gable Thali	No substitute
Tamba Bata (Brass)	Bata (Steel, Aluminium, Plastic and Fibre)
Tamba Basundhara (meant for Lord Mahadev)	Basundhara by steel and aluminium
Panchupatri (Brass)	Panchupatri (Steel Aluminium)
Abhisekh Patri (Brass)	Abhisekh Patri (Steel and Aluminium)
Gomukha Patri (Brass)	Gomukha Patri (Steel and Aluminium)
Gaya Patri (Brass)	Gaya Patri (Aluminium)
Nine Khandia Gadu (Brass) (Meant for Lord Bishnu) 108, 54 and 27 Alati	No substitute

(Brass and Bell metal)	108, 54 & 27 Alati (Steel and Silver)
Naga, God & Goddess (Brass)	Naga, God (Steel, Aluminium)
Darpani, Khatuli, Kahali (Brass)	Darpani, Khatuli, Kahali (Steel and Aluminium)
Chunakhai, Pikadani (Brass)	Chunakhai, Pikadani (Steel and Aluminium)

Glass, Jug, Dhala (Bell Metal)	Glass, Jug, Dhala (Aluminium and Steel)
Masala, Nalua, Dosakha Masal (Bell Metal)	Masala, Nalua, Dosakha Masal (Aluminium and Steel)
Kirati, Dhanusara (Brass) (meant for Lord Ram and Laxman)	Kirati, Dhanusara (Aluminium and Steel)
Mukha, Kunda and rounded or half circle Rukha (Brass)	Mukha, Kunda and Rounded orhalf circle Rukha (Aluminium and Steel)
Pana Peda, Screws pins and other machinery parts (Brass)	Pana peda, Screws, pins and other machinery parts (Silver, steel and Aluminium)
Tukuna, Atika, Piture (Brass)	Tukuna, Atika, piture (Aluminium)
Mana (meant for Goddess Laxmi (Brass)	Mana (Aluminium & Steel)
Ghanta, Bells (Bell metal)	No substitute
Gini Jhanja (Bell metal)	No substitute
Tasala, Lota, Danki, Chatu, Palam Palam Jali (Brass)	Tasala, Lota, Danki Chatu, Palam Jali Chakra, Kalas (Aluminium Steel)
Chakra, Kalas (Brass)	Steel)
Bowl, basin, Ladle (Brass)	Bowl, basin, ladle, (Aluminium and Steel)
Bullet, Cashket (Brass)	Bullet, Cashket (Steel and Aluminium)
Weeding Hook, Razor scissors (Brass)	Wedding Hook, Razor Scissors (Aluminium and Steel)
Spiton, Thurible, Lock and Pad lock (Brass)	Spiton, Thurible, Lock and Pad lock (Steel)
Pipe stack, Jingling bells, keys (brass)	pipestach, Jinglings bells keys (steel and Aluminium)

**(Source : Field Survery)**

From the above table we found that there is no substitute for Gable Thali and Nine Khandia Gadu of Brass and Ghanta, Bells, Gini, Jhanja of Bell Metal products and in all other cases there are availabilities of substitute goods of steel and aluminium.

Besides, bell metal products are traditionally used as cooking ware and kitchen wares. The reason is that this alloy has several medicinal properties which the food or water kept in them acquires. There medicinal properties are derived from copper and Zinc which are dominant by present in the bell metal alloy but not in its substitute products. It is believed that regular use of these bell metal products have long term effects towards preventing and relieving several ailments like gastric, diabetics, allergies, etc.

Brass and bell metal industries in India are intermingled with social and cultural heritage. Every family tries to maintain those articles as marks of their cultural identity. They are mostly used in religious and rituals and marriage ceremonies. Bell and brass metal products are given to brides as endowments. There is a saying among the people that "Kansa Dhana Nida Dhana, Godhana Nidhana". This saying implies that these products act as a store of value for the people. In the villages and in terms of the rural economy, these articles can easily be pawned for borrowing money at times of need. The old, broken and used items can always be exchanged at reduced rate for new items from metal ware vendor even sometimes for cash.

The problems and prospects of brass and bell metal industry is an integral part of our cultural heritage and directly related to the economic activities of the rural people. There is no doubt that with the modernization and product diversification and training of artisans brass and bell metal industry shall be a milestone for a glorious future of the handicrafts in India. In the context of rapid changes and increasing competition, cottage industries would need improved access and better skills to utilize information for their successful adaptations.