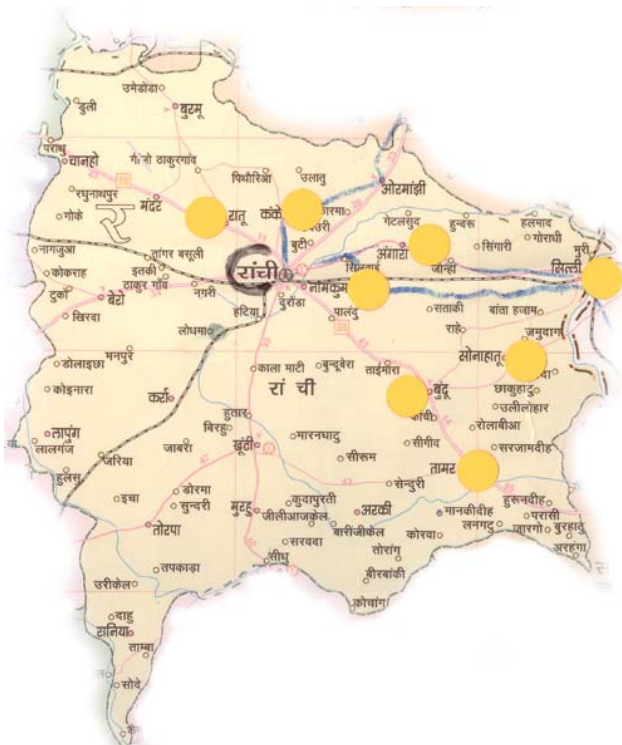




Post Workshop Report  
for  
A Seven Day Workshop  
(7<sup>th</sup>-14<sup>th</sup> December 2010)  
on tools, Small Machines,  
Finishes and New Product  
Design for Bamboo Craft  
at Hehal, Ranchi



# Jharkhand Ranchi

## Introduction

The present workshop on Bamboo Craft was conducted as part of Training cum Technology Assistance project undertaken by Bambu S of Industrial Design Centre- IDC, IIT Bombay, Mumbai.

The workshop was organized by the office of the DC (District Commissioner) Ranchi, Shri K K Soan, at the SIRD south campus in Hehal, and was coordinated by DPO, Shri Anjani Kumar.

The participants were drawn from various craft clusters of the region by the district administration.

Five sets of moulds of each product was given to the DPO for further work. Talks, power point presentations, case studies along with other documentation made sure that the craftspersons enthusiastically absorbed the training inputs and use them in their craft practices.

The team conducting the workshop apart from Prof Rao included Prof R Sandesh, Shri Rudrapal, Smt Gangamma Gaud, Shri Krishna Suthar, Shri Mahesh Kadam and IDC students based in Ranchi, Sanjukta Das and Aman Xaxa.



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## 7 Day Workshop on Tools, Small Machines Finishes and New Products Design at Hehal, Ranchi

<b>Date:</b>	7 <sup>th</sup> -14 <sup>th</sup> December 2010	
<b>Organizer:</b>	Office of the DC, Ranchi	
<b>Conducted By:</b>	Bambu Studio, Industrial Design Centre , IIT-Bombay	
<b>Resource Persons:</b>	Prof. A. G. Rao (AGR)	Team Leader, Designer
	Prof. R. Sandesh (RS)	Designer
	Shri. Niranjan Rudrapaul (RP)	Skilled Craft Instructor
	Smt. Gangamma (GMA)	Skilled Craft Instructor
	Shri. Krishna Suthar (KS)	Mould Maker Trainer
	Shri Mahesh Kadam (MK)	Mould Maker Trainer

### SEVEN DAYS PROGRAMME:

<b>Day-1</b>	<b>7<sup>th</sup> Dec (Tuesday)</b>	
9 to 10 am	Registration	
10 to 11 am	Inauguration	
	New scope for Bamboo Craft	- AGR
11 to 1 pm	Introduction to Toolkit Tools (Video)	- GMA, RP, KS, MK
	+ Machines Demo + Practice	
1 to 2 pm	Lunch Break	
2 to 3 pm	Practice Session + Groups Formation (A,B,C)	- AGR, RS, RR
3 to 5 pm	Preparing Strips for the products as per the group requirements.	- GMA, RP, KS, MK
<b>Day-2</b>	<b>8<sup>th</sup> Dec (Wednesday)</b>	
9 to 10 am	Treatment for Fungus + Insects	- AGR, RP, GMA, RS
	+ Natural Dye Colouring	
10 to 12 pm	Katha + Haldi + Tea colour demo	- GMA, RP, KS, MK
12 to 1 pm	Borax, Boric Acid treatment demo	- GMA, RP, KS, MK
1 to 2 pm	Lunch Break	
2 to 4 pm	Combination -1, Group work	- GMA, RP, KS, MK, RR4 to 5 pm
	Review	- AGR, GMA, RP, MK, RS, R
<b>Day-3</b>	<b>9<sup>th</sup> Dec (Thursday)</b>	
9 to 10 am	Use of Moulds, Jigs, Fixture	- AGR, RS

10 to 1 am	Combination - 1	- GMA, RP, KS, MK, RR
1 to 2 pm	Lunch Break	
2 to 4 pm	Combination -1, Group work	- GMA, RP, KS, MK, RR
4 to 5 pm	Review	- AGR, GMA, RP, KS, MK, RS, RR

**Day – 4                      10<sup>th</sup> Dec (Friday)**

<b>9 to 1 pm</b>	<b>Combination -2</b>	- GMA, RP, KS, MK, RR
1 to 2 pm	Lunch Break	
2 to 4 pm	Combination- 2	- GMA, RP, KS, MK, RR
4 to 5 pm	Review	- AGR, GMA, RP, KS, MK, RS, RR

**Day –5                      11<sup>th</sup> Dec (Saturday)**

9 to 10 am	Production planning, costing	- AGR, RS
10 to 1 pm	Combination – 2, finishing work	- GMA, RP, KS, MK, RR
1 to 2 pm	Lunch Break	
2 to 4 pm	Combination - 3	- GMA, RP, KS, MK, RR
4 to 5 pm	Review	- AGR, GMA, RP, KS, MK, RS, RR

**12<sup>th</sup> Dec (Sunday) Holiday**

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**Day – 6                      13<sup>th</sup> Dec (Monday)**

9 to 10 am	Finishing of all products	- AGR, RS, RP, KS, GMA, RR
10 to 1 pm	Combination -3	- GMA, RP, KS, MK, RR
1 to 2 pm	Lunch Break	
2 to 4 pm	Combination - 3	- GMA, RP, KS, MK, RR
4 to 5 pm	Review	- AGR, GMA, RP, KS, MK, RS, RR

**Day – 7                      14<sup>th</sup> Dec (Tuesday)**

9 to 10 am	Tool maintenance talk + practice	- AGR, RS, GMA, RP, KS, MK, RR
10 to 1 pm	Finishing of all products	- GMA, RP, KS, MK, RR
	Lunch Break	
2 to 5 pm	Certificate Distribution and Review	- AGR, GMA, RP, KS, MK, RS, RR

## Trainers, Groups and Products

Participant groups: A, B and C

**Gangamma**

**Rudrapaul**

**Krishna/Mahesh**

### **Combination 1**

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**(A)**Flower Basket

**(B)**Oval Tray

**(C)**Tea coaster, Small Bowl

### **Combination 2**

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**(C)**Gift Basket

**(A)**Circular Tray

**(B)**Tea Coaster, Small Bowl

### **Combination 3**

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**(B)**Multipurpose Basket

**(C)**Oval Tray

**(A)**Coil Plate

### **Group Choice Products:**

Shopping bag

Roli Lamp

Hair Clip

**The following activities were undertaken as part of the workshop:**

Distribution of Workshop kits for each participant

Distribution of a Mini Tool Kit containing a set of useful tools for the workshop, to each participant.

Bamboo Treatment and Colouring processes using Natural Dyes:

Bamboo treatment using boric acid, borax and alum

Bamboo dyeing using Haldi, Tea, Katha and Alta.

Use of Jig, Moulds and Fixtures

Tool Maintenance Techniques

Strip estimation and process planning for each product

Costing and material estimation for each product

Lectures and power point presentations using audio visuals.

An honorarium of Rs 100/- per day per person was paid to all participants.

## Participants

Participants from the following block of Ranchi were selected for the workshop

Tamar (7): Lodhma, Mankidih

Sonahatu ((2): Murutdih

Kanke (4): Sugnu

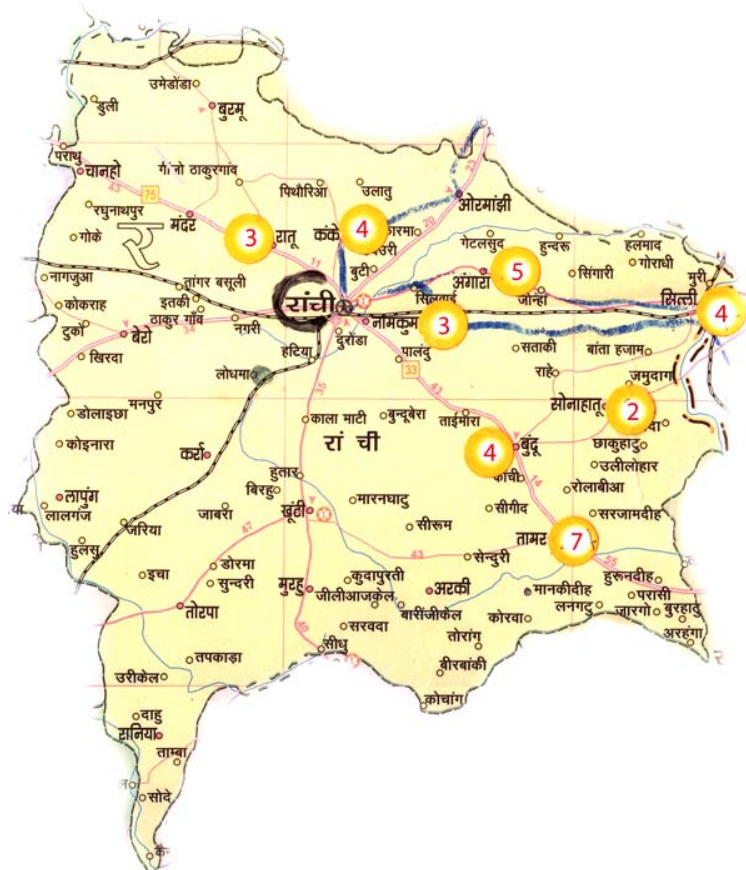
Bundu (4): Chitodih

Namkom (3): Obdiah

Angada (5) : Bedwari

Ratu (3) : Tirla-Navatoli

Silli (4) : Tirla



**TAMAR (7)**



Madan Mahli



Radhika Devi



Somwari Devi



Puski Devi



Ajay Mahli



Duvraj Mahli



Raman Mahli

**RATU (3)**



Arjun Mahli



Dashrath Mahli



Munni Mahli

**NAMKOM (3)**



Soni Devi



Asha Devi



Radho Devi

**SILLI (4)**



Anita Devi



Rojo Devi



Baisakhi Devi



Malo Devi

**BUNDU (4)**



Sarita Devi



Suresh Mahli



Rohini Mahli



Dhaneshwar Mahli

**ANGADA (5)**



Usha Devi



Sushila Devi



Kamal Devi



Samli Devi



Budhan Devi

**SONAHATU (2)**



Alka Mahli



Sambhu Mahli

**KANKE (4)**



Tila Devi



Kamal Mahli



Akli Devi



Surendra Mahli

## Innauguration of the workshop



Shri Anjani Kumar presided over the inaugural session. Mini Tool Kits and Workshop Kits were distributed to each of the 32 participants.



The participants were given information regarding use of the various tools in the tool kits. The trainers also gave demonstrations of various functions of the tools.



The participants were divided into three groups to develop products as indicated in the workshop schedule.

The participants are seen preparing material to be used for making the products.

## Treatment and colouring of Bamboo with natural dyes

Demonstrations for treatment and colouring using natural dyes.

Treatment of bamboo using borax and boric acid was demonstrated along with dyeing using natural dyes like turmeric and alta.



**Use of tools and small machines:  
Width Sizer, Sander and Thickness Gauge**

The participants are seen using the width sizer to obtain strips of the same width, and the hand operated sanding machine. The machine is an easily usable sander to finish small products with the use of electricity. The thickness gauge is useful to measure the thickness and width of the strips.



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## Feedback session

Feedback sessions were organized during the course of the workshop to interact with the participants regarding problems faced by them in developing the products and other related issues.

Each group had to present their work and discuss the entire process of making the products. This discussion brought out issues like defects in the products and their effect of the saleability of the product



**Product development, review session , surface finishing , costing and material estimation sessions.**

The inputs in the workshop included a session on product planning , costing and material estimation for the products being developed. This also helped at arriving a fixing a price for the products considering the cost of materials, other resources, labour and profit margins required. Inputs were also given for finishing the products using finishes like melamine, varnish etc.



## Visitors during the workshop

Officials from the State Administration as well as from the Central Ministry visited the workshop to see the kind of products being designed and developed. The visitors included Secretary to Ministry of Rural Development, Govt. of India among others.



## Display of products developed

The products designed and developed during the workshop were displayed on the last day.

These included, Table Mats, Coil Tea Coasters, Flower Vases, Coil Plates, Coil Bowls, Woven Gift Baskets, Woven Multi-purpose Baskets, Circular and Oval Trays and Shopping Baskets.



## Validictory session.

The DC, Shri. K K Soan graced the valedictory session as the chief guest. Other district officials were also present for the session presided over by DPO, Shri. Anjani Kumar. Shri. K K Soan and Prof. A G Rao later on gave away certificates and the honorarium to the participants.



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## **Post Workshop Recommendations**

Based on the discussions to pursue bamboo craft activities in the various blocks and SHG's, the following plan can be adopted.

One set of tools can be provided to the individual participants to enable them pursue production at their homes, and another set of tools can be provided to the SHG's.

The set of tools given to the SHG's will be of common use for members of the SHG and would include chemical treatment/colouring/dyeing of raw material.

A.

For Individuals. Width Sizer Hack Saw Hammer Scissors

B.

For SHG Sander Wood chisel Pliers Half round file Rasp file Hand drill Steel rule Frame Cutter Screw driver Bench vice Apart from the above mentioned tools for individuals and SHG's,

C.

Chemicals, vessels, work-tables and heating facility will have to be provided at the SHG centres. The cost for this set can be calculated based on local availability.

D.

The set of moulds handed over at Ranchi, can be replicated and given to each SHG for use by its members.

E.

A policy of distribution through loan/partial grant/ return by products can be worked out.

## Moulds and Tools Hand Over

The following list of moulds and tools were handed over to Shri Anjani Kumar as part of the project

### MOULDS & TOOLS - HANDOVER

14<sup>th</sup> Dec 2010

Following Moulds have been handed over to the undersigned, as part of the workshop in Ranchi from 7<sup>th</sup> to 14<sup>th</sup> Dec 2010.

1. Multipurpose Basket Mould - 05
2. Mat weaving Board - 05
3. Circle Tray (Outer, Inner) - 05
4. flower Vase - 05
5. Gift Basket (height, size, solid) mould - 03
6. Coil plate base - 03
7. Coil Bowl Mould - 05
8. Tea Coaster Base Template - 02
9. Tea Coaster - finishing Jig - 06
10. Oval Tray (Outer + Inner) - 02
11. Shopping Basket Mould - 01
12. Ply Template for Trays (Oval + Circle) - 04
12. Ply Template for Trays (Oval + Circle) - 22

WORKSHOP COORDINATOR SHRI ANJANI KUMAR

IDC - IIT BOMBAY — Ranchi [Signature]