

Report on Cane and
Bamboo Workshop,
March 21-28



Cluster Development Programme

Organised by
IIE Guwahati

Conducted by
Bambu Studio
IDC, IIT Bombay

Introduction and overview

A workshop in Bamboo and Cane Crafts was taken up by IDC on behest of Indian Institute of entrepreneurship (IIE) as a part of Cluster Development scheme in Bamboo and Cane, at Dimapur, Nagaland. bambu Studio at IDC (Industrial Design Centre) was in a unique position to take up such a task at short notice. Three workshops had been done by IDC team at Dimapur and Dieziephe as a part of UNDP programme on Bamboo and Cane 2001 onwards. Prof. A.G. Rao had visited Nagaland 5 times since 1997. His visits to places like Jaloki, Mokochung, Khonoma, Kohima and Lakoti had given good overview of craft scene in Nagaland. His interactions with Ms. Hekali Zhimomi, then MD of NHHDC, Cane Concepts a dynamic private craft industry and many other craft entrepreneurs has given an advantage in tuning the workshop for finer requirements of the participants. Participants for the workshop were at different levels of skill and abilities. They also had different levels of outside exposure and entrepreneurship abilities. The workshop was based on providing 'hands on experience'. It had power point presentations and Video presentations in addition to exposure to samples and demonstration sessions. Several topics were covered in the workshop. Two consultant designers Mr. Sukumar Haobam and Mr. Avinash shinde made presentations in the workshop. Mr. Handique of IIE and his colleagues organised the workshop with the help of Craft council of Nagaland lead by Mr. Savino and Mr. Alem Longkumer. Time table for 7 days and preparations like making moulds and planning details were done for the workshop. Chemicals and raw materials were procured accordingly. Good will of Diezhephe craft group attending the workshop facilitated smooth demonstration of Toolkit and small machines, inspite of delayed arrival of the packages sent by couriers well in advance. Each participant was given a mini tool kit, a pruning saw, a small drill and a cane plane. in addition to two sets of machines and bigger toolkits to the group. .



Inauguration

The workshop was inaugurated with local officials from the bank as well as district development divisions addressing the participants. Mr.Handique of IIE introduced IIE activities under cluster development programme. Mr.Savino, president of Craft Council of Nagaland welcomed the participants and briefed the role of craft council in the cluster development.

prof.Rao introduced the team conducting the programme.



Mr.Handique



Mr.Savino

Resource persons
conducting the programme

- Prof.A.G..Rao
- Vinay Wamanse designer
- Niranjan Rudrapal skilled craft instructor
- Gangamma skilled craft person (instructor)
- krishna Suthar mould maker (instructor)

- Sukumar Haobam -Consultant designer
- Avinash Shinde -Designer, faculty at IITG



resource persons

Time Table of the Workshop at Dimapur, Nagaland – 21st March to 28th March, 2006

Resource persons:

| | | |
|------------------------|---|--------------------------|
| Prof.A.G.Rao(AGR) | - | Team Leader, Designer |
| Sukumar Haobam(SH) | - | Consultant |
| Avinash Shinde(AS) | - | Designer |
| Vinay Wamanse(VW) | - | Designer |
| Niranjan Rudrapaul(RP) | - | Skilled Craft Instructor |
| Gangamma(GMA) | - | Skilled Craft Instructor |
| Krishna Sutar(KS) | - | Mould Maker-Trainer |

Day-1:

21st March, 2006

9 to 9.30 am Registration

9.30 to 10 am Inauguration

10 to 11 am New Scope and opportunities in Bamboo Craft - AGR/SH/VW

11 to 12 pm Introduction to Tool Kit (video) - AGR/SH/VW

12 to 1 pm Introduction, Bamboo and Cane tools Machines Demo - RP, GMA, KS

1 to 2 pm Lunch Break

2 to 2.30 pm Group formation A, B, C - AGR, SH, VW

2.30 to 5 pm Practice session + Preparing strips for the products
as per the group requirement - GMA, RP, KS,

Day-2: 22nd March, 2006

9 to 10 am Production planning - AGR, SH, VW

10 to 12 am Preparing strips for the products, as per the group
requirement - GMA, RP, KS

12 to 1 pm Borax, Boric Acid treatment, cane bleaching -demo - RP, GMA

1 to 2 pm Lunch Break

2 to 3 pm Dyeing with Haldi & Tea – demo - RP, GMA

3 to 5 pm Combination – 1 - GMA, RP, KS, VW

Day-6: 26th March, 2006 (Holiday)

Day-7: 27th March, 2006

9 to 1 pm Combintion-3

- GMA, RP, KS, VW,

1 to 2 pm Lunch Break

2 to 4.30 pm Combintion-3

- GMA, RP, KS, VW,

4.30 to 5 pm Review

- AGR, SH, RP, GMA,
SK, VW

Day-8: 28th March, 2006

9 to 1 pm Combination -3, Finishing of all products

1 to 2 pm Lunch Break

2 to 5 pm Display, Review and Feed back

Trainers :

Gangamma
(GMA)

Rudrapaul
(RP)

Krishna
(KS)

Combination-1:

Oval Tra y
A

Hanger/Tea coaster
B

Tea coaster/Bowl
C

Combination-2 :

Knotted weave
C

Cane Bowl
A

Elliptical Bowl/
Tea coaster
B

Combination-3:

Group choice

Group choice

Group choice

Products that can be taken up in the workshop:

1. Tea coaster
2. Coil bowl (round)
3. Coil bowl (elliptical)
4. Hanger (2 types)
5. Shopping Basket (knotted weave)
6. Cane Bowl
7. Oval tray
8. Table lamp
9. Coil tray
10. Clock
11. Flower Pot

List of Participants

Group - A

1. James Khoklari
2. Cefuta
3. Khrolo Naro
4. Y. Tingkem
5. W. Yanger
6. Velasuzo
7. Alem L.K.R.
8. Velicho
9. Mudopoyi

Group- B

1. K.Nag
2. Anel Kemp
3. P.Chingyan
4. Rongsen Pongen
5. Tanwang
6. Visiervimera
7. Zolto Pusa
8. Temjen Pongem
9. Knovi Kustsu

Group- C

1. Puroh
2. Zachsto Sapw
3. Ruuseli Neru
4. Ghuhevi Jakha
5. Nicky Chopy
6. Tsiikti Memba AO
7. N. Savino
8. Nungshi Remba



All talks were supported with powerpoint presentations made on a laptop and with physical samples shown to the participants.



1.0 New scope for Bamboo and Cane Products:

Prof. A.G.Rao gave an initial talk on new scope for Bamboo and Cane products in Indian and Export markets. He showed photographs of several new bamboo products developed at IDC. Several cane products from foreign markets were also shown. The IDC team had brought several physical product samples to show to the craftsmen.

The participants eagerly got engaged in seeing the 'new product samples' trying to figure out how to make them. The finishes got a special attention. Coil technique products were new to the craftsmen and they were eagerly asking for the method of making.





2.0 New Tools for Bamboo and Cane



Mini Tool kit

A New tool kit designed and developed by Prof. Rao and his team under U.N.D.P. project was introduced to the participants. The tool kit has 33 items. It is produced by Lamicraft Enterprises, Mumbai under license from IIT-Bombay.

A Video on tool kit illustrating the use of each tool was shown. A power point presentation was made to explain the additional tools developed for cane. Later, craft instructors Rudra pal, Gangamma and Krishna demonstrated the use of tools. Participants had hands on experience.



Half round scrapper

local traditions

Nagas have a rich tradition of making their own tools. Beautiful naga Dhaus are made by forging spring steel. We found some of the craftsmen like Nungshi Renba are very innovative has developed his own tools. Lack of infrastructure facilities and has limited his tool development pursuits.



Local Axe



Naga Dhau

Craftsman like Nungshi Renba need encouragement and need to be provided further inputs to pursue his creative excellence.



3.0 Introduction to Small Machines

From small machines developed by Bamboo Studio of IDC were introduced to the participants. Videos were shown to illustrate their working. Actual machines were demonstrated and later used by participants

The four machines are

- . Splitting (or slivering) Machine
- . Width sizes
- . Thickness sizes
- . IDC sander

All these machines are developed by IDC and licensed to 'Kadirus' a Mumbai based company to manufacture. They can be procured from Kadirus. One more machine 'Roller' for coiling the strips was also demonstrated. The Roller is readily available with jewellery machine. Makers.



4.0 Use of Moulds, Jigs, Fixtures

Lecture sessions were taken to explain the types of moulds and their use for Bamboo and Cane Products. Following types of Moulds were introduced.

2-D Moulds

3-D Moulds

Solid Mould

Knock down Moulds

Recessed Moulds

Collapsible Moulds



4.1 New Techniques

4.1.1 Coil Technique

Coil Technique in Bamboo developed at IDC was introduced to the participants. Several new products like tea coaster, Bowl, Clocks etc. were made using coil technique.





4.1.2 Bending Cane with L.P.G.

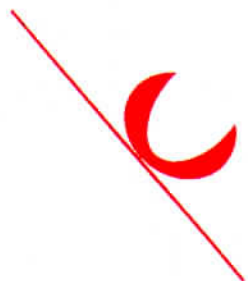
Most of the participants had no experience in bending Cane. Bending Cane by use of gas burner was demonstrated. Participants made Hangers using gas bending on a special jig. Bending jig was a boon to the craftsmen learning for the first time. it became possible to make a hanger of high quality even in the first attempt.



Cane concepts at Dimapur was specially interested in use of gas. Few skilled Craft persons came to the workshop. Cane of different diameters from 10 mm to 20mm was bent using gas torch by changing the burners. Craftsmen who were skeptical initially became convinced with the ease of bending by use of gas, after a bigger attachment was fixed to the burner.

The craftsmen were also impressed with the use of jigs. They were keen to adopt jigs for making furniture. Use of jigs would directly benefit them financially as they are payed on piece basis.

The use of gas instead of Kerosene would benefit Cane Concepts as fuel costs are reduced on a continuous basis..



5.0 Treatment of Bamboo and Cane

Treatment for Borers as well as fungus can be done using Borax and Boric acid and Alum respectively. Bamboo strips boiled in chemicals with required proportions ensure prevention of insect attack as well as fungus.





6.0 Finishes and Colouring

Various finishes and colouring techniques were introduced in the workshop to participants through a Power point presentation.



6.1 Natural dye colouring

Colouring with use of natural dyes is traditional in Nagaland. However it is only practiced in few places. The traditional processes are superior in quality and ought to be used where high quality is needed. In general craftsmen seem to have abandoned the traditional dyeing as the time taken is too long and the knowledge is restricted to few groups who make use of local plants and trees.



Three colours were introduced in the workshop.

- . Yellow with Haldi
- . Light Brown with Tea leaves
- . Dark Brown with Katha



Bleaching of Cane and colouring with stains was also introduced in the workshop.



7.0 Production Planning and Costing

Participants were introduced to planning of small production runs. They were taught how to estimate for each product by listing various materials required.

Costing based on the raw materials, labour cost, Overheads, and interest on capital were also introduced.

Concepts of quality control, cost reduction with proper planning using jigs, moulds were discussed with a case study of 'Chaitanya' craft group in Mumbai

8.0 Packaging and Presentation

A session was held to explain the different types of packing like 'shrink packing' and importance of proper labeling and get up. Samples were shown to participants.

9.0 Case Studies in Bamboo Craft Industry



Avinash Shinde, a faculty member at IITG presented case studies in bamboo furniture Industry as well as mat weaving Industry at Guwahati. Avinash was working as deasigner for UNIDO at Cane and Bamboo Technology Centre at Guwahati. His insights into the industry were of great value to the craft entrepreneurs.

Film on Bamboo and cane of North East

Sukumar Haobam showed a film he has made on Bamboo and Cane of North East. The film is scheduled to be shown by Door darshan soon.

10. Working in Groups

A survey form was circulated asking the each participant to choose 3 products which they like to make from the list given below :

1. Tea Coaster
2. Coil Bowl (round)
3. Coil Bowl (elliptical)
4. Hanger (2 types)
5. Shopping Basket (knotted weave)
6. Cane Bowl
7. Oval tray
8. Table lamp
9. Coil tray
10. Clock
11. Flower pot

Based on the choice of products made 3 groups A,B,C were formed to work under a skilled craft Instructor. An young designer Vinay Wamanse coordinated between the Instructors and craft person.

Group - A

1. James Khoklari
2. Cefuta
3. Khrolo Naro
4. Y. Tingkem
5. W. Yanger
6. Velasuzo
7. Alem L.K.R.
8. Velicho
9. Mudopoyi

Group- B

1. K.Nag
2. iAnil Kemp
3. P.Chingyan
4. Rongsen Pongen
5. Tanwang
6. Visiervimera
7. Zolto Pusa
8. Temjen Pongem
9. Knovi Kustsu

Group- C

1. Purom
2. Zachsto Sapw
3. Ruuseli Neru
4. Ghuhevi Jakha
5. Nicky Chopy
6. Tsiikti Memba A.O
7. N. Savino
8. Nungshiremba



Working in Groups

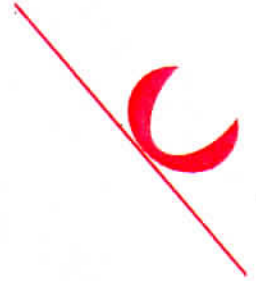




Working in Groups



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Working in Groups





Working in Groups



11. Feed back Session

A feed back session was held by the director of IIE on the last day of the workshop. Mr. Ahmed examined the products the participants were making and had an informal discussion with them.

Later he also visited Cane Concepts workshop to see the craft production taking place there.



Mr.Ahmed,IIE director

14.0 Categorization of the participants on the basis of their performance and abilities

14.1. CAT1 : Beginners

People who have undergone training only for a few days.
They are willing to start work.

Some of them are skilled and do have a traditional craft background.

- VISIER VIMERA
No experience
No earnings
- RUUSELIE NERU
No experience
No earnings
- Y. TINGKEM
Semi skilled, poor
1 yr experience
Income: Rs.2000-5000
- TANWANG
Carves in bamboo,
Just started practicing
Income: Rs. 4000-5000



14.2. CAT 2 : Semi Developed

Craftsman are from a traditional background

They have knowledge and skill; some of them works as craft instructors

They have no platform to sell products.

- NICKY CHOPY
Hard working
Semi skilled
6 yrs experience
Income: Rs.3500
- KHOVI KUOTSU
Self taught
Income: Rs.4000-5000
- CEFUTA
Not yet competent to work and earn
Exposed to craft
Income: Rs.5000



14.3 CAT3: Developrd craftsman

Most of them have a traditional background.
They have been working in craft area for considerably long period
They have their own workshop and outlet to sell products.

- W. YANGER
From a traditional craft background.
Interested in finishes
10 yrs experience
Income: Rs.5000



- RONGSEN PONGEN (AMONG)
Address: Traditional Handicraft Centre, S.B., Naga
Father owns traditional craft centre as product outlet
Has own workshop
5 yrs experience
Income: Rs.5000-6000



- P. CHINGYAH
2 yrs experience
Income: Rs.5000-6000



- KHROLO NARO
Expertise in dyeing
Semi skilled
5 yrs experience
Income: Rs.5000



- ANIL KEMP
Address: Kemi Multipurpose Co. operative Society LTD.
Duncan, Lingrijaw, Dimapur
Highly skilled
Hard working
1 yr experience
Income: Rs.6000



- VELICHU



- MUDOPOYI



- JAMES KHOKALARI
Employee cane concepts, Dimapur
Highly skilled

14.4 CAT4: Craft Entrepreneurs

Established Craft persons/entrepreneurs
Some are highly skilled, exposed to outside states
Employ other artisans.
Some of them have the capacity to export their products.
They have a platform/contacts to sell their products.

- ALEM LONGKUMER

Address: Country Craft, 7 th mile Chumukedima, P. Box -7
Highly skilled, Winner of president's award.
Owns a product outlet (Country craft)
Exporter.
Income: Rs.10000



- NUNGSHIREMBA

Address: Unite craft, Nagarjan.C., Dimapur.
Uses self made jigs & fixtures, tools
Established entrepreneur.
Highly skilled., 10 yrs experience.
Income: Rs.10000



- N. SAVINO

Established entrepreneur
Self taught
10 yrs experience
Income: Rs.15000



- K. NAGI

Highly skilled
Self taught
20 yrs experience
Income: Rs.15000



- ZOLTO PUSA

Address: Jarnapani.BP, Medriphena
Self taught
10 yrs experience
Income: Rs.10000



- TSIIKTIMEMBA-AO

Address: Unite craft, Nagarjan, Dimapur
Highly skilled
10 yrs experience
Income: Rs.10000

- GHUHEVI JAKHA

Cane and Bamboo works
cum traditional dress craft works, Zunheboto.
20 yrs experience, Income: Rs.5000



- TEMJE PONGEM
Address: Salang Handicraft,
Opp. Dimapur Club
Owns Salang Handicraft as a product outlet
Highly skilled & trained
10 yrs experience
Income: Rs.7000



13.5 S.H.G.

- ZACISTO SAPW
DIEZEPHE CRAFT SOCIETY, Dimapur
Highly skilled
Income: Rs.7000



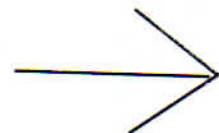
- VELASUZO
DIEZEPHE CRAFT SOCIETY, Dimapur
Self taught
Highly skilled
DIZEPHE president
Income: Rs.10000



- S.PUROH
DIEZEPHE CRAFT SOCIETY, Dimapur
Highly skilled
Income: Rs.7500



Recommendations



15.0 Recommendations based on the Workshop conducted at Dimapur

1. One week exposure to Mumbai Market and Machine suppliers in Shrink packaging, Powder coating, supply of special tools, Portable machines. - Alem+ one
2. One month training program for two craftsmen to become resource persons in Mould Making. - Nungshiremba, Puroh.
3. Survey and Documentation of Design & Technology inputs, as well as financial status of each group with Trainees as lead persons.
4. 4 TO 6 market oriented new products specific to the cluster to be developed by IDC (along with mould, jigs and fixtures)
5. Selected CAT3 Craft Entrepreneurs to be given one week product based training at Bambu Studio, IDC, IIT Bombay..
6. Short workshops to be held at different location to train specific modules in design/ use of Tools/ Treatments etc.
7. Tool Bank can be initiated by IIE office at Dimapur and later transferred to local hardware shops.
 - Tools and Small Machines to be procured by IIE based on group needs and be made available at Dimapur.
 - Chemicals for treatments to be procured and made available at Dimapur.
8. Products Samples of traditional items to be collected along with supply capacity and cost by IIE office.
9. The Entrepreneurs from CAT 3 and CAT 4 to be facilitated with design and printing of their product brochures.
10. Design services in package design, product get up to be made available at Dimapur
11. Exposure programs to all categories to be provided from time to time.
12. A trial production initiative to be taken by IIE by placing sample orders of selected products (with help of (IDC) These products can be used for display, sending samples to supply points to procure orders. These can also be taken to different exhibitions to get visibility and generate orders.
13. Nagaland has a good tradition of dyeing bamboo with local tree leaves, bark etc. A small project can be initiated to revive this dying tradition. Bamboo jewellery can be made with such high quality coloured strips even if the process is elaborate and expensive

General Recommendations

- Women craftpersons were missing in the workshops. Special efforts to be made to involve **craftswomen from Jalokhi**.
- Raw material (right variety of bamboo + Cane) supply to craft groups to be ensured on a long term basis with coordination of Nagaland Bamboo Mission.



12.Valedictory Function

A valedictory function was held at the end of the workshop. State Minister for Industries was due to preside over the function. But due to some reasons he could not attend the function. However Mr.Fucan, SBI,general manager for north East, MD of State Industries Department were present. Representative of NEHHDC and other state officials were present.

13.Media Coverage

Local news papers Morung Express, Nagaland Post, Eastern mirror, and North East herald gave a good coverage to the workshop which made public aware of the Cluster Development project



Mr. Alem Longkumer of Nagland Craft council





Cluster Development Programme

