

KIRAN P KULKARNI

SUMMERTRAINING

**CANE & BAMBOOTECHNOLOGY
CENTRE (CBTC)**

GUWAHATI
ASSAM
INDIA



INDUSTRIAL DESIGN CENTRE
IIT - BOMBAY



FOREWORD

Cane and Bamboo Technology Center

From time immemorial to the present day, cane and bamboo have formed an integral part of the lives of the people in the North Eastern Region. Bamboo is used in myriad ways to make several articles, implements etc. Generally people make those things which are required in their day to day lives.

Bamboo handicrafts and furniture is produced throughout the North East. Productivity is low because of the limited knowledge, lack of skills and basic tools. Quality is generally poor due to several reasons: bamboo used for handicrafts and furniture is not mature enough, bamboo is not treated, improper handling, lack of knowledge about jigs, poor jointing and lack of finishing materials and skills. It is in this context that the concept of a specialised institution dealing solely with cane and bamboo was conceptualised.

Thus, a Cane and Bamboo Technology Centre (CBTC) came to be set up at Guwahati with the aim of identifying and disseminating technologies for economic enhancement of

craftspeople and small and medium-scale entrepreneurs and also to enhance the skills and quality of goods produced in the Cane and Bamboo sector of North East India. Another important aim of the CBTC is to strengthen the capacity of existing institutions through networking and by linking them with specialised institutions in India and abroad.

The United Nations Development Programme (UNDP) has committed approximately \$ 1.4 million Technological upgradation and Networking for the Cane and Bamboo Project. The Department of Science and Technology (DST), Government of India is the Executing Agency for the project and has therefore overall responsibility for the Programme to the Government of India and the UNDR The United Nations Industrial Development Organisation (UNIDO) is the assigned Implementation Agency, while the North Eastern Development Finance Corporation Ltd. (NEDFi) is the Field Implementation Agency, responsible for project activities through the Cane and Bamboo Technology Centre.

The CBTC intends to promote employment and income generation through making relevant industrial and craft technologies and business opportunities more accessible. The core of the project strategy is the strengthening of the institutional structure of resource centres in the region and upgrading the skills of entrepreneurs, trainers and leading craftspeople to achieve the widest possible dissemination of the

technologies and skills needed for managing, marketing and adding value to these hitherto under-utilized resources. In order to achieve this objective, the identified centres will be equipped with appropriate resources (information technology and electronic communication facilities, tools and equipments for demonstration purposes, training facilities, etc.) under the overall co-ordination of the DST.

It is also anticipated that a long-term association will be established with the International network of Bamboo and Rattan (INBAR), based in Beijing, to provide strategic and specific technical inputs.

As an apprentice in the firm I participated in workshops organised to encourage local entrepreneurs to develop bamboo based products. I was keen to know the design approach of the firm with a unique vision of identifying and disseminating technologies for economic enhancement of craftspeople and small and medium-scale entrepreneurs and also to enhance the skills and quality of goods produced in the Cane and Bamboo sector of North East India.

I was also involved in conceptualising new product range for bathroom accessories considering the local crafts and the species of bamboo

I travelled extensively in the states of Assam, Meghalaya and Tripura to understand the skills of people their culture and their long association with the material.

I attended workshop organised by NID and BCDI in Agartala on the making of musical instruments in bamboo.



<http://kauai.net/bambooweb/bambooslides/bamboojpg/0007.jpg>

S	M	T	W	T	F	S
1	2	3	4	5	6	7
	WORK SHOP ON MAKING OF BAMBOO BLINDS - GUWAHATI					STUDY OF MUSICAL INSTRUMENTS
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NONGPOI- A VILLAGE STUDY	EXPLORING BAMBOO	STUDY OF MUSICAL INSTRUMENTS		EXPLORING BAMBOO		SAIDEN- A VILLAGE STUDY
15	16	17	18	19	20	21
SAIDEN- A VILLAGE STUDY	DESIGN OF BATHROOM ACCESSORIES IN BAMBOO & CANE					KVIC - EXHIBITION
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	WORKSHOP ON MUSICAL INSTRUMENTS IN BAMBOO					BCDI, AGARTALA
29	30					
KALMARIAH- A VILLAGE STUDY						

STRUCTURE OF THE TRAINING

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Workshop on bamboo blinds

Exploring bamboo

Study on Musical instruments in bamboo of north-east

Design of bathroom accessories in bamboo

Workshop on conceptualising
bamboo products exploring their sound making
qualities and experiences - Agartala

Travel

WORKSHOP ON BAMBOO BLINDS

The objective of the training programme was to create awareness on the commercial aspect and value addition of bamboo in the North-East India by providing intensive training on propagation techniques and management practices to micro entrepreneurs and farmers growers.

There were around 20 participants representing NGOs, entrepreneurs, farmer growers from various parts of the North-East. The training programme comprised sessions in 7 days , followed by visits to Cane & Bamboo Technology Centre (UNDP-DST-NEDFi Project) and CFC.

The training focused on the making of Bamboo blinds for the urban markets. It was held in the premises of CBTC and Common Facility Center (CFC) with the help of 4 craftsman and a designer.

Glimpses

introducing the
tools



Participants

explaining the
use of tools



Hand
Splitting



Splitting of
Bamboo



Machine
Splitting



Weaving



Setting up
the hand
loom



Inserting the
bamboo
strips



Dyeing of
strips

Dyeing of
strips



Pattern
fixing



**The common
facility center**

The bamboo
stick machine



Splitter

4 sided planar



Stick cutting
machine





Exploring Bamboo:

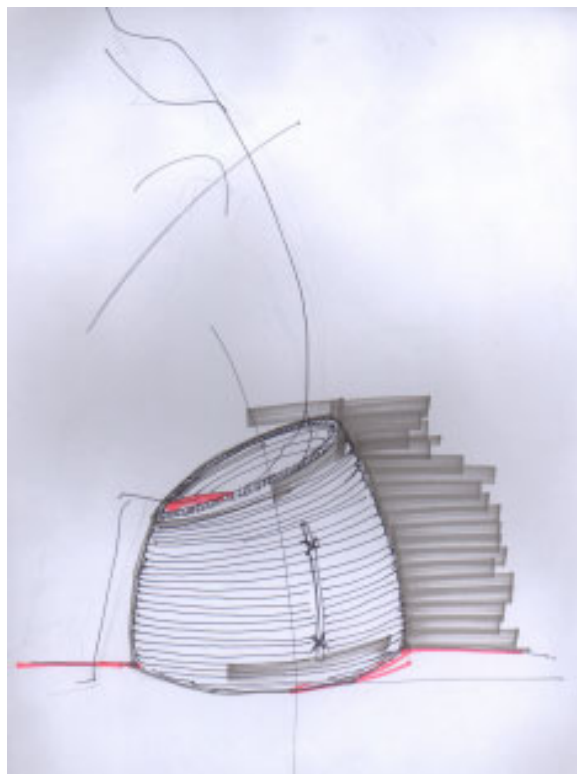
CBTC provided a good environment for designers with resources of fully equipped workshop and library facility. Various samples of bamboo and cane are bought to the place and experimented with new designs. This was an opportunity to have a first hand involvement with the materials and the master craftsman who were well trained in the use of material. I explored abstract forms as well as designs for mass production.





Candle stand



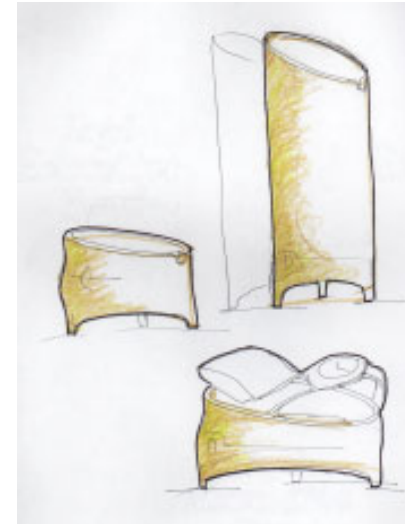


Furniture

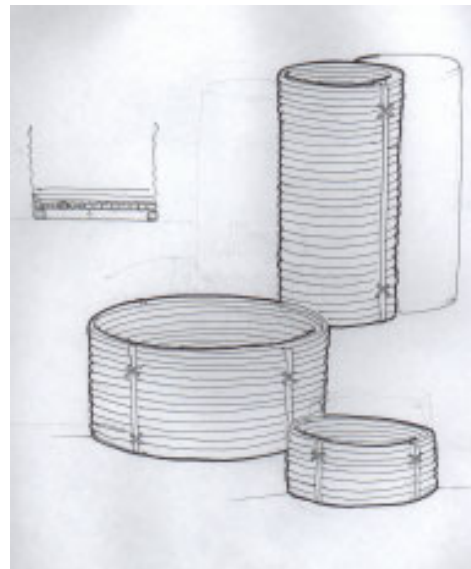
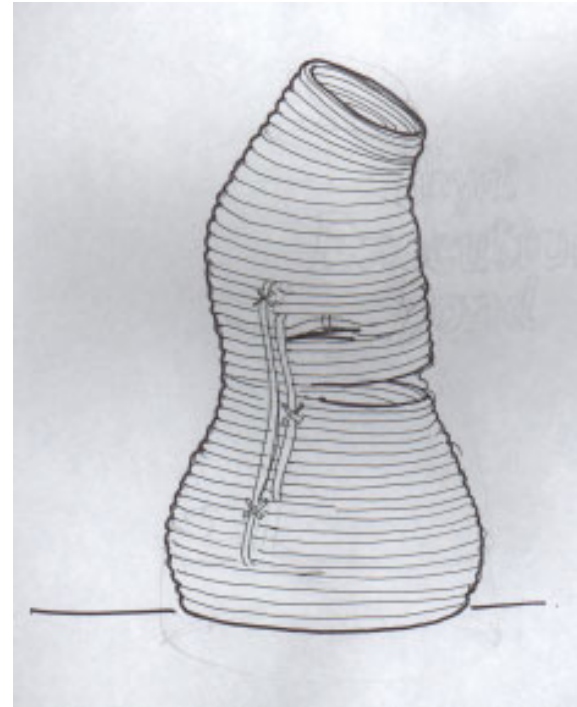


DESIGN OF BATHROOM ACCESSORIES IN BAMBOO

A market survey predicted a potential market for bathroom accessories in bamboo as material in the metro cities of India. The project was initiated to conceptualize a group of accessories in bathroom which can be given away as a gift pack. We envisioned various market outlets which would also encourage the local entrepreneurs to involve in the making of the products. The design demanded a careful study over the local crafts and techniques involved by craftsman and decide on the various themes for the design. Three different regions- Arunachal and Assam for coil techniques in cane, Upper Assam with their skills on Jati bamboo and Meghalya for weaving were considered. The Package consisted of a toothbrush container, a tooth paste container, a soap dish, and a place to keep the wrist watch and the purse.



**Bathroom
Accessories :
Concepts**



Study of Musical Instruments in bamboo - North East India

As a special interest and pre requisite to my project I travelled to document various Musical Instruments of the region. I visited State Museums of Guwahati to see the instruments and hence to understand the culture of various tribes and their music. The interviews with the musicians and dancers gave an insight of the life of the people of North East.

I sketched the instruments and referred to the tribes to which it was used.

Resources:

Cultural Wing, DIPR office, Srimanta Shankar
Dev Kalakshetra, Panjawadi, Guwahati
State Museum, Ambari, Guwahati.
Craft Museum, Design Center, Agartala

People:

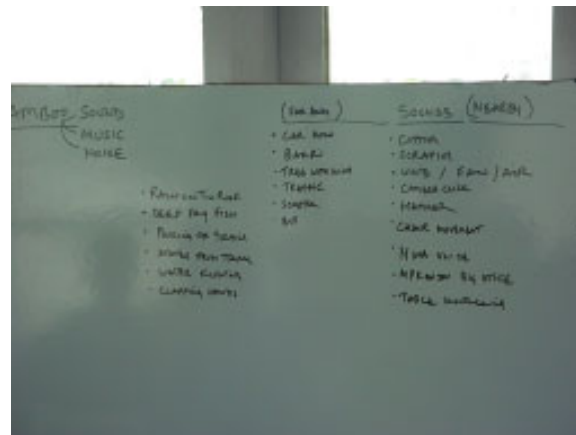
Mr. Noren Das, Assistant Producer.
Mr. Nipan Deka

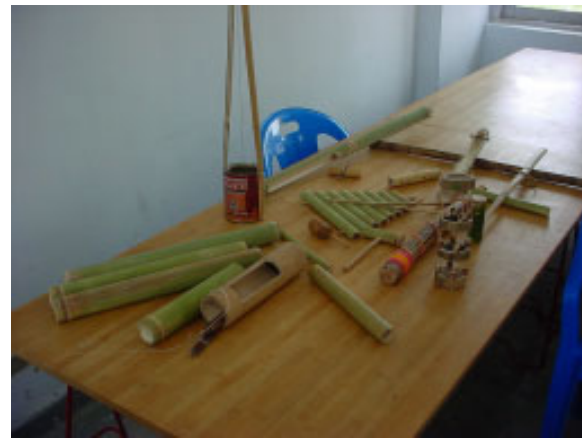
**Workshop on conceptualising
bamboo products exploring their sound
making qualities and experiences - Agartala**

NID with BCDI - Agartala organised a 5 day workshop on exploring the sound making qualities of bamboo. Agartala has a rich resources of bamboo, various types from Katlamara, Dholu bamboo, Konkoish.... were explored to create various sounds in the form of product or a experience. Four Groups were made to come out of as many ways of generating pleasant sounds from bamboo. As many as 20 various sound making instruments were made using the workshop facilities and repeated testing. The workshop was filled with great spirit by the the groups to compete innovatively for the creation of instruments.

People:
Prof. Ranjan, NID
Prof. Nina Sabnani, NID
Mr. Pulaha Dasgupta, NID

Glimpses





Conclusions

The training was a combination of intensive design involvement (hands on experience on bamboo and cane) and extensive travelling looking for the crafts skills of the people of region. It evoked a deep concern for craft as we would discuss whole nights the life of people and their living, questioning various approaches adopted by different designers. It exposed a new area for a designer and a new quest to his role. On one side was the traditional crafts - the ability of the people to use bamboo skillfully as it was a mere extension of their lives and on the other was the era of mechanisation and the pretty pictures of globalisation resulting in the diminishing of the crafts in the north east. Very few designers involve to a level which make an impact to carefully collaborate craft with the modern requirements of design and market. It was a challenge to experience the beautiful bamboo villages to know and teach the importance of sustainability reducing the dependence of the communities. I saw countless applications of bamboo in all realms of life of the people of north east.

It gave a confidence to travel far and meet people with different culture and involve in their lives.

Acknowledgements:

I thank Mr.Avinash Shinde for allowing me to stay with him for the whole of training and supporting me in design queries at the office. I wish to thank the Master craftsman - Mr.Manen Deka, Mr Piyo, Mr Goswami and Kake without whome it would be impossible with the proto-types. I thank CBTC for giving me an oppertunity to work with their team.

Prof. Ranjan and Mr.Pulaha Dasgupta for his support at the BCDI Agartala, and all the team especially Gita, Phul Kumari, Bharti, Pinko for thie love and dry fish.

Kiran and Prashanth for the making great long travels into a short one.

My parents for support.

Prof Rao for his initiation in the training.