

SHKEN.IN[®]

CRAFT • COMMUNITY • COLLECTIVES

SPONSORED BY
DIRECTORATE
OF COMMERCE AND
INDUSTRIES (DCI)

GOVERNMENT
OF MEGHALAYA

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI



ABOUT THIS DESIGN REPORT

Design Intervention in traditional Indian handicraft and handloom sector that aim to achieve economic development through inclusiveness of the craft community are faced by challenges that include social and economic considerations that far outweigh creative design inventiveness for their success.

A unique project was initiated by the Government of Meghalaya, Directorate of Industries and Commerce, by engaging the services of the Design faculty at the Department of Design, IIT Guwahati to outline a model of craft design & skill up-gradation for the cane and bamboo craftsmen of their state. These craftsmen are known for their unique basket making skills.

This report - 'Shken.in' is a compilation of the summary of design activities that were undertaken over the period of 18 months by the IIT Design team comprising of Prof. Avinash Shende and Prof. Ravi Mokashi Punekar of Department of Design, IIT Guwahati and Prof. Mandar Rane of IDC, IIT Bombay.

The report presents insights and experiences of the design team during the different stages of its engagement in this unique initiative. It comprises of the contributions in two specific domains viz. Intervention in the novel design and development of a new range of utilitarian bamboo products that were developed by Prof Shende and Prof Mokashi after a study of the high market demand for handcraft bamboo products amongst urban consumers. The products developed address the challenges of quality and finish, novelty of use, ease and enhancement of hand production. The designers have introduced molds, simple easy to fabricate hand tools, jigs and fixtures to enhance productivity. Logistics of packaging and ease of transport from remote locations has also been addressed.

Prof. Rane has designed and developed a unique brand identity called 'Shken' for these products that includes identity graphics, logo and color schemes.

A website shken.in has been designed for promotion of shken and will later plan to address the issues of marketing and that will enable consumers to purchase these handcrafted products through on-line options and retail sales options.

The report includes insights, experiences in the generation of a data base for the community of bamboo craftsmen as outcome of engagement with the craftsmen during ten field based craft design training workshops held in each of the districts of Meghalaya. Conducting two Production Design workshops at the Design workshops at IIT Guwahati campus further strengthened design exposure to all participants in this workshop. The report includes the ten field reports in this compilation. All relevant design drawings of molds, jigs and hand tools, product photographs enrich the report making it accessible for later use.

In conclusion to this project the design team is submitting this final report for record of the Office of the Directorate of Industries and Commerce, Government of Meghalaya who have initiated and sponsored this project.

The Design team is confident that the Government of Meghalaya can showcase its experience of the gains of professional intervention in this unique initiative undertaken by them.

ACKNOWLEDGEMENT

The IIT Design team will like to place on record its appreciation to the Government of Meghalaya for having initiated this unique project and for having reposed faith in the IIT Design team to contribute to its larger cause of Craft Community development and well being.

Chief Minister of Meghalaya Dr. Mukul Sangma, for having inaugurated the exhibition and display of Shken range of products held on April 15, 2016 at premise of the Central Library, Shillong.

Special thanks are due to **Senior Government officials of the Government of Meghalaya:** Mr. Ingty, Principal Secretary, Government of Meghalaya, for his valuable inputs during presentations and being able to envision the role of the state organization for its successful intervention at the grass route level.

Smti. M.B Roy, Director, Directorate of Commerce and Industries, Government of Meghalaya, who has been the prime mover in getting all her officers engage and contribute with their rich experience in co-ordination at the grass route level.

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We acknowledge the enthusiasm and hunger show by All the Craftsmen who have participated in this unique experiment. The project outcome would not have been without their partnership.

The Village headmen and village residents who opened their doors of their homes and offered hospitality, innumerable cups of tea, 'Koi' and tambul, to the design team members during the different field workshops.

For members of the IIT Team

We gratefully thank:

Master- craftsmen Shri. Subrata Chakraborty and Shri Manik Das who were integral part of the design training and product development team for the entire duration of this project.

Our young professional design associates Pritam Paraye and Pranav Satpute who brought great energy and enthusiasm for the design team during fieldwork and project implementation.

Shajumon, Jayanta, Manas, Deka, our Workshop staff at Department of Design, for technical support.

Prof. Mandar Rane from Industrial Design Centre, IIT Bombay, his team and Priti Rajwade, alumini of Industrial Design Centre were responsible for building the brand 'Shken' and its promotion.

Ratul Deka, Rhitupon, Shiv, Shivaji and participating design students from the Department of Design who helped photo-documentation during the different stages of the project.

DESIGN OF AN ENTREPRENEURIAL MODEL IN PRODUCT DEVELOPMENT AND STRATEGY FOR MARKETING OF HANDICRAFT PRODUCTS IN THE NORTHEAST OF INDIA

Abstract

The north east states in India is home to diverse ethnic communities who excel in bamboo and cane crafts. Often located in remote villages these communities lack access to commercial urban markets. Economic growth suffers and the community fails to translate its crafts into a successful enterprise.

This paper will present design led interventions that were initiated by a design team amongst such remotely located craft communities in the north eastern hill state of Meghalaya, India. 'Restrained Technology Intervention' (RTI) model was adopted that enhanced productivity and quality standards, but retained the skill sets of the artisan community. A comprehensive community development plan was outlined that included skill assessment, craft training programs in productivity enhancement methods following the RTI approach. A branding and online marketing plan was developed which considered employment opportunities for the educated unemployed youth of the state.

Market testing was undertaken with sample production of the newly designed products to verify their acceptance amongst two leading retail-marketing agencies in the country. A unique initiative in compiling a database of the craft community resulted in celebrating identity of individual craftsman in that collective. It was envisaged that this intervention would result in bringing a sustainable business enterprise that gave direct access to every member of the craft community collectives across the state.

The paper suggest that this entrepreneurial model in product development and marketing of handicraft products can be adopted as a policy initiative for growth of the handicraft and the handloom sector. In the Indian government's new thrust on 'Make in India', such an inclusive approach has the potential to generate economic growth opportunities for the vast pool of highly skilled craft communities spread across the country.

KEYWORDS

(RTI) Restrained Technology Intervention, Handicrafts of northeast, Branding for craft-products, Make in INDIA.

Introduction

Indian handicrafts embody a heritage of aesthetics, creativity and craftsmanship in their rich diversity – a living tradition that has sustained generations of people in India. It is estimated that we have a workforce of nearly 7 million craft-persons spread across this unorganized sector. The handicraft sector together contribute to exports of handicraft from India worth nearly Indian Rupees 10000 Crores per annum.

The Working Group Report on Handicrafts put together by the Ministry of Textiles, GoI for the plan period (2012-2017) highlighted some key insights that hamper the growth of this sector and made recommendation for intervention focused on 5 key aspects:

1. The need for brand building, marketing, craft promotion, advocacy and entrepreneurship
2. Development of craft clusters infrastructure and technology
3. Schemes for Artisan welfare
4. Research, education, training, design and compliance issues
5. Plan for Inputs, credit, raw material

The Government of India through the Ministry of Textiles, has introduced a number of centrally funded schemes for the upliftment of Handicraft and Handloom sector in the country. Agencies like the Khadi and Village Industries Commission (KVIC) and the Directorate of Handlooms and Handicrafts through the Office of the Development Commissioner (Handicrafts), extend intervention programs including craft training, marketing fairs, social welfare schemes etc. Small financial loans are extended to Self Help Groups (SHGs) to organize craft communities of 20-30 members and infrastructure support provided through Common Facility Centers (CFCs) for groups of SHG's. The periodic training and skill up gradation workshops organized during the year get small teams of craftsmen to attend these workshops against a daily sustenance allowance. Designers empaneled with the DC(H) office are invited to conduct these training programs in new product and tool development . These have resulted in marginal and segmented improvement in the development and growth of the craft sector. These schemes are typically dominated by an 'administrative management' model'.

This paper presents an alternative integrated and holistic design led entrepreneurship model undertaken for the state of Meghalaya with a focus on bamboo crafts as a case.

ABOUT HANDICRAFTS IN THE NORTH EASTERN STATES

The north-eastern states, often referred to as the seven sisters, comprise the hill states of Meghalaya, Nagaland, Manipur, Arunachal Pradesh, Tripura, Mizoram and the Assam Valley.

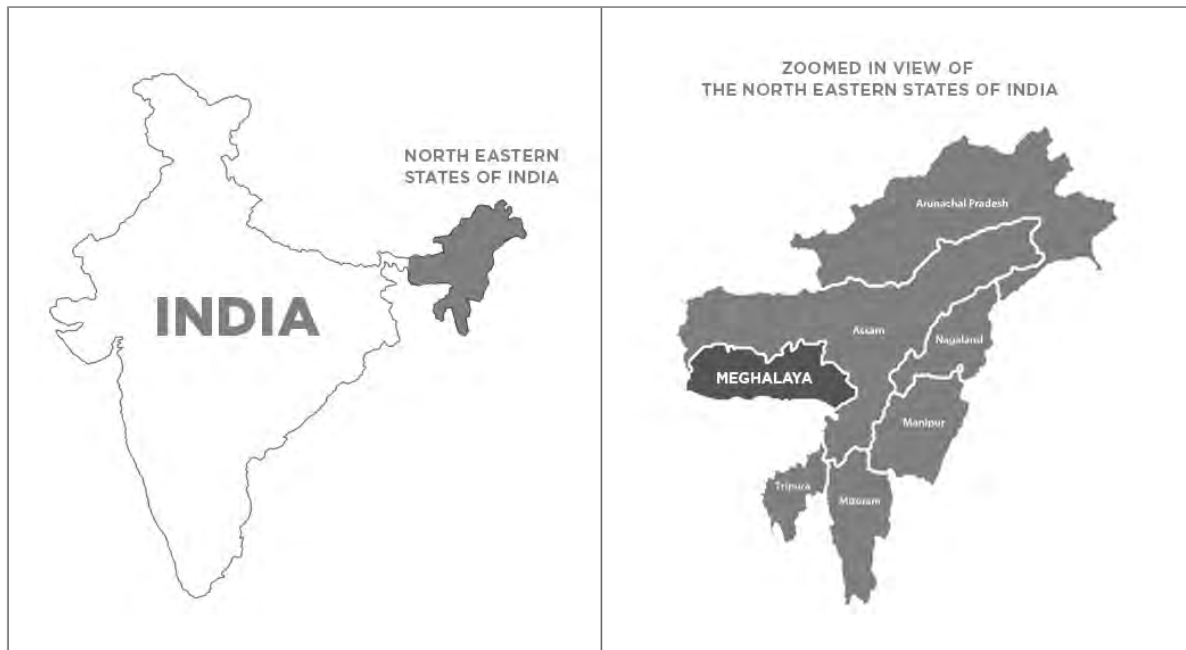


Fig 1. States of the Northeast of INDIA, INDIA

They form a diverse multi ethnic community of Indians and are home to more than 100 ethnic tribes who are skilled in craftsmanship and handloom traditions very distinct in their aesthetic sensibilities. These communities are spread across the different states, of which some are located in remote mountainous locations amongst the foothills of the Himalayas. Living with nature is integral to their lifestyle. The social structure is well defined with the village headman playing a distinct role in management of affairs of the village. The states have a long international border and there is a cross-cultural influence from neighbouring countries including Myanmar, China, Bangladesh and Bhutan. The entire region has an extraordinary diversity of tribal people-Arunachal Pradesh has 26 major tribes; Nagaland has 16 tribes and the state of Meghalaya, Assam, Manipur, Mizoram and Tripura has nearly 12 tribes each. Relatively cut away from the other regions of India, each state is industrially less developed but has a rich wealth of natural resources including forests, mines and biodiversity.

A status report prepared by Northeast Development and Finance Corporation (NEDFi) on the Handloom and Handicraft sector in north-east India, presents the following interesting facts highlighting the importance of development of handicrafts for the economic growth of the region.

- Every 14th person in the north-eastern region is dependent on handloom and handicraft products for a livelihood.
- Nearly 80% of income for the artisan comes from the handloom and handicraft sector.
- More than 90% livelihood to nearly 60% of the artisan community comes from handloom and handicraft sector.

- Share of raw material in the value of a product is nearly 30% (ranging from 42% high to 5% low).
- The extent of value addition as percentage of prices earned by the artisan is around 32%. (only 1/3rd is the artisan earning, nearly 2/3rd is the sum total of expenses and overheads distributed between middlemen, transport, marketing, display and promotion, etc.).
- The difference between average price earned by the artisan and that at which the product is being sold in the local market is more than 35%.
- The second most important economic activity in these hill states after agriculture is handloom and handicrafts. Secondary data highlight the distribution of the handicraft clusters in the Northeastern states (Table 1) and Handicraft projects extended to artisans amongst the different north east states in India (Table 2).

STATE	TOTAL DISTRICTS	DISTRICT WHERE CLUSTER EXISTS	CLUSTER	DISTRICT COVERED
MEGHALAYA	7	4	11	3
ARUNACHAL PRADESH	16	8	9	8
ASSAM	27	21	26	21
MANIPUR	9	9	22	9
MIZORAM	8	3	4	3
NAGALAND	8	8	17	7
TRIPURA	4	4	61	4

Table 1: List of Handicrafts cluster in North Eastern states in India

STATE	NO. OF PROJECTS	ARTISANS COVERED	SELF HELP GROUPS (SHGS)FORMED
MEGHALAYA	5	3000	175
ARUNACHAL PRADESH	5	1400	80
ASSAM	28	18049	1234
MANIPUR	21	10011	617
MIZORAM	4	1717	137
NAGALAND	12	5715	370
TRIPURA	21	9276	602

IN ADDITION RESOURCE CENTRE HAVE BEEN SET UP BY THE GOVERNMENT AT IMPHAL, MANIPUR AND GUWAHATI, ASSAM.

Source: working group report on handicrafts for 12th five year plan, ministry of textiles, govt. Of india, 2012

Table 2: List of Handicrafts Project sanctioned and artisan coverage in North Eastern states in India

Design led Interventions in the Bamboo crafts of Meghalaya: A case example. The Office of the Directorate of Industries and Commerce (DCIC), Government of Meghalaya, is a state level entity under the Ministry of Industry and Commerce is responsible for handicraft promotion and craft cluster development in the state of Meghalaya. DCIC approached the Department of Design, IIT Guwahati to undertake a workshop in training the craftsmen in new product development.

The IIT design team comprising of three faculty, three artisans and 12 senior design students, took this opportunity to study and understand the current state of bamboo craft practices amongst identified craft clusters in the four districts of Meghalaya. They organized a brainstorming workshop in the Office of the DCIC, Shillong and invited the concerned stakeholders. Participants included 80 artisans, 14 DCIC officials and field managers, entrepreneurs and professional designers working with crafts community. Information was gathered through Interviews and discussions. Photo documentation was undertaken of the existing range of products made at the craft clusters. Contact addresses of the participants was gathered to enable subsequent interactions.



Fig 2. The products that craftsmen brought were decorative and display products, as well as products what they make traditionally.

The information gathered from the brainstorming session helped to understand issues and problems in bulk production at the grassroots level. Craftsmen have different skills and make only what they are good at and in small numbers using traditional tools. These products were non standard and did not align to the needs of the market. The craftsmen more often needed to sell their produce quickly and wanted money upfront. They currently sold most of their ware during local weekly market. The products being made by these highly skilled craftsmen were not meeting the needs of urban markets where they could find better value and price. One Entrepreneur complained of craftsmen failing to meet his business commitment for bulk orders received from a retailer in a city. "I got an order for 10,000 baskets, but as the number increased the quality of the baskets made were of poor quality and were rejected"

Considering the insights from the brainstorming session, a quick field study was also made with two leading retail outlets in Mumbai to gather the scope of sales for utilitarian products. It was found that, there was a very high potential for “hand Made” craft products for contemporary lifestyle amongst urban markets.

A new trend in online marketing of handicraft products was rapidly emerging in the Indian market. Urban-markets showed a high demand for functional handicraft products of everyday use. Middle income urban consumer particularly preferred functional and utilitarian items like fruit baskets, roti (bread) baskets, paper waste bins, laundry baskets, trays, photo frames, lamp shades, etc. These were presently being sourced in bulk from China and Malaysia. These could be developed as a replacement for these items.

A disruptive transformation could be achieved through new product development and brand building. This would address issues of design development of a new range of bamboo products that will aim to meet aspirations and demands of an urban market. The following products were shortlisted for design and development:

- Roti / Bread basket
- Paper basket
- Laundry basket
- Lighting shades
- Fruit basket
- Gift hampers

Fig 3. The range of products that were designed during the field workshops. All Products use the RTI Molds to design the train the craftsmen. The weaving skills of the craftsmen were retained in the weave of the products.



Methodology

The above study resulted in outlining the approach and nine stage methodology the design team conceived it would follow during the rest of the development process

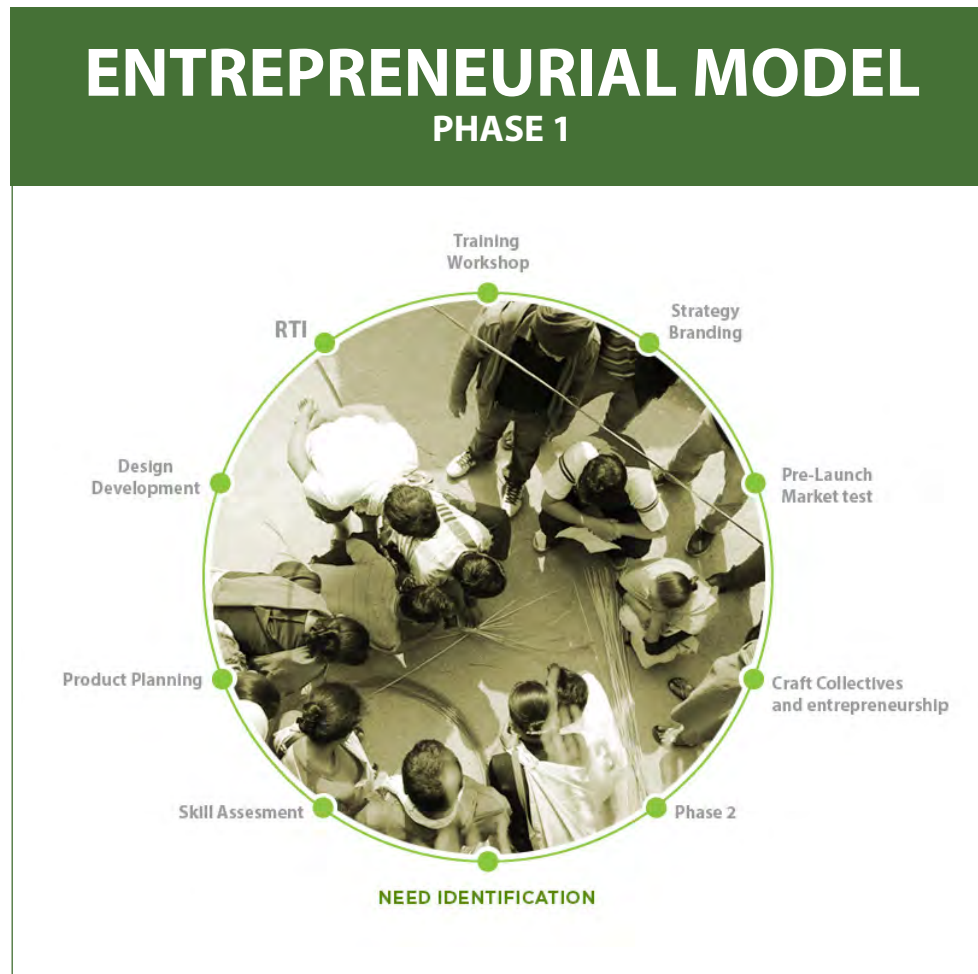


Fig 4. PHASE 1 The nine stage process visualised to create a model of holistic intervention

With these inputs the design team conceptualized the first set of utilitarian products that included (bread basket, laundry basket and paper baskets). Following this the design team planned its first on-site craft workshop at the Mawsynram craft cluster. During the first field based design workshop at Mawsynram, the design team wanted to ensure that the crafts cluster would be able to deliver both quality and quantity of production in a limited timeframe. To ensure this it encouraged the cluster by placing a batch order for them to deliver in a time period of two weeks. The aim was to give them confidence in entrepreneurship. Payment for their efforts was committed by giving them an advance payments towards purchase of raw material and indicating the price of purchase for each item. This experiment proved very successful when the design team received the first delivery after the stipulated two weeks and the craftsmen were paid for their efforts immediately. It also helped to build mutual trust between the design team and the craft community.

It was evident that a holistic approach in new product development, marketing and design intervention leading to new range of products need to be developed.

These could be introduced through a branding and marketing plan. However an intervention had to make inclusive an approach that had continuity with the existing skills of the craft community. Such design interventions must make this a strength for its acceptance to the local craft community.

DEVELOPMENT OF PRODUCTIVITY ENHANCING TOOLS FOLLOWING RESTRICTED TECHNOLOGY INTERVENTION (RTI) MODEL OF INTERVENTION:

To ensure consistency in quality and standardization in size of the products the IIT design team decided to introduce productivity enhancing means through the introductions of easy to make molds, jigs and fixtures.

Development of molds and workstation was undertaken keeping the following factors in mind:

1. Ease of fabrication of the mold that are long lasting and can be fabricated at the village level using locally available materials and processes.
2. Introduce easy to understand assembly methods.
3. Human factors consideration in terms of safety and human comfort during use.
4. Processes for steam bending of bamboo strips must be developed using standard components that are readily available in the market

The first set of four molds were designed one each for the roti basket, the laundry basket, lamp shade and the paper basket.

This formed a very crucial exercise in achieving the desired shapes and form for the new product range developed. It also ensured the desired volumes of production at a competitive price range to meet expectations of a large urban market. All the products that were developed had a unique identity of the region and the craft cluster. They incorporated design features that drew upon the skill sets the different artisan community presently processed. During the training program they found ready acceptance by the craftsmen. The 'easy to make' molds, jigs and fixtures helped to enhance quality and quantity of production keeping locally available fabrication skill sets and processes. It introduced a method of intervention in the handicraft sector that can enhance the market potential of these high value hand-made products. The design team coined the term 'Restricted Technological Intervention (RTI) Method for this novel approach.

Further to achieving effective communication the design team planned the design of visual aids and instructional videos that could help craftsmen to overcome language barrier and encourage peer self learning during the making process.

The plans for the next set of ten field-based Training program were finalized, one each at the district towns of Mawphlang, Pynsurla, Shillong, Mawkyrwat, Mairang, Nongpoh, Jowai, Nongstoin, Tura, and Williamnagar. The design team outlined the work plan in the field at each craft cluster and the training inputs to be given to them. Village craft clusters were grouped and invited to participate and trained for the first time to the new range of products and productivity enhancing methods using the newly designed molds, jigs and fixtures.



ADJUSTABLE MOLDS



PRECISION WITH THE USE OF THE MOLDS



PRODUCT EXTRACTED OUT OF THE MOLD



PAPER BASKET MOLD



RELEASING FROM THE MOLD



ROTI BASKET



PAPER BASKET - VEGETABLE DYES



ROTI BASKET MOLD



CONFERENCE BAG



CRAFTSMEN USING THE PRECISION STENCIL

Fig 5. (Right) Restricted technology intervention and the range of products developed under the brand SHKEN with improvisation in the molds.

During these workshop they were also introduced to:

1. Techniques in treatment of bamboo to overcome problems of post production fungal attacks on the raw material.
2. To achieve consistency in quality, the use of simple hand tools and mechanically operated sizing machines like width sizer; simple jigs and fixtures etc. must be introduced.
3. To bring diversity and choice for the customer in the new product range techniques in coloring bamboo slivers must be introduced.

Based on the success of the series of ten field-based experiments, the design team planned two Production workshops at IIT Guwahati. A spirit of the strength of a craft collective could be shared and experienced for the first time when all the participants attending the field based training workshop from the different clusters met together for the first time during the two workshops. All were producing the same products using the same set of productivity enhancing molds, jigs and fixtures. The design team could talk with them together to help them to realise the value and potential their products could fetch if they worked as a collective. Talks were arranged in support schemes that could help them to organize themselves at their village clusters. The novelty of the holistic approach where the focus on 'people first' was very evident. It had the reassurance that it could be scaled up for volumes of production should these teams reorganize themselves into a collective group. It logically laid the road map for the branding of this new initiative.

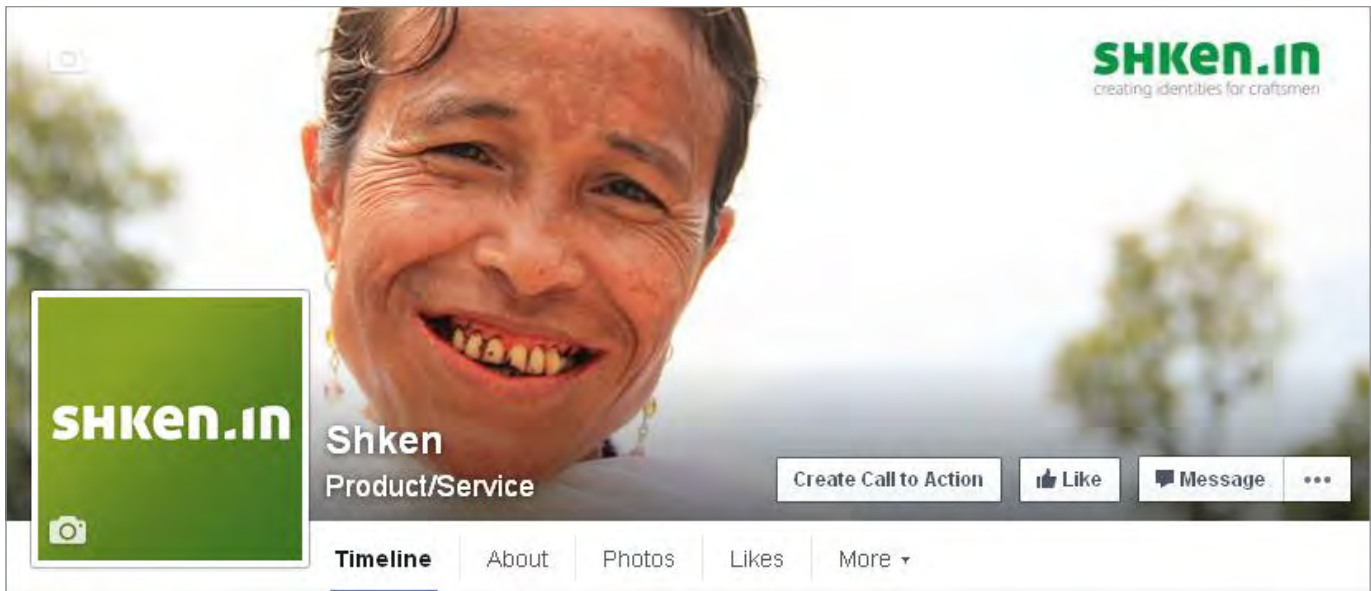
Branding

An effective communication strategy that was in tune with the emerging trend of online marketing seemed very logical to pursue. Product differentiation could be effectively achieved by strategically capturing the ethos of 'people first' as the face of this novel craft collective initiative. The factors that formed the guiding ethos in building the brand included:

1. The brand name needed to have a regional feel to give it an identity of the state of Meghalaya.
2. The logo and style to be developed had to be contemporary, unique and appealing. Embossing, etching on Bamboo should be possible therefore a bold font was chosen for the identity.
3. The brand needed to have a contemporary and 'Glocal' sound to it. The tagline CRAFT. COMMUNITY. COLLECTIVE. reflected the ethos of the holistic concept viz.- to celebrate the craft, get the communities together and forming a collective. The web URL was chosen as SHKEN.IN and not .COM to align with objectives of MAKE IN INDIA campaign by the government.
4. The color scheme has to celebrate the feeling of being 'natural and handmade therefore we chose green for the logotype.
5. Social media promotion - where craftsmen were positioned as heroes by coining the term Shken Heroes. Facebook page was created and a glimpse of the project was shared with the online community.
6. After the conclusion of each workshop, one copy of the documented newsletter were posted to the village head of the respective cluster to showcase a sense of pride amongst the artisans.



6



7



8

Fig 6. The final logo for the Brand with the Tag line

Fig 7. Promotion of the Craftsmen through social media

Fig 8. Promotion of the Craftsmen through social media

Project Implementation – Planning Entrepreneurial Intervention model for Phase 2

The project at this stage has followed the project methodology and realised in a planned manner the first 8 stages of Phase 1 as outlined in figure 04. These phases included:

- Need Identification
- Skill Assessment
- Product Planning
- Design Development
- Production intervention following RTI
- 10 Field based Training programs and 2 production workshops
- Building a strategy and Branding for effective communication and promotion and doing a pre-launch Market test

The pre-launch market test showing positive results has helped build a firm foundation for planning the implementation of the Entrepreneurial intervention model for Phase 2 of the project. During this stage the modalities of supply chain management, aspects of transportation and formation of the Craft Collectives (in alignment with the policies of the government) has been outlined as shown in figure 9 below. The proposal has received a very positive response from the Government of Meghalaya.

Conclusions

Engaging with the craftsmen at their place of work during the ten field based workshops has been an experience. It has enriched this design led initiative in the domain of crafts to be grounded and realistic in its approach. The focus on 'people first' perspective has brought realization that going into the field, engaging with the community, learning the challenges they would actually experience has resulted in bringing credibility and acceptance with the people involved. Modelling of an approach including production workshops has helped the craftsmen to experience the issues related to production and what care has to be taken while making objects in large quantities. The design got insights on design and development of molds. Appropriate refinements and improvisations to production processes were made to appropriately introduce variations in the product design features. Knock down features had to be thought of in the molds to facilitate ease of transportation to the village centre.

Concepts in managing the production and delivery mechanism needed deviations from established approaches. Establishing trust and acceptance by the artisanal community was primary to the success of this model. Ensuring that there is a cycle of production by placing orders with the craftsmen and facilitating direct and immediate payment to the craftsmen was crucial in such an intervention. These outcomes were far more productive compared to the earlier scenario where there was no follow up after the conventional design workshops conducted earlier.

The design team has learnt the challenges of planning and design for the Indian handicrafts of the north-east. This activity being the second most important economic activity of this region, the

importance of introducing a novel RTI approach in production of crafts for the NE cannot be over emphasized. Furthermore, the introduction of online marketing

ENTREPRENEURIAL MODEL

PHASE 2. (PROPOSED)



Fig 9. PHASE 2 The proposed model of the entrepreneurial intervention

for high value handicrafts of Meghalaya has potential to bring the handicraft community in such remote locations to the attention of national and international audience. Celebrating the artisan community of the region by branding cannot be over emphasized.

The Government of India, recognizing the need for a rapid transformation of the manufacturing sector for the economic growth of the nation, has recently introduced schemes such as 'Make in India' and 'Digital India'. The design team is convinced that the approach outlined as a model (outlined in figure 9) for the bamboo artisan community of Meghalaya has the potential to be scaled up for successful implementation. The proposal has convinced the Government of Meghalaya to go into the second phase of implementation of this project. It can result in the disruptive intervention that this unorganized but important sector urgently needs for its revival.

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REPORT ON

CRAFT DESIGN WORKSHOP

1

VENUE

VILLAGE : MAWKAPHAN

BLOCK : MAWSYNRAM

DATES

FEBRUARY 18-21, 2015

SPONSORED BY

DIRECTORATE
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GOVERNMENT OF
MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
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REPORT ON
**CRAFT DESIGN
WORKSHOP**

1

SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

VILLAGE : MAWKAPHAN
BLOCK : MAWSYNRAM

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IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 19





MEGHALAYA

FIRST WORKSHOP: FEBRUARY 18-21, 2015
VILLAGE: MAWKAPHAN BLOCK: MAWSYNRAM





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Functional Manager MIDC
8. **Shri Iban. K. Pyngrope**
Asst. Manager (CFS W/S) DCI

9. **Shri F. Passah**
Demonstrator DCI
10. **Shri. Gibonsing Kynter**
Headman of village Syntein

FROM IIT GUWAHATI

- Prof. Avinash Shende
Prof. Ravi Mokashi Punekar
Mr. Pritam Paraye
Mr. Subrata Chakraborty
Mr. Manik Das

FROM IIT BOMBAY

- Prof. Mandar Rane
Ms. Divya Bharadwaj

WORKSHOP ASSISTANCE FROM DCI, SHILLONG:

1. **Mr. Iban Pyngrope,**
Asst. Manager, CFS W/S, DCIC
2. **Shri F. Passah,**
Demonstrator, DCI



Summary

The Office of the DCI, Shillong organized the first Craft Design Workshop conducted by the IIT Guwahati (IITG) Design team at Mawkaphan village of Mawsynram block, East Khasi Hills, on February 18-21, 2015.

Mr. Gashgna, Dy Director, Department of Commerce and Industries (DCI), Shillong in the presence of Senior Officials of the DCI inaugurated the program. Shri H. Decruse, General Manager (East Khasi Hills), DCI, introduced the IITG Team, Shri P. K. Marbaniang General Manager MIDC, spoke about the theme of the training workshop and Mr. Mendon Pariat, Managing Director, MHHDC, extended warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IITG team during this workshop.



About Village – Mawkaphan, Block – Mawsynram:



Gibonsing Kynter
HEADMAN

Of the 200 families comprising the village nearly 70 families are involved in bamboo crafts who work on the available bamboo variety locally called 'Shken'.

There were 19 participants representing the crafts cluster of the Mawsynram block from the surrounding villages of Kynmynsaw, Kenbah, Jympiat, Domskong and Mawkaphan who participated regularly with great enthusiasm.

Mr. Gibonsing Kynter, Headman, Mawkaphan village extended gracious co-operation in encouraging all the craft persons to actively attend the workshop. Excellent arrangements were made to provide afternoon meals, tea and snacks for the participants.

Amongst the cluster of five villages, only Mawkaphan village has access to motorable road. Of the 200 families comprising the village nearly 70 families are involved in bamboo crafts who work on the available bamboo variety locally called 'Shken'. This grows in abundance and is available to the craft persons. Shken has an evenly distributed inter-node space of nearly 18-24 inches with long fibers, and an even cross section thickness of 2-3 mm. The outer sheath is used for basketry as it is very pliable and flexible in nature. The crafts people with a simple 'Dau' and the locally available Khasi knife work in drawing out even thickness long lengths of bamboo slivers which are then used for weaving. As the outer sheath is used, the weaving is done in the green stage before drying. No treatment of the slivers is done. The range of woven bamboo products includes lampshades, winnows, dust bins, hats, fruit bowls, and tiffin boxes.



Listed below is a summary of the range of products made locally.

SR. NO.	NAME	LOCAL NAME	PRICE IN RUPEES	TIME TO PRODUCE EACH PIECE
1	Lamp shade	Lamp shade	150	1 per day
2	Beetlenut Container	ShongKwai	80	1 per day
3	Winnow small	Prah	50	1 per day
4	Winnow large	Prah	60	1 per day
5	Decorative cone	Khoh	30	3 per day
6	Dustbin	Dustbin	120	4 per day
7	Bottle container with handle in hexagonal weave	Bottle	100	4 per day
8	Hat	Topia	120	1 per day
9	Fruit bowl	Bowl	150	2 per day
10	Pot	Burr Khiew	100	1 per day
11	Tiffin box	Burr	40	3 per day
12	Potato basket	Kriah Khong Phan	50	2 per day
13	Rain Headcover for field work (full size)	Knup	90	1 per day
14	Rain Headcover for field work (small size)	Knup	70	1 per day
15	Basket with legs	Shang Kwai	80	1 per day

There are 3-5 self help groups that have been formed by the crafts people. Each self help group comprises of 10-15 members. The craft produce is sold on market day once every 8 days in the village market to middle men who then resell it to different agencies in Shillong and other towns retaining their own profit margin.

The crafts communities distribute their time during the year between working the fields and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their home are therefore carried out during the months of January to March followed by June to August.



Workshop Activities - Day wise reporting

February 17, 2015

Workshop started at 11:30 am in presence of Headman of village, Syntein and the DCI dignitaries.



1. Shri J. Gashgna, Deputy Director (Planning), DCI
2. Shri H. Decruse, General Manager, DCI
3. Smti D. Kharjana, Asst. Director Cottage Industries (Tech), DCI
4. Mr. Mendon Pariat, Director, MHDC
5. Shri M. Pariat Managing Director MIDC
6. Shri P. K. Marbaniang General Manager MIDC
7. Shri A. Malngiang Functional Manager MIDC
8. Shri G. G. Lyngdoh Functional Manager MIDC
9. Shri I. K. Pyngrope Assistant Manager (CFS W/S) DCI
10. Shri F. Passah Bee-Keeping Demonstrator DCI

Mr. Gashgna inaugurated the workshop. Shri. Gibonsing Kynter Headman of village Syntein, welcomed the dignitaries to his village. Mr. Mendon Pariat and Shri H. Decruse, General Manager, DCI, spoke to the participants about the objectives on introducing new product line in bamboo crafts while Shri P. K. Marbaniang General Manager MIDC informed the importance of product innovation, quality and quantity. Prof Ravi Mokashi Punekar and Prof. Avinash Shende, IIT Guwahati outlined the theme and briefed the participants about workshop activities.

SESSION 1

Introduction of Participants

Kick off workshop started with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products designed by the IIT team were based on a brief formulated after market research. The products were designed by considering and adopting weaving skills practiced in Mawsynram/ Syntein. These included:

1. Laundry Basket
2. Chapati Basket
3. Waste paper Bin
4. Lamp shades

The molds designed and developed for each product were explained meticulously. The advantages of using mold and its effect on various factors, such as, standardization of products, maintaining dimensions and consistency were emphasized. This helps in stack-ability, which again plays a crucial role while transportation. On First day fifteen artisans attended the workshop, whereas, four other participants joined from day 2. The participants were from 5 different villages situated in Mawsynram block.

SESSION 2

Distribution

The participants were guided to prepare strips for the four different products, each product (listed above) demands bamboo strips of different sizes, length, width and thickness. Day 1 was completed with the preparations of strips required for next day weaving by using molds.

The participants were also asked to bring their products next morning, so that IITG Team can learn about artisans skills and weaving style, so that they could adopt the style of weaving into designed products by using molds.

DAY 2

Artisans brought their products, the products were examined and we discussed about the nature / style of weaving. Participants were guided about the products and the molds to be used.

The participants were divided into four groups as per product category. They were as follows:

Group 1 – Laundry basket

Group 2 – Chapatti (Roti) basket

Group 3 – Waste paper bin

Group 4 – Lamp shades

Group one and group two started with weaving laundry basket and chapatti basket respectively, with the help of IITG team. Examining the hexagonal weave pattern shown in figure 1, we decided to adopt the similar weaving style for creating the laundry basket.

Participants were briefed again about the products and the molds to be used.

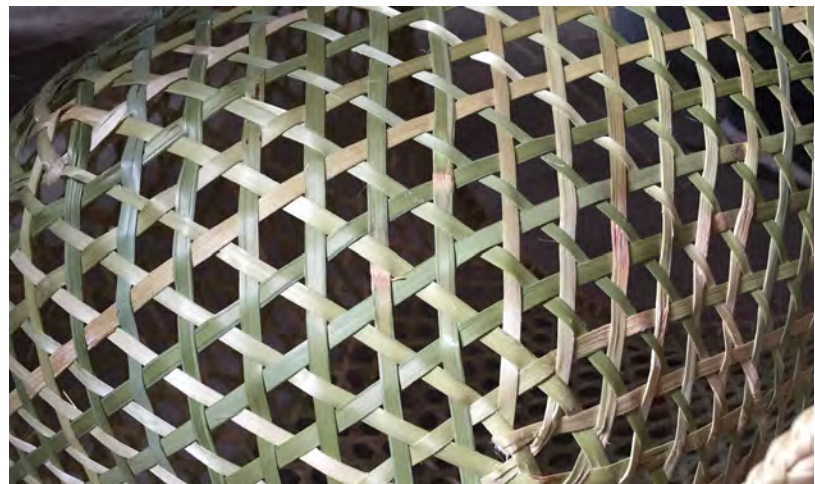
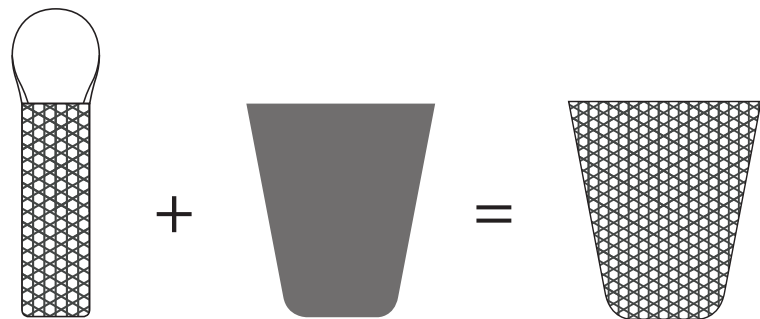


Fig.1 Hexagonal weave pattern

Observation

While adjusting the strips to realize exact hexagon, the artisans were seen hurting their fingers. A specific tool needs to be introduced here for this purpose. More than three artisans worked to complete this basket. It was again observed that artisans used the extended part of Khasi knife to adjust the hexagonal weave. A tool shown in figure 2 can be much more useful for the same.



Fig.2 (Right) Hands hurting while making the basket. (Top) Insight for developing a tool and guidelines on the mould to ease the efforts of artisans.

The artisans learned spiral weaving efficiently through hands on demonstration by IIT Guwahati team.

Moreover, printed line drawing of the weave pattern on the mold can be developed for the artisan to follow the lines as guides while weaving. This can be much more useful and effective for production. This will again help in achieving a higher level of precision and standardization in weaving and more importantly an artisan will save much time, as it was noted that the artisan spent a lot of time in adjusting the slivers and attaining perfect hexagon shape weave pattern. This may also lead to reduce stress on the artisans.



For chapatti basket, we adopted a spiral weave. This was decided on the basis of collection of bamboo products done during the brainstorming workshop held earlier. The spiral weave was new to the artisans of this craft pocket. They however learned spiral weaving efficiently through hands on demonstration by the IITG team. One artisan started weaving while two others assisted him by providing finished slivers and observing the making of basket.

After completion of the basket, the split mold was removed part by part. Removal of split mold was purposely done in front of all artisans present, to expose them to the kind of mold used in weaving baskets with an undercut.



Fig.3 Traditional Basket with rim detail.

The level adjustment of rim was a tricky task for the artisans, and hence, there is a need to develop a tool that will assist to adjust the level efficiently and precisely.

Feedback from artisans

Mr. Isban received feedback that all the artisans were extremely thrilled with the concept of molds and they were able to use the mold for weaving without apprehension. They realized that with the use of molds it becomes easy for them to achieve the desired shape.

In addition, there was a demand enquiring how could they make molds for their own traditional products. IITG team accepted the challenge and will soon work out ready to make mold for a few of their traditional products.

After completion of chapatti basket, IITG team noticed minor errors on the basket and made the artisans take notice of the flaws during weaving step by step, so that they could take care of the strips while weaving the second “chapatti basket” next day using same mold.

Documentation

Prof. Mandar Rane of IDC, IIT Bombay with Ms. Divya Bharadwaj, an expert team in communication design, carried out documentation of the whole process, including cutting bamboo to making of slivers, and the process of weaving baskets. The video documentation was also undertaken to be used in the website (shken.in) for the project and its promotion.

The name of participants, gender, age, EPIC number, address with Mobile number and the products they make were recorded to develop the database of participating craft persons.

Additionally, the team recorded interviews of all artisans gathering their views about living, livelihood and the art and process of basket weaving.

DAY 3

All artisans resumed work the next day with same enthusiasm. New members started making new variations of chapatti basket. by following the same instructions discussed on the previous day.

The laundry basket group removed mold from the basket with ease and started weaving the rim of the basket. The style of weaving the rim was adopted taking inspiration from the locally available basket shown in figure 3. This style is quite commonly practiced in Syntein. On completion, it was observed that the basket was looking beautiful, subtle and was made in less time.

Observation 2

The level adjustment of rim was a tricky task for the artisans, and hence, there is a need to develop a tool that will assist to adjust the level efficiently and precisely. Or, there can be marking on the mold for marking and cutting off the strips.

After completion of basket we tried to stack this woven basket inside the sample basket made by using same mold. It was found successfully stackable.



In the near future, one can anticipate that artisans will be given only mold to produce bamboo products.



The groups working on Waste paper basket and lampshades also started simultaneously using mold. It was found that artisans were able to make basket and lamp with very less effort and faster. There were very less concern to improve except a tool for cutting length and width sizing. It was observed that waste paper basket-using mold was extremely easy and artisan with less skill was also able to weave the waste paper basket. The mold is made of metal and is very easy to use. More number of these molds may help us to achieve production.

Mr. Darlson, who is a very aspiring artisan, started another style of laundry basket “as sample basket made at IITG”. The team of IITG demonstrated Sun weaving and made him learn thoroughly the different stages as such weaves required excessive care and attention during weaving. Mr. Dalson expectably picked up the technique very fast and made the whole basket within a day except making the rim. This was planned for the next day by artisan and IITG team.

PVC Tube is used as mold for making lampshades. PVC tube, which is commonly available, everywhere turned out to be very economical and inexpensive to procure. Artisans were shown about the start of weaving and they were asked to do weaving of their own choice, as any kind of weaving is possible using PVC tube mold.

Mold for locally available ‘Shken’ bamboo products can be a nice idea to explore, because this may make artisans familiar with mold and this will enable them to develop a culture of production. An increased level of acceptance amongst artisans will help to attract new comers in this field. The mold also acts as a medium to communicate between artisans and the designer. In the near future, one can anticipate that artisans will be given only mold to produce bamboo products. And hence it is proposed that a special session on HOW TO MAKE MOLD will be carried out during production workshop at IIT Guwahati.

A combination of weave was tried out for laundry basket that was inspired by cage weave and ‘one by one’ weave found in Mawsynram. The style of making rim was the same as used in vegetable basket made of bamboo locally. Time taken to weave this basket was very less.

At the end of day 3, we had developed 3 varieties of laundry baskets using molds. Artisans were informed about the marketing need of variations in design to offer choice for customers and buyers.

DAY 4

Day 4 was the concluding day of workshop. All the pending work of bamboo products like rim of bamboo laundry basket

and chapatti baskets were completed. Finally, the products made by artisans were highly satisfactory.

Valedictory session started at 2:00 in the afternoon. IITG Team, DCI officials and artisans were interchanging dialogues about the workshop, discussed issues related to learning and received critical feedback.

To verify and validate if artisans are able to make the bamboo products with same finish and acceptance on their own, IITG team placed orders for fifteen number of laundry baskets and chapatti baskets with the artisans.

The Dy. Director Mr. Gashgna made observation expressing satisfaction regarding the outcome of the 4th day workshop and Mr. Decruse, General Manager (East Khasi Hills), DCI, extended the vote of thanks.

A group photo session with all the participants marked the end of the workshop.

KHUBLEI.



Artisans group photo.

SHKEN HEROES



Darson Byrsaw



Biknet Langpen



Dheilang Disiar



Sajina Pdahkasiej



Dra Kenter



Hodling Langpen



Lihshai Kynter



Phio Pdahkasiej



Pilu P Kasiej



Pistina Kongsang



Rangjip Pdahkasiej



Sima Kynter



Slanda Langpen



Spilda Disiar



Srulda Kenter



Starwell Pdahkasiej



Swik Disiar



Thira Kenter



Tising Pdahkasiej



Khril Khongwet



DCI + IITG + IITB + Artisans group photo.



VENUE
VILLAGE : MAWKAPHAN
BLOCK : MAWSYNRAM

DATES
FEBRUARY 18-21, 2015

SPONSORED BY
DEPARTMENT
OF COMMERCE AND
INDUSTRIES

**GOVERNMENT OF
MEGHALAYA**

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:
Prof. Mandar Rane + Priti Rajwade

Photographs:
Divya Bhardwaj

Content:
Prof. Ravi Mokashi
Prof. Avinash Shende

REPORT ON

CRAFT DESIGN WORKSHOP

2

SHKen.in

CRAFT • COMMUNITY • COLLECTIVES

VENUE

LOCATION : SHILLONG

DISTRICT : EAST KHASI HILLS

DATES

MARCH 17-21, 2015

SPONSORED BY

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INDUSTRIES
GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 14



MEGHALAYA

SECOND WORKSHOP
MARCH 17-21, 2015

MEGHALAYA

LOCATION: SHILLONG DISTRICT: EAST KHASI HILLS



DCI TEAM:

1. **Shri J. Gashnga**
Deputy Director (Planning), DCI
2. **Shri H. Decruse**
General Manager, DCI
3. **Smti D. Kharjana**
Asst. Director Cottage Industries (Tech), DCI
4. **Mr. Mendon Pariat**
Managing Director, MHHDC
5. **Shri P. K. Marbaniang**
General Manager MIDC
6. **Shri A. Malngiang**
Functional Manager MIDC
7. **Shri G. G. Lyngdoh**
Functional Manager MIDC

8. **Shri Iban. K. Pyngrope**

Asst. Manager (CFS W/S) DCI

9. **Shri F. Passah**

Bee-Keeping Demonstrator DCI

10. **Shri. Banri**

Industrial Promotion Officer,
DCI

WORKSHOP ASSISTANCE FROM DCI, SHILLONG:

1. **Mr. Banri**
Industrial Promotion Officer,
DCI (mobile: 097740 72599)

FROM IIT GUWAHATI

Prof. Avinash Shende
Prof. Ravi Mokashi Punekar
Mr. Pritam Paraye
Mr. Subrata Chakraborty
Mr. Manik Das

Summary

The Office of the DCI, Shillong organized the first Craft Design Workshop conducted by the IIT Design team at Shillong March 17-21, 2015. The program was inaugurated by Mr. Gashgna, Dy Director, DCI, Shillong in the presence of Senior Officials of the DCI. Shri H. Decruse, General Manager, DCI, introduced the IIT Team, Shri P. K. Marbaniang General Manager MIDC, spoke about the theme of the training workshop and Mr. Mendon Pariat, Managing Director, MHHDC, extended warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during this workshop.



About Shillong

Shillong, the capital city of Meghalaya is also the district headquarters of the East Khasi Hills district. It is a hill station located on the Shillong Plateau at a height of 1496 meters above sea level and is surrounded by hills on all sides.

Craft artisans – Shillong, Block :

There were 14 participants who were invited to attend the 2nd Craft Design workshop. They represented the crafts cluster from the surrounding villages of Umtong, Lynshing, Laitlynkot, Laban and Nongkynrih.

Artisans in the Shillong block are predominantly skilled in making sculpted craft items in bamboo with very little weaving involved in the product range they produce.

The craft styles and skills of the artisans from the Shillong block were completely different in comparison to the skill sets of craft persons who attended the 1st Craft Design workshop held at the Mawsynram block. Artisans in the Shillong block are predominantly skilled in making sculpted craft items in bamboo with very little weaving involved in the product range they produce. They use available bamboo variety, locally called 'Shken'. This grows in abundance in this region and is available to the craft persons at low cost. Shken has an evenly distributed inter-node space of nearly 18-24 inches with long fibers, and an even cross section thickness of 2-3 mm. Items they make include decorative showpieces and toys rather than functional goods. The range of the bamboo products includes Flowers, Flower sticks, Frames, Wall hangers, Toys, Bow & arrows.

Listed below is a summary of the range of products made locally.

SR. NO.	NAME	UNIT PRICE IN RUPEES	TIME TO PRODUCE EACH PIECE
1	Arrow and Bow	150	1 set per day
2	Arrow and Bow (Toy)	80	1 set per day
3	Flower Hangers	80	1 bunch per day
4	Wall Pieces	60	1 per day
5	Cane & Bamboo Flowers	100	3 bunches per day
6	Living room show pieces	120	3 pieces per day
7	Baskets	300	1 piece per day
8	Small Basket	120	2 pieces per day

Craft artisans work individually when it comes to work from home. The craft items produced are sold on market day once every 8 days in the village market to middle men who retain their own profit margin before they resell it to different agencies in Shillong city and other towns.

The crafts community distributes their time during the year between fieldwork and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their homes are therefore carried out during the months of January to March followed by June to August.

Workshop Activities - Day wise reporting

DAY 1 - March 17, 2015

Workshop began at 10:00 am in presence of DCI dignitaries.

1. Shri J. Gashgna, Deputy Director, (Planning), DCI
2. Shri H. Decruse, General Manager, DCI
3. Smti D. Kharjana, Asst. Director Cottage Industries (Tech), DCI
4. Mr. Mendon Pariat, Director, MHHDC
5. Shri M. Pariat, Managing Director, MIDC
6. Shri P. K. Marbaniang, General Manager, MIDC
7. Shri A. Malngiang, Functional Manager, MIDC
8. Shri G. G. Lyngdoh, Functional Manager, MIDC
9. Shri I. K. Pyngrope, Assistant Manager, (CFS W/S) DCI
10. Shri F. Passah, Bee-Keeping Demonstrator, DCI
11. Shri. Banri, Demonstrator, DCI

Shri J. Gashgna, Deputy Director (Planning), DCI, inaugurated the workshop. This was followed by introductory talks delivered by the DCI officials Shri H. Decruse, General Manager, DCI, Shri P. K. Marbaniang, General Manager, MIDC and Shri. Mendon Pariat, Director, MHHDC. Prof Ravi Mokashi Punekar and Prof. Avinash Shende, IIT Guwahati outlined the theme and outline of the workshop activities to the participants.

SESSION 1

Introduction of Participants

Kick off workshop began with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products designed was planned after market research and by considering and adopting weaving skills practiced amongst the craft pockets. However, in this instance, since the style and skill capabilities of this block were different, the design team quickly adapted to their needs and came up with alternate range of products and the modes of making them. The product range shortlisted included the following categories:

1. Waste paper Bin
2. Lamp Shades
3. Pendant lamp
4. Flower sticks
5. Coasters

The molds designed and developed for each product category were explained meticulously. The advantages of using mold and its importance was highlighted. It was explained to the artisans

The molds designed and developed for each product category were explained meticulously emphasizing the advantages of using mold and its importance.

how molds help in standardization and maintaining of product dimensions. The importance of stack-ability was explained as a crucial function in saving space and volume during transportation. The discussion led to the importance of molds and their usefulness for production of bamboo craft products in their rural setting.



First day was spent in preparation of strips by splitting, slicing and width sizing of the bamboo strips from lengths of Shken bamboo.

SESSION 2

The participants were informed to prepare strips and sticks for the different products. Slivers had to be prepared for the newly introduced pendant lamp. First day was spent in preparation of strips by splitting, slicing and width sizing of the bamboo strips from lengths of Shken bamboo.

DAY 2

The second day was also completely spent in preparation of raw material. During both these days the artisans were engaged in making bamboo strips of different sizes, length, width and thickness, which they were to use for above listed products. They were introduced to the use of simple mechanical tools like handsaw, width-sizing device, chisel and marking tools.

DAY 3

On the third day artisans were ready with the required strips, sticks and slivers for weaving using molds. To learn and understand the skills and weaving style that the artisans were familiar with, the participants were encouraged to bring their products on the 3rd day. The IITG team critically examined these and these styles were subsequently adopted for weaving in the designed products by using molds.



Fig.1 Local products made by artisans

Participants were briefed again about the products and the molds to be used. The participants were divided into four groups as per the following product category.

- Group 1 – Laundry basket
- Group 2 – Waste Paper Bin
- Group 3 – Coasters
- Group 4 – Pendant light



The artisans were found continuously switching places and overall time taken was considerably higher. It took about one and half day to finish the basket.

Group One and Group Two started with their work, with inputs from the IIT Guwahati team. Artisans were suggested to adopt the basic weave style 'one by one' for the laundry basket.

Observation

While making the laundry basket the artisans were found to have difficulty in bending forward for reaching the mold. The working posture for the task was awkward and tiring. The artisans were found continuously switching places and overall time taken was considerably higher. It took about one and half day to finish the basket. Considering all these issues, ergonomic considerations was really playing a vital role. Making close observations of the manner of working, the design team felt the need to introduce specific tools for the purpose of weaving and also the need to design a fixture for the mold to be fixed. This would help improving the working posture and reducing the levels of manual labour leading to efficiency in production.

With these additional modification to the process, there would be higher levels of precision in weaving patterns and standardization in weaving. The overall time taken for production will be less and the cognitive stress on artisans will also reduce.



Fig.2 (Left) Artisan weaving the laundry basket using green outer sheath of bamboo as slivers



Fig.3 (Right) Artisan closing the rim of the laundry basket by interlocking of the slivers

Making the waste paper bin using the developed mold proved to be the easiest product to make. All the artisans of this cluster accepted this product as they could easily adapt to the simplicity of use of the mold in making it. The group that chose to work on



Fig.4 Assembling the paper basket using mold

For the first in this workshop we tried introducing a handle in the existing product in a seamless manner by incorporating a 180° bend of longer bamboo stick incorporated in the same weave.

the wastepaper bin, with some advise from the IIT team, were completely found immersed in its production. For the first time in this workshop we tried introducing a handle in the existing product in a seamless manner by incorporating a 180° bend of longer bamboo stick incorporated in the same weave. Two artisans started making variations in two sizes - big and small bins, while other group members were engaged in providing them the required finish sticks while closely observing the making of basket. The value of the use of mold can easily be sensed in the making of the product. After completion of bin the mold was easily removed.

Mr. Banri received feedback that all the artisans were extremely thrilled with the use of molds and all artisans accepted its usefulness for weaving without apprehension. They found that it becomes very easy to achieve consistency of shape.

There were demands enquiring how other molds could be designed for their own traditional products. IIT Guwahati team accepted this challenge and is ready to help in introducing mold for some of their traditional products.

After completion of Waste paper bins, IITG team noticed minor errors on the basket and made the artisans take note of this step by step. The group took note and could appreciate its affect on the shape of the sticks, its size and the proportion of the handle with respect to the bin. While making second iteration of small bin with Reed bamboo on 4th day, every aspect was made to its mark.

Mr. Shivaji from IITG team undertook the photo-documentation of the workshop proceedings. Data base was generated of the participants by gathering their name, gender, age, EPIC number, address and mobile phone number. Detailed notes were made of the products they presently make. (Given in List 1)

DAY 4

All artisans resumed with same enthusiasm on day four. Waste paper bin group continued work following the same instruction discussed on previous day.

The lamp shade group also started weaving using the cylindrical mold. It was noticed that artisans were initially finding the hexagonal weave tricky to weave. With some inputs from the IITG team they could overcome this difficulty and lampshades started taking shape. After a while, two artisans got involved in making on their own. With using tools for cutting length and width sizing, they could weave quickly with very less effort and quickly.

The third group started to shape the pendant lamp. Artisans were instructed very meticulously about the cutting and slicing of the bamboo and the uniformity, which need to be maintained in a product when there is repetition of same part. This lamp had different processes like cutting, bending, slicing and tying to give it

Fig.5 Assembly of Bamboo Pendant lamp





Fig.6 Artisan finishing the paper basket

One major objective of this project is to create different design of each bamboo products that can offer a choice to customers ranging from affordable price range to higher price range.

the requisite shape. Since it was their first attempt of making this product, it took more time. But finally the pendant lamp was indeed looking beautiful.

Mr. Jendra was the most hardworking artisan. He finished making the previous basket overnight and wanted to make another. As his hands were getting a good feel in making the bin, he started another one in reed bamboo as instructed by the IITG team. Undoubtedly this artisan was the most adaptive and adventurous and went on to make the whole basket with the handle in one day.

PVC Tube is used as mold for weaving the lampshades. PVC tube is readily available commercially and is inexpensive. Artisans were showed the use of the PVC tube as a 'pre-form' for weaving and the manner of start of weaving. They were encouraged to do weaving of their own choice, as any kind of weaving is possible using the PVC tube as mold.

Mold for locally available bamboo products is a nice idea to explore. This will make artisans familiar with use of mold and will inculcate a culture of production. This will also increase a level of comfort and be able to attract new comers in this field. The mold can also act as a medium to communicate effectively between artisans and the designer. In the future artisans can be given only mold to produce bamboo products. Hence this led to the idea of conducting a special session on Technique of Mold making for Bamboo craft products that can be introduced during the Production workshop at IIT Guwahati.

Observation 2

It was observed that waste paper basket-using mold was extremely easy and artisans with less skill are also able to weave them. The mold is made of metal and very easy to use. Production of many such molds may help us to achieve production volumes required of such an essential product.

A combination of weave was tried out for laundry basket - 'alternate' weave for the walls and 'spiral' weave for the rim. The focus of this workshop is to use mold for making bamboo products with different weave and different rim. One major objective of this project is to create different design of each bamboo products that can offer a choice to customers ranging from affordable price range to higher price range.

Considering that artisan of this cluster had different skill sets, the IITG team offered to come up with suitable products like the coasters, and the masculine pendant lamp. The lampshade artisan group, found it tricky and difficult to learn the hexagonal weaving technique as also the making of the slivers. There was no uniformity in terms of width and thickness of slivers. IITG team had to struggle to get consistency in its production.



Smti. M.B Roy, Director, DCIC

All the finishing work of bamboo products like rim of Lampshades and Coasters were completed.

DAY 5

The workshop concluded on day five. All the finishing work of bamboo products like rim of Lampshades and Coasters were completed. The product range made by artisans was highly satisfactory.

Concluding session started at 5:00 in the afternoon. IITG Team, DCI officials and Artisans were exchanging the workshop learning and experiences. The IITG team received critical feedback.

To keep continuity in their production skills and the use of molds, the IITG team placed order for Waste paper bin, Laundry basket, and Lamp Shades with two artisans groups. This was to understand and ensure that artisans are able to make on their own the new range of bamboo products with same finish and acceptance standards.

The workshop concluded with a closing session addressed by Smti. M.B Roy, Director, DCI and vote of thanks proposed by Mr. Pariat Mendon.

KHUBLEI.





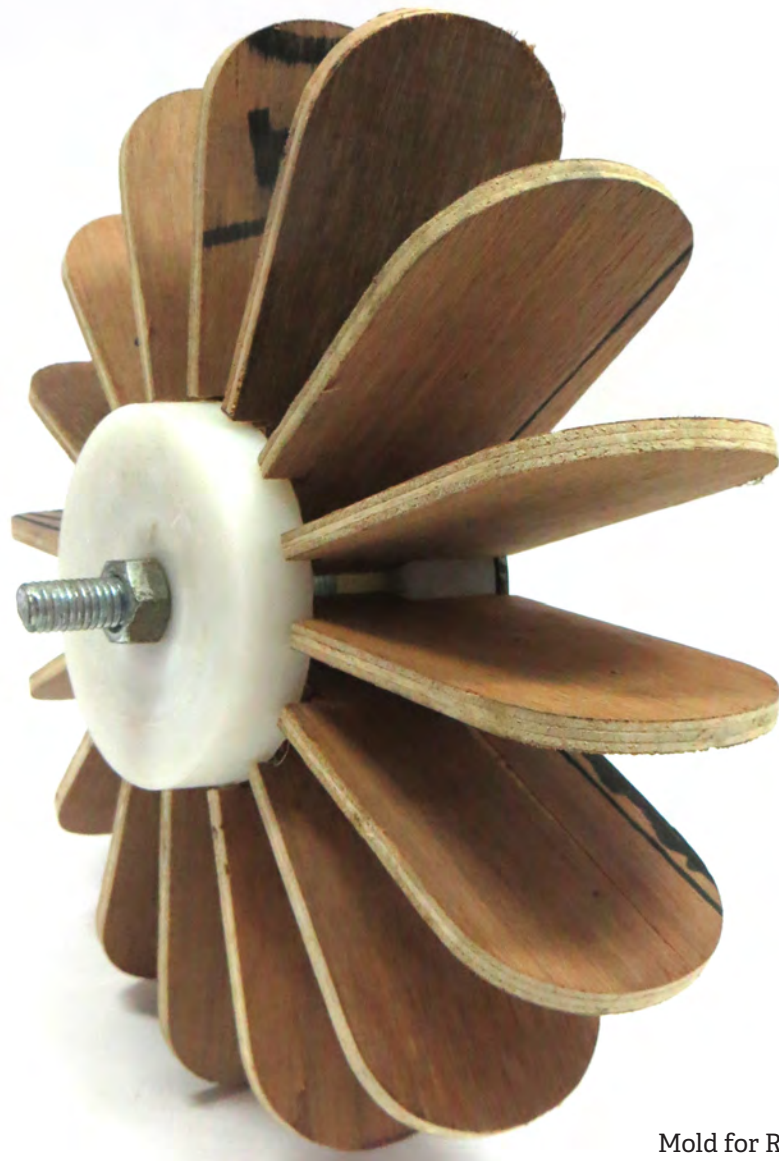
Paper basket mold –
variation 1



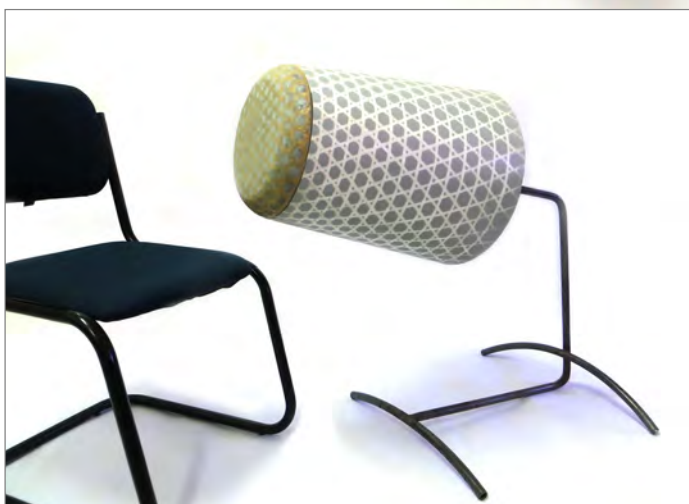
Paper basket mold – variation 2



Mold for lamp shade



Mold for Roti basket



Workstation and mold design for laundry basket

SHIKEN HEROES



Iur Pynrope



Isun Pyngrope



Dispi Kharbuli



Raplang Khriam



Proshostar Lyngdoh



Jendrasing Kurkalong



Patrick Suting



Aitila Songthiang



Petromila Kharsahmoha



Aibringstar Songthiang



lolang Suting



Balarihun Rynjah



Tipmon Lyngdoh



Tlarsing Rynjoh





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CRAFT • COMMUNITY • COLLECTIVES

REPORT ON
**CRAFT DESIGN
WORKSHOP**

2

VENUE

LOCATION : SHILLONG

DISTRICT : EAST KHASI HILLS

DATES

MARCH 17-21, 2015

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES

GOVERNMENT OF
MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY

IDC, IIT BOMBAY



Report Design:

Prof. Mandar Rane + Priti Rajwade

Content:

Prof. Ravi Mokashi Punekar

Prof. Avinash Shende

REPORT ON
**CRAFT DESIGN
WORKSHOP**

3

SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

TOWN : PYNURSLA
BLOCK : PYNURSLA

DATES

MARCH 18-20, 2015

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES
GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 15



MEGHALAYA

**THIRD WORKSHOP
MARCH 18-20, 2015**

MEGHALAYA

VILLAGE: PYNURSLA BLOCK: PYNURSLA



DIC TEAM:

1. **Shri H. Decruse**,
General Manager, DIC
2. **Mr. Mendon Pariat**
Managing Director,
MHHDC
3. **Smti Iubada Wahlang**
Functional Manager,
East Khasi Hills, DIC
4. **Shri Iban. K. Pyngrope**
Assistant Manager
(CFS W/S) DIC
5. **Shri Kyntiewbok Basaiawmoit**
Demonstrator DIC
6. **Headman of village Pynursla**

FROM IIT GUWAHATI

Prof. Avinash Shende,
Prof. Ravi Mokashi Punekar
Mr. Manik Das

WORKSHOP ASSISTANCE FROM DIC, SHILLONG:

1. **Mr. Iban Pyngrope**
Asst. Manager, CFS W/S, DCIC
(Mobile: 098630 67192)
2. **Shri Kyntiewbok Basaiawmoit**,
Demonstrator DIC

Summary

The Office of the DCI, Shillong organized the third Craft Design Workshop conducted by the IIT Design team at Pynursla village of Pynursla block, East Khasi Hills, on March 18-20, 2015.

This workshop ran in parallel to the second workshop being held at the Craft Center, MDCI, Shillong.

Mr. Decruze, Regional Manager East Khasi Hills, DCI in the presence of Senior Officials of the DCI inaugurated the program. Smti. Iubada Wahlang, Functional Manager, East Khasi Hills, DCI, introduced the IIT Team, to the Artisan community present and Mr. Mendon Pariat, Managing Director, MHHDC, extended warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during this workshop. There were 15 artisans attending this Design Workshop.



The total population of Pynursla Block is 56,448 living in 10,847 houses. Spread across total 22 villages and 22 panchayats.

About Village – Pynursla, Block – Pynursla

Pynursla Pyllun town forms the headquarters for the Pynursla Block comprises of a cluster of around 22 villages. Located at a distance of approximately 49 km from Shillong, the drive upto Pynursla Pyllun is a climb up though winding mountains witness to breathtaking mountain cliffs hugging the edge of broad well laid out roads. Access by road is easy. The drive beyond Pynursla will take you to the state border village of Dwoki and the well known 'Cleanest village' of Mowlinglon.

The town forms an important market for the locals here. The market is well developed. Facilities of an SBI bank, a number of missionary schools and also a local college speaks well of the town being well organized and active with enterprise. The vehicular traffic of heavily loaded trucks carrying lime stone from the quarries keeps the roads busy with traffic. The town is dotted with a number of churches and the pleasant morning sunrise carry with them the sounds of the string of early morning church bells ringing in harmony.

The local people speak English, Khasi and Garo dialects. The total population of Pynursla Block is 56,448 living in 10,847 houses. Spread across total 22 villages and 22 panchayats. Males are 28,040 and Females are 28,408.

About the Design Workshop at Pynursla

The IIT Design team conducted the Design workshop between the dates March 18-20, 2015 held at the Community Centre in Pynursla. There were 15 participants representing the crafts cluster from the surrounding villages of Tangmang, Mawkajem, Korblang, Nongshkein and Wahmawlein, who are known for their expertise in making woven bamboo mats. Two participants were men in an otherwise female artisan dominated group.

The Headman of Pynursla was very kind in arranging the village community hall as the venue for the workshop and extended gracious co-operation in encouraging all the craft persons to actively attend the workshop. Excellent arrangements were made by Mr. C.K Thanh and his family members, to provide afternoon meals, tea and snacks for the participants.

Most of the participants involved in bamboo crafts work on the available local bamboo variety generically called 'Shken'. However under the same name are different biological species which vary in length, diameter and wall thickness. The reed bamboo is used for making arrows for archery; the slightly bigger diameter one used for making musical wind instruments and the large diameter varieties used for weaving mats.

The climate is ideally suited for growing bamboo with regular cross section thickness and long fiber variety ideal for woven bamboo products. The locals follow the technique of smoking their bamboo by stacking them above the fireplace. This practice at their homes results in making bamboo products that are smoke treated and well seasoned. Most women practice their craft during the peak rainy season when agriculture activities are minimal.

The Shken bamboo grows in abundance and is available to the craft persons. Shken has an evenly distributed inter-node space of nearly 18-24 inches with long fibers, and an even cross section thickness of 2-3 mm. The outer sheath is used for basketry as it is very pliable and flexible in nature. The crafts people with a simple 'Dau' and the locally available Khasi knife work in drawing out even thickness long lengths of bamboo slivers which are then used for weaving. As the outer sheath is used, the weaving is done in the green stage before drying. No treatment of the slivers is done. The range of woven bamboo products includes lampshades, winnows, dust bins, hats, fruit bowls, and tiffin boxes.

The reed bamboo is used for making arrows for archery; the slightly bigger diameter one used for making musical wind instruments and the largest diameter varieties used for weaving mats.



Listed below is a summary of the range of products made locally.

SR. NO.	NAME	LOCAL NAME	PRICE IN RUPEES	TIME TO PRODUCE EACH PIECE
1	Mats		350 -500	1 in 2-3 days
2	Woven Bags	Shong Kwai	80	1 per day
3	Winnow small	Prah	50	1 per day
4	Winnow large	Prah	60	1 per day
5	Decorative items	Khoh	30	3 per day
6	Dustbin	Dustbin	120	4 per day
7	Baskets	Basket	100	4 per day
8	Trays	Topia	120	1 per day
9	Fruit bowl	Bowl	150	2 per day
10	Pot	Burr Khiew	100	1 per day
11	Rain Headcover for field work (full size)	Knup	90	1 per day

These craft cluster operate in a well-organized manner as Self Help Groups managed by the women folk. Each Self Help Group comprises of 10-15 members. The craft produce is sold on market day once every 8 days in the village market to middle men. These agents who then resell it to different agencies in Shillong and other towns retaining their own profit margin.

The crafts communities distribute their time during the year between working the fields and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their home are therefore carried out during the months of January to March followed by June to August.



Workshop Activities - Day wise reporting

DAY 1 - March 18, 2015

Workshop started at 11:30 am in presence of Headman of village Pynursla and the DCI dignitaries.

1. Shri H. Decruse, General Manager, DCI
2. Mr. Mendon Pariat, Managing Director, MHHDC
3. Smti Iubada Wahlang, Functional Manager, East Khasi Hills, DCI
4. Shri Iban. K. Pyngrope Assistant Manager (CFS W/S) DCI
5. Shri Kyntiewbok BASaiawmoit, Demonstrator DCI
6. Headman of village Pynursla

Shri H. Decruse inaugurated the workshop. Headman of village Pynursla, welcomed the dignitaries to his village. Shri. Mendon Pariat spoke to the participants about the objectives on introducing new product line in bamboo and the importance of product innovation, quality and production. Prof Ravi Mokashi Punekar and Prof. Avinash Shende, IIT Guwahati outlined the theme and outline of the workshop activities. The session ended with a vote of thanks given by Smti Iubada Wahlang, Functional Manager, East Khasi Hills, DCI.

Prof. Avinash Shende delivered a talk about the products and the molds designed and developed at IIT Guwahati. He emphasized on the importance of mold to achieve consistency on the products shapes and sizes, and its importance while transportation in bulk. The talk was followed by a demonstration of mold by highlighting on its effectiveness on production and the time taken for making products.

In the Pynursla block all artisans are in bamboo mat weaving using 'shken' bamboo slivers. It was also noticed that artisans from this block follow a healthy practice of keeping stock of bamboo strips, which forms the primary raw material for making most bamboo woven product. Although the strips are dry over time, the artisans simply soak the strips in water and have them flexible again for easy of weaving.

(Note: Having inventory of Primary raw material is very essential to ensure production during the off season, as harvesting of bamboo is seasonal in the village tradition.)

After discussing with artisans and knowing their skills, they were divided into 3 groups.

1. Matt Weaving - for mat weaving, packaging and fruit basket
2. Chapatti Basket – using molds
3. Cane coil and weave – an uncommon style in Meghalaya

Artisans from this block follow a healthy practice of keeping stock of bamboo strips, which forms the primary raw material for making most bamboo woven product.

After instructions were given to the artisans, half of the artisans started preparing primary raw material, such as bamboo slivers from Shken bamboo and cane slivers. The other participants, who already had bought bamboo strips, were instructed and started weaving mats of a given size.

The size of mat was decided on the basis of the product - such as place mats, Yoga mats, and child play mats. Later, these mats were taken to Guwahati for finishing by lining them with foam and jute cloth and border stitched to convert them into Yoga mats/child play mats and mats for general use.

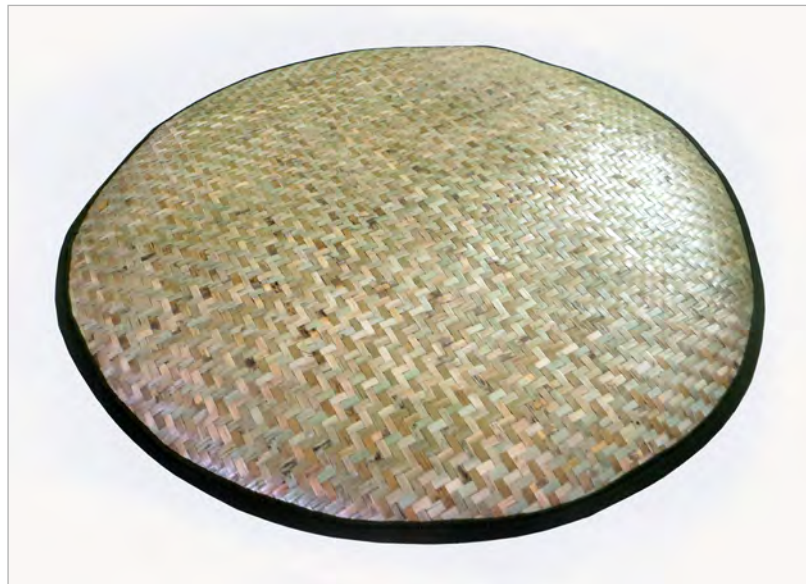
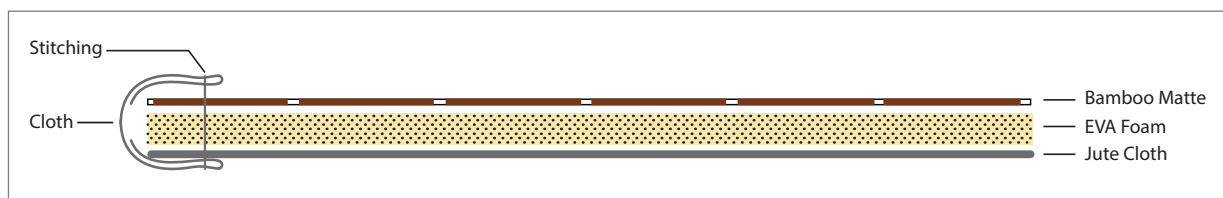


Fig.1 (Right) Yoga mat, child mat

Fig.2 (Below) Cross section of Yoga Mat



Time taken to complete binding edges of mat is 3 times more than that of mat weaving itself. This increases the cost and reduces the rate of production.

Observation

Traditional way of binding edges of these mats are extremely beautiful and valuable. With such binding it fits into the category of pure craft. Most importantly, it carries a unique identity of Meghalaya craft along with it. But the process of traditional edge binding is extremely tedious and time consuming. Time taken to complete binding edges of mat is 3 times more than that of mat weaving itself. This increases the cost and reduces the rate of production. Having noticed this, we decided to eliminate edge binding the traditional way. However, if we combine bamboo mat with PVA foam and jute lining and stitch the border, the production time is considerably shorter. The final product is softer and safer to use enhancing the overall value of the mat. The product range when offered in different sizes can meet the customer demand.

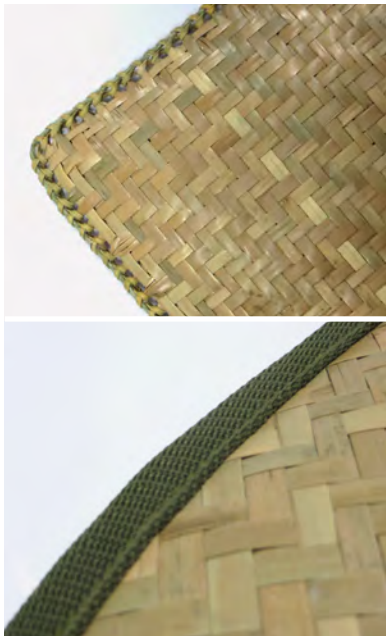


Fig.3 (Top) Mat border

Fig.4 (Right) Frame template for edge weaving



However, we also anticipate that introducing such practice in the villages might result in making the traditional technique eventually extinct. Such damage is unacceptable and hence we recommend such facility for product transformation be situated away from the villages.

DAY 2

On day two, the participating group of artisans continued weaving mat. The other two groups started weaving chapatti basket using mold and cane coil technique basket.

Fig.5 (Left) Hexagonal weave on Chapatti basket mould

Fig.6 (Right) Rim binding on hexagonal weave chapatti basket

Hexagonal weave was tried out on chapatti basket mold. Initially, the master craft man and trainer from IITG demonstrated hexagonal weave on chapatti basket mold. Later the artisans continued weaving in the chapatti basket using the mold and this resulted in an excellent shape. Following this Half split round cane (cross section diameter 12mm) was used for Rim binding. Rim binding is a special skill that was first demonstrated by IITG trainer, that was then practiced by artisans.



Group 3 was working on cane coil weaving basket. In Meghalaya very few artisans are practicing such a craft technique. This craft seems to have been introduced by outsiders. A few artisans have picked up the skills and are now practicing it. This craft technique however offers a great potential to develop products such as office stationeries, trays, fruit tray etc. As observed, process of weaving in cane coil takes longer time, hence we asked artisan to weave only periphery (as shown in figure 7) of basket by using base of laundry basket mold. The bottom part of basket was planned to be done following alternative ways. Few are illustrated in figure

Fig.7 (Left) Cane Coil Basket weave without base



Fig.8 (Right) Cane Coil Basket weave with base



Making use of the Chapatti basket mold to form this structure we crossed two mats to overlap and camouflage to form a flower like structure.

DAY 3

Having studied the weaving skills among artisans on the first two days, we attempted exploring another way of making basket. Making use of the Chapatti basket mold to form this structure we crossed two mats to overlap and camouflage to form a flower like structure. This conceptual idea needs to be developed further.

Considering a huge demand of craft packaging for fruits, dry fruits, chocolates during Indian festival like Diwali and Christmas, a simple packaging design was conceived on the spot. Just by observing the process of mat making and continuing our explorations, the concept of mass production of a package for dry fruits was planned by keeping design very simple and extremely easy to produce by anyone.

Fig.9 Template for four corner weave





Fig.10 Open end weave packaging.



Fig.11 A petal shaped basket using chapatti basket mould.

In the afternoon of day three we had the conclusion function of the workshop.

Concluding and Valedictory session was planned for 4:00 in the afternoon. IITG Team , DCI official and artisans were exchanging dialogues about the workshop and discussed various issues related to learning during the workshop. The IITG team received constructive critical feedback.

To verify if the artisans are able to independently make the newly introduced products with a good finish and acceptable quality, IITG team place orders for 50 pieces of packaging mats, 10 pieces of roti baskets and 10 number of coil cane baskets.

The Dy. Director Mr. Gashgna made observation-expressing satisfaction regarding the outcome of the 4-day workshop and Mr. Decruse, General Manager (East Khasi Hills), DCI, extended the vote of thanks.

KHUBLEI.

DIC + IITG + Artisans group photo



SHIKEN HEROES



Jusmanwel Jyrwa



Japan Khongwir



Linda Khoglam



Shyndilta Khongsdie



Twil Dahar



Milinda Massar



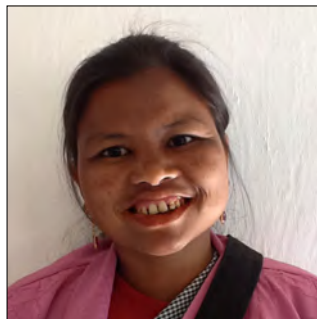
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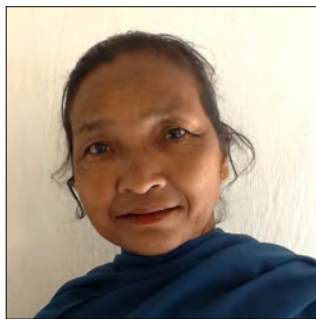
Shisha Massar



Nialang Nongrum



Sinar Khongji



Khril Khongwet



Edwijis Nongrum



Solinda Pariat



Barisha Pariat



Dameris Khongwet





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CRAFT • COMMUNITY • COLLECTIVES

REPORT ON
**CRAFT DESIGN
WORKSHOP**

3

VENUE
VILLAGE : PYNURSLA
BLOCK : PYNURSLA

DATES
MARCH 18-20, 2015

SPONSORED BY
DEPARTMENT
OF COMMERCE AND
INDUSTRIES

**GOVERNMENT OF
MEGHALAYA**

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:
Prof. Mandar Rane + Priti Rajwade

Content:
Prof. Ravi Mokashi Punekar
Prof. Avinash Shende

REPORT ON

CRAFT DESIGN WORKSHOP

4

SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

VILLAGE : NONGSTOIN
BLOCK : NONGSTOIN

DATES

AUGUST 17-19, 2015

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES
GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 15



MEGHALAYA

FOURTH WORKSHOP: AUGUST 17-19, 2015
VILLAGE: NONGSTOIN BLOCK: NONGSTOIN





DCI TEAM:

1. **Shri J. Gashnga**
Deputy Director (Planning), DCI
2. **Mr. Mendon Pariat**
Managing Director, MHHDC
3. **Shri B.S.Nongkynrih**
General Manager, DCI
4. **Shri Steve**
Branch Manager, DCI

FROM IIT GUWAHATI

- Prof. Avinash Shende,
Prof. Ravi Mokashi Punekar
Mr. Pranav Satpute
Mr. Subrata Chakraborty
Mr. Manik Das
-

FROM IIT BOMBAY

- Prof. Mandar Rane
-

WORKSHOP ASSISTANCE FROM DCI, SHILLONG:

1. **Mr. Steve**
Branch Manager, DCI



Summary

The Office of the DCI, Nongstoin organized the fourth Craft Design Workshop conducted by the IIT Design team at Nongstoin August 17-21, 2015. The program was inaugurated by Mr. Gashgna, Dy Director, DCI, Shillong in the presence of Senior Officials of the DCI. Mr. Mendon Pariat, Managing Director, MHHDC introduced the IIT Team and spoke about the theme of the training workshop and Shri B.S.Nongkynrih, General Manager, DCI extended a warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during this workshop.



Stone craft, Wood carving and Bamboo craft are the important crafts among the rural communities of the region.

Some of the products were crafted by different technique in which the artisans had covered cane weaving with wool binding.

About Nongstoin

It is the district headquarters of the West Khasi Hills and is located at a distance of 95 kilometers from Shillong. It forms one of the most important town in this district for marketing and trade. Nongstoin has good infrastructure and civic amenities including Arts & Science College, Agriculture Research Centre and various government offices. The town is scattered around a very mountainous terrain with good private taxis & tempos serving the people. The outskirts of town has one of the most scenic mountain landscape in Meghalaya. Nongstoin is famous for traditional herbal Centre located in the town. Stone craft, Wood carving and Bamboo craft are the important crafts among the rural communities of the region.

Craft artisans – Shillong, Block :

There were 15 participants attending the workshop. They represented the crafts cluster of the Nongstoin block from the surrounding villages of Rambrai, Mawbiehtraw, Mawdoh, Nongtraw and Siejlieh who participated enthusiastically.

The Crafts made by the artisans were completely different than the crafts seen at other places like Masynram, Pynursla and Nongpoh. Artisans brought some crafts including cane woven caps/hats, hanging lamps, big basket with cone shaped lid and some decorative items. Some of the products were crafted by different technique in which the artisans had covered cane weaving with wool binding. This gave a complete textile appearance to the product but still maintaining its strength due to the inner cane reinforcement. The big basket with its conical lid was crafted with simple 1:1 weave with square shape at the bottom and circular shape at the top. Among 15 participants one was specialized in wood carving. He showed us some products made by him which were decorative items like miniature model of wood house.

Listed below is a summary of the range of products made locally.

S.NO	NAME	PRICE IN RUPEES	TIME TO PRODUCE EACH PIECE
1	Cane Caps/Hats	200	2 per day
2	Hanging lamps	150-200	2-3 per day
3	Basket	750-1000	1 per day
4	Living room show pieces	100-400	1 per day

Craft artisans works individually when it comes to work from home. The craft produce is sold on market day once every 8 days in the village market to middle men who then resell it to different agencies in the Shillong and other towns retaining their own profit margin.

Craft activities at their homes are carried out during the months of January to March followed by June to August.

The crafts community distributes their time during the year between fieldwork and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their homes are therefore carried out during the months of January to March followed by June to August.

Workshop Activities - Day wise reporting

DAY 1 - August 17, 2015

Workshop started at 10:00 am in presence of DCI dignitaries.

1. Shri J. Gashnga, Deputy Director (Planning), DCI
2. Mr. Mendon Pariat, Managing Director, MHHDC
3. Shri B.S.Nongkynrih, General Manager, DCI
4. Shri Steve, Branch Manager, DCI

The workshop was inaugurated by Mr. Gashnga. This was followed by Shri. Mr. Mendon Pariat, Shri B.S.Nongkynrih, General Manager, DCI and Prof Ravi Mokashi Puneekar and Prof. Avinash Shende, IIT Guwahati who outlined the theme and outline of the workshop activities.

SESSION 1

Introduction of Participants

Kick off workshop starts with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products design with a brief formulated after market research. The products are designed by considering and adopting weaving skills practiced in most craft pockets.

1. Waste paper Bin
2. Laundry Basket
3. Fruit Basket
4. Hexagonal Weaving Bag (Conference Bag)



The molds designed and developed for each products were explained meticulously emphasizing the advantages of using mold and its importance affecting various factors such as, standardization of products, maintaining dimensions and consistency. This helps in stack-ability, which again plays a crucial role while transportation of product. The discussion lead to the production of bamboo products, and how molds are very useful to do so.



Fig. 1 Waste paper bin with its mold.



Fig. 2 (Right) Hexagonal weaving bag crafting on pre-patterned mold.

We introduced width sizer to all artisans as all of them were making strips and slivers required for crafting of products.

After introducing and guiding them to use width sizer, they started making same size strips/ slivers with increased efficiency.

SESSION 2

Session 2- Distribution and raw material preparation

The participants were divided into three groups to make three products – Waste paper bin, Laundry basket and Hexagonal weaving bag. They started making raw material required for the crafting of these products. Two groups of 4 artisans each started making raw material for waste paper bin. Subrato and Manik guided them to make strips required for the waste paper bin. We introduced width sizer to all artisans as all of them were making strips and slivers required for crafting of products. Initially they started maintaining width of strips/slivers by using their special (khasi) knife but at every time they were cross checking the width of sliver/strip with the mold or template sliver. This process was time consuming and inefficient for them.

After introducing and guiding them to use width sizer, they started making same size strips/slivers with increased efficiency. On this day they finished their raw material strips, slivers for crafting waste paper bin, laundry basket and hexagonal weaving bag. The artisan who was specialized in wood carving was uncomfortable with bamboo strips and sliver making. So our team decided to use his skills to make wooden mold and we told him to bring wood on next day. All of the participants were very curious about molds and width sizer, some of them asked where to get these things as they wanted to purchase them.

DAY 2

On this day when we reached to the workplace, we saw them using waste paper molds by adopting their own procedure. They were doing weaving first and then they were trying to align strips with the mold. After showing them the correct method to use mold, they started using mold in correct manner. Some of them were very enthusiastic and hard working. The craftsman Bestar Kharbani finished first waste paper bin and then we told him to guide others. The craftsman Sparli Nonglang was doing his work by observing others and he finished his bin mostly by observing how others are doing it.



Fig. 3 Artisan finishing first waste paper bin by using mold.



Fig. 4 (Right) Group of artisans crafting waste paper bins.

At the end of the day participants completed four waste paper bins and one wooden fruit basket mold.

The group of three lady artisans was working on hexagonal weaving basket by using special pattern printed wooden mold. They were trying to match the slivers with the printed lines on the mold. Though the weaving was simple, they were taking more time initially but after getting trained they started doing it efficiently. One craftsman was working of laundry basket with simple 1:1 weaving, he was an aged person and was comfortable with basket weaving due to his previously weaved baskets. By using laundry basket mold, he was feeling very comfortable and efficient. The artisan who was specialized in wood carving brought wood from the market and as told to him he started making fruit basket mold. After demonstrating the exact requirement to him, he got exact idea about the required mold and he started carving wood into the mold.

The artisan Ristobar Langrin was very active and excited to learn the crafting of all the products. He helped all the participants in their task, also he was taking part in activities like arranging raw material and workplace. At the end of the day participants completed four waste paper bins and one wooden fruit basket mold.



Fig. 5 Artisan weaving laundry basket by using FRP pre-patterned mold.

Fig. 6 (Right) Prof. Avinash Shende guiding artisan about proper way of wood sanding.



Prof. Mandar Rane and Prof. Ravi Moakshi Punekar Carried out documentation of whole process, including cutting bamboo to making slivers and the process of crafting products. The video documentation was also undertaken to be used in the website(shken.in) for the project and its promotion.

The wood carving skill of artisans can be utilized to make molds, this will create an employment for wood carvers and also it will ensure availability of molds in local market.

Observations

As we observed that without guidelines artisans adopt their own methods to use mold, it is very important to provide proper guidelines before giving molds to the artisans.

As eight people were working in two groups to make waste paper bins, they produced more number of strips which ultimately increased rate of production. So to get more production its good to have more raw material ready.

After crafting first two waste paper bins they got exact idea about the product and they crafted next products with speed and efficiency.

The wood carving skill of artisans can be utilized to make molds, this will create an employment for wood carvers and also it will ensure availability of molds in local market.

Some of the identified enthusiastic persons could manage the production and supply process of products for particular village/ block.

DAY 3

Session started around 10 o'clock in the morning. The groups who were working on waste paper bin were still arranging some raw material and they were confident enough to make two more waste paper bins. According to them if they are using molds, 2-3 hours are enough to craft complete waste paper bin. At the end of the session

they completed 6 waste paper bins which was the major outcome from this workshop. Along with 6 waste paper bins artisans finished two hexagonal weaving bags, one fruit basket mold and one laundry basket. All the products made by artisans were highly satisfactory.

This day was concluding day for workshop. Valedictory session started at 2:00 o'clock in the afternoon. IITG Team, DCI Officials and artisans were interchanging dialogues about the workshop, Discussed issues related to learning and received critical feedbacks.

The General Manager Mr Shri B.S.Nongkynrih made observation expressing satisfaction regarding the outcome of the workshop with vote of thanks. He distributed participation certificates to all artisans and a group photo session with all the participants marked the end of the workshop.

KHUBLEI.



SHIKEN HEROES



Siprian Umiong Maweit



Pher Kharbithai Nongtraw



Khrolling Nonglang
Mawbiehtraw



Trengli Lyngdoh



Ristobar Langrin



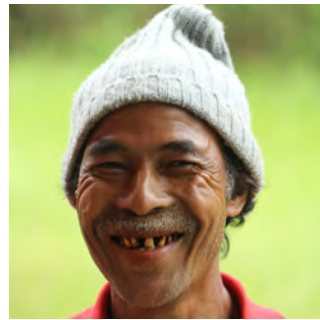
Khelna Langrin



Lampis Langrin



Westerwell Jyrwa



Sihon Puwein



Bestar Kharbani Thiepkseh



Hostinger Kharsyiemliehi,
Thiepkseh



Phliwel Lyngdoh



Sparli Nonglang



Sngum Lawai



Weian Lyngdoh



REPORT ON
**CRAFT DESIGN
WORKSHOP**

4

VENUE
VILLAGE : NONGSTOIN
BLOCK : NONGSTOIN

DATES
AUGUST 17-19, 2015

SPONSORED BY
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**GOVERNMENT OF
MEGHALAYA**

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:
Prof. Mandar Rane + Priti Rajwade

Photographs:
Mandar Rane

Content:
Prof. Ravi Mokashi
Prof. Avinash Shende

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REPORT ON
**CRAFT DESIGN
WORKSHOP**

5

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VENUE

VILLAGE : MAIRANG
BLOCK : MAIRANG

DATES

AUGUST 20-22, 2015

SPONSORED BY

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OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 15



5

MEGHALAYA

**FIFTH WORKSHOP
AUGUST 20-22, 2015**



MEGHALAYA

LOCATION: MAIRANG BLOCK: MAIRANG



DIC TEAM:

1. **Shri M. Washnang**
Dy. Director (Planning), DIC
2. **Shri Mayborn Diengdoh**
EAC Mairang
3. **Shri B.S.Nongkynrih**
General Manager, DIC
4. **Shri Steve**
Branch Manager, DIC

FROM IIT GUWAHATI

Prof. Avinash Shende,
Prof. Ravi Mokashi Punekar
Mr. Pranav Satpute
Mr. Subrata Chakraborty
Mr. Manik Das

FROM IIT BOMBAY

Prof. Mandar Rane

WORKSHOP ASSISTANCE FROM DIC, SHILLONG:

1. **Shri Steve**
Branch Manager, DIC

Summary

The Office of the DCI, Mairang organized the Sixth Craft Design Workshop conducted by the IIT Design team at Mairang between August 17-21, 2015. The program was inaugurated by Shri Mayborn Diengdoh, EAC Mairang, Shri M. Washnang, Dy. Director (Planning), DCI Shillong spoke about the theme of the training workshop in the presence of Senior Officials of the DCI. Shri B.S.Nongkynrih, General Manager, DCI, introduced the IIT Team.



About Craft artisans – Mairang, Block:



Fig. 1 Moda – Specially crafted stool for seating.

All 15 artisans were ladies and all of them were having skills in crafting Moda.

There were 15 participants attending the workshop. They represented the crafts cluster of the Mairang block from the surrounding villages of Jadap, Kynrud, and Mawiong. They participated enthusiastically during the inaugural interaction with the IIT Guwahati team.

All 15 artisans were ladies and all of them were having skills in crafting Moda (Specially crafted stool for seating). Moda is crafted by special arrangement of bamboo sticks which gives helical form to it. The weaving at the middle crossing point holds all the strings together and gives structural strength to the Moda. A special weaving by adding circular rings of bamboo strips covers the top opening end of the Moda. Moda is a low cost product and requires special skills and technique to craft it. After crafting the modas, they are hung above the cooking fireplace to treat them with some coming from cooking place. Smoke prevent Modas from insects and fungus and also it increases its life. Artisans brought some modas with them which were crafted with special star weaving on the top.

Artisan takes nearly one full day to make one moda and they sell it in local market for the price of 400 - 500. Obviously the rate of product is very low and the returns therefore very limited for the artisan.



Major focus was to reduce volume of moda as much as possible. So we decided to make the height of moda as small as possible and fix it on separate stackable stand to maintain the seating height.

Observation and Concept Generation

- Due to its particular form, moda is non stackable and hence it consumes more volume which ultimately increases its transportation cost.
- The form of moda is interesting and the technique of forming it quite unique. This gives special appealing touch and strength to the product. We thought to improve product for low cost and easy transportation by keeping its form same
- Major focus was to reduce volume of moda as much as possible. So we decided to make the height of moda as small as possible and fix it on separate stackable stand to maintain the seating height.
- Also the interesting structure of moda can be used to form a complete new product range. To enable this we decided to transform top weaving of moda to its middle portion and to keep both the ends open. Such a product could be used as a fruit tray with many more possible options of use.
- In third iteration we decided to shift crossing point of sticks to the bottom portion of moda, which will form some basket like structure and the product could be used as basket or as a table top.

Fig. 2 Ideation sketches to transform moda into new utility product.



Workshop Activities - Day wise reporting

DAY 1 - August 20, 2015

Workshop started at 10:00 am in presence of DCI dignitaries.

1. Shri M. Washnang, Deputy Director (Planning), DCI
2. Shri Mayborn Diengdoh , EAC Mairang
3. Shri B.S.Nongkynrih, General Manager, DCI
4. Shri Steve, Branch Manager, DCI

The workshop was inaugurated by Mr. Washnang. This was followed by Shri. Mayborn Diengdoh , EAC, Mairang, addressing the participants. He highlighted the importance of such training to the local community. Shri B.S.Nongkynrih, General Manager, DCI and Prof Ravi Mokashi Puneekar and Prof. Avinash Shende, IIT Guwahati outlined the theme and outline of the workshop activities.

SESSION 1

Introduction of Participants

Kick off workshop started with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products designed emerged with a brief formulated after market research. The products were designed by considering and adopting weaving skills practiced in most craft pockets. Production and design of the following products were demonstrated to the participants:

1. Waste paper Bin
2. Laundry Basket
3. Fruit Basket
4. Hexagonal Weaving Bag (Conference Bag)

The molds designed and developed for each products were explained meticulously emphasizing the advantages of using mold and its importance affecting various factors such as, standardization of products, maintaining dimensions and consistency. This helps in stack-ability, which again plays a crucial role while transportation of product. The discussion lead to the production of bamboo products, and how molds could be very useful to do so.

The molds designed and developed for each products were explained meticulously emphasizing the advantages of using mold and its importance affecting various factors such as, standardization of products, maintaining dimensions and consistency.



SESSION 2

Distribution

As our decision was to transform moda into various products, participants were distributed in four groups to craft the given designs to them. All of them were very skilled in crafting moda, they started making raw material required for them. Crafting of moda requires circular bamboo sticks of particular length. Three groups started crafting of helical structure for three different height modas. The top weaving of moda requires inner and outer circular rings made out of bamboo.

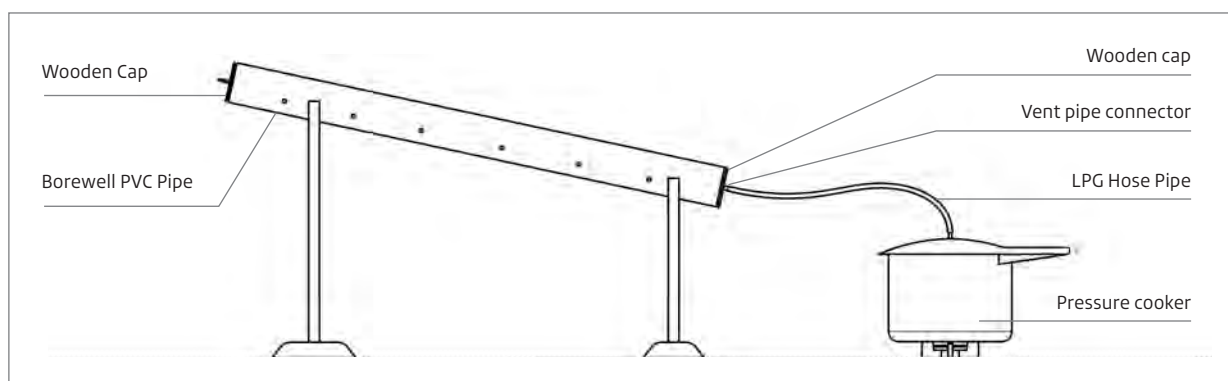
Any circular thing like containers, utensils can be used as a mold to make circular ring of bamboo after taking it out from steam.

So we decided to demonstrate steam bending method to make these rings. After making raw materials to make bamboo rings we demonstrated and explained whole setup to the participants. All were very curious about this new technique and were asking about the cost and availability of materials to make this setup. We showed them that any circular thing like containers, utensils can be used as a mold to make circular ring of bamboo after taking it out from steam. They made four exact circular rings by using steam bending setup.

Steam Bending Equipment

Steam bending equipment setup includes one pressure cooker to generate steam which transfers to the long bore well PVC pipe having 4-5 mm thickness. Both ends of PVC pipe are closed by wooden caps. Readily available LPG hose pipe is used to transfer steam from pressure cooker to PVC Pipe. All of the fitting used are easily available in local market with affordable cost. First bamboo/cane strips to be bent are placed in PVC pipe which receives steam from pressure cooker. After 15-20 minutes bamboo/cane strips can be taken out to bend in any required shape by using particular mold. The equipment is easy to manufacture with cost of Rupees 1500-2000.

Fig. 3 Steam bending equipment setup.



All of the participants were making raw material required for crafting various designs assigned to them. Three groups were working on the designs of moda and one group of four participants was working on hexagonal waving bag as they were familiar with the bamboo weaving. This group was making slivers required for hexagonal weaving bag. Prof. Mandar Rane carried out the photo session of all the participants. At the end of the day participants were ready with their required raw materials.



Fig. 4 Artisans making round sticks of bamboo to craft product inspired from Moda.



Fig. 5 (Right) Mr. Subrato giving demonstration of making bamboo slivers.

To make moda, first they cut bamboo in small strips which are then converted into circular sticks by using khasi knife.

DAY 2

Session started at 9 o'clock in the morning. All participants were present before time. Some of them brought bamboo of required length. As per instructions, participants started making moda as small as possible. In every group there were 4 participants out of which two were arranging and weaving sticks together while other two were supplying raw material like circular bamboo sticks.

To make moda, first they cut bamboo in small strips which are then converted into circular sticks by using khasi knife. After that they cut circular sticks into required length. This length decides the height of moda. Artisan holds the sticks together in special inclined manner and ties it together by weaving them at one point.



Fig. 6A Artisan arranging sticks to form straight band of them.



Fig. 6B (Right) Artisan binding sticks together to form straight band of them.

Above images shows the method of holding and arranging sticks together. They use defined number of sticks according to the required diameter of moda. After coming to particular point they check the complete arrangement by making circle of it and if it is not according to the requirement, they add few more sticks to it. After getting required circle, they complete ring by connecting two ends together by weaving them.

Fig. 7A Converting straight band into circular profile.

Fig. 7B Binding sticks by cane to make them strong.

After completing ring, they use plastic thread to tie the open ends of sticks together which ensures strength and long life of product. It also helps in holding sticks together. We asked them to use cane instead of plastic to bind open ends of sticks but they said that cane has comparatively more thickness which is difficult to insert in the gaps between open ends of sticks. Also plastic holds sticks tightly and increases product life.



Fig. 7C Binding sticks end by plastic thread to make them strong on edges.

Fig. 7D Basic structure of Moda with top and bottom binding.

After this process they add circular ring at the top and they weave on it to form seating base at the top of the moda. In this weaving they tie sticks with circular ring which ensures complete covering of open ends of sticks.

With these three groups of moda one group was working on hexagonal weaving bag by using printed wooden mold. Artisans were very comfortable with the mold and were using it properly. Subrato was guiding them to weave properly.



Fig.8 (Top) Closing one side of Basic structure of Moda by weaving.



Fig.9 (Center) Artisan crafting Hexagonal Weaving bag by using pre-patterned mold.



Fig.10 (Right) Mr. Subrato guiding artisans for proper use of pre-patterned mold.

One other group was working on bigger size moda by shifting its cross point to the bottom for that they were weaving longer sticks together by arranging cross point according to requirement. At end of the day they completed one small moda, and moda with the weaving in the middle and work of big moda was in progress

Observations

As all the participants were skilled in weaving of moda, they were comfortable with the task of crafting new moda assigned to them.

New products can be developed effectively by adopting existing crafting style of artisans.

As all of them were familiar with the crafting technique their production rate was very high. The tasks assigned to them were very new to them, they were very curious about the output of their work.

DAY 3

Session started in the morning at 9 o'clock. All of the participants were present on time as they wanted to finish their work. One lady Biktoria Lyngdoh finished her work and started working on dustbin as she was very curious to use the mold of dust bin. So we introduced dustbin crafting technique to the artisans who completed their work. We introduced width sizer to them and told them to use mold for making waste paper bin. At the end they artisans made two waste paper bins, three small moda, one big moda structure and two hexagonal weaving bags which is a very good output of three days workshop.

This day was concluding day for workshop. Valedictory session started at 2:00 o'clock in the afternoon. IITG Team, DCI Officials and artisans were interchanging dialogues about the workshop, discussed issues related to learning and received critical feedbacks.

The General Manager Mr. Shri B.S.Nongkynrih made observation expressing satisfaction regarding the outcome of the workshop with vote of thanks. He distributed participation certificates to all artisans and a group photo session with all the participants marked the end of the workshop.

At the end they artisans made two waste paper bins, three small moda, one big moda structure and two hexagonal weaving bags which is a very good output of three days workshop.







KHUBLEI.



SHIKEN HEROES



Biktoria Lyngdoh



Bilnolin Marngar



Blessila Lyngdoh



Doloris Kynshi



Helina Sohshang



Klotilda Lyngdoh



Kristina Kharsyntiew



Maria Korreti Kynshi



Olbina Marbaniang



Pristila L Nonglait



Sirbina Sohshang



Systina Lyngdoh



Tassiana L Peinlang



Tinaris Tahbah



Trisphina Nonglang

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REPORT ON

CRAFT DESIGN WORKSHOP

5

VENUE

VILLAGE : MAIRANG

BLOCK : MAIRANG

DATES

AUGUST 20-22, 2015

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GOVERNMENT OF
MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:

Prof. Mandar Rane + Priti Rajwade

Photographs:

Mandar Rane

Content:

Prof. Ravi Mokashi

Prof. Avinash Shende

REPORT ON
**CRAFT DESIGN
WORKSHOP**

6

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VENUE

VILLAGE : WILLIAMNAGAR
BLOCK : WILLIAMNAGAR

DATES

SEPTEMBER 24-26, 2015

SPONSORED BY

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GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 20





MEGHALAYA

SIXTH WORKSHOP
SEPTEMBER 24-26, 2015

MEGHALAYA

LOCATION: WILLIAMNAGAR BLOCK: WILLIAMNAGAR



DCI TEAM:

1. **Shri Umesh Muktieh**
General Manager,
DCI Williamnagar
2. **Tarzan Ch. Sangama**
ADCI
3. **Grikjrang R Sangma**
IPO
4. **Dickie M Sangama**
IPO
5. **Hereclitas G Momin**
SI
6. **Smt. Thoibi Ch Momin**
IPO
7. **Sean Sengchang T Sangma**
Functional Manager
8. **Netaji R Marak**
Functional Manager

FROM IIT GUWAHATI

- Prof. Ravi Mokashi Puneekar
Prof. Avinash Shende
Mr. Pritam Paraye
Mr. Pranav Satpute
Mr. Subrata Chakraborty
Mr. Manik Das

WORKSHOP ASSISTANCE FROM DCI, SHILLONG:

1. **Mr. Banri**
Industrial Promotion Officer,
DCI (mobile: 097740 72599)

Summary

The Office of the DCI, Williamnagar organized the Eighth Craft Design Workshop conducted by the IIT Guwahati Design team at Williamnagar from September 17th - 21st, 2015. The program was inaugurated by Mr. Umesh Muktieh, General Manager, DCI Williamnagar in the presence of Senior Officials of the DCI Williamnagar. He introduced the IIT Team and spoke about the theme of the training workshop. Extending a warm welcome to all the participants he asked them to take maximum advantage of interaction with the IIT team during this workshop.



About Williamnagar

Williamnagar is the headquarters complex of the East Garo Hills district of Meghalaya. It derived its name after Captain Williamson A. Sangma, the founding Chief Minister of the State of Meghalaya. The township was planned around the erstwhile village of Simsanggre, on the vast plain lands along the bank of the Simsang River, Williamnagar has good infrastructure and civic amenities including Schools, Arts & Science Colleges and various government offices.

About Craft artisans

There were 20 participants who represented the crafts cluster of the Williamnagar block from the surrounding villages of Williamnagar who participated enthusiastically in this three day craft design development workshop .

The craftsmen were having skills mostly in weaving small products like decorative items, moda etc. Most of the participants were specialized in furniture making using bamboo and cane. Artisans produce various chairs and tables having combination of cane bamboo weaving and they sell these products in Shillong.

DCI Williamnagar has well equipped carpentry shop where they produce wooden honey bee keeping units. The office also has sewing machines to give textile related training to local students.

Artisans produce various chairs and tables having combination of cane bamboo weaving and they sell these products in Shillong.



Workshop Activities - Day wise reporting

DAY 1 - September 24, 2015

This 3 day workshop started at 10:00 am in presence of DCI dignitaries.

1. Shri Umesh Muktieh, General Manager, DCI Williamnagar
2. Tarzan Ch. Sangama, ADCI
3. Grikjrang R Sangma, IPO
4. Dickie M Sangama, IPO
5. Smt. Thoibi Ch Momin, IPO

The workshop was inaugurated by Shri Umesh Muktieh. This was followed by Mr. Pritam Paraye, IIT Guwahati who introduced various products to the participants and outlined the theme and workshop activities.

SESSION 1

Introduction of Participants

Kick off workshop started with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products designed were based on a design brief formulated after market research. Team Demonstrated following products to artisans

1. Waste paper Bin
2. Laundry Basket
3. Fruit Basket
4. Hexagonal Weaving Bag (Conference Bag)

The products to be now designed were based on considerations adopting weaving skills practiced in most craft pockets in the East Garo Hill district.

The products to be now designed were based on considerations adopting weaving skills practiced in most craft pockets in the East Garo Hill district.



As the height of waste paper bin mold can be varied, we thought to reduce its height to craft small fruit bowls, it was first try to make fruit bowls by using waste paper bin mold.

The molds designed and developed for each products were explained meticulously emphasizing the advantages of using mold and its importance affecting various factors such as, standardization of products, maintaining dimensions and consistency. This helps in stack-ability, which again plays a crucial role while transportation of product. The discussion lead to the production of bamboo products, and how molds are very useful to do so.

SESSION 2

Session 2- Distribution and raw material preparation

On first day nine participant were present who were skilled in bamboo crafts and two of them were skilled in weaving, so team decided to make waste paper bin, Hexagonal weaving bag and laundry basket by dividing participants in three groups. Two artisans started making raw material required for hexagonal weaving bag, other two artisans started making slivers required for laundry basket and remaining group of five artisans started making bamboo strips required for crafting waste paper bins. As the height of waste paper bin mold can be varied, we thought to reduce its height to craft small fruit bowls, it was first try to make fruit bowls by using waste paper bin mold. According to the suggestions given to them, artisans started making raw materials required for crafting waste paper bin, fruit tray, laundry basket and Hexagonal weaving bag.

Fig. 1 (Right) Participants making bamboo slivers for laundry basket.

Fig. 2 (Below) Participants making bamboo strips for waste paper bin.



Master craft persons. Subrato and Manik were guiding all the participants to make raw material of required quality. Artisans were introduced to the width sizer tool and demonstrated how to make same size strips and slivers by using the width sizer. After introducing and guiding them to its use, they started making



Fig. 3A, 3B & 3C (Top) Waste paper bin mold transformed to make smaller version of waste paper bin which can be used as fruit basket. (Right) Smaller version of waste paper bin.

Fig. 4 (Below) Group of artisans cleaning cane to make furniture.

Fig. 5 (Right) Artisan crafting rim of laundry basket.



same size strips/slivers with increased efficiency. According to our previous experience we decided to produce more amount of raw materials to increase the production rate. Below Images shows fruit bowl made by reducing height of waste paper bin mold.

At the same time one carpenter was working to make wooden mold of hexagonal weaving bag with more thickness to try one more iteration of hexagonal weaving bag. By taking all the dimensions from us he finished one mold at the end of the day. As Williamnagar office has well equipped carpentry shop, it is possible to make wooden molds from this place.

DAY 2

On second day of workshop, session started around 9 o'clock in the morning. On this day 20 participants were present. All new participant who joined on this day were specialized in cane furniture making. We decided to make cane furniture as we were having enough participants on this day. We divided new participants into three groups to make one cane chair and one stool. Some of the artisans started cleaning cane and remaining



The mold acted as a tool to bend cane into various shapes in a convenient way.

Williamnagar was the first place where we tried such kind of molds to make cane furniture.

started making binding sliver for furniture. The person who was crafting laundry basket started weaving of basket by using its mold and by first half of the day he finished one basket.

Mold for chair is manufactured by first bending of mild steel pipe into the shape of chair frame and then splitting it into two halves. One can heat cane by using blow torch or steam to clamp it on the split pipe. After getting cold it takes the shape of mold and forms particular member of chair frame. And the stool mold is manufacture by welding various diameter pipes in vertical manner to bend cane into required shape. This mold acted as a tool to bend cane into various shapes in a convenient way. Williamnagar was the first place where we tried such kind of molds to make cane furniture.

Fig. 6 (Right) Mr. Subrato guiding artisans for proper bending of cane by using mold.

Fig. 7 (Below) Artisans binding bottom ends of stool legs by cane to make it strong.

Fig. 8 (Below Right) Bending of cane by using mold.



After finishing all the bending of cane, artisans started assembling the chair and stool by using nails and binding sliver which was proved a very interesting task for them. The general manager Mr. Umesh Muktieh was working with artisans the whole day to understand the problem faced by them while crafting the products.



Fig. 9 General Manager Mr. Umesh Muktieh observing artisan's work.



His feed back to the IIT team was very useful as he was suggesting various improvement areas to the processes.

On this day artisans were working efficiently as they were already familiar with the waste paper bin mold. Production rate of waste paper bin was increased on this day. Some of the artisans were crafting waste paper bins and some were crafting fruit bowls. At the end of the day the group of artisans finished four waste paper bins, two laundry baskets and one hexagonal weaving bag and the groups working on furniture finished all the cane bending operations and assembly of some parts.

There is particular type of bamboo which is suitable for specific product so it is necessary to define type of bamboo to craft the particular product.

Observation and feedbacks from General Manager

As most of the artisans were not well educated, they were not comfortable in taking measurements. Mr. Umesh Muktieh (General Manager) suggested to develop some simple jigs and fixture to reduce the time for measurement.

As all the artisans are not equally skilled, we can categories them into semi-skilled and highly skilled to assign them the tasks which they can do comfortably.

Artisans could work in different stations to increase efficiency and productivity. At station 1 semi-skilled artisans will prepare raw material which will be used by highly skilled artisans at station 2 to craft the product.

There is particular type of bamboo which is suitable for specific product so it is necessary to define type of bamboo to craft the particular product.

Molds for chair and stool needs some improvements to clamp the cane with mold as we observed artisans struggling to clamp the cane with mold.

Fruit bowl was crafted by reducing height of waste paper bin mold. It will be helpful if artisans could crafts more than one products by using single mold.

DAY 3

On the third and concluding day, the session started at 8 am in the morning. Furniture group started assembling the chair and stool and they were very excited as the process was completely new for them. On this day Pritam clicked the photographs of all artisans. One artisan started crafting moda to demonstrate to the IIT team the different and easy method of crafting moda. His crafting technique was completely different than the method seen in Mairang during the earlier workshop. He arranged all the sticks in parallel manner and then twisted them into spiral form. This method of crafting moda is less time consuming.

Fig. 10A & 10B Artisan giving demonstration of Moda crafting technique.



By evening artisans finished assembly of chair and stool with all the cane binding operations. Crafted products were according to our expectations and now we were aware about the improvement areas.

The artisans finished three laundry baskets, seven waste paper bins, three fruit bowls, one hexagonal weaving bag along with one chair and one stool and at the end of the day.

This day being the concluding day for the workshop the artisans finished three laundry baskets, seven waste paper bins, three fruit bowls, one hexagonal weaving bag along with one chair and one stool and at the end of the day. This indeed was a very good outcome of this three days workshop.

Valedictory session started at 6:00 o'clock in the evening. IITG Team, DCI Officials and artisans were interchanging dialogues about the workshop and discussed issues and related to learning received critical feedbacks.

The General Manager Mr Umesh Muktieh made observation expressing satisfaction regarding the outcome of the workshop and extended a vote of thanks. He distributed participation certificates to all artisans and a group photo session with all the participants marked the end of the workshop.

KHUBLEI.







SHKEN HEROES



Arnithson Momin



Atarsing Marak



Chaban Sangma



Dominic Momin



Gabrel Sangma



Getha Marak



Harding Marak



Haring Marak



Jandison Sangma



Jemson Marak



Jenton Sangma



Johon Marak



Manseng Sangma



Rajinath Marak



Sanfort Sangma



Suro Sangma



Tengsrabirth Marak



Thomison Sangma



Tumen Sangma



Waldingbirth Sangma

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REPORT ON
**CRAFT DESIGN
WORKSHOP**

6

VENUE

VILLAGE : WILLIAM NAGAR

BLOCK : WILLIAM NAGAR

DATES

SEPTEMBER 24-26, 2015

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MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:
Prof. Mandar Rane + Priti Rajwade

Photographs:
Mandar Rane

Content:
Prof. Ravi Mokashi
Prof. Avinash Shende

REPORT ON

CRAFT DESIGN WORKSHOP

7

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CRAFT • COMMUNITY • COLLECTIVES

VENUE

TOWN : TURA

BLOCK : TURA

DATES

SEPTEMBER 28-30, 2015

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OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 14



MEGHALAYA

**SEVENTH WORKSHOP
SEPTEMBER 28-30, 2015**

MEGHALAYA

TOWN: TURA BLOCK: TURA



DCI TEAM:

1. **Shri. P.R. Marak**
General Manager
2. **Shri. Donny Miller Sunn**
Functional Manager
3. **Shri. Tasek R Marak**
IPO
4. **Shri. Freddy W Momin**
IPO
5. **Smti. Biondie D Shira**
IPO
6. **Smti. Eva Mary G Momin**
IPO
7. **Smti. Cleopatra Marak**
IPO

FROM IIT GUWAHATI

- Prof. Avinash Shende,
Prof. Ravi Mokashi Puneekar
Mr. Pritam Paraye
Mr. Pranav Satpute
Mr. Subrata Chakraborty
Mr. Manik Das

WORKSHOP ASSISTANCE FROM DCI, SHILLONG:

1. **Mr. Freddy**
(Industrial Promotion Officer)

Summary

The Office of the DCI, Tura organized the fifth Craft Design Workshop conducted by the IIT Design team at Turain September 28-30, 2015. The program was inaugurated by Mr. Gashgna, General Manager, DCI Tura in the presence of Senior Officials of the DCI. Shri H. Decruse, General Manager, DCI, introduced the IIT Team, Shri P. K. Marbaniang General Manager MIDC, spoke about the theme of the training workshop and extended a warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during this workshop.



Tura, the second largest town in the State after Shillong is the district headquarters of West Garo Hills and the population is pre-dominantly inhabited by the Garos.

The artisan's forte is predominantly in making cane furniture. They use locally available bamboo variety and the well-known 'Raidang' cane for furniture.

About West Garo Hills and Tura - its district Headquarters

West Garo Hills, located in the western part of the State, is one of the largest district of Meghalaya. The Garo Hills district is divided into two districts, viz. the West Garo Hills district and the East Garo Hills district. The West Garo Hills district is further divided into two administrative districts of West and South Garo Hills.

The topology of the West Garo Hills district is mostly hilly with plains fringing the northern, western and the south-western borders and a network of rivers that flow through the different locations across the district. There are three important mountain ranges in the districts of Garo Hills. Viz. Tura range, the Arhella range and the Ranggira range and the important rivers are Simsang, Kalu, Didak, Darang and the Bhopai.

Tura, the second largest town in the State after Shillong is the district headquarters of West Garo Hills and the population is pre-dominantly inhabited by the Garos, a tribe with a matrilineal society belonging to the Bodo family of the Tibeto-Burman race tribes. Other indigenous inhabitants include the Hajongs, Rabhas, Koches, Rajbansis, Meches, Kacharis and Dalus.

Tura town is well connected by road with other places in the district as well as with the rest of the Meghalaya and Assam.

Craft artisans – Tura, Block :

There were 14 participants from the surrounding villages of Umtong, Lynshing, Laitlynkot, Laban and Nongkynrih who represented the crafts cluster of the Tura block. In this craft design workshop.

The craft styles of artisans of the Tura block are different compared to other regions like district of East Khasi Hill that the IIT Guwahati team had visited previously . The artisan's forte is predominantly in making cane furniture. They regularly are engaged in making cane chairs and the traditional modas. Artisans use locally available bamboo variety and the well-known 'Raidang' cane for furniture. The bamboo has an evenly distributed inter-node space of nearly 18-24 inches with long fibers, and an even cross section thickness of 2-3 mm. The artisans cut the hollow cylinder from the bamboo and make a variety of different product-range well accepted in the region.

Most craft artisans work individually from home. They sell the craft produce to middle-men who visit the local market on every weekly market day. These furniture items ultimately find their way to markets in Shillong, Tura and other important towns in Meghalaya.

The crafts community distributes their time during the year between fieldwork and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their homes are therefore carried out during the months of January to March followed by June to August.

Workshop Activities - Day wise reporting

DAY 1 - September 28, 2015

Workshop started at 10:00 am in presence of DCI dignitaries including :

1. Shri. P.R. Marak, General Manager
2. Shri. Donny Miller Sunn, Functional Manager
3. Shri. Tasek R Marak Industrial, Promotion Officer
4. Shri. Freddy W Momin, IPO
5. Smti. Biondie D Shira, IPO
6. Smti. Eva Mary G Momin, IPO
7. Smti. Cleopatra Marak, IPO

Shri. P.R. Marak, inaugurated the workshop Mr. Pritam Paraye and Mr. Pranav Satpute, from IIT Guwahati outlined the theme of the workshop activities to the artisans.

SESSION 1

Introduction of Participants

Mr. Pritam Paraye, introduced the bamboo products designed and developed at Department of Design, IIT Guwahati explaining to the artisans the importance of producing new design that meet user demands in urban markets. This range of products designs and developed at IIT Guwahati evolved through a brief formulated after market research. The products were designed by considering

The products were designed by considering and adopting weaving skills practiced by the artisans' of East Khasi Hill region of Meghalaya.



For the artisans of the Tura cluster, the IITG team developed a new set of design ideas by considering the product which craftsman would interested in.

and adopting weaving skills practiced by the artisans' of East Khasi Hill region of Meghalaya. For the artisans of the Tura cluster, the IITG team developed a new set of design ideas by considering the product which craftsman would interested in. These included:

1. Stackable chair
2. Waste Paper Bin
3. Laundry Basket

The molds designed and developed for each product were explained meticulously emphasizing the advantages of using mold and its importance affecting various factors such as standardization of products, maintaining dimensions, consistently. This helps in stack-ability, which again plays a crucial role while transportation. The discussion lead to the production of bamboo products, and how molds are very useful to do so.

SESSION 2

Distribution

The participants were guided to prepare strips and sticks required for the different products. The artisans spent all of the first day in making bamboo sticks required for the dustbin while the furniture group started bending cane with help of predesigned mold. By the 2nd day morning artisans were ready with the requisite number of sticks for making of waste paper bin. Simultaneously five artisans started making the waste paper bin.



Fig. 1 Group of artisans making bamboo strips for waste paper bin.



DAY 2

On the second day the artisans were divided in the following three groups

- Group 1 –Waste Paper Bin
- Group 2 – Laundry Basket
- Group 3 –Chair

All the groups started work, with the help of IIT Guwahati team. Learning from our experience during the previous training workshops, we made modifications to the molds to ensure that artisans could make the product without any assistance for example for the laundry basket mold now had a guiding hexagonal pattern painted on the surface of the mold.

Fig. 2 Artisans trying hexagonal laundry basket on pre-pattern mold.



For the first time the group tried assembling a fruit basket with shorter length sticks that are used in the making of waste paper bin.

Observation

By the end of the second day artisans had progressed to using the molds for making three waste paper bins and the furniture group were also assembling the cane chair by tying the frame of the chair. The laundry basket group was also making good progress in weaving using the molds.

For the first time the group tried assembling a fruit basket with shorter length sticks that are used in the making of waste paper bin.



Fig. 3A & 3B Artisans making cane chair and small version of waste paper bin.



The artisans realized that making of chair by using developed mold proved to be the easiest product to make. All the artisans working on the chair readily accepted this product as they could



Fig. 4 Laundry basket weaving on pre-patterned mold.

easily adapt the simplicity of use of the mold in making it. With periodic guidance from the IIT team from time to time, the group got completely immersed in making the chair. By the end of the day the chair-frame was ready and the artisan went on to preparing the cane for making the seat of the chair required for use the next day.

Mr. Freddy received feedback that all the artisans were extremely thrilled with the concept of molds and accepted the use of mold for weaving without apprehension, as they realized that it becomes very easy for them to achieve shape.

After completion of these tasks, IITG team noticed minor errors on the basket and brought it to the attention of the group to ensure that the artisans could make necessary corrections required in the shape and size of the sticks and the proportions of the handle with respect to the bin. These were promptly corrected while making second iteration of small bin with Reed bamboo undertaken by the artisans on the fourth day.

Documentation

The documentation of the various activities during the workshop were done by the IIT team including noting the details of the artisans names and contact details that would help build the data base of the artisan from the Tura cluster.

DAY 3

All artisans resumed with same enthusiasm and finished two more wastepaper baskets and two fruit baskets by the end of this concluding day. As this was the final day, artisans worked with vigor and enthusiasm trying to finished the task on hand.

One group worked on finishing the canework on the chair frame and the other group gave finishing touches in completing the laundry basket.

Fig. 5A & 5B (Below) Cane binding of furniture.

Fig.6 (Right) Waste paper bins produced during workshop.





Fig. 7 Rim of laundry basket.

It was observed that waste paper basket-using mold was extremely easy and artisan with less skill were also able to weave these baskets easily.

The introduction of the painted hexagonal pattern on the mold surface as a guide helped in reducing the cognitive load on the artisan as he simply tried to be guided by the pattern during weaving process.

Observation 1

Mold for locally available bamboo products can be an idea that can be further developed. This will potentially make artisans familiar with the use of molds in making their craft products. This will result in bringing in a culture of production and economic gain, perhaps leading to also attracting younger artisans to taken up the profession as a means of livelihood. As mold becomes the medium to communicate between the artisans and the designer, in future artisans could be introduced to new product possibility by giving them only mold to produce bamboo products. Perhaps in the near future a special workshop with a focus on HOW TO MAKE MOLD should be necessarily planned and built into the production workshop planned at IIT Guwahati.

Observation 2

It was observed that waste paper basket-using mold was extremely easy and artisan with less skill were also able to weave these baskets easily. The mold is made of metal, has long life and is also very easy to use. If all the artisans in the cluster are each possessing one such mold each household then the overall productivity of the product in each artisan cluster can be assuredly high to meet the high demands of the supply chain required in urban markets.

Feedback for the chair mold was also very positive. The use of the molds were self communicative and the artisan need little instructions in its use while steam bending and preparing the frame.

In weaving the laundry basket with hexagonal weave pattern the introduction of the painted hexagonal pattern on the mold surface as a guide helped in reducing the cognitive load on the artisan as he simply tried to be guided by the pattern during weaving process. This feature as an integral feature of the design of the mold must be introduced in the molds wherever possible. With such add-on in the mold the crafting becomes easy and standardized.

Considering the artisan's skill set amongst the Tura cluster. IITG team offered to come up with new product range in the family of Chairs and Stools.

This craft design workshop came to an end on the third day. The artisans completed all the tasks on hand including binding of chair and finishing the rim of laundry basket. The Closing ceremony started at 3:00 in the afternoon in the presence of the IITG Team , DCI official and the participating artisans.

The General Manager summarized the various activities undertaken during the three days and expressed a vote of thanks to officials of the DCI for facilitating this at Tura and to the IIT team for conducting this workshop so successfully.

KHUBLEI.

SHIKEN HEROES



Chesterman Lapang



Davidscott



Grenethson Sangama



Hereni



Hildillash



Inchi



Jaka



Lolizer



Mingren M. Sangma



Onison Marak



Onison



Sawn Marak



Tengmen Momin



Teseng Marak





REPORT ON

CRAFT DESIGN WORKSHOP

7

VENUE

TOWN : TURA

BLOCK : TURA

DATES

SEPTEMBER 28-30, 2015

SPONSORED BY
DEPARTMENT
OF COMMERCE AND
INDUSTRIES

GOVERNMENT OF
MEGHALAYA

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



mrane.com

Report Design:

Prof. Mandar Rane + Priti Rajwade

Content:

Prof. Ravi Mokashi Punekar

Prof. Avinash Shende

REPORT ON
**CRAFT DESIGN
WORKSHOP**

8

SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

VILLAGE : JOWAI
BLOCK : JOWAI

DATES

DECEMBER 10-12, 2015

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES
GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



**WORKSHOP
PARTICIPANTS: 20**



MEGHALAYA

**EIGHTH WORKSHOP
DECEMBER 10-12, 2015**



MEGHALAYA

VILLAGE: JOWAI BLOCK: JOWAI



DCI TEAM:

1. **Shri. P. Toi**
General Manager, DCI Jowai
2. **Smt. S.E. Kharpran**
Functional Manager
3. **Shri. D.Passah**
Industrial Promotion Manager
4. **Shri. A. Malngiang**
IPO
5. **Shri. F. Pyrbot**
IPO
6. **Shri. R.V.L.Nongbri**
IPO
7. **Shri. A. Fancon**
IPO

FROM IIT GUWAHATI

- Prof. Ravi Mokashi Punekar
Prof. Avinash Shende
Mr. Pranav Satpute
Mr. Shiv Kumar Verma
Mr. Subrata Chakraborty
Mr. Manik Das

Summary

IIT Guwahati Design team, on behalf of the office of the DCI Shillong, organized the 9th Craft Design workshop between the 10 December 10th – 12th, 2015. at Jowai, the district headquarter of Jaintia Hills of Meghalaya.

Mr. P. Toi (General Manager, DCI Jowai) in the presence of officials of DCI inaugurated the program. He spoke about the theme of the training workshop and Smt.S.E. Kharpran extended a warm welcome to all the participating artisans who were attending the workshop and asked them to take maximum advantage of interaction with the IIT Guwahati team during this craft workshop.





About Jowai

Jowai is a scenic place located on a plateau surrounded on three sides by the Myntdu river bordering Bangladesh to the south (about 50 km from the Indo-Bangladesh border).

Jowai is the headquarters of West Jaintia Hills district of the state of Meghalaya, India. It is a scenic place located on a plateau surrounded on three sides by the Myntdu river bordering Bangladesh to the south (about 50 km from the Indo-Bangladesh border). Due to its high altitude of 1380 m above sea level, Jowai experiences warm and pleasant summers with cool to chilly winters.

Jowai is an important business and education hub of the entire district catering to students from all over the district as well as the adjacent parts of Assam and Bangladesh. It is well equipped with amenities such as schools, colleges, hospitals, post office etc.



Workshop Activities - Day wise reporting



DAY 1 - December 10, 2015

Workshop Started at 10:30 am in the presence of

1. Shri. P. Toi, General Manager, DCI Jowai
2. Smt. S.E. Kharpran, Functional Manager
3. Shri. D.Passah, Industrial Promotion Manager
4. Shri. A. Malngiang, IPO
5. Shri. F. Pyrbot, IPO
6. Shri. R.V.L.Nongbri, IPO
7. Shri. A. Fancon, IPO

Mr. P. Toi, General Manager of DCI Jowai office inaugurated the workshop and spoke about the objectives in introducing the new product line of bamboo crafts to the artisans. He laid emphasis on the need for product innovation, quality and quantity in production. Smt. S.E.Kharpran welcomed all the DCI officials and the participants to the DCI Jowai office. Mr. Pranav Satpute outlined the theme and work-plan for the three days and briefed the participants about the workshop activities.

Most of the artisans were very skilled and specialized into bamboo weaving crafts.

Fig.1 Shri P. Toi General Manager, DCI Jowai, inaugurating the Craft Design Workshop

20 craftsmen were present on first day of workshop and they were from the surrounding villages of Iurimkhliehshnong, Nongkynrih, Latymphu, Lapangap, Rymbai, Tangnub, Bamkamar of Jaintia hills district. Most of the artisans were very skilled and specialized into bamboo weaving crafts. The products they were making showed their specialization in different weaving styles. We were happy to observe that some of the products they were currently making were having the same weaving style similar to the products developed at IIT Guwahati. We therefore decided to introduce to the participants the range of waste paper bin, Roti basket and laundry basket and the molds to craft these products to maintain consistency and help increase crafting speed of production.



The advantage of using mold and its effect on various factors such as, standardization of products, maintaining dimensions and consistency were emphasized.

The groups were instructed to make the products matching their weaving skills.

SESSION 1

Kick off workshop started with a brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products designed by the IIT team were based of brief formulated after market research. The products were designed by considering and adopting weaving skills of craftsmen and informing them about modes of treating the bamboo before preparation of the slivers required in the making of:

Waste paper bin
Chapati Basket
Laundry Basket

The molds designed and developed for each product were explained meticulously. The advantage of using mold and its effect on various factors such as, standardization of products, maintaining dimensions and consistency were emphasized. The artisans were explained how this helps in stack ability, which again plays an important role in transportation of the product. On first day 20 artisans were present while one more lady joined them on the second day.

SESSION 2

The twenty participating artisans were divided into four groups with five artisans in each group. The groups were instructed to make the products matching their weaving skills - one group for chapatti basket, one group for laundry basket and remaining two groups to craft waste paper bins. Due to some miscommunication with artisans bamboo was not available on day one. However, the DCI officers realized this and very promptly arranged to procure some bamboo from the local market to commence the preparatory work for the day.

All the artisans started making raw material required for crafting their products. Waste paper bin group started splitting bamboo for making strips out of it while roti and laundry basket groups started making slivers of bamboo. As all the artisans were specialized in bamboo weaving, it was an easy task for them to prepare the raw material quickly during the day.



Fig.2 & Fig.3 (Above)
Introducing Laundry basket,
(Right) Introducing Waste paper
bin to the group of artisans.

Fig.4 (Below) Artisans preparing bamboo slivers for roti basket

Fig.5 (Right) Artisans preparing bamboo slivers for Laundry basket

The two groups engaged in making waste paper bin were instructed to make 100 number of strips each to help craft 8 number of bins. After introducing and showing them the width sizer tool, the participants got clarity on the required quality of raw material and they accordingly increased their speed. On this day both groups finished required number of strips and were ready with the required quality by the end of the day.



The five artisans engaged in making the Chapatti basket group were familiar with the weaving style being used in making the chapatti basket. The group very efficiently finished the sliver making and started crafting the product by using its mold. The artisan Lambok Suiam, in particular, was very excited about the use of the mold for chapatti basket and he started crafting and weaving it with high speed. At the end of the day he finished weaving the roti basket up to its rim. At the same time other group members were producing more raw material.

Fig.6A & 6B (Below) Artisans preparing bamboo strips for Waste paper bin

The group members working on the Laundry basket also finished preparation of slivers and completed weaving one half of a laundry basket. The group had sufficiently prepared raw material to craft



Artisan Kelving Sutin was visually challenged but was also very skilled. He was working to produce raw material for laundry basket with same accuracy as the other artisans.

more products for the next two days. It must be highlighted that there were two artisans who were differently abled among the participating artisans. Artisan Kelving Sutin was visually challenged but was also very skilled. He was working to produce raw material for laundry basket with same accuracy as the other artisans.

DAY 2 - December 11, 2015

On the second day of the workshop, the session started at 10 o'clock in the morning. As craftsmen were familiar with the crafting technique, they started their work in right earnest. Waste paper bin group started using mold to fix strips on it - two people from each group were crafting the product while the others were finishing the strips. During the morning half of the day, they finished the slivers required for the top and bottom weaving of waste paper bin following that Artisan Shinning Lyngdoh undertook working on the cane required for the base of the bin while one lady artisan Shimwanki Lyngdoh made handles for the bins by using heat gun. In the other group the lady artisans Early Chympa, Poibha Lamere and Rabina Lamere were crafting the bin while the other two members were finishing the strips and giving it to them.



Fig.7 (Above) Artisan weaving base of Roti basket



Fig.8 (Right) Artisans weaving base of laundry basket

Concurrently, the Chapati basket group was working on finishing one basket very efficiently and by lunch time of the day, they finished one basket. As high quality bamboo was procured and was available on this day, the group members started working again on preparing raw material to craft more baskets. Two artisans from the Laundry basket group were taking alternate turns to craft the product by using its mold. They were very curious about the other molds and were feeling comfortable and excited while working on molds. By the end of the day, artisans had a very productive day, finishing 8 waste paper bins, 3 Chapati baskets and 2 laundry baskets in two working days. On this day we completed all the individual photo-shoot and documentation of all the artisans.



Fig.9A & 9B (Above left) Artisan Kelvin Suting weaving Laundry basket by using mold.
(Above right) Artisan weaving Laundry basket by using mold.

Fig.10 (Left) Heat bending of cane for base of waste paper bin.



Fig.11 (Right) Artisan weaving waste paper bin by using mold.



DAY 3 - December 12, 2015

The concluding days session started 10 o' clock in the morning. All the artisans were present and were already working on the products as they wanted to finish their work as early as possible and move to their village located far away from the Jowai. We asked few participants about their daily life activities and their experience of these three days of the Shken workshop.

For all the participants the workshop was a very good learning experience where they got an exposure to new possible techniques of crafting bamboo products.

Angelin Suiam – is from village Madankynsaw village and has 8 members in her family. She completed her education up to 3rd standard and then started working in bamboo crafts. She works full time to make crafts and specialized in making decorative items like tree house, bamboo flowers and Moda. She sell this products in various exhibitions organized after every 6 months that is the only platform for her to sell the craft products.

Fully Niang joined the workshop on second day. She is from Jowai and has 7 members in her family. She is educated up to 7th standard and works full time to make crafts. She generally makes Trays and baskets out of bamboo and small cane. She makes these products against order placed by customers which she gets from the DCI office. During her spare time she offers crafting training to the local students.

Augustin Suchiang is from Lapangap village and has seven members in his family. He does farming for a living and works on making bamboo crafts products like Modas and bamboo baskets. He sells his products in local market of Jowai.

Kelvin Suting is from Moosakhia village of Jowai. Being visually challenged, he could not see the things he makes but still he crafts bamboo products with same accuracy as the others. He first understands the structure of craft by touching it. He takes one complete day to make a moda and sells it in the local market. He has one person with him to help him in his work.

For all the participants the workshop was a very good learning experience where they got an exposure to new possible techniques of crafting bamboo products. They were very happy and everyone was asking for the mold of product.



This day was the concluding day for the workshop by which time the artisans could finish two laundry baskets, nine waste paper bins and three roti baskets. This was a very productive outcome of this three day workshop.

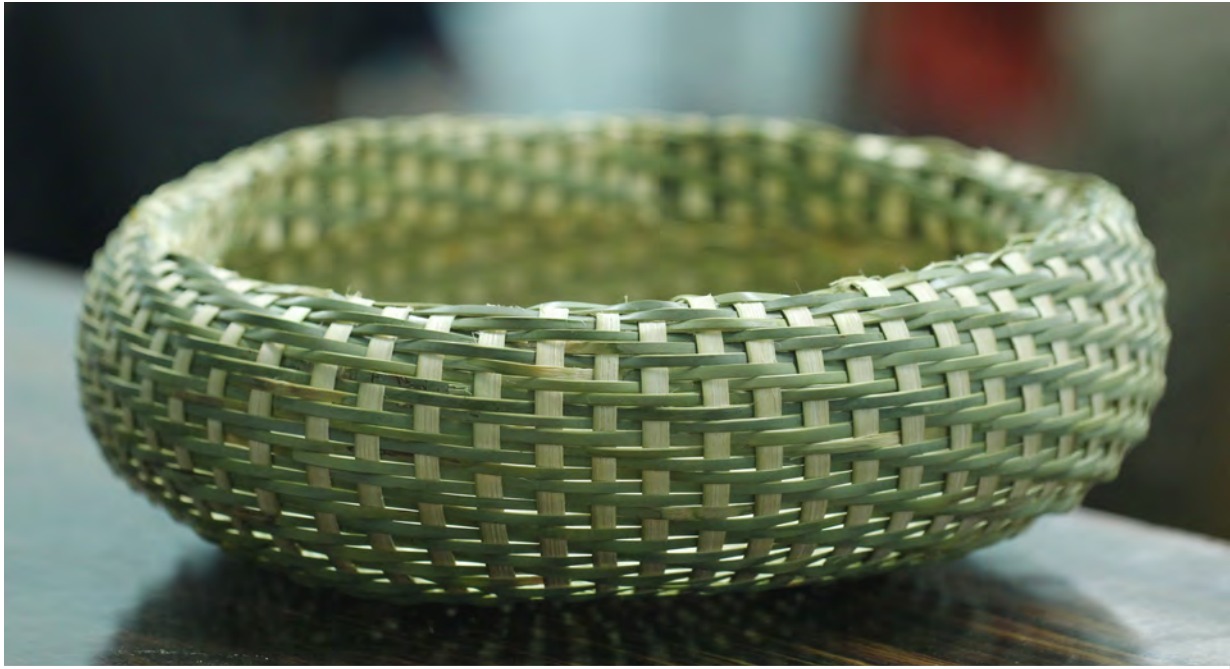
The Valedictory session started at 2:00 o'clock in the afternoon. IITG Team, DCI Officials and artisans were interchanging dialogues about the workshop. The IITG team discussed issues related to learning and received critical feedback.

The General Manager Mr P. Toi made observation expressing satisfaction regarding the outcome of the workshop and gave a vote of thanks. He distributed participation certificates to all artisans and a group photo session with all the participants marked the end of the workshop.

KHUBLEI.



DCI + IITG + IITB + Artisans group photo.





SHIKEN HEROES



Agustin Suchiang



Kelvin Suting



Early Chympa



Angelin Suiam



Asuk Suting



Klemen Langshiang



Fully Niang



Hawot Dkhar



Dwi Dkhar



Rabina Lamare



Lambok Suiam



Pawlina Dkhar



Poibha Lamare



Shimwanki Lyngdoh



Ribha Saio



Rosemery Lyngdoh



Samaia Papang



Wallam Suja



Shinning Lyngdoh



Shot Talang



Tiron Bareh

SHKen.in
CRAFT • COMMUNITY • COLLECTIVES

REPORT ON
**CRAFT DESIGN
WORKSHOP**

8

VENUE
VILLAGE : JOWAI
BLOCK : JOWAI

DATES
DECEMBER 10-12, 2015

SPONSORED BY
DEPARTMENT
OF COMMERCE AND
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GOVERNMENT OF
MEGHALAYA

PROJECT BY
DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY
IDC, IIT BOMBAY



Report Design:
Prof. Mandar Rane + Priti Rajwade

Photographs:
Mandar Rane

Content:
Prof. Ravi Mokashi
Prof. Avinash Shende

REPORT ON

PRODUCTION WORKSHOP



SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

BLOCKS : MAWSYNRAM,
PYNURSLA & SHILLONG

DATES

MAY 8-14, 2015

SPONSORED BY

DEPARTMENT
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INDUSTRIES (DCI)

GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 33





MEGHALAYA

FIRST PRODUCTION WORKSHOP MAY 8-14, 2015

BLOCKS: MAWSYNRAM, PYNURSLA & SHILLONG

DCI TEAM

1. **Shri J. Gashnga**
Deputy Director (Planning), DCI
2. **Shri H. Decruse**
General Manager, DCI
3. **Smti D. Kharjana**
Asst. Director Cottage Industries
(Tech), DCI
4. **Mr. Mendon Pariat**
Managing Director, MHHDC
5. **Shri P. K. Marbaniang**
General Manager MIDC
6. **Shri A. Malngiang**
Functional Manager MIDC
7. **Shri G. G. Lyngdoh**
Functional Manager MIDC
8. **Shri Iban. K. Pyngrope**
Asst. Manager (CFS W/S) DCI

9. **Shri F. Passah**

Bee- Keeping Demonstrator DCI

10. **Shri. Gibonsing Kynter**

Headman of village Syntein

FROM IIT GUWAHATI

Prof. Avinash Shende
Prof. Ravi Mokashi Puneekar
Mr. Pranav Satpute
Mr. Pritam Paraye
Mr. Subrata Chakraborty
Mr. Manik Das

WORKSHOP ASSISTANCE FROM DCI, SHILLONG

1. **Mr. Iban Pyngrope**
Asst. Manager, CFS W/S, DCIC
2. **Mr. Banri**
Industrial Promotion Officer
Mob: +91 97740 72599

Summary

After the completion of the first four field based design workshops, the Indian Institute of Technology in collaboration with Directorate of Commerce and Industries, Shillong organized the first Craft Design Production Workshop at Department of Design IIT Guwahati between May 8-14, 2015. The program aimed to bring together all participants of the field based workshops under one umbrella and be exposed to modes of production using machines and portable handtools using molds. It aimed to highlight the importance of productivity, quality and collective team work that is important in the context of scalability of production. Finishing techniques, coloring techniques, techniques in steam bending required for working of bamboo were planned during this production workshop.



The IIT Guwahati design team was getting ready the new improved molds and working stands for molds and raw material required for the production workshop.

The shortlisting was done to get a good mix of craft skills from amongst the different blocks as it was noted that the craft styles of artisans were completely different amongst the three blocks.

Preparations for workshop

The production workshop was a residential one, with all participating crafts people being accommodated on the IIT campus in the student hostels. A total 33 participants attended the workshop. Twentyfive female participants were accommodated in girls hostel Dhanashri and the eight male participants were provided with hostel accommodation in the newly constructed Lohit hostel of IIT Guwahati Campus. Accommodation for the two co-ordinating officers from DCI was made in the IIT Guesthouse.

The IIT Guwahati design team was getting ready the new improved molds and working stands for molds and raw material required for the production workshop. Then IITG were making accommodations for DIC officials and Artisans. Meanwhile Prof. Mandar Rane was finalizing the design and getting printed the workshop posters, certificates, badges and bags planned to be given to artisans.

About Craft artisans – Mawsynram, Pynursla & Shillong Block

Of the total 33 participants shortlisted, there were 19 participants representing Mawsynram block, 13 representing Pynursla and 4 were representing the shillong block.

The shortlisting was done to get a good mix of craft skills from amongst the different blocks as it was noted that the craft styles of artisans were completely different amongst the three blocks. While the Mawsynram block was strong in the different techniques of weaving and matmaking, Pynursla block was predominantly strong in weaving techniques using bamboo slivers. The crafts persons from the Shillong block's preferred in sculpted bamboo craft products making showpieces, toys rather than functional goods. The months of June to August experience the highest rainfall in the region. Craft activities at their homes are therefore carried out during the months of January to March followed by June to August.

Workshop Activities - Day wise reporting

May 8, 2015

The venue of the first Production workshop was in the workshop of the Department of Design, IIT Guwahati. All participants met for the first time collective at the venue. for the inaugural meeting at 10:00 am. The following officials from DCI, Shillong were present.

- 1 Shri J. Gashna, Deputy Director (Planning), DIC
2. Shri I. K. Pyngrope Assistant Manager (CFS W/S) DIC
3. Shri F. Passah Bee-Keeping Demonstrator DIC

As IIT Guwahati team had conducted training workshop in different blocks of Meghalaya, they got to know the style of artisans working, the design team came up with new products and new way of making the existing products.



Prof. S.R.M Prasanna, Dean Research and Development, IIT Guwahati inaugurated the workshop in the presence of Mr. Gashgna, Dy Director, DCI, Shillong and other DCI officials. Present in the audience were also faculty members from the Department of Design, all the participating craft persons and workshop staff of the department of Design. Prof. Avinash Shende and Prof. Ravi Mokashi Punekar spoke about the motto of the production workshop and Mr. Iban. K. Pyngrope, Assistant Manager (CFS W/S) DIC, and Mr. Banri (Industrial Promotion Officer) extended warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during the workshop.

DAY 1 & 2

PRE-LUNCH SESSION

The IITG design team introduced themselves to the participants. The workshop started with introductions of crafts persons to each other as they were coming to IIT for the first time. A brief explanation was made about the range of bamboo products designed and developed at Department of Design, IIT Guwahati based on a brief formulated after market research. The products were designed by adopting weaving skills practiced by the participating crafts persons in their blocks. IITG team explained how they had studied these skills closely during the field based workshop conducted at their blocks earlier. The design team finalized the new product range by utilizing these known techniques and focused on evolving a new way of making the existing products. The products presented to the participants included:

1. Roti Basket
2. Waste paper Bin
3. Laundry basket
4. Lamp Shades
5. Candle sticks
6. Trays
7. Mat Weaving

POST-LUNCH SESSION

The participants were divided into four groups as per product category. They were as per follows:

- | | |
|---------------------------|--------------|
| Group 1 – Laundry basket | (6 Artisans) |
| Group 2 – Lamp Shades | (4 Artisans) |
| Group 3 – Waste Paper Bin | (6 Artisans) |
| Group 4 – Roti Basket | (5 Artisans) |
| Group 5 – Trays | (3 Artisans) |
| Group 6 – Candle Stand | (3 Artisans) |
| Group 7 – Matte Weaving | (4 Artisans) |

The participants were told to prepare slivers, sticks and cane slivers required for the products that were assigned to each group. The group members spent the entire day in preparing the raw material and bamboo slivers required for weaving.

Fig. 1A & 1B Artisans making bamboo strips and slivers to craft waste paper bins, Roti baskets and laundry baskets.



Fig. 2 Pritam Checking the Quality of Bamboo slivers made by artisans.

DAY 2

On the second day too artisans spent the entire day making bamboo slivers of different sizes, length, width and thickness, which they were going to use for above listed products. They were introduced to the use of the width-sizer - mechanical cutting device, to maintain consistency in the size and width of the slivers they were making. The design team was maintaining a record of the rate of production and time required for raw material preparation. By the end of the day artisans were ready making the required quantity of strips, sticks and slivers to plan commencement of weaving using molds, on day three.

As all artisans were making sliver for 1st two days Design team were maintain the downtime sheet of individual artisans. Downtime sheet were having data of how many slivers or sticks an individuals is making in given time.

The weekend visit to guwahati city

The IIT team realized that for many of the participants this was their first opportunity to leave their village and visit a city. Day three being a the Sunday week end, a visit was planned to some of the sights in Guwahati city by hiring a bus from the campus. Members of the IIT team Pranav Satpute, Shivaji and Pritam Paraye guided the artisans to various locations in the city. Artisans were taken to Don Bosco Church then to Assam state Museum and post lunch at a restaurant to the city zoo and the famous Balaji temple for an exciting day out of the campus.

DAY3

PRE-LUNCH SESSION

Slivers Treatment & Dyeing

On day three, the participants were introduced to chemical treatment methods for slivers and in dyeing techniques of the slivers through a demonstration.

They were explained how slivers could be treated in a solution of borax and boric acid and boiled for 30-45 minutes to prevent insect attack.



Fig. 3,4 & 5 Demonstration of bamboo processing techniques by chemicals – boiling, washing and soaking bamboo slivers.

Following this treatment the slivers could also be colored using different natural and chemical dyes to enhance the look of the woven products. The process of drying the slivers after dyeing was also explained. After the disinfection process artisans were demonstrated with coloring of slivers



Fig. 6 & 7 Subrato giving demonstration of bamboo coloring techniques using synthetic colors.



After the demonstration the participants commenced work in their respective groups with inputs from the IIT Guwahati team. The molds designed and developed for each products were well known to the participants as they were introduced to them earlier during the filed based workshop held earlier. The participants were aware of the advantages of using mold and its importance in achieving standardization of products, maintaining dimensional consistency and quality. An aspect of stack-ability, its impact on transportation was discussed. The participants understanding of production of bamboo products, and how molds are very useful to achieve higher volumes of production in hand made products was enhanced .

POST-LUNCH SESSION

Laundry Basket

The group working on the Laundry basket comprised of six artisans, four of whom were weaving the basket on the mold workstation while the other two waited their turn helping other group members with a steady supply of slivers required for weaving. The group was focused on meeting their planned work output for the day.



Fig. 8A & 8B (Above) Artisan crafting base of laundry basket.



Fig. 9 (Right) Artisans crafting Laundry basket by using mold.

Observations

From our observation in Shillong training workshop the mold for the laundry basket had shortcoming of ease of reach and difficulty of posture making it very tiring for use during weaving. The design team realized that a workstation for the Laundry basket needs to be designed considering these ergonomic factors for the successful acceptance of the laundry basket. During this production workshop the designed team had fabricated four such workstations that were put to use. The craftsperson could sit on a chair and comfortably weave the slivers into a laundry basket as per the desired woven pattern after mounting the woven base on to the mold. Ease of rotating the mold on a spindle made the task of weaving very comfortable, easy and efficient. The idea seemed to find immediate appreciation and acceptance by the participants. The woven baskets proved to be consistent in size, quality and excellent finish raising the overall look of the final woven basket. The participants quickly tried weaving more baskets using colored slivers to see the amazing quality of their own efforts. The workstation stand with the rotating mold seemed to have become an instant hit with the participants. This was reflected in their enthusiasm and enhanced increase in the number of baskets that they finally woven using these molds by the end of the workshop

Fig. 10 Roti basket crafting by using mold.

Roti Basket Group – Some Observations

The second group comprised of five artisans with excellent weaving skills. The group quickly sat down to the task at hand and very efficiently started weaving the roti baskets in two different weaving patterns using the mold for the roti basket.

Fig. 11 (Right) Group of artisans crafting Roti baskets.





Fig. 12 Coloring bamboo strips by using potassium permanganate.

Waste Paper Bin Group - Some Observations

The group members divided their task –half the group members were told to make the base disk for the waste paper bin while two others were guided to the techniques in coloring the sticks. It was explained to them how this would enhance the value addition to the existing product.

Coloring sticks using the following two techniques was introduced

1. Coloring using distempers and strainers
2. Coloring using Potassium Permanganate

Lamp Shade Weaving Group

An immersive experience was seen amongst members of this group. They were making progress steadily. All the artisans were loving their work and were told to make lamp shades with dyed bamboo slivers. They adapted to this very easily.



Fig. 13A & 13B Lampshade Group crafting various lampshades by using molds.



Fig. 14A & 14B Wooden mold to weave tray. Artisan trying mold to weave tray.

Fruit Tray Group

Making the Fruit tray involved extensive cane weaving. The artisans were busy in their work. However it was noticed that the effort and the time taken by the members was excessive. Process simplification could be tried and the use of molds could help to increase the productivity. Molds for the trays were made instantly on the 1st day of workshop.





Fig. 15 Mat Group –
Bamboo mat weaving

Documentation

The documentation team comprising of Jyotirmay Nayak on still camera and Rhitupon Bora with Ratul Deka undertaking the Video recording undertook photo-documentation of the production workshop concurrently. The videos clips could be very useful in terms of putting it in the website for the project. Additionally, the photograph of all the participating artisans was also documented.

DAY 4

PRE-LUNCH SESSION

Laundry basket Observations

By the afternoon of day four, six laundry baskets had been woven by the participants and two more were under progress. However the important part of working on closure of the rim was still to be done. Our master craftsmen advised the participants to make the sticks for the rim saving time for working the next day.



Fig. 16 Laundry basket work in progress.

Roti Basket Observations

Roti basket group were progressing well. Group members were told to make the baskets with hexagonal weave and one-on-one weave using dyed slivers. Prof. Avinash Shende and Prof. Ravi Mokashi Punekar were keeping a watchful eye on the quality of production. Our field training workshops earlier had indicated that the time for



Fig. 17 Prof. Avinash observing rim portion of roti basket



Fig. 18 (Right) Laundry basket work in progress.

making the rim for the roti basket was very time consuming and laborious. Prof. Avinash Shende resolved this by a modification to the technique - instead of weaving the rim over a bamboo ring why not extend the regular weaving a length further and curl it inside. This ingenious solution leads to completely a new roti basket.

Waste Paper Bin Observations

Master craftsman were keeping a keen eye on the groups. Some of the members were told to collect the pre-colored stick for crafting the waste paper bin. The six member group, three were familiar with the work from the previous field workshop and the other three were helping them in crafting the waste paper bin.

Fig. 19 (Right) Artisan making base of waste paper bin.

Fig. 20 Base part weaving of waste paper bin.



Artisans started making lamps shades with good color combination dyed bamboo sliver which were leading to very good looking lamp shades.

Lamp Shade Group

Artisans started making lamps shades with good color combination dyed bamboo sliver leading to very good looking lampshades. On the next day, artisans were guided in closing the rim as it proved bit tricky for the artisans.

Fig. 21 Lamp Shades work in progress





Fig. 22 Professor Avinash guiding artisan for proper binding of cane to make tray.

Fig. 23 (Right) Mat Group – Mat weaving work in progress.

Tray Group

Tray group were trying their best to finish the task because it was time consuming. Base for the trays were being made by the other artisans of the group. With guidance from Prof. Avinash and the master craftsman the group pushed their limit and could complete three trays.



Fig. 24 (Below) Laundry Basket Rim making.



Fig. 25 (Right) Improved version of Roti Basket.

POST-LUNCH SESSION

Laundry basket Observations

By the end of the day, six baskets that were ready for further work on the rim. Artisans started making rim for the next day with help of master craftsman guiding them through the process.

Roti Basket Observations

As we solved the issue for making rim for roti basket, production of it increased dramatically and artisans were also loving the way the basket looked with the new rim. Artisans from different group were getting attracted toward the roti basket. Many of the other group artisans also tried their hand on it.



Waste Paper Bin Observations

By the end of day four, the artisans could complete making four waste paper bin The quality of product was satisfactory.

Fig. 26A, 26B & 26C
Lampshades work in progress.



Lamp Shade Group

Lamp shade group were now completeing making the rim for lamp shades. All the artisan from the group were doing the same or helping each other this task.

Fig. 27A & 27B
Tray weaving work in progress



Tray Group

The group completed tying the base to rims to complete the tray.



Mat Group

This group continued weaving one big size mat from day three and aimed to complete it by the end of day four.

Fig. 28 Mat weaving work in progress.



DAY 5

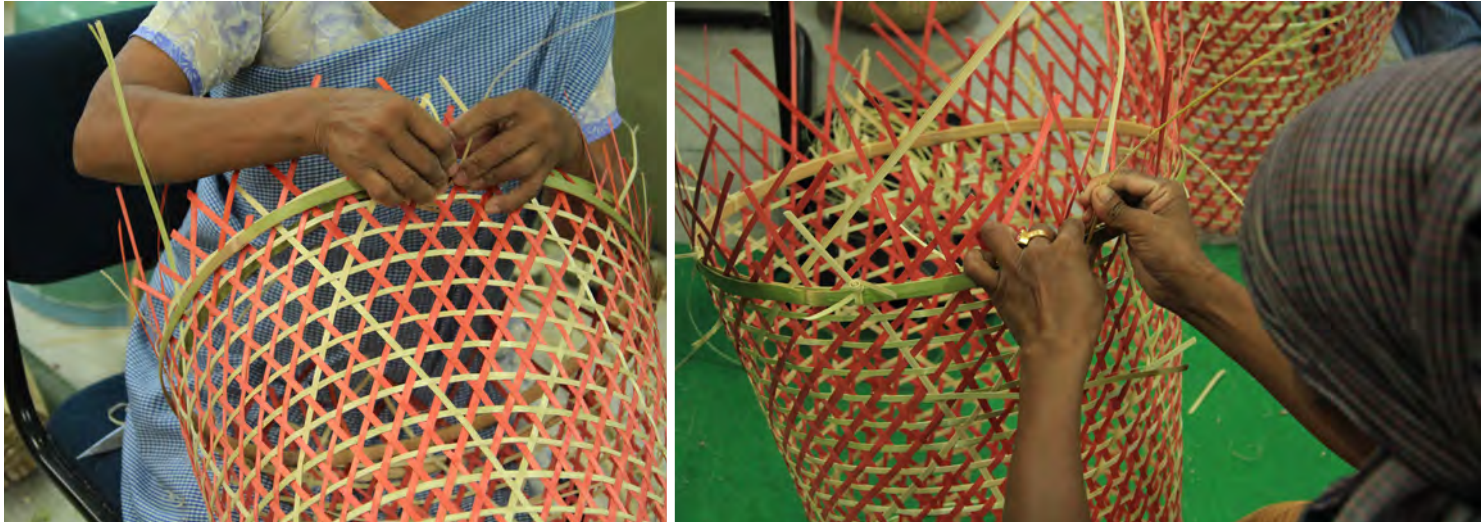
PRE-LUNCH SESSION

All artisans resumed with same enthusiasm and were explained again about the continuity of the work.

Laundry Basket Group

Laundry basket group were involved with making rim for the basket. And they were tying it simultaneously.

Fig. 29 Laundry basket rim crafting work in progress.



Waste paper Bin

Waste paper bin group started making the bin by following the same instruction discussed on previous day.

POST-LUNCH SESSION

The pending work of bamboo products like rim of Lampshades were finished. Finally the products made by this group was highly satisfactory.

Lamp Shade Group

The lampshade group also started simultaneously using mold. It was observed that this group had by now mastered the use of molds to complete weaving 12 lampshades.

Laundry Basket Group

It was immensely gratifying to note that the group could complete weaving of very high quality.

Waste paper Bin

This group could complete making four waste paper bins during the workshop.

Mat group

Mat group completed weaving high quality mats of size 5 feet by 5 feet with high level of precision.

Fig. 30 Mat weaving towards completion.



DAY 6

CONCLUDING SESSION

Certificate Distribution

Concluding session started at 12:00 in the afternoon, IITG Team, DIC official and Artisans were interchanging dialogues about the

workshop, discussed various issues related to learning and received critical feedback.

Mrs. M. B. Roy Director, Directorate Industries & Commerce with DIC officials and Mr. Gautam Biswas Director, Indian Institute of Technology Guwahati expressed great satisfaction and fascination to see the outcome and approach undertaken in this project. They delivered very motivating speech inspiring the group the importance of teamwork. As conclusion to the workshop all the participating artisans were given with Shken badges, certificate, and bags.

The workshop concluded with a vote of thanks expressed by Prof. Avinash Shende.

LIST OF CRAFTSMAN

Adleng Kenter	Melinda Massar
Dhomsing Paviong	Nialang Nongrum
Dispi Kharbuli	Phio Pdahkasiej
Japan Khongwir	Pistina Kongsang
Jendrasing Kurkalong	Sajina Pdahkasiej
Lihshai Kynter	Shidalin Massar
Swik Disiar	Shyndilta Khongsdier
Tising Pdahkasiej	Sima Kynter
Balari Hunshisha	Sinar Khongji
Balarihun Rynjah	Solinda Pariat
Biknet Langpen	Spilda Disiar
Dameris Khongwet	Srulda Kenter
Dirit Pdahkasiej	Stol Kongsang
Dmit P Kasiej	Teri Pdahkasiej
Edwijis Nongrum	Thira Kenter
Khril Khongwet	Twil Dahar
Linda Khoglam	



Group photo
with workshop output.

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REPORT ON

PRODUCTION WORKSHOP



VENUE

BLOCKS : MAWSYNRAM,
PYNURSLA & SHILLONG

DATES

MAY 8-14, 2015

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES (DCI)

GOVERNMENT OF
MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY

IDC, IIT BOMBAY



mrane.com

Report Design:

Prof. Mandar Rane + Priti Rajwade

Cover Photographs:

Mandar Rane

Content:

Prof. Ravi Mokashi

Prof. Avinash Shende

REPORT ON

PRODUCTION WORKSHOP



SHKEN.IN

CRAFT • COMMUNITY • COLLECTIVES

VENUE

DEPARTMENT OF DESIGN
IIT GUWAHATI

BLOCKS : NONGPOH,
NONGSTOIN, MAIRANG,
WILLIAMNAGAR, TURA,
JOWAI, MAWKYRWAT

DATES

FEBRUARY 26-MARCH 2, 2016

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES (DCI)

GOVERNMENT
OF MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI



WORKSHOP

PARTICIPANTS: 49





MEGHALAYA

FIRST PRODUCTION WORKSHOP FEBRUARY 26–MARCH 2, 2016

BLOCKS: NONGPOH, NONGSTOIN, MAIRANG,
WILLIAMNAGAR, TURA, JOWAI, MAWKYRWAT

DCI TEAM

1. **Shri J. Gashnga**
Deputy Director (Planning), DCI
 2. **Shri H. Decruse**
General Manager, DCI
 3. **Mr. Mendon Pariat**
Managing Director, MHHDC
 4. **Mr. Dapme Passah**
Functional Manager (DCI Jowai)
 5. **Mr. S. T. Sangma**
Functional Manager MIDC
-

FROM IIT GUWAHATI

- Prof. Avinash Shende
Prof. Ravi Mokashi Punekar
Mr. Pranav Satpute
Mr. Subrata Chakraborty
Mr. Manik Das
-

WORKSHOP ASSISTANCE FROM DCI, SHILLONG

1. **Mr. Dapme Passah**
Functional Manager (DCI Jowai)
2. **Mr. S. T. Sangma**
Functional Manager
(DCI Williamnagar)

Summary

The Indian Institute of Technology in collaboration with Directorate of Commerce & Industries, Shillong organized the Second Craft Design Production Workshop at Department of Design IIT Guwahati from February 26th to March 2nd, 2016. The program was inaugurated by Professor Ravi Mokashi Punekar, Department of Design IIT Guwahati in the presence of Senior Officials of the DCI Jowai and Tura divisions, IIT Guwahati Professors from various field and Departmental workshop staff. Prof. Avinash Shende and Prof. Ravi Moashi Punekar spoke about the motto of the production workshop and Mr. Dapme Passah, Functional Manager (DCI Jowai) and Mr. S.T. Sangma, Functional Manager (DCI Williamnagar) extended warm welcome to all the participants asking the participants to take maximum advantage of interaction with the IIT team during the workshop.



Preparations for workshop

All the members from IIT Guwahati were very busy with their assigned task. IITG were getting ready with new improved molds, stands for molds and all the raw material. Then IITG were making accommodations for DCI officials and Artisans. And the partner very far IIT Bombay were making workshop posters, certificates, badges and bags which will be given to artisans.

ACCOMMODATION FOR CRAFT PERSONS

From total 49 participants 16 Female participants were accommodated in girls hostel name Dhanashri and 33 male participants along with 2 DCI officials were provided with hostel accommodation of well-equipped rooms in newly constructed Lohit hostel of IIT Guwahati Campus.

About Craft artisans – Nongpoh, Nongstoin, Mairang, Williamnagar, Tura, Jowai, Mawkyrwat blocks

This time production workshop was organized for the artisans from 7 different craft pockets of Jaintia, khasi and garo hills of Meghalaya. Below is the number of artisans called from each place.

Nongpoh	: 8
Nongstoin	: 3
Mairang	: 3
Williamnagar	: 4
Tura	: 4
Jowai	: 20
Mawkyrwat	: 7

Shken has an evenly distributed inter-node space of nearly 18-24 inches with long fibres, and an even cross section thickness of 2-3 mm.

The craft styles of artisans were completely different from each other. Participants from Nongpoh, Nongstoin & Mairang were specialized in fine weaving crafts and moda making while the artisans from Williamnagar and Tura were specialized in cane & bamboo furniture. There were 20 participant from Jowai as the result obtained from 3 day workshop at Jowai was very satisfying for IITG team. Also the artisans from Mawkyrwat were skilled in crafting roti basket.

Most of the artisans are involved in making showpieces, toys rather than functional goods. Artisans use available bamboo variety, locally called 'Shken'. This grows in abundance and is available to the craft persons. Shken has an evenly distributed inter-node space of nearly 18-24 inches with long fibres, and an even cross section thickness of 2-3 mm. so the artisans cuts the hollow cylinder from the bamboo and makes flower holder with bamboo flat sticks behind it. The range of the bamboo products includes flowers, flower sticks, frames, wall hangers, toys, bow & arrows.

The crafts community distributes their time during the year between fieldwork and craft activities. The months of June to August experience the highest rainfall in the region. Craft activities at their homes are therefore carried out during the months of January to March followed by June to August.

Workshop Activities - Day wise reporting

February 26, 2016

Workshop starts at 10:00 am in presence of DCI IITG Team and DCI Officials.

1. Prof. Ravi Mokashi Punekar
2. Prof. Avinash Shende
3. Mr. Dapme Passah, Functional Manager (DCI Jowai)
4. Mr. S. T. Sangma, Functional Manager (DCI Williamnagar)
5. Mr. Pranav Satpute
6. Mr. Subrata Chakraborty
7. Mr. Manik Das

The workshop was inaugurated by Prof. Ravi Mokashi Punekar this was followed by Mr. Dapme Passah, Functional Manager (DCI Jowai), Mr. S.T.Sangma, Functional Manager (DCI Williamnagar) and Prof. Avinash Shende, IIT Guwahati who outlined the theme and workshop activities to the participants.

DAY 1 & 2

PRE-LUNCH SESSION

Introduction of Participants

Kick off workshop starts with introductions of crafts persons as they were coming from different block to one place. A brief explanation about the bamboo products designed and developed at Department of Design, IIT Guwahati. The range of products with a brief formulated after market research. The products are designed by considering and adopting weaving skills practiced in most craft pockets but as IIT Guwahati team had conducted training workshop in different blocks of Meghalaya and got to know their style of artisans working design team came up with new products and new way of making the existing products.

1. Chapati Basket
2. Waste paper Bin
3. Laundry basket
4. Lamp Shades
5. Candle sticks
6. Trays
7. Mat Weaving

POST-LUNCH SESSION

The participants were divided into six groups as per product category. They were as per follows:

- | | |
|---------------------------|---------------|
| Group 1 – Laundry basket | (6 Artisans) |
| Group 2 – Moda Crafting | (5 Artisans) |
| Group 3 – Waste Paper Bin | (10 Artisans) |
| Group 4 – Waste Paper Bin | (10 Artisans) |
| Group 5 – Chapatti Basket | (10 Artisans) |
| Group 6 – Cane Furniture | (8 Artisans) |

The participants were told to prepare slivers, sticks and cane slivers for the products that they are respectively assigned for.

As IIT Guwahati team had conducted training workshop in different blocks of Meghalaya, they got to know the style of artisans working, the design team came up with new products and new way of making the existing products.



Fig. 1A, 1B & 1C Artisans making raw material for crafting laundry basket, roti basket and Waste paper bins.



DAY 2

For 2nd whole day artisans were making bamboo slivers of different sizes, length, width and thickness, which they were going to use for above listed products. By the end of 2nd day artisans were ready with the number of strips, sticks and slices for 3rd day weaving, by using molds.



As all artisans were making sliver for 1st two days Design team was maintaining the downtime sheet of individual artisans. Downtime sheets were having data of how many slivers or sticks individual artisan is making in given time. Before 3rd working day started which was Monday. Artisans were taken out for 1 day tour of Guwahati city on Sunday. With the best arrangements of bus from campus and lunch in the city artisans were enjoying the experience. Mr. Subrato Chakraborty, & Mr. Manik Das were with artisans to guide them with various locations of city. Artisans were taken firstly to Don Bosco Church then to Assam state Museum where they saw got learned many things, then to city zoo after the lunch and the day wrapped up with Balaji temple.

DAY 3 & 4

Slivers Treatment & Dyeing

Before the artisans could started their work they were demonstrated with slivers disinfection process by putting slivers in chemicals added water and boiled for 30-45min. Slivers were dried after washing and became ready for weaving. After the disinfection process artisans were demonstrated with coloring of slivers with natural and chemical dyes.

All Groups then started with their respective work, with the help of IIT Guwahati team. The molds designed and developed for each products were well known to each and every crafts persons as they were explained about it meticulously in training workshops. Crafts persons knew the advantages of using mold and its importance affecting various factors, such as, standardization of products, maintaining dimensions, consistently. This helps in stack-ability, which again plays a crucial role while transportation. The discussion lead to the production of bamboo products, and how molds are very useful to do so.



Fig. 2A & 2B Prof. Avinash & Mr. Subrato giving demonstration for coloring bamboo slivers and sticks.

Laundry Basket

Laundry basket group were having 6 artisans under its belt, among 6 of them 2 were on the mold and rest 4 were getting ready for their turn and meanwhile helping other group members with needed stuff. The group were focused for pulling task off in time.



Fig. 3 Artisans crafting base of laundry basket.



Fig. 4 (Right) Artisans crafting laundry basket by using mold.

Fig. 5 (Below) Artisans finishing bamboo sticks for Waste paper bins.



Fig. 6 (Right) Artisans making base of Waste paper bin.

Fig. 7 (Extreme right) Top weaving of Waste paper bin.

Waste Paper Bin Observations

There were 2 groups of 10 number of participants working to craft waste paper bins. Some of the group members were told to make base disk for waste paper bin while 2 of them were guided with coloring sticks which were the value addition to the existing product. Coloring sticks were shown by using the distempers and strainers



Chapatti Basket Observations

The group were having 10 artisans, everyone was good with their job and started to craft the chapatti baskets with 2 different weave hexagon and one by one weave.

Fig. 8 Artisan crafting base of Chapatti basket.

Fig. 9 (Extreme Right) Artisan from Nongpoh crafting Chapatti basket



Center table was designed specially by using fixture to hold bamboo in straight position and later on one can add inclined members between straight members.

Fig. 10 Cad explorations for the center table base.

Cane & Bamboo Furniture Group

Artisans from Garo hills are specialized in Cane and bamboo furniture making. So the group of 8 participants from Tura and Williamnagar were working of bamboo furniture making. For that the task of making one bamboo screen and center table was assigned to them. For first two days all of them were trying to understand the design and the material requirement for crafting these products. Center table was designed specially by using fixture to hold bamboo in straight position and later on one can add inclined members between straight members.

First we explored various possibilities of bamboo member placement on CAD and then actual mold is fabricated by considering its usability and cost effectiveness.

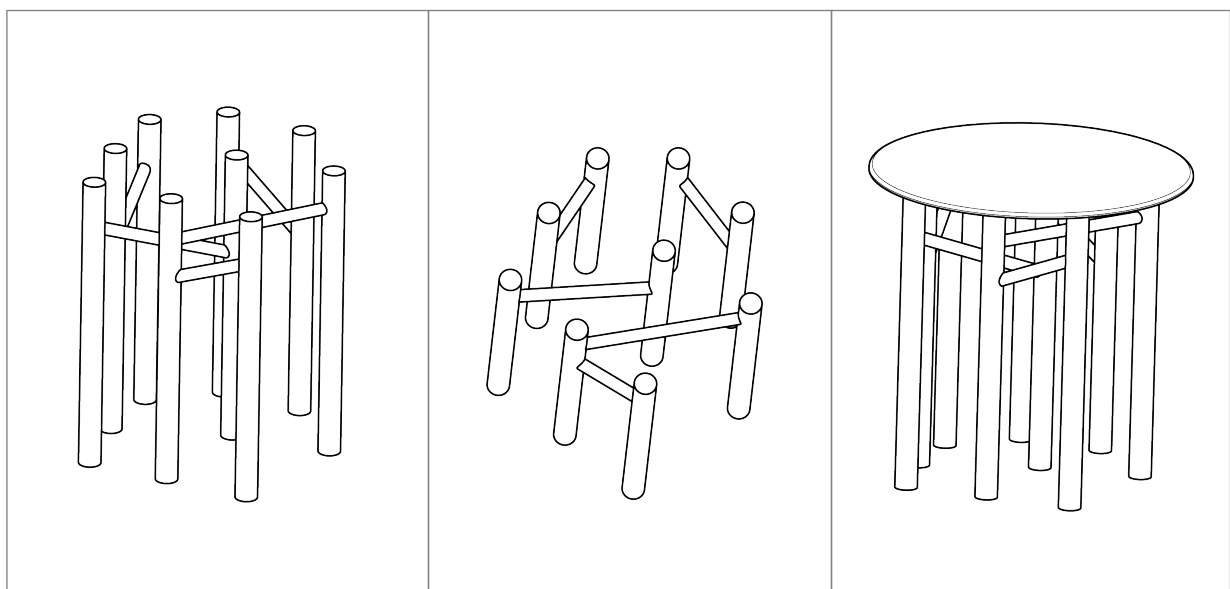




Fig. 11 Professor Avinash exploring the center table mold.



Fig. 12 (Right) Artisans making center table base by using mold.

Fig. 13 Artisans crafting new product by using their moda weaving skills.

Moda Crafting Group

There were three lady participants from Mairang, who were specialized in making moda. So we assigned them a task to craft Moda in different style. The idea behind this was to transform Moda in the form of tray which can be connected to keep potatoes and onions. Though this was bit tough task for the artisans, they were very excited to try crafting this new kind of product.



The videos are also included as the important events during workshop, these clips could be very useful in terms of putting it in the website.

Documentation

Rhitupon Bora with Ratul Deka on Video from IITG, carried out documentation part of the whole process. The videos are also included as the important events during workshop, these clips could be very useful in terms of putting it in the website for the project. Additionally, the photographs of all artisans were also taken.

Fig. 14 (Below) Artisan making rim of laundry basket.

Fig. 15 (Right) Artisans making base of laundry basket.



DAY 5 & 6

Laundry basket Observations

By the lunch time 6 laundry baskets taken its shape and 2 more were about to. But the crucial part of it the Rim was still left to finish. Which were guided by the master craftsman in post lunch session. So craftsman were already told to make the sticks for the rim so there will no waste of time for the next day.



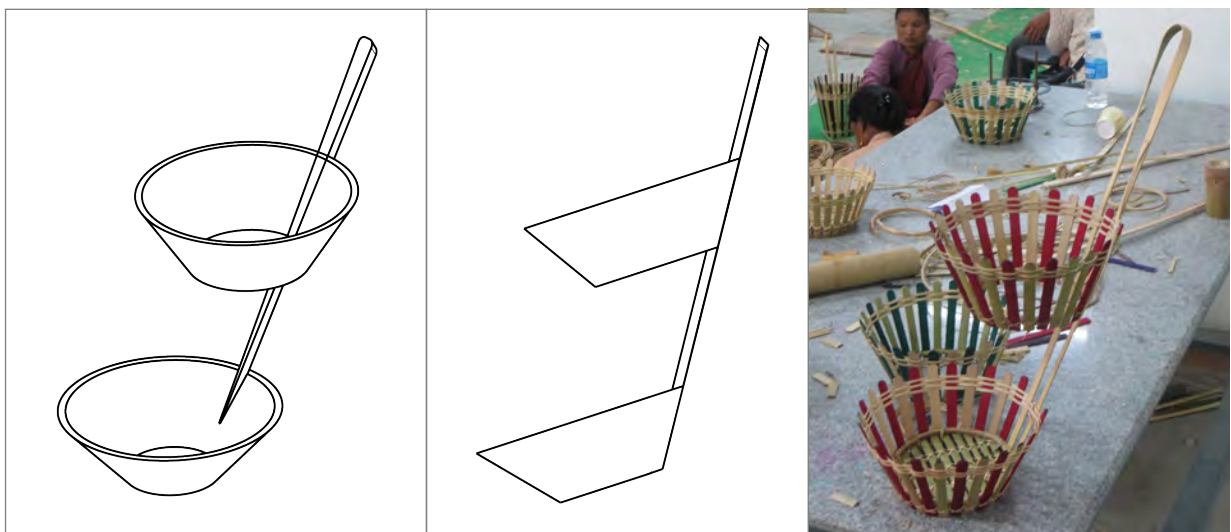
The laundry basket artisans were very skillful and fast in crafting. At the end of the day they finished 11 complete laundry baskets. The artisans Agustion Suchiang and Samaia Papang from Jowai were crafting laundry basket with very high efficiency.

Fig. 16A & 16B (Below) CAD explorations of new version of baskets.

Fig. 17 (Right) New version of basket.

Waste Paper Bin Observations

Master craftsman having keen eye on the groups, some of the members told to collect the pre-colored stick for crafting the waste paper bin. While observing crafting process of waste paper bin we got an idea of connecting two smaller versions of waste paper bins to make one basket which one can hang on wall. The inclined outer faces of each bin will make baskets inclined with wall allowing easy access of stuff kept in the baskets.



All the group members of waste paper bin were very crafting their products with high speed and also they were very satisfied

about their work and mold given to them. At the end of the day all the members finished almost 40 numbers of waste paper bins which was very large output of five day's work of two groups of participants.

The participants from Nongpoh, Mawkyrwat and Jowai were crafting chapatti baskets with good speed as all of them were familiar with the crafting process of chapatti basket.

Fig. 18 Professor Ravi Mokashi observing crafting process of Chapatti basket.



Roti Basket Observations

Chapatti basket group were doing very well. Everyone was doing their task to its mark. Group were told to make the baskets with hexagonal weave and one by one weave and with dyed slivers. While the baskets were taking shapes Prof. Avinash Shende and Prof. Ravi Mokashi Punekar were having keen eye on the quality of production. The participants from Nongpoh, Mawkyrwat and Jowai were crafting chapatti baskets with good speed as all of them were familiar with the crafting process of chapatti basket.



Cane & Bamboo Furniture Group

Furniture group finished two center tables and started working on bamboo screen while making center table some participants were making raw material required for the screen including circular pieces of bamboo and drilled straight bamboo required as supports for screen.

Fig. 19A & 19B Furniture group artisans making raw material to make screen.



At the end of the workshop, furniture group finished two Center tables and one screen of bamboo.

CONCLUDING SESSION

Certificate Distribution

Concluding session started at 5:00 in the Evening, IITG Team, DCI official and Artisans were interchanging dialogues about the workshop, discussed various issues related to learning, received critical feedback. Artisans were given with Shken badges & certificate.

The conclusion session was finished with concluding session by Director and vote of thanks by DCI.

Group photo
with workshop output.



LIST OF PARTICIPANTS FOR PRODUCTION WORKSHOP 2

NONGPOH – 8 Participants	JOWAI – 20 Participants	MAIRANG – 3 Participants
<ol style="list-style-type: none"> 1. Borsing Marbaniang 2. Clement Lyngdoh 3. Mejiot Suphai 4. Eril Umbah 5. Swat Suphai 6. Clanty Dhar 7. T. Barim 8. S. J. Muktieh 	<ol style="list-style-type: none"> 1. Agustion Suchiang 2. Asuk Suting 3. Dwi Dkhar 4. Early Chympha 5. Hawot Dkhar 6. Kelvin Suting 7. Klemen Langshiang 8. Lambok Suiam 9. Pawlina Dkhar 10. Poibha Lamere 11. Rabina Lamere 12. Ribha Saioo 13. Rosemary Lyngdoh 14. Samaia Papang 15. British Lyngdoh 16. Shinning Lyngdoh 17. Shot Talang 18. Tiron Bareh 19. Fully Niang 20. Wallam Suja 	<ol style="list-style-type: none"> 1. Trisphina Nonglang 2. Biktoria Lyngdoh 3. Blessila Lyngdoh
		WILLIAMNAGAR – 4 Participants
		<ol style="list-style-type: none"> 1. Arnithson Momin 2. Atarsing Marak 3. Getha Marak 4. Chaban N. Sangma
NONGSTOIN – 3 Participants		TURA – 4 Participants
<ol style="list-style-type: none"> 1. Bestar Khrbani 2. Ristobar Langrine 3. Pher Kharbthai 		<ol style="list-style-type: none"> 1. Chesterman Lakhmie 2. Grenathson S. Sangma 3. Teseng M. Marak 4. Jendal K. Sangma
MAWKYRWAT – 7 Participants		
<ol style="list-style-type: none"> 1. Mesharland Shangdiar 2. Baiamon Jyrwa 3. Karlan Thongni 4. Sheldaris Jyrwa 5. Aikandia Jyrwa 6. Misleunancy Shangdiar 7. Exstoland Syiemlieh 		

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REPORT ON

PRODUCTION WORKSHOP



VENUE

DEPARTMENT OF DESIGN
IIT GUWAHATI

DATES

FEBRUARY 26 - MARCH 2, 2016

SPONSORED BY

DEPARTMENT
OF COMMERCE AND
INDUSTRIES (DCI)

GOVERNMENT OF
MEGHALAYA

PROJECT BY

DEPARTMENT OF DESIGN
IIT GUWAHATI

BRANDING AND STRATEGY

IDC, IIT BOMBAY



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