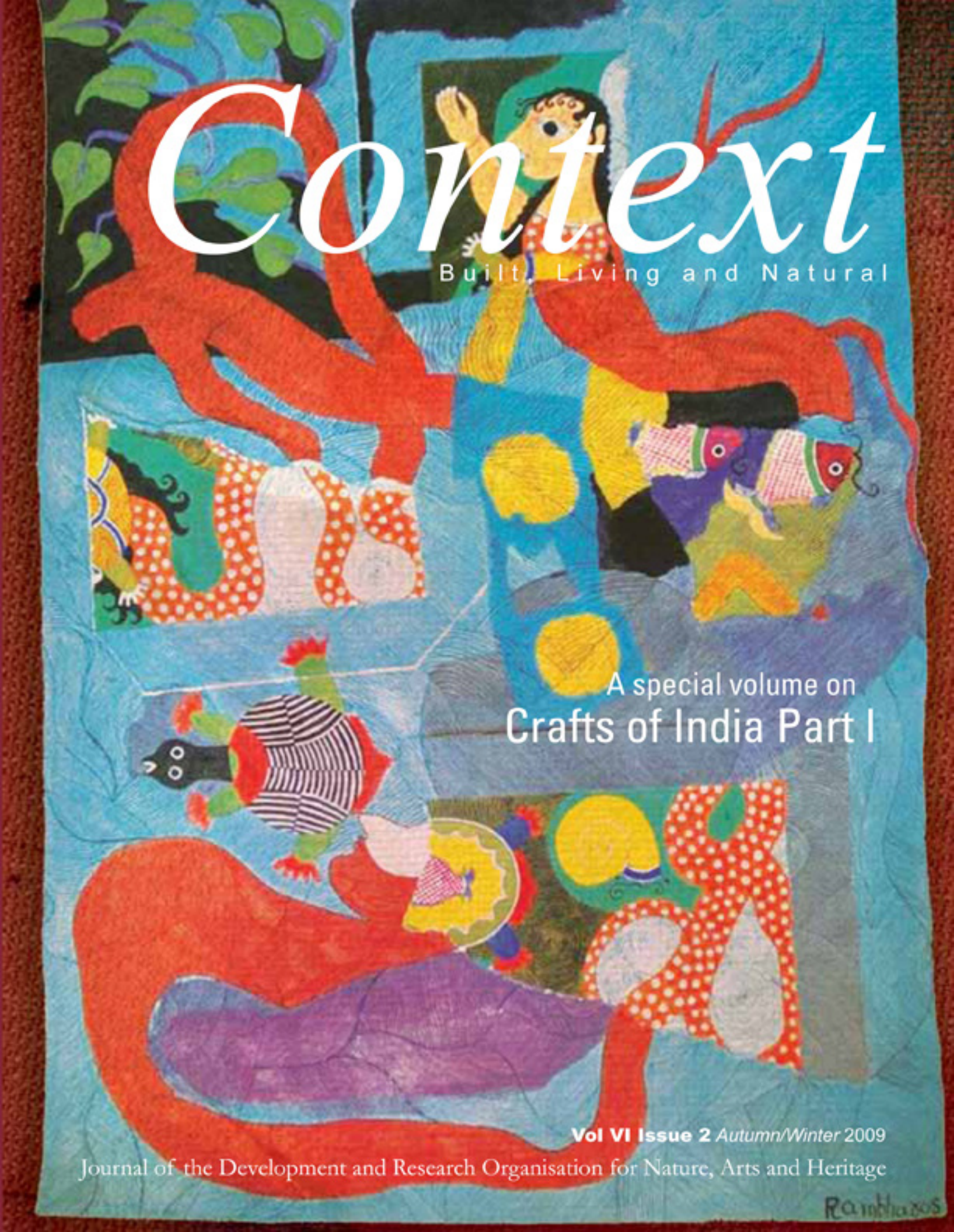

Context

Built, Living and Natural

A special volume on

Crafts of India Part I

Vol VI Issue 2 *Autumn/Winter* 2009

Journal of the Development and Research Organisation for Nature, Arts and Heritage

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NEW RELEASE

Environmental concerns and sustainable development:
some perspectives from India

Editors

Sakarama Somayaji is Fellow in the Social Transformation Division of TERI and ***Ganesha Somayaji*** is Reader and Head in the Department of Sociology, Goa University. He has a PhD in Sociology from Goa University

Description

Industrialization and development have brought about a radical shift in production and consumption patterns all over the world, including India. However, the impact of these trends on the earth's climate and various natural resources has been quite serious. There is a need to bring about a major transition, whereby this generation, and more importantly, generations yet to come do not suffer from the ill effects of today's development, which is clearly not sustainable. The human race has to bring about a rapid transition to a pattern of growth and development that is genuinely sustainable.

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- Includes contributions from 16 scholars working in the field of environment, society, and development interaction.
- Articles divided into two major themes– development and environmental concerns and sustainable development practices.
- Well researched articles on major issues pertaining to environment and sustainable development.
- Includes well known case studies.

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- Development and displacement in tribal areas
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- Impact of environmental degradation on women
- Development-induced displacement
- Organic produce supply chains
- Genuine people's participation in sustainable forest development
- A review of judicial and legislative initiatives on sustainable development
- Land and water management practices in Warana region
- Sustainability through people's participation in the health sector
- Organic farming and sustainable development

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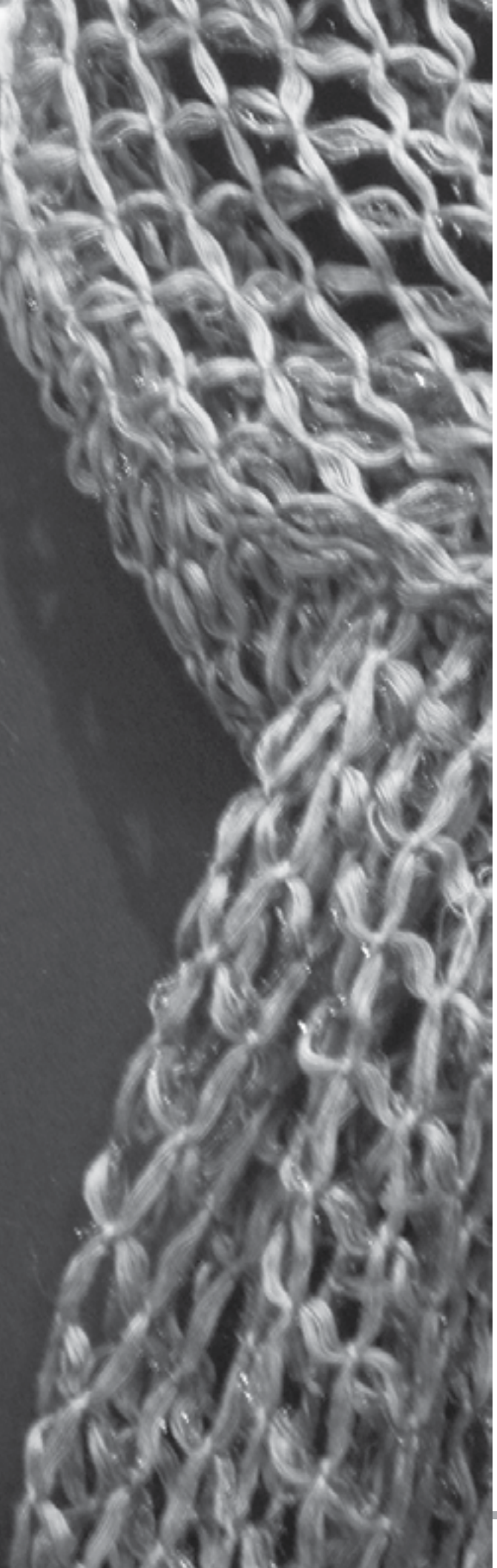

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A special volume on Crafts of India: Part I

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Vol VI Issue 2 Autumn/Winter 2009
A special volume on Crafts of India: Part I

About the Volume

Though the crafts of India are an integral part of the country's cultural heritage and identity, we have yet to identify its economic potential as a national industry and as a tool for development. The recent government initiative of setting up a National Mission for the cultural and creative industries is a much needed and long-delayed step in this direction. However, much work remains to be done whether it be in undertaking a mapping exercise to understand the extent of this sector and the issues that it is ridden with, conserving cultural skills and knowledge, creating sustainable employment for crafts persons and artisans, disseminating craft skills or providing financial and legal support for this highly skilled but vulnerable section of society.

As part of our commitment to the revival of crafts, DRONAH presents two special volumes on 'Crafts of India.' The first volume contains a series of essays by various sectoral experts on a wide range of issues pertaining to the development and conservation of Indian crafts skills. Thus, the section titled 'Crafting Futures' discusses potential directions for policy development and the role of craft education and knowledge dissemination in creating an appropriate framework for development initiatives. 'Access, Livelihood and Development', showcases particular examples of successful design and market interventions in the crafts sector as well as highlights various issues that impede artisans' access to sustainable income as well as working conditions. The 'Redefining Craft' section deals specifically with popular notions of what constitutes 'craft' and the manner in which such notions impact the economic value as well as aesthetic and intellectual appreciation of crafts objects and skills. Finally, the 'Crafts and Environment' section deals with the environmental impact of the crafts industry and contemporary experiments in environmentally sustainable models for the same.

The second volume specifically focuses on regional perspectives through the sections 'Documenting Crafts', 'Crafts in Transition', 'Lessons from Creative Collaborations' and 'About Few Crafts'. It covers collaborations of crafts communities with designers, educationists and organisations with the aim of understanding the spectrum that is the Indian crafts sector in varied ways, as reflected in the experiences of organisations and institutions such as Dastkar, Dastkari Haat Samiti, Kala Raksha Vidhyalaya and Dakshinachitra.

The articles in these special volumes address some of the ironies and inconsistencies that plague the crafts sector of India. For instance, while 'Dilli Haat' is a benchmark initiative that acted as a catalyst for setting up similar regional and urban crafts centres across the country, traditional crafts clusters across the country (such as the Kumartuli settlement in West Bengal) which have become part of urban areas are now being included in the 'slum improvement sector' under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) scheme. It is apparent that all such urban developmental initiatives for the sector require a multi-disciplinary participation, with artisans, designers, entrepreneurs, NGOs, architects, urban planners and other stakeholders working together towards creating a practical framework and action plan. We hope these two volumes shall serve as a catalyst for just such a joining of forces!

- Shikha Jain

Towards a Creative Society

Role of crafts in the future of education

M P RANJAN

Crafts are a living heritage in India as well as a significant source of employment in our villages and towns. Although this potential is often interpreted in policy frameworks as mere wage labour, it should be channelled into value-added creative employment that is both dignified and sustainably rewarding. In order to effect such a transformation, the new Indian craftsperson would need to be both informed and competent to handle massive changes in the global market. If we are to assist the Indian craftsperson in this endeavour, we would need to look at the processes and opportunities that are available for the education of the traditional craftsperson as well as the induction into their ranks of a new set of entrants from both rural as well as urban India. Our understanding of the role of crafts in the days ahead needs to be redefined to make way for new perspectives that can support and nurture these transformations in our society.

The traditional handicrafts sector as it exists today has massive resources of fine skills and technical know-how that are still actively used in various regions of the country in the form of the traditional wisdom still embedded in the fabric of our culture. But not for long! The handicrafts sector is an enormous source of employment, particularly self-employment, for vast numbers of people and it represents an opportunity that cannot be ignored. In many areas, production of handicrafts is the sole source of income for the communities for whom it is the main source of sustenance. However, with globalisation, much of this is rapidly changing due to internal and external pressures. We need to look at innovative means of enhancing the abilities of local producers through appropriate training to generate wealth by the use of their skills and their intellect. This calls for new initiatives in the education sector that will permit and encourage the fluid intermingling of the existing crafts capabilities that are spread all over India with the formal education system in our schools, colleges and universities in a manner that will produce a surge of creative expression that is informed by

M P Ranjan is a Faculty of Design; Head of NID Centre for Bamboo Initiatives and Chairman, Geovisualisation Task Group, (DST, Govt. of India, 2006-2008), National Institute of Design, Ahmedabad.

both tradition and local wisdom as well as global knowledge and contemporary technology.

To facilitate this transition from the deep divides that our existing caste systems and educational systems foster, we will need to move forward to integrate both these universes of planning and action into one well structured entity that can support the creative economy of the future of India. For this kind of transformation to happen, we will need to recognise the role of design and design thinking in blending thought and action, realms that have been separated for centuries by our class system as well as by our educational philosophy which places literary skills high above the creative and innovative hand skills. In India, we have invested heavily in science and technology infrastructure while ignoring design over the years; if the crafts sector is to be systematically developed, we will need to correct this imbalance. Further, the orientation of human resources through our educational institutions have been industry focused while crafts have been more or less relegated to a self sustaining role with the exception of spurts of very limited funding through the offices of the DC (Handicrafts), Government of India. This situation has continued unchanged due to the lack of a coherent plea from this decentralised sector as well as some unsubstantiated fears of many of its promoters and by their romantic notions that innovation in the crafts would destroy traditional values embedded therein. This is far from the truth and needs to be corrected forthwith. The crafts sector must make political demands on the access to and the use of the existing infrastructure of our national and regional institutions as well as seek to establish new initiatives that are focused exclusively on the needs of the crafts sector.

Besides the huge task of integrating existing systems, we will need to build new institutions that can speed up the process of upgrading the abilities of our traditional crafts community through an appropriate network of educational infrastructure and strategies that are focused on the task ahead. The quality of these institutions and their facilities must not be in any way inferior to the standards set in the institutions of higher learning across the country and there is a pressing need to encourage craft related and crafts mediated education at many levels in India. India is perhaps the only country in the world that has such an active crafts tradition and therefore we need to develop our own models and not merely adopt readymade solutions from overseas. We will need to find the money for this transformation. The business potential of this initiative alone is good reason for such an investment and the hope for sustainable employment and decentralised development across the length and breadth of India as against the explosive development of the metros alone ought to serve as a further incentive in this regard. Besides the hereditary crafts persons and their children, we need to look at much broader catchments of human resources that can be mobilised to revitalise the whole crafts movement in India and, in the process, help build a competent and creative India of the future. This broadening of the base would help dilute the stranglehold that exists in the perceptions about crafts being a lowly activity and address the decay that is evident in the caste politics that is still in vogue today. Many of our youth and students of modern education systems miss the critical values of crafts that were imparted in the traditional societies in India in the past in our villages. Today, so-called modern education has reached our villages too without any re-appraisal of the relevance of the inputs and the content and capability that they impart to our young learners. This kind of education is frightening and the course must be set right to enable

ne from Shakespeare in Mithila painting by Angeli Kumari, 2009. From
where his Rosalind will pass. Source: Michael and Amy Fazio

Craft
Indian c

SHARMILA WO

ABSTRACT

CURRENT SITUATION

Sharmila Wood is managing All India Artisans and Craft workers Welfare Association's market access initiatives working with artisans and organisations on creating sustainable market linkages. She has worked in the creative and cultural industries in India, USA and Australia. Sharmila holds a Master of Art History and Curatorship with Distinction from the University of Sydney. She oversees Craftmark - Handmade in India while promoting the qualities of genuine handicrafts in the domestic and international market.

s of an NGO lecturing village women, a video umenting the event for the funder. Painting by 003. Source: Gillian Hart

9/11/2001 by Leela Devi,

between 18 and 25. The most promising d year of training and a modest stipend. een extremely successful in creating n of artists. More than two-thirds of the recent California exhibits were or students and people are buying The cost of running the MAI has been rupees half a million per annum for ries, rent, materials, local travel and nds). Recognising the beauty of the art e of sustaining the aesthetic tradition, s, the Embassy of Luxembourg and n, have helped fund the MAI. Sadly, ive of a major Indian conglomerate

visited the MAI, she a not be doing art, but l paint table cloths!

Ironically while the ar recognised and apprec struggling to bring the markets in India. The rejuvenating a signific despite various appeal within India where in matter how contempo rural crafts.

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long been associated with 'cunning,' (thus 'crafty'), handicrafts and lower class occupations. In contrast, the originally Latin and French term 'ars, artis and arts,' as in 'beaux arts,' are associated with highly educated, upper class, learned and expressive skills, even inner genius.

2 It is in this context that the term 'Mithila Painting' is used with two different meanings. One, refers to the art form in general, as the ancient wall painting tradition extends all across the Mithila region and is hardly confined to the town or district of Madhubani,

ett

At this juncture in a larger Indian debate on craft, Sennett's writing seems most suited to a public reading. This is because his thinking goes much beyond materiality; it addresses the underlying politics, philosophy and economics behind the making and meaning of craft. It is actually a timely book in India precisely because, by asking questions about the nature of craft, Sennett brings attention to the possibility of asking even more fascinating questions to do with the nature of authenticity and public taste, long-term sustainability, the idea of the design corporation and the ethics of practice.

Lay readers, scholars and practitioners of craft will all find something to take away from this book. It draws widely and eclectically from examples of craft that are at once thought-provoking and entertaining: these include atom bombs, Stradivarius violins, medieval gold, traditions of glass blowing, pottery, 19th century robotics and 21st century software production and management. Along the way, Sennett's discussions about craft and craft making explore the deeper ethics and politics of production. For example, in discussing the development of the Hiroshima Bomb, the author points out that its chief mastermind, the perfectionist scientist, Oppenheimer, who saw the bomb actually as an exercise in craft, was obsessed with moulding a perfect object. In doing so, however, he lost sight of its larger, horrific purpose. When is craft sometimes problematic to society and the environment? Could we get so absorbed in making things that we forget to consider their larger social consequences? How do we resolve conflicting sets of values?

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reading nnett's ut received haps because ural critic of ask of developing area where he had opinion.

might not recognise ok appears to have ologists and material mely well received in ging work of astonishing ok celebrates the sheer exploring facets of his g and later interests. He Sociology at the London Bemis Adjunct Professor of , a member of MIT's faculty elopment and Professor of rk University. Given the scope of it is no wonder that he has several to his credit.

This book is a work of literature and criticism: in places, Sennett's writing is sheer poetry. One of the book's most striking features is that it has absolutely no pictures in it, a strategy which recalls Shakespeare's discipline in deploying almost no props for his stage productions, instead crafting his scenes through the power of words alone. Despite pictures (or perhaps precisely because there are none), Sennett's words conjure a deeply sensitive portrait of the hand, of the mind deep in concentration, of the tools essential to crafting and of the

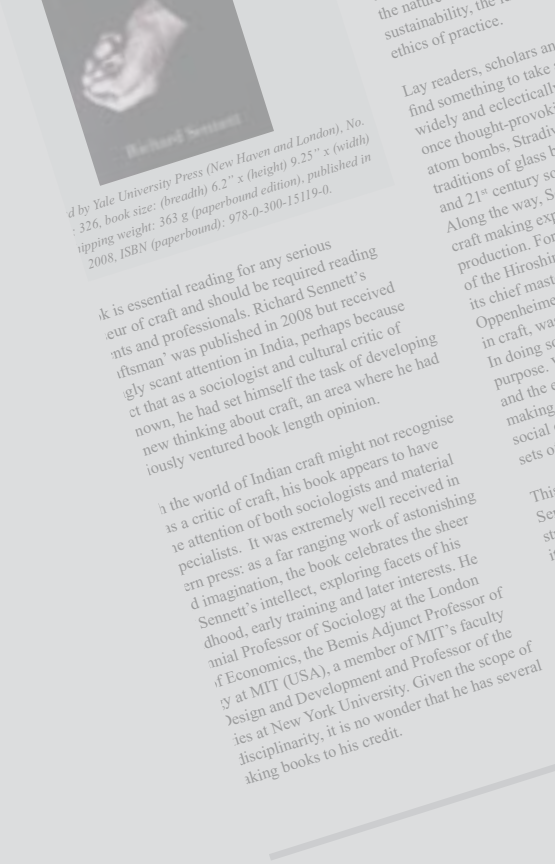
our current and potential crafts persons from being de-capacitated by the spread of modern education with its limited focus on language and numeracy. One effective way to offset this trend is to introduce design and crafts related activities into all educational processes in order to bring a creative reappraisal of the role of hand skills in our lives.

The crafts sector is heterogeneous by its very nature, both from the point of view of the material and technological processes used in each of the crafts as well as in the situations in which the crafts communities work in different regions of each state or the country. This implies that individuals working in this sector would necessarily have to be flexible and broad-based in their approach and be able to understand a large variety of technologies and have the competence to work in a generalist capacity. A flexible regional focus could grant both variety and relevance to local context while bringing new crafts capabilities to our young learners as an integral part of their broader learning to cope with the new age ahead. This can and must be done near their homes and be rooted in local needs if it is to be a relevant exercise. For the continuing education of our master crafts persons we need to establish channels and institutional frameworks that could give them the ability to cope with the changed circumstances. We should be able to look at a variety of models to cope with the huge variety of regional and material differences that need to be managed. The university system can be leveraged to bring design and other critical conceptual skills to the crafts community through special programmes offered to local crafts persons during the summer and winter breaks that may be a slack season for the establishments themselves. Such an effort to bring innovation and creativity to the heart of the proposed educational process within the crafts sector will empower the new craftsperson to take on entrepreneurial roles with limited capital and open the potential for an innovation driven economy which I would call 'the thick end of the wedge'. When innovation is used in high-tech labs and in sophisticated industrial sectors it is referred to as the 'leading edge' or the 'cutting edge' and the focus is on the tip of the tool. Here we need to mobilise a large number of persons in rural and urban India and the focus on skills and innovation will help build a creative society that is able to respond to new challenges. Our effort should be to push these candidates up the value chain through programmes designed to meet their educational needs.

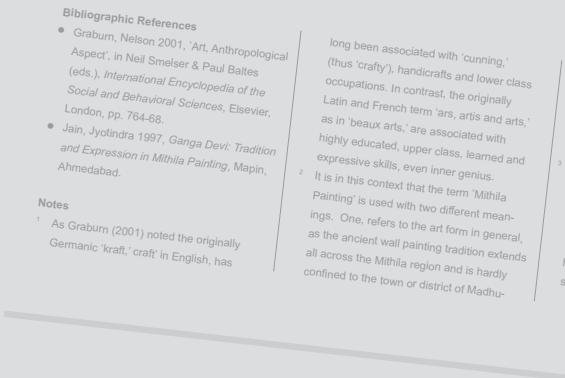
My call here is to return to the core value of craft which is the experimenting with and the making of objects, artefacts and spaces by hand skills with the use of imagination and fine sensibilities. Here, I include the handmade design prototypes that precede other forms of production that could bring back creative

and innovative solutions to local challenges across a diverse landscape that is India. I would further call for the celebration and inclusion of fine craftsmanship as a value that would be a core offering of all future education at the school, college and the university levels. For this to happen, our education planners would need to scour the country across rural and urban locations looking for pockets and clusters of crafts activities that would be researched as part of their field study programmes. Based on this, we would need to explore ways in which these could be integrated into the educational processes with local crafts persons being included in the activity as central figures of the educational offering at all levels. During these forays into the field they would naturally come into contact with individuals and groups that are attempting to use crafts in a development situation and all of these would be documented and made a part of a growing database that could inform policy and action. Some of these would be pre-existing NGO's or crafts entrepreneurs while others may be children of local crafts persons looking for life employment opportunities for themselves going forward. To this informed process we would need to bring both design and entrepreneurship in a tightly coupled strategy of support, encouragement and incubation so that a new creative industry could be created that is based on these local values and on time tested principles of traditional wisdom, all combined with great scholarship and global knowledge and information flows. This form of inclusion and exploration would be sustainable and desirable for a nation in transition from tradition to modernity.

It is with such a promise of a transformational opportunity in mind that we had commenced our own journey at the National Institute of Design, Ahmedabad, into the study and documentation of the vast sector that is the handicrafts of India. A journey that commenced in the 60's with our early forays into the needs of the crafts sector and which is still a work in progress since the sector is as huge as it is complex. This has culminated in the production of the recently published first volume of our series on the crafts of India called 'Handmade in India'. This special issue of DRONAH's biannual refereed journal is an attempt that is in line with the ongoing thread of much needed studies and commentaries that generate awareness and informed action with respect to crafts and crafts communities. The papers in this volume carry the voices of many well-known personalities who have spent a lifetime in the service of the crafts sector and their words of wisdom will be a beacon for those who wish to use their insights in the days ahead. Others include young voices that bring new and fresh perspectives and we look forward to an active discourse as a result of this collective effort from the experienced as well as the young thinkers in this special issue.



Representatives of an NGO lecturing village women, a video technician documenting the event for the funder. Painting by Gopal Saha, 2003. Source: Gillian Hart



Crafting Futures

Crafts Policy and Planning

The way forward for India

ASHOKE CHATTERJEE

ABSTRACT

Although insufficiently addressed in governmental planning, the crafts sector in India comprises of an enormous skilled workforce and is a significant contributor to India's economy as well as an eloquent expression of our cultural identity. This article argues for crafts as a tool for sustainable development and as a sector requiring state intervention of an unprecedented integrated nature.

MAKING A CASE FOR STATE INTERVENTION

Despite being an enormous sector of Indian economy as well as a crucial contributor to the consciousness, culture and identity as Indians, crafts receive inadequate attention and understanding within current systems of governance. If the country's craft legacy is to survive as a living tradition, it urgently requires the guidance and oversight of a Ministry that can comprehend and reflect the contribution of crafts to sustainable development and social cohesion in India. This becomes particularly important at a time when domestic and overseas demand is highly competitive and a large population at the margins of Indian society seeks opportunities for their own empowerment.

Ashoke Chatterjee is the former President, Crafts Council of India and the former Executive Director of the National Institute of Design. He has been active in the field of policy and advocacy for the crafts sector for many years.

There are enormous risks in allowing be advantages of India's craft to dissipate. In a recent speech, President Pratibha Patil reminded the nation that crafts provide one of the largest sources of employment in India, second only to agriculture. This predominantly rural source of livelihood provides non farming earning opportunities to people without necessitating relocation, especially during seasons when non farming activity is most needed. This major factor also helps mitigate the enormous suffering and burden caused due to migration.

The handicrafts industry makes low demands on energy. It is environmentally sustainable and this 'green' advantage can benefit both, the environment as well as earnings and the economy. Many handicrafts depend on the skills and involvement of women. They provide home based opportunities that keep families united. Many craft markets are local, reducing distribution risks for the maker and stimulating other local livelihoods. Crafts have great potential in markets that are growing at home and abroad. This is true even at a time of recession, thanks to influences such as the green and fair trade movements. Most artisans belong to tribal, minority and other disadvantaged communities who are at the centre of administrative concerns for growth and opportunity.

Crafts are the source of Indian creativity, the most important resource for our nation's industries in an era of stringent competition. Hereditary craft skills and knowledge of materials are today applied not just to traditional products but also to many contemporary engineering challenges such as space industries. Artisans are therefore national treasures, representing capacities to create and innovate that go well beyond the products of their traditions.

CURRENT ADMINISTRATION FOR THE CRAFTS SECTOR

Planning commenced in India some 60 years ago, when handicrafts were brought under the Ministry of Commerce and Industry. The perspective applied at that time was to meet the need of earning scarce foreign exchange through exportable Indian crafts. Later, as this Ministry transformed, the Offices of both the Development Commissioner of Handicrafts as well as the Development Commissioner of Handlooms came to be placed in the Ministry of Textiles.

Many of the non textile crafts of the country are thus currently under a Ministry unrelated to its materials or manufacturing processes. Handlooms, although textiles, are under the purview of a Ministry preoccupied with the needs of the mechanised sector. The Khadi and Village Industries Commission, which are responsible for a large number of handmade products, are supported by the Ministry of Industry. This fractured approach extends from the Centre to the States. The result is that at a time of unprecedented challenge, as well as of great opportunity, the sector lacks the coordinated, professional direction that is essential for its survival.

THE WAY FORWARD

Although extensive, this sector is vulnerable because of its decentralised, self organised and largely informal nature. Unable to compete against mainstream industry and the homogenisation of culture, its survival hinges on timely and appropriate state intervention. Capable of cutting across economic, social and cultural differences and hierarchies, providing livelihood and food security to millions of the country's economically disempowered and promoting environment friendly production and consumption patterns, handicrafts have immense potential to become an effective means of sustainable development.

Such an initiative would, however, require an integrated macro approach that is impossible in current circumstances. Although many millions are involved, there is a lack of even the most basic data on employment and contribution. (The Crafts Council of India is currently attempting to address this lacuna with the guidance of the Planning Commission and the Ministry of Statistics and Programme Implementation).

What is required is the formation of an autonomous body that can coordinate the activities of the disparate government agencies currently working in this sector as well as conceptualise and monitor the implementation of focussed intervention addressing the present lacunae in the management of handicrafts, whether it be in the realm of economic and statistical analysis, policy and planning, capacity building and education, infrastructure and administration, finance and legislation, or marketing and promotion. It is time India once again directs its attention to an activity as relevant in today's circumstances of India's emergence as it was when Mahatma Gandhi made it central to the nation's struggle for freedom.

Indian Handicrafts

Directions for state intervention

M V NARAYANA RAO

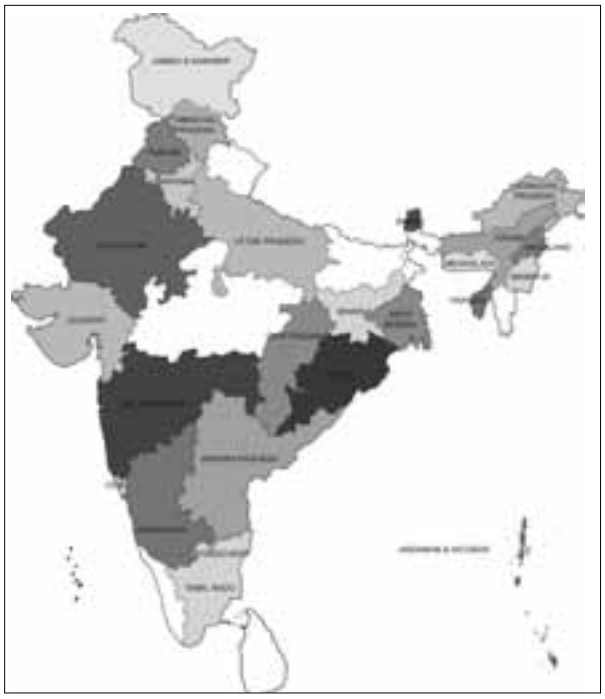
ABSTRACT

The potential of crafts remains largely untapped despite their providing livelihoods to large numbers and their significant contribution to the country's exports and foreign exchange earnings. It is imperative to enable the preservation of Indian crafts traditions as well as enhance opportunities for employment and income generation. For the same, an analysis of the strengths, weaknesses, opportunities and threats faced by this sector is presented as a first step towards defining the path to be taken by government policy.

INTRODUCTION

Handicrafts can be defined as 'items made by hand, often with the use of simple tools and are generally artistic and traditional in nature. They include objects of utility and objects of decoration.' Historically, handicrafts have been part of the flow of everyday life in the Indian subcontinent and the environment in which it is born. Artefacts dating back to the Harappan civilisation of 3000 BC are evidence of India's legacy of excellence, both in form and functionality, in the realm of crafts. However, if handicrafts are to have any relevance today, they cannot be confined to a romance with the past. Nor can they be limited to the dress and décor of a few elites. Handicrafts cater to the everyday needs of people belonging to all classes for items which combine

MV Narayana Rao served the office of the Development Commissioner for Handicrafts, Ministry of Textiles, Government of India for over 23 years, retiring as Director, Handicrafts. He served for one year as Executive Director of the Council of Handicrafts Development Corporations of India. Currently, he is assisting the Crafts Council of Karnataka as its Vice Chairman.



Indian states that are centres for significant crafts

utility with beauty. They employ, according to the latest estimated figures, approximately eight million artisans. This includes a large number of women and people belonging to the weaker sections of society as well as minority communities. Together with the carpet industry, the gem and jewellery industry, handicrafts account for one-fifth of the country's total exports and are a major source of foreign exchange for the country. Handicrafts in India are many, their locations dispersed, their skills and media varied and diverse. This and the absence of a comprehensive database, makes it difficult to give a total profile of the sector. The Union Government's approach to planning the development of the handicrafts sector and the preservation of crafts skills is best based on the recognition of certain 'facts' pertaining to the status of the sector as a whole.

STRENGTHS OF THE SECTOR

The cultural value of handicrafts pertains to the preservation of tangible and intangible heritage; traditional skills, the forms they have produced and the meaning they contain within the community that produces them and the community that uses them. These are at once a repository of a community's history and a sign of their identity. Crafts also serve as a unifying cultural force, emphasising shared pasts and values. The economic importance of handicrafts pertains to their high employment potential, especially for otherwise marginalised sections of society. The existence of a number of skilled crafts persons, most of whom are traditionally trained, constitutes a strong resource base. The craft require relatively low capital and resource investment and involve a high degree of value addition.

WEAKNESSES OF THE SECTOR

However, many crafts are in decline, gradually disappearing into the recesses of the past. This phenomenon is largely due to their unorganised and dispersed production base, the growing disinterest in learning the craft because of the drudgery and duration of some of the manual processes and the low status accorded to craft practitioners. Lack of working capital and accessible means of obtaining the same at the production end, the inability to secure sufficient demand for the crafted products have also taken their toll. The latter is primarily due to a continuing tendency to perceive crafts as decorative and non-essential and deficiency of market intelligence. The diversity of inputs needed makes it difficult to put mainstream production and management systems in place.

OPPORTUNITIES FOR THE SECTOR

The export market for handicrafts is expanding, especially in developed countries. Likewise, there appears to be a growing taste for handicrafts and awareness regarding the processes that imbue them their distinct character, most evident in the garment and lifestyle product segments. There are also an increasing number of social workers, NGOs and corporate houses evincing interest in the sector. Advances in technology present the possibility of reducing the drudgery in crafts processes and improving the output quality.

THREATS FACED BY THE SECTOR

The growth and sustainability of the Indian handicrafts sector within global markets is faced by major challenges such as growing competition from other Asian countries as well as competition from machine made products and media. The continuingly low returns in this sector are weaning crafts persons away from their traditional occupations. Scarcity of raw material due to depletion of natural media and preservation techniques and measures that are insensitive to craft contexts, is increasing costs of production.

'Saraswati' Goddess of music in Hoysala style wood carving, a traditional craft of Karnataka being carried on by crafts persons like Ganesh Bhat. Source: Indu Ramesh

OBJECTIVES OF GOVERNMENT INTERVENTION

Despite the existence of high skill and creativity, the capacity for self-employment and the potential for income generation offered by this sector, crafts persons lack finance, are unsure of the market and are constantly at the mercy of the middlemen who have access to both finance and the market. The overall objectives of the Government can be stated as:

- Enhancing opportunities for employment and income from crafts.
- Sustaining craft as an economic activity through enhancing its market, both domestic and overseas.
- Preserving the traditional beauty and skills of crafts that are otherwise threatened with extinction.

Achieving the objectives would require efforts and inputs in all the areas of production, marketing, crafts preservation, welfare of crafts persons and planning and policy development, outlined as:

	Objectives	Inputs
PRODUCTION	1 Increase production base 2 Upgrade skill levels 3 Make raw materials available to the crafts persons 4 Remove drudgery 5 Improve processing of raw material 6 Improve finish 7 Adapt products for market needs while retaining their traditional beauty	1 Training 2 Raw material depots, credit facility 3 Technical assistance, common facility centres 4 Design development 5 Documentation and dissemination
MARKETING	1 Expand market (both domestic and overseas) for handicrafts 2 Expose crafts persons to market 3 Increase consumer awareness and taste in favour of handicrafts	1 Marketing infrastructures, export promotion measures 2 Exhibitions, bazaars, market meets 3 Publicity, exhibitions
CRAFTS PRESERVATION	1 Revive languishing crafts 2 Preserve crafts, especially rare crafts, disseminate awareness	1 Special programmes with the above listed production and marketing inputs 2 Institution of a Crafts Museum which should also showcase contemporary designs
WELFARE OF CRAFTS PERSONS	1 Ensure social security and confidence of crafts persons 2 Recognise genuine masters and give them incentives	1 Awards 2 Security schemes 3 Old age pensions
PLANNING AND POLICY DEVELOPMENT	Create comprehensive database for planning and monitoring	1 Conduct studies and surveys 2 Prepare documents 3 Publish documented material in English as well as in regional languages.

Putting ideas first

The use of knowledge as a catalyst for development, equity and growth

RITU SETHI

ABSTRACT

The crafts of India display a tremendous variety not just in terms of materials and skills but also in terms of where and by whom they are made. Competition with large-scale industries, availability of machine-made imitations of hand products, decline in the transmission of skills to younger generations and an inability to adequately understand and tap consumer markets are all contributing to the dwindling of what is still a relatively vibrant cultural legacy. Against this context, this article explores a path to development and sustainability, emphasising access to information and the necessity for knowledge-based intervention in the creation of an enabling environment for the crafts sector in India.

CONTEXTUALISING THE CONTEMPORARY CRISES OF CRAFTS IN INDIA

The variety of crafts[1] in India is enormous, as is the range of materials the crafts persons work with. Whether it is metal, wood, clay, paper, glass, grass, fibre, leather or textiles, each material is associated with a multiplicity of crafts traditions, as well as enormous regional and

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individual variation within each group of specialisation. The geographical and cultural context of production and usage, the history of the craft and its contemporary practice as a means of livelihood, determine the materials and processes used and the variations in style and form. Thus one sees the Nadaswaram, the classical wind instrument made in Narasingapettai and the Perhkhuang, the bamboo string instrument made in Mizoram; the casting of bronze idols in Swamimalai and the lost wax Dhokra work of Bastar, the weaving of Eri and Muga silk in Assam and the embroidery of the Toda tribals in the Nilgiris.

Equally relevant when talking about crafts is the need to recognise the varied nature of production units, ranging from the rural hamlets outside the city of Banaras where brocade weaving is a home based activity involving family members, to Bagh, a cluster in Madhya Pradesh where the iconic block prints are produced in *karkhanas* employing over a hundred persons. Isolated units operated by individual families, craft clusters of such units informally linked by familial or business ties, home or cottage industries and small-scale and medium-scale enterprises coexist in the crafts sector. These often compete with each other for a limited market.

Skills and techniques, craft related rituals and folklore are handed down orally, within and across generations, taught through alternate knowledge transmission systems that do not form part of the mainstream educational systems prevalent today. Specialised craft and handloom skills are usually passed on from generation to generation and have therefore remained the exclusive domain of the few remaining hereditary practitioners. The Moosaris of Kerala who cast the *charraku* or bell metal cooking utensils that are up to eight feet in diameter, the Salvi family of Patan who make the Patola sarees characterised by its mathematical precision in the multiple tying, dying and weaving and the Sthapatis of Swamimalai who cast the bronze idols are but a few such examples.

Mainly located in rural[2] areas, the crafts sector provides employment to millions[3] of people, an overwhelming majority of whom belong to the weaker, more vulnerable sections of society, such as scheduled caste and tribes, minority communities or other backward classes. These immense numbers of self-employed, self-organised, skilled crafts persons are the bearers of India's traditional knowledge, the source of Indian creativity and keepers of our national cultural identity.

Over the last few decades, shifting dynamics have led to an erosion of livelihoods in the crafts sector. The crisis in crafts has been ascribed to many reasons, not least being the disappearance of traditional markets due to the dramatic shift in consumer choice from hand-crafted or handwoven goods to factory-made products. The economies of scale inherent to the factory sector result in the mass production of goods of uniform quality at unmatchable prices.

Simultaneously, the availability of replicated and craft products that are marketed as handmade, handwoven and traditional at far lower prices than the original has hit crafts persons hard. Across villages and cities the once ubiquitous terracotta water container has been replaced by cheap, factory moulded plastic copies, which have none of the advantages of the cooling and healing powers of clay for the user and have been immensely detrimental to the livelihood of local potters and the environment alike. The factory printed imitations of the traditional tied and dyed *bandhini* textiles of Rajasthan and Gujarat, the rubber reproductions of the Kolahpuri *chappals*, the sarees and cards printed with Madhubani and Warli motifs and the power loom replicas of the famed handwoven brocades of Banaras are a few striking examples of this phenomenon which has had a profound negative impact on the livelihoods of the crafts persons.

Furthermore, an aggressive and sustained marketing push from the organised factory sector has rapidly expanded its market share, largely by cannibalising from the markets of the handmade and handwoven. Crafts persons, themselves caught in a cycle of low output and marginal profits and dispersed across the country, lack the marketing might and lobbying power of the organised manufacturing sector and are unequipped to tackle this pressure. Compounding this crisis is the lack of interest in the younger generation of craft families in continuing their hereditary professions. Perceived prejudices and inequalities of status, have led to deskilling, urban migration and unemployment. Hence, any path toward development and sustainability in the crafts cannot be isolated from this larger context and must simultaneously take into account all these dimensions. While seeking meaningful formats to work in, any developmental initiative will have to grapple with these baseline issues to meet the challenges of the coming years and above all, to reposition this sector, the largest after agriculture in terms of employment, on a sustainable growth trajectory.

KNOWLEDGE AS A CATALYST FOR DEVELOPMENT

It is hardly surprising that there are any number of debates around the appropriate path to development, equity and sustainability. This paper presents for discussion a particular focus, knowledge intervention as an underlying premise for creating an enabling environment for the crafts sector in India. The selection of this focus on knowledge as an instrument for constructive change and a catalyst for introducing systematic and significant windows of opportunity for the crafts and crafts persons in an area of diverse pursuits, divergent customs and contemporary relevance is based on five distinct reasons:

- At the outset, it is well documented and proven that free and open access to information creates an environment that empowers individuals and societies.
- For any strategy or action to succeed, an accessible framework of information and data is a necessary prerequisite, as the availability of information works as a problem solving methodology which can be applied as a tool for development, in its capacity as a means of removing bottlenecks to viability and growth. Given the scale and potential of the sector, the absence of hard facts and lack of information (not only on the numbers involved but also on changes and developments in this area) have been a major reason why the sector has so often been ignored at policy levels and by development experts.
- Another reason for this approach is that although techniques and skills are abundant, crafts persons themselves often remain isolated owing to their inability to access information. This lacuna of information curtails the ability of crafts communities to respond effectively within the contemporary matrix, in effect crippling those who suffer from the twin drawback of information deprivation and poor outreach. At a time when the rest of India is going through a phase of resurgence facilitated by the growth of the general economy, the effects of economic reform and benefits of the rapid spread of information technology have largely bypassed the craftsperson, creating a new form of deprivation and impoverishment for those with no access.
- For revitalising crafts, especially languishing ones, the documentation of crafts is an invaluable reference source and imperative for the development of the sector, for preserving traditions and protecting copyright. There is an urgent need to research, analyse, categorise and document craft traditions and developments. For developmental intervention to be effective it is necessary to study traditions and develop an understanding of the constraints and parameters within which crafts persons operate. Crafts persons themselves do not have access to the knowledge of their forefathers and there is a very real danger of techniques, motifs, designs and traditions dying out due to change, under use, or even the death of a specialised artisan or craft family or group. The fact that many craft traditions are oral makes documentation even more critical. To quote Hampate Ba (Malian writer and ethnologist), 'Africa loses a library when an old man dies.' In the absence of any documentation, oral traditions, once lost, can never be revived. It is a permanent loss. This cannot be overemphasised.
- The important reason for the use of knowledge based interventions is that despite the progress in communication technologies, there are glaring gaps in awareness, information and exposure about the crafts and crafts persons. In fact, there is a surprising lack of information about crafts persons and craft products in the public sphere. Information, even when available, is hard to access, often out of print and frequently out of reach. This seems even more glaring considering their contribution not only to the economy in terms of employment but also their immense cultural significance.

NEW FRAMEWORKS FOR INTERVENTION

The challenge ahead lies in designing frameworks that are sensitive to the sheer complexity of the sector while simultaneously reflecting its dynamism and pervasive plurality. This knowledge based intervention though poised as a value added and productive process is complicated by the fact that most crafts persons are not yet active players, either in accessing information or in leading change. While globalisation and its consequent ramifications have fostered change, it has required all involved to take on an anticipatory stance. To move from being 'victims' lamenting a loss to an informed lobby with the ability to highlight and address, successfully, issues that affect the sector while simultaneously establishing its contribution.

It is time to put ideas first, through the building of an information and knowledge infrastructure for the crafts, to remedy the relative neglect of this aspect at a time when despite the value of crafts being recognised world-wide, innumerable factors continue to endanger

their very experience. What is critical at this juncture is to explore the issues that confront the process and to evolve methods of thinking and acting guidelines that contribute to make this process a meaningful exercise.

It is important to create a baseline understanding of the crafts sector through a census cum economic survey. The process needs to involve all the constituents while rooting the work in a development framework with the craftsperson at the centre of the exercise. Defining the terminology, clarifying misused definitions, counting the numbers, making available a list of creators of the craft form, are some of the tasks that need to be undertaken. At another level is the documenting of community knowledge, such as traditionally transmitted orally, the raw materials and their processing, colours and motifs used, the ritual or symbolic significance of the process of creation, techniques employed, values ascribed to a piece, the norms, perceptions and beliefs associated with a piece. It is important to present not only the skills and techniques involved but the specific meanings of the form of expression, meanings derived from the local context in which the crafts persons operate and the purpose for which they produce. A small step in this direction has already been taken by the Craft Revival Trust to create an accessible infrastructure for the crafts on the web; the website provides access to information regarding crafts persons and on a wide variety of craft subjects available, to anyone at anytime and anywhere.

A theoretical framework that 'legitimises' and amalgamates the principles and concepts of oral and local knowledge of craft practice within the commonly accepted scientific and technological infrastructure shall follow. This knowledge, an intrinsic part of craft practice developed over the ages, has responded and evolved to changing ecologies and environs. For instance, the understanding of plant material by crafts persons to weave baskets, thatch homes, make furniture, build bridges, make music, create colour and a myriad other uses is only one such example. There is a need to apply scientific rigour to the study of the processing of materials and techniques of craft production (whether it be plant or metal, leather or clay, stone or wood) by uncovering and studying the underlying principles at the heart of the technicalities of craft. Analysing the parameters and creating standards and applications while retaining the creative, removing the subjective approach. This collaboration among scientists, technologists and the bearers of oral craft knowledge through the application of stringent scientific principles to traditional hereditary knowledge could lead to the documentation of concepts, principles, applications and practices and further on, to a uniquely Indian knowledge system, creating networks and linkages both within and outside the sector and giving India a global edge.

The introduction of craft study in the curricula of schools and colleges would result in the recognition of a factor that the current lack of awareness of local material culture as well as its producers is a form of deprivation for every one. This need has become even more immediate with the *Right of Children to Free and Compulsory Education Act 2009* (India except state of Jammu and Kashmir) having received the assent of the President on August 26, 2009 and the push to universalise access to education at the secondary level, especially since it is underscored by an underlying and extremely widespread belief that knowledge garnered from text books is superior to received oral knowledge. Simultaneously, there has to be a move towards greater equity, a removal of barriers within academia and scientific and technological laboratories, against the bearers of craft related knowledge for a more equitable, evenhanded inclusive education system that moves beyond tokenism to create substantive change.

Information relevant to the crafts sector and for crafts persons has to be better disseminated to reach the target audiences. This includes making sure that information related to government schemes and programmes along with those of banks and financial institutions; responsibilities of institutions like the National Handloom Development Cooperation and weavers service centres, are made transparent and easily available to the crafts persons. Linked to this is the requirement to sensitise such institutions to the needs of crafts persons, by training them on how to work with the sector. Concurrently it is desirable to create linkages and networks to help crafts persons out of their relative isolation by improving their access to market intelligence on trends and forecasts, product and design development, technological improvements that reduce drudgery and other areas that draw them into the mainstream of progress.

The international legal instruments like Geographic Indicators (GI), for which India has become a signatory, should be used so that the intellectual property of crafts persons and crafts communities must be protected. This process may be aided by building and strengthening the post GI registration measures

to prevent unauthorised commercial exploitation and protect the crafts persons and simultaneously working towards identifying a national community rights approach that strengthens crafts communities and makes them aware of their rights.

These are paths as yet not travelled; however, with optimism about the contribution that can be made, there is a need to push out boundaries and create the freedom to learn, study, preserve, choose, connect and reach out.

Notes

1 The term 'craft' has been used in a generic manner to include the hand-crafted and hand-woven and is inclusive of pre and post loom work and pre and post craft work.

2 According to the 2001 census there are 6,38,365 villages spread across India.

3 Official government statistics estimate that over 13.5 million people are engaged in this sector: 6.55 million in handlooms and 7 million persons in handicrafts.

Access, Livelihood and Development

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Inclusive Marketing

Empowering the crafts sector

JAYA JAITLY

ABSTRACT

Historically, crafts have been dependent on the patronage of the court, temple or market. Traditional marketplaces in pre-industrial agrarian societies provided another avenue for trade and barter. Although once an integral element in the political, spiritual and economic life of the community, crafts were marginalised by the processes of industrialisation. The availability of cheaper mechanised alternatives and changing consumer tastes drastically impacted demand for hand-crafted products and by extension, the livelihoods of artisans throughout the country. This article argues that the means of effectuating a resurgence of the crafts sector lies not in doling out subsidies or in protectionism but in enabling crafts persons to access and directly deal with urban consumers.

MAKING A CASE FOR INCLUSIVENESS

The life of Indian crafts is like the mighty Ganges or the Brahmaputra. They emanate from what are considered sacred sources, located in an ancient past. They move, always in forward motion, at varied paces and with changing vigour. They are revered, worshipped, depended upon, polluted and cleansed. Their one unchanging reality is that

they never cease to exist. Rivers and human life are inextricably linked, as are all living things in nature. They are subjected to external influences and carry with them things gathered as they pass along vast stretches of time and terrain. Their nature may change at different times, ebbing and flowing, thriving and diminishing, cleansing and sullying, but they go on, creating, nourishing, even occasionally destroying, what comes in their way. Indian arts, crafts and textiles have seen great glory at various historic junctures. The era of the Vijayanagara empire in South India where weavers' guilds funded the coffers of the rulers, the reign of Zain-ul-Abedin when the arts of Persia infused highly sophisticated aesthetic skills into Kashmir and the Vaishnavite *satras* or monasteries of Assam which nurtured artistry in a spiritual environment, are but a few examples of 'golden ages' of craft practice in different parts of the country.

A significant factor contributing to the very survival of the crafts is the apportioning of caste divisions to artisanal professions. This is common to almost all pre-industrial societies in the form of guilds that afford crafts persons recognition, facilities and respect as skilled professionals. Unfortunately, the once vertical, equally apportioned divisions took on a hierarchical nature with those indulging in manual labour finding themselves designated as the 'under' castes.

While artisans toiled and survived because of their bonds with farmers, temples, courts and the needs of common people in the marketplaces that served them, they remained frozen at the lower half of a pyramid that denied them equal opportunities to grow and move upwards in the social system they inhabited. While they remained exclusive in their capacities and refined skills, they were not included in the benefits of the economic and political systems that were imposed upon India once it became prone to invasions from different parts of the world.

The arts and crafts of India, as in any part of the world, need patronage. This can come from the marketplace that caters to the everyday needs of laymen, from the paraphernalia required by the courts and the nobility or from temples and other places of worship which utilise various crafted objects in ceremonies and rituals. Artisans therefore service the utilitarian, social and spiritual needs of society. This makes them an inextricable part of the living culture of India, deserving recognition, respect and a fair income for their labours.

The situation of Indian crafts and their practitioners in traditional Indian society changed drastically during colonial rule. The British arrived in India to play out an important historic role, that of the main instrument, the vanguard, of the spread of industrialisation. Enterprise always existed in India and free trade, barter and commissions were always an agreed part of this economic system. In contrast, the policies of the British were built on a notion of their superiority to their colonial subjects, the crushing of local industries to benefit their own expansionist agenda, the taxation of the colonies to fund their wars elsewhere and the denial of education to those whom they had impoverished. The Industrial Revolution initiated by the British in India introduced to this country a more virulent stream of capitalism that directed profit to individuals rather than communities, with exploitation, inequality and injustice built into the process.

The saga of the Indian crafts sector is part of this much greater tragedy which, if it is to ever be resolved by free India, needs to be examined from a prism much wider than that of government policies. Although cultural and social divisions in India will continue to exist as a feature of its multi-cultural, varied and democratic society, the unjust and imbalanced nature of India's caste system is in the process of being engineered differently as 'social justice' and 'empowerment' in the language of the political establishment. However, in recent years, this process has resulted in a demand for greater facilities and quotas as a form of recognition and reparation of old injustices, which are currently leading to greater divisions rather than inclusiveness, as well as benefits being cornered by a few rather than spread over a wider number of people. This in turn causes the festering of jealousies, unfair competition, the dispensation of patronage by caste leaders and the creation of antagonisms within those whose old opportunities have shrunk for economic rather than social reasons.

Any attempt at rejuvenating the crafts sector requires a societal change of revolutionary proportions but undertaken in a manner that is in keeping with the teachings of Gandhi, peacefully, inclusively and non-violently. They must also be commercially viable. Based on this ideology, the Dastkari Haat Samiti, a national association of crafts persons was established in 1986. Its 90 member list has grown over the years to a membership of 1500 (including individuals, families, societies and associations across the country) while five times as many beneficiaries have been directly impacted

Women of Karaikudi, transformed from unskilled labour making ordinary palm leaf baskets to highly skilled professionals with marketing experience in crafts bazaars in metropolitan cities. They are now learning 'saleswoman ship' and English to improve their marketing skills.

by the institution's developmental work. Due to its emphasis on generating economic viability as well as social and cultural value for craft skills, the Dastkari Haat Samiti facilitates the training of crafts persons to enhance their craft skills, technical expertise as well as market awareness. Furthermore, it aims to provide crafts persons with direct access to urban market spaces that are especially designed for their needs, thereby initiating a developmental process that is truly inclusive.

LEARNING FROM TRADITIONAL PRACTICES IN INCLUSIVE MARKETING

When the first potter's wheel was invented, the families that fashioned vessels with local clay by hand found that they could produce many more pots than they needed. The excess had to be marketed. It was the same with agricultural produce. When man became a settler and turned away from the need to hunt daily for subsistence, he tilled the soil to cultivate crops. The excess portion of his bountiful harvest needed to be sold. From this began the earliest periodic market places that spread across the world.

Since artisans and farmers have always had a closely integrated bond, both shared these market spaces. The market also grew to accommodate services ancillary to those of the artisan and farmer. For instance, a market that featured an artisan selling agricultural implements made of wood and iron would also typically include an artisan who sharpened blades. The market functioned on the principle of barter. Thus, the carpenter or the shoe maker, the weaver, the potter and the basket maker gathered at the marketplace not only to sell their wares to the general public who came to buy their supply of vegetables, grain or fish, but also to obtain such produce in exchange for their products such as baskets to carry vegetables, earthenware pots to store grain or to trade rope for fodder.

Commonly termed 'shanty' or 'weekly markets' in industrial and post-industrial societies, such markets

At Dilli Haat, all skills are represented and ongoing cultural programmes reflect every region

are known by a variety of names in the diverse regions and languages of India. Thus, the market is known as a *chandai* in Kerala but as a *shandai* in Tamil Nadu. In yet other regions, it is called the *aathwada* bazaar, that is, the market that is held once in eight days. Guwahati, in north-eastern India, was the market place for *guwa* or betel nut. This multiplicity notwithstanding, in most areas of eastern, central and northern India, a temporary marketplace such as that described above is known as a *haat*.

From time immemorial, *haat*s have served people from agricultural societies perfectly because the structure and operational systems of these traditional equivalents of the contemporary supermarket is both informal and highly flexible in nature while ensuring that everything one could need in one's day to day existence is available at a single place. The *haat*s are also extremely cost effective as they do not lay claim to public spaces on a permanent basis or require anything more than minimal infrastructure since they open at daylight and close before dark and are held only at regular intervals. They also provide a space for socialisation, thus serving as a venue helping in community building.

A perfect example of the charm and social richness of a *haat* can be seen in the tribal *haat*s that are held once or twice a week in Chhattisgarh, Jharkhand and Orissa. Small cultivators and gatherers of forest produce walk large distances from their homes to sell their wares in a clearing in the forest or by the roadside. The produce on offer ranges from vegetables, roots, dried red ants that are used to make a delicious chutney, dried fish, metal, brass and silver jewellery, hair clips, fishing nets, fruit, cloth, cooking implements and of course, salt. Amongst this melange of goods there will also be the ubiquitous *mahua*, the local brew that is prepared by local women and drunk by the men after their purchases are completed. Other than the business of buying and selling, the *haat* serves as a space for discussions and the sharing of jokes as

well as problems. Women primp and preen, pleased with their shiny new *chappal*s or necklaces; the youth watch cockfights and the children pull their terracotta toy animals on wheels behind them. In the lives of rural people, the *haat* is therefore not just a bazaar for domestic and economic necessity but a crucial meeting place for human interaction, enjoyment and entertainment to periodically rub off the rough edges of an otherwise harsh existence.

FROM TRADITION TO INNOVATION AT DILLI HAAT

As India rushed to industrialise and leave behind its label as an agricultural society, the word *haat* dropped out of the urban vocabulary. Although the creation of hand-crafted goods steadfastly continued despite the vicissitudes of British colonialism and massive industrialisation in the post Independence era, the markets for such produce had dwindled. In order to have sustainable livelihoods, rural crafts persons needed access to the urban markets where purchasing power now lay.

From this need was born the concept of Dilli Haat, a revitalised and modernised *haat,* fashioned in a way that allowed the urban customer to enjoy the space and the products as a pleasant and innovative shopping experience, while simultaneously providing crafts persons with an inclusive milieu. Therefore, it was imperative that the nature of the *haat* generate a comforting familiarity to participating crafts persons as well as grant them flexibility and informality in trade and most importantly, an opportunity to conduct a sale directly to a customer rather than through a middle man, generating ready cash from sales. Dilli Haat was conceived as a permanent marketplace for temporary people who could bring to the stalls they could occupy for a fortnight whatever they could produce without heavy investment. The venue would give participating artists the opportunity to learn about the preferences of an urban clientele, gain confidence in marketing, compete with other artisans from various parts of the country and feel secure that this was a market place created especially for them.

The plan for Dilli Haat was inclusive in its approach to administration as well. Thus, the Ministry of Textiles (central government) provided the initial funds and selects the occupants for each fortnight. The Delhi Tourism Department of the national capital region of Delhi administrates the Haat and handles all collection

Dilli Haat is a unique innovative example of bringing traditional marketing systems to suit the needs of urban customers

Women were encouraged to bring their baskets to organised meetings to show their level of skill, educated about the potential and varied use of these baskets and the possible earnings from converting leisure activity products to crafted objects that displayed a culture and tradition. It gave value to their lives through the evaluation of their baskets. Now they say, 'Ab sab kuch hamare haath me hain' (now everything is in our hands).

of entrance fees and rentals. The New Delhi Municipal Committee provided the 'land', created by placing a covering over an open storm water drain. The customer pays a small entry fee while the artisan pays a fairly low rent for two weeks occupancy. In return, the customer can obtain hand-crafted items at reasonable prices because infrastructure costs are low and the crafts persons conduct their transactions directly with the customer, securing the return on their labour and investment directly, a win-win situation for everyone.

ADDRESSING DEVELOPMENT AND COMMERCIAL NEEDS

It is neither imperative for corporates to be 'greedy' nor is it necessary for government agencies to throw money down the drain in the form of subsidies that eventually create stagnation rather than empowerment. That development concerns can be in synchronisation with proper business practices has been successfully demonstrated by agencies such as the Gujarat Handicrafts Development Corporation and Gurjari, its handicrafts showroom. As early as the 1970s, Gurjari initiated a simple system of customer feedback that allowed them to grow from an organisation in the red to a profit making body that established sales outlets in the various major cities of the country. In addition to providing incentives for sales staff and thereby increasing their turnover, Gurjari also instituted a mechanism for proper implementation of a design and marketing development policy so as to ensure that no crafts persons were turned away because their product did not sell. It was ensured that the sales units and the design sections of the organisations worked in harmony, sharing their knowledge so that flaws in existing products were rectified and all future products would be designed in accordance to customer needs. It was made mandatory to explain to customers that flaws in hand block printing were caused by lack of space to dry lengths of fabric and that such imperfections were in themselves beautiful as they gave life and depth to the pattern. Similarly, it was necessary to educate rural crafts persons who had no furniture in their earthen homes about the size, nature and use of a simple

Left: Baskets from Bhadohi that were earlier restricted to carry sweets and wedding gifts at family weddings only, found way in to the homes of urban sophisticates. Right: Vivacious baskets from Chettinad that are multipurpose packaging material in the villages and look equally enticing in city malls. They are produced by women who learnt the art of dyeing the leaves in brilliant colours and more sophisticated vegetable colours and work together to share profits.

urban product like a table mat. This too is a part of the process of inclusiveness to enable crafts to match the momentum of development in other fields. There is no denying that the selling of crafts must be a part of a business enterprise. Unfortunately, this has often been translated by policy makers as equivalent to exports as a panacea for all ills plaguing the handicrafts sector. An examination of the handicrafts export industry would reveal that most exporters place an 800% mark up on unit costs to ensure their viability. The brunt of cost cutting measures is borne by none other than the artist or craftsperson. The distance between the craftsperson and the buyer in say, New York, is a million cultural miles. While India may want to overtake China in terms of the quantum of handicrafts exported, handwork cannot conform to economies of scale nor is mechanisation the catch-all answer for development. Distancing the crafts persons from their customers, culture and control over the pricing system is the opposite of inclusiveness.

GANDHIAN MARKETING IN THE HEART OF CORPORATE TRENDINESS

Recently, the Dastkari Haat Samiti has started a small experiment of mixing the Gandhian 'need not greed' principle with a marketing venture at the high profile, highly expensive, Khan Market in India's capital city. The products are trendy innovations of traditional skills and suit every kind of customer. Although the premises can command a rental of at least rupees .4 million per month, the owner does not take any rent from the Dastkari Haat Samiti and instead, runs the shop at a 30% commission. The customer gets the benefit of this in the reasonable cost of the item. The owner carries out her own creative production of custom-made tents on the side. Two establishments thus share

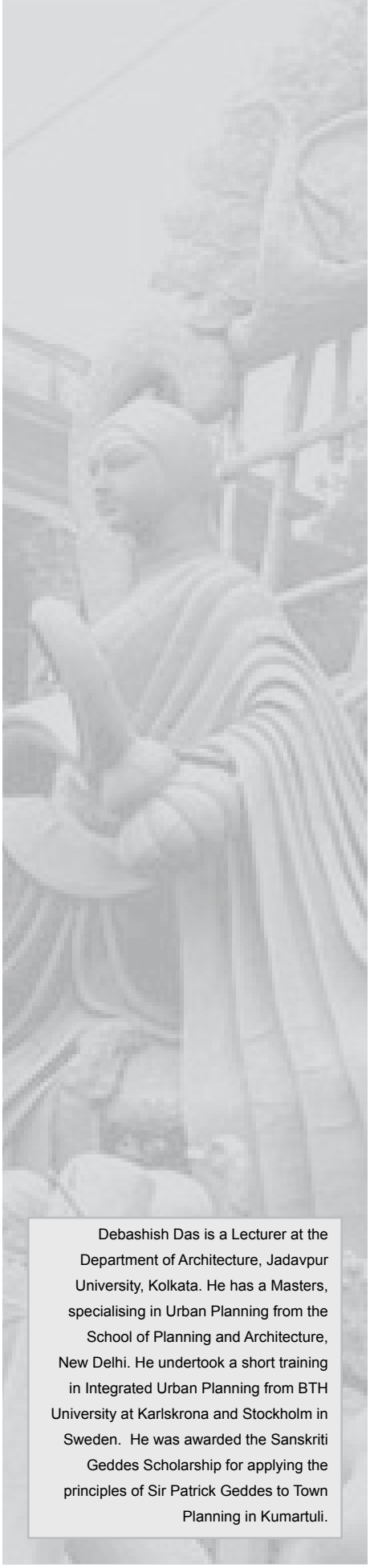
Traditional basket making, Bhadohi

Chhattisgarh Adivasis (tribals) usually sell and buy at local haats. A statuette duo was created at the United Nations office in New Delhi, involving their design development process and it represents gender empowerment. It shows an adivasi couple dressed in completely traditional attire, right up to the hair ornaments, yet the woman is operating the keyboard of a computer. The artisan had to visit a cyber café to study the nature of a computer. Currently, the products are sold at the Dastkari Haat Samiti shop in Khan Market.

one space, thus halving costs. The Samiti adds 20% for design development assistance, costing, training in packaging, receiving goods, payments, tagging, promotion, publicity and display for the benefit of its artisan members. The craftsperson adds 20% profit over the entire unit cost of a product, packing and transportation, which is given on consignment for one to three months. They consider the Dastkari Haat shop as their own establishment as well, since everyone has an equal share in the risks and benefits. This is a small contribution to fair trade and Gandhian practices in the heart of corporate branding and luxury costing and the experiment is working wonderfully well.

CONCLUSION

Inclusiveness is a welcoming catch word that turns into meaningful results only if the entire landscape of 'excluded ness' has been understood. Regions, gender and caste are easily excluded in the first round of development and then, to make up for imbalances, quotas and special facilities for selected groups are opted for. This is popularly known as positive discrimination. However, positive or negative, discrimination can lead to feelings of unfairness and injustice to a new class of people who do not wish to pay the price for the ills of their ancestors. True development comes from expanded opportunities that factors in the disabilities of many but creates a wider template for all to access equally. Markets and market forces can be turned to the advantage of the crafts sector if tweaked to include Gandhian values and Indian cultural traditions rather than pale imitations of unsuitable Western models. Eventually, empowerment comes through creating enabling environments rather than counting heads according to castes or religion. The artisans should be trusted to do the rest.



The Crisis of Kumartuli

A crafts village in Bengal

DEBASHISH DAS

ABSTRACT

Kumartuli, home to 500 artisans skilled in the art of crafting images and idols from clay, is the nerve centre of idol making in West Bengal. Kumartuli came into existence because of a mass migration of potters from Krishnanagar in South Bengal to this region and their subsequent colonisation of an area they termed 'Kumartuli', that is, the tuli (locality) of the kumar (potters). At present, a densely populated maze of crisscrossed lanes through which men, women, children, gods and goddesses alike have to find their way, this Mecca of image making is in the throes of serious decline. Recounting some of the issues affecting the cluster, appropriate methodologies for its preservation and revival have been suggested.

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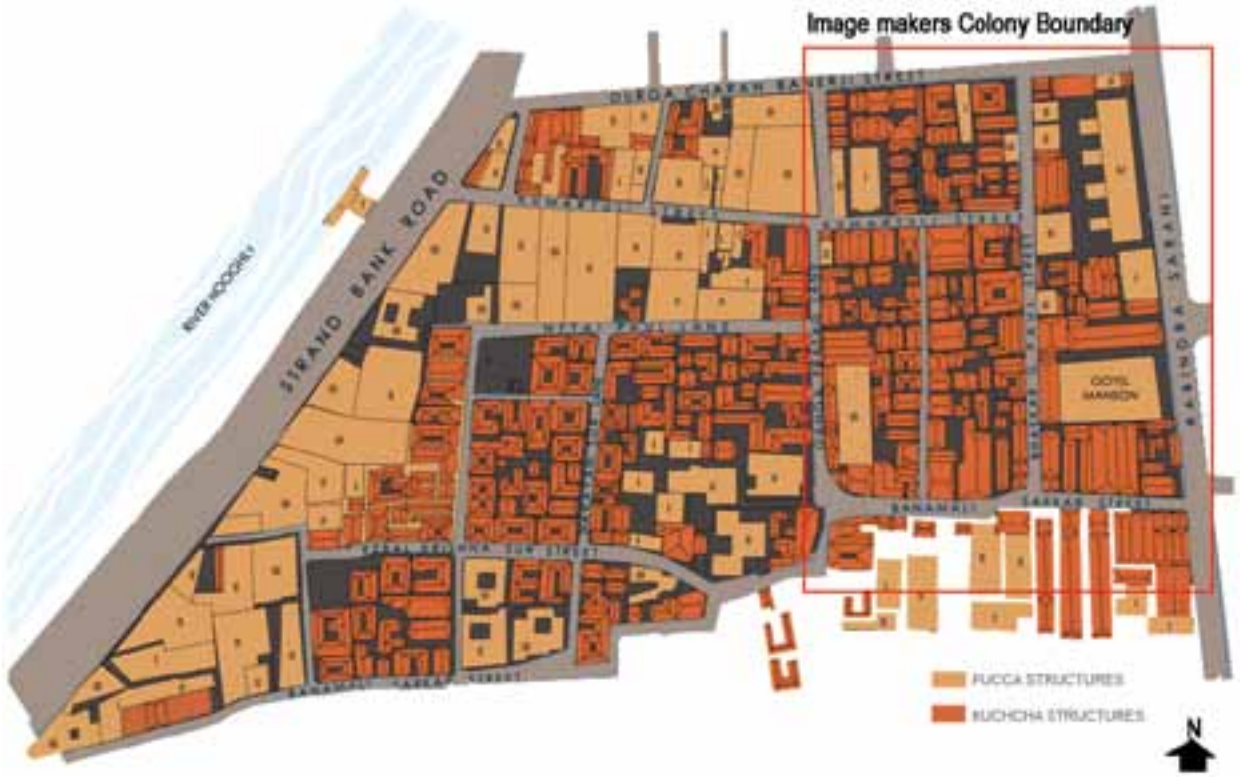
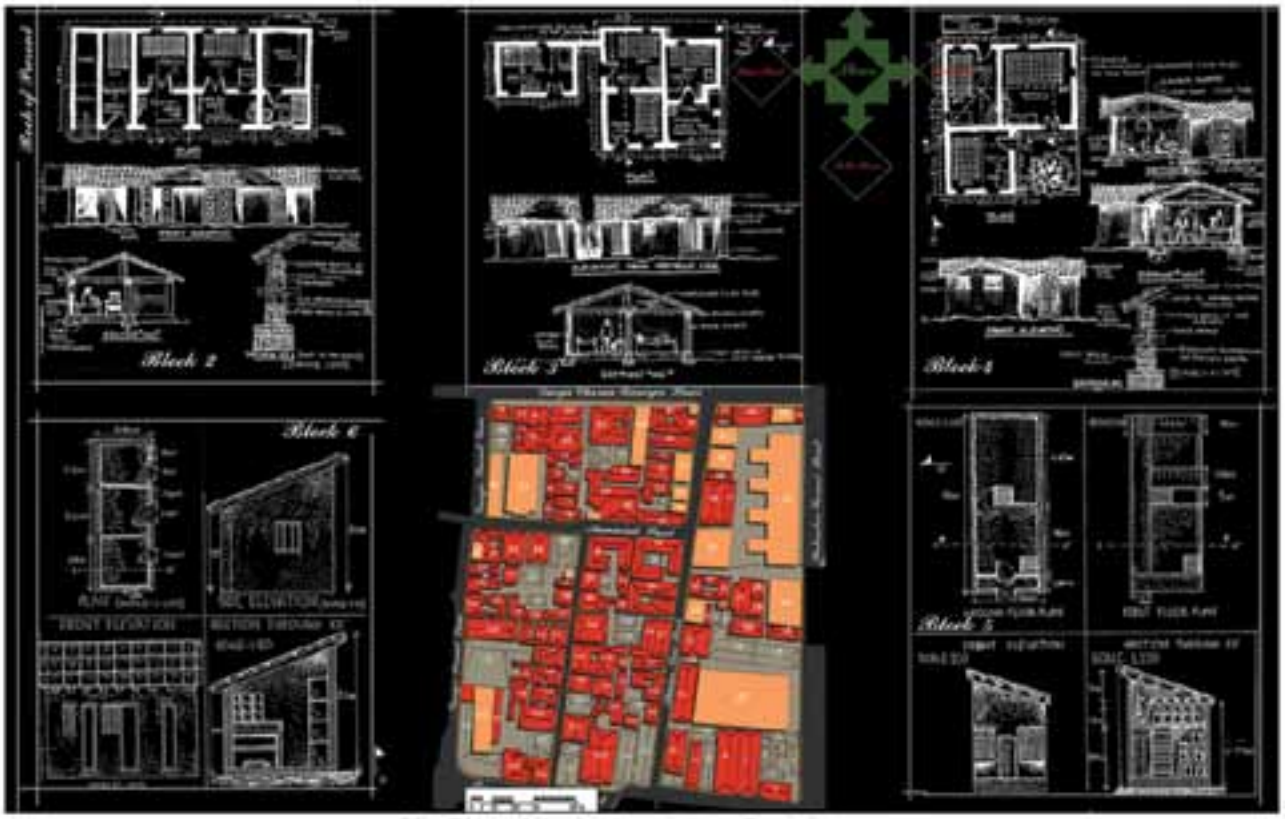
HISTORY OF KUMARTULI

One of the oldest surviving settlements of Kolkata, Kumartuli came into existence in the mid 18th century (1758-60). Following the decline of the port of Saptgram in the early 16th century, the wealthy cloth and yarn merchant communities such as the Seths and Basaks relocated their businesses at Govindapur. During this period, a few families of clay crafts persons also migrated from Krishnanagar to Govindapur



Site plan showing the existing pucca and kuchcha structures in Kumartuli



Existing structures, materials and condition of the workshops and residences in Kumartuli

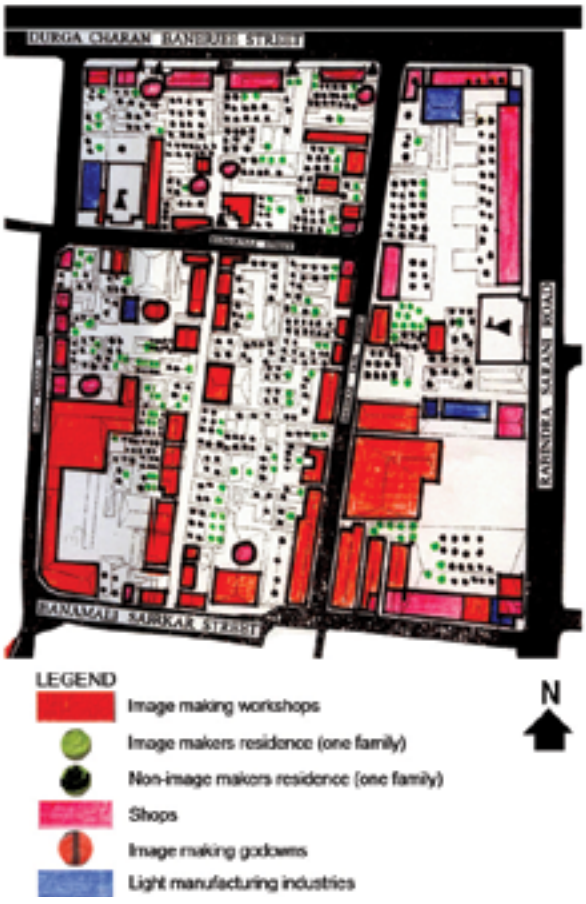
Proposed Section

in search of work and gradually created their own settlement. In 1690, Kolkata was born and as the city flourished, the Govindapur crafts persons started earning a good living by selling their pottery ware and idols to rich Bengali families, especially during the festival season.

In 1759, the British East India Company issued a notice to the residents to leave Govindapur (Hastings, Maidan and a vast area of Bhowanipore, i.e 'South of Calcutta', comprised the area known as Govindapur). The founder of the famous Mitra family of Kumartuli, Sir Govindaram Mitra, left Govindapur and settled at Kumartuli in Sutanooti (Chitpur, Baghbazar, Shobha Bazar, Hatkhola, that is, 'North of Calcutta', belonged to the village of Sutanooti). With him he also brought to this area some families of clay crafts persons who had been driven out of Govindapur. As the Kumartuli crafts persons continued to prosper, their friends and relatives also moved to the cluster in search of a livelihood. As a result, over the years Kumartuli developed into a uniquely skilled centre for clay craftsmanship. According to the image makers within this cluster, the area enclosed by the Rabindra Sarani, Banamali Sarkar Street and Durga Charan Street can be defined as their settlement.

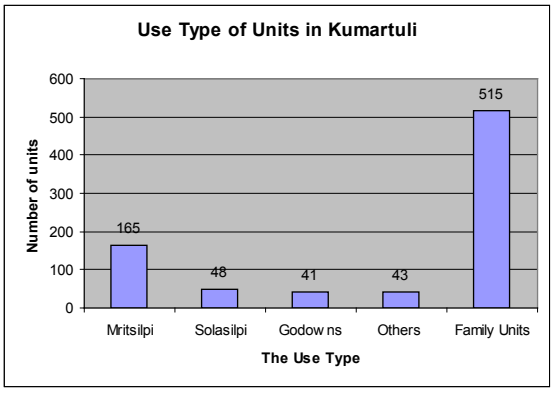
THE EXISTING SCENARIO

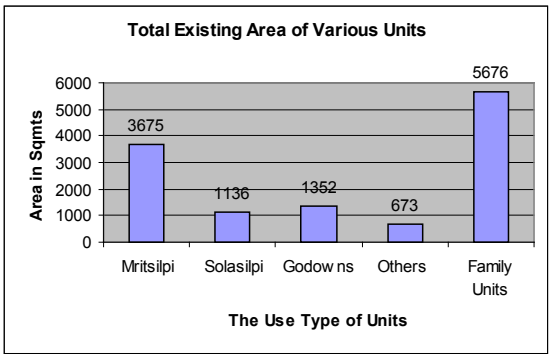
The land use of the area is a reflection of the informal type of settlement found in other parts of Kolkata. The area is predominantly residential, with some shops and public utility facilities such as schools and temples. There are a number of well built houses on the western part of the area. The primary survey also reveals that many of the then built houses are now being adapted for mixed use. The ground floors of the houses are used by hosiery manufacturing for their factories and godowns. A considerable part of the study area is covered with *kuchcha* (temporary structures made of bamboo, straw, mud, tiles) huts which form some of the worst slums of Kolkata. A number of warehouses have been built in this area while many of the ground floors of buildings abutting the railway track were converted to godowns.



Plan showing the occupancy in Kumartuli

Images in various stages of production, drying in the sun





Source: Survey Report by CMDA, Kolkata, 2009

A majority of the establishments operate out of *kuchcha* construction and are therefore susceptible to water logging, poor sanitation and fire hazards. The area has a very high ground coverage of 90% which prohibits the entry of light and causes poor ventilation. The drainage, sewerage, solid waste management system and water supply system are inadequate to say the least. Accessibility is extremely poor and any circulation within the area through whatever narrow roads are available is impeded by encroachment and unauthorised structures. Most of the inhabitants in this area have settled through an informal tenancy system and do not have any legal rights to construct or repair the structures they inhabit.

As image making is very labour-intensive and is heavily reliant on ready cash flow, monetary constraints are also a common factor impacting the state of most of the establishments in Kumartuli. An average studio is a fenced off space with an earthen floor. The area is in most cases 100 to 150 square feet with a tank for storing water to keep the clay moist occupying a part of it. The structures have walls of wooden boards held together with rope, while tin and matting make up the roof. There is minimal electric

Drying image before being painted

Materials for various parts

Chalchitra	*entel mati* and jute
Structure	*entel mati* and hay
Bahan	*entel mati*, *bele mati* and jute
Body	*bele mati* and *entel mati*
Fingers	*entel mati* and jute (percentage of jute is less)

Source: Primary survey

Materials used in image making

	UNITS	COST IN RS (2008)	COST IN RS (2009)
BAMBOO	PER PIECE	30-40	60-70
COCONUT ROPE	PER KG	30-32	40
IRON NAILS	PER KG	30	45
PAINT	PER KG	275	350
CLAY	PER CART	75	150
HAY	FOR 16 BALES	1200	1800
DECORATIONS ITEMS	PER IMAGE AVERAGE	3000	5000

Source: Primary Survey

lighting with low wattage bulbs. Younger generations abandon traditional vocations due to deprivation in their living and livelihood conditions and seasonal nature of business. Sometimes, commercial pressures force these artisans out of business. Thus, there is risk of this trade being lost beyond redemption, unless the Government pitches in with a little bit of support, under one of its several schemes in force.

THE IMAGE MAKING PROCESS

Making an image of a deity is a routine affair for an artisan at Kumartuli and they seldom use tools. To begin with, a skeleton of the figure is first made with small planks of *garan* (name of a local wood used in framework for image making) wood and strips of split bamboo and the framework is attached to a wooden pedestal. The basic form of the deity is roughly shaped with straw and tied with jute strands. A thick coating of blackish clay is mixed with rice husk and applied over the dummy. It is left to dry for a couple of days in the sun. A compound of sand, clay and jute fibre is smeared over the first coating and the surface is smoothed with a piece of wet cloth. The delicate modelling procedure is taken up as soon as the figures have dried up completely. The head and fingers, both made with cement dices, originally developed in terracotta moulds, are fixed to the neck and hands respectively with clay paste. The joints of the limbs are wrapped in pieces of cloth previously soaked in clay solution. The figure is whitewashed two or three times over with chalk solution. On drying, the traditional base colour; red, white, yellow, pink, blue or black, selected according to the artist's preference or the figure being made, is applied all over the body. The eyes, brows and the lip are then painted on as are intricate garments and jewellery. Images of Durga are often embellished with shimmering gold foil and silver filigree ornaments. After the final detailing is completed and dried, the images are readied for transportation to various destinations or to storage facilities.

DEPENDENT INDUSTRIES

Although conducted in the humble cottages of Kumartuli, the process of image making is actually extremely elaborate and complicated, with various allied and dependant small-scale industries. These allied industries are spread all over Bengal and in some cases, even outside the State.

Base paint being applied

Hay and bamboo for structural framework

The hay which is used to make the basic framework of the images is sourced from the Sunderban region. There was a time when boats with huge loads of hay purchased from the farmers of the Sunderbans used to serve the Kumartuli potters, but their numbers have greatly reduced in the recent past due to the eviction of *khatal*s (stables where people sleep, eat and live next to and above cattle), indirectly affecting the image making industries. According to boat men's union formed in 1986 there were about 105 boats that regularly supplied hay but there are only 35 boats that are still in use. Each boat makes five trips every year. As the number of boats has greatly reduced, the *ghat*s (stepped water front) remain idle most of the time and many of the small hotels and shops catering to the sailors and traders have closed and the *ghat*s have become shabby and dirty.

Clay

Various types of clays are required for the perfect modelling of the images and are sourced from different regions. Two major types of clay that are widely used are *entel mati* (also known as *chit mati*) and *bele mati. Entel mati* is expensive and is not locally available; it is usually sourced from the Diamond Harbour or Budge-Budge. *Bele mati* is cheap and is locally available. Some clay is also brought from Uluberia. Hay and Jute are mixed with clay in various proportions to make the different parts of the images.

Dresses and ornaments

A wide assortment of dresses and ornaments are required for the dressing up of the images. Each of the specific accessories is produced by different groups of crafts persons, located in various parts of Bengal. For instance, Joynagar is famous for dress and other accessories while hair for the images is produced in Burgachia. Clothing is made in Burrabazar, brushes in Amta and *sholapith* (a spongy and malleable wood type) artefacts are made in Maheshpur and Pakuria. Most of the shops dealing in the dress and ornaments are located at Lower Chitpur Road; there are a few shops in Kumartuli that also sell these products but they are not specialist in nature. *Sholapith* is a still major component of dress and ornaments. The main supply comes from Bongaon and different parts of the South 24 Parganas. Golden and other metallic foils, sourced from Surat and far more expensive than the traditionally used *sholapith,* are also used as components for ornaments.

ISSUES LEADING TO THE CURRENT CRISIS IN KUMARTULI

Dense urban fabric

The dense urban fabric in Kumartuli (as much as 90% ground coverage) not only prohibits good working conditions with natural light and ventilation but also makes circulation of both goods and people cumbersome. The narrow lanes of the cluster are also used for the drying of images, storing of raw materials and dumping solid wastes. This has made the natural environment of Kumartuli unhygienic and ugly.

Thika Tenancy Act

Kumartuli is under the Calcutta Thika Tenancy Act, 1949 (West Bengal) and in Thika Tenant Slums, the slum dwellers have taken possession at a fixed rent and have constructed their houses. Under this Act, the workers have taken possession of the rented areas through political support. Any kind of urban development project must necessarily include the rehabilitation of the Kumartuli inhabitants to alternative living and working areas. Due to lack of rights to their property, they are not able to do any kind of construction and consequently, the condition of their settlement is deteriorating very fast.

Final painting in process

Financial instability

- *Instability and irrationality in the pricing of images*: The cost of raw materials has increased sharply but the prices of the images have not been increased proportionately. As images of different gods and goddess are required for the various *pujas* (religious worship) held through the year, the products being made in the image makers' workshops have very short production cycles. Workshops are small and cramped and do not have sufficient space to store unsold stock. Therefore the crafts persons are forced to sell their products at whatever prices they can command, even if it entails a loss of investment.
- *A slump period of about five months of a year:* The marginal profits the image makers are able to earn during the festival seasons is hardly enough to support them during the annual five month slump period. They are therefore driven to search for irregular odd jobs or attempt to earn some income by extending their skills to areas such as terracotta work, ceramic pottery and paper pulp work.
- *Impending extinction of the craft:* Despite its widespread fame, the Bengali craft of image making is falling into decline because the artists who depend upon this profession for their livelihood are not appropriately honoured or paid by buyers and have been unable to secure the necessary infrastructural support from the government or civil society organisations. A large number of artisans trained in this craft have now taken to other professions. Thus, once highly skilled makers of clay images are now employed as industrial workers, shop owners, manual labourers, house help, hawkers and tailors.

Changed social systems and work patterns

During the festival season when image making is a highly demanded skill, crafts persons with different types and levels of skill come to Kumartuli to work under the artisans who are permanent residents of the cluster. Although this system has been prevalent for a couple of years, a drastic change has taken place in the status of these seasonal workers. Earlier, treated as family members of the resident craftsperson, they are now treated as wage earners.

Sholashilpi works

Passage in Kumartuli

Problems pertaining to the workspace

As most of the workshops are open to the north or south instead of the east and west, they never get adequate sunlight within the workshop. The crafts persons continue to work in their dimply lit workshops, while the images are placed out on the roads for drying. Most workshops are open on one side only, rendering ventilation impossible. As a result, dry materials and even images are often damaged due to the dampness. Most workshops have no earmarked storage facility, so raw materials are dumped within the workshops or on the road. Most of the workshops are too narrow to work properly. The circulation space between two parallel rows of images is so limited as to make it impossible to work on two images opposite each other simultaneously. Carrying the finished images to the transport vehicles is a challenge and is done with great risk and difficulty on the way to either Durga Charan Banerjee Street or Rabindra Sarani by means of *dola*s (framework made of bamboo and jute ropes for carrying finished images from inside streets to the main roads by workers).

Environmental concerns

The craft process generates a large amount of solid wastes such as straw, bamboos, clay, paints and other items which are dumped into the streets due to the absence of any system or strategy for solid waste management. This not only makes the area unhygienic but also impedes the growth of trees and the movement of people. The disposal of the images after the *puja* also pollutes the river as the images contains various paints and varnishes which are very harmful not only for the people but also for the fauna in the water. As the image flows downstream, it carries all these wastes and pollutes past the entire stretch of the city's riverfront.

Impact on socio-cultural heritage

In the absence of respect for their skills, appropriate remuneration, access to basic facilities and infrastructure; government support or civil society recognition, a number of traditionally trained image makers are abandoning their profession. The younger generation of these artisan families is also wary of continuing the profession for the same reasons. Consequently, the tradition of image making in clay is under decline.

Secondly, seasonal artisans, skilled in various ancillary crafts related to image making or in specific processes would come to Kumartuli to work under the artisans who owned workshops there. Often these seasonal employees would live in the house of the local artisan and be treated as a family member. Today they have their own trade union, work strictly for eight hours a day, demand overtime for additional work; thus displaying a significant shift towards a more industrial mode of operation. The stiff market competition has also manifested in disputes between the various master artisans as well as the various studios. Such changes have led to the demise of the sense of community and shared identity that was once widespread in Kumartuli.

INTERVENTIONS TILL DATE

The West Bengal government has taken up the task of developing Kumartuli as part of the slum development project under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). The basic objectives of the project are:

- To improve the living condition of the people and the workers in Kumartuli
- To improve the working condition of the workers
- To improve the natural and built environment of Kumartuli
- To provide all civic amenities to the people
- To improve the economic condition of the workers
- To improve the tourist activities in Kumartuli

- To preserve the craftsmanship of the people
- To develop the area as a social-cultural heritage site

CONCLUSION

Though the government is trying hard to develop this area as a socio-cultural heritage site, their approach is not sufficiently target specific, as it does not involve the participation of identified beneficiaries, stakeholders and planners. A self sustainable, community based, planning and implementation methodology should be the key for development of this area in a holistic way.

Bibliographic References

- ACME Consultants Private Limited 1982, *Redevelopment Plan: Kumartuli Area, Volume One,* Kolkata.
- CMDA 2008, *Survey Report*, CMDA, Kolkata.
- Das, D 2007, *Urban Renewal in Kumartuli, approaches for preservation and rejuvenation of an old historic settlement in Kolkatta*, applying the principles of Town Planning of Sir Patrick Geddes, unpublished report, sponsored by Sanskriti Geddes Foundation, New Delhi, India.
- Das, D 2009, 'Urban Sustainability Guidelines and Approaches for Preservation, Rejuvenation and Renewal of an Old Historic Settlement of Kumartuli, Kolkata', *ITPI Journal*, vol. 6, no. 1.
- Das, D, *Sustainable Community Development Plan with special emphasis on cultural and economical sustainability: Case Study, Kumartuli, Kolkata*, unpublished ongoing work, Swedish International Development Cooperation Agency.

Laila Tyabji is a freelance designer, writer, and Founder Member and Chairperson of Dastkar, a Society for crafts and crafts persons involving women. Her specialty is textile-based crafts, embroidery and appliqué, using the traditional skills and design tradition as a base for products with a contemporary usage and appeal.

Tradition and Transition

A crafted solution to development

LAILA TYABJI

ABSTRACT

Across India, women skilled in diverse traditional embroidery techniques have been organised into producer groups, generating livelihoods for themselves and their families through what was once a domestic activity. Narrating her experience of working with such communities through Dastkar, the author reveals the impact such initiatives have had on the lives of the women themselves as well as their communities.

CRAFTS AS A LIVING SKILL AND A LIVELIHOOD

Women all over India sew and embroider. Their stitches tell not only their own stories, but those of their cultures and communities. Through those stitches women reach out to the rest of the world, finding markets and incomes for themselves and their families.

In the mid 1980s, I was conducting a design workshop with a group of women skilled in patchwork appliqué at a re-settlement colony outside Ahmedabad in Gujarat. Three days into the workshop, communal riots broke out in the city. Arson and looting turned into mob warfare and killing and violence spread into the slum suburbs. The patchwork

embroiderers were Muslim; most of their husbands and fathers worked in the city. They drove bicycle rickshaws, sold vegetables and groceries on small handcarts or worked as unskilled labour in factories. Now they were trapped. Those who ventured into the city were drawn into the violence, while those who stayed at home forfeited their daily incomes.

Every day people were brought into the community centre where we sat matching colours and cutting patterns; burnt, wounded and maimed. A child's eyes had been gouged out; the brother of one of the women had been burnt alive in his cycle rickshaw. It seemed stupid and callous to be sitting there making pretty patterns while people were dying, a little like Nero fiddling while Rome burnt. Nonetheless, the income the women were making from their stitching was the only money coming into the community. They, along with their families were, quite literally, living off the patterns of circles and squares they cut and sewed. Ironically, the disregarded, decorative activity done by the women had turned out to be the lifeline of their families. As Ramba ben, a mirror work embroiderer from Banaskantha once said to me, 'The lives of my family hang by the thread I embroider.'

This is a rather sombre note on which to begin an article on Indian handicrafts and women. Nevertheless, I want to set the context in which Dastkar and I work; a context where the beauty, authenticity and original creativity of the product is second to the sheer economic necessity of its production and sale. In the West, craft is something that people, weary of the relentless uniformity of the industrial and professional sector, turn to in search of individual self-expression. In India, craft is an industry and profession.

As I write, I'm haunted by the words of Geetha Devi, a *sujni* embroiderer with whom Dastkar works: 'To work is forbidden; to steal is forbidden; to cheat is forbidden; to kill is forbidden; what else is left except to starve, sister?' As per the present going rate for female agricultural labour in Bihar, a woman would have to work 70 days in a month in order to feed her family. Geeta Devi's slow stitches, telling stories, have become the alternative to starvation. Women used to exchange their old embroideries for utensils; one pot for embroidery worth 2000 rupees. They never thought that they had a living skill in their hands. Now they embroider new pieces and earn cash for their families and their future.

The story behind the stitches, of craft, women and development in contemporary India, is both a parable and a paradox. Craft traditions are a unique mechanism for rural women entering the economic mainstream for the first time, but they also carry the stigma of inferiority and backwardness as India enters a period of hi-tech industrialisation and globalisation.

EMPOWERMENT THROUGH EMBROIDERY

The relative value the urban educated elite place on 20th century technology versus traditional skills was illustrated by the comments of a Dutch diplomat who visited a Dastkar exhibition some years ago. Looking at the women's intricate embroideries, he remarked sadly: 'They are so skilled; why doesn't anyone train them to make electronic spare parts?' But, in India, craft is not just a production process; merely a mechanical, mindless, somewhat outdated form of earning and employment. It is a rural woman's creative means to conquer her desert landscape and the confines of her limited income, her way of transcending the dependence and drudgery of her arduous agrarian and domestic life cycle. It is a creative skill and strength that is uniquely hers, an individual statement of her femininity, culture and being.

A wonderful painting by Paul Gauguin is entitled 'Where do we come from? What are we? Where are we going?'The work of contemporary Indian craftswomen both answers and raises these very same questions.

The crafts sector, where I work, is the largest source of employment and income generation for Indian women (more women work as agricultural labour, but their contribution is generally unpaid). It is also the one area of acknowledged skill, creativity and expertise (apart from child-bearing) where women are not just on par, but ahead of men. The one area, too, of economic and productive strength that Western countries have lost.

While international agencies, economists and activists agonise over the conflicting interests of unemployment, the depletion of natural energy resources and the degradation of the environment through industrialisation, craft continues to be a viable alternative. With a simple, inexpensive, environmentally friendly needle, palm leaf, spindle or loom and the inherent skill of her hands, a woman can both support her family and enrich the national economy and export trade.

Traditional embroidery being carried out by women of Ranthambore

Many Asian countries have the same untapped strength, that of millions of women whose discounted but extraordinary skills give us a cultural and aesthetic identity uniquely our own. But, because these women are village bound, unorganised and illiterate, their voices and needs are never heard in international forums. The raw materials they depend on such as yarn, lac, leather, bamboo and cane, are being exported abroad or diverted to the industrial sector. Also, financial credit, social security schemes and investment ignore them.

We are all supersensitive to vestiges of colonialism and exploitation, but we practise a cultural imperialism of our own: dominance by virtue of education, language and profession. 'We may be wage earners but we are still walking on someone else's feet. Because we lack the tools of education and language we are still dependent,' said Shiva Kashyap, a Dastkar craftswoman from Bihar. Expertise has its own class system: the designer dominates over the craftsperson; the urban management consultant dictates the rural development process.

The women we work with, whether in Kutch or Karnataka or Kashmir, bank their payments and earnings and have started self help groups and saving schemes. Reacting to the exploitation of illiterate women by both village men and urban traders, they have taught themselves to read and write and do simple accounting. They have realised that a pen is no more complex to handle than a needle!

Almost 20 years ago, a young woman in Rajasthan named Dhapu killed herself. I knew her well. I was living and working in her village at the time. We were neighbours. She soaked herself in kerosene and set herself afire. We were only a few houses away but the drums of a wedding procession drowned her screams. By the time we reached her and broke open the door she was dead. Later we heard she still owed the village shopkeeper for the kerosene.

Dhapu was bright, young, lively, beautiful and the mother of five children. She killed herself because she had so many skills but no opportunities. She lived in a part of India that is semi desert, dry, desolate and deprived. The villages in that area had been resettled

The subtle and sensitive chikan embroidery from Lucknow produced by women that SEWA works with

Learning to sign

as part of a Government scheme to create a tiger park. Dhapu and her family were small herders who depended on access to the forest for firewood, fodder and water for their herds. That access was now gone. Five years of drought had created further hardship.

Life was incredibly hard. Dhapu's daughter, Indira, was about to be engaged. She had saved desperately to put together a dowry. Then disaster struck. Her husband's elder brother died suddenly. Dhapu's husband's sense of family honour was greater than his income as an agricultural labourer. He told her that his brother's widow and her four children would come to live with them. There were five more mouths to feed. Indira's dowry would have to be given to his brother's eldest child. It was too much for Dhapu. She killed herself for lack of an economic alternative.

Dhapu's death had a profound effect on me. The tragic irony haunts me still. The group of us who rushed to save her from the flames was working to create economic opportunities for women just like her. Dhapu's daughter, her widowed sister-in-law and her niece eventually became among the most prosperous women in Sherpur village, numbering among a group of 150 women whom Dastkar has trained to earn their own livelihood through their own hand skills of patchwork, tie-dye, embroidery and printing. Dhapu's daughter didn't need a dowry; she was sought after as a bride by everyone because she was bringing in her own income.

Rameshwari, Raeesan, Shameem, Badam, Farida and the other women recall those first early days in the tiny Dastkar room in Sherpur village nine years ago, the fear and suspicion with which they had greeted the idea that something they made with their hands could sell in the Delhi market and the disbelief of receiving their first earnings. They thought I had come to kidnap their children! Today they are the leaders of approximately 100 families in the area who make and sell products through Dastkar; crafting quilts, soft furnishings, garments, mobiles, toys and accessories for both the local and urban market. Their daughters, Bina, Mumtaz, Laado, are also learning the old skills with new ones. Reading, writing and ciphering form the first part of the morning for both mothers and daughters.

Lucknow in northern India is a city where Hindu and Muslim culture, language and religion mingle in a polyglot, stylised, slightly decadent muddle. Tucked into the dingier corners of its elaborate stucco work palaces and arched gateways are narrow, winding, overpopulated lanes and dark, squat houses, inhabited by women who are themselves enveloped in gloomy, black veils; desperately poor, oppressed not just by economics but by their own social and domestic circumstances. Illiterate, devoutly Muslim, locked into marriages and family structures that allow little room for individual expression or creativity, they produce one of the most subtle and sensitive of India's myriad embroidery traditions. The delicate, pristine white-on-white of c*hikankari*, the epitome of fastidious refinement and esoteric elegance, emerging from these dim, dirty, tenement dwellings, amidst smoking cooking pots and children, chickens and goats squabbling, squealing and defecating in every corner, is one of the paradoxes and puzzles of Lucknow.

In 1985, I went to Lucknow to work with 100 *chikan* embroidery women. They were in *purdah*, illiterate, house-bound and previously, also totally dependent on the local Mahajan to fetch their work or pay them for it. Sitting together embroidering, teaching them new skills and designs, we naturally talked about everything under the sun. They were stunned that I, a well-brought up, believing Muslim woman, could also be liberated, happily unmarried, earning my own living, travelling the world, untrammelled by *purdah* or convention.

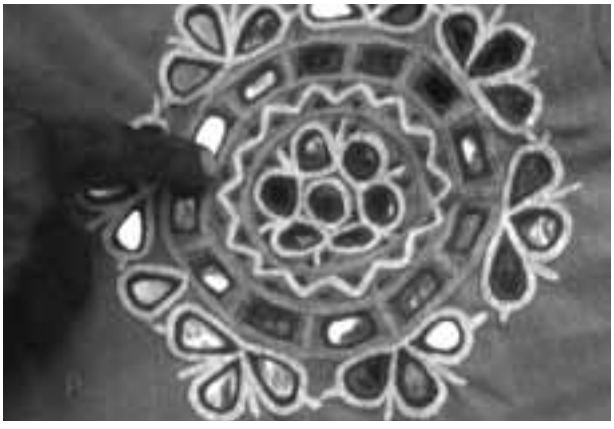
Our first argument was when I was furious with them for signing, unread, a petition about the path breaking Shah Bano judgment, just on the say-so and a biased and retrograde interpretation of the Koran by local, male chauvinist, Maulvis. They listened to all this, wide-eyed, slightly disbelieving, slightly envious, slightly shocked. They certainly didn't relate it to the realities of their own lives. When six of them bravely agreed to come to Delhi for the first *chikan* exhibition, the men of the *mohalla* threatened to burn down the Sewa Lucknow office, accusing us of corrupting their women's morals.

Today, those 100 Sewa women have grown to over 7,000. They travel all over India, happily doss down and sing *bhajan*s in a *dharamshala* or cook *biryani* at the Bombay Salvation Army Hostel. They interact with equal ease with male tribals from Madhya Pradesh and sophisticated buyers from Habitat. They march in protest against dowry deaths as well as Islamic fundamentalism, demand financial credit and free spectacles from the Government and self-confidently refuse to give the most powerful local politician a discount. They earn in thousands rather than hundreds, have their own savings bank accounts and have thrown away centuries of repression and social prejudice along with their *burkha*s.

THE TRANSITIONS CREATED BY DEVELOPMENT

Dastkar products range from table linen, cushions and throws to jackets, *kurtas*, stoles and sarees. All represent a more or less traditional usage of motifs, stitches and techniques, in pieces that incorporate themes and motifs familiar to the women and use materials that are locally accessible or hand-woven by other Dastkar crafts persons. These familiar elements are combined and incorporated into contemporary soft furnishings, accessories or garments designed for the urban Indian consumer.

Measuring



Mirror work detail

Though they are functional objects of everyday usage; articles designed for daily wear or the home, their motifs and colour, as in most Indian craft objects, however utilitarian, have a significance that is deeply rooted in socio-cultural and votive traditions that we have tried to respect even while adapting them. Including the craftswomen in the design process, helping them understand the end usage and methodology and sharing the fun of experimenting with new layouts and a different colour palette, is an integral part of Dastkar's development of new products.

The products do not merely showcase the skills, creativity and strength of Indian textile craftswomen and the beauty and range of their craft. They attempt to show how both women and embroidery can adapt and change as society and markets change, while still remaining true to their own aesthetics and tradition.

They illustrate Dastkar's belief that the continuing existence of an extraordinary diversity of craft traditions and producers is one of India's unique strengths as it searches for its own identity in a world that is increasingly uniform and technological.

It is extraordinarily exciting to work with the traditional hand skills of women, used previously to craft products for themselves and their families but now gradually also for contemporary, urban, market led products that still strongly reflect the cultural identity and individual skills of the makers. They also tell the story of women, subtly changing themselves in the process. Everywhere, the energy of a source of new employment and earning, binds together and revitalises communities that were as deprived and denuded as the desert around them. This is particularly true when one works with the latent skills and strengths of women. They suddenly discover their self-worth, seeing themselves as active participants in the community rather than passive recipients of welfare. Wells are dug, children are educated, social prejudices and taboos are thrown away when women discover their own power.

What has using their inherent craft skills as a tool of empowerment done to these and the many other craftswomen? The process is not without conflicts, but it is invariably catalytic. Like a kaleidoscope, familiar elements, transposed, take on a new, dynamic pattern. Income generation is not by itself a synonym

Producer and product

Women working with needle and thread, together as a group;

Working with women of Banaskantha

for development, but it can be the key and catalyst to development's many processes such as education, health, community building, the repudiation of social prejudices and the empowerment of women.

As we sew together, I ask the women what they will do with their money? The answers were varied: some silver jewellery, better seeds, a buffalo, the ability to send their children by bus to a fee paying school, medical treatment, their tubes tied at a 'proper' hospital and a new well in the village. They have their own bank accounts to prevent misappropriation by drunken or gambling husbands. They all want '*pukka*' houses. Rameshwari is a widow and is saving for the weddings of her children.

Methods of birth control are canvassed along with colour combinations; old women learn that writing their names is no more difficult than threading a needle. Wholesale dealers coming to deliver orders become an informal weekly market where women can make purchases without an expensive trek to the town. Cotton rather than synthetic, traditional block prints rather than mill-printed roses have become fashionable again, both to make and to wear. In the evenings, songs and stories and folklore are swapped for political gossip and revolutionary ideas of social change. The women have set up their own savings and loans micro-credit group. They now act as money lenders to the whole village.

This augmented role, being entrepreneurs, saleswomen, executives, as well as housewives and mothers and the additional weight of responsibility, independence and experience, has changed women, even if it hasn't materially changed male attitudes. Sometimes the added stresses and pressures have destroyed them, while sometimes it has made them stronger and more self-confident. In our project in Ranthambhore (where Dhapu's daughters now work), according to the local doctor, a Dastkar craftswoman can be recognised from half a kilometre just by the way she walks and holds her head.

It has changed their attitudes to society, caste, marriage, *purdah*. They are more able to objectively evaluate the gospel as preached by men. Initially, in Sherpur village, women of different castes and religions wanted separate timings to come to the room where I lived and worked. The first time a harijan woman came for work she crouched outside the door. It was she herself, not the upper caste women, who explained, with shocked disbelief at my naiveté, that she could not enter. I had to literally pull her in. When a Muslim child peed on the floor, the Hindu women fled in horror and wanted the whole place *lippai*-ed! Today, the 150 men and women in the project work, travel, cook, eat and drink together, marvelling at the folly that kept them separate for so long. At the annual picnic, the men cook. They make the women sit and serve them; Hindus and Muslims, harijans and upper castes alike.

The changing woman has changed some (a few!) male mindsets. The same men who threatened to burn down the Sewa office now help pack the exhibition stock and escort their wives to night school. Monetary power is a most amazing thing. But the women still cook for and feed their men folk before they come to work and

Sujni wall hanging depicting lives of women

on their return, even when they are now the principal earners in the family. They are still expected to gather firewood, work in the fields and care for the children, in addition to being entrepreneurs and wage earners.

It would be simplistic to pretend that the shifting balance of power and the new self-worth of the women have not created enormous family strains: between husbands and wives, mothers-in-law and daughters-in-law, between self realisation and traditional mores.

It would be foolish to ignore that it is the woman who always has to bear the burden of this. Also, that her inherent tendency to silently endure, rather than scream with rage and rejection, often makes the burden well-nigh unbearable. Naive too, to think that without the carrot of cash payments, women would voluntarily rise up and change. But the changed confidence of the women, their ability to take and make decisions, to disagree with their husbands, to plan their own and their children's future, is not a once-in-a-blue-moon phenomenon that is going to go away.

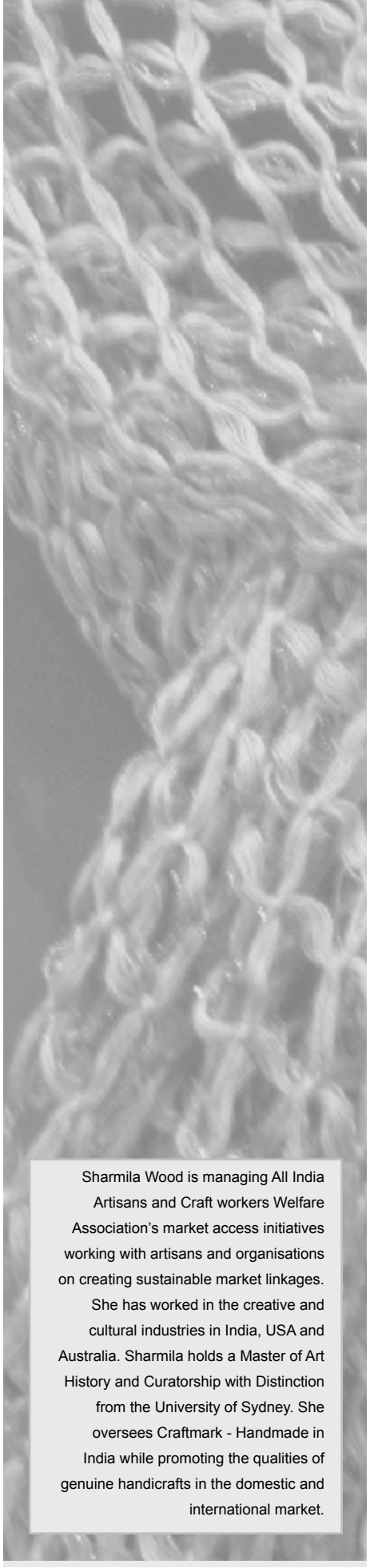
CRAFTING THEIR OWN DREAMS

Recently, working on creative panels for an exhibition in Sweden, Dastkar craftswomen were asked to represent their lives and their dreams. Stitching away, their vision was of themselves as a group, not as individuals. The 'I' as heroine or single protagonist is not a concept rural Indian women understand. Even in the village they are always Ramu's wife or Karsan's mother, never called by their name. Their dreams and aspirations are also collective ones. Health, education for their children, a good harvest, social status; expressed by images of spreading trees, an aeroplane soaring in the sky, a girl child reading a book, were what they wanted. The intangible 'happiness' and 'love' for which most of us wish are not conceivable by these women.

The American writer, Tennessee Williams, said 'Make journeys, attempt them. It's the only way.' For the Dastkar craftswomen, their journey from their villages in Gujarat, Karnataka and Bihar to India's urban marketplace has been not only a physical journey, but a voyage of inner and external discovery, a reaching out to new horizons of the mind and spirit. Indira-*ki-maa* (so-and-so's mother), Kalu-*mian-ki-aurath* (so-and-so's wife), have turned into Rameshwari, Nafeesa and Azeezan. Their ability to influence the lives of their families and community has altered and grown and they have altered and grown with it.

Notes

A version of this article appeared in December 2003 as 'Tradition and Transition: A crafted solution to development', *Prince Claus Fund Journal,* Issue 10a, The Future is Handmade – The survival and innovation of crafts, Prince Claus Trust, Netherlands.



Crafting Access

Indian crafts in a globalised world

SHARMILA WOOD

ABSTRACT

The impact of globalisation and industrial modes of mass production on the crafts sector in India, make it imperative to examine how better market access can be crafted for artisans. Investment in strategic marketing and a strong integrated policy would allow the artisans to compete in and take advantage of emergent markets, fuelled by the rise of eco friendly, socially responsible consumption. Also, the sector can learn from the success of the 'Incredible !ndia' campaign and the 'Made in Italy' brand, in developing an identity and creating an image of Indian handicrafts, synonymous with exclusivity, artistic excellence, authenticity, style and quality. Craftmark - Handmade in India has emerged as a means of creating a distinct market identity as well as a pan-Indian brand that foregrounds the cultural, social and economic value inherent in handicrafts.

CURRENT SITUATION

Globalisation, the liberalisation of trade policies and economic reforms mean that borders in worldwide trade have been lowered and new markets have emerged for handicrafts. Today, vibrant and quality handmade products from all points of the globe vie for a market share

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Handloom, Kumaun Grameen Udyog, Himalaya

in the international marketplace and the Indian crafts sector has found itself competing with talented artisans from many countries, in particular from regions in South East Asia, Latin America and Africa. In some market segments, the economics are not in favour of Indian artisans, as competitors are able to produce high quality products at lower prices, with the support of modern infrastructure and better credit, research, management and market development.

The biggest threat to the Indian crafts sector remains industrial manufacturers who produce cheap products in volume and can respond quickly to changing consumer trends. Small scale, cottage industries can be slower to adapt to the market as they struggle to compete on price points and to meet the production timelines of industrial manufacturers. As a result, they often lose out to large corporations and macro industries which are supported by modern technology, capital, resources and extensive marketing and trade networks. Machine made replicas and imitations of authentic products are also being sold as genuine handicrafts at cheap prices. This in turn reduces the market share of real handmade products.

Textile production is one sub sector that has been in a severe decline due to the entry of imitations and machine made products into the market. Imitation Banarasi brocade, produced and exported around the world from China, is hurting the weaving community in Varanasi whilst in 2007; the Association of Handloom Units announced that 60,000 Bodo households would lose family income due to mill made, imitation cloth (Chatterjee 2007). Clearly, there is a need for intervention, as *the Handlooms*

Artisan working on a handloom, Kumaun Grameen Udyog, Himalaya

(Reservation of Articles for Production) Act, 1985 does not go far enough in protecting the intellectual property rights of artisans. Poor implementation and loopholes that allow the intellectual property rights of handloom producers to be violated through the large-scale duplication of handloom products by power looms will continue to damage the sector.

Industry made branded clothing, lifestyle and home ware retail has also impacted the handicrafts market. Branded clothes, such as Levi's and Reebok, have become signifiers of contemporary style and 'modern' India whilst handicrafts have become symbols of 'tradition' and even, 'backwardness'. International brands have also become symbols of wealth and luxury and are seen to be inherently more valuable than handicrafts. There is a prevailing perception that handicrafts are 'overpriced'. Whilst the price points may be higher than machine made competitors, such concepts also reflect the low valuation that handmade products hold, despite the craftsmanship, originality and the intensive labour and high level of skill required to produce them.

Market perceptions about handicrafts are well worth challenging. Consumer preferences are not necessarily fixed, as fluctuating fashion and market trends demonstrate. Although some of the associations around brands may have tangible, rational attributes (a store such as United Colours of Benetton may have appealing, trend driven designs, with good selection and choice in clothing styles), these perceptions are undeniably influenced by the sophisticated marketing and advertising strategies used to build brand consciousness amongst consumers. Gaining market acceptance for handicrafts beyond the niche craft market as items of high social and cultural value in modern India will take dedicated resources and serious investment, as well as hard work.

The mass produced goods that have flooded the market also impact the income of artisans at the local village level. Across India, artisan made utilitarian objects of daily use have been replaced by factory made goods. For example, in many regions the market for earthenware has been obliterated by the saleability of plastics and glassware. The situation is exacerbated by poor economic conditions in village communities, which reduces the spending power of rural consumers. At best, artisans are able to earn a subsistence income producing crafts. Due to this constriction of traditional markets and the prevailing socio-economic conditions in rural areas, artisans now look to new markets to sell their wares, yet many remain at extreme economic and geographic disadvantages. Opportunities to participate in exhibitions, fairs and bazaars at commercial centres such as Dilli Haat in New Delhi provide valuable sales channels for artisans. Yet, limited resources and the infrastructure in rural areas; poor roads and limited public transport options, continue to restrict access. Whilst some markets have contracted, there are also new opportunities opening up, particularly abroad. There is consistent demand from the USA, UK, Germany, Australia, Canada, France, Italy, Japan, the Netherlands and Saudi Arabia for handicrafts. Export figures for the past five years are positive; the Export Promotion Council for Handicrafts show an increase of 53% in five years in the combined exports of art metal ware, wood ware, hand printed textiles and scarves, embroidered and crocheted goods, shawls as art ware, *zari* and *zari* goods, imitation jewellery and other miscellaneous crafts (Jaitly 2005). These figures present an optimistic picture. Yet, the fact that India currently only accounts for 2% of the world trade in handicrafts despite having over 30 million artisans and weavers illustrates the huge, untapped potential of the crafts sector.

Investing in the crafts sector, expanding markets for handicrafts and introducing policy initiatives that are serious about growing the sector, are measures that seem worthy of consideration. State support and assistance in marketing has enabled China to corner 17% of the world trade in the same sector. Marketing is not just expenditure; it is investment in real, sustainable development for the country's artisans. There are wider economic and cultural spin-off benefits from gaining this kind of market share.

POSITIONING INDIAN HANDICRAFTS

Whilst globalisation has plunged the sector into crisis to some extent, it has also opened up new markets and with the right positioning, Indian handicrafts can benefit from the growth in socially conscious consumption and ethically and environmentally responsible consumerism. Products that are people-positive and planet-positive are amongst the fastest growing segments in the market today. In the USA, the size of the eco or 'green' market reached US$ 230 billion in 2007 and grew an additional 38% or US$ 87 billion in 2008. Research has shown that 47% of US adults are willing to spend up to 19% more on a green product. In general, the Indian handicrafts sector

Artisans at work, Kumaun Grameen Udyog, Himalaya

Parampara artisan working at home, Gujarat

fits with values of fair trade if artisans are working in fair conditions and where people and the environment are more important than profit. Handicrafts are manufactured with minimal environmental impact and have a low carbon footprint; they are produced in a community friendly way, locally, with natural materials and natural finishes.

Poverty alleviation, income generation and women's empowerment; values that are at the core of many craft producer organisations, also resonate with socially responsible consumers. Laila Tyabi has aptly described: 'Craft is not just a production process - merely a mechanical, mindless, somewhat outdated form of earning and employment. It is a rural woman's creative means to conquer her desert landscape and the confines of her limited income - her way of transcending the dependence and drudgery of her arduous agrarian and domestic life cycle. It is a creative skill and strength that is uniquely hers - an individual statement of her femininity, culture and being' (Tyabji 2003). Across the country, successful craft enterprises uplift and empower, allowing imagination and creativity to challenge the confines of marginalisation and poverty. Any branding strategy needs to promote these meaningful and solid benefits to the end consumer, enabling consumers to participate in the dialogue between crafts and livelihoods.

Handcrafted products can also be positioned to capture the premium, high end market. Amongst consumers in the developed world and the elite in Indian cities, there has been a reaction against the standardisation and heterogeneity of mechanised high-tech products, which has created value and niche spaces for hand processes. In contrast to the similarity and uniformity of mass produced goods, crafts are cultural goods that embody creativity, skill, intellectual property and social and cultural meaning.

It is possible to position Indian handicrafts in the realm of luxury brands, emphasising their high level of artistic skill, their aesthetic qualities and cultural value by showcasing crafts as one-off pieces, exclusive and rarefied in carefully chosen prestigious venues such as art galleries. The elevation of handicrafts to this realm is partly about overcoming consumer prejudices. But just as Aboriginal Art in Australia has challenged its tag as 'ethnographia' to become the hottest contemporary art available in the country, attracting international collectors, similarly Indian handicrafts must leverage its many attributes to position itself in the exclusive, premium products trade.

Promoting craft in the elite market can raise its value and segue craft products into the mass middle class market. Aspirant consumption, where goods represent status can be used to the advantage of the craftsperson if an effective link of crafts can be established with 'sustainable luxury', to create a sense of exclusivity, making them highly desirable and worth paying a premium for. Crafts cannot and should not, compete with machine made products. It does not honour and respect the distinction between the two forms of production. One involves alienated labour geared towards mechanised time; the other, attention to detail, hand work and the space to produce creatively. These must compete on design and originality, rather than on price points, positioning crafts as an alternative to mass production. Investment in the research and

design capacity of artisans must be included in any strategy that seeks to address the marketing and market demand problems confronting artisans. These so-called 'interventions' have been adopted by the crucial institutions emerging to bridge the gap between artisans and the market: self help groups, non government organisations and small to medium enterprises.

Opportunities for artisans to reinvigorate their practice, to create crafts that fuse contemporary design with tradition are pivotal in terms of their saleability. Designers and artists can assist artisans to integrate new ideas and tradition, bringing to life a new set of products. The All India Artisans and Craftworkers Welfare Association (AIACA) and the US based Aid to Artisans (ATA) have run the Artisan Enterprise Development Alliance Program (AEDAP) which has included product and design development with 17 craft social enterprises over the past three years. A key component of AEDAP has been to pair enterprises with Indian and American designers who can offer a global market perspective and expertise in international home decor, gift and fashion accessories. Designers assist artisan groups to revitalise traditional skills, improve product quality, solve production issues and create new products whilst retaining the cultural integrity of their craft production giving artisans an edge in both the domestic and international market. There is a danger that the relationship between designer and artisan can succumb to structural hierarchies. Any successful design development must be truly collaborative, based on an egalitarian exchange that honours artisanal style and skill and respects their creative vision. The designer must participate in the workshop both as a teacher and a student.

Some enterprises have been able to adopt strategies and facilitate interventions that can open up new market opportunities and linkages. However, the capacity to perform these activities varies considerably from one group to another. Many enterprises lack the appropriate marketing and managerial skills and the leadership needed to forge a successful enterprise. As many groups are restricted in the scope of their marketing activities by budgets and resources, it is a rare entrepreneurial mix of dedication, creativity, business acumen, design sensitivity and market knowledge that is required to build an enterprise that provides real returns to artisans. Given the complexity of global markets and the challenges confronting the sector, it is unrealistic to expect craft enterprises to alone broker the position of Indian handicrafts in the international market, particularly when grappling with multinational companies that have virtual artillery of resources at their disposal.

INCREDIBLE BRANDING: LESSONS TO BE LEARNED

There is evidence that developing a sector wide approach to brand building and marketing, supported by strong policy and investment can address market demand problems. The success of marketing strategies adopted by the tourism sector, is demonstrated through examples such as the 'Incredible !ndia' Campaign initiated by the Ministry of Tourism, in partnership with businesses and the private sector. The Campaign has been an exercise in international branding supported by intervention from every possible government sphere. It metamorphosed India into one of the top destinations of the world. For more than a decade, up until 2002, India's share of the world tourist traffic had remained static at about 0.38% (Kant 2009). With no common branding strategy or coordinated consumer oriented public relations strategy, there was a wide gap between potential and performance.

The Incredible India Campaign was launched during a time of severe crisis, as consumer demand for travel to India fell to a new low and the impact of terrorism reduced global travel. With 27 states and a diverse range of culture, religions and peoples, along with the experiences and destinations available in India creating a clear, unified and strong image of India was difficult (*ibid.*). The Incredible India Campaign creatively spun the heterogeneous nature of India into an attraction and turned the contrasts that exist; the old and new, east and west, urban and rural, into a strong selling point. Images of the tourism wealth, as well as the country's culture, spiritual and intellectual power have been effective in distinguishing the Indian tourism experience from those available in the rest of the world. Indian tourism grew by 25% in volume (tourist arrivals) and 36% in value (in US$ terms) in 2004-2005. According to the latest statistics released by the Government of India, tourism revenues are expected to rise by 42% from 2007 to 2017.

In developing a brand identity for the Indian crafts sector, one could also look to the strategies used by the' Made in Italy' campaign, run by the Istituto nazionale per il Commercio Estero (ICE) or the Italian Institute for Foreign Trade a public, non-profit and independent government agency under the supervision

of Italian Ministry of Productive Activities, Foreign Trade Department. The 'Made in Italy' concept is to construct an image of Italian products and Italy in general, as synonymous with quality and style. It serves as a brand building segment for the economy as a whole; the scope is broad, encompassing travel, fashion, food, sport, art, wine, manufacturing, accessories and interior decor. According to recent figures published by the ICE, their 'Made in Italy Private Label' products, available in supermarkets, continues to gain ground and reached a 13% quota of the total value of sales in consumer products, with figures fluctuating between 7.5 and 8 billion Euros.

In partnership with the private sector, the ICE promotes Italian style and living internationally through a large network of 111 offices in over 83 countries. They organise regular, institutional, artistic, social and commercial events aimed at industry professionals, trade press and end consumers. ICE participates in international trade fair exhibitions and host seminars and workshops on an ongoing basis during these times. These events are enabled through public funding and co-financing from enterprises and other entities. The ICE keeps their brand fresh and alive with new marketing campaigns that reinforce 'Made in Italy' as a premium and exclusive brand.

The latest campaign features the iconic Italian born actress, model and author, Isabella Rossellini who has been appointed as the external representative and figure head of the brand. As Italian Trade Commissioner and Executive Director for USA, Aniello Musella muses, 'Isabella Rossellini's beauty, intelligence and personal commitment to artistic culture personifies the values of the Made in Italy campaign.' The ICE also gains leverage from Rossellini's celebrity, as the 'face' of luxury brands. Most famous for the international cosmetic brand, Lancôme, whom she represented for over a decade, she is already perceived to personify certain values that the brand is promoting: elegance, style and exclusivity. An effective brand ambassador, Rossellini creates the right symbolic qualities and illusion around 'Made in Italy' to add value to a range of Italian products.

CRAFTMARK - HANDMADE IN INDIA

Strengthening the appeal of handicrafts and penetrating new markets also requires a strong policy backed by government, in addition to the work of small and medium enterprises, self help groups, non government organisations and businesses. Developing a global brand that differentiates and distinguishes Indian handicrafts from those available in other parts of the world has been proven to build international recognition and greater equity in trade and target markets. Within the sector, an effort to develop a pan Indian mark for Indian handicrafts has begun with the Craftmark initiative, that was conceptualised to create a distinct market identity for Indian handicrafts and highlight the craft worker's unique skills as well as the unique characteristics of a craft product. Craftmark is an effort by the AIACA to counter the impact of fake handicrafts in the market by denoting genuine Indian handicrafts and developing sector wide minimum standards and norms for labelling a product as a handicraft. Events such as the 2008 exhibition 'Authenticity' held at the Indian International Centre in New Delhi raises awareness about the difference between real and imitation handicrafts.

Under this initiative, AIACA licenses the Craftmark logo for use by craft based businesses, cooperatives and NGOs for use on product tickets and labels. AIACA has already signed up various market leaders and leading craft support organisations to carry the mark and to support the process of publicising and raising consumer awareness. Organisations that are using the mark include Anokhi, Sandur Kushalakala Kendra, Kala Raksha, Avani, The Kishkinda Trust and Fabindia and the mark appears in their shops on genuine handmade products. There is potential for Craftmark - Handmade in India to be leveraged into a global brand, conceptually similar to Made in Italy but denoting the attributes that make Indian handicrafts unique. AIACA is currently working towards building the Craftmark into a strong brand through in-store displays and posters, catalogues and direct mailing to consumers. It is also tying up with international craft support organisations to publicise the Craftmark in other countries. Promotional efforts include a website that consumers can use to look up information on retailers, craft producers and craft support organisations that carry the mark. The website also gives wholesalers and customers the ability to look up detailed information on the craft genres of products that are being sold carrying the Craftmark logo. An online social media communication strategy was recently launched to increase visibility amongst consumers around the world, on the internet.

Craftmark - Handmade in India, with ongoing endorsement from private business and support from government, can reach more consumers and create a definable profile that adds real value to Indian handicrafts in a way that makes them distinct from other handmade products available in the global market. This exercise in branding makes reference to the whole of the diverse and large multi product sector; sub sector branding can also be initiated, once an overarching brand that establishes a clear and precise identity for handicrafts, as a whole, is consolidated.

CONCLUSION

The power of Indian artisans to benefit from market action lies in their ability to participate in markets where they can take advantage of commercial opportunities. The potential benefits of new international markets have to date had little impact in real terms of economic growth for artisans, who remain amongst the lowest socio-economic group in the country. Van de Berg, Boomsma and Cucco (2009) point out that for markets to contribute to pro poor growth they must increase the total amount and value of products that the poor sell in the value chain. They argue, 'In providing the structures and processes for production and consumption in a society, markets lie at the heart of economic growth and poverty reduction. But in reality, poor people tend to have little access to the opportunities that markets make available.' State support and an investment in marketing are urgently required and should be a priority amongst policy makers. With an estimated 12.5 million people employed in the sector, it must be ensured that the rapidly evolving and integrating global trade and financial systems work better for the benefit of artisans and enterprises. The barriers to economic participation can be removed through brand building and investment in marketing.

Bibliographic References

- Chatterjee, Ashoke 2007, *The Indian Craft: Sunrise or Sunset in a Global Market*, Craft Revival Trust, New Delhi, India.
- Jaitly, Jaya 2005, 'Craft as Industry', *Seminar: The Monthly Symposium*, New Delhi, India
- Kant, Amitabh 2009, *Branding India –An Incredible Story*, Harper Collins, India.
- Tyabji, Laila 2003, 'Tradition and Transition: A Crafted Solution to Development', *Price Claus Journal*, Amsterdam, The Netherlands.
- Van de Berg, M, Boomsma, M & Cucco, I 2009, *Making Value Chains work better for the Poor: a toolbook for Practitioners of Value Chain analysis*, Making Markets Work for the Poor, Asian Development Bank, Vietnam.

Redefining Craft

New Meanings for Craft

ARVIND LODAYA

ABSTRACT

The crisis of traditional craft can be seen as a crisis of value, to be understood in three ways: everyday utility, cultural memory and meaning. This article attempts to elaborate the issue of meaning, through a combination of empirical observations and emerging perspectives from science and the arts and conclude with broad strategies. First, the article tries to distinguish between the specialness found in crafted objects and the kind found in industrially manufactured objects. This is attributed to the embodied nature of expertise possessed by the artisan, which is beyond verbal or rational logic. Next, selected readings are drawn upon to explore and establish the meaningfulness of the order of things in general and craft objects in particular. The spiritual, the hand shaped materiality and playfulness and the symbolic or ritual are identified as unique forms of specialness embodied in the craft object. The question of whether there can be universal meaning or value across contexts and cultures is discussed next, followed by the changing loci of meaning in a non local age. However, the persistence of meaning making and the value of physicality or fluency, immediacy or innocence and narratives of humanity are proposed as contemporary and relevant and uniquely available to crafted objects, even if they surrender some of their other traditional attributes or purity. Two recent cases from India illustrate this position.

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INTRODUCTION

Continuation, preservation and transformation are three approaches that may be used to address the crisis of traditional craft, seen as a crisis of value. While continuation is posited as the opportunity to retain its traditional positioning and value amidst competition from industrial goods, preservation is posited as a response to its certain demise, to be undertaken by external agencies for the sake of posterity. The third perspective, that of the transformation of craft, implies its changing, adapting, modifying in order to retain its value in the present and future, but without losing what one might call its essence.

THE ARTISAN'S EXPERTISE

What makes craft objects special is their very 'specialness', as opposed to the 'generic-ness' of the mass-produced object. The 'specialness' of craft objects, sensed by a lay person just as easily as by a connoisseur, operates in an entirely different manner than that afforded by exquisitely designed mass-produced objects like the Apple iPhone or BMW cars. Mass-produced objects empower us, gratify us, boost our esteem and accord us identity, but craft objects touch and move us in a profoundly tactile yet humane way. This is the expertise of the artisan, a very special and rare kind of expertise. Although machine production and industrial design have sought to capture and attune this very specialness to the mass-production paradigm, what they have achieved is qualitatively very different.

The artisan's expertise imparts this unique kind of specialness to the crafted object and the imperfection of the masterful hand and the investiture of human effort and time are integral to this. It is rare because it seems to reside in an embodied form within the artisan's being as it were, a form of fluency and being that is neither common, nor privileged in present-day culture or economy. Often, it cannot be verbalised and when manifested at its most exquisite, any attempt to comprehend it seems beyond language but well within our scope of experience and embodied understanding. The following passage extolling the specialness of a *lota* (Eames 1958) attempts to catalogue this richness:

> The optimum amount of liquid to be fetched, carried, poured and stored in a prescribed set of circumstances.
> The size and strength and gender of the hands (if hands) that would manipulate it.
> The way it is to be transported - head, hip, hand, basket or cart.
> The balance, the centre of gravity, when empty, when full, its balance when rotated for pouring.
> The fluid dynamics of the problem not only when pouring but when filling and cleaning, and under the complicated motions of head carrying - slow and fast.
> Its sculpture as it fits the palm of the hand, the curve of the hip.
> Its sculpture as compliment to the rhythmic motion of walking or a static post at the well.
> The relation of opening to volume in terms of storage uses - and objects other than liquid.
> The size of the opening and inner contour in terms of cleaning.
> The texture inside and out in terms of cleaning and feeling.
> Heat transfer - can it be grasped if the liquid is hot?
> How pleasant does it feel, eyes closed, eyes open?
> How pleasant does it sound, when it strikes another vessel, is set down on ground or stone, empty or full or being poured into?
> What is the possible material?
> What is its cost in terms of working?
> What is its cost in terms of ultimate service?
> What kind of an investment does the material provide as product, as salvage?
> How will the material affect the contents, etc., etc.?
> How will it look as the sun reflects off its surface?
> How does it feel to possess it, to sell it, to give it?

The artisan is a poet without words, who materialises poetry in the form of artefacts through mastery of technique and embodied wisdom. This is not to say that every artisan and every craft artefact possesses this specialness, but only to establish and explore the qualitative difference between the mass-produced object and the crafted artefact.

THE MEANING OF THINGS

Fortunately, new studies that explore the relationship between human beings and objects outside the box of legacy disciplines and mindsets are now emerging. It has been asserted that although depth psychologists and sociologists have thrown useful light on this subject, this should 'not disguise the fact that human interaction with things is much more complex and flexible' (Csíkszentmihályi & Halton 1981). Importantly, they include manifesting skills as one of the three ways that things empower us, apart from embodying our goals and shaping our identities. They list not two but

three centres that motivate how things bear or embody meaning for us: the personal, the social and the cosmic. 'The objects that people use… appear to be signs on a blueprint that represent the relation of man to himself, to his fellows, and to the universe.' Further, they suggest a broad distinction of everyday objects in terms of objects for action and objects for contemplation, before concluding with the optimism that our capacity to reinvent and redirect meaning may be the best way to check and reverse the dominant paradigm of unrestrained materialism guiding our actions and aspirations, which has triggered the environmental crisis in the first place.

The ethologist Ellen Dissanayake cites art, ritual and play as all part of our tendency towards 'making special' or 'elaboration', as dance is from walking and song is from speaking. She challenges the notion that art is purely cultural and argues that it also stems from our evolutionary biology, since it is universal, innate and ancient and affords us intrinsic pleasure and since it is one of the human impulses and activities that endures and continues to flourish over thousands of years of evolution. Citing this, Bruce Metcalf (Dormer 1997) suggests that art has ceded to verbal and logical cognition and has delinked itself from pure skill and materiality, while craft continues to respond to and operate within these values. He then cites Howard Gardiner's theory of multiple intelligences, one of which is bodily-kinaesthetic, to substantiate his position that craft is, validly and unapologetically, about the hand's mastery and manipulation of the medium. He ends with a critique of western culture's inordinate privileging of the rational and verbal forms of cognition and intelligences and the marginalisation of the body and its intelligence. Metcalf exemplifies the distinction between the many forms of contemporary craft that are emerging in the west and what one might call the enduring values of traditional craft, even if contemporised in form or material. Craft remains essentially innocent, naïve, playful; the moment it becomes ironic, critical or self reflexive, it migrates towards the cognitive logic of the contemporary fine arts. Magritte's pipe itself was craft (assuming it was handcrafted); the painting, contemporary art.

When industrial goods began to successfully compete with and substitute craft products, the value and role of craft began to shift. Many craft traditions were eliminated, others managed to survive on market terms of cost advantage or ease of availability, usually by diminishing their labour or skill input, turning into commodities. Typically, those crafts that persisted without dilution of their original form did so due to the persistence of a strong social custom or ritual value (Ewins 1980). In other words, their meaningfulness remained intact because their consumer community retained their cultural beliefs, values and practices. Interestingly, many craft forms that managed to adapt or contemporise successfully seem to have retained some essential symbolic or narrative trace that has resulted in providing their consumers with a sense of integrity, authenticity and identity, a connection with the big picture.

From the above, we obtain two leads on the enduring (and hence sustainable) meaningfulness of craft objects; first, as embodying mastery and materiality and the second, as important symbolic or iconic accessories in the imaginary of the cosmos. The first is unconstrained by culture; the second is subsumed by it.

DOES MEANING TRAVEL ACCROSS CULTURES

One of the crises of traditional craft today is the shift of its consumer base from the local, familiar and homogenous to a global, unfamiliar and relatively eclectic one. This is not just a massive shift, it is a paradigm shift. So what has happened to meaning in this context? Looking at the two leads from above, we can immediately see that the mastery/materiality embodiment has what one might term universal appeal and meaningfulness. Of course there would be an additional cultural context at the place of its origin, but even without that, it would still remain a powerful artefact, appealing to our fine motor or bodily kinaesthetic intelligence. This would be much the same way as watching a great gymnast perform would take our breath away, regardless of the context of our origin or culture.

The second possibility, whilst seeming severely restricted to tight cultural groups, does not necessarily become irrelevant. Firstly, we have entered an era of cultural consumption, in the form of tourism, where not only do millions of people engage with distant cultures in order to experience life from a different perspective, they simultaneously also discover some of the similarities inherent. Secondly, we have entered an era of loss of meaning, which is ironically in part due to increased interchange, mobility and globalisation, in other words, the loss of locality.

Jean Baudrillard (1968) proposed an important modification to Marx's theory of the commodity, by adding the concept of 'sign-value' in addition to those of 'use-value' and 'exchange-value' proposed earlier. He argued that in the post capitalist era, managing consumption became the topmost priority of the state and corporations and this was achieved by a shift to style, prestige, luxury, power and other such symbolic and intangible attributes of products, rather than mere utility or exchange. Even as he confirms our suspicion by declaring that everything has now been reduced to a sign, he also points us to what is happening with craft products, their utility and exchange value rendered irrelevant, their primary value is overwhelmingly symbolic, as we saw above.

Baudrillard declares that in a market society, everything is up for sale and alienation is total. He uses alienation in its original 'sale' meaning, but also leaves an opening for us to interpret it as the loss of authenticity and meaning. He calls this 'the end of transcendence', where we are no longer in touch with our own real needs. Substitute 'embodied' for 'real' and perhaps this is the anchor we are seeking for craft, regardless of who we are and where we are.

MEANING IN THE INTERNET AGE

The internet age could be characterised as ushering in the collapse of space and time, where everywhere is 'here' and everything is 'instant'. In such conditions, the externalities of life begin to diminish in significance and our internalities become the dominant lens through which to comprehend and negotiate with the world, 'reality' is not what it used to be. Our past experience of the world and the mental models and the rules we derived from it cease to apply or be relevant and in the absence of a coherent and consistent new explanation or maybe, the instant availability of any number of explanations to suit our mood or wish, meaning has become ephemeral.

Or has it? After all, ephemeral is a relative term, relative to something else that we hold as fixed. But can meaning ever be fixed? Meaning is a dynamic matrix of connections, beliefs and explanations that serves us to hold and fashion our selves through accumulation of experience. This means that even with the 'collapse of the grand narrative' (Lyotard 1979), we continue to assimilate and nurture the meaning that we need or perhaps that we compulsively seek, using all our senses and deploying all our intelligences.

There is no doubt that the dominance of the textual and visual has only multiplied in the internet era. However, corollary to that, one also notices the increasing concern and activism around physical well-being. The variety of activity/therapy options now available at our doorsteps from around the world is truly impressive, almost in direct proportion to the increase in levels of physical ease and comfort that also are becoming available. In other words, physical activity is now a self-conscious act of consumption and choice, which we indulge in not because we have to, but because of its perceived benefits, not all of which are purely physical. This returns us to Baudrillard, who alerts us of the death of reality as it used to be and the complete domination of the symbolic. The construction of reality or meaning is increasingly a designed, individualised and deliberate activity; not a default, universal and unconscious one. Yet all is not quite lost, as evoked in this passage (McCullough 1996):

> (The) attuned craftsman asks, "What can this medium do?" as much as "What do I wish to do with this medium?" It matters that one works in a medium whose properties suit one's purposes: sometimes a more forgiving medium; sometimes a more rewarding medium; occasionally rigor for rigor's sake; but always a medium whose intrinsic advantages are appropriate to the task at hand. An experienced craftsman knows how to choose the right medium and to push it as far as it will go-and no further.

The optimism is based on our instantly being able to relate with this master-medium dialogue in material and physical embodiment, being able to spot it and sense its immense poetic, aesthetic and spiritual value to us personally. In addition (perhaps this needs more research to substantiate it), the infrequency with which we come across objects made by the human hand might in itself be meaningful in these times. With such objects comes a sense of people, places, contexts, differences and similarities; stories and narratives that connect us with our larger family in a variety of ways, something no machine-made object can do.

TERRITORY OF CRAFT

How does traditional craft need to transform itself in order to remain valuable in our times? From the above, it becomes clearer and clearer that it must do so using one or both of these two strategies: manifest fluency and materialise poetry as an end in itself or become a symbolic asset to help us make meaning of life and the cosmos. It may, of course, also compete with the

industrial object in bestowing us with utility, power and prestige, but it doesn't have to take that route without exception. In doing so, it can and must invoke all that it encompasses: history, technique, aesthetics, geography and more. What the industrial object can achieve only at great cost and risk, the craft object is already endowed with; poetry and a rich, credible story, enabled primarily by virtue of its being produced by the human hand and produced as well as consumed in the human context. It's a compelling division of roles, affordances and value.

Wissner and Walker (1994), arguing for a new design paradigm that incorporates authenticity and sustainability, offer a hybrid approach that combines local and global, mass-produced and handmade materials, components and technologies so as to privilege meaningfulness and sustainability while remaining competitive and profitable. Walker (2008) proposes an approach to reuse extant, low value, discarded objects and repurposing them to new and unique value offerings. Craft can adopt this process and enhance qualitative value. Although these may dismay conservationists and purists, they are creative ideas where craft can appropriate industry in order to strengthen itself, rather than the more commonplace reverse process, without surrendering its specialness. These also allow for a development of stronger bonds between the classical, pure, traditional craft practices and the messier, hybrid, ephemeral 'informal sector' practices that thrive on *jugaad*, the now celebrated art/craft of make-do innovation at the fringes of legitimacy and survival.

CASE STUDY: UPASANA

The Upasana Design Studio in Auroville, India, has emerged as a hub of innovative and visionary initiatives that illustrate future directions for traditional craft. Its most well-known initiative is the 'tsunamika' rag dolls that were devised as a way to provide livelihood to women from the 2004 tsunami affected regions of Tamil Nadu in southern India. To quote from the website of Upasana <http://www.upasana.in/tsunamika>:

> The project started as a trauma counselling effort for the fisherwomen in February 2005. Like all other projects of Upasana, Tsunamika took to a life of joy. The raw material came from industrial waste and 500 women were taught to make the dolls. Consequently, 200 women took it up for their livelihood. Between February and May of 2005, through 23 training modules 474 women from 6 tsunami-affected villages of coastal Tamil Nadu (India) were trained to create the dolls, 18 leaders emerged who became future trainers for the same program.
>
> Following a "Gift Economy" Tsunamikas have never been bought or sold. They are shared, unconditionally; they are gifts of love and friendship. The whole project runs on donations, whole-hearted outpourings as Upasana has experienced.

Its other notable project is 'Varanasi Weavers', which involved reviving the exquisite traditional weaving craft of Varanasi by finding new markets and new products. To quote from the Upasana website <http://www.upasana.in/varanasi-weavers>:

> Varanasi weavers take pride in weaving sarees, spun from special silk yarn, with specialized designs, motifs and scenes from the rich culture of India. The saree is the attire of the woman of India, since ancient times. Modern tastes, changed work culture, environmental degradation damaging silkworm farms, very high costs of production per piece nichéd the banarasi saree into an elite possession while viciously spiralling it out into the periphery of the ordinary Indian woman's wardrobe. It is now only worn on special occasions and only the economically well off can afford it. Mushrooming of cheaper imitations of the same saree has only added to the woes of the weaving community.
>
> The project began with creating a "corporate gift" for Best Seller Company, based in Denmark, with branches in 40 countries, and one of the largest family-owned cloth companies in North Europe. The immediate need of the weavers: to make a living was met; 13000 banarasi silk scarves were made as New Year gifts in 2006!
>
> …This project matured into a fully fledged process for Social Development of the weaving community in Varanasi in 2007. Work has been multi-lateral, with each step very basic but laying a strong foundation; there is neither time nor room for reversals.
>
> Immersed in self-reflection and dignity the weavers now say: "We need to adapt to a new way of thinking. The world is changing fast, and we need to keep up with the demands of modern life".

These two projects, modestly successful by global standards, illustrate two approaches in two very different contexts: devising handcrafted products

invested with a powerful narrative and alternative transactional system and giving new purpose to traditional skill for developing contemporary products, building upon the layers of tradition and meaning.

CASE STUDY: THUNK IN INDIA

'Thunk In India' is an initiative that involves developing contemporary products from urban and industrial waste that is reworked by artisans into stylish lifestyle accessories. Their inaugural product range uses recycled plastic milk bags, tetra pack cartons and plastic foil packaging in innovative ways, where the original graphics recombine in ever new and visually interesting ways to produce new patterns. Although the products do not embody any great skill or fluency, nor do they bear any symbolic clues to our cosmic understanding, their ironic idealism and *jugaad* quality nevertheless does capture emergent meanings that seem relevant in the post-industrial age. It is certainly evident that with a greater degree of artistry, these products can certainly acquire the blend of craft value and design utility that Walker talks about. To quote from the website <http://www.thunkinindia.com/aboutus.htm>:

> We focus on creating quality products that completely 'trash' the notions of garbage and instead provide utility centered durable products that we believe can easily replace anything you buy in style, design, function and life! We intend to compete with existing products (that use new resources) in terms of form, function, design and cost. We basically reuse and thereby upcycle, following a cradle to cradle design approach.

CONCLUSION: CRAFT IN THE POST-INDUSTRIAL AGE

It is now amply clear that a huge chunk of traditional craft will have to adapt and reinvent itself for our time and the times to come. While some of it will slide down the value chain in order to compete on price alone, there are strategies by which all of it need not suffer this fate, or worse. The human condition in the globalised, post-industrial, internet era is turning back towards bodily wisdom and spirituality and tradition is no longer regarded as dead and buried. In this context, craft can build on its unique qualities and capabilities of sensual hand fluency and deep symbolic meaning and stand up successfully against the prosaic and powerful appeal of the industrial object. Even as industry moves towards 'mass customisation', it cannot match the specialness of the handcrafted product. As Risatti (2007) says:

> The rewards of (machine production) have been many, including an increase in the material standards of living. But in the process of gaining these rewards, we have lost something of our sense of scale and propriety of things in our world and of things in nature; this has transformed both our conception of and our connection to nature and to man-made things as well. Renewing our understanding of what craft objects are and how important they are to our sense of our humanity is one way to reconceptualise our existence in the world of both nature and culture.

Bibliographic References

- Baudrillard, Jean 2005 (originally published 1968), *The System of Objects,* Verso, London.
- Csíkszentmihályi, Mihaly and Rochberg-Halton, Eugene 1981, *The Meaning of Things,* Cambridge University Press, Cambridge.
- Dormer, Peter (Ed.) 1997, *The Culture of Craft,* Manchester University Press, Manchester
- Eames, Charles and Ray 1957, *The India Report,* NID, Ahmedabad.
- Ewins, Roderick 1980, 'Traditional Craft in Developing Countries: Living Fossil or Living Art?', *from the First South Pacific Arts Conference Report*, Fiji Ministry of Education, Suva.
- Lyotard, Jean-François 1993 (originally published 1979), *The Postmodern Condition: A Report on Knowledge,* University of Minnesota Press, Minneapolis.
- McCullough, Malcolm 1996, *Abstracting Craft: The Practiced Digital Hand,* MIT Press, Cambridge.
- Risatti, Howard Anthony 2007, *A theory of craft: function and aesthetic,* University of North Carolina Press, Chapel Hill.
- ThunkinIndia 2009, viewed July 17, 2009, <http://www.thunkinindia.com>.
- Upasana 2009, Upasana, Auroville, Tamil Nadu, viewed July 17, 2009, <www.upasana.in>.
- Walker, Stuart 2008, 'Extant objects: designing things as they are', *International Journal of Sustainable Design*, vol.1, no.1, Inderscience Publishers.
- Wissner, Hans & Walker, Stuart 2002, 'Authenticity, Sustainability and Design: Developing guidelines and product examples', *Index 2002 National Education Conference*, Industrial Designers Society of America

Rangolee

Traditional art form to teaching aid[1]

MADHURI BAPAT

ABSTRACT

Rangolee is an ancient tradition of floor decoration that is practised in many regions of India, with many variations in technique, material and style. Despite this apparent diversity, many rangolee designs are built on a basic rectangular or hexagonal array-dot matrix. Some designs are drawn by connecting dots in certain patterns while others comprise of lines drawn around the dots. A unique methodology for the analysis of rangolee patterns has been devised by categorising them according to their method of drawing and tracing similarities to mathematical models in the motifs produced. Also, an argument is presented, that although rangolee is primarily an art form, it presupposes and builds an ability to comprehend and imagine mathematical patterns. The argument is taken further with the recommendation for the inclusion of rangolee in school curricula as a means of transferring kinesthetic intelligence in children.

INTRODUCTION

The word rangolee may be traced to Marathi, the language spoken in the western Indian state of Maharashtra, literally translated as 'lines of colours'. Rangolee is the ancient art of ornamenting floors with

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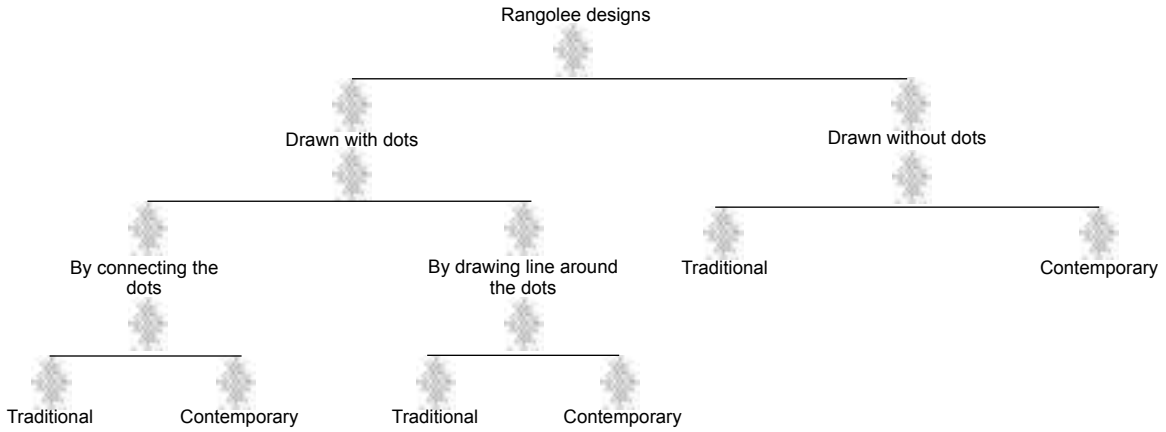
Categorisation of rangolee



intricately drawn patterns, practised, albeit with many variations in colour, medium, technique and design, in various parts of India. Rangolee may be made on floors or on open ground (usually the courtyard) as a daily ritual, to welcome guests, mark the advent of new seasons or to celebrate weddings and birthdays.

The word rangolee is also used to refer to the powder like substance that is used to draw the designs. The content of the powder used in the rangolee of different regions of India varies as does the intended symbolism of the material. In Southern India, rice is crushed into a fine powder and then used, apparently so that ants and other insects would find nourishment at the doorstep of the house. In Northern India, flint powder, which is believed to keep ants out of the house, is used. The pinch of powder, whether made from rice or flint, is held between the thumb and forefinger. By rolling the thumb on the finger, the powder is slowly released. The amount of powder and the manner in which it is released may be controlled so as to form dots or when the hand is fluidly moved, to allow the powder to fall in thin streams that may be used to draw continuous, fluid lines. The act of creating rangolee takes significant amount of hand and eye coordination. As no base drawing or ruler is used, the drawing of equidistant rectangular or isometric dots (hexagonal array) necessitates an understanding of spatial symmetry.

The modern concept of art is fairly recent. The terms for art, *tekhne* in Greek and *ars* in Latin do not specifically denote the 'fine arts' in the modern sense, but were applied to all kinds of human activities. In the modern sense, art is considered more of right brain creative activity. In rangolee there is a lot of repetition making it a left brain activity. Thus rangolee drawn with dots makes beautiful combination of left and right brain activities. One may call it constrained creativity.

Rangolee is known by different names in the various languages spoken in the many regions of the subcontinent where the art form is practised.[2] For instance, it is known as *alpana* in Bengal, *aripana* in Bihar, *madana* in Rajasthan, *sathia* in Gujarat, rangolee in Maharashtra, *chowkpurana* in Uttar Pradesh and Kolam in Southern India.[3] Further, some

Coconut *Koyaree* *Bilva Patra* *Turtle* *Grape vine*

Source: Rangavali by Jayant Khare, Saraswati Granth Bhandar, Pune, India.

designs have different names in different parts of India. For example, the Koyaree is also known as the Parijat creeper, the Nabhi Kamal is also known as the mango leaf, the Gyan Kamal is also called the Hradaya (heart) Kamal and the grape vine is called 'Krishna's anklet' in Tamil Nadu.[4]

CATEGORISATION OF RANGOLEE

Rangolee designs can be categorised in two ways, according to the drawing technique and the nature and history of the patterns drawn.

According to drawing technique

The rangolee designs can be divided broadly into the following categories according to the drawing method employed in their creation:

- Dots drawn in a specific pattern, either rectangular or isometric and then connected in a certain order to form geometrical shapes, patterns or natural objects such as fruits, leaves, flowers, animals or birds.
- Dots drawn in a certain pattern and curves drawn around them to form geometrical patterns or natural objects. This technique is characteristic of the South Indian Kolam.
- Freehand drawings made of geometrical shapes (circular forms more common, but square and triangular forms also found), natural objects or even scenes depicting historic events, episodes from various epics or the Puranas. This group includes symmetrical canopies drawn freehand around dinner plates or around the wooden board that is offered as a seat to a guest, newlyweds or a new mother.

According to design drawn

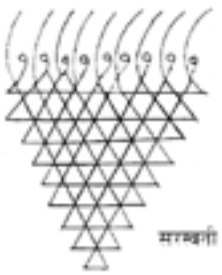
Rangolee can be categorised as per the nature and history of the designs created that is, as either traditional or contemporary. The traditional, religious designs include:

- the coconut (a form that has a special significance in the Indian culture as every part of a coconut tree can be used for many purposes)
- the Koyaree (representing the mango seed)
- the Bilve Patra (a leaf that is said to be favoured by the Lord Shiva; also known as Rutaceae or Aegle Marmlos Correa)
- the turtle (representing the second of the ten reincarnations or *avatar*s of Lord Vishnu)
- the grape vine
- Saraswati (Goddess of knowledge)
- the Gyan Kamal (the lotus of knowledge; it is said that one's knowledge should be as pure and unbiased as the lotus which despite growing in a stagnant mire is detached from it)
- the Nabhi Kamal (representing the lotus which, according to the creation myth narrated in the Puranas, grew from Lord Vishnu's navel or nabhi and then became the seat of the creator, Lord Brahma)
- the Brahma Knot

The Koyaree, Bilve Patra, turtle, Saraswati, grape vine and the Nabhi Kamal are made by drawing rows and columns of dots and then connecting the dots in a prescribed pattern. The Gyan Kamal is drawn in a specific cyclic order. Some traditional designs are drawn as a part of a ritual to welcome the spring season and include freehand drawings of the sun, moon, Swastika, conch and the hoof prints of the sacred cow.

Contemporary designs are drawn either by dots or free hand. Dots are connected to form either natural objects like flowers, birds, animals, or geometrical shapes. The popularly used motifs include:

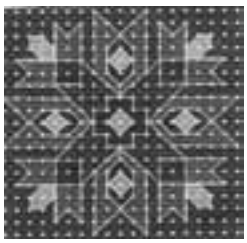
Brahma Knot
Source: Kamat's potpourri, <http://www.kamat.com/>



Saraswati
Source: Rangavali by Jayant Khare, Saraswati Granth Bhandar, Pune, India.

Nabhi Kamal
Source: Rangavali by Jayant Khare, Saraswati Granth Bhandar, Pune, India.

Gyan Kamal
Source: Rangavali by Jayant Khare, Saraswati Granth Bhandar, Pune, India.



Contemporary
Source: Jones 2003

Patterns drawn from sets of dots

Coconut *Hexagon* *Bilve Patra* *Grape vine*

- flowers like the rose, hibiscus, lotus
- birds such as the swan, parakeet and peacock
- animals such as the elephants, fish or deer.

MATHEMATICAL PATTERNS

Logic

Logic, derived from the classical Greek *euaio logos* (the word), is the study of patterns found in reasoning. Originally, logic was deemed to consist only of deductive reasoning, which concerns what follows necessarily from given premises. However sometimes, inductive reasoning implying the process of deriving a reliable generalisation from observations, has been included in the study of logic. Inductive validity requires defining a reliable generalisation of some set of observations. The task of providiang this definition may be approached in various ways, some less formal than others. Some of these definitions may use mathematical models of probability. It can be said, that inductive logic is a combination of a knowledge of patterns that includes mathematical (algebraic and geometrical) relationships between events or facts and the use of this knowledge to reason about the past, current facts or events and also to predict the future events. All of these components of inductive logic can be found in traditional rangolee designs. Further, several different mathematical models are visible in the rangolee designs, such as symmetry, fractals, golden pi spirals, mirror curves, cyclic orders, logarithmic curves and iterations.

Patterns

Drawing isometric dots, such that they are equidistantly placed and form a hexagonal array that can be reduced to one dot, is a very common technique in traditional rangolee designs. It is interesting to see how many different ways one can possibly use to draw patterns from a given set of dots. Four horizontal equidistant dots, reduced to one on both top and bottom, may be connected to form closed patterns. One may, for instance, create the basic pattern of the coconut with one small rhombus embedded in a big rhombus, such that all the dots are somehow connected to each other.

On drawing three horizontal equidistant dots and two on top and below, there are two ways to connect those. One is to make a flower and the other is to make a hexagon as in the Nabhi Kamal. Basic patterns such as the Bilve Patra are drawn by three horizontal equidistant dots reduced to one on both top and bottom ends. Another way to connect those is to make a rhombus out of that and then may be a rectangle in it. The basic pattern that is seen in the design of grape vine or Krishna's anklet is a type of Kolam design in which the line is drawn around the dots.

Symmetry

All rangolee designs show some type of symmetry. The coconut design is symmetrical about a vertical axis. The Bilva Patra and Kolam A are symmetrical about both the vertical and horizontal axis. The turtle and the grape vine are also symmetrical about these

Symmetries in the various patterns

Design/ symmetry	Reflective about X axis	Reflective about X axis	Rotational	Translational
Coconut	No	Yes	No	Yes in iterations
Bilve Patra	Yes	Yes	No	No
Nabhi Kamal	No	No	Yes, 6 fold	No
Koyaree	No	No	Yes, 2 fold	No
Saraswatee	No	No	No	No
Turtle	Yes	Yes	Yes, 6 fold	No
Grape vine	Yes	Yes	Yes, 4 fold	No
Vertical grape vine	Yes	Yes	Yes 2 fold	No
Brahma Knot	Yes	Yes	Yes, 2 fold	No
Bird (Kolam A)	Yes	Yes	Yes ,2 fold	No
Gyan Kamal	No	No	Yes, 8 fold	No

axes, as well as their bisectors. The Nabhi Kamal has a rotational symmetry of an order of six. The Koyaree has a rotational symmetry of the order of two and the Gyan Kamal has rotational symmetry of the order of eight. On the other hand, the Saraswati is an asymmetrical pattern due to its tentacles. Most other designs have reflective and rotational symmetries.

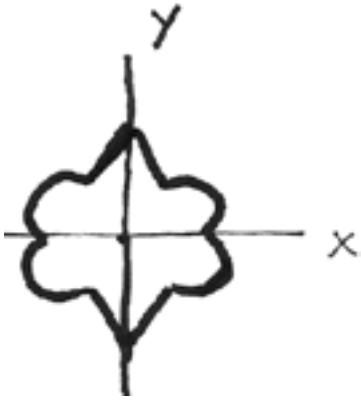
Fractals

About 30 years ago, mathematicians discovered the pattern called a Sierpinski gasket. Fractals always have existed in nature. A small duplication of an original pattern is the nature of this pattern. Fractal shapes have the property of self-similarity, in which a small part of an object resembles the whole object, for instance in a cauliflower (Zanoni 2002) and a fern leaf. This pattern is apparent in the rangolee design called the grape vine. The only difference is that in fractals, the distance between the points that make the growth occur reduces with each new growth. In the grape vine it stays the same. The grape vine design with reduced distance for new growth is also drawn for illustration purposes.

Golden pi spiral

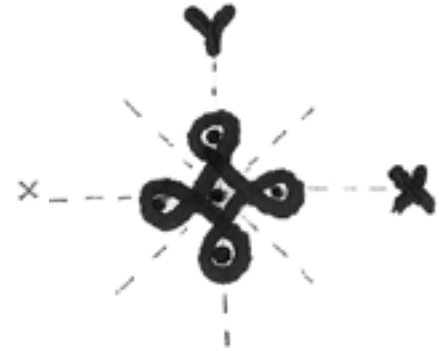
In the design referred to as Gyan Kamal, each dot is a part of two cycles, one clockwise and the other anticlockwise. The arrangement of seeds in the sunflower follows this pattern. There are 34 clockwise and 21 anticlockwise spirals. It is also apparent in daisies, pineapple and pine cones. The pine cone has eight anticlockwise and 13 clockwise spirals (Pratt 2006). Again, Fibonacci numbers are apparent in the number of spirals. This is apparent in the Gyan Kamal that has two clockwise and three anticlockwise spirals.

Symmetry in Coconut



Symmetry in Bilve Patra

Symmetry in Kolam A

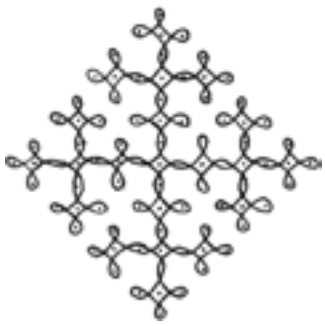


Symmetry in Grape vine

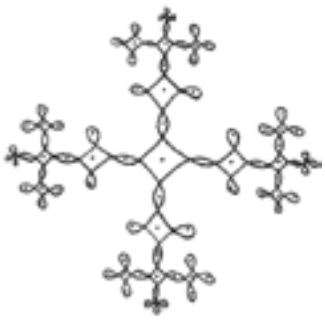
Sierpinski gasket. Source: Zanoni 2002

Cauliflower
Source: Zanoni 2002

Magnified view of cauliflower
Source: Zanoni 2002

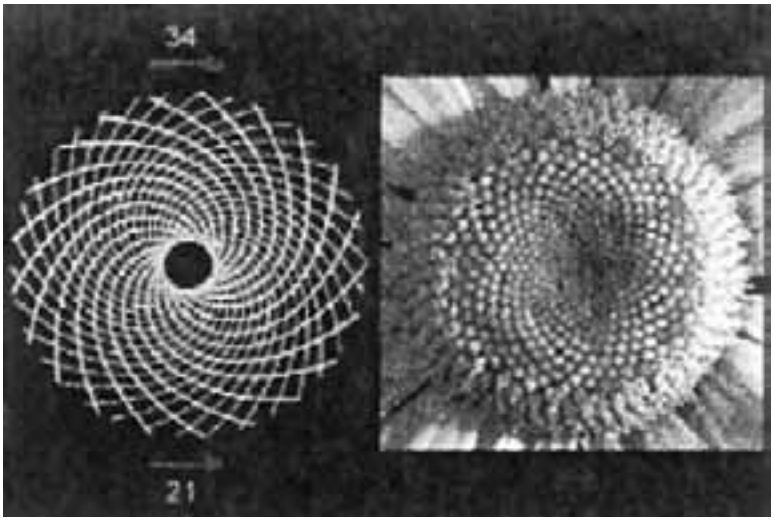


Grape vine with equal distances

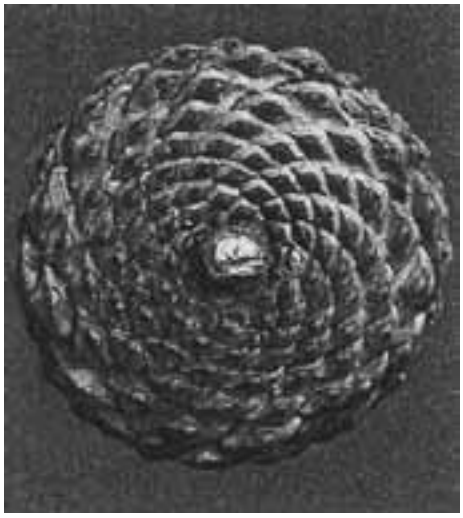


Grape vine with reducing distances

Clockwise spiral *Anticlockwise spiral*



Sunflower. Source: Pratt 2006



Pine cone. Source: Pratt 2006

Mirror curves

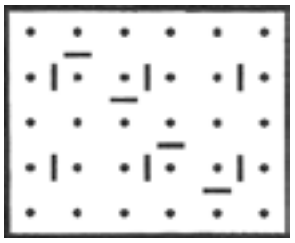
Gerdes (1999) has described some designs from Africa as m-canonic mirror curves. These designs are very similar to the Kolam from southern India in which the lines are examples of Eulerian paths (Eglash 1999). The design is completed by not lifting the pencil from the surface and no part of the line is retraced. Such designs may be termed mono-linear. Bi or tri linear variations may also be created using two or three Eulerian paths. There are three kinds of mirror curves: simple, regular and m-canonic. Simple curves are drawn in square or rectangle shape with equidistant dots in them. As if there are plane mirrors on the inside walls of the rectangle or square, the lines are drawn to follow a ray of light entering the rectangle at an angle of 45^{o} and then reflecting from those mirrors. Regular mirror curves are drawn in square or rectangle shape, as if in addition to the mirrors on the inside of the walls of rectangles, there are mirrors placed in the rectangles. These mirrors can reflect from both sides. There are two ways to place the mirrors, one is perpendicular to the line joining two dots, while the other is in between two dots, aligning these.

Cyclic order

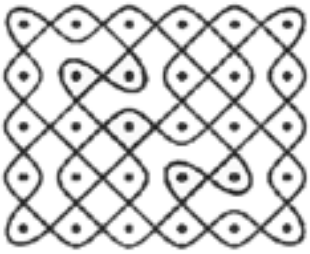
In the Gyan Kamal, dots can be connected in two ways to form opposite cyclic symmetry. The first is by joining 1 to 4; 2 to 5; to form two clockwise spirals and 3 to 1; 4 to 2; and 5 to 3 to form three anticlockwise spirals. This is a more common way of connecting dots. The second is by connecting 1 to 3; 2 to 4; 3 to 5, to produce three clockwise spirals and connecting 2 to 1 and 3 to 2 to produces two counter clockwise spirals. Siromoney (1978) describes the order to connect the dots continuously as (1, 3, 5, 2,4). The Gyan Kamal is completed on repeating this pattern eight times.

The Saraswati pattern can be drawn with one or more canes. The numbers marked on the canes should demonstrate the sequence of connecting them.

Simple
Source: Gerdes 1999

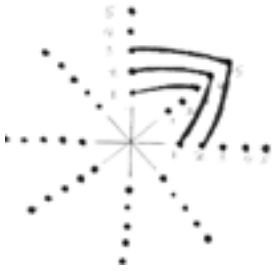


Mirrors perpendicular to dots. Source: Gerdes 1999



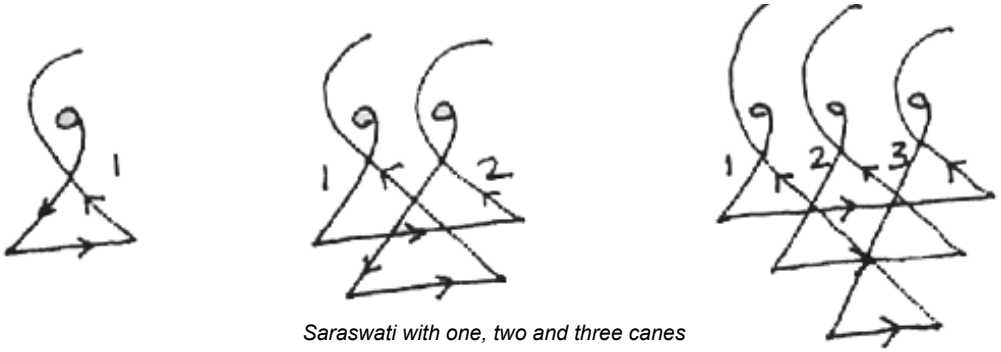
Corresponding Regular. Source: Gerdes 1999

Order 1



Order 2

Order 3. Source: Siromoney 1978



Saraswati with one, two and three canes

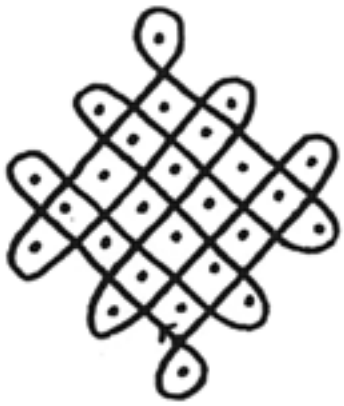
One cane connecting	order 1 to 1
Two canes	order 1 to 2, 2 to 1
Three canes	order 1 to 3, 2 to 2, 3 to 1
Four canes	order 1 to 4, 2 to 3, 3 to 2, 4 to 1
Five canes	order 1 to 5, 2 to 4, 3 to 3, 4 to 2, 5 to 1
N canes	order 1 to N, 2 to N-1, … N-1 to 2, N to 1

Kolam A and Brahma Knot have peculiar way of drawing hexagonal arrays. For Kolam A basic pattern is build upon five rows of dots with arrays (1,3,**2**,3,1). The next iteration has nine rows of dots with arrays (1,3,2,5,**4**,5,2,3,1) The second iteration has 13 rows of dots with arrays (1,3,2,5,4,7,**6**,7,4,5,2,3,1) and so on. For Brahma Knot, arrays are more complicated. Basic patterns has nine rows of dots with array (1,3,5,4,**7**,4,5,3,1). The next iteration has 17 rows of dots with array (1,3,5,4,7,4,9,8,**11**,8,9,4,7,4,5,3,1). Next one will have 25 rows of dots.

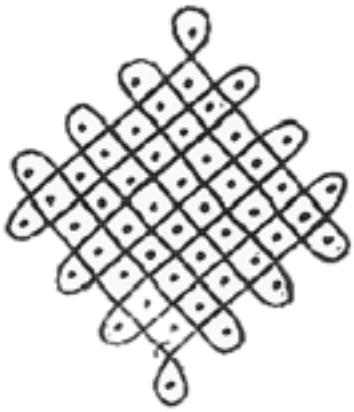
Iterations

Making larger, complex patterns out of basic pattern is an interesting and challenging activity. For example, to draw the basic pattern of coconut you draw an isometric pattern based on four horizontal equidistant dots. For the next iteration, the isometric is built upon eight dots. The next iteration is based upon twelve dots. One can write this in the form of a computer science style equation ($n_{i+1} = n_i + 4$). Such equations, similar to those used in computer programming, may be used for the replication of some the rangolee designs as shown in table on next page.

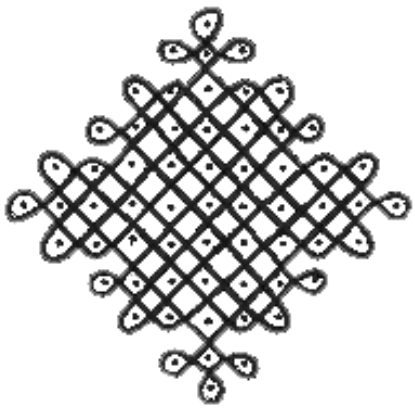
The coconut patterns in complex iterations are not connected to each other in any way whereas the Bilve Patra has either one or two points connected to the next pattern in the first as well as successive iterations.



First iteration. Source: Ethno Mathematics by Marcia Ascher



Second iteration. Source: Ethno Mathematics by Marcia Ascher



Brahma Knot First iteration Source: Joseph, Nelson and Williams 1993

Rangolee design	Equation	Number of dots to make bigger patterns	Replication by
Coconut	$n_{i+1} = n_i + 4$	n = 4, 8, 12, 16…	Distinct repetition
Turtle	$n_{i+1} = n_i + 3$	n = 5, 8 ,11,14…	Overlapping
Nabhi kamal	$n_{i+1} = n_i + 3$	n = 5, 8, 11,14,..	Overlapping
Bilve patra	$n_{i+1} = n_i + 6$	n = 7, 13,19,..	Overlapping
Koyaree	$n_{i+1} = n_i + 4$	n = 7, 11, 15, 19..	Overlapping
Grape Vine	$n_{i+1} = n_i + 8$	n = 7, 15, 23, 31…	Growth out of growth
Vertical grape vine	$n_{i+1} = n_{i+1} + 4$	n = 3, 7, 11, 15..	Overlapping
Brahma knot	$n_{i+1} = n_i + 4$	n = 7,11,15,19,…	Growth from center out
Kolam A	$n_{i+1} = n_i + 2$	n = 2,4,6,8,..	Growth from center out
Saraswati	$n_{i+1} = n_i + 1$	n = 2, 3,4,5,6….	Continuous repetition

All other patterns show overlapping of one or more lines or shapes in successive iterations. One also finds $(n+1)^2$ basic patterns in the n^{th} iteration of the coconut, turtle, Nabhi Kamal and Koyaree designs drawn with isometric (hexagonal arrays) dots.

The basic pattern of the koyaree is drawn by first drawing seven horizontal equidistant dots and a hexagonal array is drawn by reducing the dots to one on the top and bottom ends or (1,7,1) array. The first iteration starts with 11 dots while the second iteration of the Koyaree starts with 15 dots. There are four basic patterns in first iteration and nine in the second iteration. Iterations of the Gyan Kamal can be drawn two different ways. One is by changing number of dots and the other by changing number of arms.

Composite designs

One also finds combination of two basic patterns such as grape vine and Kolam A. This also depicts the fractals property. Vertical grape vine is not based on hexagonal array yet the iterations show the property of n^2 basic patterns in n^{th} iteration. Designs drawn with both connecting dots and drawing line around the dots are also found. Similarly composite designs with one basic pattern such as Nabhi Kamal embedded into turtle pattern are also found.

Three basic spirals

The three basic spirals, Archimedean, Logarithmic and Comu's, are seen in many cultures including African, Native American and Indo European. The symbol for the sun is drawn as a closed Archimedean spiral. The symbol for hoof prints of cow is drawn as combination of two logarithmic spirals. Both Comu's spiral and hoof prints of cow are seen as designs on fences or storm doors. Comu's spiral is seen as a decoration around the dinner plates or designs on doors.

Computer science

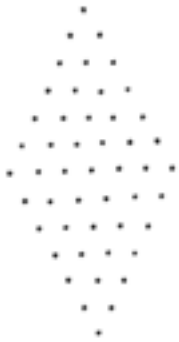
Siromoney (1978) from Christian College, Chennai, India and Ascher (2002) from Ithaca College in United States have studied extensively the logic and computer language hiding in the Gyan Kamal, the grape vine (Krishna's anklet), the Koyaree and other Kolam designs. Many more patterns were studied recently in analysis of other Kolam designs by various researchers (Kawai, Takhashi & Nagata 2007; Subramanian, Saravanan, & Robinson 2007).

Vertical grape vine

Vertical grape vine, first iterations

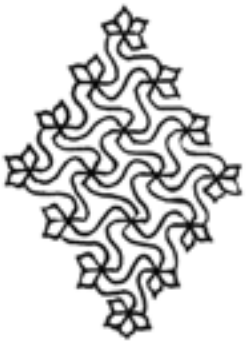
Second iteration

Source: Rangavali by Jayant Khare, Saraswati Granth Bhandar, Pune, India.

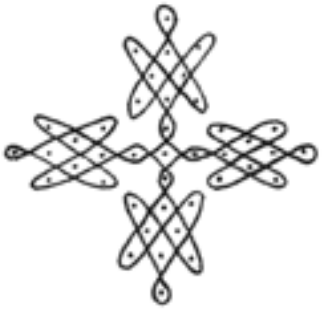


Hexagon with seven dots

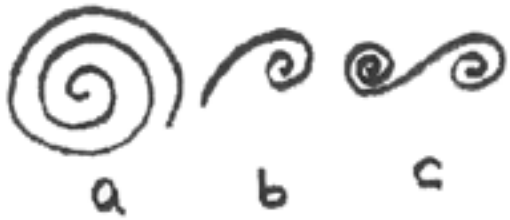
First iteration with N = 11



Second iteration with N = 15



Composite design



a Archimedean b. Logarithmic c. Comu's spirals
Source: Demaine et al. 2007

SIGNIFICANCE OF THIS RESEARCH

Through the first hand experience of teaching in schools in the United States, it was observed that while girl students in general showed apathy toward mathematics and science, those from South India had relative proficiency in maths. In addition to other factors such as the high value of education in Indian culture and its inclusion of grammar derived from Sanskrit which is mathematical in nature, it was discovered that they were all familiar with Kolam. After investigating the mathematical and scientific patterns involved in rangolee designs, it seems possible that the daily practice of making rangolee may help one's mind and brain in training it in logic, patterns and symmetry through the transfer of kinesthetic intelligence. Creating Kolam patterns is expected to be useful for activating or training the human brain (Kawai, Takhashi & Nagata 2007).

Could teaching children to draw these patterns in elementary schools increase their kinesthetic intelligence resulting in improving their performance in mathematics and science? One cannot stress enough the importance of the knowledge of symmetry and patterns in science education. Physics Nobel Laureate Leon Lederman (2004) has written a book especially for high school teachers in which he emphasises the importance of teaching symmetry in elementary schools. It is clearly stated by GV Joseph (Joseph, Nelson & Williams 1993) that practicing rangolee designs in schools can help children gain the knowledge of symmetry, patterns, equivalence and transformations. The wide use of teaching rangolee designs as a part of the school mathematics and art curriculum in the United States as well as other parts of the world is the only way to prove the hypotheses.

Bibliographic References

- Ascher, M 2002, 'The Kolam Tradition', *American Scientist*, vol. 90, no. 1, p. 56.
- Demaine, ED, Demaine, ML, Taslakian, P & Toussaint, GT 2007, 'Sand drawings and Gaussian Graphs', *Journal of Mathematics and the Arts*, vol. 1, issue 2, pp. 125-132.
- Eglash, R 1999, *African Fractals: Modern Computing and Indigenous Design*, Rutgers University Press, New Brunswick, New Jersey.
- Gerdes, P 1999, *Geometry from Africa: Mathematical and Educational Explorations*, Mathematical Association of America, Washington, DC.
- Ishimoto, Y 2007, 'Solving Infinite Kolam in Knot Theory', *Forma*, vol.22, no. 1, pp. 15-30.
- Jones, KC 2003, *Rangoli*, Tap Dancing Lizard, Ohio.
- Joseph, GV, Nelson, D & Williams, J 1993, *Multicultural Mathematics*, Oxford University Press, Oxford, pp. 1-24, 143-174.
- Kawai, Y, Takhashi, K & Nagata, S 2007, 'PsyKolo3D-Interactive Computer Graphical Content of "Kolam" Design Blocks', *Forma*, vol. 22, no. 1, pp.113-118.
- Lederman, LM & Hill, CT 2004, *Symmetry and Beautiful Universe*, Prometheus Books, New York.
- Pratt, D 2006, *Patterns in Nature*, viewed September 2009, <http://davidpratt.info/pattern1.htm>.
- Robinson, T 2007, 'Extended Pasting Scheme for Kolam Pattern Generation', *Forma*, vol.22, no. 1, pp. 55-64.
- Siromoney, G 1978, 'South Indian kolam patterns', *Kalakshetra Quarterly*, vol.1, no. 1, pp. 9-14, viewed on September 24, 2007, <http://www.cmi.ac.in/gift/Kolam/kola_pattern.htm>.
- Subramanian, KG, Saravanan, R & Robinson, T 2007, 'P systems for Array Generation and Application to Kolam Patterns', *Forma*, vol. 22, no. 1, pp. 47-54.
- Wikimedia Foundation 2005, *Rangoli*, Wikipedia, viewed on October 15, 2005, <http://en.wikipedia.org/wiki/Rangoli>.
- Yangisawa, K & Nagata, S 2007, 'Fundamental Study on Design System of Kolam Pattern', *Forma*, vol.22, no. 1, pp. 31-46.
- Zanoni, M 2002, 'Measurement of a fractal dimension of a cauliflower', *The Physics Teacher*, American Association of Physics Teachers, vol. 40, no. 1, pp.18-20.

Notes

1 This article was originally published in condensed form as Bapat, M 2008, 'Mathematics in the Rangolee of India', *proceedings of conference on Mathematical Art,* The Bridges Organisation, Leeuwarden, Netherland, pp. 429-432.

2 Designs from North India are not discussed in this paper.

3 Refer to Wikipedia 2005 <http://en.wikipedia.org/wiki/Rangoli>.

4 The author is originally from the Mumbai area and therefore uses the names that are current in the Deccan region of the Indian subcontinent.

A social anthropologist based in Berkeley, California, David Szanton has worked with the Ford Foundation, the Social Science Research Council and UC Berkeley. He has followed the evolution of the Mithila artists and their paintings since 1977. As co-founder of the Ethnic Arts Foundation (1980), he has been involved in numerous exhibitions and other projects aimed at gaining appreciation for the Mithila painting tradition generating sustainable income for the Mithila painters in rural Bihar.

Mithila Painting

Folk craft or contemporary art

DAVID SZANTON

ABSTRACT

The article draws on the example of the evolution of Mithila painting over the past 40 years to suggest the threats to indigenous Indian aesthetic systems. Evaluating the classic tensions between 'art' and 'craft,' embedded in the character of the Indian and international art markets and in government efforts at rural income generation, the article also suggests a potential, but still fragile, institutional model for sustaining the vitality of indigenous aesthetic traditions.

AN ART OR A CRAFT AND THE DIFFERENCE IT MAKES!

All across India, numerous distinctive indigenous painting traditions, such as the Gond, Worli, Pata and Mithila are threatened with extinction. Artists working within these ancient traditions, rooted in the historic experience and aesthetics of local and regional cultures, are now under tremendous pressures to reduce their art to mass-produced craft work. The pressures are coming from multiple directions: development agencies, NGOs, middlemen, domestic tourists and export industries, broad processes of generational and technological change, urbanisation, social mobility and even from the thriving Indian

The final image from the 23 painting 'Gujarat Series' of Santosh Kumar Das, 2003. Based on the betrayal of Hinduism in the 2002 riots, this painting shows Ram in tears and Gandhi in dismay, standing on the burning train, while Shiva's trident pierces a crying Mother Earth.

contemporary art market. If this continues, India will lose major elements of its diverse culture and history and the critical contributions and alternative perspectives and insights that artists still working in the indigenous aesthetic systems can bring to contemporary India.

Large-scale craft production is of course an essential source of income for vast numbers of individuals, families and communities, as well as for India's national accounts and exports. However, without recognition and active support for the much smaller number of creative artists working within these aesthetic traditions, the crafts that derive from their work will inevitably stagnate, become repetitive (as many already have) and will be readily reproduced by computer controlled machines in China, or Mexico, or Brooklyn, New York. These stark assertions are based on personal observations and numerous discussions with Indian artists, scholars, government officials, NGO and Foundation staff, gallery owners and business people. These issues certainly pertain to India, but many other countries all around the world face similar problems.

The current situation, the nature of the threats and some means employed in an attempt to deal with these threats are described briefly here, based on indirect involvement with the Mithila painters of Bihar since 1977 and very directly since 2002. On the surface and for the moment, Mithila painting, as a contemporary art form, seems to be thriving. Since 2003, there have been large exhibitions of these paintings in major museums and galleries in New Delhi, Mumbai, Durban, South Africa, Iceland, San Francisco and Los Angeles, as well as numerous smaller exhibitions in US universities and colleges, especially in the San Francisco Bay Area. The Berkeley Art Museum, the Asian Art Museum of San Francisco, the Philadelphia Museum of Art, Syracuse University and Oberlin College, all have substantial collections of Mithila paintings. The Mithila Museum in Japan is largely devoted to this painting tradition. There are also several large private collections in the US. In recent years, well over a hundred Mithila paintings have been sold for US$ 350 to 1,000 in the US and at a recent upscale private gallery in San Francisco four paintings by a young Mithila artist were sold for US$ 3,500 each. Outside of India there is growing recognition that original and powerfully expressive contemporary art is being produced within the Mithila tradition.

In India the situation is quite different. Since 1970, some 20 Mithila painters have received state or national awards. However, Mithila painting is still regarded a rural craft, at best, a 'folk art'. Aside from Delhi's Crafts Museum, there do not seem to be any major collections of these paintings in the country. The Ethnic Arts Foundation (EAF) sold 35 paintings in the range of Rs. 10, 000 to 40, 000 at the India Habitat Centre, New Delhi, in an exhibition held in 2007. This pricing was somewhat higher than Mithila paintings command at Dilli Haat and the government and commercial emporia, but it is still only a tiny fraction of the prices paid for 'contemporary art' by India's elite and burgeoning middle classes. Indeed, almost half of the Mithila paintings sold at the Habitat Centre exhibition were bought by foreign tourists or temporary residents.

Part of the comparatively limited interest in Mithila painting in India derives from the great stacks of mostly repetitious mass-produced 'Madhubani' paintings found at Dilli Haat, in national, state and commercial emporia and at craft *mela*s around the country. Much of this work ultimately derives from well-intentioned government and NGO supported short-term rural workshops in craft production for income generation. At least in the Mithila region, many of these workshops seem to draw students and trainers not out of real interest, but for the locally substantial stipends they offer. To the extent that paintings derived from these workshops are described, if at all, in the emporia (and now in a recent publication), they are often referred to as the work of 'primitive folk' or even 'veiled' and 'tribal women'. Such designations may

'The Abortion Clinic' with the doctor in the Naga figure and dead female foetuses in its coils. Painting by Rani Jha, 2004. Source: Ethnic Arts Foundation'

'The flood of 2007', a painting by Dulari Devi, 2007. A rich family is being boated across the flood, their large house padlocked behind them, while the poor are left to gather and mourn the dead. Source: Ethnic Arts Foundation

result from simple ignorance or perhaps deliberate marketing strategies aimed at urban middle class nostalgia for some idealised simpler rural life. Either way these descriptions are grossly inaccurate, demean the many highly skilled and serious artists and devalue their work.

The problem is rooted in the popular presumption that all Mithila painting is 'mere' folk art; craft work produced by untrained rural 'folk', the sort of paintings 'that my granny or auntie in the village used to make' ('or can still get for me now… and cheaper').[1] This view immediately opposes Mithila painting to the highly valued 'contemporary or modern art' produced by formally trained urban artists directly engaged in the national and international art world. It is ironic that in today's post colonial world, it does not seem to matter that the art schools that the celebrated urban artists attended and the easel painting on canvas and sculptural traditions they mostly work in are colonial imports; or that the contemporary installations, computer graphics and video art now popular in India also derive from recent European-American initiatives and models.

Very few in the urban middle classes and elites who constitute the bulk of the Indian art market wish to demonstrate their upward mobility and cosmopolitan taste, are interested in art popularly framed as local 'craft,' pointing back to the village they have worked to leave behind. They are in the market for art (Indian or otherwise) that is resonant with the current fashions, styles, techniques and forms of the art being produced in New York, Tokyo, Paris or London. This is in fact a longstanding social phenomenon. With similar motives, elites in ancient Rome decorated their homes with high status Greek sculpture and 19th and 20th century American elites sought out French paintings for much the same reasons. In India, this has meant that the contemporary art being produced within the indigenous aesthetic traditions is little appreciated, overlooked and in consequence, threatened with extinction. Without a domestic market, these artists are inevitably being pressed to turn their skills to craft work.

As it happens, the presumption that Mithila painting is 'merely' a craft or a rural folk tradition is grossly mistaken. In fact, there are today, as there have been ever since Mithila painting began to shift from walls to paper in the late 1960s, highly skilled village based contemporary artists working within the tradition, each with their own distinctive style. In the 1970s and 1980s, two women, Ganga Devi, a Karn Kayastha from Rashidpur village and Sita Devi, a Mahapatra Brahmin from Jitwarpur village, emerged as extraordinary artists. They were sent by the Government of India to Japan, Russia, Europe and the USA, to represent India in major cultural exhibitions. Both drew on the centuries old indigenous Maithili aesthetic and wall painting traditions, but with clear differences in caste based and personal styles. Ganga Devi did elegant detailed paintings of the Ramayana, her spiritual life and a deeply moving series on her final battle with cancer, using only a pen and black and red ink, in the *kachni* or 'line' style associated with the Kayastha painters. In contrast, Sita Devi did brightly coloured paintings of deities as well as scenes from her international travels (including New York's World Trade Towers and Washington DC's Arlington National Cemetery), in the *bharni* or 'filled' style of painting associated with the Brahmin painters. Jain's stunning 1997 volume, 'Ganga Devi: Tradition and Expression in Mithila Painting', celebrates her life and work. However, Sita Devi's brilliantly painted elongated images were equally sought and widely influential. Both of these women were strikingly original artists whose work built upon, but ultimately looked nothing like the so-called 'traditional' wall paintings.

The work of these two founding figures was quickly followed and elaborated by a number of other major artists, each with their own identifiable style and content. Just to mention a few, Baua Devi is an extraordinary colourist and fabulist, Mahasundari Devi generated crisply elegant paintings of ritual icons and ritual life, while Lathila Devi's line paintings are highly

animated and often autobiographical. Godaveri Dutta's sumptuously detailed and often large, line paintings depict ritual icons and episodes from the Ramayana and Krishnanand Jha's richly patterned Tantric influenced paintings not only portray the deities, but also chronicle in 23 paintings, a decade long local murder case.

In the mid 1970s, the Kayastha and Brahmin painters were joined by equally skilled, innovative and original artists from the local Dalit communities such as Yamuna Devi, who both created a new figurative style and pioneered the use of the now widespread preparation of the paper with a *gobar* (cow dung) wash so that it resembles a mud wall background. Other examples are the Dusadh painters: Shanti Devi, who chronicled the life of the Dusadh hero Raja Salhesh in a veiled political move to match and counter the upper caste's paintings of scenes from the Ramayana and Chano Devi, whose geometrically organised paintings drawing on tattoo like figures established an entirely new visual vocabulary in the tradition.

Since 2000 a series of powerfully imaginative and expressive artists have emerged whose work frequently focusses on very contemporary social, cultural and political issues. Santosh Kumar Das depicted the 2002 riots in his 23 painting 'Gujarat series.' Rani Jha's paintings centre on disturbing feminist issues. Dulari Devi is producing deeply critical paintings on class and gender distinctions. Urmila Devi comments on the local migrant labour population in the 'Tree of Life', a frequent image of the Dusadh painters. Lalita Devi uniquely incorporates a Krishna Raas within a similar theme. Urmila Devi Paswan is producing almost psychedelic visions of the multiple forms of Raja Salhesh. Gopal Saha gives sardonic images of local society and Leela Devi has done a series of devastating paintings of September 11, 2001.

Among the younger generation, Shalinee Kumari uses traditional iconography to critique women's simultaneous radiance and subservience, terrorism, the challenges facing Obama and global warming. Kamlesh's paintings deal with local politics, HIV/

Migrant workers' tents and corrals in the 'Tree of Life', a painting by Urmila Devi, 2004. Source: Ethnic Arts Foundation

'The Tree of Life' with an embedded Krishna Raas. Painting by Lalita Devi, 2004. Source: Ethnic Arts Foundation

'The Multiple Forms of Raja Salhesh' by Urmila Devi Paswan, 2008. Raja Salhesh took multiple forms to confuse the many women who desired him. Source: John Ross

AIDS and also a carnival of animals. Rambharos is producing an innovative series of underwater scenes and Angeli Kumari has done the first Mithila painting of a scene from Shakespeare.

All of these artists clearly remain within the evolving and ramifying Mithila painting tradition. What holds their work together as Mithila painting is a distinctive set of aesthetic conventions and techniques that provide space for both their highly original and technically proficient paintings rooted in the personal experience and acute social and political observations as well as the vast quantities of mass-produced folk or tourist art popularly known as 'Madhubani painting' which one finds in Dilli Haat and the emporia.[2]

Ironically, it is the rushed and repetitive Madhubani paintings, justifiably perceived as rural craft work, that have undercut public recognition, markets and patronage for the serious and original artists working within the tradition. It is as if the paintings on velvet of Vesuvius erupting under a starry sky that one sees in commercial galleries in Rome, Florence and Naples were taken to represent contemporary Italian art.

HOW AN ART FORM BECAME A CRAFT

For centuries Mithila wall painting was done to create auspicious spaces for domestic rituals. In that sense, the paintings were aesthetically and technically skilled works of art imbued with personal expression and deep concerns of the painters and their families. However, the now popular notion that Mithila painting is merely a rural craft and has no status as a contemporary art form is not totally accidental. For when Mithila painting began on paper it was explicitly intended as a rural 'income generating project.' Thus, during the severe drought in north India in the late 1960s, when the region's crops and farms were failing, Pupul Jayakar, Head of the All India Handicrafts Board, sent Baskar Kulkarni, an artist from Mumbai, to Madhubani town to teach the women in the surrounding villages how to transfer their wall paintings to paper for sale and thereby compensate for the lost farm income.

At first, Kulkarni found it difficult to gain access to women in this deeply conservative region. In time, however, he found a small group of Mahapatra Brahmin and Karn Kayastha women, including Sita Devi and Ganga Devi, willing to try painting on paper. The results were stunning. Realising that he was working with original and sophisticated artists, Kulkarni exhibited the women's initial paintings on paper in New Delhi. The paintings caused a great stir and Mithila or Madhubani painting soon became widely known and actively sought. Many of the initial painters received awards and government and private commissions. When Ganga Devi and Sita Devi returned to their villages from their international travels, they encouraged other women in their castes to paint on paper in styles similar to their own. Soon thereafter, Jumuna Devi, Shanti Devi, Chano Devi and other women from the Dalit communities also began painting on paper in the more impressionistic and geometrical modes mentioned above.

By the mid 1970s, Kulkarni had left, but the national attention he brought to Mithila painting meant that dealers from Delhi were now coming to Madhubani in search of large quantities of paintings of popular subjects; often scenes from the Ramayana (perhaps the most popular being, 'Sita garlanding Ram'), to sell in urban markets to Indian residents and tourists. To the dealers, quality did not seem to matter; it was a recognisable image that counted. But they were only willing to pay the artists three to five rupees per painting. Not only was it exceedingly difficult

A weeping Mother Earth prays to the sun god 'Surya' to spare the earth from global warming. A painting by Shalinee Kumari, 2009. Source: Carl Pechman

A carnival of animals. A painting by Kamlesh, 2009.
Source: Ethnic Arts Foundation

for women to travel from Madhubani to Delhi, also, they did they know where to stay in the city or about markets and marketing. Thus to generate any significant income, they were soon reduced to churning out paintings for the dealers as quickly as possible and likewise, without much concern for quality. By the late 1970s, aside from the work of a handful of artists, the paintings deteriorated dramatically.

REVITALISING THE ART

In early 1977, Raymond Owens, an American anthropologist conducting research on local water issues, noticed the obvious decline in the paintings. Owens had read of a project to maintain the creative and economic viability of Canadian Inuit stone carvers by providing them with access to markets and a reasonable return for their work. Adapting that model, he encouraged the painters to slow down, choose subjects they were personally interested in, do their very best work and offered to pay 25 to 50 rupees for the resulting paintings, ten times more than what the dealers were paying.

The initial result was 35 'imperial size' paintings on paper on diverse subjects and in various styles that he brought to New York later that spring. The paintings were stunning and a small group of friends agreed to work with him to sustain his initiative. A scheme was quickly developed to mount exhibitions of the paintings, mainly at South Asia oriented colleges and universities, museums, professional meetings and to sell as many as possible. A small non-profit organisation, the Ethnic Arts Foundation, was established to hold the income from these sales until Owens's next research grant, consultancy, or personally funded trip to Bihar when he could pass the profits from the sales directly to the artists whose work had been sold and buy a new set of paintings. In effect, many artists were paid twice. First, at well over the local market price and again if their paintings got sold, thus encouraging the artists to do their very best, most saleable, work.

Between 1977 and 2000, Owens made eight trips to Madhubani, sometimes for just a few weeks, several times for six months to a year, each time returning with 40-60 new paintings. The scheme worked extremely well. Over time he became a beloved figure in the villages, but he refused to suggest what or how the artists should paint, simply encouraging them to use their imaginations and paint subjects that truly interested them. Many painters continued to mass-produce paintings for the urban dealers. But Owens bought paintings wherever he saw talent, ultimately from some 70 different painters passing on to them second payments if the EAF succeeded in selling their work. With a good initial price, access to a US market and the possibility of a second payment, the skill and originality of their paintings increased dramatically. Many village based artists were once again producing serious contemporary art. It is important to note that influenced by the new creativity of their artist neighbours, the quality and diversity of the mass-produced craft paintings increased as well.

Owens died of heart failure in July 2000. The artists were dismayed at the loss of a friend and mentor and the access to the markets he provided. Then in late 2001 it was learned that he had left a small bequest to the EAF to continue the work he had started. With that incentive, his colleagues[3] including Rutgers University Professor Parmeshwar Jha (originally from Madhubani), University of Wisconsin Professor Joseph Elder and the author spent two weeks in Madhubani reviewing the situation with scores of artists. It was

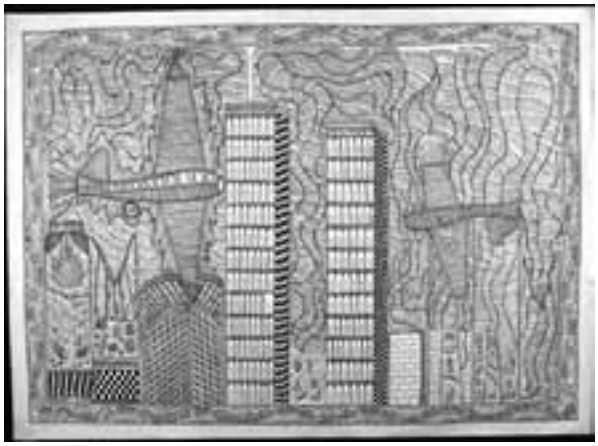
From a series of paintings on water spirits by Rambharos, 2009. The first montage in Mithila painting. Source: Ethnic Arts Foundation

quickly agreed to continue the system that Owens had initiated. But it also emerged that there was now a generational threat to the painting tradition. Many of the original artists had died or could no longer paint. While some productive middle-aged artists were still at work, the younger generation, largely focused on college education, computers, English and commerce and had little apparent interest in a 'traditional' activity like painting. But when someone mentioned the idea of establishing an art school to help train a new generation of Mithila painters, the response was enthusiastic.

With that as a mandate, using Owens' bequest, the EAF opened the free Mithila Art Institute (MAI) in February 2003 in a building across from the Women's College in Madhubani town. Santosh Kumar Das, the only artist in Madhubani with a BFA from Baroda, agreed to serve as the first Director and primary instructor. Together with other artists and educators, a four hours a day, five days a week, year long curriculum was devised. The first six months focuses on control of the materials, Mithila culture, aesthetics and iconography. For the last six month the students are free to paint traditional subjects or to explore the tradition's possibilities for depicting new subjects based on their own imagination and concerns. The MAI provides free instruction by eminent artists, working space, materials and a supportive community for the young artists. Travel funds are available for students coming from distant communities. The students are selected from an annual four hour competition that each year has drawn from 110 to 315 applicants. During that period, applicants do a painting to be judged 'blind' (without names) by a panel of senior artists who select some 25 students for the year long course. The number of women students is about 90%, between 18 and 25. The most promising receive a second year of training and a modest stipend. The MAI has been extremely successful in creating

The first scene from Shakespeare in Mithila painting by Angeli Kumari, 2009. From 'As You Like It' . Orlando is posting love poems in the trees where his Rosalind will pass. Source: Michael and Amy Fazio

Representatives of an NGO lecturing village women, a video technician documenting the event for the funder. Painting by Gopal Saha, 2003. Source: Gillian Hart



9/11/2001 by Leela Devi, 2003. Source: Ethnic Arts Foundation

a new generation of artists. More than two-thirds of the paintings in the recent California exhibits were by its graduates or students and people are buying their paintings. The cost of running the MAI has been minimal; roughly rupees half a million per annum for every thing (salaries, rent, materials, local travel and second year stipends). Recognising the beauty of the art and the importance of sustaining the aesthetic tradition, two foreign entities, the Embassy of Luxembourg and the Ford Foundation, have helped fund the MAI. Sadly, when a representative of a major Indian conglomerate visited the MAI, she asserted that the students should not be doing art, but learning how to make pottery and paint table cloths!

Ironically while the artists, young and old, are recognised and appreciated overseas, they are still struggling to bring their vision and art to venues and markets in India. The MAI is proving successful in rejuvenating a significant Indian artistic tradition. Yet despite various appeals, no support has come from within India where indigenous aesthetic forms, no matter how contemporary, are dismissed as, at best, rural crafts.

Bibliographic References

- Graburn, Nelson 2001, 'Art, Anthropological Aspect', in Neil Smelser & Paul Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier, London, pp. 764-68.
- Jain, Jyotindra 1997, *Ganga Devi: Tradition and Expression in Mithila Painting*, Mapin, Ahmedabad.

Notes

1 As Graburn (2001) noted the originally Germanic 'kraft,' craft' in English, has long been associated with 'cunning,' (thus 'crafty'), handicrafts and lower class occupations. In contrast, the originally Latin and French term 'ars, artis and arts,' as in 'beaux arts,' are associated with highly educated, upper class, learned and expressive skills, even inner genius.

2 It is in this context that the term 'Mithila Painting' is used with two different meanings. One, refers to the art form in general, as the ancient wall painting tradition extends all across the Mithila region and is hardly confined to the town or district of Madhubani. But 'Mithila painting' is also used to refer to the unique paintings of the highly skilled, original and committed artists, as opposed to the quickly made-to-order mass-produced, 'Madhubani paintings.'

3 The author was one of the colleagues; a friend of Raymond Owens from graduate school, he got associated with the initiative in 1977 when Owens visited him in New York with the paintings for the first time and has lent sustained support to the project since then.

Crafts and Environment

Common ground

Changing land and water use by traditional textile artisans in Bagru

ALICIA ORY DENICOLA

ABSTRACT

Bagru in Rajasthan is the home of a successful cluster of artisans who hand print traditional textiles, renowned throughout the world. Linked regionally and through kinship to printing communities in Jaipur and Sanganer, Bagru is both the most rural and the smallest textile centre. For traditional printers such as those in Bagru, water for washing and dyeing as well as land for drying are critical resources. The pressures of global markets and changing business practices as well as environmental factors have meant that artisans have had to change the way they use these resources. The Sanjaria River, which once drew print artisans to Bagru in large numbers, has dried up. Deep wells are now the only source of water. In addition, pressure from international exporters and designers to protect textile designs from imitation until these reach the market has convinced wealthier printers to wall off large tracts of land and build individual water tanks to protect their customers' interests. These changes have and will continue to produce pressures on printers to find new and innovative ways to use the natural resources that are so critical to their livelihood.

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INTRODUCTION

It is around five in the morning and suddenly the metal door to the room on the opposite side of the courtyard squeeks on its hinges and bangs shut. In this room Geeta and Anita, wrapped in their scarves against the mosquitos are asleep in the early morning heat. The two women are sisters and elementary-school teachers. Their family belongs to the *chhippa* community, an occupational caste known for its beautiful hand printed textiles. Indira, Geeta and Anita's mother is awake before dawn. In moments she will be using the last of yesterday's water to bathe and wash her saree before she changes clothes, makes tea for her husband and sends him on his way to his snack and tea shop in the centre of town. In another hour or so she will knock at the door carrying tea, the smell of breakfast wafting in from the kitchen. After having tea while it is still scalding, everyone readies themselves for the quarter-kilometre walk to the well at the edge of a nearby farm. Once Indira's husband has gone to work, everyone else will take at least two trips to the well carrying back gallons of water on heads or hips. They pour water into buckets in the bathing area for bathing in turns as breakfast is being finished. The rest of the water will last for the rest of the day to be used for cooking, bathing, drinking and washing dishes. On days when the women wash their hair or clothing extra trips to the well are necessary. Here on the edge of the Thar Desert water is scarce and the wells are said to tap water at 80 metres below the surface.

Process of dyeing

Next door, Geeta and Anita's aunt has been up for hours using the cool morning air to do the hot work of dyeing and treating printed cloth in a brass pot over a large fire. She and her husband make their living doing the traditional work of their caste and their small textile factory is just across the street. She is in the process of building a small water containment area and in the next few days she will pay one of the local farmers to fill the small vat in one of two ways. Either he will fill a large metal drum and deliver the water by camel cart or a quarter kilometre of plastic tubing will connect the well to her cement container and an electric pump will be used to move the water through the tubing. While the water itself is free, getting it to Vishnu Devi's factory where she can use it to wash, dye and rinse her fabrics is costly, whatever method she chooses. Here in Bagru, where traditional hand block textile printing is the mainstay of the community, water and land are critical to the success of the economy and both are in short supply.

The town of Bagru is located about 40 kilometres west of Jaipur city in Rajasthan. It is part of a 'triangle' of loosely related printing centres that also include Sanganer and Jaipur. Of the three, Bagru textiles are commonly considered the most 'traditional' and 'authentic' despite the fact that it is the most recently established of the printing communities. Historically, Jaipur and Sanganer were recognised as producing more upscale products for royal and temple clientele while Bagru catered to local farming communities. Relatively small, Bagru has historically operated in the economic and social shadow of its sister printing cities. In fact, an 1897 Rajasthan District Gazetteer suggested that Bagru produced 'only an imitation of the more celebrated Sanganer work' (Bardwan 1897, p. 155). While it is possible that a limited number of families may have printed for the local royal family in the late 1800s, the majority of printing families came to Bagru due to the perennially flowing Sanjaria River, the sandy riverbeds and access to the weekly Jaipur market[1].

Today, however, Bagru's relative isolation from the urban centres is central to its own upscale niche (Sanganer is a scant 11 kilometres from Jaipur's

Water being filled in Vishnu Devi's storage tank

centre). While the textiles of all three centres are said to be traditional, Bagru's are often said to be 'more' authentic because printers there remain committed to natural dyes[2] and because, unlike Sanganer and Jaipur, there is no tourist infrastructure in Bagru. Though there have been printers in Bagru for longer, it's not likely to have become a print cluster until the mid 1800s. Marketing agents say that little has changed in this industry for centuries and there is some truth to this claim. Yet government regulation, global marketing pressures and a new clientele have done much to change the way business is done in Bagru. The changes that are cause of most concern are related to the natural resources that first drew the dozens of printing families from small villages to this community. The town's population is currently approximately 22,000 and the industry has gone through rapid changes since the late 1960s when local farming *jatis* (occupational 'caste') stopped wearing cotton cloth, effectively decimating the local market. Around the same time period, Bagru was 'discovered' by local exporters and has since been home to an economically successful export industry. The change from local to global market is largely responsible for Bagru's current growth and it is relatively economically stable and prosperous in comparison to its surrounding towns.

THE PROCESS

To understand water and land as the precious commodities that they are in a print community, it is critical to understand the basic printing process. Producing a traditional, hand block printed textile is a complex activity that encompasses gender, caste and class roles and processes that intertwine and overlap.[3] What we are concerned with here is the local process that happens after the cloth has been brought into Bagru, design has been decided upon and the actual process of printing has begun.[4] Thus the following illustration ignores many of the shifting and constructed nature of roles and identifications inherent in the process of printing and provides the reader with an abstracted picture of the basic process of printing as it is done in Bagru.[5]

Printing begins once the printer has all of the materials he needs for a particular job; sets of blocks with the newly designed motif, ingredients for the correct dyes and pastes and hundreds or even thousands of yards of cloth to print on. Once the materials are provided, there is a pre printing process that must happen to ready the gray (or unprinted) cloth for the actual dyeing and

Process of soaking cloth in yellow myrobalan solution

printing. The untreated textiles must be cut or torn into the appropriate size. The cloth must be processed (by soaking overnight and being beaten on cement slabs) so that shrinkage is taken into account and then it is prepared for the dyes and prints by being soaked in a yellow myrobalan[6] solution, a process known as *pila karna* (literally the process of 'making yellow'). The myrobalan process acts as a mordant for the pastes and makes the print more 'fast' or permanent. The cloth is then rinsed in rivers or large vats and then opened up on the sandy ground for drying. This work is generally done by dhobis (washer persons) either at natural water sources, tanks maintained by communities or groups of printers or private tanks behind the compound walls of larger, more affluent factories.

It is only at this point that the printing and dyeing begins within the factory. Printing and dyeing are separate operations and they may happen at different times or in different order depending upon the design. For instance, an indigo resist print may be printed first with an outline block (this may be a pattern of a local flower, for instance). Following this, it will be printed with *dabu* (the local resist paste made up mostly of *kali miti* or black dirt, lime, wheat flour and gum), then dyed by dipping it in three-metre deep indigo vats, then cloth will be laid out and dried. The *dabu* portion will remain white, while the rest will be a light blue. Once dry, the textile may get resist printed again, this time with another block. It will be dyed and dried again and

often resist stamped and dyed again. The textile will then have three different shades of blue in its pattern. The first resist stamped portion (for instance the petals of a flower) will remain white, the second stamped portion (this could be the leaves and stalks of the flower) will be a light blue and the background will be deep, dark, indigo.

A textile that does not involve resist dye may be printed once, dyed and then stamped two to three more times after the dye process. Some dyes must be soaked and treated with another dye solution to get the correct shades to emerge from the printed colours. A useful analogy to illustrate how this process works for anyone familiar with pre digital colour photography is that each block represents a colour separation similar to that used to make a glossy magazine cover. A different block is used for each colour represented in the design and a different set of blocks is used for each section of the textile. For instance, if a tablecloth has a centre pattern and two different borders, then three sets of blocks would be used. A set of blocks generally consists of between one and four blocks. Thus, it is not unusual for a single bed sheet or tablecloth to be printed 12 individual times with 12 different blocks (or three sets of four). Some designs require more effort, some less.

During the printing process, the cloth is laid out on long tables about a metre in height and at least three metres in length (tables are sometimes as long as nine metres). Printing paste is contained in a small box about a metre square with about two inch sides. Some colours can take months to create. For instance, the black paste used for printing in Bagru is made with iron and unrefined sugar and must ferment generally for about a month. The stamping process itself is similar to the process of printing on paper with an inkpad and

Indigo dyeing by dipping in deep fermenting vats, a cold dye process

rubber stamps, but of course, on a larger scale and with several overlapping blocks that correspond to different parts of the design. For the stamp 'pad,' a mat of bamboo-like reeds is set inside the box and them a very loosely woven cloth (like burlap) is laid over the reed. Next, another loosely hand woven cloth is laid down and often another more finely woven piece of old cloth laid over that. This results in a large 30 centimetre square box with sides about five centimetres deep. Keeping to the rubberstamping analogy, this configuration results in what amounts to an ink pad large enough for a four inch square stamp.

Blocks used in Bagru are generally made out of *sheesham* wood collected in Farrukhabad by carvers who still have family in that area. After carving, the blocks are soaked in mustard oil for about two weeks before they are first used in order to soften the wood and make it more pliant for the colours. Blocks are carved by hand using small chisels pounded by heavy wooden sticks (used like a hammer) carved to fit the palm of the hand. Holes are then drilled through the blocks with a power drill so that the paint does not bubble. A 'set' of blocks is made up of three different kinds (though there can be more than one of each kind used on a textile). *Gad* blocks are carved in relief and used to print the outline; *rekh* blocks are carved in bold relief to fill in colours within the outline; and *data* blocks, carved similarly to *rekh* blocks, but often even bolder, are used for applying resist paste. The printer holds the wooden block in one hand by a handle affixed to the block. He or she stamps the wooden block on the colour pad and then stamps it onto the cloth with an accuracy that comes only with much practice and then follows that up by hitting the block twice with the opposite hand. The blocks themselves generally have a distinguishing mark or corner that assists the printer to match up the lines that produce a recurring pattern.

The dyeing process (which can happen either before or after printing) usually happens early in the morning over a large oven fitted with a permanent copper kettle. In dye solutions most colours (except indigo, which is cold dye process) begin with the alizarine process of dyeing which is done in a large copper kettle over a fire. Whole pieces of cloth are dipped into the solution to colour the 'ground' of the cloth. They are immersed one or two at a time, stirred with a wooden stick, raised and dipped again to agitate. After the desired colour has been reached, the cloth is removed from the kettle and dropped with a stick into a crumpled pile to cool beside the oven. The process is generally done by two

Block being carved out of sheesham wood

people, one to agitate the cloth and oversee the addition of the ingredients and the other to add ingredients and stoke the fire. When the cloth pieces are cool enough to touch, women and young children carry them outside the factory walls and unfold them onto the sandy drying area shared by numerous printers. The common Bagru ground colours of black, red and yellow are all dyed in a copper vat over an oven. Indigo dyeing, which is a cold dye process that happens in deep fermenting vats is an exception to this practice. Once completely coloured and dried, the cloth is washed again and left out to dry before it is folded and put aside for the exporter or middleman.

NATURAL RESOURCES

The illustration should not only make clear the printing process, but also give the reader some idea of how reliant that process is on the resources of land and water. Deeply flowing streams or large cement vats (often as much as three metres square and waist deep) filled with water are necessary for initial washing and sizing and final rinsing and washing. Smaller, but still significant amounts of boiled water are used for alizarine dyeing and for mixing with indigo. Most

printers believe that the mineral and salt properties of locally flowing rivers have historically helped 'fix' Indian dyes and keep them fast. Further, large tracts of sandy land are needed for laying out and drying the textiles in the sun. Historically, the homes of printers have been built around these sandy beds and open commons are utilised as shared drying spaces.

The use of water and land by the printers, however, is changing significantly today. The Sanjaria River that once flowed through town and drew printers from surrounding villages for at least a century has not flowed in decades. Printers currently use water pulled from wells, often dug to 80 feet. In the centre of town, the municipal water supply flows from pipes twice a day and huge cement vats are filled with tons of water all over the city. As for land, many printers still use common areas to dry their cloth. Increasingly though, export houses are demanding that their designs remain out of sight until they reach the market to limit imitation. Larger, wealthier printers have solved this problem by building large compounds with high cement block walls behind which textiles are washed in private tubs and dried on grassy or sandy central courtyards. Though a dozen or so of the hundred printing families in Bagru have been able to build their own walls and tubs for water, only the very wealthiest of artisans have enough room to dry export sized orders of textiles (some of which demand hundreds of nine yard pieces of cloth to be dried simultaneously). Printers have historically dealt with large orders that they cannot handle by sharing the wealth using a putting out system that draws on less busy (and often less wealthy) friends and family to do some portions of the work.

In the present context, many small artisan families that continue to print in rooms in their homes rely solely on work from other printers and have little or no access to their own exporters or middlemen. Export and design houses that are most concerned with protecting their designs until they reach the market, however, have

Final rinsing and washing of dyed cloth in a large cement vat

asked printers to change their practices. Textiles must be dried behind compound walls. Only the printer who was given the job can work on it. Blocks must be destroyed when the job is over and any unused or excess textiles must be destroyed. Printers who work for these exporters say that they are some of the most difficult jobs because of the secrecy that must be maintained. These jobs are also the most financially lucrative and often put the printers who have the necessary infrastructure into a different economic class than other artisans. These printers not only have large compounds, adequate drying areas and numerous water tubs, they are also conspicuous because of their Tata Sumos (SUV, MUV class vehicles made by India's Tata Motors), marble floors, wood furniture, computers and televisions.

Textiles that are sold in the local bazaars are often less protected. Such prints are thought of as less cosmopolitan and middle-class than those that are designed for upscale boutiques in India's major cities and abroad. The 'upscale' prints are usually designed by professional designers. These are carefully guarded and bring higher prices for both the printer and the export house.

Both local and international development groups have been working to solve many of Bagru's environmental problems having to do with the waste and bi-products of dyes and mordents, many of which flow into the dry river bed (UNIDO 2000; Nayak & Jhurani 2000). Though this is not necessarily about water, the issues are related. The need for filters and sludge ponds has led development experts to suggest printers in Bagru buy into a co-op and work together. While printers have considered this option for years, they are understandably resistant to giving up their independently owned and operated family businesses. These small, family-centered operations have significant control over the local putting-out system whereby overflow work is handed down to other family members or close friends who depend upon historical and familial ties. The finances necessary for buying the land add additional financial burdens on many already struggling businesses and women and children, who are an important part of the process, would no longer be able to assist the same way in the family business[7].

Both water and land continue to be critical commodities for printers in Bagru even following the 2003 monsoon season, which ended a four year drought. Access to water can turn a business around

Textile drying in common areas

and make the difference between a van and a bicycle or another storey on a house and such access is largely based on economic success. Large printers, especially those who work for major export houses or those who own land beyond the footprint of their homes, are much more likely to have their own water tanks built inside walled factories. The differences between a big printer and a small printer are both pragmatically and symbolically expressed in walls and water and class differentiation between individual *chhippa* families can be substantial. It is significant to note that much literature about distinction in India has missed the subtleties of intra-caste relationships in favour of inter-caste relationships.

Systems of hierarchy rely on access to resources, which in turn are dependent on their contexts. Individuals are continuously participating in multiple interacting hierarchies within a social order (Wadley 1994, p. 4). The distinction between the ritual and relational aspects of caste[8] and the material wealth or infrastructural access of class are particularly important in village and small-town India where the two can be so closely tied that the analytical differences are often overlooked. Bagru is, relatively speaking, a curious mixture of urban and rural. People often said that Bagru was much more relaxed and friendly than the cities (Jaipur, Delhi) and several people complained that Bagru was still much like a village in that everyone knew everyone else's business and gossip was common and constraining. Yet, people also had pride in the fact that, 'one could get almost anything in Bagru these days.'

On the other hand, upper-middle 'professional' classes from urban centres distinguish their cosmopolitan lifestyles partially in opposition to a more rural artisanship symbolised by Bagru products and occupations (DeNicola 2005). Printers in Bagru, despite their cultural capital as successful business owners and symbolic representations of the town, are not 'ruling' classes in the traditional sense of landownership or patronage. In fact, a significant number of printers own their land, factories and the means of production, yet intra-caste class relationships are often most significantly tied to a printer's relationship with a 'good' middleman or designer (and thus their proximity to new overseas consumers). Owners of capital and providers of labour are not, necessarily, of different *jati*s (occupational 'caste'). This is in fact rare among the artisans of Bagru. Printers here have been both creative and realistic in the ways they have responded to market and environmental pressures that have demanded changes in their use of natural resources.

These changes, however, are not neutral. The collective wealth of the town has continued to increase since it began its export trade in the late 1960s and the town is well known among printers and designers across the globe. Yet, increased use of well water for individual water tubs and expanding businesses threatens the future availability of water and therefore of the community itself. Increasing privatisation of land has somewhat limited available land for less wealthy printers, but the more significant issue is that of increased economic disparity within the printing community. The artisan community in Bagru has survived and flourished through a myriad of social, economic and environmental changes over the years and has even thrived due to its (relatively) recent connection to international markets. Nevertheless, water and land will continue to be two of the most significant challenges that printers in Bagru will have to deal with in the future.

Bibliographic References

- Bardwan, Argaon 1897, *Rajasthan District Gazetteers: Jaipur*, vol. 2, p. 155.
- Cable, Vincent et al. 1986, *The Commerce of Culture: Experience of Indian Handicrafts*, Lancer International, New Delhi.
- DeNicola, Alicia Ory 2004, *Creating Borders, Maintaining Boundaries: Traditional work and global markets in Bagru's handblock textile industry,* University of Michigan, Ann Arbor.
- DeNicola, Alicia Ory 2005, 'Working Through Tradition: Experiential Learning and Formal Training as Markers of Class and Caste in North Indian Block Printing', *Anthropology of Work Review XXVI*, pp. 12-16.
- Mohanty, Bijoy Chandra & Mohanty, Jagadish Prasad 1983, *Block Printing and Dyeing of Bagru, Rajasthan: Study of Contemporary Textile Crafts of India*, Calico Museum of Textiles, Ahmedabad.
- Nayak, Kailash C & Jhurani, Prakash 2000, *Shilpgram at Bagru: A Concept Note*, Indian Institute of Rural Development and United Nations Industrial Development Organisation (UNIDO), p. 31.
- UNIDO (ed.) 2000, *Jaipur Hand Block Printed Textile Cluster*, The Consortium of Textile Exporters (COTEX), Jaipur.
- Wadley, Susan S 1994, *Struggling with Destiny in Karimpur, 1925-1984*, University of California Press, Berkeley.

Notes

[1] Despite some popular narratives that claim Bagru became a textile-printing town in

response to royal patronage, it is most likely that this story was transported from the towns of Sanganer and Jaipur, both of which were the center of well-known royal karkhanas. While the royal family in Bagru *may* have patronised local printers, there is little evidence that this is so.

[2] Though Bagru's printers and dyers are committed to natural dyes, some chemical dyes are also used, though, unlike other print centers, they have never been accused to using caustic dyes. For example, traditional blacks, reds and yellows that have always been central to Bagru's traditional prints are still made mostly from plant or other natural material. However, indigo, which used to be picked and rendered locally is now imported from Germany in block form.

[3] I discuss these in more detail elsewhere (DeNicola 2004).

[4] For a more extensive explanation of this process see Mohanty and Mohanty (1983) and DeNicola (2004).

[5] I discuss the problems and shifting nature of printing roles, especially those concerning printers and designers elsewhere (DeNicola 2005).

[6] Myrobalan, also called chebulic myrobalan or harda (botanical name terminalia chebula) and is found throughout India. The fruit is often used as an astringent, anti-fungal, laxative and for stomach upset, heart health, cough, asthma and urinary disease. For use as a mordant for textiles it is used in powder form and turned into a paste. Dhobi's treat the cloth by stomping on it in a small cement vat often located outside residences and factories.

[7] I think it is important to note that children help their families in the afternoons after school as any child whose family owns a business might. They learn by watching, being close to the process and by helping with small tasks (for instance, laying out textiles to dry). Women are an important part of the process and in some instances families told me that the work of printing had been reclaimed after marriage when a woman married into the family and brought printing expertise with her. There are other reports of hand-block artisans who insist that women do not print and cannot go outside to factories (Cable et al. 1986), but this is not the case in Bagru. Even though local people will often claim that certain jobs are 'men's' jobs and others 'women's' jobs, both men and women can be regularly observed playing an active part in every part of the print process.

[8] The nomenclature of caste/*jati* is a complex one that must distinguish between emic and etic terminology (in social anthropological rather than linguistic parlance). In Bagru, the word caste was treated as the English translation of *jati*. In other words, when speaking of the occupational designation of a printer, or *chhippa*, people would talk to me of the caste of *chhippa*. When I asked whether *chhippa* was a caste or a *jati*, I was told that they were the same: 'two words for the same thing.' The more correct analytical nomenclature of social designation that often codes for traditional occupation and endogamous marriage rules, anthropologically speaking, would be *jati*, as distinguished from the Hindu socio-ritual designations of *varna*.

The Balotra Experiment

Debating waste management technologies

RAMYA SWAYAMPRAKASH

ABSTRACT

An analysis of wastewater management techniques with special reference to the crafts sector, brings to the fore the need for decentralised wastewater treatment, that is craft and region specific. Balotra is a printing cluster in Rajasthan that has converted to synthetic fabrics and chemical dyes. The efficiency of currently installed wastewater treatment capacity in the form of Common Effluent Treatment Plants has been discussed, taking Balotra as a case study. The crafts sector typically has decentralised patterns of waste generation; the nature of the waste generated being a result of specific dyes and processes used, as well as the local topography. Taking this into account, an argument has been presented, for a shift from the top-down, centralising and homogenised impulse of the current paradigm to a decentralised context specific wastewater treatment model.

INTRODUCTION

The technology of waste treatment and management, both domestic and industrial, is a fairly modern phenomenon that originated as

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recently as the 19th century. During its early stages, the selection, application and monitoring of technologies for waste treatment was an open debate that drew the participation of doctors, lawyers, policy makers and professionals from the various fields associated with the issue of sewage treatment. In the early 20th century, however, the treatment of waste became the sole bastion of engineers, thus propelling them into the role of decision makers.

Rather unremarkably, the evolution of wastewater treatment as a distinct techno-political phenomenon is firmly couched in the coming of the Industrial Revolution and is therefore inextricably linked with Western modernism. In its eastern flight through colonialism, waste treatment technology became a part of the 'civilising force' of the colonial project (Prashad 2001). As new colonial cities emerged, the equally revolutionary technologies of waste treatment grew alongside, although in a manner that limited its benefits to the colonisers and their loyal subjects only.

This pattern of the growth and application of sewage treatment technologies was a direct result of the mechanisms of colonial administration which placed the onus of decision making regarding waste management on its cadre of sewage engineers. With decision making falling squarely within the boundaries of bureaucracy, technology and more so, technological solutions, came to be highly centralised. Independent India has yet to rid itself of this legacy of centralisation, even though centralised waste treatment has very evidently failed in making our rivers any healthier or our groundwater any more potable. The situation has, across categories, only unequivocally worsened, a phenomenon which has, perversely, triggered another bout of centralisation.

BALOTRA, A CASE STUDY

Balotra, a small industrial town located on the banks of the River Luni about 110 kilometres from Jodhpur, was once renowned for its block printing on cotton. Although Balotra is today a thriving centre for the manufacture of poplin, polyester and nylon fabrics; the tradition of printing that it is known for, has all but died in the last 30 years or so, as screen printing on the abundantly locally available machine-made fabrics gained popularity.

The vegetable dyes traditionally used in the production processes did not radically alter the composition of the local groundwater, despite the widely followed practice of allowing wastewater generated during the printing and dyeing processes to flow into ditches along the house cum workshop and seep into the ground. The absence of chemicals in the wastewater meant that there was little need for an infrastructure of centralised wastewater treatment and the wastewater generated would, once it seeped into the soil, recharge the water table without much danger of contaminating local water supply. This is not to imply that the wastewater generated by traditional techniques is inert and should not be treated, it merely indicates that the wastewater generated by vegetable dyes and traditional printing processes does not require the same infrastructural costs as 'modern' techniques using chemical dyestuffs and industrialised processes.

As an industrial unit, Balotra currently houses about 450 textile units that engage in screen printing. The industrial complex and other auxiliary units at Balotra are developed by the Rajasthan State Industrial Development and Investment Corporation Ltd. and are demarcated in three phases, which together comprise approximately 425 industrial units. A majority of the industries are cotton textile processing units that specialise in dyeing and printing works. In addition to these industrial units, there are 161 wells in a nearby village Bithujia, 10 kilometres west of Balotra where mercerising and washing operations are carried out on large scale. Bithuja is primarily a washing centre for the Balotra textile industry and is therefore the site of the generation of large quantities of wash water that is polluting in nature.

The Balotra Water Pollution Control and Research Foundation Trust were established in September 1995 to construct and operate the Common Effluent Treatment Plants (CETPs) in the territorial jurisdiction of the Balotra Municipal Board. Currently there are three CETPs capable of treating about 30 Million Litres of water Daily (MLD) and another 30 MLD augmentation is in the pipeline. According to the 'State of Environment Report for Rajasthan' (Rajasthan Pollution Control Board 2007), none of the CETPs are performing up to the given parameters. The Luni like the Bandi in Pali carries only wastewater from industrial units. Groundwater is heavily polluted in Balotra as well as in all villages up till 50 kilometres downstream. CETPs are inflexible behemoths, rendered irrelevant with changing textile technology and processes, being unable to treat effectively. The Balotra case is no different.

The message is clear: conventional and highly engineered wastewater management technologies and strategies mostly focus on electro-mechanical solutions that are capital intensive and require ongoing capital investments for effective operation. Compared to alternative natural technologies that are decentralised and offer opportunities for resource recovery, the conventional centralised technologies have shorter life cycles. Despite their unmistakably dismal showing, centralised waste management systems appear to continue to gain government sanction while decentralised small-scale waste management systems have remained to be on the periphery of the planning process so far.

Decentralised small-scale systems are based on the topography of the local water shed. Unlike the electro-mechanical solutions offered by conventional methods, decentralised small-scale systems use no moving parts; instead, they use physio-chemical processes to treat waste. Decentralised small-scale systems transfer the disposal based linear system to a recovery based closed loop system that promotes the conservation of water and nutrient resources. In the long term it would allow for independent, self maintained and self sustainable facilities that are capable of recovering wastewater resources and immediately reusing them.

THE CRAFT CONNECTION

Block printing, as in much of the crafts sector is dominated by decentralised, self organised employment which is largely operated out of the craftsperson's house cum workshop. Since effluent treatment plants are concentrated in larger clusters, waste from small clusters and households is seldom treated. Since most crafts are diffused geographically, decentralised small-scale plants located in specific clusters hold more relevance than conventional ones. As mentioned earlier, these are easy to build, maintain and most importantly, are readily accessible.

For instance, for dyeing units, alternate technologies include the use of micro-organisms to treat effluents. Although still largely untried for dyeing industries, Decentralised Water Treatment Systems (DEWATS) use a combination of natural methods to treat wastewater the process is part aerobic and part anaerobic to break down the waste (Hunnar Shaala Foundation 2007). Another solution is using bio filters[2] to treat malodorous compounds and volatile organic compounds used in synthetic dyes.

The use of vegetable dyes, instead of water intensive, polluting, synthetic dyeing processes, also allows for much more recycling of wastewater. This wastewater can be reused for dyeing purposes, thus reducing the need for extracting ground water The improved water efficiency only adds to the overall water availability for production because the rate of recharge of groundwater can never match the rate of extraction. Falling groundwater tables across the country, as shown by the Central Ground Water Board's report, 'Groundwater Management and Ownership' (Government of India 2007), have made reliance on groundwater increasingly unviable. Traditional block printing techniques like the one at Balotra depend heavily, if not fully, on ground water for their processes. The reuse of water might alter the finished product in terms of the achieved colour and finish and therefore requires further evaluation and perhaps, adaptation. Even so, the recycling of water still bears potential as an eco-friendly inclusion in the printing and dyeing processes.

CONCLUSION

Across time, history and technology, it has been analysed, that there are inherent merits in a craft, region and population specific approach to waste management in the crafts sector. The currently popular top-down approach is easier to administrate but is not necessarily more efficient. A decentralised system goes beyond merely filling the 'gap' between on-lot systems and the conventional, centralised system. Summarising the arguments mentioned above, when understood from the environmental point of view, decentralised systems are more benign because of the following reasons:

- Centralised management systems are contingent on large incoming and outgoing flows. Thus any mishap would affect a larger area. In a decentralised set up, the flows at any point will remain small, thus reducing the scale of damage in case of a mishap.
- Since it is small-scale, the amount of change required to construct and keep the plant working would be far lesser than in a centralised plant. Further, being small, localised systems are also far more flexible.
- System expansion would be afforded by adding new treatment centres rather than by routing ever more flow to existing and under functioning centres.
- Treatment and reuse can be adapted to the waste stream.

Finally, it must be emphasised that decentralisation is not the panacea to all wastewater management woes; adopting the 'one size fits all' mentality of conventional methods is just as lethal for decentralised systems. It might not work in all cases, but for the most part, the many potential benefits of the technology definitely deserve greater attention.

Bibliographic References

- Centre for Science and Environment 2006, *CSE study on pollution of Bandi River by textile industries in Pali town*, Centre for Science and Environment, New Delhi.
- Government of India 2007, *Report of the Expert Group on Groundwater Management and Ownership*, Planning Commission of India, New Delhi.
- Hunnar Shaala Foundation 2007, Recycling sewage transforms rivulet into Green Belt of Bhuj city, Hunnar Shaala Foundation for Building Technology and Innovations, Bhuj, India, viewed on August 11, 2009, <http://hunnar.org/gbelt.htm>.
- Joy, KJ, Paranjape, S, Gujja, B, Goud, V & Vispute, S (eds.) 2007, *Water Conflicts in India: A Million Revolts in the Making,* Routledge, New Delhi.
- Mahida, UN 1981, *Water Pollution and Disposal of Wastewater on Land*, Tata Mcgraw Hill Publishing Company Limited, New Delhi.
- Prashad, Vijay 2001, 'The Technology of Sanitation in Colonial Delhi', *Modern Asian Studies,* vol. 35**,** no.1 (2001), pp. 113-155.
- Rajasthan Chamber of Commerce and Industry, *Towards a Greener Tomorrow*, RCCI, Jaipur, viewed on August 11, 2009, <http://www.rajchamber.com/html/rcci_sdc_interventions/textiles/effluent_tretment_plant.htm>.
- Rajasthan Pollution Control Board 2007, State of Environment Report Rajasthan, Jaipur.

Notes

1 In Sanganer near Jaipur such a plant has been set up with the help of the Rajasthan University (Rajasthan Chamber of Commerce & Industry).

2 Biofilters use living material to capture and biologically degrade pollutants. These can be used in a common treatment plant.

Book Review

The Craftsman by Richard Sennett

AZHAR TYABJI

Published by Yale University Press (New Haven and London), No. of pages: 326, book size: (breadth) 6.2" x (height) 9.25" x (width) 1.3", Shipping weight: 363 g (paperbound edition), published in 2008, ISBN (paperbound): 978-0-300-15119-0.

This book is essential reading for any serious connoisseur of craft and should be required reading for students and professionals. Richard Sennett's 'The Craftsman' was published in 2008 but received surprisingly scant attention in India, perhaps because of the fact that as a sociologist and cultural critic of world renown, he had set himself the task of developing exciting new thinking about craft, an area where he had not previously ventured book length opinion.

Although the world of Indian craft might not recognise Sennett as a critic of craft, his book appears to have caught the attention of both sociologists and material culture specialists. It was extremely well received in the western press: as a far ranging work of astonishing depth and imagination, the book celebrates the sheer range of Sennett's intellect, exploring facets of his own childhood, early training and later interests. He is Centennial Professor of Sociology at the London School of Economics, the Bemis Adjunct Professor of Sociology at MIT (USA), a member of MIT's faculty in City Design and Development and Professor of the Humanities at New York University. Given the scope of his interdisciplinarity, it is no wonder that he has several path breaking books to his credit.

At this juncture in a larger Indian debate on craft, Sennett's writing seems most suited to a public reading. This is because his thinking goes much beyond materiality; it addresses the underlying politics, philosophy and economics behind the making and meaning of craft. It is actually a timely book in India precisely because, by asking questions about the nature of craft, Sennett brings attention to the possibility of asking even more fascinating questions to do with the nature of authenticity and public taste, long-term sustainability, the idea of the design corporation and the ethics of practice.

Lay readers, scholars and practitioners of craft will all find something to take away from this book. It draws widely and eclectically from examples of craft that are at once thought-provoking and entertaining: these include atom bombs, Stradivarius violins, medieval gold, traditions of glass blowing, pottery, 19th century robotics and 21st century software production and management. Along the way, Sennett's discussions about craft and craft making explore the deeper ethics and politics of production. For example, in discussing the development of the Hiroshima Bomb, the author points out that its chief mastermind, the perfectionist scientist, Oppenheimer, who saw the bomb actually as an exercise in craft, was obsessed with moulding a perfect object. In doing so, however, he lost sight of its larger, horrific purpose. When is craft sometimes problematic to society and the environment? Could we get so absorbed in making things that we forget to consider their larger social consequences? How do we resolve conflicting sets of values?

This book is a work of literature and criticism: in places, Sennett's writing is sheer poetry. One of the book's most striking features is that it has absolutely no pictures in it, a strategy which recalls Shakespeare's discipline in deploying almost no props for his stage productions, instead crafting his scenes through the power of words alone. Despite pictures (or perhaps precisely because there are none), Sennett's words conjure a deeply sensitive portrait of the hand, of the mind deep in concentration, of the tools essential to crafting and of the

clamour of a busy workshop as the author theoretically and anecdotally fills out the contexts to his arguments. The book, in every sense of Sennett's word, becomes an exemplar of craft itself.

The thread of Sennett's argument lies in tracing what he calls the 'intimate connection between hand and head.' The book's arguments unfold in three parts: in the first, Sennett describes the politics of the workshop, how the idea of the guild came about, how the decline of guilds later gave rise to the idea of artistic independence and professionalism and the connection we might make between craft and the modern production unit and Multi-national Corporation. Along the way, Sennett identifies profound problems that have plagued the world of craft for some time; for example, in his exhaustive index alone, the author sometimes sets these problems up as dualities, for example, of 'competition vs. collectivism,' 'naturalness vs. artifice,' and 'correctness vs. functionality' in affixing quality control. It would be impossible to enumerate Sennett's astonishingly varied assessment of such problems here, given that he does not limit himself to the world of the visual arts alone but extends his analysis to the functional product as well. But even the idea of the crafted 'product' goes well beyond object hood: at one point, the author superbly analyses three case studies of how the success of crafting is determined by management decision-making and organisational behaviour: the circuit logic of the mobile phone, the publicly developed Linux operating system and the development of Auto CAD software for architectural design, all these three seen to be the end products of craft processes themselves.

In the book's second section, the author explores the idea of skill in great detail, drawing from examples as varied as cooking, music making or glass making in order to explore how the perfection of technique confirms what Immanuel Kant once suggested (quote from Sennett); that '[t]he hand is the window on to the mind.' In the book's third section, Sennett explores issues of motivation and talent. He does not equate the two, but rather suggests that 'motivation matters more than talent…The craftsman's desire for quality poses a motivational danger: the obsession with getting things perfectly right may deform the work itself.' In the book's final section, Sennett reconsiders what he had said in the beginning, that history has separated the hand from the head, the process of thinking from the act of doing and that it is time that crafts persons see themselves not just as makers of objects but as objects themselves, self-conscious actors in a much larger world of experience.

Apart from being highly illuminating and rich with examples, this book will point to the wider issues surrounding the development and continuity of traditional craft practices spanning the material and intangible arts. The book's basic utility to the Indian student and practitioner of craft lies in recognising that it takes tremendous intellectual and psychological effort to understand exactly what the hand and mind are capable of doing and that in the intellectual effort we sometimes have to think about making the most surprising connections between people, places, things and ideas.

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Events and Conferences

INTERNATIONAL CONFERENCE ON TECHNOLOGY AND SUSTAINABILITY IN THE BUILT ENVIRONMENT
Date: January 3-6, 2010
Location: Riyadh, Saudi Arabia
The conference is being organised with the aim of expanding the role of contemporary technology in the service of urban sustainability.
Organised by: College of Architecture and Planning, King Saud University
Website: http://www.capksu-conf.org/

GREEN INDUSTRIAL EVOLUTION INDIA 2010
Date: January 13-15, 2010
Location: Mumbai, India
The Conference aims to cover issues like Climate Change and Sustainable Energy, the Business of Carbon Credits and a focused conference for pro-environment initiatives aimed at the Indian Textile Industry .
Organised by: Helping Hand Foundation
Website:http://www.helpinghandindia.org/gie-india.htm

SUSTAINABLE DESIGN AND CONSTRUCTION 2010
Date: January 25-26, 2010
Location: Abu Dhabi, United Arab Emirates
Presentations from the region's major developers will focus on the practical difficulties faced and their solutions. Sessions are devoted to topics like LEED Commissioning, waste water treatments, energy efficiency systems, façade engineering, etc. which are key components in sustainability projects. Senior – level Panel Discussions will analyse an array of topics from the pros and cons of different International and Regional Rating Systems to Testing Post Occupational Building Efficiency. Hear from policy makers about the Green Building Regulations which are set to make a major contribution to the construction industry.
Organised by: Fleming Gulf
Website: http://flemminggulf.com/conferences/real-estate/sustainabledesign

NATURAL RESOURCE MANAGEMENT FOR SUSTAINABLE DEVELOPMENT
Date: February 1-2, 2010
Location: Jalgaon, Maharashtra, India
The conference is being organised to inculcate an awareness regarding the environmental management and sustainable utilisation of natural resources among the students, academicians, industrial personnel and representatives of NGO's.
Organised by: School of Environmental and Earth Sciences, North Maharashtra University, Jalgaon
Website: http://www.nmu.ac.in

REMAKING SUSTAINABLE CITIES IN THE VERTICAL AGE
Date: February 3-5, 2010
Location: Mumbai, India
The real situation that countries such as India and China, as well as large parts of the developed world face is not necessarily how to create new sustainable cities where the urban slate is wiped clean, but how to re-make existing cities in a sustainable way. This conference will debate these urban and policy issues, while also considering what role tall buildings and increased urban density will play.
Organised by: The Council on Tall Buildings and Urban Habitat
Website:http://www.ctbuh2010-india.com/ctbuh2010.htm

THE 25TH INTERNATIONAL CONFERENCE ON SOLID WASTE TECHNOLOGY AND MANAGEMENT
Date: March 14-17, 2010
Location: Philadelphia, PA, USA
Researchers, educators, government officials, consultants, managers, community leaders and others with an interest in solid waste are invited to submit papers for oral presentation or poster session at the Conference.
Organised by: Widener University
Website: http://www2.widener.edu/~sxw0004/call.html

Events and Conferences relating to Crafts

TAIEX 2010 CONFERENCE ON GLOBAL TEXTILES: BUSINESS PROCESS OPTIMIZATION
Date: January 24-25, 2010
Location: Indore, Madhya Pradesh, India
The conference shall provide a platform to discuss and debate the desired path of growth for various sectors of textiles to the attending participants.
Organised by: The Textile Association (India); backed by the Office of the Textile Commissioner, Ministry of Textiles, Government of India and Government of Madhya Pradesh, supported by MP, State Textile Dept, Handloom and Khadi Udyog.
Website: http://www.fibre2fashion.com/fairs/taiex2010/

SURAJKUND CRAFTS MELA
Date: February 1-15, 2010
Location: Surajkund, Haryana, India
The annual fair showcases the crafts, cuisine and performing arts of the country in the typical setting of a rural Indian marketplace. The aim is to educate patrons about the fascinating technique and skills involved in craft creation and introduce crafts and crafts persons directly to the buyers.
Organised by: Suraj Kund Mela Authority comprising of the Department of Tourism Ministry of Tourism and Culture, Government of India in collaboration with Haryana Tourism, Development Commissioner for Handlooms, Commissioner Development (Handicrafts)
Website: www.haryanatourism.gov.in

DESIGN AND CRAFT: A HISTORY OF CONVERGENCES AND DIVERGENCES
Date: September 20-22, 2010
Location: Brussels, Belgium
The conference will bring the relation between design and craft to the fore. This theme offers an excellent opportunity to gather new design historical and theoretical research from over the world in a focused discussion on regional specificities as well as the impact of global processes of industrialisation. If, until now, design history has been largely dominated by the Western narratives of industrialisation, then moving the focus towards non- industrial design practice might bring non-Western scholars to the forefront. Moreover, previously marginalised design histories in industrialised countries can finally get a voice. Organised by: The International Committee of Design History and Design Studies Website: http://www.designandcraft2010.be/

GREEN CONCLAVE
Date: April 7-9, 2010
Location: Delhi, India
Green Conclave is a platform that offers an opportunity to discuss environmental issues, challenges and achievements at different levels, and increase awareness and understanding of the persisting problems and their solutions. Green Conclave has been designed to be one of the prominent forums of public discussion on climate change, climate protection, earth system sciences and earth care policies which attract worldwide attention. It is expected that the sessions will be attended by approximately 500 participants comprising government delegations, international, ecological, business and research institutions, non-government organisations and national and international representatives.
Organised by: Gateway Media Pvt. Ltd.
Website: http://www.greenconclave.in

ECO-ARCHITECTURE 2010: THIRD INTERNATIONAL CONFERENCE ON HARMONISATION BETWEEN ARCHITECTURE AND NATURE
Date: April 12-14, 2010
Location: La Coruna, Galicia, Spain
Eco-Architecture is by definition inter-disciplinary; it requires the collaboration of engineers, planners, physicists, psychologists, sociologists, economists, and other specialists, in addition to architects. The aim of the conference is to provide a forum for discussing the many relevant aspects of Eco-Architecture.
Organised by: Wessex Institute of Technology, UK and University of La Coruña, Spain
Website: http://www.wessex.ac.uk/10-conferences/eco-architecture-2010.html

HERITAGE 2010: HERITAGE AND SUSTAINABLE DEVELOPMENT
Date: June 22-26, 2010
Location: Évora, Portugal
The conference is proposed to be a global view on how heritage is being contextualised in relation with the four dimensions of sustainable development. What is being done in terms of research, future directions, methodologies, working tools and other significant aspects of both theoretical and field approaches will be the aims of this International Conference. Furthermore, heritage governance, and education are brought into discussion as the key factors for enlightenment of future global strategies for heritage preservation and safeguarding.
Organised by: Green Lines Institute for Sustainable Development
Website: http://heritage2010.greenlines-institute.org/H2010website/com_scientific.html

Dronah is an interdisciplinary organisation constituted by highly motivated professionals from various fields who share a vision for a better quality of life – one that is sustainable, environmentally sensitive and draws on the contemporary without foregoing the strengths of the traditional. It is our aim to actively promote sustainable development through conservation, utilisation of traditional practices and modern technologies, knowledge sharing and mutual interaction. The organisation is focussed on conservation and development of the built heritage, environment; and art and crafts with the involvement of local community, in addition to being engaged in documentation and educational activities.

Rs.250 / USD 20