

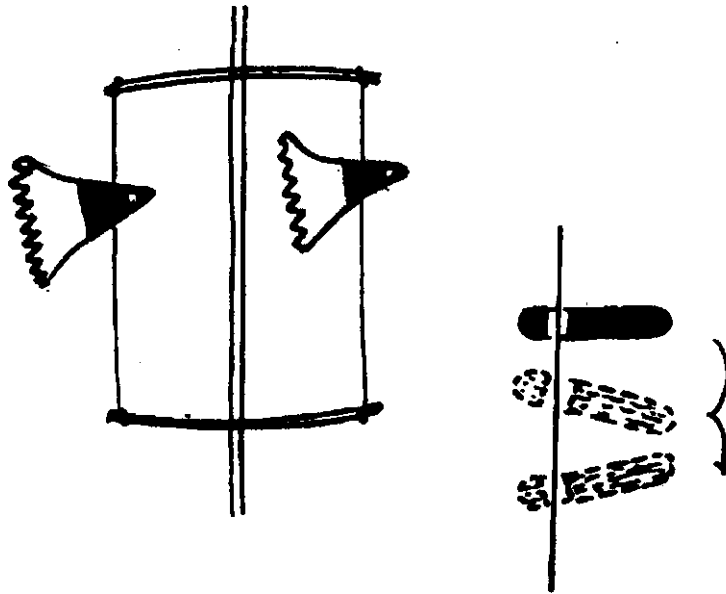
INDIAN TOYS & TOY MAKERS:

Our Design Heritage

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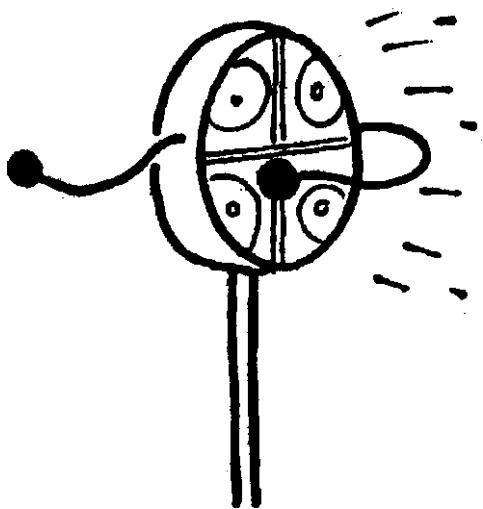
Indian Toys & Toy makers Our Design Heritage

In India there is a living tradition of indigenous popular toys. Yet despite its great worth and value, this area of crafts for children is among the most neglected parts of our cultural heritage. My interest in the development of Indian toys grew from a different angle. I used to teach a course in Material Manipulation for design students at the National Institute of Design (NID). We often looked for simple examples of good material usage and discovered that traditional *mela* toys, particularly the ones that move or make sounds, were remarkable examples of the creative and thoughtful use of materials. In the process, we also found that many of our simple toys had far more to offer in terms of fun and learning. Traditionally, such toys were associated with fairs and festivals. For most children, toys sold at the *melas* were the only playthings that they could afford. But all this is radically changing.

About 15 years ago, I visited the *Janmashtami mela* at Ahmedabad for the first time. This is a big street *mela* organized at Dilli Darwaza, a prominent location in the old part of the city. Walking through the milling crowds, one noticed that toy makers were selling an amazing variety of toys. There were at least a hundred toy sellers, most of whom were men, with a few women and children. Their toys included flutes and whistles, spinning paper wind-wheels, moving puppets, chirruping birds in motion, striking snakes crawling paper snakes, rattles and drums, optical illusion toys, acrobats, magic trick toys-the variety was endless. It seemed as if a toy exposition had been planted there-almost every toy maker of Ahmedabad city must have come to this day long fair.

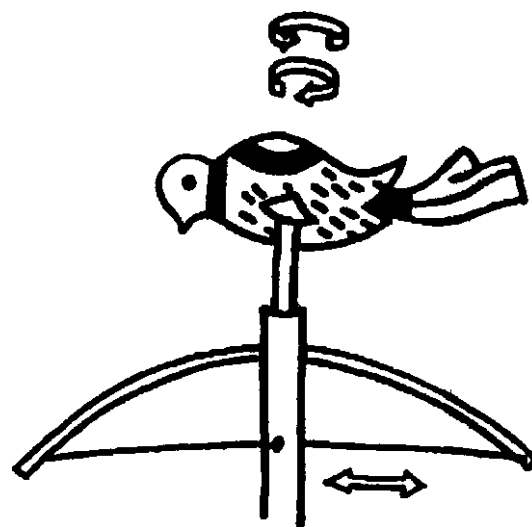
The *Janmashtami mela* also had many stalls selling colourful clay images of Lord Krishna and other gods. Some stalls were selling factory-made plastics, rubber and sheet metal toys. The fair also had the usual sweetmeat sellers, the merry-go-round, and the makeshift type of small circus. But the simple movable, sound-making toys were the most memorable.

Since then, every year on *Janmashtami* day, I made it a point to go to this *mela*. The plastic toy stalls multiplied, the ice-cream vendors increased, but the moving and sound-making toys got rarer and rarer. Every year, fewer and fewer toy makers set up their stalls. Last year, there was barely a feeling of a living tradition, which had existed just a decade ago. What has happened at Ahmedabad is not unique. This seems to be the shape of things taking place all over the country, particularly in the case of folk toys.



"Dugdugi" (Drum Rattle).
Makes melodius sounds.
Paper, bamboo, clay, string.
Bought for 20-paise,
Ahmedabad, 1970.

"Chiddia" (Bird in flight). Rotates
when the bow is moved back and
forth. Paper, bamboo, string.
Bought for 50-paise, Bhopal 1985.



Yet, there is still some continuity in the tradition of folk toys. Concepts and ideas for toys that have been handed down through generations are being made even today. There are many communities like the *Vaghris*, semi-nomadic in Ahmedabad area, whose womenfolk make clay carts, figurines and rattles of clay and paper. Their toys are similar to those made generations ago. India, China and Japan were famous for their ingenious toy concepts based on scientific principles. But there is a changing trend today. The oldest as well as the latest toy ideas from the West are being produced in our country today. There is a fast growing factory-toy manufacturing business of over Rs. 1000 million per annum. But this sector is, by and large, making imitations of the popular ideas developed abroad. There is, as such, no specific Indian context or originality in the toys manufactured by this sector.

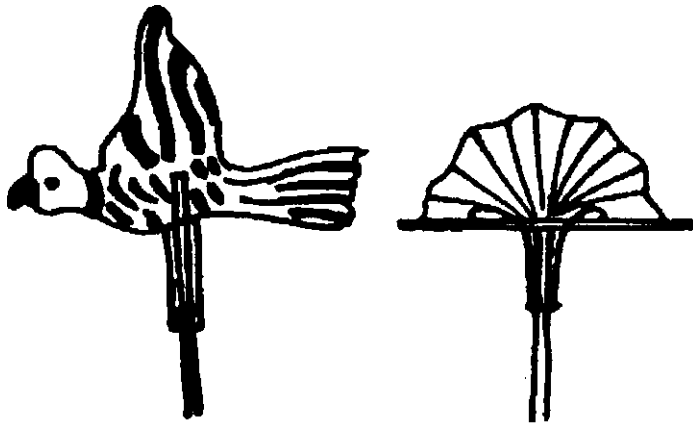
The Dynamic Toys

Amongst the traditional toys produced by craftsmen and artisans throughout the country, there are two broad categories. On the one hand are the static, figurine-type, craft toys and the dynamic, moving and sound-making *mela* toys on the other. The former include dolls and figurines of gods and goddesses, men, animals, birds and themes related to our day-to-day environment, made in clay, wood, metal, leaves, bamboo, paper etc, using established craft techniques. These are made for such occasions as *Janmashtami*, while the dynamic toys are the action-packed, ingenious playthings designed and produced by artisans. This category of toys is also based on themes of everyday life, which have a significance for children. Both these categories are made by hereditary craftsmen as well as by semi-skilled artisans. Some of them are first-generation professionals.

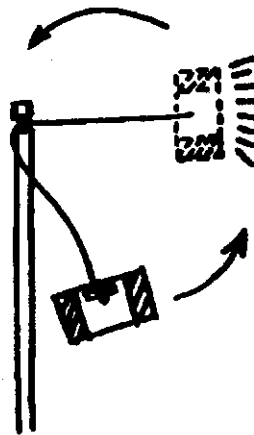
I have often presented all types of toys to the children in my locality and have noticed a qualitative difference in response. In most cases, the children show a marked preference for the action-based dynamic folk to paper toys like a paper puppet, a striking snake made of reeds, a bamboo whistle, a paper and clay bird, and an acrobat. But what makes children like these toys? Possibly the reason is that dynamic folk toys have the following special features.

Themes

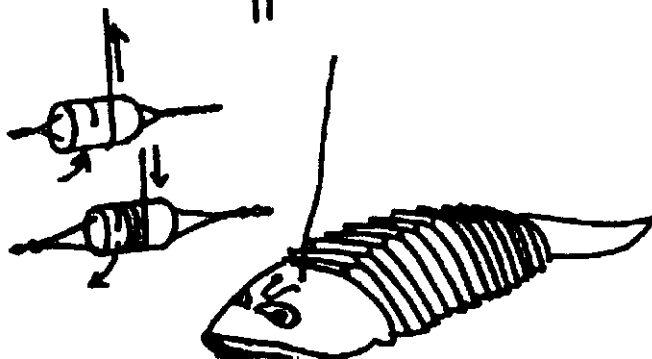
First, dynamic toys are simple. They communicate directly and clearly. Their themes are often humorous: a wrestler boxing, a man fighting, a joker dancing, an acrobat somersaulting, a sparrow chirruping and flying, a frog croaking, a bee humming, a horse galloping. All these themes fascinate young children. Their simplicity of construction is yet another advantage because they have an element of surprise.



"Panchhi" (Flying Bird). Its wings flap and a paper flower opens. Paper, bamboo, piece of wire. Bought for 25-paise, Ajmer, 1978.



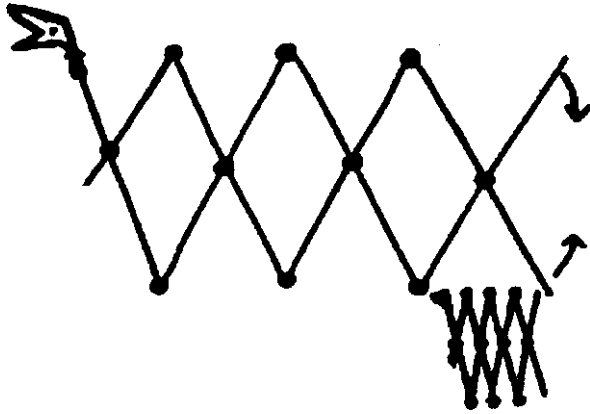
"Bhavara" (Humming Drum). Makes a high-pitched sound like a beetlew. Paper, clay, bamboo stick, horse hair. Bought for 10-paise, Ahmedabad 1976.



"Saap" (Snake). The snake glides. Paper, clay, roller, rubber band, wire and thread. Bought for 50-paise, Calcutta, 1980.

Simple Materials

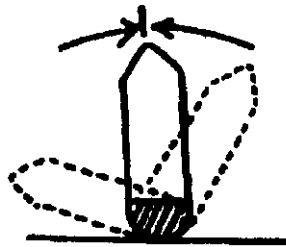
The toys are made of simple materials like paper, cardboard, bits and pieces of wood, bamboo, metal sheets, wire, etc. Toy makers who live in cities and industrial areas make use of waste materials. This recycling process includes newspapers, discarded cartons, boxes, tins, metal scraps and other odds and ends. Even discarded parts of machines and equipment are used very ingeniously. The use of recycled materials at no overhead cost enables artisans to sell their toys at unbelievably low prices.



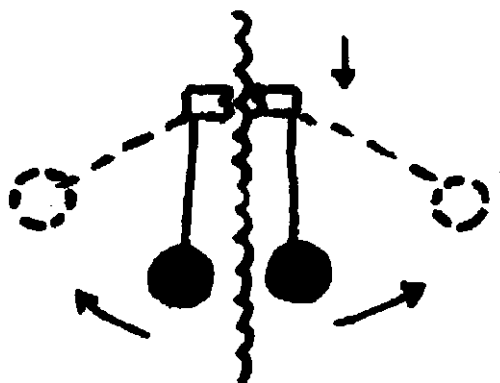
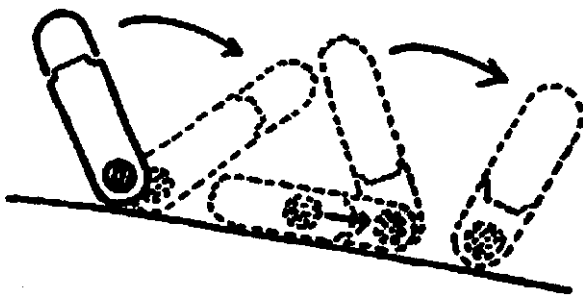
"Naag" (King Cobra).
The snake strikes. Made
with reeds, metal pins,
paper. Bought for 50-
paise, Ahmedabad, 1980.

Local Cultural Ethos

The other significant feature is the relationship of the toys with the local cultural ethos and the fact that they are created in a regional context. Moving puppets depict a warrior in Rajasthan while a similar paper puppet is made to depict a dancing ghost in Bengal and a wrestler in action in Uttar Pradesh and Punjab. The influence of Hindi films is also slowly creeping in. Many folk toys have printed pictures of film heroes and heroines.



Two popular toys operate
on the basis of laws of
physics relating to the
centre of gravity and shifts
in the centre of gravity.



Centrifugal and centripetal
laws of physics are applied
in "Nagar dola",
a merry-go-round toy.

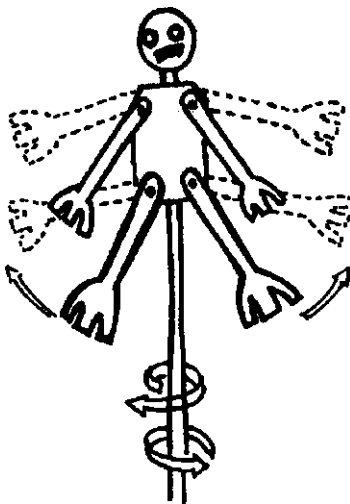
Scientific Principles

Dynamic folk toys reveal in their structure a close relationship with the basic principles of science and technology. If we analyse any of these toys, we would find the application of one or more laws of science: the basic laws of gravity and equilibrium, levers and inclined planes, the concept of centrifugal forces, energy transformation, the concept of sound, optical illusion, etc. In fact, quite a few of these toys would be very useful as teaching tools for illustrating principles of physics.

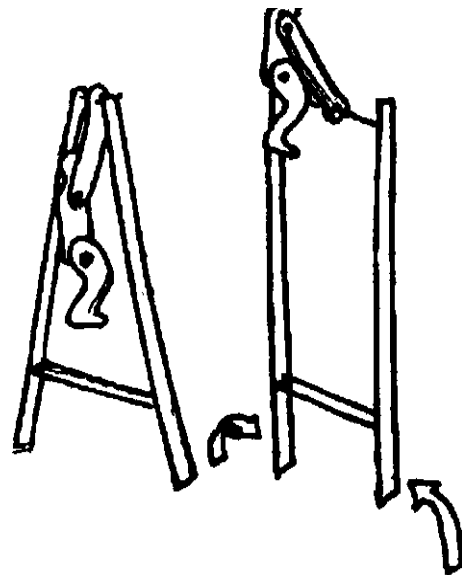
Elements of Technology

These toys are also remarkable examples of ingenious ways and means of using the basic principles of technology. These simple things work because the fundamentals of technology are adhered to. The aspects of accuracy, precision and tolerance, assembly of parts, linkages and mechanics, energy transformation, properties of materials—all these are taken into account to make a drum, a puppet or a bird in flight.

Dynamic folk toys are also good examples of the application of the popular arts. They tell us a lot about creativity as well as the use of form and colour to express an idea.



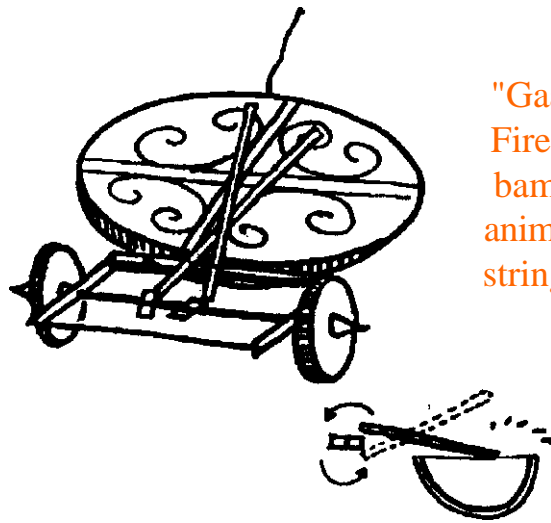
"Bhut" (The Ghost). Paper, bamboo stick. Bought for 25 paise, West Bengal. "Nat" (Acrobat). Cardboard, bamboo or wooden sticks, string. Bought for 50-paise, Ahmedabad, 1980.



"Nat" (Acrobat). Cardboard, bamboo or wooden sticks, string. Bought for 50-paise, Ahmedabad, 1980.

SOME EXAMPLES

Moving puppets, one of the simplest toys in the toy maker's repertoire has many variations such as the *bhut* (ghost), *sipahi* (the warrior), the joker, *pahalwan* (the wrestler), the dancer, etc. The arms and legs move agilely when a little jerk is applied. I once bought the *bhut* for 20 paise in 1977 at Bolpur in West Bengal. It was made of small pieces of clay, palm-leaf, paper and a stick of bamboo. The principle behind the moving parts is the use of centrifugal force. The concepts of the lever and link-mechanics are similarly applied.

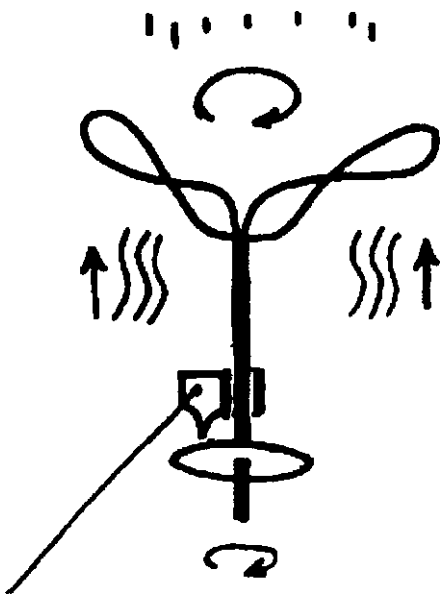


"Gaadi Baja" (Cart-drum).
Fired clay pot and wheels,
bamboo sticks, discarded
animal intestinal membrane,
string. Bought for 50-paise,
Calcutta, 1977.

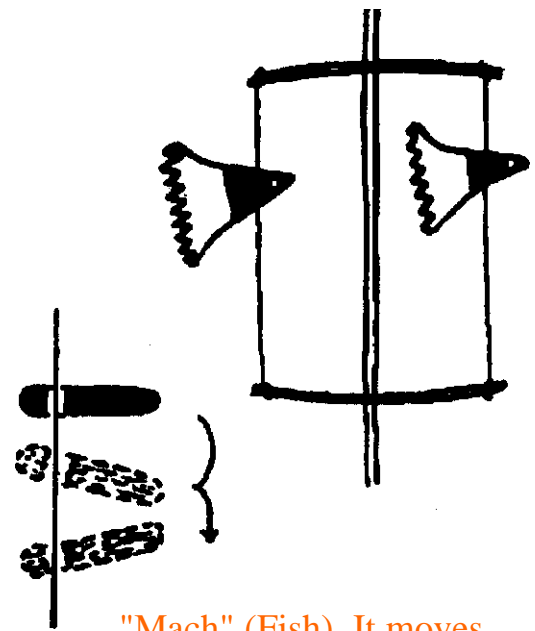
Nat (the acrobat) is another simple but fascinating toy. Costing 25 paise about a decade ago, the acrobat figure rolls up and makes quick somersaults when the supporting vertical sticks are pressed together. Behind the action lie the principle of the lever and the transformation of linear movement into circular movement.

The cart-drum toy is amongst the most popular action based folk toy. When little children drag it behind them, a drum starts beating. Cart drums are made all over the country.

Another toy, which really fascinates me, is the *chiddia*, sparrow. It is also called a 'helicopter'. Years ago, I saw this with Yusuf - a gifted and versatile slum dweller at Ahmedabad who used to make it whenever he needed some money. When I first saw Yusuf at a local *mela*, I bought this for 25 paise. The toy does not in fact look at all like a sparrow or a helicopter. It is made of the most frugal materials like a paper blade, a tiny bamboo stick, and two small pieces of metal sheets and an arm's length of thread. When moved through the air, this non-descript little thing suddenly transforms itself a bird like creature. This is an amazing concept to make a paper blade move in the air creating circular motion, which makes two metal pieces scratch and produce a chirruping sound. The toy is made in the millions and sold at *melas* all over the country. It is a very ingenious example of simple yet effective design and technology.

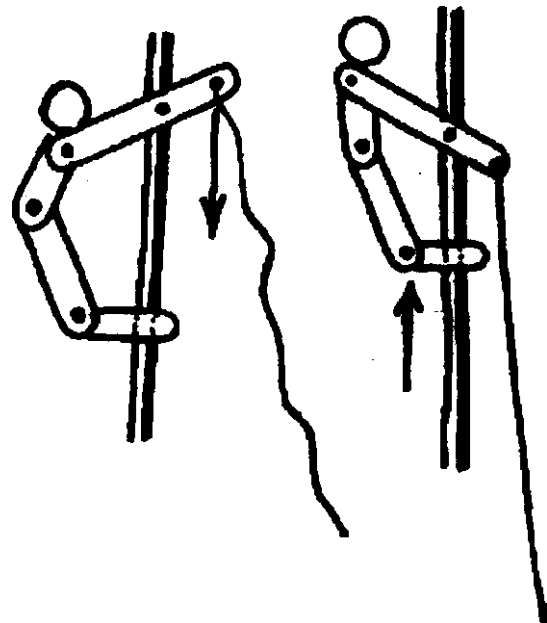


"Chiddia" (Sparrow). It rotates and makes sound like a sparrow. Paper, bamboo, stick, pieces of metal sheeting, string. Bought for 25-paise, Ahmedabad, 1977.



"Mach" (Fish). It moves downwards with a slow, jerky, fish-like motion;. Clay, paper, thread. Bought for 10-paise, West Bengal, 1976.

Swimming fishes' are a Bengali speciality. I bought this for 10 paise in 1976 at a fair near Calcutta. The toy is most ingenious. The fish do not actually fall but come down rapidly in jerks as if they are swimming down a river. The laws governing the centre of the gravity and the use of stored energy are the main principles behind this toy's functioning. The fish itself is made with simple materials. The fish-head is made out of unbaked clay, with paper forming its body. The head is put onto the strings, which are kept in a state of tension by means of a reed structure. This toy was made by a ten year old boy who had brought about a hundred pieces to the fair, all of which were sold in an hour's time.



"Bandar" (Monkey). Sholapith, string, broom-sticks. Bought for 25-paise, West Bengal.

I once discovered a lovely jumping *sholapith* monkey at the Tarakeshwar fair near Calcutta. It was just 20 paise. Made of a locally grown fibre called *sholapith*, typical of Bengal and Orissa, the monkey climbs up when the string is pulled. This toy was made by two children a boy of twelve and a girl of ten.

THE TOY MAKERS

Dynamic folk toys are generally made by skilled as well as semi-skilled artisans all over the country. Toy making is not confined to a specific caste or community. In the slum area of any city, you would find many people making their living by it. Toy making is relatively easy to learn, with a negligible investment in tools, equipment and space. The marketing is done by the toy makers themselves. I knew a person who used to drive an auto rickshaw until poor health made him give up driving. He learned toy making as an alternative. The recent large-scale retrenchment of mill workers in Ahmedabad city for example has driven many mill hands to toy making and selling.

Rattles, simple drums, clay animals and figurines are excursively made by women while men make most of the toys needing the use of even simple tools like pliers. Almost all the animated toys, which need the assembly of parts, are made by men. Toy making and selling are normally a family affair. Women and children often help in the preparation of materials and in finishing the goods. Occasionally one comes across young boys from artisan families selling toys, which they have made on their own.

There is no way of ascertaining the number of people involved in this profession. Judging from the attendance at fairs, and from the scanty information available on toy making communities, thousands of people would be involved as full-time professionals while several more would work on a seasonal or part-time basis.

There is a large community in Calcutta and its suburbs, which makes drums, cart drums and toy violins. Hundreds of artisans in Bombay make toys throughout the year. There are also specific communities all over India in which the women make rattles and drums. While the above groups are hereditary communities doing this kind of work for generations, there are many others who take to toy making for a living. For example, Abbas, a sensitive toymaker from Calcutta, had to learn the art after losing his job as a hotel waiter. There are hundreds of others like Abbas who take up toy making as a possible alternative occupation. Folk toy making is also not confined to any one place in the country. Traditional *melas* and fairs are still very extensively held in states like West Bengal, Orissa and Madhya Pradesh, where one can still find many traditional toy sellers.

ALIVE BUT FLICKERING

The earnings of most dynamic folk toymakers are very low. Their clients are largely from poor communities for whom they have to keep the price to a minimum. Low economic returns are one of the reasons for massive dropouts. The other factor is the inroads made by the mass-produced, factory-made plastic toys. Despite the low returns and the absence of any institutional support, dynamic folk toy making is still alive but flickering. At present, there is hardly any design development but a lot of

toymakers are aware of importance of creativity and innovation in their profession. The dynamic folk toys are of such importance, it is sad that these have been neglected by society.

SOME SIGNS OF HOPE

But in recent times, some realisation has dawned among educationists and child development experts that factory made toys cannot replace the artisans' toys which express our cultural roots. Our society will have to accept that toymakers have a much wider role than merely being producers of playthings. It is now high time that the artisan is recognised as a professional in his own right.

A lot needs to be done to heal the damage done to the field of artisan-made toys. Some years ago the Development Commissioner of Handicrafts, in collaboration with the National Institute of Design, had formulated proposals, which would revitalise this sector. It is necessary to build toy museums, training centres and marketing tie-ups at the state as well as national levels. It is essential to create ways and means by which talented toymakers, innovative educationists and committed designers' team up to salvage this sector of our design heritage.

REFERENCES

1. Sudarshan Khanna **Dynamic Folk Toys**, National Institute of Design, Ahmedabad. Published by the Development Commissioner for Handicrafts, Govt. of India, New Delhi, 1983.
2. Sudarshan Khanna **Joy of Making Indian Toys** National Institute of Design, Ahmedabad. Published by the National Book Trust or India. New Delhi. 1992.
3. Sudarshan Khanna **"KHEL-KHOJ"** A kit of innovative toys made by children, National Institute of Design, Ahmedabad, 1992.

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