Dynamic Ephemeral Ingenious Toys;
Playful Design Heritage for Innovative Learning & Earning

Sudarshan Khanna  www.sudarshankhanna.com
Surabhi Khanna    www.surabhikhanna.com
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Design is the missing link in education and development in India today. We realized this aspect over the years while conducting toy design & innovation workshops for teachers and children. We also realized that design heritage has been the main resource of inspiration and research base while developing new innovative design ideas. The experience of playing, making and designing provides understanding of what is integrated and inclusive education & development. School education at present is largely disconnected with the indigenous knowledge systems and socio-cultural resources. The curriculum is usually devoid of integration of head, heart and hands. Fortunately in general, the diverse design heritage is still alive in several places in India today. Many design students and professionals are now keen to work for design for society aspects and to participate in the process of education & development.

Let us look into the design sector related to children, particularly the toys & games. Today, in most of the industrial societies, toys & games are being produced in factories as products of global and mass consumption. Earlier, toys & games were also designed & made by children, families, and local professionals. In India, both the traditional and the so called modern sector exist today. The factory made toy & game sector in India is not much serious about design & development. The factory sector has not acquired any specific unique identity. On the other hand, the self-organized or traditional sector has very much declined over the years but this sector still provides creative work at homes for many & retains its own unique Indian identity. Amongst the traditional toys produced by craftsmen and artisans throughout India, there are two broad categories.


Static, figurine-type, craft toys

Potter selling terracotta toys, Nagur, Rajasthan

Terracotta motorcycles, Nagur, Rajasthan

Wood painted toys, Orissa

Wood pole-doll, Nutangram, West Bengal

Wooden painted toys, Kondapalli, Andhra Pradesh

Turned-wood lacquered toys, Varanasi, Uttar Pradesh
Static, figurine-type, craft toys
These include dolls and figurines of gods and goddesses, people, animals, birds and themes related to our day-to-day environment, made in clay, wood, metal, leaves, bamboo, paper etc, using established craft techniques. There are many communities working on design and hand production of these figurine toys. The well-established traditional communities are at Kondapalli, Chenapatna, Banaras, Budhnighat, and many other locations all over India. There would be several thousand of tradition trained skilled craft persons. This sector has not received needed institutional support and has survived due to its own community based strengths but still facing many difficulties as commonly being experienced by most craft communities today.

In this presentation, we would be focusing on the value and worth of ephemeral action toys being made by artisans:

Dynamic Traditional Ephemeral Toys
This category of toys is action-packed, ingenious playthings designed and produced by artisans. These are toys with tales. Dynamic traditional toys are simple in construction but magnificent in action. They communicate directly and clearly. Their themes are often humorous: a wrestler boxing, two men 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. These toys are made of simple, everyday used materials like paper, cardboard, bits and pieces of wood, bamboo, metal sheets, wire, etc. Toy makers also make use of waste materials. These toys can be easily made and redesigned by older children and adults.

The other significant feature is the relationship of the toys with the local socio-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.

Dynamic folk toys are based on the basic principles of science and technology. If we analyze 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 science mainly physics.
Dynamic Traditional Ephemeral Toys

Jigging Puppets and String Pullet Puppets from various parts of India

Motion and sound toys – merry go round toys, paper, Varanasi, Uttar Pradesh & Delhi respectively

Banlancing toys, paper/ paper mache, Puri (Orissa), Mumbai (Maharashtra), Delhi

Cart-Drum (Gaadi - Baja), terracotta, bamboo, animal intestine layer, Kolkatta, West Bengal

Dynamic Folk Toys Monograph
These toys are also remarkable examples of ingenious ways and means of using the basic principles of technology. These simple play 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 color to communicate an idea.

Every society had a great deal of practical and useful knowledge, often expressed most creatively and effectively through the tales and toys of that society. Yet despite its great worth and value, this area of crafts & design for children is among the most neglected parts of our cultural & educational heritage. Traditionally, such toys were associated with fairs and festivals. Let us describe the experience of a traditional festive fair visited some three decades ago in the city of Ahmedabad in India. 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, 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. This Janmashtami mela (a fair on the birth day of Hindu god Krishna) 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. Over the years, plastic toy stalls multiplied, the ice-cream vendors increased, but the moving and sound-making toys got few and fewer. Now the same fair at the same location, does not have any feeling of design heritage. What has happened at the city of Ahmedabad, in India, is not unique. This seems to be the shape of things happened all over the country, particularly in the case of folk toys & toymakers.


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DYNAMIC TOY MAKERS

Crawling snake, paper, clay, Ahmedabad, Gujarat

Folk toy makers & sellers, Ahmedabad, Gujarat

Ullu ka Pattha (wobbling pencil toy), paper, clay, Delhi

Toymaker & seller at a fair, Bhopal, Madhya Pradesh
DYNAMIC TOY MAKERS
This type of Toy making is not confined to a specific caste or community. In the slum area of any city, you would find some 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 often done by the toy makers themselves. 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 large-scale retrenchment of mill workers in Ahmedabad city for example had 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 dynamic 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. At Delhi Haat; the craft bazaar, in Delhi, we can meet a few toymakers who are allotted space to sell their products. Otherwise, there is no such association or group to coordinate this special sector of toy making.

SOME SIGNS OF HOPE
In recent times, some realization has dawned among designers, educationists and child development experts that factory made toys and digital games cannot replace the artisans’ toys & games which have cultural roots and provide direct experience of design, play and culture. It is now high time that these toy artisans are recognized as a professional in their own right. A lot needs to be done to heal the damage done to the field of artisan-made toys. Toys are products of culture; toys are also good examples of creativity and design. Once we accept that the role of toys and games is also related to promoting socio-cultural diversity and the education-development perspectives, the question comes up as how are we supposed to carry forward such a social agenda at a sustained and effective level.
At the National Institute of Design (NID) we had realized the need for professionals specifically trained for this sector of design. A post graduate toy design & development program was introduced at India’s National Institute of Design in 2001. This program trains professionals for toy & game design related to industry, craft sector and the special need sector. Now, India has a large number of professionally trained designers for play products. Many years ago, National Institute of Design in cooperation with the development commissioner for handicrafts had formulated proposals which would have revitalized this sector. It is necessary to support toy museums, training centers 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 take forward this sector of our design heritage.

THE WAY FORWARD:
We conduct toy & game design workshops for teachers and students basically with an idea to introduce Design & Innovation in the education system. Design is the missing link in the integrated and inclusive education that is much talked about today. Most of the toys being produced by artisans can be made and redesigned by older children and adults interested to work with their hands. Many of the traditional artisans are giving up this trade due to lack of opportunities to sell their products. The current education curriculum does not permit innovative, creative work done with one's skills as part of learning or earning. The following are very simple ways to take forward this innovative but utterly neglected work relating design heritage & education.

- As a part of policy, every school could be provided a yearly budget with a guideline that this specific amount must be spent on buying the local dynamic traditional toys only. There are over 1.3 million schools in India and an even a modest annual budget specifically for purchase of traditional toys from toymakers would provide enough business support for thousands of toymakers all over India. This would also facilitate the beginning of the idea of design activity lab and toy & game library at schools.
- Make Toy Design & Heritage as part of the Teachers Education and continuing Education in the school system. Today, there are several design institutions and there are many designers interested to give their inputs for constructive and meaningful education. The school education system should include this input in the teachers’ education programs.

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


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• Include toy making and toy designing as part of the Skills Development Program. The local practicing toymakers should be involved as an honored visiting instructors-experts and trained designers invited to provide inputs on design process, methodology and marketing aspects of this creative work. Interested young people can become professional toymakers.

• Help toy design communities in making their location as local Design Heritage Centre. It would be useful to have mini toy museum-resource center’s managed by the local design-craft communities and local schools promote/publish work of design innovations by traditional toymakers, designers and other participants and stimulate a culture of new design development and innovation at local level.

• Most importantly, provide free space to toymakers for selling toys and games produced by then at many suitable public locations in every city and town.

With such simple way forward, it should be possible to enrich education for millions of children. Besides, these steps would facilitate recognition of the value of work of toy makers and designers. All this is possible. Yet such simple and workable methods of enrichment of education and craft-design development need vision, political will and participatory planning. There is urgent need for supporting design heritage and relating it to education as a special method for Learning & Earning. Such simple initiatives can also facilitate much towards building the peaceful, innovative society focusing on joyful local self-sufficiency and creative development in the context of “Good for All”.
THE WAY FORWARD:

Khel Manthan (Churning-Learning), early education play kit for story development. designed and developed by Surabhi Khanna

Magic Flowers - new developments by Surabhi Khanna
Design and Education workshops for teachers, children conducted by Sudarshan Khanna and Surabhi Khanna

Design and Education workshops on Toys & Tales, for teachers and trainees, conducted by Surabhi Khanna and Sudarshan Khanna

Play, Design & Education workshop, for teachers at Katha organization, conducted by Surabhi Khanna
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