Traditional Vegetable Dyes: An Insight into a Neglected and Endangered Facet of the Intangible Cultural Heritage of the Patuas of Naya, Paschim Medinipur

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Abstract :

The Patua (or Chitrakar) communities of the Rarh region of Eastern India are folk painters-singers whose traditionally livelihood is centred around their intangible cultural heritage of publicly performing Hindu or Muslim legends or tribal folklore by chanting or singing them with the help of the frames of brightly-coloured painted narrative scrolls called patachitras. Unfortunately, competition from other contemporary media is significantly eroding this traditional way of life. In response to this cultural crisis, and as a novel means of supplementing their family incomes, a group of women of Naya, a small Patua community in the Pingla block of Paschim Medinipur district, West Bengal, have formed a rural craft-hub for marketing their traditional products across India and even abroad. Thus, the Patuas of Naya are significantly contributing to the conservation of their multi-faceted intangible cultural heritage. Preparing the paints is perhaps the most important precursor to the creation of a patachitra painting. Although readily-available synthetic chemicals are becoming increasingly popular, however some of these Patuas are still holding on to their age-old traditional knowledge and skills in sustainably using their local natural resource bases for obtaining the raw materials that are used to make their indigenous paints. Like many other folk art traditions of Bengal, the bright hues used in this art form are largely vegetable (occasionally mineral) dyes that are extracted from the local plant resources, using diverse plants and their parts such as bark, wood, roots, leaves, flowers, fruits and seeds. This article documents the local dye-yielding plants and the traditional process of preparing the natural dyes that are used in the patachitra paintings of Naya, Paschim Medinipur. This study also shows how these natural colours as an integral part of the patachitra paintings expresses the artisans' innate union with nature.

Keywords: Intangible Cultural Heritage, Naya, Patachitra, Patuas, Vegetable Dyes

Introduction

The innate human need to express the essence of socio-cultural values has resulted in visuals being an important element of human communication through the ages. Paintings, as one of the richest forms of visual communication, is reflected in human surroundings, employing diverse natural themes from nature into everyday life. This involves the portrayal of nature in visual motifs on the walls, roofs and boundaries of natural caves or man-made shelters across the world. Historically, the society, culture and art of Bengal have been syncretic, bringing together disparate ideas while holding on to aesthetic manifestations with identifiable local features. Over the last two millennia, indigenous beliefs, Hinduism, Buddhism, Jainism, Islam and Christianity have been practised in Bengal and diverse communities have contributed to the area's complex aesthetic heritage (Chaudhury 2013: 7). The synthesis of diverse influences has contributed to the rich culture of Bengal which is the perfect blend of modernity and tradition. This matchless syncretism in the art of Bengal is also reflected in its timeless folk art. The folk artists have drawn on different aspects of traditions at different times in attempts to reflect and create new identities. What imparts distinction to their art is their immense imagination, a passion for embellishment, an inborn ability to render symbolic dimensions to a routine form, and to give the things scattered around the status of art imagery—all transformed by the artists, not just individuals, but communities in their entirety, generations after generations. In a world where every minute seeks means to distort and destroy, they have kept singing the notes of their minds, dancing to the beats of their hearts, and discovering in the jumble of things, rough crude lines, raw colours and incoherent motifs, a world that breathed purity, harmony, respect and concern for the rhythmic patterns of life as a whole.

Our world teems with a wide array of colours that fascinate the human mind. From time immemorial, human beings who delight in such perceptions have tried to imitate these colours in our everyday surroundings. Plants, since the dawn of human civilization, are important to all of us in infinite ways. They provide us our basic necessities such as food, fodder, fibre, timber, fuel and medicine. They make our lives beautiful with colour and aroma. The traditional knowledge and skills involved in the extraction and use of natural dyes is an important, but now neglected and endangered, intangible cultural heritage common to all artisan communities. The use of vegetable dyes from local plant resources is ubiquitous among the traditional painters of India that includes a multitude of folk art forms such as Madhubani (Bihar), Patachitra (West Bengal and Odisha), Phad and Pichhwai (Rajasthan), Pithora (Gujarat), Warli (Maharashtra), Mandana (Madhya Pradesh), Nirmal (Telengana) and Kalamkari (Andhra Pradesh). However, in today's globalized reality of mass production with cheap synthetic chemicals, these age-old practices have been diluted and are slowly disappearing due to their higher costs and depleting markets (Saxena and Raja 2014: 77). This article focuses on a neglected and endangered facet of the intangible cultural heritage of a prominent community of patachitra painters of West Bengal. This is an endeavour to document and therefore preserve the knowledge and skills involved in the traditional preparation of vegetable dyes

from local dye-yielding plants for use as paints in their traditional folk art of the Patuas of Naya, Paschim Medinipur. This endeavour focuses on how the visual music of these natural colours, conjured up by the deft brushwork of the artisans, produces not merely folk paintings, but, rather, are ultimate expressions of the rural artists' profound and joyous connection with the nature world.

The Patua community of Naya

Patachitra folk art tradition of Eastern India is in the form of painted narrative scrolls. This is a unique art form where oral tradition meets visual art. In both Sanskrit and Pali, pata (derived from the word patta) means "cloth" and chitra means "picture," thus, patachitra literally means "pictures painted on a piece of cloth." These patachitras paintings are a mix of folk and classical elements. In Bengal, this is essentially a folk tradition with the subjects ranging from Hindu or Muslim legends or tribal folklore, but in neighbouring Odisha, the subjects are largely from classical Hindu mythology. This patachitra painter community is thus called Patua. All of them bear the last name Chitrakar, meaning "painter. These painters are mostly Muslims in Bengal, but all Hindus in Odisha. In the Rarh region of Bengal that lies between the Chhotanagpur plateau and the Gangetic delta, they publicly present the story of folk deities like village bards, by unfurling the rolled scrolls of up to 20 feet or more called pat khelano (playing with the pata) and performing the song called pater gaan (song of the pata) in Bengali to create an intricate tapestry of storytelling, music and art (Bhattacharya 2001: 5). Thus, this unique community of folk artistes are painters, lyricists, singers and performers all rolled into one. Although their precise origin is still undated, yet it has been estimated to be a tradition in Bengal that spans a millennium (Maitra Bajpai 2015: 2). Traditionally, Patua artists would travel from village to village, especially to the households of the rural elites, for their sacred traditional performances to receive food or money out of piety from the patrons and spectators. Today, they travel to various art and craft markets in the larger city centres or to local fairs to sell their paintings. Another interesting aspect of their intangible heritage is that it carries the essence of a traditional mass media. Unfortunately, the loss of traditional values and competition from contemporary media has significantly eroded their traditional way of life. In response to this cultural crisis, and also as a novel means of supplementing their family incomes, a group of women of Naya, a small Patua community living in the Pingla block of Paschim Medinipur district, West Bengal, have formed a rural craft-hub for marketing their traditional products across India and abroad. Located in the heart of the arid Rarh region of West Bengal that lies between the Chhotanagpur plateau and the Gangetic delta, this tiny village with an ancient heritage of painting narrative scrolls is home to around ninety Muslim families with around 400 Patuas. About five years ago, Naya became the site of its own art festival—the Pot Maya, which is a festival featuring the scroll paintings, music, dancing and singing. The life of the Patua artist is centred on the many aspects of painting—collecting materials for making their vegetable paints and handmade brushes, painting their scrolls, and travelling to sing the stories of their scrolls and to sell their paintings. The theme of the paintings and its songs are both traditional ones handed down the generations as well as

original interpretations related to contemporary society (Palit and Dutta 2016: 221). This art tradition was customarily passed from father to son, but today it is also being taught by fathers to daughters and mothers to daughters (Chattopadhyay 2004: 16). Thus, the Patuas of Naya are significantly contributing to the conservation of their multi-faceted intangible cultural heritage. The data presented in this study was primarily collected through surveys around this village during the pre-monsoon (April 2017), monsoon (August 2017) and post monsoon (February 2018) to record the local flora alongside the interviewing of local artisans to document their dye-yielding plant resources and the traditional techniques used in preparing natural dyes used in their patachitra paintings.

Traditional Vegetable Dyes

Natural dyes are colorants obtained from plants, insects or minerals. These have been used since the ancient times for adding colour to the body, food, wall, textile, paper, leather and numerous other objects of daily use (Kierstead 1950: 2). These dyes are usually water-soluble and are generally applied in an aqueous solution, and may require a dye fixative or mordant to improve its binding on the substrate such as fibre, fabric or paper. Most natural dyes are vegetable dyes that are derived from the aerial or underground vascular plants, as well as from fungi and lichens. The making of natural dyes is one of the oldest skills known to humanity (Křížová 2015: 59). However, most modern dyes, since the middle of the nineteenth century, are artificially manufactured from synthetic chemicals (Gulrajani 2001: 194).

The artisans of the village of Naya were interviewed to document the traditional dyes prepared and used by them for painting their patachitras. The pertinent literature was also surveyed for any already documented information. Das and Mondal (2012: 166-69) had reported several dye-yielding plants from this region but their report lack the details of the dye extraction methods. This study documented the use of 20 dye-yielding plants to obtain a wide range of dyes. The dyes were extracted from their roots, rhizomes, stem, leaves, bark, wood, flower, fruit, and seeds. These dyes represent a wide range of colours including the three primary colours, red (magenta),yellow and blue (cyan). Only for the colour white, kaolin (a mineral) was used. Plant products were also traditionally used as accessories and additives during the process of preparation of these natural dyes. These traditional method are briefly described as follows, the preparation of vegetable (and one mineral) dyes for creating the myriad hues on the painted scrolls. Paper, deftly fixed with gum on cotton cloth to render stability, is used as a canvas for the paintings. The hand-made brushes are traditionally made from the tail whiskers of squirrels and mongoose, tied to slender bamboo sticks. The colours are prepared and mixed in empty coconut shells that are used as palettes. Table 1 is a summary of the following brief account of the preparation of the myriad hues used in the patachitra paintings of the Patuas of Naya, Paschim Medinipur.

Red

The young leaves of teak or segun (*Tectona grandis*) is used. Fresh leaves collected from

the trees growing in dry deciduous forests are crushed with stone mortar and pestle. Alternatively, the heartwood of catechu or khoyer (*Acacia catechu*), bought from the market, is similarly crushed along with lime water (chun), or is chipped and boiled in water. The pastes are squeezed or the decoction is strained to extract the bright red colour. The colour is darkened by sun drying the extract in coconut shells. Finally, the fruit gum of wood apple or bel (Aegle marmelos) extracted from the fruit pulp, a well-known binder, is added and mixed to prepare as a watery paste.

Brown

For preparing the brown dye, mature teak leaves are used instead. Otherwise, the bark of madar (*Erythrina indic*a) is used. Both are collected from trees in the local forests. The fresh leaves or bark are crushed as described above. The extracted brown colour is also processed as above.

Orange

The seeds of latkan (*Bixa orellana*) are only used. The fruits of this exotic shrub are collected and sun dried. The soft seeds are then removed and crushed by rubbing with the hands in a coconut shell or pot. The extracted bright orange colour is darkened and mixed with the natural gum.

Yellow

Yellow dyes are prepared from many sources. The most common source is the rhizome of turmeric or halud (*Curcuma longa*). The fresh rhizomes of this widely cultivated herb are collected, washed and crushed as above. This colour can also be similarly extracted from fresh flower—the petals of marigold or genda (*Tagetes patula*) or flower tube of seuli (*Nyctanthes arbor-tristis*). The dried fruit rind of wood apple is boiled in water. The softened materials are squeezed or the decoction is strained to extract the bright yellow colour and further processed as described above.

Purple

Fruit of or kalojam (*Syzygium cumini*) is the source of the purple colour. The ripe fruits are collected, crushed with the hands in a coconut shell and the soft pulp is squeezed out and the purple colour is mixed with the natural gum. Sometimes, the kalojam fruit pulp is directly rubbed onto the paper.

Blue

Predominantly the flowers of aparajita (*Clitorea ternatea*) and sometimes seeds of babla (*Acacia nilotica*) are used as the source of the blue dye. The flowers are collected from this common creeper, the soft petals are separated and crushed with the hands in a coconut shell. Similarly, the seeds are also collected from the ripe pods and crushed. The bright blue colour is squeezed out, darkened and mixed with the natural gum. Sometimes, the aparajita petals are directly rubbed onto the paper.

Green

Green dyes are also prepared from multiple sources. Leaves of commonly found

creepers such as talakucha (*Coccinia grandis*), yard-long bean or borboti (*Vigna unguiculata*), hyacinth bean or seem (*Dolichos lablab*), and shrubs such as bharenda (*Jatropha gossypifolia*), or herbs such as keshut (*Eclipta prostrata*), are used. The fresh leaves are collected from the wild or gardens, and crushed to squeeze out the bright green colour, darkened and mixed with the natural gum as described above.

Black

The plant sources of the black dye are the charred grains of rice or dhan (*Oryza sativ*a) or the burnt stem of bamboo (*Bambusoideae*) including the locally available species such as Bambusa tulda. Other alternative sources include, conventionally the soot from oil lamps, cooking fires, or, as currently popular, the exhaust pipes of automobiles with the help of a stick. The black lumpy mass is first crushed with the fingers into a fine powder in a coconut shell or pot, and then mixed with the natural gum to prepare a watery paste.

White

This is the only recorded mineral source. Kaolin or kusum mati is bought from the market. The soft, white lumps of clay are selected, crushed with the fingers in a coconut shell or pot, dried in the sun and finally the natural gum is added.

Conclusion

Colours derived from nature have depth and unique characteristics not found in synthetic chemical, however sophisticated be the formulations. Working with natural colours, unlike with synthetic dyes, is not a simple process as the desired hue is not easily and predictably achieved with uniformity. Even dyes extracted from the same plant inevitably varies, as the dye-yielding plant product is influenced by age, variety, soil and climatic conditions. While these can cause difficulty in standardization, but these very factors naturally render beauty and character that sets it apart from synthetic dyes. India has a rich heritage of the extraction and use of natural dyes from plants (Gokhale et al., 2004: 229-232). The extraction of traditional vegetable dyes for their use in the patachitra paintings is a highly specialized craft in itself. This knowledge about the dye-yielding local plants and the skills involved in extracting the dyes is a key facet of the intangible cultural heritage of these traditional artists. Besides, the artists have to correctly identify the plants and their parts used, and also find their local natural habitats for collecting the raw materials. Since this is an oral, and therefore poorly documented, tradition, with cheap, synthetic alternatives easily available, it is now precariously poised on the verge of extinction. Proper documentation and conservation of this traditional knowledge and skills would require the integrated effort of botanists, chemists and anthropologists along with the local artist community. This study shows that the traditional artists of the the Patua community of Naya, Paschim Medinipur, which is located in the heart of the Rarh region of Bengal, their traditional livelihood still depends on the sustainable use of local natural resource bases. In addition to the subjects of their art itself where nature abounds as in their pristine natural surroundings, the rich application of traditional vegetable dyes by this Patua community in their paintings also reflects the ancient Indian

ethos of living in complete harmony with nature. Now lingering among the elderly and the womenfolk in the contemporary socio-economic context, there is an urgent need to appreciate, preserve and nurture this rapidly fading timeless traditional use of the vibrant hues of natural dyes.

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Table 1: Sources of the natural dyes and their binder used by the Patuas of Naya, Paschim Medinipur.

Colour	Source of Natural Dyes
Red	Young leaves of teak or segun (Tectona grandis Heartwood of catechu or khoyer (Acacia catechu)
Brown	Mature leaves of teak or segun (Tectona grandis) Bark of Indian coral tree or madar (Erythrina indica)
Orange	Seeds of lipstick tree or latkan (Bixa orellana)
Yellow	Rhizome of turmeric or halud (Curcuma longa) Flowers of marigold or genda (Tagetes patula) Flowers of night-flowering jasmine or seuli (Nyctanthes arbor-tristis) Fruit of wood apple or bael (Aegle marmelos)
Purple	Fruit of or Java plum or kalojam (Syzygium cumini)
Blue	Flowers of blue pea or aparajita (Clitorea ternatea) Seeds of Indian gum arabic tree or babla (Acacia nilotica)
Green	Leaves of ivy gourd or talakucha (Coccinia grandis) Leaves of yard-long bean or borboti (Vigna unguiculata) Leaves of hyacinth bean or seem (Dolichos lablab) Leaves of black physicnut or bharenda (Jatropha gossypifolia) Leaves of false daisy or keshut (Eclipta prostrata)
Black	Roots of Chinese wedelia or bhringaraj (Wedelia chinensis) Grain of rice or dhan (Oryza sativa) Stem of bamboo or bans (Bambusoideae)
White	Kaolin or kusummati
Binder	Fruit gum of wood apple or bael (Aegle marmelos)

Local names are in Bengali, and scientific taxa are provided in parenthesis.

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