

Use of plants as Colour material in *Pytkar* and *Jadopatia* folk arts of Jharkhand

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The present paper is an outcome of study of ethnobotanical aspect of folk and tribal art of Jharkhand. It was observed that the people use plants not only for their requirement of food, medicine, shelter, clothing etc, but also to express their feelings through colours and brushes. *Jadopatia* of Santhal Pargana, *Pytkar* of East Singhbhum, *Khovar* and *Soharai* of Hazaribagh are important forms of such paintings. Festivals and rituals based on forests and nature get prominent place in their theme. People practicing these art forms still use natural colours prepared from plants and minerals. Such painting can be called as ethnopainting. In this paper fourteen plants have been described which are used in the preparation of colours with the help of other natural ingredients. Use of natural colours to paint subjects related to nature is an honour to nature.

Keywords: *Chitrakar*, Ethno colour, Ethno painting, Folk art, Jharkhand

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Jharkhand has traditionally and culturally been vibrant and colourful. The culture of Jharkhand germinated and attained adolescence in the verdant and virgin forests. Here people learnt to live with the discipline of nature, rhythmical and metrical tone of the forests. They have been using forests for their livelihood, as a source of medicine, food and shelter for their survival. But this is not the end of life. Human beings by nature are creative. After the hunger was over, their creativity stretched to imagination in the form of art. With the initial stroke of line, the art flourished into a well designed form. The forms vary from region to region. But they revolve round the mythology, festivals, rituals and nature. They used plants as base material of colouring. These are the folk art of Jharkhand. *Jadopatia* of Dumka (Santhal Pargana), *Pytkar* of East Singhbhum, *Khovar* and *Soharai* of Hazaribagh. However, in some parts of Jharkhand, people started using synthetic colours in various arts form. But people of Amadubi in E.Singhbhum and those of Nawasar in Dumka still use natural colours prepared from plants and minerals (Figs. 1,2). Study of these paintings and natural colours can be defined as *Ethnopainting*. Such colours can be termed as *ethno colour*¹. The two forms of art depict rich cultural heritage. Use of natural colours further enriches this heritage. The painters say that the theme of their painting is nature, how can they use

synthetic colours. In the age of globalization and commercialisation this approach and commitment is commendable and rare.

Jadopatia painting

The name '*Jadopatia*' is derived from '*Jadu*', the community which makes these painting and '*Pat*' i.e. scroll on which these paintings are done. These families carry the title of '*Chitrakar*' (artist). "*Chitra*" in Sanskrit means image, and "*kar*" stands for performer. The literal translation of the word *Chitrakar* is image maker. They live in Nawasar village of Dumka district of Jharkhand.

The themes of the paintings are stories from Ramayana and Mahabharata, festivals and other rituals (Fig. 3). But the most famous and important theme is life after death of man (of the *Santhal*). When there is a death in any Santhal family these *Chitrakars* go to the deceased family with a painting depicting pains of the departed soul. The painting shows the departed soul without any pupil. After getting payments, the painter paints the pupil and it is supposed by doing this the departed soul is emancipated from the grief. These artists use only natural colors prepared from plants and minerals.

Pytkar painting

The name *Pytkar* is derived from "*Pyt*" an aberration of *Pata* means scroll and *Kar* who does this art. The community which practices this painting has

been christened as *Pytkar* and so is the name of the painting (*Pytkar*). These communities also carry the title of '*Chitrakar*' means image maker or artist. They live in Amadubi village of E.Singhbhum (Jamshedpur) district of Jharkhand.

The themes of the *Pytkar* paintings (Fig. 4) are forests, nature, festival and rituals of the society. These artists also use only natural colors prepared from plants and minerals.

Materials and methods

The study was carried out in Dumka and, East Singhbhum where these arts are practiced.

Dumka is one of the oldest districts of Jharkhand and presently it is the commissioner's headquarter of Santal Pargana division which has 6 districts. It has been given the status of sub-capital of Jharkhand state. Dumka is located at 24°16'N 87°15'E 24.27°N 87.25°E. There are 10 blocks namely Dumka, Gopikander, Jama, Jarmundi, Kathikund, Maslia, Ramgarh, Raneshwar, Shikaripara and Saraiyaha.

Jadopatia painters mostly live in *Nawasar* village of Maslia block. There are around only one dozen families left who still do this painting.

East Singhbhum was created on 16 January 1990. More than 30% of the district is covered by dense forests and mountains. The district is bounded on the East by Midnapore district, on the North by Purulia district, both of West Bengal, on the West by West Singhbhum district of Jharkhand state, and on the South by Mayurbhanj district of Orissa. Location of the district is Longitudinal Extent: 86°04' - 86° 54' East, Latitudinal Extent: 22° 12' - 23° 01' North. There are around forty five families who practice this art. They live in *Amadubi* village of Dhalbhumgarh Block.

Very little information is available on colour yielding plants of Jharkhand. In fact for these paintings, there is no literature available which can throw light on extraction of colours from plants. Data were collected through personal visit to their villages during 2010-2012. Interaction with all age class people especially old age people yielded information regarding these paintings. Apart from that, Folk and Tribal Art Camp were also organised during 2010 at Dhanbad and 2011 at E. Singhbhum (Jamshedpur) (Figs. 5,6). These gave first hand information regarding the cult of artists, nature of art, theme of these paintings, and details of materials used in these paintings. The purpose of these Camps was not only

to know about the painting but also to let other people know about these forms. Some reports published in the local news paper were also consulted. Photographs of plant parts, minerals and colours extracted out of them were taken.

Results

As a result of study, ethnobotanical relationship was also observed². Fruits, flowers, seeds, roots, rhizomes, tubers, leave of several plant species are edible and used by the local tribes and other people³. Different parts of various forest plants e.g. leaves, shoots, roots, flowers, seeds are used as medicinal plants^{4,5}.

But it is not the entire ethnobotanical relationship of people and plants. People were found using various plants and minerals as art materials to pursue their art and painting works.

It is surprising that in these two forms of folk arts uses of natural colours from plants and minerals are still prevalent. With the advent of artificial colours and commercialization of art and paintings, artists of similar type of painting forms-*Patachitra* of Orissa and West Bengal⁶ have switched over to artificial colours. But these artificial colours could not lure the artists of *Jadopatia* and *Pytkar* paintings.

During these studies, plants and their parts which are used in these paintings were identified. Herbal colours and technique of extraction of colours out of these plants and minerals were studied.

Fourteen plant species were recorded (Table 1), are used in the preparation of colours (Figs. 7,8). These belong to ten families. Other natural products (Table 2) were also recorded which are used as colour

It was found that the plant parts are also used in the formation of other art accessories

Brush: The tender hairs from the tail of goat are used to make brush. These hairs are tied with a thin slender bamboo stick with the help of threads.

Box: A cylindrical hollow box is made up of bamboo to keep the brushes.

Colour mixing cup: Shell of used coconut is used to keep the colour at the time of painting. Artists use it as a pallet to mix the colour.

Preparation of colours

Extraction and preparation of colours using plants and other ingredients can be described as follows:

1. **Green colour:** Green colours are obtained from the leaves of Bean [*Lablab purpureus* (L.) Sweet syn.

Table 1—Name of the plants and their parts used to extract the colours

Sl.No.	Botanical Name	Vernacular, Local Name / English Name	Family	Parts used	Colours or other product obtained
1	<i>Aegle marmelos</i> (L.)Corr.	<i>Bel</i>	Rutaceae	Fruit	Mucilage
2	<i>Ageratum conyzoides</i> L.	<i>Dochuntil</i> Goat weed	Asteraceae	Leaves	Green
3	<i>Areca catechu</i> L.	<i>Supari</i> / Betal nut	Arecaceae	Nut	Copper Red
4	<i>Azadirachta indica</i> A.Juss.	<i>Neem</i> / Margosa tree	Meliaceae	Stem	Gum
5	<i>Basella alba</i> L. var. <i>rubra</i> (L.) Stewart	<i>Poil</i> Indian spinach	Basellaceae	Flowers and fruits	Scarlet Red
6	<i>Butea monosperma</i> (Lam.)Taub	<i>Palas</i> / Flame of the forest	Fabaceae	Flowers	Orange
7	<i>Clitoria ternatea</i> L.	<i>Aparajital</i> Clitoria	Fabaceae	Flowers	Blue
8	<i>Curcuma longa</i> (L.) syn. <i>Curcuma domestica</i> Valet.	<i>Haldi</i> / Turmeric	Zingiberaceae	Rhizome	Yellow and vermilion red
9	<i>Lablab purpureus</i> (L.) Sweet syn. <i>Dolichos lablab</i> L.	<i>Seml</i> Bean	Fabaceae	Leaves	Green
10	<i>Lawsonia inermis</i> L.	<i>Mehandil</i> Henna	Lythraceae	Leaves	Green , red
11	<i>Phyllanthus emblica</i> L.	<i>Aonla</i> / Emblic myrobalan	Euphorbiaceae	Fruit	Black
12	<i>Terminalia arjuna</i> (Roxb.exDc.)Wight&Arn.	<i>Arjun</i> / Arjun	Combretaceae	Bark	Black
13	<i>T.bellerica</i> (Gaertn.)Roxb.	<i>Bahera</i> / Belliric myrobalan	Combretaceae	Fruit	Black
14	<i>T. Chebula</i> Retz.	<i>Hartkil</i> Chebulic myrobalan	Combretaceae	Fruit	Black

Table 2—Other natural products used as colour

Sl.No.	Name of the Natural material	Source	Colour obtained
1	stone	River bed	Yellow ochre, burnt sienna
2	clay	Field	Yellow ochre
3	Indigo	Market	Blue
4	Soot/carbon	Oil Lamp	Black

Dolichos lablab L.]. The leaves are collected and crushed with the help of pestle. Colours are then squeezed out and collected in the coconut shell. Gums obtained from Babul [*Acacia nilotica* (L.) Delile] or mucilage obtained from fruits of *Bel* [*Aegle marmelos* (L.) Correa] is then added. These bind colour and make them stable.

2. Yellow colour: Rhizome of turmeric [*Curcuma longa* (L.) syn. *Curcuma domestica* Valet.] is used in the preparation of yellow colour. Rhizomes first cut into small pieces. These are crushed and the colour is squeezed out. The colour is collected in the coconut shell. Gums obtained from *Babul* or mucilage obtained from *Bel* is then added. It is dried in the sun as per requirement. If dark colour is required, it is dried more in sunlight.

3. Orange colour: Dried flowers (petals) of *Palas* [*Butea monosperma* (Lam.) Taub.] (Fig. 7) are used in the preparation of orange colour. Dried petals are thoroughly mixed in water and diluted glue and then stored in the coconut shell.

4. Light green: Light Green colours are obtained from

the leaves of *Ageratum* (*Ageratum conyzoides* L.). The leaves are collected and crushed with the help of pestle. Colours are then squeezed out and collected in the coconut shell and mixed with Gums obtained from *Babul* or mucilage obtained from *Bel*.

5. Black (Ivory) colour: Black soot or carbon collected from oil lamps or by burning bamboo (*Dendrocalamus* sps.) are used in the preparation of ivory black. The soot is collected in coconut (*Cocos nucifera* L.) shell. It is diluted in water and then gum or glue is added to make it stable.

Black colour is also prepared using fruits of *Chebula* (*Terminalia chebula* Retz.), *Bellerica* [*T.bellerica* (Gaertn.) Roxb.], *embellica* (*Phyllanthus emblica* L.) and bark of *Arjun* [*Terminalia arjuna* (Roxb.ex DC.) Wight & Arn]. These are made paste in water. Gum of *Neem* (*Azadirachta indica* A. Juss.) or *Babul* [*Acacia nilotica* (L.) Delile] are added. The black colour made of these plants is preferably used because it gives various shades of Black very conveniently.

6. Cobalt blue: It is prepared with the help of *Neel* (indigo). Paste of Indigo with water is made and glue is added to it.

Cobalt blue is also obtained from dried petals of *Aparajita* (*Clitoria ternatea* L.) (Fig. 8). the dried powered petals are mixed with water and then filtered. Mucilage of *Bel* [*Aegle marmelos* (L.) Corr.] is added to make it permanent.

7. Prussian blue: It is made by mixing cobalt blue

and black colours prepared using above described methods.

8. **Scarlet red:** Seeds of *Poi* (*Basella alba* L.) are crushed in water and colour is extracted. It is then dried in the sun, gum is added. Different shades are obtained either by mixing additional water or maintaining different duration under the sun.

9. **Yellow ochre:** It is made from clay collected from

field or stone collected from river side. They rub it on stone, make paste with water and then add gum.

10. **Burnt Sienna (Brown):** It is made from brown stone collected from riverside. They rub it on stone, make paste with water and then add gum.

11. **Vermillion red:** Rhizome of turmeric (*Curcuma longa* L.) is cut into small pieces. These are crushed and the colour is squeezed out and some lime or



Fig. 1-8—1 Natural colours and brushes; 2 clay mineral and gum; 3 Palas flower (*Butea monosperma*); 4 Flower of Aparajita (*Clitoria ternatea* L.); 5 Pytkar painting; 6 Pytkar artist in an art camp; 7 Jadopatia paintings; 8 Jadopatia artists in an art camp

alkaline is mixed. It gives vermilion red. The colour is collected in the coconut shell. Gums obtained from Babul (*Acacia nilotica*) or mucilage obtained from fruits of *Bel* [*Aegle marmelos* (L.) Corr.] is then added. It is dried in the sun.

12. Copper red: Nuts of *Beetle* (*Areca catechu* L.) yield copper red colour. They purchase nuts from market because *Beetle* nuts don't grow here. Nuts are crushed and mixed with water. After an hour lime is added which gives a copper red colour.

In all colour preparation gum obtained from *Babul* or *Neem* or mucilage obtained from *Bel* is added. *Neem* (*Azadirachta indica* A. Juss.) and *Babul* [*Acacia nilotica* (L.) Delile] gum is obtained from their bark by making an incision on the stem. Mucilage of *Bel* [*Aegle marmelos* (L.) Corr.] is collected from its fruit. These colours are dried in the sun to give required darkness.

These colours which can be termed as *Ethno-colour* are ecofriendly and non-toxic. Different shades are achieved by mixing these colours. Use of these colours reflects that life of these painters go in tandem with the law of nature. It also suits the theme of their painting i.e. an ever enjoying festival, ritual, lifestyle based on the principle of co-existence with the nature.

Discussion

From the above perusal, we assume that the *Chitrakar* families still practice paintings with the help of natural colours extracted from plants. In this era of economic transformation this method has to be preserved. Youths are easily influenced by the globalization. The artists, who have kept these art and source of colours intact, must impart training to their children so that they may also pursue these techniques. Some efforts have been made in this direction which have given positive result.

Traditional significance

These paintings carry traditional significance to the society. Researchers and farmers are also benefitted from its study and dissemination of the inherent themes. These can be outlined as:

Ethical value: Culture is an adaptive device which helps people to survive in their environment. But globalization and commercialization has posed threat to the identity of ethnic culture of many societies. These artists are harbinger of maintaining culture identity. Their paintings are exquisite expression of creativity of these artists who derive their expression

and theme from surrounding environment, mythology and culture. Although these artists do not have any formal education in any institution, they are considered as prophet of the society. They, through paintings and ballads, remind people of their own root, their mystic tradition and vivid culture. They move from one village to another, singing ballads based on mythological stories, and thus not only entertain people but also educate them. These stories carry ethical lessons which show correct path to the straying youth.

Importance for researchers and farmers:

Besides being used as source of colour, these plants have also several other uses in traditional medicine system, in making agricultural implements & musical instruments and as edible food products. Fruits, seeds, roots, leaves, twigs and timber of these plants have been in use for these purposes. Hence, cultivation of these plants not only conserves biodiversity but also opens a field for creating a source of livelihood.

Different researchers from their respective fields can extricate essence of mythology and culture from these paintings and can disseminate these to the society. Ethnobiologists can suggest innovative uses of these plants which can enhance livelihood options also. Livelihood option can further be strengthened by providing a more comprehensive outlet to sell out these paintings.

Recommendations

Their paintings also bridge dichotomy of old tradition and modernization. Hence, it is the demand of time to save these art forms from threats of being lost. To preserve these paintings and genres, their systematic commercialization must be promoted. Their Self Help Groups and Societies/Federation must be constituted. Artists must be assured of additional source of income so that they may devote their time in art work. These villages can be developed as a centre of ecotourism. It will disseminate the values, styles and inherent ideology of these art forms among common people. Regular training programmes must be conducted to publicise and train new learners. Academic institutions can play pivotal role by incorporating them (art) in their curriculum. Other ethno-livelihood activities related to painting and art materials must be taken care of. There is expectation from artists also. They must upgrade their operational skill and should acclimatize with the changing society without shrugging off their originality. These steps

will be helpful in keeping this rich cultural heritage live and intact.

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