

# REPORT

## Workshop on Arayash- An indigenous Wall Painting Technique

1<sup>st</sup> -15<sup>th</sup> March 2014



**Indira Gandhi National Centre for the Arts**



**New Delhi, India**

**Workshop on Arayash-An indigenous Wall Painting technique  
conducted by Prof. Bhawani Shankar Sharma at IGNCA**

**Co-ordinator: HoD (Conservation)**

## **Aim and approach of the workshop**

This workshop was conducted for the students of conservation because it is vital for a conservator to be aware of the materials and techniques used in the creation of an artifact.

For good conservation it is essential for the conservator to know about the composition of the artifacts and use the right materials for interventions like cleaning and consolidation. Understanding the materials that actually make the artifact being conserved helps the conservator to take the correct decisions. A decision taken without this information may be in fact harmful for the object.

Understanding the materials and techniques of wall paintings is even more important because they are very complex multi-layered entities. The problems that wall paintings face are complex and understanding their material and technique is the key to good conservation.

Thus this workshop is a stepping stone for students of conservation, and a capacity building effort of IGNCIA for India where human resource in this domain is scarce.

**Achal Pandya**

HoD (Conservation)

## **The Arayash technique of Jaipur Wall Painting**

Wall Painting techniques, including that of Fresco, have been a great means in India for the inculcation of an appreciation of art as well as the acquisition of knowledge and inculcation of religious feeling. The wall paintings at Ajanta, Bagh and Cochin are some of the rare examples of such paintings.

The “wet process” fresco practices in the Jaipur wall paintings is known by various names- Arayash, Alagila or Morakasi. In the western world the parallel technique is known as fresco and is usually always done on a freshly prepared wall surface.

Rajasthan has not only preserved but extended this ancient art tradition into a living form. Here fresco painting has enjoyed royal patronage as well as constant encouragement from the common folk. The Arayash technique was mostly practiced in Amer-Jaipur, Shekhawati, Alwar, Udaipur, Jodhpur, Bikaner, Nagaur, Kota, Bundi and Uniara and other places. It has been used extensively for drawing, decorating and simple plastering in ancient houses, temples, forts and palaces.

The method of Arayash was a cheaper supplement of marble. Walls done up in Arayash are smooth and glossy like marble. Arayash’s importance apart from its permanency lays in the fact that the floor and walls decorated in it remain cool in summer and warm in winter. Huge water tanks were prepared using this technique to keep water clean and cool.

Christian missionaries bought the fresco technique from Italy during the reign of Akbar and Jahangir. As the ruling houses of Amer and Jaipur were

on close terms with the Mughals, this technique flourished in these regions as well. The difference between the Jaipur and Italian technique is that the wall is polished in the Jaipur technique whereas in the Italian process it is left rough. For this reason the Jaipur technique has a distinctly different attraction and permanency.

However, its usage has declined drastically on account of the lack of patronage, and due to the increasing popularity of cheaper variations like cement-plaster, combined with the lack of availability of skilled craftsmen for the fresco technique. Prof. Deoki Nandan Sharma has played a pioneering role in reinvigorating this extinct technique.

### **The process of making the painting**

In the Jaipur fresco technique, the wall is minutely inspected; walls built in brick or stone with lime plaster are best suited for this purpose. It should not have any cracks and must be moisture free, therefore it is better to select a year – old wall rather than work on a new one, so that the effect of climatic conditions and its strength can be ascertained. For plaster, one part of lime and three parts of marble powder is used. Lime of Raholi (near Jaipur) is considered to be the best for this purpose. It is advisable to start



directly in the stone or brick surface, but if the plaster on the wall already exists, one has to take out the 2 mm of that plaster and built a fresh layer on it. After the plaster has been smoothed by Jhava it can be left for a year or so to see if it becomes an integrated part of the wall. For fresco painting, the preparation of lime is very important. In a large sized earthen pot or cement tank or even a drum containing water, limestone is slowly dropped in, which slowly dissolves. On the next day, a little curd and jaggery is added to purify the solution. This lime can be kept for months together provided one takes out the caustic layer of this water daily. Water is constantly added to the lime to keep it wet. Old wet lime is best for permanency. Similarly, for best effect, Ghinki (marble powder) is always preferably used for fresco plaster to get better whiteness.

After a year or so, work begins on the wall with proper soaking of the surface with water and keeping it wet for a whole day. After applying the plaster, it is fixed with batakara. Then it is ready for final thin coating of lime. Pure coating of lime softens the wall and gives a finished effect. Ghoti (agate) polished stone is used for achieving the shining effect. After this the wall is finally ready for painting.

While following the Arayash technique, only that much work should be started which can be completed in a day. Work done in dry plaster is never stable; one has to work on wet wall for better permanence. To make the work easier on large walls, the painting has to be divided into smaller segments. Every day, fresh wall surface must be prepared for doing the day's work. The base ground of lime and marble powder is locally known as saresi and the final ground of lime as kada. Of the two varieties of fresco,

fresco buono is the wet process while the work can be done on dry Arayash wall with the help of some other medium like gum and egg as binder.

## **Colours**

Natural earth, stone and mineral colours are most suitable for fresco painting since these do not react with lime and are permanent. Basco's khadia and pure old purified lime is used for white and indigo/ Neel is used for blue. Terre verte for green , red and yellow stone for red and yellow, hirmich and geru for brown and Indian red, lamp black kajal for black, ramraj for yellow, while sindoor and hinglu for vermilion and orange shades. These are the most popular pigments used in fresco paintings. Variety in shades is achieved with by mixing the colours. Gold leaf has also been successfully used for rich effect by artists. Red, yellow, blue and green are available in stone form as well as powder.

In order to revive and revitalize this technique, to develop artist's interest in it and to make them learn this technique Prof. D. N. Sharma started a two month summer camp in 1953 at the Art Department, Banasthali Vidyapith.

I have taken this task and organized fresco workshops at different places like Jaipur, Agra, Chennai, Vadodora, Chandigarh, Modinagar, and Victoria Island (Canada) and now Delhi.

The Delhi workshop is especially organised to give exposure to conservators in this art form and sensitise them to it so that when they get the opportunity to conserve the ancient murals they completely understand their technique and medium as well as the skill that goes into making the paintings.

The workshop is to revive this art and cultivate creative independence of individuals in this medium so that they may find expression for their individual visions and realize their talents. In this workshop they are encouraged to follow their own imaginative journey to explore and nurture ideas to experiment with the medium freely.



### **Tools:**

The tools are important for making wall paintings. The use of the right ones correctly is very important to get a good wall painting. The tools that are used in its making are:



### **Trovel (Karni):**

It is a wide flat metal spatula which is used in plaster preparation and application.



### **Jhava:**

It is a piece of sandstone and is used to even out the surface of the plaster.



### **Masonry floot (Batakda):**

It is a wooden block used to even the surfaces.





### **Square trovel( Gurmala):**

It is made of metal and is a small square used to even the surface.



### **Nehla:**

It is another spatula like karni but is smaller and heavier and is used to beat and fix the pigment in to the plaster.



### **Polsihed agate (Ghoti ):**

it is polished agate stone and is used to polish the final layer of lime. The luster on the painting comes due to it

### **Kalam :**



it is a small metal tool with a pointed edge on one end and a small flat band on the other for drawing and engraving lines.

## **Brushes:**

Traditionally artists used to make their own brushes from squirrel and mongoose hairs. Now we get fine brushes in the market

## **Materials:**

The materials that are used in the making of the paintings are very important because the quality and longevity of the painting is dependent on them.

It is imperative to use the right materials and to prepare them properly before using them. The materials used are as follows:

## **Lime:**



Lime is the most significant component of the plaster. Quick lime is bought from the market and slaked with water. The longer the lime is slaked better will be the results. Caustic impurities settle on top of the container in which the lime is kept and have to be removed on a daily basis. The lime too has to be stirred daily to allow for better slaking. This slaked lime is then sieved and collected for use.

**Jaggery:**

Jaggery is added to the lime when it is being slaked. It helps in removal of impurities

**Buttermilk:**

Buttermilk plays a similar role to that of jaggery.

**Marble Powder:**

Marble powder is the filler used in the plaster. Marble powder is specifically used due to its whiteness as its usage allows the final plaster to be completely white.

**Cement:**

It is mixed with river sand for the base layer.

**Khor:**

It is baked clay and is used traditionally in Rajasthan along with the river sand to provide the base layer

### **River sand:**

It is used in the base layer and is used to provide a stable, strong base to the plaster

### **Dry Coconut:**

The dry coconut is used to make oil which can be used for extra luster and to protect the painting from the weather.



### **The pigments:**

The pigments used should be of the highest quality and should have been purified and processed well.

Some the pigments used in the wall paintings are:



### **Geru (red ochre):**

It is an earth pigment which has a red colour

### **Hirmich:**

It is a dark brown colour.

### **Khadia:**

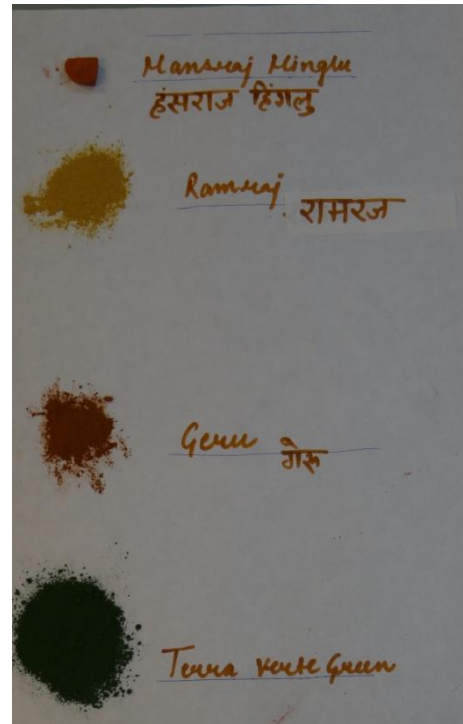
It is an earth pigment which has a white colour.

### **Ramraj (yellow ochre):**

It is a yellow earth pigment

### **Terre verte:**

It is a green earth pigment



### **Neel:**



It is a blue colour, earlier natural indigo was used but due to lack of availability commercially produced ultramarine is used for blue. It is used with a little lime when applying.

## Lamp black:



It is a black pigment. It is obtained by burning sesame oil and collecting its soot. Its application is done with a little lime.

## Hansraj Hingloo (Cinnabar):

It is a mineral orange-red pigment.

All these pigments are found in the dry form. The pigments are ground with water and the impurities removed before they are finally used. Cinnabar is not ground but is rubbed to get the colour.

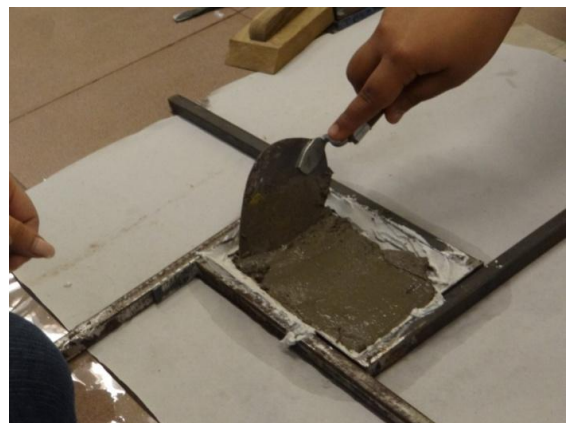


## Wall Painting Process

The wall paintings are a multi layered art work. There are multiple layers of plaster followed by a final layer of pigment.



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## Base:

The base in traditional painting is usually the brick or stone masonry structure. In this workshop we are making the paintings on walls, stone pieces, directly on bricks, small terracotta objects as well as tiles of plaster of Paris and a cement river sand mixture.

**First Layer:** A well mixed putty of lime and marble powder. The lime is the binder and the marble powder is the filler. Lime and marble powder are taken in the proportion of 1:3. The marble powder should have slightly coarse grains and the mixing of the two materials should be thorough



**Second Layer:** Even this layer is composed of lime and marble powder in the same proportions but the marble powder should be finer. When it is semi-dry the third and final layer should be applied.

**Third Layer:** The 3<sup>rd</sup> and final layer is a thin layer of lime. This is a very thin layer applied with a brush.

This layer should be allowed to dry a little and then burnished with an agate stone. This give it a fine luster similar to that of marble.



The pigments should now be applied to the plaster in thin layers and beaten with a nehla to make it inter with the plaster. It is polished with agate stone again. No medium is being used in this process. The pigment is bound to the wet lime.

### Examples of some wall paintings sites in Rajasthan







Workshop on material and techniques of Jaipur fresco paintings (Arayash) at Indira Gandhi National Centre for the Arts, New Delhi from 01<sup>st</sup> March -15<sup>th</sup> March 2014, For further information and suggestions kindly contact HoD (Conservation), IGNC, CV. Mess, New Delhi-110001, Ph:011-23388077, Email: info.seminar2013@gmail.com, website : <http://www.ignca.nic.in>

