

Conservation of water colour painting on paper

A VIEW OF A RIVER BANK

A case study

This water colour painting, measuring 65 x 49.5 cms, done in the year 1943 by a famous Indian artist, Mr. Hanumaiah, on a handmade paper using quality water colour (Windsor & Newton). This painting depicts a scene from the Cauvery riverbank near Mysore.



Painting before conservation

Examination and Documentation

Painting was examined in detail using Stereo Microscope. All the conservation process of the painting was documented in detail by writing, graphic as well as photography.

Media

Water colour on paper. All primary and secondary water based colours were used. The thick white pigment used for high lighting.

Paper

The paper used for painting was quite thick machine made good quality water paper.



The same painting – after conservation

Condition

Paper and pigment

The paper, which was initially in good condition and probably having neutral Ph, was turned acidic as a result of the acidic board used as the support. The painted paper showing pH around 5 to 6. The painted paper was also affected by insect attack like termites, woodborers and silverfish. They had started to affect the paint layer by making a number of holes, mud tunnels and eaten all over the painted surface, damaging the painting especially at the corners. The painted surface was accumulated with dust and dirt. Stains like insect excreta and mud stains were noticed. The pigment was discoloured and faded mainly at the edges. Luckily the painting was brought to the centre at the right time so that it could be saved from these dangerous creatures.

Primary support (Card Board)

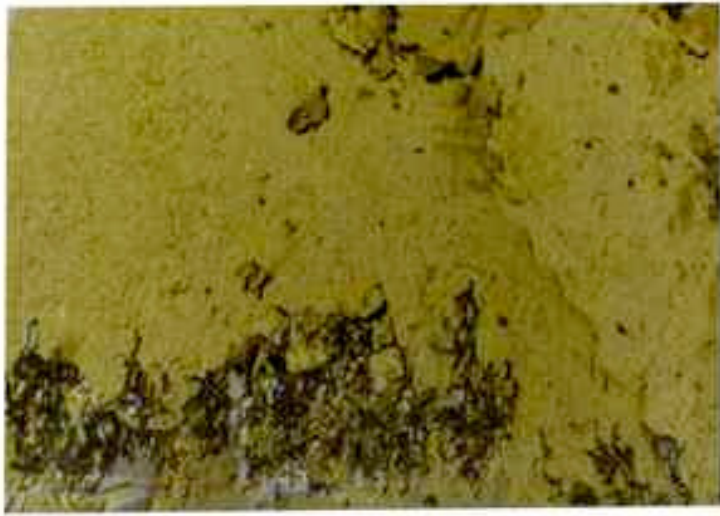
The acidic, inferior quality machine made card board was used for primary support. The painted paper and the primary support were together inter-bound with a very inferior quality news paper. Due to contact with moisture, the supported board was severely affected with insects like termites, woodborers, silverfish, etc., which was hidden under the covering paper. Distortion like cockling was also noticed on the board.



Close up photographs shows the detail damages by insects

The same part of the painting – after conservation





Close-up photograph showing the rear side of the painting eaten by insects

Secondary Support (ply board) and frame.

The secondary support was very acidic poor quality plywood board. This was also badly affected by insects. Due to moisture the ply board was completely distorted and chipped with layers in many places. The painting was mounted with wooden frame. Since the quality of the wood used for making frame was good quality well-seasoned teak, was unaffected by insect attack.

Treatment

Fumigation

Painting was first fumigated to kill the insects which still alive and hidden inside the holes. Para di chloro benzene was used for fumigation. The painting was left inside fumigation cupboard for about a week. The painted surface was covered with tissue paper and periodical examination of colour was made to ensure that pigment is safe.

Separation of painted paper from primary support

It was decided to separate the paper from primary support, which was deteriorated and caused many problems to painted paper. The colour was slightly soluble in water it was decided not

to take any risk of introducing additional moisture in this process. It was decided to take off the support mechanically. Painting was placed face down on table top with adequate support and board was scraped with surgical knife and separated layer by layer with grate care. It was laborious and time taking job, as the board was thick and additional mud tunnels created by the termites were adding more trouble to scrape off.

Cleaning

Painting was initially cleaned with soft brush and then eraser powder was used to clean the superficial dust and dirt for both the sides. The hard adhesive from the verso was cleaned with moisten cotton swabs. Luke warm water also used in some places. A special care was taken, as moisture should not seep into the painted surface. To clean some ingrained dirt from recto, cleaning process was carried out on suction table with IMS and water. Later, some hard stains were cleaned with moistened blotting paper with the same solvent.

De-acidification

As it was stated earlier the pH was slightly acidic it was decided to use saturated lime solution from verso with the sprayer. This attempt was made to improve the paper flexibility and neutralize the pH. The solution was applied three times and left for drying in the room temperature. The considerable result was achieved.

Relaxing and flattening

The painting was humidified with gortex , bondina and moistened cloth. When the paper fully absorbed the moisture it was pressed in between acid free tissue paper, blotter and card board. Painting was left for a week to avoid further distortion.

Filling of holes and missing area

The tiny holes created by insect were filled with Japanese tissue paper pulp using wheat starch paste. All possible holes were filled in the same method. The areas like silverfish eaten surface were left untouched. The suitable texture and thickness acid free paper was chosen for infilling. Infilling was done with chamfered edges. Additional support was given from verso with lens tissue paper.

Re-integration

To minimize the disturbance the area, which was filled with paper pulps was toned down with water colour and pencil. All care was taken to avoid the overlapping. Some delicate areas were toned down under stereomicroscope.

Mounting

Since there was no additional edges in the painting around painted area to place a window mount without overlapping the painted edges, it was decided to float the painting using pared inlay technique with similar thickness acid free paper. The idea was to show entire painted area while displaying and also avoid further damages on edges. Then painting was given window mount using good quality museum board. Finally painting was replaced to its original frame. It was recommended to display or store the painting in controlled RH & temperature to avoid further deterioration.