



CONSERVATION AND RESTORATION RESEARCH

ON 2NDBCE MURALS OF AJANTA

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This paper outlines new approach for the removal of varnish coatings from the surface of wall paintings. Conservation and Restoration Research on 2nd Covered under very thick layers of different kinds of varnishes applied in the past for copying, the few sq.mt. 2BCE

Painted plaster still surviving in cave no 9 and 10, Ajanta pose most difficult task of cleaning the historic surfaces. The paintings diagnosed to be executed on a very thin lime plaster ground with inorganic colors by portable XRF; the FTIR spectra of the pigments and lime ground denote that varnishes have seeped through due to its repeated application in the past. The usual organic solvents mixture technique of graphite medium to verify their hardness where phosphorus or calcium are hard stone material form being used as well as the micro-emulsion technique applied for cleaning proved non-effective in the treatment of that part of the paintings covered with thick bats excreta. Microclimatic condition and state of conservation of painted plasters are also discussed by using adhesive and coating .

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General condition of the cave 10

Ajanta One of the major reasons for damage to the paintings at Ajanta is the roosting of bats in the corner and dark part of the cave interiors ever since these caves were abandoned in 6th A.D by Buddhist monks . During this period the façade have fallen , the pillar , support and walls in the many caves also fell and in some caves the rain

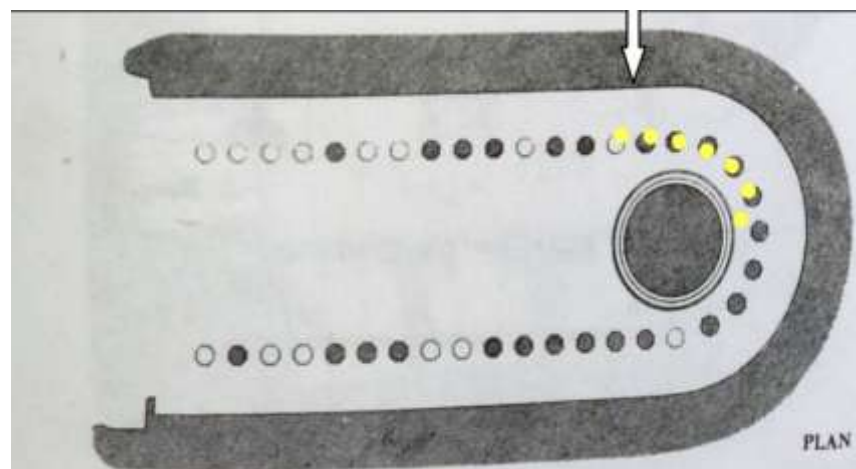


water which is supposed to flow into the ravine of Waghura River has entered inside the cave . Photograph (1A) shows the condition of the cave no 10 in 19th century when muddy water flowed inside the cave causing damage to the structure and paintings up to 4-5 feet from the floor level of the cave . In the long run this has also caused crumbling and falling of pillars , wooden rafters etc. into the cave interior . Major structural conservation measures were taken in the form of removing the filth from the cave interior and making new support pillars as per requirements , photo (1B) .

Photo 1A- Showing Cave no 10 in 19th Century .

Photo 1B- Showing Cave no 10 at Present .

Fig.2



As the cave no 10 has the largest opening at Ajanta , wire mesh in wooden frame were fitted so as not to allow any bats / birds to enter inside the cave . A few square meters of painting belonging to 2nd BCE that survived on both side walls of cave no 10 , were also damaged by visitors graffiti . To save the paintings from graffiti , it was caged under glass on both the side wall . However , 3-4 sq.mt. 2nd BCE painting surviving on the left side wall by the side of the stupa above 8 feet from the floor of the cave were left as such without any cover . As the painting work were executed by the side of the stupa behind the pillars , the place is always dark compared to front portion and on this part of the paintings much bat excreta are noticed . Atmospheric condition of the cave has dried the excreta into a compact mass within the painted surface . Figure- 2 shows the plan of the cave no . 10 Ajanta with area marked where conservation treatment was carried out .

PLAN **Figure- 2** showing ground plan ofcave no 10 , Ajanta outlines of the painted surface As this part of the paintings were repeatedly applied with varnish coating for copying under the light of oil lamp

in 19th century ,

Fig. 3



the whole painted figure were totally covered under varnish layers accompanied with dirt , dust , smoke etc. Large expanses of bats dropping have made the painted surface further illegible by naked eye . Before undertaking any cleaning operation , The panel painting was observed under an adjustable illuminated magnifier . The paintings were observed by this process though the thick layer of varnishes . Figure - 3 shows the original condition of



painted plaster and outlines drawn after examining the painted surface.through thick varnish layer under magnifying lenses . As from the outside no figures are visible to naked eye due to thick varnish coats , the outlines helped the conservators in planning the conservation operation .

Reference Books

India thought the ages

Asia and oceania

Ajanta History and Development

Map of ajanta caves