

Leon Levy Centre for Conservation Studies at Nagaur

Report on 2016



The Leon Levy Foundation

Centre for Conservation Studies at Nagaur in 2016

Established in 2014 by the **Leon Levy Foundation, Mehrangarh Museum Trust**, and the **Courtauld Institute of Art**, the Leon Levy Centre for Conservation Studies at Nagaur provides a training programme each spring for conservation students and professionals from India and other countries across the world.

Building on the long-term conservation of Nagaur Fort and its superb wall paintings, the training programme comprises a series of specialist courses taught by international experts and including both theory and intensive practical application of the new skills taught.

The teaching is designed to introduce the principles of conservation, assessment and recording of condition, technical and multispectral imaging, assessment of materials, understanding and recording the environment, and issues of biodeterioration and their control.

Special emphasis is placed on transferable skills and accessible technology, so that participants of the programme subsequently have the maximum opportunity to apply what they have learned at other sites or collections.

At left: His Highness **Maharaja Gai Singh II** and **Karni Singh Jasol**, Director of the Mehrangarh Museum
At right: **Shelby White** and **Elizabeth Moynihan**, Founder Trustees of the Leon Levy Foundation.



Following a four-week pilot programme in 2014, full six-week programmes were held in 2015 and 2016, with a total of 28 students having now completed the programme. As the **only conservation programme of its type in South Asia**, its reputation is reflected in the dramatic increase in applicants, from 19 in 2015 to 43 in 2016. Most of the latter were from India, though other applications were received from as far afield as **France, Georgia, Italy, the Netherlands, the UK and the USA**. 26 applicants were interviewed by Skype, and 10 were selected for the 2016 programme. Of these, 9 were from India, and one from the Netherlands.

As in previous years, under the guidance of **Professor Sharon Cather** (Project Director) and Sreekumar Menon (Project Manager), efforts were made to expand and improve the programme. A new course in Principles of Conservation was added, taught by Dr Charlotte Martin de Fonjaudran. This course, which will be further expanded in 2017, considers both ethical and technical aspects, and relates the decision-making process to international charters and guidelines. Other changes in the 2016 programme included further investigation of the use of natural biocides, drawing on expertise in South Asia in the use of neem. Internationally acclaimed photographer Neil Greentree not only gave classes in imaging, but related this teaching to undertaking a comprehensive record of the many important early sculptures at Nagaur.

At left: Professor **Sharon Cather** (Project Director) and **Sreekumar Menon** (Project Manager)

At right: A comprehensive photographic record was undertaken of the important early sculpture at Nagaur by **Neil Greentree**.

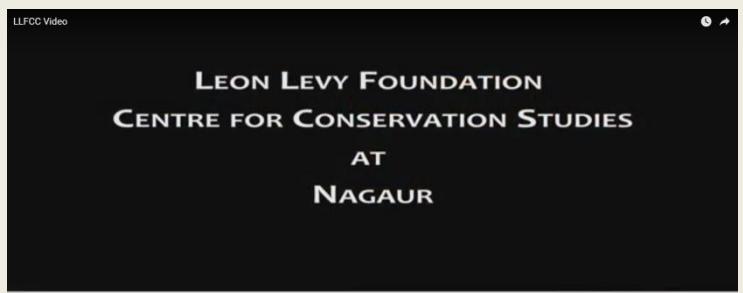


A highlight of the programme was the guest lecture kindly provided by **Nilabh Sinha, Principal Director, Intach Conservation Institutes (ICI), INTACH**. In line with the programme's emphasis on transferable skills and accessible technology, each participant was given at the end of the programme a data logger for use in environmental assessment.

At the beginning of the programme, the Centre was honoured by the visit of **Elizabeth Moynihan**, a Founding Trustee of the Leon Levy Foundation [lower right]. An expert on Indian gardens, Elizabeth has played a huge role in the setting up and continued success of the Centre, together with her fellow Trustee, Shelby White. During Elizabeth's visit, participants were given a tour of the site at Nagaur by Karni Singh Jasol, Director of the Mehrangarh Museum, and a candlelit dinner was held in Elizabeth's honour, one of several memorable celebrations held during the 2016 programme [middle right].

In order to publicise the Centre and its activities more widely, a short film was produced during the 2016 programme, and is accessible on the website: <http://conservation-studies-nagaur.org> [upper right]. Special thanks are due to **Kalpana Singh** (Assistant Programme Manager) and **Sibylla Tringham** (Lecturer at the Courtauld Institute) for all their valuable and painstaking work on this film. This film also features the splendid wall paintings at Nagaur, whose conservation in 2017 will be undertaken concurrently with the training programme, thus enriching it still further.

The participants of the 2016 programme came from an impressive range of academic and professional backgrounds, including the National Museum Institute, National Gallery of Modern Art and INTACH in New Delhi; the University of Amsterdam; and the conservation section of the Mehrangarh Museum Trust itself. One participant, the Director of INTACH, Bangalore, had previously been a member of the conservation team working on the wall paintings at Nagaur. Like some of the other participants of the Centre's programme since 2014, she has been involved in the important project run by INTACH, ICI, Delhi on 'Wall paintings of India: Documentation, Digitization, Research and Conservation', designed especially to record the many sites that are little-known or ignored: <http://heritageici.intach.org/?p=801>.



As in previous years, the participants were asked to provide candid and anonymous assessments of aspects of the programme, and to suggest improvements that can be made in the future. These comments ranged from assessments of the individual courses and facilities to the accommodation provided by the Mehrangarh Museum Trust. Among the very positive comments made were:

- ‘The course instructors, managers & everyone have been fantastic.’
- ‘Everything has been planned to the last detail & very well organized. Am going back with a lot of learnings.’
- ‘Please promote the course at a larger scale. We will do our bit in doing so. But this is important.’
- ‘It was one of the best experiences of my life.’

The Centre aims to keep in touch with participants, and to help them with further education or professional development in the conservation field when possible. **Wajeeda Tabassum**, participant of the 2015 programme and currently undertaking a PhD in textile conservation at the University of Baroda, will be Assistant Programme Manager at Nagaur in 2017.

Several participants have gone on to undertake MA studies at the Courtauld Institute in London: Cristeena Chitrakar (2014) and Karma Yeshey (2015) the one-year MA in Buddhist Art: History and Conservation; and Karma Yeshey, Kalpana Singh (2014) and Jorien Duivenvoorden (2016) the three-year MA in the Conservation of Wall Painting. In such cases, acting as a stepping-stone to further education in the conservation field, the training programme at Nagaur fulfils one of its most vital functions, especially with regard to the long-term preservation of sites and collections in South Asia.

Above: 2016 LLF-CC participants thanking the organisers, teachers and managers for providing their theoretical and practical experiences.

Below: **Wajeeda Tabassum** during an interview for the film; she will be Assistant Project Manager for the 2017 programme.

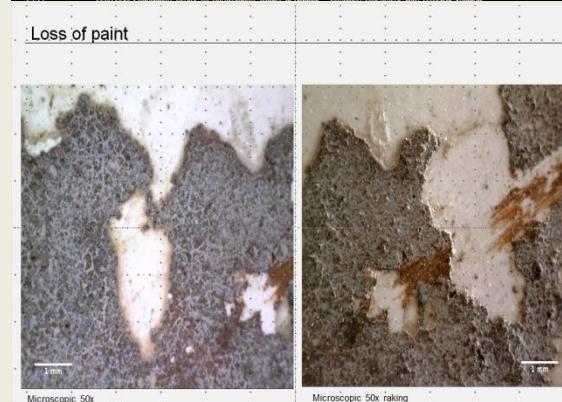
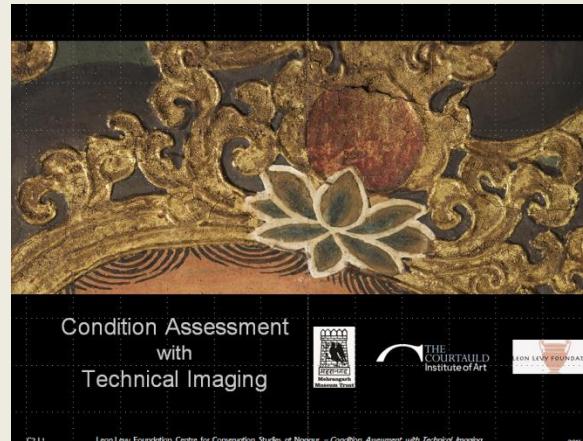
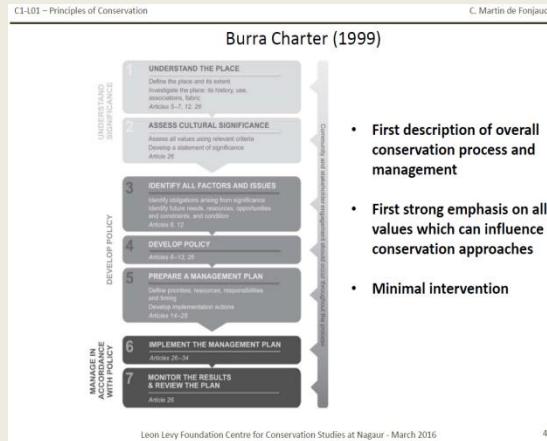


Course 1: Principles of Conservation

This course was introduced in 2016 to provide a **methodological and ethical framework for the conserving the cultural heritage**. It underpins the teaching in all the other courses, where there is an emphasis on preventive conservation and science-based interventions. Taught by **Dr Charlotte Martin de Fonjaudran**—a conservator with considerable experience of supervising conservation programmes, including at Nagaur since 2006—it will be expanded in 2017.

Course 2: Condition assessment with technical imaging

Imaging has undergone a dramatic technological revolution since it went digital. Kodak has disappeared and the smart phone rules. Now, imaging very probably represents the **greatest advance of all the tools used in conservation**. The ubiquity and affordability of imaging devices requires conservators to develop skills in a range of technical imaging types while at the same time developing the rigour in capture and management. The LLF-CC offers 2 courses in Imaging, as well as practical experience in micro-imaging and portable and field microscopy. Recording and assessing condition, principles of imaging, assessment and use of equipment, and file management and image processing, were all taught with practical sessions. Students also developed skills in the creation of a visual glossary. Taught by **Samuel Whittaker**, an experienced conservator and expert imager.



Why is imaging so important?



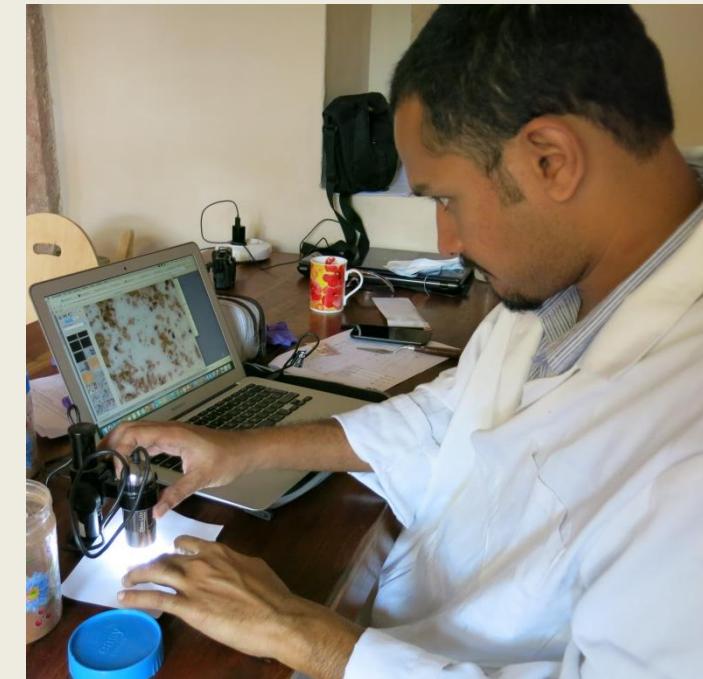
Condition of AM area 8
Paint layer



Course 3: Assessing materials for conservation

Conservators use materials every day. It is crucial that they understand what they are, and how to choose and use them. Rigorous characterisation and assessment of conservation materials is therefore fundamental. Participants were introduced to using MSDS (Material Safety Data Sheets) and TDS (Technical Data Sheets), to setting Performance Criteria, and to specifying Working Property Criteria for materials.

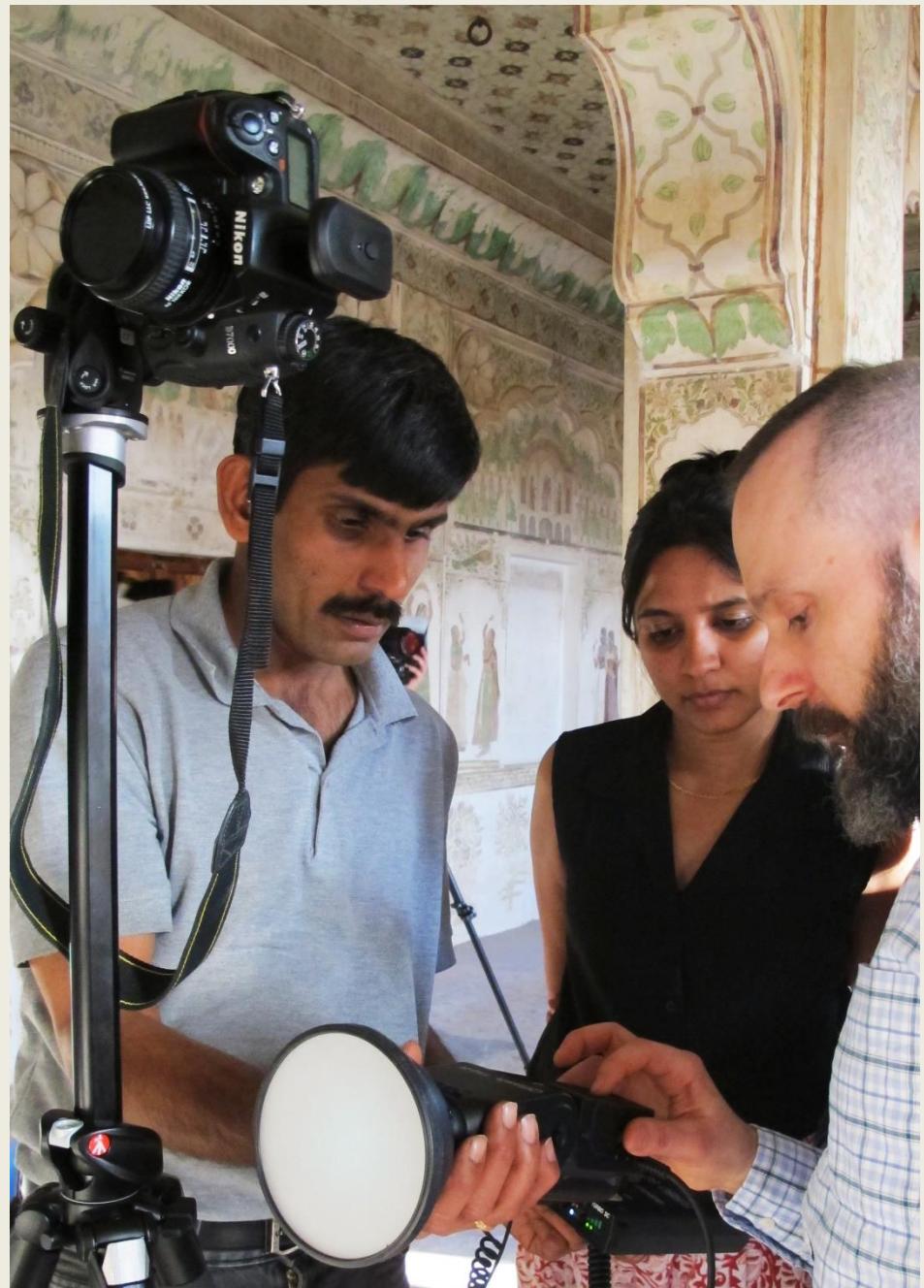
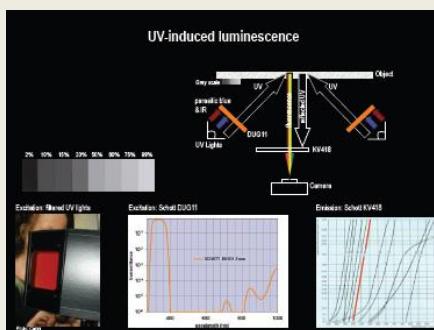
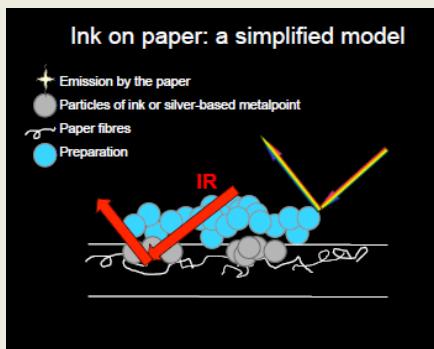
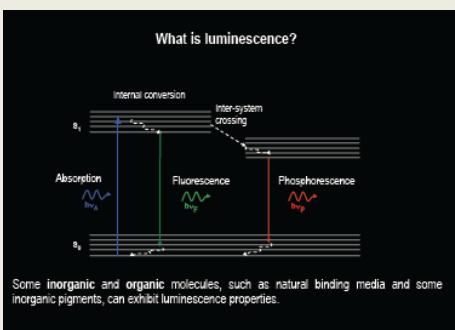
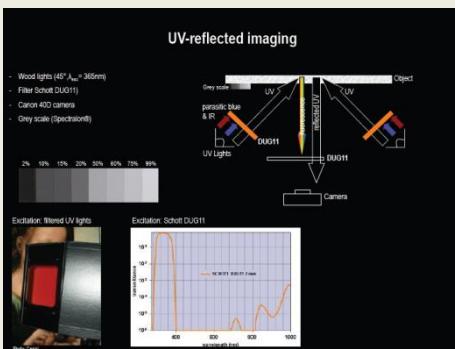
Many participants were experienced professionals, yet without the necessary background in the scientific basis for selecting materials. They entered enthusiastically into the learning, and to the challenge of incorporating this knowledge and these skills. Taught by **Amarilli Rava**, a Lecturer at the Courtauld, and conservator responsible for conservation both at Nagaur and at Bundi, also in Rajasthan.



Course 4: Multispectral imaging

The other imaging course of the LLF-CC programme images with light outside the visible spectrum—with ultraviolet and infrared wavelengths—providing critical information for conservators. It is non-invasive and offers an extremely affordable first-line of investigation, putting the conservator squarely at the initiation of the investigations. Exciting new developments in equipment and software are now far more accessible and useful for conservators. Uses include characterisation of materials (such as organic colorants, which are very common in Indian art, and conservation materials such as coatings).

Participants are taught theory together with intensive practical hands-on practice. Verri's emphasis on sourcing affordable equipment means that even a modest budget will allow this hugely useful and entirely non-invasive method of examination. Taught by **Dr Giovanni Verri**, a Reader at the Courtauld, and an international expert on imaging.

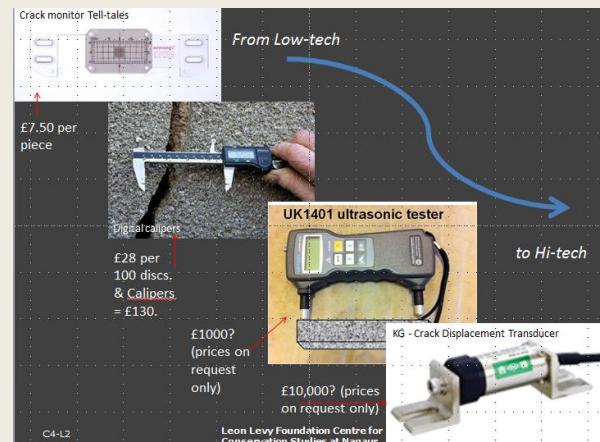
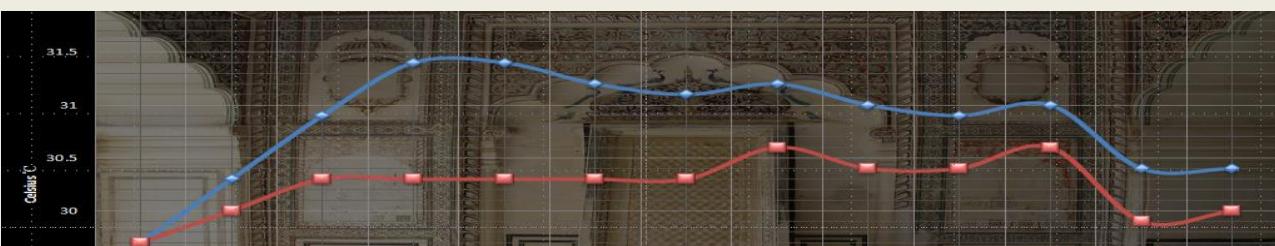
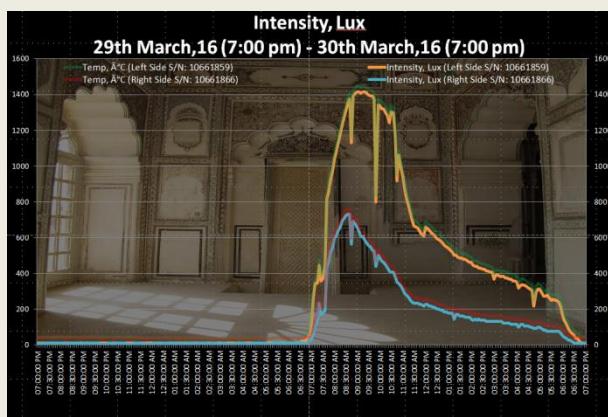
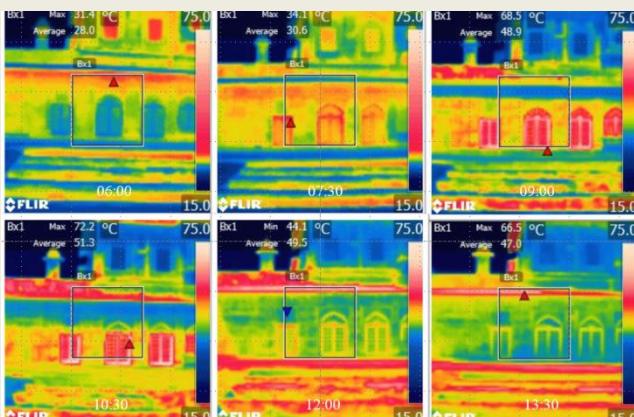


Course 5: Environmental assessment and monitoring

Assessing the environment—both the pervasive **macro-environment** (the outdoors) and the critical **micro-environment**—of a building or collection is fundamental to diagnosing ongoing problems and to planning interventions to prevent deterioration. Despite its importance, it remains largely outside the scope of teaching for conservators in the region. Thus, its inclusion in the teaching programme provides a critical skill for the participants.

As with imaging, new developments in very **affordable and user-friendly technology** allows conservators the potential to design and implement monitoring, and the ability to determine needs for preventive and passive conservation interventions.

Teaching included: the principles of environmental assessment; **how to design and implement environmental monitoring**; and how to collect, present and interpret data. Infrared thermography (below), for measuring the thermal behaviour of materials, was also included. Again, new technology and more affordable technology was incorporated. Taught by **Sibylla Tringham**, a Lecturer at the Courtauld, and a highly experienced conservator.



Course 6: Biodeterioration and control

Deterioration due to organisms is universal, and no more so than in hot and humid climates. At Nagaur, there is ample evidence of this and it provides a useful 'laboratory' for participants.

Having explored the potential for using natural biocides in 2015, these investigations were expanded in 2016. The potential of *Azadirachta indica*, or neem, a tree of the mahogany family native to South Asia is very promising. Participants from the region were familiar with neem and its uses which, interestingly, vary considerably. Thus there was a fruitful exchange among participants. Extensive tests were carried out on the various types of biodeterioration throughout the fort and palace complex.

