

Codicology and conservation issues of the Asian palm-leaf manuscripts of the Collège de France (Paris)

Caroline Riberaigua, CNRS UMS 2409 Centre de documentation de l'Institut des civilisations du Collège de France & Marie Messager EURL

This paper will present the collection of palm-leaf manuscripts of the Institute of Indian Studies of the Collège de France (Paris), detail the codicological characteristics of this type of manuscripts, and explore their conservation issues through one example: the restoration of the 11th century Sanskrit manuscript MS.SL.68, *Aṣṭasahāsrikā Prajñāpāramitā* (Perfection of Wisdom in Eight Thousand Lines).

Indeed, along with the purchase of the most recent resources in Indology, one of the missions of the research library of the Institute of Indian Studies is the preservation of a heritage collection of primary sources: manuscripts, scientific archives but also inscription rubbings and works of art.

Within this collection, the most original corpus on a codicological point of view consists of 83 palm-leaf manuscripts, dated between the 11th and the 20th century AD, from Nepal, South and South-East Asia. This material is typically Indian in its origin, but have been transmitted in South-East Asia, Himalaya and beyond, with the spread of Indian culture and literature, especially Buddhist and Hindu sacred texts.

The basic principle is the following: the text is writing on both sides of a palm-leaf, previously cut at the proper dimensions and treated. It is set up to let margins (which in some occasions contain notes or commentaries and usually pagination on the verso) and empty square spaces around the circular holes (generally 1 to 3 holes) placed on the median line of the leaf. The different leaves of a manuscript are held together by strings passing through these holes. A complete manuscript is protected by two book covers, generally in wood.

Beside this common principle, a great diversity can be observed inside this manuscript tradition according to the origin and the period of the document, in the diversity of languages and writing systems in use of course, but also in some material characteristics: the specie of the plant used for the folios, the method of treatment of the leaves, the use of ink or engraving for the text, and even some treatments linked to a ritual status as the gilding of the edges for the Buddhist scriptures in Southeast Asia.

With its great variety of provenances and periods, the collection of the Collège de France, although modest, offers a great panorama of this manuscript tradition.

As for their content, they offer primary sources for the study of the different schools of South Asian Buddhism (Theravada, Mahayana and Vajrayana), some rare Hindu treatises, literary works in Sanskrit and Pali, or in the different languages of each area (Newari, Tamil, Khmer, Thai, Javanese and so on).

As the palm-leaves are a very fragile medium, the ideal way to diffuse these sources widely is the digitization. However, this process requires that the manuscripts are fairly well preserved.

In Asia, these works were stored in the libraries of monasteries, traditional scholars' home, and palaces. The manuscripts were usually wrapped in cloth and stored in wooden boxes to preserve them from insects and rodents. These methods met mixed fortunes and the preservation state of the manuscripts varies according to their origin and their age. If the 19th century manuscripts of the Buddhist canon, which came to the library from Thailand in their manuscript chest, are amazingly well preserved, other documents, older or with a more tumultuous history, had not this chance. Sometimes, the dryness of the climate in the library storage has been part of the deterioration process. In these cases, a restoration is necessary.

The first and more emblematic restoration in our project was dedicated to a very precious work: the 11th century AD Sanskrit manuscript with painted wood covers of the Sutra of the Perfection of Wisdom in Eight Thousand Lines, MS.SL.68. It was a complex restoration due to the pathologies of the palm-leaves, the necessity of creating a new methodology and the fact that it implies both the technics of graphic arts and wood painting. Thus, it enables to explore a large panel of issues specific to this type of artefact.

Indeed, though remarkable as for codicology, this ancient manuscript was in a poor state of preservation. The palm-leaves suffered from mechanical alterations (breaks, delamination, gaps, and adhesion of leaves together inducing wrenches) but also chemical alterations (strong soiling, moisture rings, mud blots, stains, global coloration, and material strength loss). The advanced state of degradation has been worsen by high humidity episodes, attacks by xylophagous insects and possibly by rodents. Previous handlings, made risky and complicated by the physicochemical state of the manuscript, were also part of the damage process. At this point, the handling had become too dangerous and then the content was inaccessible.

The wood covers, with very refined paintings of the Pala dynasty period, were very dirty and the lifting of the pictorial layer threatens the work.

Due to lack of recent scientific publications dedicated to this material, several tests have been conducted before the restoration to refine the methodology (iron-gall ink testing; tests of different solvents for the cleaning of the leaves and the painted wood plates...).

The conservation work consisted, on one hand, in the conception and implementation of a curative treatment for the leaves, to enable a secure handling, and for the wood covers, to prevent any further alterations. On the other hand, the preventive conservation action was the conception of a customized preservation packaging.

After the restoration, the manuscript has been digitized. It will be soon online on the digital library of the Collège de France Salamandre.