

Dermatological Moulages at the Harry Brookes Allen Museum of Anatomy and Pathology

by Mei Nah Tay

THE DEPICTION OF normal and pathological anatomy in models developed simultaneously with medicine itself. Early models were created in clay, marble and ivory. During the Renaissance, interest in the sciences, especially anatomy and pathology, increased and wax objects were produced for teaching and documentation.

The art of moulage, the representation of anatomical structures in wax, was perfected in the eighteenth century, when it was practised extensively in Germany and Italy. Wax allowed a versatility and realism unattainable through other, harder mediums. The technique had three steps: a clay model was first sculpted and then used to make a plaster cast; molten wax was then poured into the cast, allowed to set and then removed; lastly, fine details and colour were added to achieve a precise and life-like representation. These wax duplicates were used for teaching and documentation, as they represented diseased parts of the body at an identical scale. Medical moulages flourished around the turn of the nineteenth century, when photography was still in its infancy and, as medical specialties evolved during the nineteenth century, dermatology departments became important customers of moulage makers.

By the mid-nineteenth century, moulages were an established medium in medical centres and schools for documentation, exhibition and teaching purposes. Dermatological moulages were common in Europe but not in Australia. A moulage collection was established, however, at the Harry Brookes Allen Museum of Anatomy and Pathology in the University of Melbourne around the beginning of the twentieth century. It contained the collected works in this medium of Dr Herman Fermor Lawrence (1863–1936), a prominent and pioneering dermatologist in Australia.

Herman Lawrence was born at Penquite, near Launceston, in Tasmania. His medical training, begun in Melbourne, was completed in Edinburgh, in 1888, with a gold medal in surgery. Lawrence studied dermatology under the guidance of Dr Jamieson in Edinburgh and Sir Thomas McCall Anderson in Glasgow. While a student at Edinburgh he was a fellow student and friend of Dr Louis Wickham, of Paris.

Lawrence was appointed surgeon to the department for diseases of the skin at Melbourne's St Vincent's Hospital in 1893, and first dermatologist to the hospital in 1895, a position he held until 1925. In 1907, Lawrence made a tour of Europe and America. While in Paris, Louis Wickham introduced him to Madame Curie and others at the St Louis Hospital where, it was said, he learnt his moulaging skills. After his return to Melbourne, close associates often described Lawrence as taking great delight in preparing wax models of skin lesions.

Recognised as an authority by the leading dermatologists in his day, Lawrence represented Victoria at the International Congress of Dermatology at Rome in 1912. Over the course of his career, he presided at congresses, was a vice-president of the



HERMAN FERMOR LAWRENCE
Photo courtesy SVH archives

British Medical Association in Victoria and president of the Victorian branch of the British Association of Dermatology from its foundation until his death. An annual prize in dermatology commemorates his name to the present day. He helped develop the specialty of dermatology by instructing assistants who included Rowden White, Charles Dennis, Roland Wettenhall, Keith Colquhoun and Robert Brodie. He also investigated the high incidence of skin cancer in Australia and warned of the sun's damaging rays in this part of the world, long before people took notice.

As part of Lawrence's research, he established a collection of moulages for the documentation of his own dermatological cases as well as for exhibition. Moulages were the best medium as they were clearly explanatory by themselves and Lawrence could readily illustrate conditions before and after treatment. In articles he contributed to medical journals, and in his personal publications,

Lawrence describes exhibiting his moulages, often showing before and after radium treatment moulages together in the same box. Dermatologists still offer this form of before and after comparison to demonstrate results.

As early as 1903, Louis Wickham had drawn Lawrence's attention to the possibilities of radium treatment, thus placing these two men among world pioneers in that field. It can be said that Lawrence's practical foresight and ingenuity set the foundation for the development of radiotherapy in Melbourne. Among the people with whom he worked were the Clendinnens, father and son, who pioneered the radiotherapy of cancer in the deeper tissues; Sir Thomas Lyle, professor of physics at the University of Melbourne; and Sir William Bragg of Adelaide. A pioneer in the use of radium to irradiate skin, breast and gynaecological malignancies, he treated public patients at St Vincent's Hospital with his own supply of expensive x-ray equipment.

In 1911 Lawrence published a book, *Radium: how and when to use*. Although a small publication and old-fashioned by modern standards, the book showcased his work and reflected his tremendous energy in exploring the field of dermatology. It also contained photographs of some of his collection of moulages, three of which are still preserved as part of the collection in the Harry Brookes Allen Museum of Anatomy and Pathology.

Moulages by Herman Lawrence form the nucleus of the collection at the museum. No written record is available to verify if the collection was donated to the school by Lawrence or St Vincent's hospital and there is no indication of the original size of the collection. The moulages were probably first housed at St Vincent's Hospital but moved to the university when the hospital authorities could not provide sufficient space to accommodate them. Four moulages, which bear the date 1908, were exhibited at the Ninth Australasian Medical Congress in Melbourne in that year. Another three were photographed for Lawrence's book *Radium: how and when to use*.

The moulages held at the museum are unsigned but careful inspection suggests that Lawrence made all but one. These are all similar in technique and style and labelled by Lawrence as evidence of his research work. The external mouleur was Jules Baretta, a famous mouleur at the Saint Louis Hospital in Paris. A gifted craftsman, producing artificial fruits in a small Parisian street, he was invited to be the official mouleur of the hospital in 1867. Baretta made more than two thousand wax moulages of skin diseases during his appointment as the caretaker of the hospital's museum, using a technique he kept as a professional secret. He was awarded by the Legion of Honour for his contributions to dermatology. His moulages were artistic in effect and vividly realised, and are now collected as works of art. Perhaps the specimen by Baretta now in the museum was given to Lawrence during his time in Paris.

In 1912, the museum was reorganised at the newly renovated medical school and the moulages were probably exhibited there until the 1930s. During and after the First World War, the moulage collection apparently ceased to develop as there are no records of any made after that time. Perhaps the ready availability of photography had rendered the moulage obsolete as a method of documenting dermatological diseases.

There are fourteen moulages in the Harry Brookes Allen Museum of Anatomy and Pathology. Some specimens are in wooden boxes with glass covers while others are nailed onto black Perspex sheets. A diagnosis of the condition represented is usually handwritten on a white paper label in front of or beside the model. Details of the patient, case history and research notes are also written on these labels. The diseases depicted vary from venereal diseases, through feigned eruptions and unidentified dermatological diseases to rare plant allergies reflecting the wide spectrum of dermatological diseases that Lawrence was researching with regard to radium therapy.

The present conditions of the moulages varies. Those that are boxed have been protected from sunlight and dust and are therefore in better condition than those that are only mounted onto black Perspex. There are, however, no signs of severe damage or deterioration, except for a few specimens which, over

time, have become loose from their wooden mounting boards. A variable degree of yellowish discolouration can be seen on those made by Herman Lawrence, a phenomenon called 'dying of moulages' common to many moulages over time. Upon close inspection, the moulage by Jules Baretta has a more porcelain-like colour whereas Lawrence's are more yellow. This might indicate that the individuals depicted in the Australian models had a darker skin tone than their European counterparts, or that the high yellow content of Lawrence's moulages is due to his use of a higher percentage of beeswax, readily available in Australia, in his formula. Baretta's moulage is more artistic and refined in terms of workmanship and representation, whereas Lawrence has made a greater effort to achieve a realistic representation by painting in details such as blood vessels, skin abrasions and even eyelashes.

The history, development and fate of the moulage collection at the Harry Brookes Allen Museum of Anatomy and Pathology is similar to many collections around the world. It took shape during the period when dermatology was emerging as an individual speciality from the broad spectrum of medical practice, and was an essential element of the development of the discipline.

Some collections of moulages are dominated by the work of a single mouleur. Other collections were built up by acquiring specimens from overseas artists or studios or from local mouleurs. The collection at the Harry Brookes Allen Museum of Anatomy and Pathology owes its existence to Herman Lawrence's efforts to raise local dermatology to a world standard. The collection is still in a remarkably good state of preservation, despite past lack of conservation measures, and compares favourably in this respect to other collections in Europe.

The introduction of modern photography and modern illustrative media made moulages seem irrelevant to modern society and are largely attributed as the reasons behind their disappearance. Although no longer used for documentation or teaching purposes, there has recently been a revival in this art form in the United States. Schools teaching the art of moulage have been established, and realistic moulages representing injuries are made and used in the medical profession, the military, and the health and safety industry. They are used in training and

testing disaster response and to prepare individuals by producing disaster-induced psychological responses. Historical interest in the medical field has also increased in recent years.

Moulages reflect the evolution of dermatology as a speciality and often depict medical conditions which are no longer observed clinically. These wax models and their associated documentation reflect the impact of dermatological diseases which are no longer threats, on social life and culture in the past. Moulages are a historical and medical legacy bridging two different fields of study—medical and art history—and are worth conserving for future generations.

Mei Nah Tay's research in the Harry Brookes Allen Museum was done as a placement for the subject 'History in the Field', part of her Bachelor of Arts degree. The placement was organised by Rita Hardiman, museum curator, and Belinda Nemeč, the university's cultural collections officer, as part of the university's cultural collections project.



LAWRENCE'S NOTES ATTACHED TO HIS MOULAGE OF MOLLUSCUM CONTAGIOSUM (MOLLUSCUM EPITHELIALE) READ: 'PATIENT, ASSYRIAN CHILD. FEMALE ACT. 10. ATTENDED SKIN DEPARTMENT, ST VINCENT'S HOSPITAL. PAPULE INCISED CONTENTS EXPOSED AND EXAMINED UNDER MICROSCOPE GAVE NUMEROUS MOLLUSCUM BODIES. ACCOMPANYING MICROPHOGRAPH SHOWS MOLLUSCUM BODIES.'

Photo Stuart Thyer



LAWRENCE'S MOULAGE OF LUPUS ERYTHEMATOSUS WAS DISPLAYED AT THE 9TH AUSTRALASIAN MEDICAL CONGRESS AND ALSO PUBLISHED IN HIS BOOK.

Photo Stuart Thyer