The Greek moulages: a picture of skin diseases in former times

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Abstract
Medical moulages are three-dimensional wax figures made for teaching in the beginning of the last century. A rather unknown hospital museum in Athens, Greece, stores 1660 moulages depicting skin and venereal diseases prevalent at that time such as syphilis, lepra and tuberculosis. The historical background behind the Greek moulages and the art of moulaging are described.

Introduction
The pattern and severity of skin diseases changed considerably during the 20th century. Former times’ picture of widespread skin manifestations due to syphilis, tuberculosis, lepra and other severe diseases disappeared from a European dermatologist’s daily band of patients. A detailed and impressive picture of skin manifestations at a time not that far away is, however, delivered through an almost forgotten art. This is what happens when visiting a collection of dermatological moulages, the wax casts that were produced by the thousands all over Europe in the beginning of the 20th century.1

Famous moulage collections are kept in hospital museums in Paris, London, Vienna and Zurich.2–8 However, for most people, one of the biggest, although badly preserved, collection is completely unknown, even though more than 1600 venereal and dermatological moulages can be found at the ‘A Sygros’ Hospital museum in Athens.9,10

The art of moulaging
The word moulage is derived from the French word moulé, that is, to mould and thus to cast. Wax is a unique material, fragile and changeable, solid or fluid, impermeable but soluble in water, opaque or transparent, mat or polished, smooth or greasy and further more it is over and over modifiable into a new form. Wax directs the imagination and feelings towards the human skin. It is understandable that wax has been used for thousands of years when imaging the body. However, the dichotomies mentioned about wax are highly important when preserving the final results.

The forerunners for the medical wax moulages were the many anatomical wax figures produced in the 18th and 19th centuries with Florence having a key position.11,12 During the 19th century, diseases characterized with symptoms from the skin were more and more accepted as specific entities independent of the internal organs and, thus, forming the basics for the founding of dermatology and venereology as a new speciality.

The first International Congress for Dermatology and Syphilology took place at l’Hôpital Saint-Louis in Paris in 1889. The walls in the meeting hall were decorated with moulages, stored in glass-fronted cabinets and showcases, which had been cast at the hospital during the preceding decades.1 This event became a turning point for the production of moulages in Europe. Many of the 210 participating dermatologists from 29 different countries returned from Paris with the intention of establishing collections at home with this unique, precise, three-dimensional tool for teaching.1 Therefore, after 1889, the
art of moulaging, previously more or less restricted to l’Hôpital Saint-Louis in Paris and Guy’s Hospital in London, was taken up at many other hospitals in Europe. Among the moulage production workshops in Germany, the one in Berlin became of decisive importance for the moulage production and moulage collection in Athens.

**The Greek physician**

The moulage production in Berlin started immediately after the International Congress in Paris in 1889, thanks to Oskar Lassar (1849–1907) the founder of the Dermatological Society in Berlin. Lassar had the opinion that specialists in dermatology would benefit in diagnosing if they were able to produce moulages themselves. One of those who were introduced to the art of moulaging at Professor Lassar’s clinic was the Greek physician George Photinos (1876–1958).

Photinos had his first education in dermato-venereology in Athens but to further improve his knowledge he went abroad from 1903 to 1908 to places such as London, Vienna, Paris, and in Berlin where he worked for 10 months at Lassar’s clinic. During his stay in Berlin, Photinos wrote and published the first paper in the German language in 1907 about the art of moulaging. This paper, giving important background information when studying the moulage collection in Athens, starts with the following lines:

> Die ganze medizinische und vor allem die dermatologische Welt weiß, dass es mit Hilfe der Moulage am besten möglich ist, die verschiedenen Haut- und Geschlechtskrankheiten naturgetreu wiederzugeben … und dass Abbildungen sich nicht im entferntesten mit einem Abdruck messen können, der sozusagen die Natur selbst darstellt.

(The whole medical and above all the dermatological world know, that with the help of the moulages, it is possible in the very best way to pass on the different skin and venereal diseases in its natural state … and that the depiction can by no means compare with a copy but practically displays nature itself).

According to Photinos, the aim of his paper was to introduce the necessity of moulaging, and thereafter convince the reader in moulding himself, as this would supplement his education to a dermatologist.

Photinos learned the technique at one of the courses held by Lassar and his mouleur Heinrich Kasten in Berlin. If one is already a specialist in dermatology, such a course of 1-month duration would be enough to adapt the basic knowledge in the process of moulaging. However, without knowledge about skin diseases learning the process would take a much longer time. These courses were therefore restricted to doctors that had had their training in dermatology so that they could educate their own mouleurs in the varied morphology of normal and diseased skin as well as in the technique of moulaging. Lassar and his mouleur Heinrich Kasten had an open-minded attitude towards educating in the art of moulaging in contrast to other places in Europe where the few respected attitude were reluctant in giving any details about the preparation of the plaster and wax mixtures, coloring methods, refinement or mounting. This reserved attitude should have been especially pronounced for the famous French mouleur Jules Baretta.

When Photinos stayed at Lassar’s clinic, he himself produced about 150 moulages. It was a time-consuming work, with 3–4 h needed when moulaging a face with disseminated eruptions due to lupus vulgaris or acne. In the paper from 1907 he posed the question if it is worth using all the time needed, concluding that the moulaging doctor will be able to:

- Get a better feeling of all the different colours of the diseased skin when panting, as we all know how important the colours are in diagnosing these diseases.
- Get more accustomed to use the time needed in recognizing primary or secondary lesions, their form, arrangement and distribution.
- Discuss differential diagnosis when sending a moulage to another expert, in order to supplement the history and microscopic findings when the patient is unable to attend other authorities.
- Show seldom cases to the students even at small universities.
- Build up large local collections and thus avoid buying expensive moulages from other places.

For the fully educated specialist Photinos furthermore stated that:

- A complete collection will hinder the specialist in forgetting seldom and therefore more difficult diagnosis.
- Moulaging the disease in different stages when altering form, colour, or distribution is the only way to visualize progression or regression.
- Venereal moulage collections will advise the public as scientific information and public health education is the only way to lower the number of venereal diseases.

Photinos returned to Athens in 1908 where he continued his training in dermato–venereology. In 1910, he became the first Chairman and Professor at the ‘A Sygros’ Hospital, a new hospital with 200 beds for patients with skin and venereal diseases. The hospital was donated by Ifigenia Sygros and named in the memory of her late husband, the great benefactor Andreas Sygros (1826–1899).

**The past time for the Greek moulages**

It is no wonder that Photinos wanted to have his moulage collection produced at a local workshop. Although he
continued to cast moulages after having returned to Athens, he had to look for an artist to take over this time-consuming work. The man who took over this position and even developed his own preparation methods was K. M. Mitropoulos14 the signature of whom appears on a moulage as early as 1911. Very little information is left about this excellent Greek moleur that cast most moulages at the ‘A Sygros’ hospital. Accordingly, Mitropolous spent most of his life at the hospital where he had his workshop and housing until his death in the late 1940s.14 Mitropoulos was followed by his son G. Mitropoulos who cast a few moulages but otherwise preserved the collection. The signature of G. Mitropoulos can be found on the board of a few moulages, the latest dated in 1957, 9 years after Photinos retired and only 1 year before he died in 1958.

Mitropoulos introduced some alterations in the production procedure when comparing the Greek with the few French moulages in the Athens collection. The most visible difference is a more minimalist appearance of the Greek moulages. The faces of the French moulages (fig. 1) have hair and glass eyes inserted and the appearance is somewhat more elegant than the rather coarse Greek faces (fig. 2). However, it should be remembered that the moulages were teaching objects and not made for decoration so the more elegant French appearance may actually draw the attention from the main goal, that is, the presentation of a specific disease.

One of the Greek moulages is an exception, an early cast when estimated by the low number on the board although undated and without signature. This moulage depicts a young girl with half her face suffering from tuberculosis (fig. 3), with inserted hair and clear blue glass eyes looking at the observer. Although not confirmable, this moulage could very well have been cast by Photinos during his stay in Berlin and then taken the journey with him back to Athens.

As early as in 1911, Photinos was able to present a collection of syphilis moulages showing the results of treatment with ‘606’ (salvarsan) for dermatologists and syphilologists in Rome.14 According to the ‘A Sygros’ archives from 1937, the Greek moulages were admired and, for many, unbelievable to have been produced in Greece.14 The French dermatologist Arnaud from l’Hôpital Saint-Lazare ranked the Greek moulages as number one in the world for their artistic presentation with warm colours leaving a very natural look, and mentioned the collection as the second or third in total number.14 Two years after the meeting in Rome, Dr Mignon, chairman of a French military hospital, who also expressed his admiration, received a donation of 60 Greek moulages, showing rare
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Skin diseases and severe frostbitten feet after a military battle (fig. 4). These flattering expression should perhaps be taken with some caution when cited in the hospital archives 26 years later, but nevertheless the Greek collection seems to have been known outside the country in contrast to today.14,15

The French dermatologist Gougerot from l’Hôpital Saint-Louis visited Athens in 1930. In his report shortly after the journey he mentions the Greek moulages in the same breath as those made by Baretta in Paris.15 It must certainly have been flattering not only for Photinos but also for his mouleur Mitropoulos to be mentioned in line with the famous late mouleur Baretta from l’Hôpital Saint-Louis in Paris.

The moulage collection has without doubt been well preserved and properly stored until the end of the 1950s when the last moulage was cast. But from then on the magic sleep might have started with a short awakening for a historical presentation at the XVII World Congress of Dermatology in Berlin in 1987 where selected pieces were presented.16 Originally, the moulage collection had been stored in a central part of the hospital, but around 1970 the moulages and the glass-fronted cabinets were moved to the present building in the north-eastern corner of the hospital.

The diseases

During the first decades after the hospital opened, up to 50% of all the patients had syphilis and many had other venereal diseases.9 Therefore, it is no wonder that a high percentage of the moulages depict syphilis with all its cutaneous and mucous manifestations not only due to acquired syphilis in adults but also due to congenital syphilis in children and grown up persons. Skin manifestations due to other venereal diseases, especially soft chancre and venereal warts, are also well represented and the thick keratotic changes in the soles due to untreated gonorrhoea can also be inspected.

The dermatological moulages show a wide variation of skin diseases and also huge malignant tumours in the skin and lymph nodes, the latter of which would no longer be referred to a dermatological department. The diseases shown are both unusual cases even for a dermatologist, such as pellagra, tuberculosis, lepra (fig. 5), leismaniasis, von Recklinghausen’s disease, pemphigus, Darier, Paget,
porokeratosis and common diseases such as psoriasis, eczema, acne, fungal diseases, impetigo, warts, elephantiasis and keloids.

The present time for the Greek moulages

Doctors, students and some interested laypersons now and then visit the collection, which is seldom mentioned in newer published work about the art of moulaging. The moulages are stored in big glass-fronted cabinets. The lower part of the cabinet is about 2 m and the top cabinet about 1 m high, making it impossible to inspect any upper moulages. These locked-up cabinets, also used in the rooms of the former hospital museum, are made of solid wood. The original intention of the cabinets has probably been fulfilled to function, but today some backsides have cracked, many doors cannot be locked up properly and some doors are missing.

According to Photinos the ideal storage of moulages would be:

- together in glass-fronted cabinets or one by one in showcases in order to keep out dust and dirt;
- in rooms where black curtains could be drawn in order to avoid the fading effect due to sunlight;
- in dry rooms in order to avoid fungus and mould growth;
- in moderate temperature as high temperature will increase the risk of deforming if the wax expands; and
- in tempered rooms as too low temperature will increase the risk of cracks if the wax gets brittle.

Unfortunately, these demands are not fulfilled, thus resulting in dusty, dirty and also faded moulages, many of which have severe mould and fungal growth. The board on which the moulage is mounted has often broken and the linen lining the moulage is dirty and mouldering. The small handwritten cards on the boards with the diagnosis are sometimes lacking or partly crumbled.

It is extremely impressive that Photinos succeeded in establishing and building up this large moulage collection during a century where Greece, apart from searching for its national boundaries and identity, struggled for its economic survival. The more reason is there to lament the decay met with when visiting the museum today. It is mandatory that the very near future will bring forward the needed economic support for restoration and better preservation. The cost of a restoration cannot be borne by the local authorities, means from national and international foundations should be asked for in order to involve experts with knowledge and experience. Dematological societies, not least the European Academy of Dermatology and Venereology (EADV), should also be activated in this process. Otherwise, it will soon be too late to save just part of one of the largest historical collections of European moulages that remind us of a time not that far away where the possibility to treat and cure in dermatology and venereology differed so much from what is possible today.

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