Aspergillus, Alternaria and *Penicillium*
Fungal Infestation in a Plaster Casts Collection

In 2022, forty individually-packed plaster cast sculptures with mild-to-heavy mould infestations arrived at the Stichting Restauratie Atelier Limburg (SRAL) conservation studio for a collection recovery. The casts had suffered a variety of fungal infestations as a result of water leakage in their original storage location at the Maastricht Institute of Art. A proper assessment of the biological growth among the deteriorated objects had to be carried out to ensure the safety of the staff and other art objects situated in the studio and museum, as well as within the plaster casts collection itself.

Microbiological analysis of the isolated fungi samples was examined at the Westerdijk Fungal Biodiversity Institute (KNAW). KNAW specialists were able to confirm the presence of *Aspergillus, Alternaria* and *Penicillium* fungal spores within the plaster cast collection. Actions taken to ensure necessary work-related safety measures at the SRAL, as well as the establishment of a test series that helped to design a case-specific multi-staged conservation treatment for fungi infestation removal, are detailed in this article. The treatment took place in the SRAL open studio, situated within the Bonnefanten Museum in Maastricht, The Netherlands. Conducting the work in an open studio meant that the project was exposed to the public in such a way that allowed passers-by to check in on its live restoration campaign.

All in all, this project presented an opportunity for the SRAL's conservation team to expand their knowledge of fungal infestation in cultural heritage; specifically in relation to microbiological sampling, the measures involved in handling personnel safety and the relevant spectrum of treatments applicable to different mould types. This overview might be relevant to the wider audience of specialists who may face similar challenges. To comprehend the material nature (gypsum or lime) of the plaster cast collection, a scanning electron microscopy (SEM) analysis is to be conducted at the SRAL's conservation laboratory.

Ausrine Dambrauskaite
Arnold Truyen
Stichting Restauratie Atelier Limburg (SRAL)
a.dambrauskaite@sral.nl