

Let us imagine a physician who, like a mediaeval doctor, has to diagnose and treat his patients while at the same time not being allowed to learn the secrets of human anatomy, to look inside a human body. Or, let's say a programmer who, with no access to the source code, is trying to repair a malfunctioning application. Or a car mechanic who, though he has never before seen a hybrid drive, is attempting to repair one using only information from the Internet. Needless to say each of them will occasionally enjoy success and with enough general knowledge and perseverance this success may actually be quite frequent, but still, it will always be achieved with needless, excessive effort and will often be accidental.

A conservator of photography is in a similar position these days. They can see their patient, but don't have a complete knowledge of their anatomy. They can collect a good deal of information about the photograph using different methods of observation, but it will always be burdened with error, imperfections of the apparatus used and, above all, a lack of knowledge of the process that was employed to create the object they are attempting to preserve. In addition, only non-destructive methods can be used to examine the prints as they are precious historical objects. The results obtained this way are often difficult to interpret properly without a point of reference or a model. It is a little like attempting to design new medication without being able to run tests. Such tests would be possible, if the conservator could make prints identical to the ones made in the 19th century, prints which could be freely used for comparison as well as test methods of conservation and conduct research. Prints that could be destroyed and recreated at will. Prints that could also be used to learn to identify historical prints, which is an important element of a conservator's work. As things stand, we often face situations when a conservator first sees a particular photographic technique in practice when they need to identify, preserve or restore a print it was used to make.

The above results from the fact that much of the knowledge of old photographic processes has been lost. Modern publications are not only few and far between but also fragmentary, often focused only on either the process of conservation or on identification alone. The original source literature with its jargon and dated vocabulary has over time become inaccessible, especially to someone with limited practical knowledge and lacking years of photographic experience working with historical photography.

The aim of my project is to change this situation by reconstructing old photographic processes based on the sensitivity of silver salts to light (silver based materials were by far the most popular in the history of photography) with as much precision and in as much detail as possible, including their variants used in the past as well as a detailed description of their characteristic features and, above all, the way in which they were used to produce photographs. This is made possible by the fact I have more than ten years experience of working with historical photographs, as well as by my knowledge of English and the cultural realities of the 19th century which make it possible for me to work effectively with the sources and to analyse the patent descriptions or notes made by practitioners or early photographic researchers. Above all, the aforementioned experience and skills enable me to put theoretical information into practice and to adopt it to the realities of the 21st century. Therefore, each process I recreate can be accompanied by a precise and detailed technical description making its understanding and practical application possible.

As a result, we will gain an insight into how photographs that we now need to preserve, restore and protect against destruction were made, as well as detailed knowledge about their characteristic features useful in print identification. This will prove indisputable as it will be based on models that are chemically identical with the historical ones and that were made using identical procedures. At the same time, contrary to the situation we experience working with historical photographs, we will have a complete knowledge of the materials and procedures used in their production. In this way we will not only gain an excellent tool to learn or teach identification but will, first and foremost, be able to make models for any chosen silver based photographic process and to use them for conservation research without running the risk of damaging the historical objects, at the same time with the certainty that the results will be applicable while working with the originals. In other words, a photography conservator will gain the same opportunities as medicine or pharmacy enjoys and will be able to verify the efficacy and safety of new methods of conservation and restoration without reservations.