Objects found in ancient burial sites are often made up of crystallized chemical materials. These crystals are, for those who know how to “read them”, real archives.

**Egyptian cosmetics,… and crystallography!**

**Egyptian make up, knowledge from crystals**

The use of kohl, black eye makeup, is recorded from ancient Egypt. Analysis of cosmetic powders taken from funerary objects preserved in the Louvre Museum, has identified the major component of these old cosmetics as a crystalline lead ore, galena (PbS) but also ... the presence of far rarer crystals....

**The first chemical solution synthesis invented by Man ?**

Researchers have shown that these crystals are rare chlorinated compounds of lead. The synthesis method (in aqueous media) can be found in Greco-Roman texts. These texts reveal that the artificial white precipitates were highly valued for their medicinal properties, especially for the eyes. The ancient Egyptians were thus the first to use soft chemistry to develop cosmetic products to protect them from eye infections, common in the hot and humid climates along the Nile ... the cradle of their civilization....

**Natural minerals such as galena lead were extracted from Egyptian deposits, especially those of oil mountain “Gebel el-Zeit.”**

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**Ancient texts (Dioscoride, Pline) describe a method for synthesis of these precipitates Pb(OH)Cl laurionite and phosgenite Pb2Cl2CO3, with therapeutic properties.**

The long (3 month) process was perhaps the first experiment in soft chemistry to make a medicine.