The TRIPHON 3D platform

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3D imaging, chemical or structural analyses require sample preparation protocols that can be very restrictive when analyzing cultural and natural heritage artifacts.

MultiJet Printing (MJP) is an advanced high-resolution polymer 3D printing technology that offers a way of optimising these scientific analyses. A *3D Systems ProJet MJP 2500+* printer has been recently acquired by the MNHN of Paris [1].

Our workflow focuses on conceptualizing, designing and printing 3D supports or moulds to fit the shape of objects of interest. We use 3D digital scanning and/or computerised 3D modelling to replicate and create unique fixtures, perfectly supporting and securing any object of natural and heritage sciences.
We will focus on first trials and on using this technique to support different branches of the MNHN in optimising scientific analyses. By designing different supports molded to our scanning and lab equipments, we can better position and firmly secure objects.

We will also be able to offer TRIPHON services for other uses, such as in designing more protective packaging for shipping, or to meet specific exhibition needs. We will have new samples of 3D printed objects available on the poster.

Figure 1: Tryphon Tournesol, 3D printer first « inventor »
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References
[1] - D. Geffard-Kuriyama and M. Bellato. The TRIPHON 3D project – Computerised replication technique for nonstandard supports. Heritage2019 : Scientific Symposium - Frontiers in Heritage Science, Feb 2019, PARIS, France. hal-02274070.