
A microscope mount for artefact analysis

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RÉSUMÉ

Cet article décrit un porte-objets simple et facile à fabriquer pour des analyses microscopiques d'outils en pierre. Le porte-objets a une forme sphérique et permet un réglage permanent de l'objet observé. Pendant les réglages, les doigts de l'observateur sont en contact avec le porte-objets et non avec l'artefact, ce qui évite désormais un nettoyage constant.

ABSTRACT

This article describes a simple and easily made specimen mount which is suited for the microscope analysis of stone tools. The specimen mount is of spherical shape and allows a continuous adjustment of the observed object. During the adjustments, the fingers of the observer touch the mount and not the artefact, so that constant cleaning is no longer necessary.

The mounts normally used in microscopy, *e. g.* clip stages, cannot be used for viewing stone artefacts. The fixation of an object under a microscope must be done in such a way that the object is in no way damaged. Thus, metal clips do not come into question. Even minimal motions, such as the placement of a lithic artefact on a glass plate, can cause alterations on the artefact's surface similar to use-wear traces (*pers. comm.* G. Unrath, Institut für Urgeschichte, Tübingen). A simple, but rather provisional, method is the placement of an object on one or more moldable towers of Plasticine. This is, however, a time consuming and troublesome method as, for almost every new

positioning of the object, the Plasticine has to be re-molded and the desired zone of the artefact has to be placed perpendicular to the path of light. The object also needs to be bathed in a fat-dissolving cleaning agent (alcohol) to remove adhering bits of Plasticine and fingerprints which could falsify the picture. In the Tübingen Blind Test remains of Plasticine that could not be removed with soap, alcohol or acetone were a problem for some of the analysts (Unrath *et al.*, 1986 : 164).

Another very simple but more effective device has proved advantageous in my analyses with both reflected light and stereomicroscopes, especially when photographing (Pawlik, 1991 ; Owen, Pawlik,

in prep.). It is a type of spherical mount produced from half of a pingpong ball set in the plastic ring from a roll of Scotch tape (fig. 1). The pingpong ball is filled to just over the edge with Plasticine or a Plasticine-type cleaner (better stability is pro-

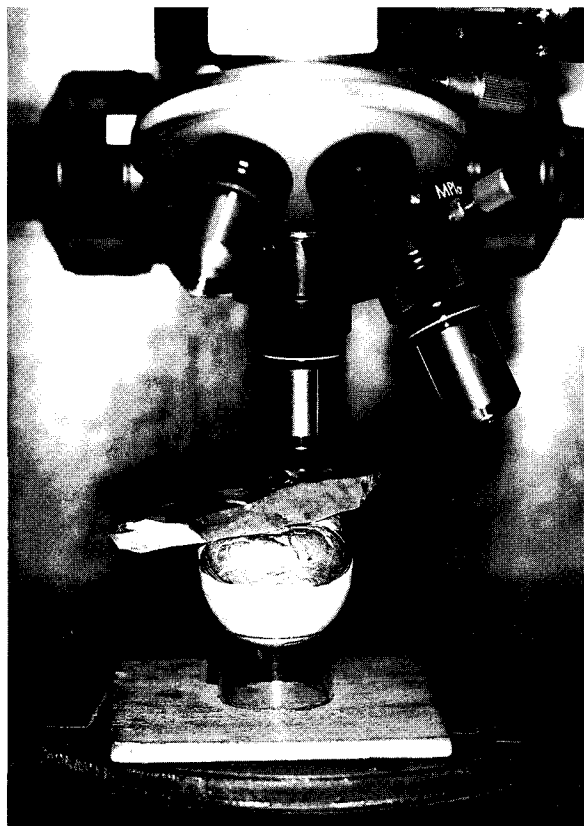


Fig. 1. The specimen mount in use.

duced by adding a small lead ball or similar object as a weight). Type cleaner (e. g. Pelikan Typenreiniger Art. n° 1561) is preferable to Plasticine as it does not leave residues adhering to the artefact.

The object sits securely on this « pillow » and the surface being analyzed can be moved quickly and easily in all directions. During the position adjustments, the fingers of the observer touch the ball and not the object so that constant cleaning is no longer necessary.

The height of the mount is between 25 and 50 mm depending on the desired angle of inclination. It is especially suited for use with Olympus BHMJ microscope models, as the distance between the microscope body and the mount in these can be adjusted. However, it can also be used with other conventionally built reflected light microscopes (e. g. Zeiss Universal). At the very worst, the slide table has to be taken out, which can usually be accomplished with just a few manipulations.

This device saves a considerable amount of time, at least when small to middle large artefacts are viewed.

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