No. 211 – Cubic dioptrograph (Martin type)

The only drawings that can be used for measurements are those for which the projection was made on paper by parallel rays. This is why the use of the dioptrograph is recommended.

This instrument consists of a light alloy metal stand with an upper plate made of glass. In the same plane as the glass plate there is a laminated wooden board to which is fixed the drawing paper. A wooden plate, upon which the object to be drawn can be placed, can be fixed in the stand by means of metal tacks at various heights.

A diopter with a graticule[1] is placed on the glass plate. The graticule is fixed, such that it can rotate, to a reference point on the pantograph. The opposite reference point carries a pencil that can trace outlines on the paper.

The Cubic dioptrograph No. 211 (Martin type) has the following dimensions:

Length x Width x Height

80 cm x 40 cm x 42 cm

Application: The object to be sculpted is expediently again aligned in an anthropologically defined plane, placed on the lower board, which has a dark and a light side to optimise the contrast between the object and the base. If necessary, the object is illuminated in this position laterally, or from above. Now fix the

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contour to be drawn with one eye through the sight and guide it with one hand over the glass plate so that the desired structure is always in the crosshairs. Since the straight through the visor aperture and the crosshairs is perpendicular to the glass plate, and thus over the object to be drawn, one obtains on the paper, which is mounted on the drawing board, the exact orthogonal projective representation of the circumscribed structure. If you want to interrupt the pencil line during the drawing process you can raise the lead holder and fix it by a clamp. In the manner described it is possible to make detailed drawings of many bone structures, such as sutures, cristae and foramina. Due to the stepless adjustability it is also possible to normalize several similar objects.

Caution: For cleaning please do not use acetone or acetone-containing cleaning agents.

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