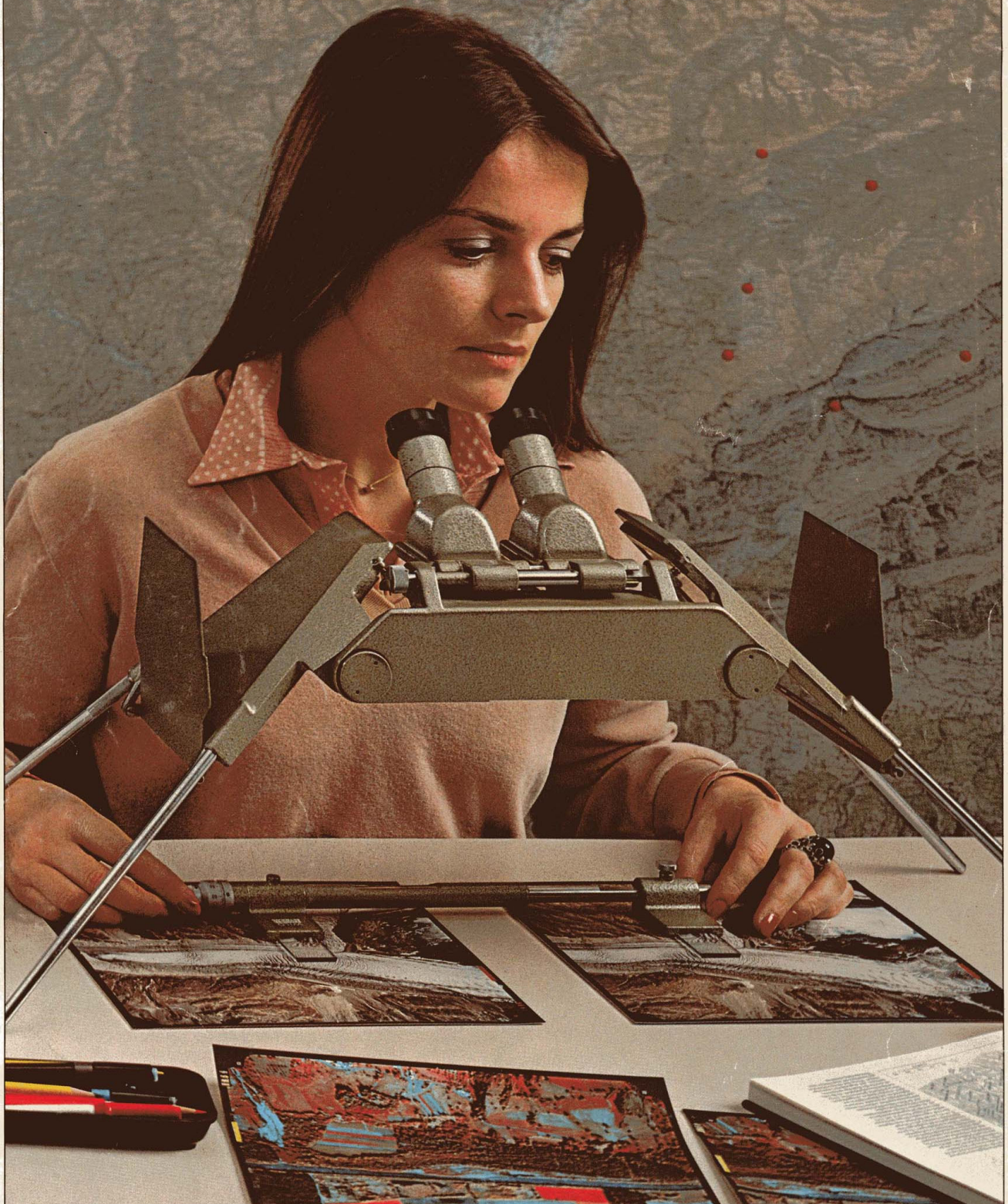


WILD ST4



Mirror stereoscope

Zamin Tavana Tajhiz Co
www.ztt.co.ir

Leica

Wild ST4

for photo-interpretation, height measurement and graphical plotting

Stereo photographs, viewed stereoscopically, recreate the object's three-dimensional appearance. Details are greatly enhanced and can be interpreted with confidence. Differences of height can be measured with the stereomicrorometer and simple plots can be made, regardless of the accessibility of the objects.

Comfortable viewing

Under the two accommodation lenses of the Wild ST4, a stereo model approx. 18 cm x 23 cm (7" x 9") can be viewed in its entirety. Details may be studied by using slide-on eyepieces giving either 3x or 8x magnification. The accommodation lenses and the magnifying eyepieces are adjustable for interpupillary distances of 56 - 74 mm. The eyepieces can be individually focussed. Their inclined position provides a comfortable viewing position.

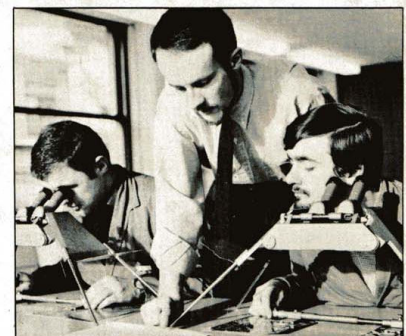
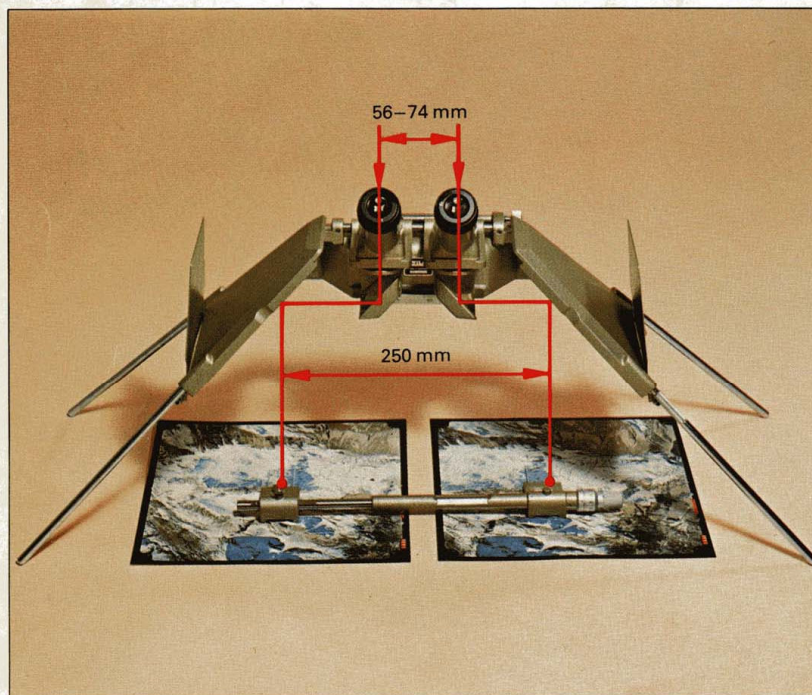
The ST4 has a fixed stereoscopic base distance of 250 mm. Different observers may therefore view a spatial model immediately after one another without the need to readjust the orientation of the pictures. Hinged cover flaps protect

the mirrors from being accidentally touched during setting up or packing. Special tropicalized mirrors are available on request. The wide spread of the legs provides a large clear area in all directions; they are removable when the instrument is to be attached to the cantilever stand or the stereoscope carrier.

Alternate overall and detail viewing

Whilst the accommodation lenses permit an overall view of the whole area

covered by a stereo pair of 23 cm x 23 cm pictures, the eyepieces with 3x and 8x magnification provide for the viewing of details. The eyepieces are simply fitted to the Wild ST4 and form a single optical unit together with the accommodation lenses. They may be swung back to permit an optimal interpretation by alternate overall viewing and detail observation. The 3x eyepieces will mainly be used for this, since their wide field of view of 70 mm diameter provides an excellent overall impression of the area to be interpreted.



Selection of transfer points for aerial triangulation and identification of cadastral points will benefit from the powerful magnification of the 8x eyepieces. Their field of view is 26 mm in diameter.

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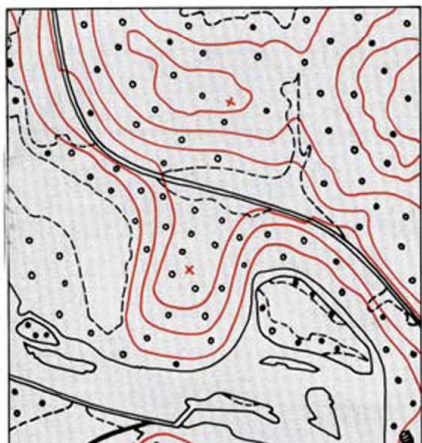
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Measuring

*Height differences
determined with ease*



With the Wild ST4 Mirror Stereoscope and the pencil holder attached to its parallel-guided picture carriage, it becomes possible to record the picture content graphically. For this, the picture carriage is moved in such a way that the measuring mark of the stereomicrometer is guided along the desired feature on the right-hand picture.



With the Wild ST4S Stereomicrometer it is possible to make parallax measurements which may be converted to height differences. The stereomicrometer has a measuring spindle with divisions in whole millimetres, for reading in hundredths of a millimetre on a scale drum. The fixed and the movable part each carry a removable glass plate with three types of engraved measuring mark: dot, circle and cross. Viewed under the stereoscope, a pair of these will merge into a single floating mark which can be brought into apparent contact with the spatial model by turning the micrometer screw. In this way, parallax values can be determined for any model point. A simple mathematical relation exists between the x-parallax differences (parallel to stereo base) and the actual heights in the terrain. It is therefore possible to determine the height differences between individual points from the parallax differences.

The measuring range of the micrometer screw on the stereomicrometer is 43 mm. In addition, the left glass plate may be displaced over a range of 53 mm and fixed in any desired position. This means that the total range of the stereomicrometer is 175 - 270 mm

Parallax measurements with the stereomicrometer may also be used to determine the elements of relative orientation of near-vertical aerial photographs. For this purpose, the y parallaxes must be measured (transverse to stereo base), after rotating the pictures through $90^\circ/100^\circ$ under the stereoscope.