My first LOMO

This I bought from a Finnish second hand web store in spring 2023. Evidently a Finnish seller had imported items from the USSR in the late 80's. The object obviously has a Biolam frame, but it has an Erudit badge with cyrllic alphabet only. This setup was the domestic version For the "Proletariat" with 37 - 200X magnification. Bresser has used the name of Erudit later on.

With a 'Микроскоп Эрудит ЛОМО' search you shall find about ten different ads within 5 years in Eastern Europe sites (all seems to have the same setup). From western sites I have hit 2 ads.

Standard, norm, specifiation or complex price tag?

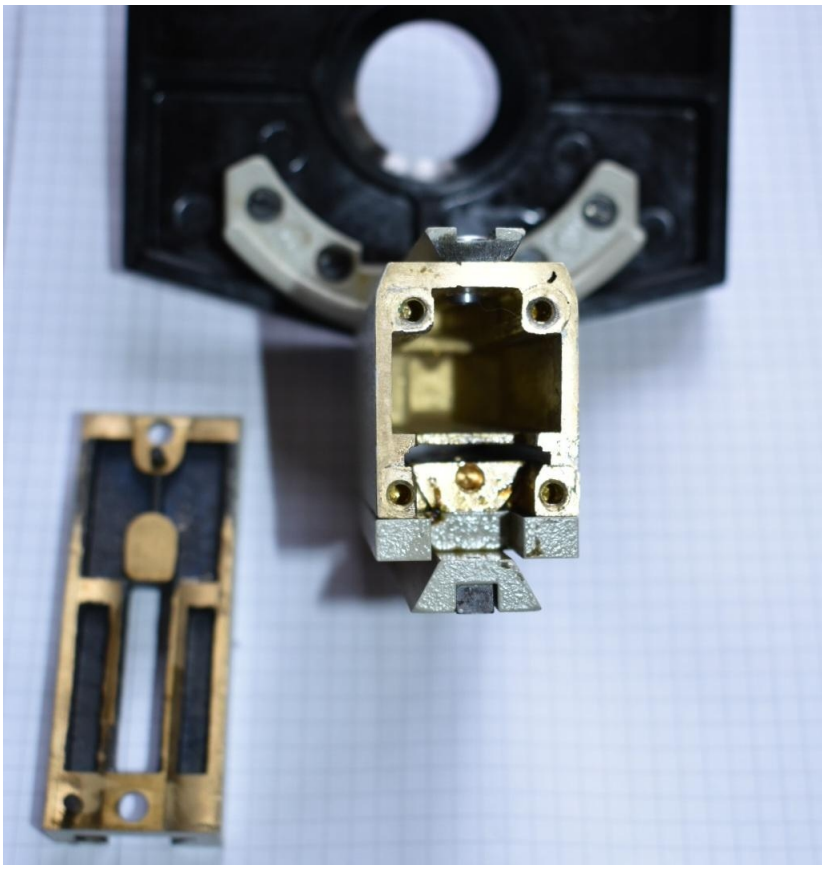
The document 'Микроскоп Эрудит, ЛОМО, ТУ 3-3.1746-79' can find from a Russian standardization web-site, but I really aren't ready to pay any money from this pearl of possibly accompanying Russian beaurocracy. The date of the document seems to be in January 1980.

Microscope Erudite
LOMO
TU 3-3.1746-79
Price 85 rub
Pricelist 082A-01
Amendment 202
Position 309

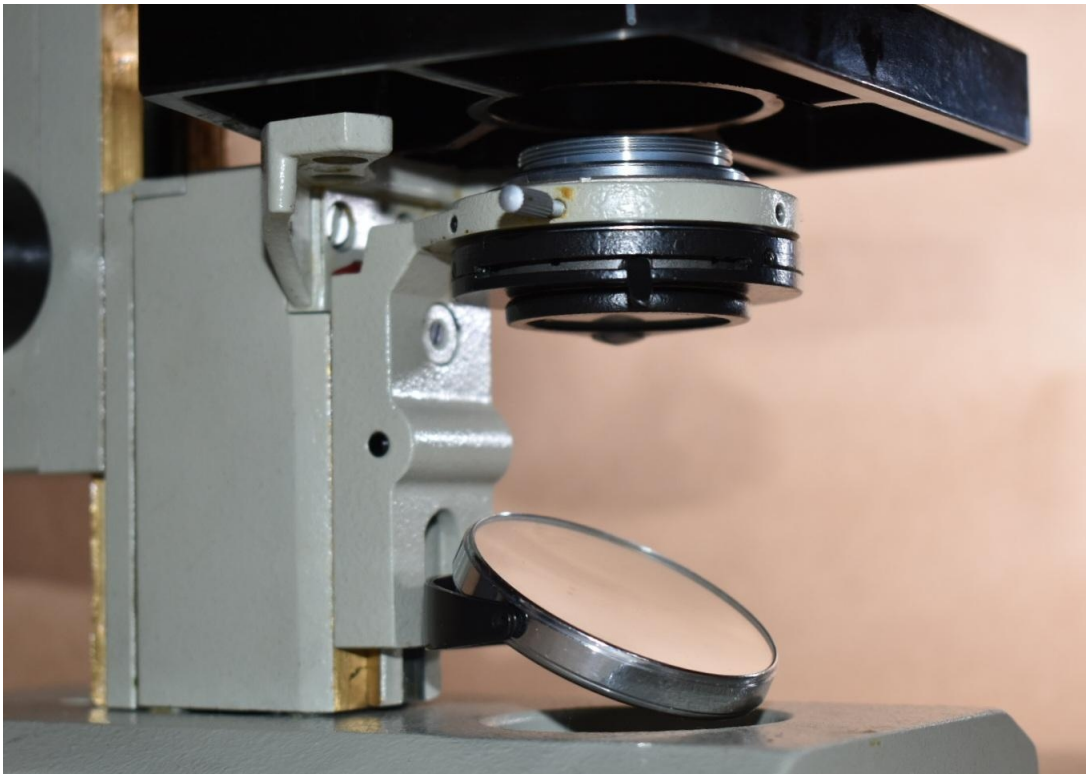
There were many illusions in the USSR and lack of inflation was one of the most devastating. The idea was that the price of Erudite would be 85 rub forever. An average salary for an ordinary worker per month was about the same. Some kind of practical joke in history shall be that 1980 was about the last year with almost zero real inflation in the USSR.

Setup

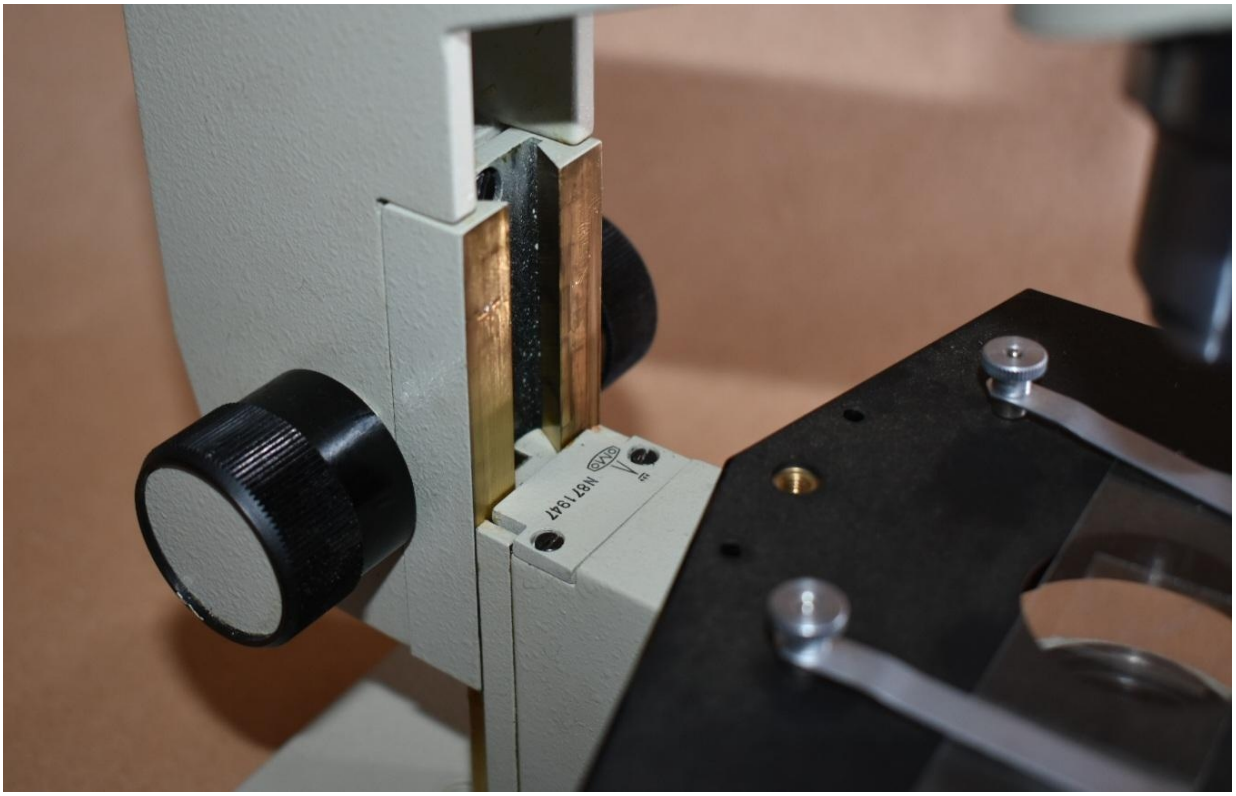
Eyepiece is 10X and objectives are 3.7-0.11, 10-0.20 and 20-0.40 achromats. Size of the bottom plate is 100 x 195 mm, but extreme dimensions are 130 x 230 x 380 mm. Mass is 2.65 kg . The biggest flaw is a missing fine focusing mechanism (dovetails are there).



Condenser height adjustment rack and wheel are also still in Leningrad, you can't adjust height at all with or without tools, despite installed dovetails.



Another peculiar detail is the difference in the parfocal distances of objectives, but with a large coarse focusing range you can screw (up (and down)) problems away. Older LOMOs of mine focus little over 33 mm from glass, OM-12 (3.7X) distance must be about 50 mm (for lens 873291 with my eye refractive error). Fortunately there is free space between table and turret seat from 21.5 to 72 mm (estimate for measuring accuracy is +/- 0.5 mm).



I haven't the smallest idea to doubt:
http://www.microscopy-uk.org.uk/mag/artjul04/iwlomo.html
but I have used red multipurpose calcium sulfonate complex grease at Nlgi grade 2. I don't have any tank, but I use the same Cls-2ep grease in my excavator. Red 'tappirasva' has good properties for stationary, sliding or slowly rotating (less than rev/second) bearings.

LOMO boxes

Usually USSR boxes were wooden (A uni' in the 80's laboratory technician was bored by too many USSR tools (dumped into Finland by bilateral trade), but he said: "Yes, wooden boxes Russian can make, indeed!"). Normal set for Erudite was 3 objectives with fixed plastic shield and one 10X ocular in the wood box.

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I was missing a 40x objective, 7x and 15x oculars. I found those plus 8x, 90x objectives, immersion oil, pipette (and mystery stick), 2 filters, a tool in a plastic box from Ukraine.

On of the web are pictures from the same kind of set: bigger Biolam from 1991 was sold with this kind of box ("accurate" serial numbers in objectives), but plastic seems to be rare.

Extremely well packed shipment from Ukraine:

OM-12 objective 3.7-0.11

This seems to be the Apo in achromat's clothing: https://www.closeuphotography.com/lomo-3-7x-objective/2017/12/24/lomo-37x-011-microscope-objective (Tube length: 160mm (155mm to the rear of the lens)? This may be critical for best image quality. Shall we report distance from image sensor to shoulder of the objective?)

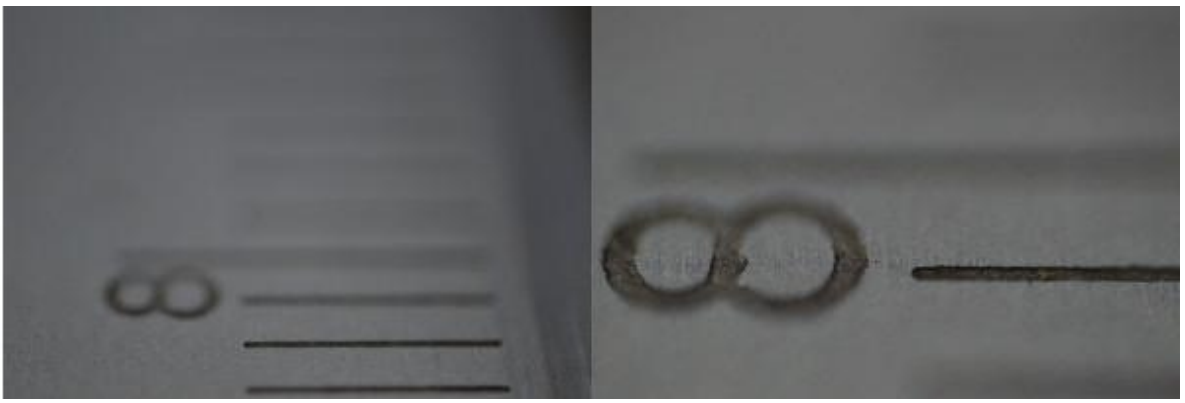
Price levels are rising from 20€ to over 100€ on the web.

In *PEACE*-2 measuring scope from 1970?

Into Bresser 1998 catalog there was Biolam-57 series "DIN" objective 3.7-0.11.
TOE catalog at 1996 price was £17 as achromat OM-12 (£8.05 at 1985). In older undated TOE Biolam 70 catalog there is *MIR*-2 measuring microscope with unnamed 3.7-0.11 achromat.

I am guessing, but the story may go like this: Somebody (in the late 60's?) has a task to design "something" into *MIR*-2. Magnification came about 3.7x with 160 mm tube (measuring scope has "zoom" tube and non-constant mag.) and 50 mm parfocal distance was much more than this era typical 33 mm in LOMO microscope.
Ten years later it was a new task to do a little better proletary Erudit (4x objects had a shortage?) and OM-12 was used. Later on "DIN era" (DIN 58887 (replaced by ISO 9345) standard for 45mm/160mm/RMS combo) "hit" OM-12 nearer. Later on OM-12 seems to have vanished. Or wasn't 50 mm as 45 mm (din parfocal) in post-communist world?


Lomo 3.7-0.11 and 8-0.20 focused with 120 mm (from APS-C camera sensor to base of objective shoulder) extension tube in a target.



View and image sharpness are reduced from 3.7X to 8X (with APS-C sensor and 120mm tube). Images are from mm ruler.

Fabrics above with 120mm tube in APS-C camera and 3.7-0.11 LOMO. You need several shoots and a focus stacking program to generate more sharpness. Width of the picture is about 7 mm.

Mystery stick has 2 plastic pieces and a wire.

The end

Still guessing: mystery stick is hairless brush? Rusland, origin of shit and pearl?

My modified Erudit with 7X corrected eyepiece and extra 40X objective magnifies 26 - 280X and missing fine focusing isn't a big problem.

Comments to the author Pasi Grönqvist (Finland) are welcomed,
email vihervitsa AT gmail DOT com.
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