Thompson Land Camera

An oscilloscope recording camera by J. Langham Thompson Ltd., Bushey Heath — ex Paillard SA research laboratory, Sainte-Croix

Maker	J. Langham Thompson Ltd., Bushey Heath, Hertfordshire, England
Model	Thompson Land Camera (oscilloscope recording camera)
Serial	Nº 400/225
Lens	Dallmeyer (Oscillograph) Anastigmat F = 3″ / 1:3.5 · Nº 520145
Shutter	Central leaf shutter, sync sockets B / C / M, B + T
Film back	Adapted Polaroid Land Camera roll-film back · Polaroid Corp., Cambridge MA, USA
Provenance	Paillard SA — Labo. inventory plate Nº 1808 (Sainte-Croix, VD, Switzerland)
Date	c. 1955–1962 (based on Polaroid patent range and Land roll-film back)

Fig. 1 — Top view, folded. The crimson-red body shell carries the Paillard SA laboratory inventory plate (left edge) and the Dallmeyer Oscillograph lens centred on the lens-board.

1. Summary

A British scientific instrument camera of the late 1950s, built around an adapted Polaroid Land Camera roll-film back and a Dallmeyer Oscillograph Anastigmat 3-inch f/3.5 objective in a helical focusing tube. Designed and produced by J. Langham Thompson Ltd. of Bushey Heath, Hertfordshire, for the photographic recording of cathode-ray-tube traces on oscilloscopes and the indications of other laboratory instruments. This specific example bears the inventory plate of the research laboratory of **Paillard SA** at Sainte-Croix (VD), the renowned Swiss precision manufacturer behind *Bolex*, *Hermes* and *Thorens*.

2. Physical identification

2.1 Maker's plaque

Engraved aluminium plate fixed to the top deck of the body shell, reading verbatim:

THOMPSON LAND CAMERA · SERIAL Nº 400/225 · J. LANGHAM THOMPSON L$^{TD.}$ · BUSHEY HEATH. HERTS. ENG.

Fig. 2 — Maker's plaque on the top deck. The serial scheme 400/xxx indicates model variant 400, production number 225. A related machine (Nº 410/107) is preserved in the Science Museum Group collection, London.

2.2 Objective

Dallmeyer (Oscillograph) Anastigmat F = 3″ / 1:3.5, serial 520145, mounted in a long helical focusing barrel. The 3-inch (≈ 75 mm) focal length is characteristic of Dallmeyer's purpose-designed oscillograph series, chosen to match standard CRT screen diameters of the period at a 1:1 to 1:2 reproduction ratio. The lens is recessed deep in its tube, providing both a permanent sunshade and the long extension required for the close working distance.

Fig. 3 — Dallmeyer Anastigmat lens engraving (axially recessed in helical tube). Marking: DALLMEYER ANASTIGMAT F=3 f/3.5 520145.

2.3 Shutter and flash synchronisation

A central leaf shutter (likely Gauthier supply) is fitted between the lens cells, with three coaxial flash sockets on the right-hand body wall, labelled **B**, **C** and **M**. This trio is consistent with the European synchronisation convention of the late 1950s — bulb / electronic / M-class flashbulb — and provided the operator with flexible triggering when photographing single-shot transients on a CRT.

Fig. 4 — Right body flank: three coaxial synchronisation sockets (B / C / M) and helical focusing barrel of the Dallmeyer objective.

2.4 Polaroid Land Camera back

The image-receiving end of the instrument is an adapted Polaroid Land Camera back, embossed inside the cover with *POLAROID Land CAMERA · POLAROID CORPORATION · Cambridge, Mass. · MADE IN U.S.A.* The patent list cited on the interior plate (highest number 2,543,159, granted 27 February 1951) places the donor unit in the family of rollfilm Land cameras of the early-to-mid 1950s (Models 95 / 95A / 95B / 110 and derivatives). The interior includes the printed Polaroid roller-cleaning warning typical of these backs.

Fig. 5 — Interior of the Polaroid Land back, with patent listing and Cambridge, Mass. attribution.

3. Function and historical context

Before the introduction of digital storage oscilloscopes in the 1980s, the only practical way to record a transient electrical signal — a single non-repeating waveform on a CRT — was photographic. A dedicated oscilloscope camera was mounted directly to the bezel of the CRT, sealing out ambient light; the trace was triggered and the shutter released, exposing the photographic medium to the brief phosphor glow of the screen. Polaroid pack film made this workflow uniquely productive: the engineer received a finished print within seconds, allowing iterative adjustment of the circuit under test.

Several manufacturers competed in this small but technically demanding market — Tektronix (USA), Cossor and J. Langham Thompson (UK), Telefunken-Schaltbau and Robotron (Germany). Thompson's machines combined British optical-precision engineering (Dallmeyer lens) with the American instant-photography back, and were exported widely to research laboratories across Europe.

3.1 J. Langham Thompson Ltd.

Founded by **Sir John Langham Thompson** (1906–2000) in Bushey Heath, Hertfordshire. Thompson was President of the IERE (Institution of Electronic and Radio Engineers) in 1963–64; the IEE today presents an annual award in his name. His company supplied airborne electronic equipment to the RAF (Ministry of Supply order, 1956) and to the Swedish Air Force (1957), and was a recognised maker of both 35 mm and roll-film oscilloscope cameras. A comparable Thompson Land Camera (Nº 410/107) is held by the Science Museum Group, London (object reference Co8209682).

4. Provenance — Paillard SA, Sainte-Croix

The distinguishing feature of this example is the small enamel inventory plate attached next to the maker's plaque, reading: **PAILLARD S.A. · Labo. 1808**.

Paillard SA of Sainte-Croix (Canton de Vaud, Switzerland) was one of the most consequential Swiss precision-manufacturing concerns of the twentieth century. The firm — founded in 1814 as a music-box maker — became, in successive eras:

- the maker of **Bolex** 16 mm and 8 mm cinematographic cameras, dominant in professional and scientific cine work from the 1930s to the 1970s;
- the maker of **Hermes** portable and standard typewriters (Hermes 2000, Baby, 3000), the de facto international writers' machine of the mid-century;
- the parent of **Thorens** turntables, the reference in high-end audio reproduction.

The presence of a Thompson Land oscilloscope camera in Paillard's *laboratoire* (R&D laboratory) is exactly what one would expect: the development of Bolex electronic drive units, exposure control circuits, Hermes electric-typewriter logic, and Thorens motor-control circuitry all required oscilloscope work and the photographic documentation of waveforms. Inventory number 1808 places this instrument within the laboratory's asset register.

This is, in short, an instrument with a direct, documented link to mid-century Swiss industrial history. Such named-laboratory provenance is uncommon for scientific equipment of this period.

5. Condition (visual)

Body shell, crimson covering and chromed metal trim solid and complete. Maker's plaque and Paillard inventory plate fully legible. Helical focusing barrel intact and free in movement. Synchronisation sockets present and undamaged. Lens elements clear with only light cleaning marks consistent with laboratory service; iris functional. Polaroid back structurally complete with original interior printing. Film for the original Polaroid roll-film system has been discontinued for several decades; the camera is therefore offered as a historical and display piece, not as a functional photographic instrument.

6. Comparable instruments

Thompson Land Cameras and related British oscilloscope cameras appear infrequently on the public market. Documented references include:

- **Science Museum Group, London** — Thompson Land Camera Nº 410/107, with Dallmeyer Oscillograph Anastigmat F:3.5 Nº 531930, Gauthier shutter 1–1/125 s B/T. Object reference Co8209682.
- **Arthur Johnson auctioneers** (January 2025) — J. Langham Thompson Ltd. oscilloscope camera, Series 200 Type B.
- **Barneby's listings** — J. Langham Thompson Land Camera with Dallmeyer Oscillograph f/3.5 3″ lens.

The combination — Thompson body + Dallmeyer Oscillograph + Polaroid Land back + named Swiss laboratory provenance — is, to the present researcher's knowledge, not duplicated in published references.

Report prepared and photography by S.D.H.
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