Hardware Porn or Itinerancy?

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There are many ways to make sense of the moving images embedded above. These excerpts feature dazzling metals making contact, shiny solder joints melting at the pulse of a laser, X-rays piercing through pcb layers, and high-definition computer models reconstructing circuitry. Unquestionably, the video gives us a kind of proximity to the materiality of circuits. It is, at first glance at least, hardware porn, plain and simple. Indeed, there is certainly a sense of voyeurism at play here (which is reinforced by the detailed centrality of the object of interest, and the angle and rotational movement of the camera) and even, perhaps, a latent fetish in the way one gets “closer” to the matter of computing unveiling its “true nature,” its alien and plutonic quiddity/thingness.

Yet, to the trained eye, this pornographic and fetishistic interpretation is a bit too simplistic, if not naive. What these clips show are in fact cuts, broken connections, damaged pins, and failed solder joints; in short, things and sites of malfunction. The microscopic gaze featured in these videos is that of the fault, the equipment and technique of finding problems, of problematisation. Close inspection, a form of close reading, is central to the work of circuit debugging; the microscopic gaze is one of care and repair that is neither static nor unidimensional. To debug or to repair demands an extreme level of mobility. It involves the following of matter, here in the form of circuit traces and connections, necessarily taking place at once in various micro and macro levels of physical and effectual reality. From observing, for instance, the malfunctioning of a circuit’s logic from a computer’s command line interface, to diagnosing that some of its pins have not been soldered properly, one has to engage in a kind of hermetic itineration—moving from the symbolic order of the command line interface to the contiguities and gaps between material components of the circuit, if not the chemical constituency of these materials as such, and back again.

What could be seen in the video segments above as simple hardware porn or circuit fetishism, bountiful and available on engineering websites and reddit channels, may be framed otherwise. These videos portray a practice of itinerancy: to repair or to debug is to itinerate, and to itinerate is to follow signs and signals within the confines of a given situated system at a given time and place.
Itinerancy as a practice thus implies what could be dubbed a “heuristics of getting lost,” a sort of dérive or errancy along vectors of troubled signs and outlier signals. In this sense, the notion of itineration is linked to the vagabond, a person who does not belong to a specific place but, rather, belongs to all or many places at various times and for various amounts of time. Repairers, debuggers, and technicians, with their ambulatory equipmentality and habitat, wander here and there in search of sites of malfunction. They embed themselves, temporarily, in various places, at various times, inside the very weft of technological systems. Repairers, debuggers, and technicians are itinerant vagabonds of our technical infrastructures.

The embedded video features edited footage from various product demonstration clips of microscope and x-ray circuit inspection systems from companies such as Caltex Scientific, Process Science Inc., Subaru Opto Electronics, Nordson Dage and Hirox Europe.