being sorted into piles dictated by the materials of which they were made.

The first efforts I noticed were so unerring, and the movements of his "pendulum" so consistent, that I couldn't resist testing the phenomenon. Herein lay the first of my problems.

As he was twelve months old, I knew that, if I introduced new objects to him he would (1) become interested in them to the exclusion of his "game," (2) lose sight of that "game" in the light of a newer distraction, and (3) want to show me, or any other observer, his use of the new "toy."

Which last introduced a further complication to any attempt to experiment and observe. Harry started with the environment of a mother "playing" outside his play-pen and Harry "playing"/imitating his mother, from within the play-pen. New "toys" would have to be examined. If his father or brothers turned up they became instantly further distractions.

So I have worked through a couple of months of a basically uncrowded environment, with just Harry and me, his familiarity developing of a new "game" in imitation of my actions. Then came the introduction and his familiarisation with new objects, with which I was hoping he would play the same "game." And the introduction of an audience, from immediate and most familiar relatives, close friends, the allowance of time for familiarity to negate the natural desires to react to the changing environment.

Left to his own devices, and virtually ignored, in carefully familiar situations, he performs remarkably accurately. For example, he will dowse over and place a wooden cotton reel with a ball of paper, but place a plastic cotton reel with other plastic items.

A BEGINNER IN ELECTRONIC DOWSING

Daniel Wilson

Established dowsers, it seems to me, don't like talking about their booboos. Bad for the ego, bad for trade. Why haven't well-boring companies long ago engaged their own dowsers? The answer, I suspect, must be that they are coming across half-baked ones all the time and that's why they're so sceptical. We do not hear about half-baked dowsers in the BSD Journal.

I think this is a pity. As a beginner, I can afford to say I'm not perfect, and I'm near enough to my mistakes to remember all of them. Each has a lesson and is surely much more useful to other beginners than lists of successes.

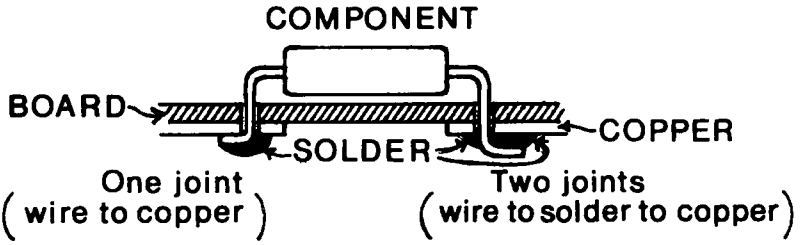
Being a telecommunications engineer, I barely had to grasp that dowsing was not just about underground water to be dangling pendulums over recalcitrant electronic circuits. But electronic dowsing proved for me an uphill business and I wouldn't like to claim I've got it under proper control even now.

Lesson one was proper formulation of the very first question:

Not—What's gone wrong? but—Has anything gone wrong? An embarrassing number of times I've started dangling pendulums over innocent boxes and asked pointless questions when a wire has been broken somewhere, not in that box at all, or the charlady pulled the mains plug out to put her cleaner in, or the fault is in what I expected the box to do. When you have deliberately switched logical thinking off to assist in dowsing, looking for a fault in the wrong place is by far the commonest pitfall.

Lesson two follows immediately when the pendulum says there isn't a fault and there quite patently is. You press it rather crossly for a better answer and it suddenly changes its mind and says there are twenty-three faults. Now any experienced dowser will smell the right rat here; we are into time confusion. Without reference to time the circuit is both all right before it stopped working and not all right because of the present fault. Worse, it is again not all right because of other faults implicit in imperfect manufacture of components which will crop up in the future. (You can get predictions of when, but they're very approximate—a calculation, it feels like, from what is known at present). I have found that emphasising "Now, *now!*" is not really very effective; a better system is to bring time into the thing right from the start and ask when the transition from working to non-working took place. It isn't important, but I don't use a count-up or count-down system for numbers—I use the face of my (or an imaginary) watch, with past time before 12 and future time after it. A circuit might have blown hours, days or weeks ago; I first ask which, hours 11, days 10, weeks 9, etc. The etcetera is important to include in your mind, so the pendulum can go further—I've had replacement circuit boards that had *never* worked. The pendulum goes back to their manufacture date and then hovers uncertainly! Once the time of a definite event has been established, you and the pendulum have a proper grasp of the right bug. In the same way, I understand, lost-object dowsers take care of the "remanence" problem by starting with the time of loss and working from there.

For the next step, actually finding the fault, I'm still undecided whether to be the electrical engineer and ask intelligent questions, or to be a child of five (a generally good approach to dowsing) and ask simply for instructions for mending. I am slowly coming down in favour of being stupid, because some faults really are stupid; not just the charlady and the plug but things wildly outside conventional fault-finding procedure. We had a thing called an access unit back from a customer, which was failing to isolate adequately two telephonic speech paths from each other. I established that the problem had always been there, but the pendulum just wouldn't come straight on whether it was the hand wiring, the printed circuit or the components that were at fault. It "didn't much like" a couple of the attenuators mounted on the board, but that was all. After several hours of this sort of thing I went and saw the designers and they produced test figures



for their prototype, now lost—perfect. "You're not measuring it properly," they said in the superior tones of which only laboratory staff are capable. Chin on hand back at my desk, it occurred to me to ask the pendulum. Were we measuring correctly? *Yes*. Would we have got the same figures with the lost prototype? *Yes*. So the designers' figures were wrong? *Yes*. With this information I quickly established a magnetic leakage path from two transformers to the attenuators mentioned, confirmed it with bits of tobacco tin, (vital stuff, tobacco tin) and shot the unit back to the lab., humbly requesting their assistance and saying nothing about dowsing. A month later they were angrily redrawing the whole thing.

Even the simpler faults require discipline of mind. On one quest I divined "poor joint" and couldn't find it even when the pendulum enumerated the tag for me. The tag was one of a set belonging to a small transformer, poked through holes in the board and soldered to the tracks. Not until I looked at the transformer itself did I see that the lead-out wire from the coil winding was not properly soldered to the other end of the tag. This was plain sloppy thinking; since then I have always explained to the pendulum that "component" means everything inside the frontier joints with the printed circuit. Even there I have to be precise because if the tinned copper wire from the component isn't actually touching the copper track inside the solder there are two joints at each connection—from wire to solder and solder to track. "Component" territory starts at the wire itself. (See sketch). However, on reflection I think that the pendulum wasn't sure whether I was operating in an engineer mode (What is wrong?) or a child-of-five mode (What do I do to make it work?) and gave me the best answer available, mending the transformer in situ being easier than changing it. So getting the blanket answer "component" on that occasion might have been counter-productive.

Then of course the fault might have caused other damage, may be the result of two or more adverse conditions not in themselves serious, or there may be imminent other faults you would be wise to correct. I was so pleased at finding a transistor wire loose in a sceptical colleague's circuit that I entirely overlooked these other possibilities and never got it working before he withdrew it, with resonantly silent implications of charlatanism.

Protagonists in the debate about map dowsing might be interested to know that the pendulum doesn't care in the slightest about topographical space, it works perfectly well on schematic diagrams, which are a picture of the circuit arranged logically. Following up one potential fault, I found a short-circuit which the pendulum said stretched right across the diagram from corner to corner—absurd. But on examining the circuit board, a screw holding it to the frame was found to be virtually touching one of the copper tracks, which the diagram did indeed represent at the opposite corner to the frame connection. In fact, the pendulum will construct transistor curves, give optimum component values and generally act as a private computer terminal; I use it a lot for simple logarithms when I don't have a table. (I don't get them to four decimal places without a very queer feeling in the head, but for that see below).

Dowsing for me is a line into perceptual reality; how you see it will colour how it is described to you, which is why, in my view, the less colouring you do with fixed beliefs the better. For this reason I am permanently sceptical about all theories to do with dowsing, since "the pendulum" (the intuition? Universal Mind? Jesus? Granny? Mozart? The Green Pea Deva? Be my guest) is only too keen to head you off into mental traps of your own making—facing east at the solstice wearing gumboots, as our President puts it. For a long time I was convinced it was impossible to dowse for faults on components if they were wired in and used laboriously to remove the suspect ones, making dowsing unnecessary, since ordinary tests were surer, but now I'm equally convinced it doesn't make the slightest difference, I still find I can pick dud transistors from a bunch in the hand much more easily than in circuit. Either I have a contrary subconscious conviction or the truth is somewhere midway.

Gradually my electronic dowsing has improved, though it still works best for really simple problems. Short-circuits in short lengths of coaxial cable are a conventionally insoluble problem easily dowsed. Ideally you want to be in a consultant position, where the actual responsibility for clearing the fault is someone else's; as he enjoys his nervous dyspepsia, you relax with the pendulum. (I will grant that this is possibly why water diviners are best self-employed . . . "Pity about the bore being dry . . . I did say it was a gamble . . . thanks for the cheque, by the way . . .") I am very glad I came to healing and dowsing together, because the novice dowser's usual problems are much lessened by a grasp of the connection. Reversed readings, tiredness, headaches, are all signs that you are cleaning the cupboard out, and with the pendulum the parlourmaid may be prodded and indeed quizzed as to when to recommence and whether the process may be speeded up by meditation, light reading, etc. (My pendulum is very fond of rocking chairs and open fires to gaze at). It may be (though this is a topic beyond the scope of this article) that healing is necessary to free us of some of our mental traps like my transistor

problem and such matters as pendulum material. We all have a dowsing window which, although it slowly opens with development, will never give us all the answers. So no over-firm theories, moralistic inhibitions or preconceived ideas of the limitation of the thing need be entertained.

As an example, what about healing *circuits?* A properly nutty idea for you. But Professor John Hasted of Birkbeck College has found one little girl who can ruin computers and (sometimes) mend calculators. I hadn't heard about her when about a year ago I visited an insurance company in the City which employs some of our equipment. The circuits had all gone dead for several hours, with an alarm lamp showing, and then come back on. The dormant intermittent fault is the telecomms. engineer's nightmare; after bashing the equipment (in the paper work this is called "vibration testing") there is nothing to do but grind teeth and wait.

Unless, of course, you're a dowser. Spreading the handbook diagrams out, I got a good, crisp answer: Capacitor C5 in card No. 4. Just as I asked for verification that this was the one, the fault came back on and sure enough it was in that card. The capacitor was a difficult one to obtain, it had to be the exact type and I had a bell ringing and a four-storey building on top of me snarling at loss of communication. Also lunch was due. Feeling the ultimate clown, I asked, "Is there the slightest chance of a healing for this capacitor?" There was a violent *yes,* the alarm silenced and from that time to this there has been no trouble. I just mention it for amusement.

LEY LINES—GLEANINGS OF A BEGINNER

Michael Pepler

Although I have been dowsing for little more than a year I have become interested in ley lines and earth energies in general.

I cannot give any answers to the four questions posed by the Editor in the September 1979 issue of the Journal, but would like to make certain observations which may be confirmed or otherwise added to by members.

I have plotted a number of probable ley lines which pass near to or through parts of Gloucester and am in the process of confirming the position of those lines, plotted on Ordnance Survey maps, by means of "in the field" checks with a pendulum.

1. For me, when crossing a ley line the pendulum swings clockwise. In trying to confirm the presence of a ley I obtain a clockwise reaction at red on the Mager disc. As a point of interest, I have also obtained the "red" clockwise reaction over certain stones in the Rollright stone circle, through which a number of ley lines are reputed to pass.
2. Ley lines vary in width from about one to three yards. (At the moment this is only a generalisation based upon checks on a relatively small number of leys.)