

Trip report E.W. Dijkstra, Nuenen & London, 10 Dec. '84 - 10 Jan. '85.

(Sunday 23 Dec. 1984.) We left the USA on Monday 10 Dec. 1984, but had left Austin the day before - courtesy Jayadev Misra, who saw us to the Airport at noon - for Atlanta, where we stayed for 23 hours with a nephew and his family. (A very nice alternative to an awkward connection!) With our hosts we climbed the Stone Mountain on Monday morning; my sandals were inadequate and in Nuenen I have bought in the mean time a pair of flexible hiking boots. (Also in Texas, sandals were not always the most ideal footwear.) During the KLM flight from Atlanta to Amsterdam, a high-pitched noise from the projector prevented us from sleeping during the movie; at Schiphol we almost missed part of our luggage, two suitcases being delivered on the wrong belt. Tuesday morning, 9:30, Marcus - our elder son - collected us at Eindhoven Airport.

During the days to come "And did you like your stay in Austin?" would be the most frequent question we had to answer. This was an opportunity to make up the balance sheet. Certainly most of it: most of UT, most of the countryside, most of the food, most of our house, most of our pattern of life (that is, to the extent it has been established), and most of KMFA. At the same time, we had to admit the initial problems had sometimes been overwhelming. e.g. to register my new car it had to be inspected,

to get it inspected I had to drive it through town, to be allowed to drive it I had to be insured, and in order to get the insurance it had to be registered! (This is now a nice example of a deadlock situation, but as long as it lasted it was hardly funny.) And the problems with getting our house (more or less) finished and the airconditioning (more or less) wired according to specification had, of course, been out of proportion.

Our major adjustment problems so far seem to have been three.

(i) This one is trivial in nature, but was nevertheless tiring, time-consuming, and sometimes frustrating: the way in which goods are divided over different shops differs from what we were used to. And if you start thinking about the amount of information involved, it is suddenly not surprising at all that it takes a lot of time, effort, and experience to learn the new partitioning.

(ii) We were faced with a different interface between the industry and its customers: the last two or three phases of quality control are left to the customer. Well, that takes some getting used to! One side of the coin is that if you return a vacuum cleaner or a handmixer, or point out that your airconditioning does not work, you get a new vacuum cleaner or handmixer and the control of your airconditioning is rewired; the other side of the coin is that your

handmixer collapses an hour before the dinner guests arrive, you have to go to the shop at least twice instead of once, and that you have to leave the country before you have had the opportunity to verify that this time the airconditioning really works. (The last rewiring was done three days before our departure: I could only pray that the Bösendorfer won't dry out during our absence.)

Aside I now know the origin of "user satisfaction" as quality criterion for software, and am grateful for that insight. I always found it a ridiculous criterion because it is technically useless: in 1960, Jaap Zonneveld and I implemented ALGOL 60 under the -evidently most inspiring- slogan "The user be damned." It worked beautifully. (End of Aside.)

(iii) In our innocence we thought that 22 years in the Dark South of the Netherlands - worse: only 15 miles from the Belgian border - had been a lesson that would last for life. But we were definitely unprepared for the high level of ubiquitous incompetence we would face in Austin. (When I try to tell with my most stoic face that on my car insurance papers, only 4 of the 17 characters of the chassis "number" are wrong, people here think that I am kidding and don't believe me. When, early December, after we had ordered an ironing board, Sears delivered a hair dryer, we were no longer amazed.) A quarter of a century ago I learned that "The

"Backward Country" is a reference to the USA. I was surprised to learn that even in clerical and technological areas the nickname is still so appropriate.

(Wednesday 26 Dec. 1984.) Back in the Netherlands, life was as busy as expected. Ria went twice to her mother in Amsterdam, together we went twice to my mother (who had her 84<sup>th</sup> birthday on the 20<sup>th</sup>). We paid two visits to our dentist, I a visit to my physician for my medicine and to have the arteries in my neck checked — they were okay —. Ria did a lot of shopping, I some. We went to the bank in person, but confusion at the IRS I could clear up over the telephone. The first Thursday morning, I helped my son Marcus move. Etc.

So far, I worked twice with Carel Scholten and twice with Netty van Gasteren. With Netty I screened what she had written since her visit to Austin. The first day with Carel was devoted to what we had done during the preceding months; the second day was devoted to our book, on the manuscript of which I had started in the mean time. I wrote a long letter to my nephew Sybrand in Kortrijk, who had sent me a beautiful proof (which I recorded one evening in EWD904). It is so short and so beautiful that I may use it next month as an example of what can be achieved by formal means when I have to give a talk at the Symposium that will be staged on the occasion of Carel Scholten's retirement at Philips.

I attended last week's session of the Tuesday Afternoon Club - this week the THE is closed-. I showed them some nice proofs and draw their attention to the problem of establishing whether one given expression is a syntactic descendant (or: substitution instance) of another given expression. In the presence of symmetric, associative operators, the problem seems in general difficult, and I could convince them why it would be nice to know how difficult the problem really is. Shortly before he left for CalTech, I had a long discussion with Martin Rem - more about science politics than about science itself-, and I paid three other visits to the THE.

In the Department of Mathematics and Informatics I found all the familiar tensions still very much alive. The mathematicians are still the champions of mediocrity and sabotage the informatics curriculum by giving the informatics students a fake course instead of teaching them what a proof is. (For one of their courses the examination was such a caricature that 170 out of 175 students passed the test!) The problem is that in the joint department the mathematics branch is almost as overstaffed as the informatics branch is understaffed. Were this not the case, the computing scientists would have taught their students mathematics themselves. Nothing shows that my departure has reduced the tensions; the problem is that these mathematicians are afraid. But by behaving in the

way they do they disqualify themselves so blatantly that they can only hasten their own dismissal. (I see no future for socialist mathematics.)

(Sunday 6 Jan. 1985) In the mean time I worked another two Mondays with Netty and another two Fridays with Carel. (In between I had worked on the manuscript of our book.) I wrote a number of letters and spent a day on the completion of a refereeing job on which I had started shortly before I left Austin. (The paper was much too fat.) I had every reason to be grateful to Burroughs for having left me the copying machine in Nuenen: without attending to my mailing list I made several hundred copies this month.

And social activities continued. On 1 Jan. 1985 Femke joined me on a trip to my mother (to wish her a Happy New Year and to say goodbye). On 3 Jan. 1985 Ria and I went to Holland. While she visited her mother in Amsterdam I visited friends in Aerdenhout. After having collected Ria at her mother's retirement home, we went for dinner to friends in Voorburg.

We left them at 22:20. That night the winter started: we were caught by a snow storm and it took us almost three hours to reach Nuenen. Today, around noon, Femke called from Groningen asking us what to do about frozen waterpipes. (Our house in Nuenen being better designed, it was a new ex-

perience for her.) Tomorrow I have to fly from Amsterdam to London, and I hope the best! (What else can one do?)

(Saturday 12 Jan. 1985) On Monday morning, Ineke van der Meiden took me to the Eindhoven railway station; the car ride took almost 40 minutes instead of the usual 12. Trains were still moving, but the trip to Amsterdam took an extra hour. Our planning had been sufficiently pessimistic: we caught our plane which flew on time. In London, Netty van Gasteren and I were collected by a BP driver, who took us to the BP Training Centre (very nice, but for the absence of decent blackboards).

The next two days, Netty and I addressed in turn an audience of about 20 people about the streamlining of the mathematical argument; it was a new audience, we used some old examples and some new ones. It was a nice audience - five of the people never opened their mouths - but rather mixed, and that is a problem nowadays. Decades ago, when needing an example familiar to all, one could always fall back on Euclidean geometry, but that is no longer a common background today. (With for some triangle  $A$  meaning "it is isosceles" and  $B$  meaning "it has two equal angle bisectors" the proof of  $A \Rightarrow B$  used to be trivial, the proof of  $B \Rightarrow A$  used to be a notorious teaser, but only two people remembered that! Needless to

say, we proved  $A \equiv B$ .) The audience seemed very pleased with our performance (more pleased, in fact, than we were ourselves).

Next morning, Netty gave me a wake-up call at 6:30. At 7:00 the taxi came to take us to Heathrow where our ways parted: I flew first to Schiphol, where Netty arrived shortly before I boarded the flight to New York. The PanAm flight from there to Austin was delayed by  $1\frac{1}{2}$  hour. When I arrived - past midnight, after about 24 hours of travel - I was relieved to see Ham Richards waiting for me and annoyed to learn that my suitcase (which I had seen through customs in New York) had not made it. When I woke up this morning, it had started snowing. I phoned PanAm about my suitcase; it has arrived in Austin but I did not get the impression that PanAm was very eager to deliver it at Robbie Creek Cove.

While we were in Nuenen, Ria's bicycle was stolen when Rutger had used it to go to Eindhoven. (He had to walk back in the middle of the night.) I read a four-volume history of The Low Countries (with many illustrations): a long history of hunger, misery, violence, and dishonesty. I could not escape the impression that my country's history as I learned it in my youth had been somewhat rose-coloured.



During our absence, the FM radio programs had changed: the German music program included more modern composers in the evening and the Flemish had become even more nationalistic; the Dutch radio had a new announcer with a very vulgar diction. We heard Moussorgsky's "Pictures at an Exhibition" thrice, and so with Handel's "Messiah" - once sung in German! - .

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