Trip report I.U.C.C.Colloquium, Canterbury, 18th - 21st Sept.1973.

I left for Canterbury on Tuesday morning after having lectured at the THE for two hours: these lectures had been so exciting (at least for me!) that I was still shivering when the train was well beyond Utrecht. Thanks to elaborate safety measures I was not hijacked, not bombed at either Heathrow, nor at West London Air Terminal nor at Victoria Station. On that trip I had my only unpleasant surprise when I arrived at Canterbury station and discovered that, contrary to what had been suggested by mail, no one was there to pick me up, while taxis were absent as well. Some one --as it turned out, he was from the University-- knew how to get a taxi: around the corner of the station, there was an anonymous wooden box attached to the wall that could be opened and contained a telephone for which you had to pick up the receiver and turn the handle.... I guess that it was the kind of equipment that frightened my grandfather.

The I.U.C.C. Computer Science Colloquium was primarily intended for younger staff members of university computation centrees. Besides them the audience contained a certain number of --as a rule also young-- staff members from computing science departments and people from a number of polytechnics. Its purpose was to upgrade them by providing a forum; the Colloquium was not devoted to a particular theme. The number of older participants was very small (Wilkes from Cambridge, Rogers from Bristol, Michaelson from Edinburgh, Gilles from Glasgow and a few others, on a total of 300 participants).

I was one of the three invited speakers and started the colloquium on Wednesday morning. On Thursday morning Sumner from Manchester spoke in that capacity, on Friday morning captain Grace M.Hopper. (On the schedule she was still announced as "commander" but she had been promoted to captain on I think the 15th of August.) Captain Hopper spoke officially about "Programming Languages"; here real subject was how she had acted as midwife to COBOL and she talked more about the Pentagon and the U.S.Navy than about programming. She did so for seven quarters of an hour, it was sometimes funny and I have been told that but for one new joke it was the same talk that she had given in York earlier this year. It was very illuminating: it gives a sheltered academic mind as mine some glimpses into the organization of power and the power of organization. Sumner spoke officially about the mutual influence between hardware and software design. Perhaps he thought he did in fact as well. He gave --and in view of the youth and limited knowledge and experience of the average participant this may have been a very good thing-- a clear exposé of the problems caused by unpredictable flow of control in pipelined machines, when you wish to keep the flow at maximum density. But the amazing thing was that he considered "jump instructions" as a kind of unpleasant surprises in the machine code string. The way he talked about "programming" struck me old-fashioned: in Manchester they lead a very isolated life, I am afraid. He could have profited perhaps at this Colloquium from the exposure to others, were it not for the fact that he arrived just before he had to speak and he left immediately afterwards. (So did Grace Hopper as well.) Narrow minded and pragmatic are the best terms, I am afraid, in which to describe the Manchester spiritual climate. It is a pity and it is even somewhat frightening.

I gave a talk on the influence of correctness concerns on the process of program composition and I stuck to my title (this in contrast to my Newcastle performance a few weeks earlier). Maurice Wilkes did not like my talk at all and said so in private. He felt that I had been "extremely formalistic" and that I had paid too much attention to technical details in the development of my small examples. I was quite depressed when he

told me all this: I thought that I had done a good job --in view of my recent experiences in the USA I had done it slowly, for I don't like to lose an audience-- and usually people find me too abstract (that was the complaint last spring, when I spoke to the staff members of the THE Department of Mathematics.). Thanks to the fact that I stayed another two days I have left the colloquium with quite another impression of how my talk went down: at least with a considerable fraction of the audience extremely well. Many youngsters have come to me to thank me and to tell me, how delighted they had been, because now they knew what was meant by proving things about programs etc. I had the opportunity to speak about another hour with Wilkes and he is clearly from a different cultural background. Very pragmatic and grown up in a period where insufficiency of the available theories was rather rule than exception.

I have not attended all other presentations: there have been parallel sessions (a little bit) and sometimes I played truant, talking with someone else outside the lecture theatre. What was presented was not inspiring; again very pragmatic. Sampling under control of the real time clock values of the instruction counter during program exexution and translating these values back into "source code text places" in order to get an idea of where the computer spent its time while executiong FORTRAN programs and then using this information for tuning of programs was one of the best examples! Many were worse. In particular the "projects" assigned to students (or groups of students)were very depressing. We must bear in mind, however, that in view of the fact that the colloquium was organized by an organization of computation centre directors, what was presented may perhaps not be regarded as characteristic of British Computing Science today.(Although I have some fears.....)

On the evening of the first full day we had as guest speaker Dr.S.H. Mandil from the IBM UK Scientific Centre, Peterlee on "Trends in Data Base Technology". It was an unexpectedly good talk in the sense that it hardly contained any IBMerese. (Well, he was an old pupil of Tony Hoare!) He gave three "models", a hierarchical one, one with chains and one with relations. ~~XXXXXXXX~~ What, in doing so, he demonstrated most clearly was the insufficiency of the current way of talking and thinking about data bases. Basically it was still the fuzzy jargon of the commercial world, only cleaned up slightly. It is terrible to see people struggling with problems, attacking them in a way that cannot be adequate. And I am afraid that that was the case here as well. Mandil was refreshing compared with the others: he was not purely pragmatic and he did an honest effort to find some applicable theory that for instance could be used to clean up some of the adhoccery. Also he, however, made upon me a rather isolated impression.

In general, I would have expected (and justified) more isolation in industrial research units than in academic research units. Universities do have some sort of tradition in communicating: it is even part of their business. But again, perhaps I am naivee most of the academic groups, even those engaged in the educational side of the business, struck me as isolated. And usually this has not a good effect: inbreeding, "not-invented-here" or just a cluster of incompetence, protected by ignorance.

24th September 1973 dr.Edsger W.Dijkstra