Trip report E.W. Dijkstra, Ithaca, Newport, 30 May-13 June 1985.

"If fundamentalism continues to spread at this pace,
it will be very dangerous in the near future. [...]
These people are fanatics. They've been brainwashed.
You can't change them, so the government must
stand up to them."

Jihan Sadat (as quoted in the International
Herald Tribune, Friday, June 14, 1985).

Actually we left Austin only on Thursday 31 May,
but we left our house on Wednesday, after having spent
most of that day on preparing the house for our ab-
scence (Ria using the vacuum cleaner and similar
tools, I the poison spray). Joanne Richards had invited
us for dinner, Ham then gave us a ride to the Hilton
Hotel where we spent our last (short) Austin night.
Our flight left the next morning at 7:15. We were
three, as Wim Feijen travelled with us. For ten days
he had stayed with us at Robbie Creek Cove, in the
weeks to come he would join me in giving what was
officially called the "North American Summer School
on Program Construction". This school was the main
reason for Wim's visit to the USA; accordingly we did
some preparation in Austin, but Wim also gave a very
nice lecture at UT.

With an intermediate stop in San Antonio we flew
to Pittsburgh, where we had ample time to change
planes. From there with an intermediate stop in Elmira
to Ithaca, where David Gries met us at the airport.

Tony and Jill Hoare arrived 45 minutes later and in two cars we drove off to David's house, David in his own car and I in the Dodge Ariel that David had just rented, with me as second driver. For us it was very nice to meet Tony, Jill, and, a little bit later, Elaine Gries again. All hotels being full because of commencement – that Sunday – the five of us were spread over the Hotels Gries and Hartmanis, Ria and I staying in the latter.

That evening we had dinner with a delegation of the Department of Cornell University, consisting of David Gries, Juris Hartmanis, and Bob Constable, and their wives. The company was pleasant, the food surprisingly edible and – thanks to a little nap? – Tony and Jill managed to stay awake. In order to make life for them not more difficult than it already was, we broke up shortly after dinner and Juris took Ria and me to his home. (Elly Hartmanis drove her own car.) Soon after our arrival, Elly, who had had a long day and had a long day ahead of her, went to bed. If I remember correctly, Juris and I stayed up late, half-way being deserted by Ria, who went to bed as well. I learnt a lot about the Cornell department, past and present.

On Friday, Elaine took care of Jill and Ria – they visited Elly's business – while David, Tony, Wim, and I "prepared" the Summer School the four of us were supposed to give at Newport. It was clear from the start that – like in Perisher Valley – Tony would

do his thing, the rest had to be partitioned, and so we did. David would do the language constructs, I the calculus, and Wim would join by the time we would reach the stage of examples and exercises. This division of labour implied that I would get the flak I expected from earlier correspondence with one of the participants —a certain Walter E. Tuvell— , who seemed greatly disturbed that I did not adhere to the foundations of mathematics as set forth by N. Bourbaki.

The Department of Computer Science at Cornell University has the nice habit of jointly drinking coffee after lunch, a ritual of which I have fond memories. We joined it. After a discussion on the current funding policy of mathematical research the conversation turned to the future of computing science. Juris directed the conversation in that direction so that we would be confronted with John Hopcroft's views on that matter (or John with our reactions to his views). Hopcroft's view seemed to be that computing science was all but completed and that the department should or would work for 90% in "applications". The view of completion is easily defended by identifying the topic's subject matter with its past achievements; the 90% is easily defended —in general!— by the cynical remark that most people are dull, computer scientists not excepted, and hence should not do science at all. But I prefer a broader scope of the subject, as

that is more inspiring. John's position struck me primarily as a rationalization of the current stage of his own scientific career. He found little support for his views.

Early in the afternoon Tony gave a talk to which — despite the short notice of 45 minutes — an audience of about 50 people attended. It was a very nice talk (and some of the questions during the discussion were very silly). Then there were informal refreshments — that day at Cornell I got completely de caffinated — so that the students could meet us. (I had not realized that, since my previous visit, the student population at Cornell had been completely refreshed.)

That evening Ed Cohen, the organizer of the Newport Summer School, took us out for dinner at l'Auberge. Again the company was pleasant, the food was edible. Ed asked me whether I was aware of the fact that one of the partici- pants was out for trouble; I answered that I was not surprised and told him not to worry.

Saturday morning we spent at the Grieses. Wim and David worked together on examples, Tony prepared more foils and I just thought. In the afternoon we all went to David's second house at the lake, where we were joined by several people of the Department: the Constables, Fred Schneider and Jan Prins. There was food for us all.

On Sunday we drove with two cars to Syracuse — Paul Gries joined us on that trip to return the Gries car to Ithaca — and flew to Boston (in an F28!) where we rented a huge station waggon in which the six of us (plus our luggage) went to Newport.

We were housed in "The Wayside Inn", a former mansion that had also been used as girls dormitory. A very strange place! The beds were okay, the plumbing was old-fashioned, the furniture was horrendous (and uncomfortable). It was run by a couple that provided minimal service. But — to my surprise, I must admit — one evening we noticed that the heating had been turned on! During the daytime the place was often unattended with the result that I was difficult to reach — UT tried it — .

The next morning the Summer School started. Prior to that, Tuvell had already started his campaign: during the night he had made a tour of the dormitory and shoved a document under the doors of the participants rooms! During my lectures he was so obnoxious that after a while the participants booed him away. Then he wanted to distribute copies of our correspondence; after I had refused permission to copy my letter to him, he distributed copies of my letter nevertheless. Whatever ax he had to grind was lost in his bad manners.

Juris Reinfelds of the University of Wollongong, who had organized the summer school in Perisher Valley, after which this one was modelled, was one of the participants, and, hence, one of the people who could compare the two. He told us he was impressed — and also a bit alarmed — by the progress Tony, David, and I had made. It is difficult to judge one's own performances, but as far as Tony and David were concerned I could only agree. Tony was now clearly in the stage "after completion of his book", and David's way of presenting algorithms had significantly improved. (David himself gave the credit to Wim Feyen with whom he had discussed most of his examples.) Wim gave a number of model presentations, among which the inversion of the circular permutation, and the Boyer/Moore majority vote. The audience had never seen exposés like that, liked them very much and was greatly impressed. Tony's lectures were very smooth — even dangerously so — and this time he had the satisfaction that people tried his exercises. But we all noticed the dangers of anthropomorphic terminology which, as the course went on, began to create confusion.

This time we had a very different audience: in Perisher Valley, participants from industry had been a marked minority, in Newport about 70% was from industry and, as a result, the audience was much more mixed. My impression was that

this time we had to bridge a much wider gap.
(Tony disagreed: in his memory the gap in Australia
had been very wide too.) A number of the people
were quite bright, but on the whole I found them
alarmingly ignorant and uneducated. (What to
think of a factory automation system of several
hundred machines, big and small, of which after
installation the designers learn the hard way of the
phenomenon of after-you- after. you blocking? This
is 1985! The danger was mentioned and circum-
vented in a well-known paper in the Comm. ACM
of 1965.) I am afraid that we cannot escape
the conclusion that for the "high-tech industry"
the USA is aiming for, the infrastructure is
still lacking.

On the way home I lost a suitcase. And now
my back is aching, something I have not suffered
from for years. I blame the Newport furniture.
But we don't complain: here is the compensation
of fresh white asparagus and jambon d' Ardennes!

Nuenen, 16 June 1985

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PS d.d. 17 June 1985. I checked it today, and, contrary to W.E.
Tuvell's emphatic statement, "well-foundedness" and "well-
orderedness" are different concepts.   EWD.

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NASSPC Summer Camp Song – to the tune of "Old Macdonald",
Inspired by David Gries' spelling of Wim Feijen's name.

Dedicated in gratitude and appreciation
to the distinguished faculty and hard-working staff

Old **Wim Feijen** had a proof, -E-I-J-E-N,
And strange notations he did use, -E-I-J-E-N.
With an "equivales" here and a quantifier there,
Universal! Existential! (Everywhere a bracket, bracket!)
Old Wim Feijen had a proof, -E-I-J-E-N.

(Edsger) **W. Dijkstra** had a set, T-E-X-A-S.
It was well-founded, you can bet! T-E-X-A-S.
With inductions here and deductions there,
Formalisms! Witticisms! (NEVER anthropomorphisms!)
(Edsger) W. Dijkstra had a set, T-E-X-A-S.

Tony Hoare had brought events, D. F. B. C. S.
But wouldn't tell which way they "went", D. F. B. C. S.
With a coloured foil here and a " Query? Shreik! " there,
Chocolates! Customers! (Not a trace of accent!)
Tony Hoare had brought events, D. F. B. C. S.

David Gries put out our eyes, P-L-A-I-D.
By showing up in "op art" ties, P-L-A-I-D.
With a proof rule here and a "dawt, dawt" there,
Volleyball! Ping-pong! (All the time, his hands were waving!)
David Gries put out our eyes, P-L-A-I-D.

Poor **Ed Cohen** had the job, T-H-A-N-X!
To house and feed the swelling mob, T-H-A-N-X!
With a light bulb here and a soap bar there,
Coffee-finding! Door-unlocking! (Aleph-null of photocopies!),
But, Ed Cohen <u>did</u> his job, T-H-A-N-X!

Joel Neely
Newport,
11 June 1985