## a Testimonial to Cliff Jones

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I first met Cliff Jones in 1977 at a meeting of IFIP WG2.3 (International Federation for Information Processing, Working Group 2.3) in Niagara-on-the-Lake. He seemed like a nice person, with sensible ideas on programming. Those first impressions were greatly amplified over the following years. We spent 5 days together every nine months (approximately) at WG2.3 meetings, and for several years Cliff was chair and I was secretary of the group. It was the common agreement of the group (including 5 Turing award winners) that Cliff was a fair and respected leader.

I spent a sabbatical in Oxford in 1981 with Tony Hoare, and at that time Cliff was Tony's PhD student. I was very interested in his work on VDM, and it influenced my own work on Predicative Programming. A telling difference is that Cliff used a precondition-postcondition pair where the postcondition was a relation between the initial and final state; I used just the relation between initial and final state. I argued to him that the precondition was not theoretically necessary; he argued to me that it was quite useful in practice. Cliff's industrial experience informed all his academic work, and that is why his work has had an impact.

Cliff has also done a lot of scholarly work on the history of programming, and he is scrupulously careful in checking every claim. For a brief moment, I had a taste of it. I once claimed to have originated the idea that programming constructs can stand directly for their mathematical meaning, without the need for a semantic function, and specifically that a guarded command is an implication. One afternoon in Cliff's Newcastle office, he pulled out an ancient 1976 technical report from his filing cabinet, and said: here's the TR you say contains that idea; I can't find that idea anywhere in it; show it to me. I looked for 10 minutes and couldn't find it either. I was quite embarrassed. The report was published in *Acta Informatica*, but at the request of a referee (EWD), the section containing that idea was omitted. The TR went out of print, and was reprinted using the published version without that section, and that's what Cliff had. Fortunately I still had the original TR including that section at home, and sent Cliff a copy.

Cliff has a strong ethical character, evident in his politics, his support for the Campaign for Nuclear Disarmament, and being a long time vegetarian. He also has good taste, evident in his enjoyment of wine and cheese. Once, at Cliff's place in Manchester, he served several wines at dinner, and it was a requirement, before drinking each wine, to guess where it came from (and which direction the slope faced).

I once asked Cliff why he was still doing research after retirement. He said it was because he hasn't fully understood concurrent programming yet. His work motivation does not come from his job, or even from a need for accolades. It comes from a desire to understand, and to improve the world of programming.

I think I can sum up Cliff Jones' character and work in a word: integrity.