

Editor's (Personal) Forward

I can't remember exactly when I first met Dudley. It might have been at the 1969 ASMS meeting in Dallas where he presented a paper with his recently minted PhD student R.G. Cooks. I suspect Graham gave that paper, however. Another possibility is the 1971 BMSS meeting in Bristol, which I attended (in part to help pay for a tour of the UK and my first visit to Keith Jennings' lab in Sheffield). Most likely, however, it was in 1973 during my first sabbatical with Keith (now at Warwick University) and a trip to Edinburgh for the International Mass Spectrometry Meeting. Of course I'd heard of him since he'd already published 175 papers, the bulk of them in *Mass Spectrometry*, in less than 10 years as an independent scientist. It was about this time when he began his brilliant series of papers exposing details of potential energy surfaces by analyzing the consequences of kinetic energy release in metastable fragmentations. This work continues to be some of the nicest in ion chemistry and set the stage for important discoveries to come later. It is unfortunate that Dudley hasn't been more widely recognized for it. It is perhaps understandable, however, since Dudley made a conscious decision about this time to focus more heavily on biologically oriented research, diminishing his efforts in fundamental aspects of ion chemistry and ramping up his efforts in biochemistry. Since these were the days before electrospray and MALDI (and even FAB) he turned primarily to other tools to accomplish his goals. The transition was so decisive that in his Highlights of Research Achievements (see next section) he makes no mention of any of his fundamental ion chemistry contributions. In fact *Mass Spectrometry* is mentioned only peripherally and then only when used in a direct biological manner.

Fortunately he continued to come to Mass Spectrometry meetings on occasion and he did continue to take on an occasional Ph.D. student interested in fundamentals. It was, in fact, at the ASMS meeting in Seattle in 1979 that I had my most memorable "encounter" with Dudley. We had been chit-chatting in a hospitality suite when the noise finally got to us so we procured six packs of beer and ensconced ourselves on the floor in an open space near the elevators (great hotels, like the Olympic in Seattle seem to have these kinds of spaces). I'm not sure how the topic came up but before long we were deep into origin of life issues. In case you weren't aware Dudley is a great believer in evolution as the source of living

things. Since I'd never had a course in biology (and hadn't yet been bitten by the biochemistry/biological research bug) this was my first encounter with someone that was interested, willing and able to defend that point of view. Having been raised a Catholic and educated by the Jesuits I knew how to argue abstract issues even if I didn't have any of the facts! My training in logic and my life experiences had convinced me that all effects have a cause. A very complex effect (like Dudley) must have a cause containing all of his attributes and something more. I couldn't see how the helium, hydrogen and intense energy of the big bang could somehow, without outside guidance, create Dudley. Experience, and the second law of thermodynamics, seemed to indicate random events lead to chaos not order (not that Dudley is overly "ordered" as people go!). No number of monkeys with an equal number of typewriters will ever reproduce Shakespeare's works, in spite of casual remarks to the contrary by random chance-o-philes. (In fact in the lifetime of this universe, it is very unlikely a two line couplet of Shakespeare could be reproduced. If a monkey hit a key once a second it would take about 2×10^{84} monkeys starting at the beginning of the universe to get a correct couplet by pure chance!!) Now sitting by the elevator in 1979 I hadn't done this calculation but I still doubted chance as an answer. I also didn't know at that time that the genetic language (code) was much more complex than the English language and required an equally complex environment in which to operate.

Now Dudley wasn't taking this logical onslaught in silence. He was energetically educating me in evolutionary dogma and pointing out the instances where scientific evidence appeared to support them. It was an exhilarating exchange that, at its height, drew 25–30 onlookers who both listened and contributed wisdom of their own. Of course the closing of the hospitality suites and our strategic position near the elevators didn't hurt the attendance! Finally our zeal gave way to the finite sizes of our bladders and about 3 a.m. we went our separate ways.

Over the years our paths crossed occasionally. About 10 years ago I was able to host Dudley and his wife Pat in my home following a seminar at UCSB. Near the same time Dudley gave the after dinner talk at the annual Lake Arrowhead Mass Spectrometry Meeting. These are informal talks with

a little science thrown in. Dudley's talk was unique in that he showed numerous slides of his early childhood, somehow working them into the texture of the overall presentation. He also gave a great talk on vancomycin at the symposium honoring Keith Jennings 6 years ago when Keith turned 65. Dudley has been working on vancomycin since the early 1970's and has greatly contributed to the understanding of how this powerful antibiotic functions. His was the only non Mass Spec talk in the symposium but his willingness (eagerness) to accept the invitation speaks volumes about how he values friendships and his abiding affection for the Mass Spectrometry community. He also, of course, held court at the poster session on the eve of the symposium entertaining the 100 plus in attendance with a long string of show tunes and other standards on the Rootes Hall piano.

I last spoke to Dudley at a luncheon in Swansea in December 2003 honoring John Beynon on his 80th birthday. Both Dudley and Pat made the drive from Cambridge on a typically "bracing" Welsh Sunday in December. At the end of the lunch we found ourselves alone with each other in the Gents and began reminiscing. Not forgetting our earlier "elevator" conversation I mentioned I'd recently read a book by his (Earth Science) Cambridge colleague Simon Conway Morris "Lifes Solutions: Inevitable Humans in a Lonely Universe". Dudley mentioned he was giving it to himself for Christmas and would read it soon thereafter. I mentioned that my interest in "origins" was rekindling after our conversation 25 years ago in Seattle and was thinking of writing something on the subject. I asked him if he wanted to collaborate. At first he was excited but then he remembered I was a Christian and wondered if it would work. We left

it unresolved and exited the Gents. There were our wives staring at us and wondering just exactly what went on in there! And it was only a short conversation (for us) given the topic.

This special issue came about from a conversation I had with Carol Robinson at the International Mass Spectrometry meeting in Edinburgh, September 2003. She mentioned Dudley was retiring in September 2004 when he turned 65. I was startled to realize this great career might be coming to a close . . . and soon. I also realized that Mass Spectrometry had not recognized one of its most creative sons in any formal way and when Carol suggested a Special Issue I was immediately on board. After conferring with my fellow editors we decided to move forward. It was decided to keep the invitation list small, to include only students, post docs and close colleagues still active in Mass Spectrometry. From an initial list of 15 we received 11 manuscripts, an excellent return on such short notice. There is an excellent mix of both fundamental ion chemistry and biochemistry included, a mirror of the career we celebrate here. Thanks for all your good work, inspiration and friendship Dudley. But you're not really retiring, are you?

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