Journal of Homotopy and Related Structures, vol. 2(2), 2007, pp.11–12

MEMORIAL TALK

J.P. MAY

(*communicated by Hvedri Inassaridze*)

Abstract

This is the text of a memorial talk that was given at the Mac Lane Memorial celebration that opened a conference held in Mac Lane's honor at the University of Chicago, April 7 through April 11, 2006.

I owe an enormous debt of gratitude to Saunders Mac Lane. I came here to give a talk in the Spring of 1966. That was on the stable homotopy groups of spheres, still a topic of current interest. I was invited back to visit for the Winter and Spring Quarters of 1967. It turned into a long visit, since I'm still here. I was given a tenured offer in March of 1967, not yet three years past my thesis. In retrospect, and by current standards, it was wholly undeserved.

I learned later that the person behind that gamble was Saunders Mac Lane. I really had no graduate mentor, since my thesis advisor had a nervous breakdown and was hospitalized during the last year and a half of my four years as a graduate student. Saunders was in fact the only mentor I've ever had, but he only took up that role after having gotten me tenure. Then he taught me how to write mathematics. A paper of mine was rudely rejected, the first long paper I submitted. Saunders took me through it line by line and, more importantly, in global outline. He patiently explained both philosophically and concretely how mathematics ought to be written.

His own writing was delightfully readable. Birkhoff and Mac Lane served several generations of young mathematicians as their first serious introduction to abstract algebra. Certainly that is where I first encountered the subject. His graduate texts, Homology and Categories for the Working Mathematician are still in use. The first is one of just a few good basic texts in homology theory, and it contains what to my mind is the most readable introduction to spectral sequences. The second is still by far the best introduction to category theory. It was a pleasure for me to serve as critic and sounding board while he was writing that book. We had fun, and his preface thanks me for "trenchant advice that vitally improved the emphasis and arrangement".

He was an opinionated man, but he was open to persuasion. He understood as few others do just how important it is to name mathematical concepts wisely. That is why we all speak the language of categories, functors, and natural transformations that he and Sammy Eilenberg introduced. There is a terminological comment in Categories for the Working Mathematician that I especially like and would like

Received June 04, 2007; published on December 27, 2007.
2000 Mathematics Subject Classification: 01A70, 18-03, 55-03.
Key words and phrases: Category, functor, natural transformation.

to share with you. It concerns the substitution of monad for triple as the name of a concept that all mathematicians here should know. He writes "The frequent but unfortunate use of the word 'triple' in this sense has achieved a maximum of needless confusion, what with the conflict with ordered triple, plus the use of associated terms such as 'triple derived functors' for functors which are not three times derived from anything in the world. Hence the term 'monad'."

One reason I like this passage is that it is a beautiful illustration of the vividness of his writing, his sheer verve. Another is that it is so characteristic of his manner of arguing a point. But the third is personal. In the first draft he used the word triple, and I won him over. I had just defined operads, and I had coined that word to go well with monad. I still remember with pleasure the arguments we had.

Starting when I became chairman in 1985, I took to visiting Saunders in his office at least once or twice a week. Being chair can be lonely. One doesn't want to say everything one thinks to anyone. I could let my hair down with Saunders and rely on him for good advice. He was not a modest man, but he was honest with himself. He felt that he had not done a good job when he was chair of the department, and he told me clearly why. He made the job much much easier for me.

Let me end with a last memory. In March of 1997, there was a workshop on higher category theory at Northwestern University, starting on a Saturday morning. Remember that Saunders was then in his late 80's. I happened to meet him on the street near the mathematics department around nine o'clock that Friday night. Of course, that is remarkable in itself. I told Saunders about the workshop and asked if he would be interested in going. He said that he would be. And at 7:00 the next morning he called me up to make sure that I had not forgotten! He went with me every day, sat in the front row, and was entirely on top of the mathematics. He really liked the field of higher category theory, which was then in its infancy. He would have loved to see how it has developed since then.

Saunders lived a good life. In the hackneyed Greek cliché, "Count no man happy until he is dead", the word happy does not accurately convey the original meaning, which was closer to "fortunate". Saunders led a fortunate life. He was in the right place and at the right time to make great contributions to mathematics and to public life, and he was fully recognized for his achievements in his lifetime. The next few days here are devoted to a mathematical celebration of his life, of the sort that I think he would most have appreciated. There will be lots of good mathematics that is pervaded by the influence of his ideas. His absence leaves an unfillable void, but his presence will be felt.

This article may be accessed via WWW at `http://jhrs.rmi.acnet.ge`

J.P. May
`may@math.uchicago.edu`

Department of Mathematics,
University of Chicago,
1118E 58th Street, University Avenue, Chicago IL 60637
USA