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R. H. BING 1949-50

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R. H. BING 1949-50

Lucille Whyburn

Well do I remember the Bings arriving in Charlottesville in 1949. Mary pretty as a picture, R.H. making plain that he was a Texan, Bob a lively nine year old, Susan a precious toddler between one and two, and Virginia Gay on the way. The McShanes were away at Princeton and the Bings lived in the McShane's house. Later R.H. and Mary invited us over to dinner. Mary was already a fine cook and delighted in entertaining.

R.H. had left the University of Texas as an R. L. Moore Ph.D. to join the faculty of the University of Wisconsin in 1948-49. He joined us at the University of Virginia for the year 1949-50. Virginia was a center for dynamic, lively, creative, young topologists, who had come from various parts of the United States to work with Gordon T. Whyburn. It turned out to be a fun year.

Gordon explored R.H.'s mathematical research ability and found him to be a prime example of one who possessed outstanding mathematical research potential and thus a counter example of the widely held belief that mathematicians must set about their research at a very early age. Later he often acted as a sponsor for R.H.

Gordon was already deeply involved with the American Mathematical Society. He had been Colloquium Speaker, had published *Analytic Topology* in the Society's Colloquium Series, served on the Council and a number of committees.

By 1949-50 he was already a member of the Trustees of the AMS and editor of the *Transactions*. He was deeply interested in, and active in, enlarging the Society's publication of research. He was able to set a new policy as editor of the *Transactions* and he was successfully working off their backlog of papers and publishing more interesting treatises.

Later Gordon was to become President of the American Mathematical Society from 1952-54. During this presidency he was able to set up the first *Topology Conference*. It was the third one in a series of AMS Summer Conferences financed by the National Science Foundation being set up to encourage and enhance our country's mathematical research. Gordon spoke to R.H. about becoming its director and suggested his name to the organizing committee. R.H. accepted the challenge and effected all the local arrangements. He did a superb job.

R.H. made several mathematical friendships that year, especially with Victor Klee and Edwin E. Floyd who were Assistant Professors at the University of Virginia. He shared an office with Ed Floyd. It was an old comfortable office. Its windows looked out on the beautiful grounds of Thomas Jefferson's beloved university. Recently when I was reminiscing with Ed, Ed noted that they spent a lot of time together and developed a close friendship. R.H. shared with Ed the high mathematical goals he was setting for himself and his strong determination to meet them. According to Ed, R.H. was the first person of his mathematical age group to reveal such open idealism. Ed feels

that such sharing is a very important experience for a young person.

Later when R.H. and I would talk about 1949-50, R.H. would often say, "I'll never forget 49-50 because Ed taught me so much mathematics that year." Recently I told Ed about R.H.'s oft repeated statement; Ed told me the following story:

"Ed Moise had defined something called the pseudo-arc in a paper he published in the *Transactions* in 1948. A pseudo-arc is a hereditarily indecomposable plane continuum. It is very, very crooked and sometimes thought of as a 'snake-like' continuum. The winter of 1949-50 R.H. perceived that almost all plane continua were pseudo-arcs. But R.H. needed a way to present the idea of 'almost all'. Ed said this might have been one of those times when R.H. was pleased to be around a person whose background and approach to Topology was somewhat different from his own. Ed was able to help R.H. with something that would be useful to him at that time because R.H. really did not know about dense G_δ -sets in a complete metric space, which was the simple idea needed to interpret 'almost all'." At this point Ed laughed cordially and said it was always fun to share with R.H. a concept or theorem that might be useful to him.

We miss R.H.--his ability, his enthusiasm, his geometric imagination, and his friendship. R.H. participated in many, many mathematical friendships. No doubt if I asked those of you in this audience who feel that R.H. was

your friend to stand we would form a dense set even in this non-metric space.

The Bings made a trip to Niagara Falls. R.H. came home fascinated by the Falls. "What a wonderful 3-dimensional space!" he said. Think of the continuous one-to-one correspondence set up by the water flowing over those magnificent rocks. You could see in his eyes the great perceptions that the Falls had opened up for him. Now I wish that I had asked him if he ever put these perceptions to practical use, whether he just might have seen a *dog bone* space lurking there somewhere. For him visual perceptions were truly important. We find many projections of his concepts about the special characteristics of 3-dimensional space onto the plane throughout his publications. R.H. enjoyed the geometric flavor of point-set topology. We shall miss not only his on going mathematical contributions but his zest for life.

The future of point-set topology looks interesting and challenging. I am envious of your opportunity to live through this next period of development. Mathematics undergirds our whole society. Point-set topology can and does push us beyond our present perceptions. There is little doubt that Mathematics gives the human mind its most difficult and its most rewarding challenge.