The U of M's Math Department

Some Recollections — Slightly Biased

After getting my Ph.D. in 1943, I remained at Rice University as instructor, for one semester, before serving the Office of Scientific Research and Development — first at Columbia University in New York, then at Northwestern in Evanston, Illinois. On V-E day, my technical focus was on sundry problems associated with military equipment and its performance. However, I knew that the OSRD-project at Northwestern would soon close. When Chairman T. H. Hildebrandt at the U of M telegraphed me the offer of an instructorship, I accepted. A colleague at the project communicated with a relative at the U of M and got me an invitation to spend several days as house-guest in a private home on Packard Road.

Naturally, I travelled by train. The morning after my arrival in Ann Arbor, I visited the math department in Angell Hall and was told not to worry about housing: "The bomber plant at Willow Run is closing, and soon there will be plenty of space." I was not only skeptical about the advice, but also lucky in a contact. A real-estate broker showed me a vacant house on James Street (off Independence Boulevard); it belonged to Paul Dwyer of the math department, who sold it to me on a land contract, for 7000 dollars. Shortly before the beginning of the fall term, Louise and I packed our belongings, took the train to Ann Arbor, and enjoyed the hospitality of the Dwyer family until the moving van delivered our goods.

The math department gave me an office on the second floor of East Hall, a former school-building that a fire marshal had classified as unsafe. Immediately after walking into my office, I opened its window and was pleased to see a drainpipe that might serve as a fire escape. According to Earl Rainville, whose office opened onto the same corridor as mine, the floors had been oiled ever since Christopher Columbus had discovered the building. Later, I saw that in sunny weather my honorable colleague Donat Constantinovich Kazarinov simply threw his cigarette stubs out of the window. Later yet, I heard of an occasion on which one of Donat's stubs had landed on the desicated wooden cover of an unused stairwell, where it recognized and celebrated its opportunity. "But somebody saw he fire and inadvertently put it out."

Oops! I had not asked about teaching loads. Mine turned out to be sixteen hours per week. Grading home work would be my responsibility. Whether I could stay at the U of M would depend on my research, but finding time for that would be my own problem. Good luck!

Registration was heavy. Quoth Rainville: "Every veteran who has felt the thrill of flying thinks he has a future as aeronautical engineer." The signals were clear, and in 1946, a part of the math department's eastern contingent took possession of roomier quarters in the East Engineering Building. Today, after the total absorption of Engineering by North Campus, the East Engineering Building gloats in its rightful inheritance: its new name identifies it as the reincarnation of the oiled-floor structure that had been razed to make room for the Dennison Building's south wing.

September of 1946 also brought a substantial contingent of new math instructors. Willow Run, here they come! The ensuing winter (or the winter after that) was bitterly cold, and Willow Run's drafty shacks gave little protection. When one of the department's new families developed serious health problems, Sumner and Alison Myers took action: they took the entire family into their own home on Forest Avenue.

During World War II, the armed services had (through the Office of Scientific Research and Development) consulted many mathematicians about design and performance of equipment and about optimal strategies, Some of these mathematicians had shown admirable ingenuity. After the war, the armed services cultivated the mathematical community's good will by inviting applications for research support. In other words, they rescued the concept of academic leisure that even the universities had abandoned. The research contracts usually provided funds for travel to appropriate conferences, thus enabling even impecunious young mathematicians to attend meetings and become acquainted with their peers. Friendships sprouted and generated joint research. Collaboration became a way of life.

Within a short time, the growing vitality of mathematical research strained the ability of journals to provide timely publication. At the U of M, the department decided to create a semi-annual journal that would ease the problem for mathematicians residing in the State or having mighty good connections with our department. To keep costs within the limits of our resources, the department would perform nearly all of the necessary labor: once the editorial board had approved a paper for publication, a departmental secretary would type a fair copy, let the author make last changes, and then retype the paper with justified (that is, straight) right-hand margins. A commercial printer would produce copies, and the author could distribute these copies privately. Subscribers would have to wait for the completion of an issue. Volume 1, No.1 of the Michigan Mathematical Journal bore the date January, 1952. It did not reach subscribers before late 1952.

On January 11, 1954, two members of the MMJ's editorial board entered my office (then in Angell Hall) to honor me with the proposal that I serve as managing editor for one year. My duty would be to see Volume 1, No. 2 (nearly finished) through its final stages and to get Volumes 2 and 3 under way. The proposal astonished me, but I was honest enough to point out that I was utterly unqualified for the job.

{I had come to the United States in 1929, almost totally ignorant of the English language. During most of my first two years in the U.S., I served as full-time flunky in the sheet-metal shop of a lumber-and-hardware company. Other employees had some fun at my expense, but they treated me kindly, and they enlarged my vocabulary to the best of their ability. In 1931, I entered high school, and one year later I began studying forestry at Utah State Agricultural College. Halfway through my freshman year, I shifted to botany, and early in 1937, I got a taste of real mathematical blood and liked its flavor. Off and on, I had taken courses in English literature, but I had never been exposed to serious English grammar.]

My visitors gave me additional information: the assignment came with a 500-dollar sweetener. In view of skimpy faculty salaries, I let my moral obligations to Louise and to our four children persuade me to accept the proposal with gratitude.

Taking a close look at the first issue of Volume 1 and at the papers that were about to come together in the second issue, I realized that the flow of manuscripts had fallen short of the editorial board's expectations. At the first board meeting that I attended, I proposed that we simply skip the year 1953. Absolutely not! I proposed a compromise: dedicate Volume 2 to the two-year period 1953-1954. This passed, and everybody's face survived.

Soon I realized that the idea of leaving the final editorial bits in the hands of authors and secretaries needed revision. Having already learned that meetings of the editorial board lasted fifty minutes, I decided to try saving everbody's time by canvassing the members on one bare-bone issue. Armed with some humble proposal, I walked along the third-floor corridor of Angell Hall. The first member of the board whose door stood open was Ed Moise. "Ed I don't want to be autocratic about the journal, but" Without letting me finish my first sentence, Ed interrupted me: "What our journal needs is more autocracy!" The declaration was emphatic enough to absolve me from the obligation of consulting the other members of the board. Also, it allowed me to make several decisions immediately, if they seemed necessary.

Examples: In the list of references at the end of the paper, names of journals must be in the form used by Mathematical Reviews, and the titles must be identical with the titles used in the original publications. Constructions such as

"From the preceding theorem and Lemma 4, we deduce

Theorem 9. If"

are not acceptable. Participles dangling from the ceiling or from trees or vines will be cut down.

Volume 3 carried the label 1954-1955, and beginning with 1977, we published at least two issues every year. Somebody at the University Press convinced me that I should transfer the typing and printing of the final text into the hands of Cushing-Malloy, a local firm that takes pride in producing typed text of high quality.

By personal letters, I invited some out-of-State mathematicians to send us manuscripts. The preponderance of analysis in some of our early volumes reflects the interests of most of my close acquaintances.

After receiving a referee's recommendation that we accept a paper, I would transmit his critical suggestions to the author, together with a list of my own ideas of possible mathematical or textual improvements. One of our contributors wrote "Piranian, you run a tight ship." Years later, another confessed that he instructed his graduate students to submit their first research paper to the MMJ, so that they would get a lesson in the art of writing mathematical text.

I edited the MMJ until the end of 1975. It was hard, but rewarding work: the enlargement of my circle of mathematical friends and the consequent expansion of my research interests contributed mightily to the quality of my existence.

More about teaching: In the 1940's, the math department had not yet developed a system for mentoring inexperienced instructors. Although I was conscientious and eager, in retrospect I feel apologetic to the students who had to put up with my defects. Over the years, I found the ground under my feet, and in 1967 a younger colleague invited me to teach first-year honors calculus. The course was based on a text written by a solid man of the time. The students were worthy of the text, and they worked hard. I was pleased and felt that the students enjoyed the course.

After two or three weeks, we came to a topic that I thought the author had dismissed too quickly. To remedy this, I reenforced the

homework assignments with problems that I hoped would give the students a better sense of the territory. "Prove or disprove that if ..., then ... "Within a few days, the class was airborne. I had not expected to see anything comparable to the enthusiasm and esprit de corps with which the students responded to what they called the Piranian problems. Inadvertently, I had given the youngsters the sense that they were more important than any printed page or program and that I was running the course primarily for their intellectual enjoyment.

They taught me a lesson, and I took it seriously. Over the years, I exposed first-year honors students to Cantor's idea of countably and uncountably infinite collections, to two-dimensional Cantor sets, to Weierstrass's example of a continuous but nowhere differentiable function, to the ninepoint circle associated with a triangle. We might even honor a composer's or a writer's birthday with special mention, or devote a few minutes to some ethical question.

How would I rate the three principal aspects of my years in the U of M's Math department? I do not attempt to order them, but I would hate to strike any one of them from my past. Thank you.

George Piranian

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