A SHORT HISTORY OF *THE FIBONACCI QUARTERLY*

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This volume marks the 25th year of publication of *The Fibonacci Quarterly*, prompting memories of just how it all started. As a long-time observer and participant, I was asked to write a short history of the early organization.

In the beginning, the Fibonacci Association grew out of the bond of friendship formed by those sharing an interest in the Fibonacci numbers. Professor Verner E. Hoggatt, Jr., San Jose State College, had become interested in the Fibonacci sequence in the late 1950s. Vern's colleague Dmitri Thoro introduced him to Brother Alfred Brousseau, St. Mary's College, in the early 1960s. Vern and Brother Alfred began a long friendship and met frequently to discuss Fibonacci numbers and often sang songs, accompanied by Brother Alfred's accordion. (I recall a ballad written by Brother Alfred, "Do What Comes Fibernaturally!", to the tune of "The Blue-Tail Fly.")

As time went on, their intense interest in the Fibonacci sequence began to take a more organized direction. Brother Alfred, for example, compiled a bibliography of more than 700 Fibonacci references, ranging from recreational to serious research, to disseminate to interested initiates. Both took any and every opportunity to lecture on the sequence, so much so that Vern soon became fondly known as "Professor Fibonacci."

By December of 1962, the group also included Professor Paul Byrd, I. Dale Ruggles, Stanley L. Basin, and Terrance A. Brennan. It was this group of men who founded the Fibonacci Association to provide an opportunity for those who shared an interest in the Fibonacci numbers to exchange ideas.

So much interest in the Fibonacci numbers was apparent to the "founding fathers" that they decided to publish *The Fibonacci Quarterly*, despite limited support and all the other problems that beset a new venture. Vern and Brother Alfred wanted a journal to provide rapid dissemination of the ever expanding research on the Fibonacci numbers and to invite teachers and students to share their enthusiasm for mathematics.

With a very small amount of money from subscriptions and donations, and a large amount of volunteer labor from students, friends, and family, the first issue of *The Fibonacci Quarterly* was published in February 1963, with Editor Verner E. Hoggatt, Jr., and Managing Editor Brother U. Alfred.

Due to shoestring economics, the first issue was typed by Brother Alfred; after that, several professional technical typists came and went. Keeping a good typist almost caused Vern to have a nervous breakdown, until he met someone who needed him to complete a golf foursome and discovered a technical typist in the course of getting acquainted!

The first printer was a photocopy shop with a small press, but this proved inadequate and costly. Then Brother Alfred approached William Descalso, who had done printing for St. Mary's College since 1948, to take on the printing of the *Quarterly*. Descalso had a large web press which could print 16 pages at one time. (This explains why we had 80, 96, or 112 pages, but never 89.) These signatures and the cover were put into a folding machine, and the journal was assembled, stapled, and trimmed in one operation. Mr. Descalso took special interest in the *Quarterly* for many years, and I suspect that he helped us to continue by making personal sacrifices. Also, he used to deliver the *Quarterly* to Brother Alfred for mailing, then bring the reprints to Vern's home in a big truck for stapling and mailing.

At first, subscriptions came in slowly (59 on January 31, 1963), but with some advertising and favorable notices in various magazines, especially *Scientific American* (June 1963, p. 152), the tempo increased. As a result, by September 1963 there were 659 subscribers, and 915 subscribers by the end of the first year of publication. From this point on, it was a matter of maintaining the momentum. While researching this article, I found a handwritten page entitled "back-sliders" among Vern's notes; he had personally called every person who failed to renew his or her subscription for the second year!

The Fibonacci Quarterly slowly began to draw attention. While at the first meeting in December 1962, Professor Paul Byrd had wondered how we would obtain enough material for such a specialized journal. Ironically, the problem, over the years, turned out to be a superabundance of material. Vern answered all of the many inquiries addressed to the *Quarterly* personally, in longhand. Brother Alfred wrote and published the booklet, *Fibonacci Discovery*, as an aid to beginners and as another source of income for the Association. Many articles were written especially to interest beginners in the study of Fibonacci numbers. (Subsequently, these early articles were collected together and published as *A Primer for the Fibonacci Numbers*.) *The Fibonacci Quarterly* was mentioned in Martin Gardner's column in *Scientific American* in March 1969, and Brother Alfred and Vern were interviewed in an article in *Time*, April 4, 1969, pages 48 and 50. Vern was asked to write a series of articles for *Math Log*, published by Mu Alpha Theta, and his book, *Fibonacci and Lucas Numbers*, was published by Houghton Mifflin in 1969. (I know that he had to write two complete drafts of this book because I typed both versions!) With a little fame, Vern was given a small grant by San Jose State College, and a semester-long sabbatical leave.

In those early days, the Editor carried everyone's address, telephone number, and research paper in his head. Although carrying a full teaching load, Vern still answered all correspondence personally, often writing more than 50 letters a week. He carried on such a prolific correspondence on Fibonacci matters that he frequently slept for only four hours a night. While I lived only across town, I would receive two or three letters each week because Vern wanted to put his thoughts on paper. Then he would call me for feedback, often before I had received the letters! Vern put his family to work stapling reprints and mailing them to the authors, and gave his graduate students proofreading, typing, and other tasks. I once spent many hours proofreading the first 571 Fibonacci numbers (F_{571} has 119 digits) in an attempt to make the project perfect; however, the printer's helper dropped the tray of lead characters, transposing 50 digits of F_{521} and F_{522}! Nevertheless, that article, which appeared in the October 1962 issue of *Recreational Mathematics Magazine*, was a good source of publicity for the soon-to-appear *Fibonacci Quarterly*. I also remember that he had such a concern for struggling foreign authors that he asked me to do a bit of ghost-writing because he didn't have the heart to reject their papers.

As Managing Editor, Brother Alfred kept track of all subscription and book orders and the mailing list. He mailed everything from St. Mary's College and soon had an entire basement devoted to storing Fibonacci magazines and books. When the fifty pound boxes of magazines arrived from the printer, he had to carry them to the basement and then haul them back upstairs to mail them. Because of the large volume of manuscripts, whenever the Association could raise extra money, they published an extra issue, so there were five or six issues a year at times after 1966. Storage space kept filling up; when the back issues and books were transferred to Santa Clara University in 1975, there were 257 boxes. (A Fermat number!)

Brother Alfred wrote a number of elementary articles to interest and stimulate beginners, teachers, and students, and compiled several books of tables

which are still available from The Fibonacci Association. He could generate new pages for the books at such a prodigious rate that I found it difficult to keep up with the proofreading. He gave lectures at nearly every meeting of mathematics teachers in California for years. And, of course, all of this was in addition to his teaching load.

Brother Alfred seemed always to have a new Fibonacci-related problem or a new approach to present. He was interested in phyllotaxis and collected more than 6000 pinecones, including cones from the twenty native pine trees of California, because the Fibonacci sequence occurred in the spirals of the cones. Vern once sent him a "Lucas" sunflower that exhibited Lucas numbers instead of the expected Fibonacci sequence; Vern had grown the sunflower himself especially to count its spirals.

Verner E. Hoggatt, Jr., and Brother Alfred Brousseau

October 20, 1973

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In January 1968, the Board of The Fibonacci Association was formed to set policy and to provide continuity for The Fibonacci Association and its publications. The members of the original Board of The Fibonacci Association were: Brother Alfred Brousseau, Verner E. Hoggatt, Jr., G. L. Alexanderson, George Ledin, I. Dale Ruggles, and myself. For many years, a research conference was held annually, and a special conference for high school teachers and their students was held at the University of San Francisco for five consecutive years.

By 1972, *The Fibonacci Quarterly* was listed regularly in both *Mathematics Reviews* and *Zentralblatt für Mathematik*, and a fine article entitled "A Magic Ratio Recurs Throughout Art and Nature" appeared in the December 1975 issue of *Smithsonian.* Also, Vern was invited to write an article for the 1977 Yearbook of *Encyclopaedia Britannica*, in "Science and the Future," pp. 177-192.

Brother Alfred continued as Managing Editor for 13 years, until his retirement in 1975, and Vern Hoggatt served as Editor for 18 years, until his death on August 11, 1980. It is hard to imagine *The Fibonacci Quarterly* having been published for so long if it had not been for the propitious meeting and enduring friendship of two such talented men and their interest in an obscure mathematical sequence, 1, 1, 2, 3, 5, 8, ...

The 1987 volume marks the twenty-fifth year of publication of *The Fibonacci Quarterly*, which has evolved into a research journal with international subscribers. (There are over 200 foreign subscribers, mostly from West Germany, Canada, Japan, Australia, The United Kingdom, Greece, and Italy, but representing 36 other countries as well.)

Long live Fibonacci!

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