CHAPTER V

The Fifties

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When the Academy was organized in 1923 it had a charter membership of 134. As Annual Meetings were held, programs of the several sections presented results of the research activities of scientists in the state schools of higher education, and in other scientific institutions. These programs served as a sort of measuring rod of scientific progress in Virginia during the year. Statewide problems dealing with science, conservation, science education and research were the subject of discussion and investigation. The published *Proceedings* of the Annual Meetings established a permanent record of the progress of science in the state, and summarized all aspects of the broadening Academy program. When the *Proceedings* came to the attention of non-members, this increased their knowledge of and interest in the organization.

By 1930 the Academy had 535 members, and well over 800 by 1940. As mentioned in the preceding chapter, there had been a natural decline in membership during the war years. During that period many members were in the armed services, or had served the government in one of the wartime agencies, or if at home had sold bonds, worked in Civil Defense, etc., and often worked double time in everyday life to compensate for those in the service. A result to be expected was that the 823 members in 1940, and 912 in 1941, declined to only 629 in 1943. However, with the cessation of the war, membership climbed steadily to 1204 by 1950.

In essence, a more or less steady year by year increase in Academy membership occurred from the time of the 1923 founding meeting. Attrition due to withdrawal, death, or perhaps chiefly just a failure to pay their dues, was also steady but, fortunately, much less than the year to year gains. Gains were recorded regularly. The 'dead wood' was only culled and removed from the rolls every few years. There was probably a greater apparent fluctuation than was actually the case.

Much of the strength of the Academy was due to the great interest of the charter members in the advancement of science in Virginia, as well as the caliber of these, and of following, members of the organization. The Academy was blessed, too, with officers of considerable—often exceptional—scientific merit and general capability. The most respected scientists of the colleges and universities of Virginia had visualized the need for the Academy, and inspired its founding. The caliber of these men, and of their young organization, attracted scientists of all ages, from all parts of the state. And not only were the ablest college and university scientists active in the organization, but also men and women from school administrations, industry, the state government, medical, engineering, and agricultural colleges and fields, and essentially all scientific institutions, supported and worked with and in the Academy. The most respected academic scientists of the state served the Academy in the president's office, among them a member of the National Academy of Science (later to be awarded the National Medal of Science). Also among the Academy presidents prior to 1950 were a practicing surgeon of national reputation; a president of one, and the dean of another, medical school; a dean of an engineering school; a chemist in the state government; a chemist who later became vice-president of an industrial company; and a director of state geological surveys.

It may be mentioned here that the interest in the Academy of persons outside of higher academic work continued, and actually broadened following 1950. An increasing number of the superior secondary school science teachers stimulated the interest of their best high school students in Junior Academy projects. Actually the Science Teachers Section and the Junior Academy proved fertile grounds for the development of Academy membership. Another eminent surgeon served as Acad-

emy President, as well as chairing its Finance Committee for a long period of years. Among other presidents of the second twenty years were the president of a scientific supply house, a director of research (in industry), and later, two other scientists in high state government positions. Interspersed among these non-academic Academy leaders were presidents who were among the distinguished scientists in the universities and colleges of Virginia. A number of these were from the University of Virginia, Virginia Polytechnic Institute, and the Medical College of Virginia. The group of presidents (like the membership) was broadly based and also included a physicist who later became president of a denominational college, a biologist from a teachers college, a lady scientist from a woman's college, and others. It cannot be too strongly emphasized that the strength of the Academy has resulted from a strong membership coming from a broad base of scientific interests and fields, and from the leadership of the superior scientists from all fields and institutions and areas within that membership. In some cases the state academies of science have been dominated by one or two of the larger and stronger institutions in the state, and this has apparently been to the detriment of the academies in those cases. The opposite has been true in the Virginia Academy.

The running chronology of the Academy in Chapter IV went through 1953. This will now be continued.

The thirty-second Academy meeting was convened by President Allan T. Gwathmey at the University of Virginia in Charlottesville, in 1954. At the prior Council meeting a question was raised as to the desirability of continuing the "streamlined" Academy Conference. The President was asked to submit the problem to the Conference.[1] According to the Secretary's report there was no debate on this issue by the Conference and again the meeting lasted only one hour and five minutes.[2] This point will be discussed again.

In November, 1953, at a Council meeting at Charlottesville the idea of "Business Memberships" was discussed. Such a membership would carry dues of $100 per year and would necessitate a constitutional change. All funds thus collected would be used to advance the activities of the Junior Academy.[3] The Council approved the suggestion, and by the 1954 Annual Meeting Secretary-Treasurer Foley F. Smith was able to report that seven business memberships had been received. Those pioneer business members were: Virginia Electric and Power Company; E. I. du Pont de Nemours and Company; Allied Chemical and Dye Corporation, Nitrogen Division; A. H. Robbins Company; Monsanto Chemical Company; Phipps and Bird, Incorporated; and Newport News Shipbuilding and Dry Dock Corporation.[4]

The 1954 J. Shelton Horsley Research Award was won by Lynn D. Abbott, Jr., and Mary J. Dodson, of the Medical College of Virginia, for their paper entitled "Inhibition of In Vitro Heme Synthesis from N^{15} Glycine by 2, 5-Dimethylbenzimidazol, 5, 6, Dimethylbenzimidazol, and Related Compounds."[5]

At the Charlottesville meeting (1954) a major change was made in the composition of the important Long Range Planning Committee. Dr. Marcellus H. Stow, Chairman for the past five years, warned by a heart attack that he should diminish his work load, requested the incoming President, Colonel I. G. Foster of Virginia Military Institute, to appoint a new chairman. Foster designated Mr. Edward Harlow of the American Tobacco Research Laboratory as Stow's successor.[6]

In the Junior Academy the E. C. L. Miller Award was presented to the Woodberry Forest Science Club (Mr. John Catt, Sponsor), specifically for its "Mouse Project." The W. Catesby Jones Award went to Miss Jane Black of James Monroe High School, Fredericksburg. Miss Black's project, "Electrostatic Separation of Titanium from Sediment," was judged the one having the greatest research potential. Miss Black was also awarded first place in the "individual exhibits" division.[7]

It was again noted in May 1954, that Dr. Miller was absent from the Academy meeting, and at the general meeting on May 7 Dr. Miller was named to the position of Secretary-Treasurer Emeritus.[8]

Just after the early May, 1954, meeting of the Virginia Academy, a decision was handed down by the Supreme Court of the United States which has been of paramount importance to educators, as well as to the American public in general, ever since. On May 17, 1954, Chief Justice Earl Warren, in presenting the majority opinion of the court in the case of *Brown versus Board of Education of Topeka*, said: "We conclude that in the field of public education the doctrine of 'separate but

[1] *Virginia Journal of Science*, New Ser. 6: 205. 1954. Hereinafter cited *VJS*.

[2] *Ibid.*, 206.

[3] *Ibid.*, 79.

[4] *Ibid.*, 211.

[5] *Ibid.*, 207–208.

[6] *Ibid.*, 220, 209.

[7] *Ibid.*, 224.

[8] *Ibid.*, 209, 207.

equal' has no place. Separate educational facilities are inherently unequal."[9] (It is this writer's belief that a discussion of race relations and the position of the Virginia Academy of Science on this issue is pertinent to a history of the Academy. Such a discussion will be found in Chapter VI, dealing in particular with the thirty-ninth Annual Meeting held at Lexington in 1961.)

The deaths of two prominent members of the Academy—Justus Cline and E. C. L. Miller—in July, 1954, stunned their colleagues. Justus Henry Cline of Stuarts Draft, the man whose foresight gave inspiration to the James River Project, passed away on July 26, 1954. Dr. Cline was eulogized by Dr. Marcellus Stow, the Chairman of the James River Project Committee from its inception to the publication of *The James River Basin—Past, Present and Future,* which was dedicated to Justus Cline and Dean Rudd, who wrote of "Judd" in the *Journal:* "Loved and respected by all, his wise counsel was sought by young and old alike. He was acclaimed throughout the nation for decades because of his foresight, inspiration, energy, and unselfish interest in science in general and conservation in particular."[10]

Five days before the death of Justus Cline, Dr. E. C. L. Miller passed away. Words to summarize the contribution of Dr. Miller to the Academy are lacking. The Council, on October 31; 1954, specified in a long resolution reasons why "the Virginia Academy of Science will ever honor Dr. E. C. L. Miller,"[11] but even the Council's resolution could not adequately do justice to the man who had devoted twenty-six years of his life to the Academy. Dean Ivey F. Lewis, who had retired from his active duties at the University in July, 1953,[12] once said that getting Dr. Miller as Academy Secretary-Treasurer was like hitting the jackpot. Later Dean Lewis was to say: "If an institution may be called the lengthened shadow of a man, the Virginia Academy of Science is a monument to Dr. Miller."[13] This statement is perhaps the best summary comment that can be made about Dr. Miller and his work with the Academy. In a somewhat different vein, Dr. Sidney Negus attempted to delineate the character of Dr. Miller in an article for the *Journal* in 1955. "He enjoyed a happy life," Negus wrote, "because he was never too busy to help someone else in trouble—whether it was weather-stripping a house or talking a person out of despondency."[14]

The loss of Justus Cline and of E. C. L. Miller, one without Academy office—the other always in office, was that of two irreplaceable stalwarts. Colonel Foster's term as President may well be designated as that in which apparently irreplaceable members had to be replaced.

At the thirty-third Annual Meeting held at Madison College, Harrisonburg, in 1955, the Academy lost an invaluable officer when Dr. Boyd Harshbarger, "the spirit of the *Journal*,"[15] who had been elected Editor-in-Chief for a five year term in 1949, resigned the position citing as reasons his increased duties as Chairman of the Department of Statistics at Virginia Polytechnic Institute. Academy President Colonel I. G. Foster of Virginia Military Institute announced in the *Journal,* under the title "An Appreciation," that the Academy owed Dr. Harshbarger "a debt of gratitude for the unsparing manner in which he has devoted himself to his editorial duties."[16] Fortunately there was at hand the able Dr. Horton H. Hobbs of the University of Virginia, formerly the Technical Editor of the *Journal.* Dr. Hobbs was unanimously chosen to succeed Dr. Harshbarger. Dr. B. F. D. Runk, also of the University, became the Managing Editor.[17]

Other important administrative changes at this meeting included the appointment of Dr. Lynn D. Abbott, Jr., of the Medical College of Virginia to the chairmanship of the Long Range Planning Committee to succeed Mr. Edward S. Harlow who was chosen President-elect at the 1955 session. In addition, the office of Assistant Secretary-Treasurer was created and filled by Mr. William B. Wartman, Jr., of Richmond.[18] Mr. Wartman was to continue in this capacity for several years.

Because of some disturbing reports by certain of our members, especially those of the Science Teachers Section, a special committee to study science education was authorized by the Council in March, 1955. At the May meeting Dr. James W. Cole of the University of Virginia reported for what amounted to a blue-ribbon committee of Academy members. What the committee found was not good. There were not enough science teachers in the state, nor enough qualified science graduates to fill the need. Salary inadequacy, competition from athletics, outmoded counselling, and administrative indifference, were among the factors making it difficult to get potential science instructors into secondary teaching. The special committee proposed

[9] Samuel Eliot Morison, *The Oxford History of the American People* (New York, 1965), 1086; Eric Goldman, *The Crucial Decade and After* (New York, 1960), 264.

[10] *VJS,* New Ser. 6: 56. 1955.

[11] *Ibid.,* 4.

[12] *VJS,* New Ser. 5: 51–2. 1954.

[13] Ivey F. Lewis, Virginia Academy of Science Biology Section, 2. Manuscript in the possession of the VAS, VISR, Richmond.

[14] Sidney S. Negus, "Edgar Calvin Leroy Miller, M. D.," *VJS,* New Ser. 6: 1–4. 1955.

[15] Interview with Mr. Foley F. Smith, Richmond, Virginia, January 5, 1968.

[16] *VJS,* New Ser., 6: 133. 1955.

[17] *Ibid.,* 194–5.

[18] *Ibid.,* 188–9.

that science education be upgraded, updated, reorganized, and coordinated. These goals they hoped to achieve through further subcommittee investigations and proposals.[19]

The J. Shelton Horsley Research Award for 1955 went to Albert W. Lutz, Jr., of the College of William and Mary, and his colleague Evans B. Reid, for their paper "Clovene and B-Caryophyllene Alcohol."[20]

On the Junior Academy level the E. C. L. Miller Award was presented to the Advanced Science Club, Mt. Vernon High School, Alexandria (R. H. Horn, Sponsor); and the Major Catesby Jones Award went to Mathew Winston, Booker T. Washington High School, Norfolk.[21]

The Virginia Journal of Science became the first topic for discussion when the 1955 fall Council meeting was called to order by Dr. Walter S. Flory in the Library of the Blandy Experimental Farm at Boyce, on October 30. The stage had been set when Editor Hobbs announced that some 5,000 extra copies of the *Journal* would be printed as a special issue to be made available at the 350th Jamestown Anniversary celebration.[22]

The thirty-fourth Annual Meeting in 1956 was called to order by President Walter S. Flory of the University of Virginia, at the Hotel Jefferson in Richmond.

At the May 10 Council meeting it was decided that the copies of the *Journal* to go on sale at Jamestown would be reprints of the January 1957 issue, stripped of all advertising and sold at a nominal price. A matter of more serious import arose when Editor Hobbs and Managing Editor Runk both cited the press of other duties and submitted their resignations at the Council meeting. However, both were persuaded to continue in office until January, 1957.[23] The suggested new and simplified, but complete, form for presenting the financial statement of the Academy in the *Proceedings,* presented by President Flory before the April 14 meeting of the Finance Committee, was approved at the May Council meeting. This form had been especially made up for the Academy, provided through the generosity of Carman G. Blough, Director of Research, American Institute of Accountants, New York City. At this same meeting the Council was advised that a group to be known as the Virginia Psychological Association had been formed, and would hold their annual business meeting at the same time and place as the Virginia Academy of Science.[24]

At the Academy Conference Dr. Allan Gwathmey again proposed that the Conference be scheduled at an earlier hour to allow for more discussion of committee reports.[25] It is to be remembered that the Conference had been "streamlined" a few years earlier, with reports being condensed, and the meeting shortened. Running through this history has been a recurring dissatisfaction with the mechanics of the Conference. In the early days of the Academy the Conference was an extension of the Council, and met on the eve of the Annual Meeting. Committee chairmen were included to report to the Council on committee activities. The informal atmosphere attracted 'outside' Academy members having nothing else to do, and soon it became overweight and lasted overlong. In an attempt to overcome these difficulties the Academy over-reacted in 'streamlining' and reducing the Conference. Dr. Gwathmey's effort was toward correcting the extremes to which the streamlined Conference had gone. It can be seen in the 1957 program that the Conference that year was scheduled an hour earlier (8 P.M. instead of 9 P.M.), and had no designated stopping point.[26]

The 1956 J. Shelton Horsley Award went to Dr. M. C. Kenneth Tweedie of Virginia Polytechnic Institute for his paper "Statistical Properties of Inverse Gaussian Distributions" presented before the Section of Statistics.[27] A total of 220 papers were presented before the twelve sections of the Academy in 1956.

The first Distinguished Service Awards in the history of the organization were presented during the main night Academy meeting (mistakenly called the Academy Conference in the *Proceedings*) on May 11. President Flory called on Boyd Harshbarger, Chairman of the Awards Committee, to present the two members to be honored.

Dr. Harshbarger requested Past-President George W. Jeffers to present to Dean Ivey F. Lewis of the University of Virginia and first President of the Academy the first award. In making the presentation Jeffers characterized Lewis: "Able investigator; master teacher, who with gentleness of maner, with kindness and understanding, has labored for the advancement of science and the welfare of mankind."[28]

[19] *Ibid.*, 218–22.

[20] *Ibid.*, 192.

[21] *Ibid.*, 211.

[22] *VJS*, New Ser. 7: 190. 1956.

[23] *Ibid.*, 218–221. 226.

[24] *Ibid.*, 220.

[25] *Ibid.*, 224.

[26] *VJS*, New Ser. 8: 230. 1957.

[27] *VJS*, New Ser. 7: 223. 1956.

[28] *Ibid.*, 222.

Dr. Harshbarger then conferred the second Distinguished Service Award on Dr. William T. Sanger, President of the Medical College of Virginia and twelfth President of the Academy, 1934–35. Dr. Harshbarger referred to Dr. Sanger as a "national leader" and "builder of the Medical College of Virginia." Further, Dr. Sanger was cited as a "superior organizer, and administrator of programs for better health."[29] The ceremony was televised.

No Academy meeting could pass without recognition for the Juniors. This year, 1956, saw the inauguration of the generous Philip Morris Achievement Awards. These were made possible by a grant of $750 by the Philip Morris Corporation to the Virginia Junior Academy of Science. Outstanding projects in Chemistry, Physics, Biology, and "other sciences" were to receive prizes by this grant.[30] The E. C. L. Miller Award went to Eagle Rock High School (Mr. W. W. Cash, Sponsor), and the Major Catesby Jones Award was presented to Philip Ingersoll of Douglas Freeman High School, Richmond.[31]

Secretary-Treasurer Foley F. Smith reported to the Academy on several matters. Smith spoke extensively about the American Association for the Advancement of Science meeting held at Atlanta, Georgia, in December, 1955, and noted that the choice of Atlanta as a meeting place brought forth "many different points of view concerning conditions . . . . connected with such a meeting as the AAAS." A resolution was passed at the Atlanta meeting to the effect that the American Association for the Advancement of Science "is a democratic association of all its members; no one is barred from election because of race or creed. . . . No member is limited in his service because of race or creed. In order that the Association may attain its objectives, it is necessary and desirable that all members may freely meet for scientific discussions, the exchange of ideas, and the diffusion of established knowledge. . . . These objectives cannot be fulfilled if free association of the members is hindered by unnatural barriers."[32]

It is interesting to note that from its beginning the Virginia Academy of Science subscribed to the philosophy enunciated by the AAAS in Atlanta. In the words of Dr. Boyd Harshbarger, the Academy "never allowed any segregation."[33] The key word in the Atlanta resolution is "unnatural," and, clearly, that word has been variously interpreted. With this in mind, Dr. Harshbarger's statement may need to be qualified somewhat. The Academy could not always insure that its philosophy would be practiced as almost all Academy activities were subject to the laws of the Commonwealth of Virginia and at times these state laws and the philosophy of the Academy would have to be in conflict. This poses the larger question, which this paper will in no wise attempt to discuss, as to whether state laws might ever be considered unnatural barriers in the sense given that term by the Atlanta resolution of the AAAS.

The initial 1957 number of *The Virginia Journal of Science* may be termed the Jamestown Celebration issue. It commemorated the 350th anniversary of the planting of that colony. Marcellus H. Stow provided an introduction for five feature articles: "Indians of Virginia 350 Years Ago," by Bruce D. Reynolds; "Geological Ancestry of the York-James Peninsula," by Arthur Bevan; "Seventeenth Century Science in Old Virginia," by Ivey F. Lewis; "History of Virginia's Commercial Fisheries," by J. L. McHugh and Robert S. Bailey; and "Physicians at Early Jamestown," by Sidney S. Negus. Also with number one of Volume 8 Mary E. Humphreys, Associate Professor of Biology at Mary Baldwin College, became Associate Editor of the *Journal*.[34]

Editor Horton Hobbs and Managing Editor B. F. D. Runk stepped down after this first issue and were replaced by Dr. R. T. Brumfield as Editor and Dr. C. F. Lane as Managing Editor. Both of the new men were from Longwood College. At the Annual Meeting at Old Point Comfort, Brumfield reported to the Council that a new contract to publish the *Journal*, let to the lowest bidder, would call for production costs almost double that of recent issues. Later Lane told the Academy that a page of straight type had increased from $4 to $8 under the new contract.[35]

A significant administrative reorganization took place at the thirty-fifth Academy meeting in 1957, presided over by Mr. Edward S. Harlow of the American Tobacco Company Research Laboratory. First, the Academy Conference gave its approval to the separation of the offices of Secretary and Treasurer, and two days later, May 11, 1957, the Academy Council made the separation official. Foley F. Smith continued in the Academy administration as Treasurer, and Past President Paul M.

[29] *Ibid.*, 223.

[30] *Ibid.*, 235–39; Thelma C. Heatwole, History of the Virginia Junior Academy of Science, 23; Interview with Mr. Rodney C. Berry, Richmond, Virginia, January 5, 1968.

[31] *VJS*, New Ser. 7: 235–39. 1956.

[32] *Ibid.*, 228–30.

[33] Dr. Boyd Harshbarger to Dr. Walter Flory, Wake Forest University, April 19, 1967.

[34] *VJS*, New Ser. 8: 1–102. 1957.

[35] *Ibid.*, 234–5. 256.

Patterson of Hollins College assumed the newly created post of Secretary.[36] Smith, chosen as the Secretary-Treasurer of the Academy in 1949 at the suggestion of Dr. E. C. L. Miller was only the second member of the Academy to serve in this capacity. The confidence which the Academy had in him is plain to see when one remembers that only Dr. Miller, a man whose work Smith termed a "labor of love,"[37] had held this all important post before Smith. The Council passed a resolution that Smith be commended for his work in the *Journal*. Dr. George W. Jeffers wrote "An Appreciation" for Smith in which he concluded: "Again, fortune favors the Academy because Foley agreed to remain . . . . and will continue to give his wise counsel and unflagging loyalty to serve the Academy."[38]

At this same 1957 meeting the Academy Council declined an invitation from the Virginia State Chamber of Commerce for the Academy to become a member. Also the Council acting on a suggestion by the American Association for the Advancement of Science, passed a motion authorizing the President to appoint an History of Science Committee. Former Academy President Colonel Irving G. Foster became the first chairman.[39]

In 1957 the J. Shelton Horsley Research Award was divided between the authors of two papers of "equal excellency." Walter H. Lewis, Research Fellow of the Blandy Experimental Farm, University of Virginia, received half the Award for his paper "A Biosystematic Study of *Rosa acicularis*." Also, R. A. Bradley and D. E. W. Schumann, of the Statistical Laboratory, Virginia Polytechnic Institute, were presented half the Award for their joint contribution "The Comparison of the Sensitivities of Similar Compounds."[40]

In the Junior Academy, Philip Morris Achievement Awards were given to first, second and third place winners in each of four categories: Physics, Chemistry, Biology, and Miscellaneous Sciences, along with two or more Honorable Mentions in each category. The E. C. L. Miller Award for the outstanding science club was presented for the second consecutive year to the Eagle Rock High School Science Club (W. W. Cash, Jr., Sponsor). The W. Catesby Jones Award went to Tommy Yancy of Buckingham Central High School.[41]

During the year Academy members were saddened by the passing of Dr. Bruce Dodson Reynolds (1894–1957), a loyal member of the Biology Section, where he and his students contributed papers. Dr. Reynolds had recently contributed an article to the *Journal* on the Indians of Colonial Virginia, but was better known as the Chairman of the Biology Department at the University of Virginia, a former Director of the Mountain Lake Biological Station, and as a past president of the Association of Southeastern Biologists.[42]

As can be readily seen throughout the history of the Academy, the members have always been concerned with improving science education in the secondary schools of Virginia. Academy members as well as interested educators everywhere in the United States received a fresh but unexpected impetus, amounting to shock and shattering our complacency, on October 5, 1957, when the Soviet Union announced the successful launching of Sputnik I.[43]

The first number of Volume 9 of *The Virginia Journal of Science* (January, 1958) was dedicated to Marcellus H. Stow (1902–1957), who passed away on November 27, 1957. Dr. Stow had been Chairman of the Geology Department at Washington and Lee University since 1937 and had served as President of the Academy, 1942–43.[44] It was under Dr. Stow's patient guidance and persistent prodding that the chapters of the James River monograph were written, collected, edited and finally published in 1950. *The James River Basin—Past, Present and Future,* a volume of some 800 pages, stands as a lasting reminder of Dr. Stow's loyalty and service to science in Virginia.

Academy President William G. Guy of the College of William and Mary was quick to seize on the Soviet scientific progress when he wrote to Academy members in early 1958. "This year of the Sputniks," Guy said, "will be a particularly significant one for the future of science in our state, as on all sides we see a quickened interest in the development of our scientific potential."[45]

The thirty-sixth meeting of the Academy, held in Roanoke in 1958, appears to have been somewhat less eventful than others. However, the problem of the financial condition of the *Journal* was raised as early as March 8, 1958, at a Council meeting in Richmond, and continued to plague the Academy for the next few years. Managing Editor C. F. Lane reported to Council that the reserve fund for the

[36] *Ibid.*, 237.

[37] Interview with Mr. Foley F. Smith, Richmond, Virginia, January 5, 1968.

[38] George W. Jeffers, "An Appreciation," *VJS*, New Ser. 8: 210. 1957.

[39] *Ibid.*, 233.

[40] *Ibid.*, 237.

[41] *Ibid.*, 248–250.

[42] *Ibid.*, 175–6.

[43] Goldman, 307.

[44] *VJS*, New Ser. 9: 1–2. 1958.

[45] *Ibid.*, 199.

Journal was rapidly being depleted by rising publication costs without any increase in revenue.[46]

Dr. Sidney Negus reported to Council that the American Tobacco Company had been chosen for the Distinguished Service Award of the Academy; after some discussion the Council unanimously approved. President Guy later made the award presentation to Mr. Blanton Bruner, Public Relations Officer of the company.[47]

The 1958 J. Shelton Horsley Research Prize was won by G. Tyler Miller, Jr., and Kenneth R. Lawless, of the University of Virginia, for the paper which they presented before the Section of Chemistry entitled "An Electron Microscopic Study of the Oxidation of Copper Single Crystals in Aqueous Salt Solutions."[48]

Mrs. Thelma G. Heatwole reported for the Junior Academy. Mary Lou Myers of Eagle Rock High School was presented the Major Catesby Jones Award for her research project. This marked the third consecutive year that Eagle Rock High School had been thus honored—a signal distinction. Two science clubs were winners of the coveted E. C. L. Miller Award. Washington and Lee High School, Arlington, and Thomas Jefferson High School, Richmond, were both considered to have outstanding clubs. Again, three Philip Morris Achievement Awards in each of four categories—a total of 12 awards made possible by the Philip Morris Company—were presented. Mrs. Heatwole noted that another $300 grant from the American Tobacco Company Research Laboratory made possible the continued publication of the Junior Science Bulletin begun in 1953 under the direction of Miss Susie V. Floyd of Newport News High School.[49]

The first number of the *Journal* for 1959 was dedicated to the memory of Dr. Edwin Morris Betts (1892–1958), Professor of Biology at the University of Virginia.[50]

In October, 1958, President John C. Forbes of the Medical College of Virginia presided over a Council meeting at Farmville. The Council decided to dissolve the long standing James River Project Committee. The Council also proposed State Senator Lloyd C. Bird, President of Phipps & Bird (Scientific Supplies), a man whose service to the Academy had extended over many years and who had been the chief executive of the Academy, 1952–53, for the Distinguished Service Award.[51] At the thirty-seventh Academy meeting, held in Charlottesville in 1959, President Forbes made the presentation to Senator Bird.[52a]

The coveted research honor went to Dr. Dorothy L. Crandall of Randolph-Macon Woman's College, at the 1959 Annual Meeting in Charlottesville. The title of the J. Shelton Horsley Award winning paper, presented before the Section on Biology, was "Ground Vegetation Patterns of the Spruce-Fir Area of the Great Smoky Mountains National Park."[52b]

In the Junior Academy the E. C. L. Miller Award was won by the Newport News High School Science Club, and the W. Catesby Jones Award went to Bill Ridenhour of William Fleming High School in Roanoke.[53]

The Virginia Journal of Science was again a problem for the Academy. At the Council meeting on May 7, 1959, President Forbes read letters of resignation from both the Editor and Managing Editor, Dr. Brumfield and Dr. Lane.[54] At the Academy Conference, later on the same day, Dr. Boyd Harshbarger moved that a committee be appointed to look into the finances of the *Journal* in hopes of finding ways of making it solvent.[55] At the October, 1959, Council meeting at the University of Virginia Dr. Horton Hobbs, a former Editor of the *Journal,* placed in nomination the names of Robert Ross and Robert Kral for the positions of Editor and Business Manager-Managing Editor, respectively. The Council accepted both nominations and the two new men from V.P.I. started work immediately on the first issue of 1960.[56]

Dr. George W. Jeffers, Chairman of the Long Range Planning Committee, came up with a solution for disposing of the issues of the *Journal* which were causing a storage problem. The extra issues published in conjunction with the Jamestown Festival were to be given to the secondary schools of the state to terminate the project.[57]

At a Council meeting held in Richmond, March 12, 1960, Dr. G. W. Kent of Bridgewater College announced the dissolution of the Education Section.[58] Consequently when President William M. Hinton of Washington and Lee welcomed the members to the thirty-eighth Annual Meeting in Richmond the Academy had only eleven sections.

[46] *Ibid.*, 328.

[47] *Ibid.*, 347.

[48] *Ibid.*, 348.

[49] *Ibid.*, 357–361.

[50] *VJS*, New Ser. 10: 1–2, 1959.

[51] *Ibid.*, 85.

[52a, b] *Ibid.*, 217

[53] *Ibid.*, 231.

[54] *Ibid.*, 215

[55] *Ibid.*, 216.

[56] *VJS*, New Ser. 11: 38–9. 1960.

[57] *VJS*, New Ser. 10: 224. 1959.

[58] *VJS*, New Ser. 11: 139. 1960.

At the 1960 meeting Dr. J. C. Thompson of Hollins College recommended that the Council be reorganized so that 1) the Council would include representatives from each of the sections and 2) the Council would become the nominating committee for Academy officers. It was moved that a committee study these proposals.[59] Action, as will be seen, was taken along these lines a year later.

The paper by Dr. Lawrence I. Miller, of the Virginia Agricultural Experiment Station at Holland, was designated as the one most worthy of the 1960 J. Shelton Horsley Research Award. This paper, deemed the best of eleven competing contributions, was titled "The Influence of Soil Components on the Survival and Development of the Sting Nematode."[60]

Although no report of the Junior Academy's activities and awards at the thirty-eighth meeting was published in the *Journal,* one can easily see in Mrs. Heatwole's history that the Juniors had advanced considerably since George W. Jeffers and Rodney C. Berry first proposed the formation of a Junior Academy of Science in 1940. On the eve of the twentieth anniversary of the Junior Academy eighty-five clubs were affiliated and total membership numbered close to 10,000 students. Approximately 4,000 students and sponsors attended the 1960 Academy meeting.[61]

Much of the progress of the Junior Academy can be attributed to Mrs. Heatwole's long continuing and effective efforts. She served as chairman for nine years, during which time the Juniors "took great strides under her leadership."[62] Dr. W. W. Scott, of the Biology Department at V.P.I., succeeded Mrs. Heatwole as Junior Academy Chairman in 1960. And also in 1960 Mrs. Heatwole recommended that the Junior Chairman become a member of the Academy Council.[63]

It came to the attention of the Academy that a number of nonregistrants were attending section meetings. This became a source of irritation and at the same time deprived the Academy of a certain amount of revenue. To counteract this, Dr. Jeffers proposed that meeting rooms be marked to the effect that only individuals wearing registration badges would be allowed to enter.[64] Jeffers' suggestion took on added significance two days later, May 12, at the Academy Conference. Dr. John C. Forbes recommended that the Academy raise the registration fee from $.50 to $1 with the new funds collected earmarked to help the Academy subsidize the *Journal.* This recommendation was passed on to the Council for its consideration and decision.[65]

Dr. Ross, *Journal* Editor, discussed some of the problems of the publication at the Council meeting of May 10. The Editor pointed out that no fixed price should be established for advertising as agencies usually sold packaged deals and defined the rates themselves. Before the Council again, on May 12, Dr. Ross cited part of the report of a special *Journal* study committee chaired by Dr. Wilson B. Bell of V.P.I. The committee report suggested an increase in advertising space from six to twelve pages as well as an increase in rates. It was further suggested that both an advertising manager and an advertising agency be retained by the Academy. The Council approved a $400 rise in Academy support for the *Journal.*[66] However, as will be seen, even this gesture was not enough to see the *Journal* out of the woods.

The years just following the war (Chapter IV) were a time of vigorous expansion and rapidly increasing membership for the Academy. In the following years—the years of the mid and late fifties covered in this chapter—the Academy continued strong and vigorous. The membership shifted to just under 900 in two or three years, and again moved back well above 1200 (1225) by 1961. Programs at the Annual Meetings, for both seniors and juniors, were excellent. But during these years the Academy more or less plateaued so far as membership, number of sections, and similar factors were concerned. Most scientists of the state were members; the Academy flourished; it was well recognized. It had arrived at the point where it served its purpose well. It was at the place where complacency needed to be guarded against, if the organization was not to be taken too much for granted. Otherwise, loss of interest would occur and progress would cease. Few individuals, or organizations, remain at a standstill very long; they either progress or retrogress.

In the years from 1954 through 1960 most sections were quite active. Programs of papers on original work were presented at the Annual Meetings by 12 different sections in most years. The original Sections of Biology, Chemistry, the Physical Sciences (Astronomy, Mathematics and Physics), and Psychology (actually Psychology and Education at first), continued among the dominant areas of interest. Now rivalling these in membership interest and activity were the Sections on

[59] *Ibid.*, 153.

[60] *Ibid.*, 150.

[61] Heatwole, 22–3.

[62] George W. Jeffers, "Editor's Note," Heatwole, 24. Penned in at bottom of page.

[63] Heatwole, 23; *VJS,* New Ser. 11: 153. 1960.

[64] *VJS,* New Ser. 11: 151–2. 1960.

[65] *Ibid.*, 154.

[66] *Ibid.*, 153–4.

Agriculture, the Medical Sciences and Statistics. The interest in the Sections of Geology and Engineering fluctuated from year to year. Interest was at a low ebb in the Sections of Bacteriology and of Science Teachers, at least if numbers of papers presented at Annual Meetings could be used as a criterion.

During the seven years, 1954–60, a total of 1477 papers, an average of 211 per year, were presented before the various sections at the Annual Meetings. The abstracts of these continued to appear in the *Proceedings* issue of *The Virginia Journal of Science*. The *Journal*, as suggested above, from time to time had its financial and editing difficulties. At the same time it was proving the cohesive element bringing the various interests of the Academy into focus for the membership, which had been originally visualized. It was the medium for presenting 12 to 15 carefully selected and edited scientific contributions each year. The papers of Academy organized symposia appeared in its pages. It had become the organ of dissemination of news items, obituaries, and announcements in general of concern to the Academy and its members. The Academy and its *Journal* were mutually necessary and strengthening in their relationships, objectives and growth. As the *Journal* developed, the Academy grew in strength and *vice versa*.

It has been seen that several new developments of these years were the institution of a new classification of members, the Business Memberships; recognition of outstanding leaders of the Academy by the awarding of Meritorious Service Awards from time to time; issuance of the special Jamestown Celebration issue of the *Journal*; and the division of the office of Secretary-Treasurer, into two offices—a recognition of the growth of the Academy and of the increasing complexity of keeping up with its happenings and records.

The Fifties, with a good portion of all they seem to represent in American history and folklore, were now in the past. The threshold of a new decade had already been crossed and a new term was being enunciated in Washington: "the new frontier." It appears from the evidence at hand that the Virginia Academy of Science, in coming to grips with administrative and organizational problems, was clearly facing new frontiers of its own as it marched into the sixties.