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Introduction

In the late 1800's and early 1900's, it was common for many departments in the less well established colleges and universities of the United States to just have one person with rank of Professor in each department or group of departments. In many cases, Departments of Mathematics consisted just of a single individual with the title of Professor of Mathematics and Astronomy. Even by 1927, our Department still just had one Professor, but now also two Associate Professors, four Assistant Professors and two Instructors. In the 1935 catalogue, the Department now contains three Professors with one listed as Head Professor of Mathematics out of a total of 10 staff members. The title of Chair of the Department seems to have come later, So with this proviso, we list the Past Chairs (or Head Professors) of the Department of Mathematics through the 1970's at the University of Florida together with the institutions where they did their undergraduate and graduate work:

- Dr. Karl Schmidt 1905 1908 Ph.D., Marburg University, Germany, 1898
- Dr. Herbert Keppel 1908 1918
 A.B., Hope College, 1889
 Ph.D., Clark University, 1901
 [Professor Keppel died in the Spanish influenza epidemic which swept the campus in October, 1918]
- Dr. Thomas Marshall Simpson 1918 1951 Dean of the Graduate School, 1939 – 1951 A.B., Harvard College, 1905 M.A., Wisconsin, 1910 Ph.D., Wisconsin, 1916
- Dr. Franklin Kokomoor Chair of Department, 1951-1960
 Chair of Freshmen Mathematics, 1935-1960
 B.S., Valparaiso University, 1915
 A.M., University of Michigan, 1924
 Ph.D., University of Michigan, 1926

Dr. John Maxfield — 1960 – 1967
 B.S., M.I.T., 1947
 M.S., Wisconsin, 1949
 Ph.D., University of Oregon, 1951

Dr. Alexander Doniphan Wallace — 1967–1969
First Graduate Research Professor in Mathematics, 1969–1973
B.S., University of Virginia, 1935
M.S., University of Virginia, 1936
Ph.D., University of Virginia, 1940

Dr. Alexander Bednarek — 1969 – 1986, spring 1988
B.S., SUNY at Albany, 1957
M.A., SUNY at Buffalo, 1959
Ph.D., SUNY at Buffalo, 1961

One notices from this list, particularly, that one person, Dr. Thomas Simpson was Head Professor, then Chair for over thirty years.

When we see the currently advertised fact on our computer screens every time we log on, that the University of Florida dates from 1853, it is important to understand that that is not really the institution here in Gainesville in its current form. Rather in the late 1800's and early 1900's, there came to be eight state institutions, all competing for state funds and all struggling to improve themselves. These institutions together with their dates of founding were as follows:

- 1. the East Florida Seminary in Ocala, later moved to Gainesville (1852)
- the West Florida Seminary in Tallahassee, later renamed the Florida State College (1857)
- 3. the (White) Normal School at DeFuniak Springs (1887)
- 4. the South Florida Military College in Bartow (1895)
- 5. the Florida Agricultural College in Lake City (1884)
- 6. the St. Petersburg Normal and Industrial School (1901)
- 7. the Normal School for Negro Students in Tallahassee (1887)
- 8. the Florida Agricultural Institute in Osceola County, in Kissimmee (1903).

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Now this last institution was never funded by the State Legislature, only authorized to exist, so it can be safely ignored. To confuse matters even further, in 1903, the State Legislature authorized the Agricultural College in Lake City to change its name to the University of Florida, probably with the hope that the quality could be improved to go along with a grander sounding name. A fascinating account of all of these institutions is to be found in Professor Samuel Proctor's dissertation [1] and an unfortunately less detailed account in the more accessible source [2]. All the information about Florida institutions in this introduction and in Chapter 1 is taken from these two sources.

In the late 1800's and early 1900's, various Floridians were proposing and lobbying for the idea that it was neither effective nor efficient to have so many small institutions all struggling along under state funding. Especially by 1904, both President Andrew Sledd of the Lake City Agricultural Institute (by then renamed the University of Florida) and Professor Jere Pound of the East Florida Seminary in Gainesville were both lobbying hard for a coalescing of these institutions into a lot fewer institutions, each man hoping to be the President of one of these new institutions. Also, Professor James Farr, the first Professor of English and German at our current institution, lobbied actively for this change, writing columns anonymously on this issue in newspapers across the state.

The upshot of all of this activity, was that with much political debate on the part of the legislature, the Buckman Act was passed by the legislature and signed into law by Governor Broward on June 5, 1905. Under this bill, all of the white institutions of higher learning in the state of Florida were coalesced into just two institutions, the Florida Female Seminary in Tallahassee, evidently for female students, and the University of Florida, for male students, at a location to be determined by the newly appointed Board of Control. There were two sites which were realistic contenders for the new University of Florida, Gainesville and Lake City. Gainesville put on a tremendous lobbying effort, with Mayor W. R. Thomas himself, one of the prime movers. (So now you know why the two earliest dormitories on campus, Buckman Hall and Thomas Hall received their names). With a great deal of political turmoil, Gainesville won out over Lake City as the permanent home of the University of Florida. In that sense, one could consider the current University of Florida to have stemmed from the merging of the Lake City Agricultural Institute and the East Florida Seminary. However, none of the buildings of the East Florida Seminary became part of our current institution. Proctor notes in [2, p. 25] that

"Because of the inadequate and generally rundown condition of the East Florida Seminary buildings, the board [of Control] decided to use the Lake City campus for the 1905–1906 term."

Rather the main building of the East Florida Seminary became and still is the Epsworth Hall of the downtown Methodist church. Both institutions are, however, represented symbolically in the current school colors, already used in decorating the town and campus during the inaugural ceremonies on September 27, 1906, cf. [2, p. 26] in that the orange came from the East Florida Seminary colors of orange and black, while the blue came from the blue and white colors of the Florida Agricultural College of Lake City.

If we look in the strictest sense, we should study the history of the Mathematics Department from 1905, when the Buckman Act created the current institution and the Board of Control decided to plunk it down permanently in scenic Gainesville. Now of course, it takes time to erect buildings, so as just mentioned, the first academic year 1905–1906 of our current institution was actually spent on the Lake City campus while Buckman and Thomas Halls were being constructed. In Chapter 1, Appendix C, we include Proctor's [1] amusing account of the less than ebullient feelings of our faculty forebearers when they toured the construction site in March of 1906. Then in Chapter 4, we will present the move to Gainesville as President Andrew Sledd viewed it, based on Sledd's correspondence during the summer of 1906.

If we take a slightly closer look at the first faculty of the University of Florida, what we find is that with the exception of Professor James Anderson who had been in Tallahassee from 1903–1905, all of the other personnel had either been in Lake City since 1900 or so, or else had been brought in from the outside by Dr. Andrew Sledd during his building campaign of 1904–1905 during what turned out to be the last academic year of the Lake City Agricultural Institute. Thus, Proctor is able to write that from the technical viewpoint, Dean Robert Benton of Engineering was the first person to be appointed by the Board of Control, once the Buckman Act had established the University of Florida; but in fact virtually all of the other faculty simply moved with President Andrew Sledd from Lake City to Gainesville in 1906 and had already been hired during the summer of 1904.

In 1930, under the Tigert Presidency, our campus celebrated the twenty-fifth anniversary of its establishment under the Buckman Act of 1905. However, Tigert and a number of the faculty were concerned about the extremely youthful look of a founding date of 1905, when compared with various other institutions in the United States, cf. [2, p. 36]. Thus, shortly after the festivities for the twenty-fifth anniversary had ended, Tigert urged the Board of Control to change the date on the University Seal from 1905 to 1853, reflecting the date on which the State began public support of the East Florida Seminary (which commenced operations in January 5, 1852 as a private institution, cf. [2, p. 18]).

If we adopt this broader viewpoint, then, since virtually all of our faculty, including our first Professor of Mathematics, Dr. Karl Schmidt were already hired or re-appointed by Dr. Andrew Sledd during the summer of 1904 just prior to his first academic year as President of the Lake City Institution, then we should perhaps start with the Sledd Building Program of 1904. Once we do that, however, we find that the President of the Lake City Agricultural Institute from 1901–1904, amazingly enough, received the Ph.D. in Mathematics from Johns Hopkins in 1896. Thus Chapter 1 begins our story with Dr. Thomas Taliaferro in Lake City in 1901. To try and help fix the tremendous growth in scale of the University of Florida from its earliest beginnings in Gainesville at the very outset of this study, we reproduce an interesting table from [2, p. 237] which shows the enrollments at the beginning of the terms of each of the presidents of the University of Florida during the time period covered in this book:

Enrol	nrollments at the start of UF President's terms in office:		
1906	Sledd	108	
1909	Murphree	186	
1928	Tigert	2,270	
1947	Miller	8,778	
1955	Reitz	10,868	
1967	O'Connell	19,004	
1974	Marston	28,332	
1985	Criser	36,120	

We conclude this introduction by commenting on several trends in American higher education which will be manifested in our early institution. First, we will see in Chapter 3 that during the first academic year in Gainesville, of the academic staff of 14 professors, over one-quarter of them, namely, Professors Anderson, Benton, Crow, Flint, and Schmidt, had received some of their advanced training in Germany. In Marsden's book on the development of the modern American university, we find the following written about study in Germany, [3, p. 104]. Here Marsden is writing specifically about Henry Tappan, 1805–1881, the first president of the University of Michigan.

"Between 1815 and 1914 about nine to ten thousand Americans studied in Germany. In Tappan's day the trend had barely begun; yet Tappan's generation established an immensely important precedent. Throughout the rest of the nineteenth century German universities would serve as America's graduate schools. It would be rare to find either a university leader or a major scholar who had not spent some years studying in Germany.

... neither German ideals nor educational models were imported without major adjustments to the American setting. Germany nevertheless had overwhelming symbolic importance. Americans stood in awe of the German universities. Eighteenth-century German universities had taken the lead on the European continent and, especially after the establishment of the University of Berlin by Prussia in 1810, had moved to world preeminence. For Americans, who in University building were behind just about every European country, an appeal to a German precedent could be an intimidating argument."

As a further illustration, the following is written about one of Tappan's proteges, Andrew Dickinson White, who would be the first president of Cornell University, [3, p. 114]. Also, this paragraph sheds some light on the master's degree in the midnineteenth century.

"As a gentlemen with no clear plans on graduation ¹ in 1853, White settled on accompanying his Yale friend Daniel Colt Gilman as an unpaid attache to the American diplomatic mission in Russia. While abroad, White enrolled for lectures in history, art, and literature at the University of Berlin, thus sampling the renowned German universities, an enterprise that was becoming almost mandatory for aspiring American scholars. The experience was sufficient for him to decide on a scholarly career.

Apparently hoping to improve his chances for employment at Yale, White returned to New Haven to receive a master of arts degree, which was still a perfunctory degree granted after three years to virtually any graduate who paid a fee"

An equally illustrious example of a Yale scientist who studied in Europe during these times is provided by J. Williard Gibbs of Yale, cf. [4]. Gibbs grew up in New Haven, attending the Hopkins Grammar School, established in 1660 as only the fourth institution to offer instruction in Latin and Greek in this country, after the Boston Latin School (1635), Harvard College (1636), and the Roxbury Latin School (1645). The entrance requirements for Yale in 1854 included Latin, Greek, English grammar, geography, and in mathematics, Thomson's Higher Arithmetic and Day's Algebra. After taking his undergraduate degree at Yale, Gibbs entered what was then called the Department of Philosophy and Arts at Yale in the fall of 1858 as a graduate student in engineering; as a senior Gibbs won two scholarships in student competitions, one of which carried the obligation of continuing with graduate work at Yale. In June, 1863, Gibbs received his Ph.D at Yale, as one of three doctorates. This was only the third year that Yale had awarded this degree and Gibb's thesis was apparently the second in science and the first in engineering to be awarded in this country, according to [4, p. 32]. Following upon receipt of the doctorate, Gibbs received an appointment

 $^{^{1}}$ ed., from Yale

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as a tutor at Yale for the usual three year period. It is amusing to read that teaching assignments were made according to seniority, so that even though Gibbs' strong suit was science and mathematics, he found himself receiving the assignment as the Latin tutor, while another more senior gentleman who later would head the Latin Department at Yale was serving as the mathematics tutor. After this time period, Gibbs left in August, 1866 for a three year period of study in Europe. The first academic year 1866 - 1867 was spent in Paris. Gibbs' notebooks reveal that he attended the lectures of Chasles on higher geometry, Duhamel on higher algebra, Liouville on number theory and on rational mechanics, Serret on celestial mechanics and elliptic functions, Darboux on mathematical physics, specifically, on the mathematical theory of heat, and finally Bertin on experimental physics. Delauney was offering material on applied physics, but Gibbs did not attend his lectures. Also, Gibbs spent a good deal of time reading articles and books of Lagrange, Laplace, Poisson, Fresnel and Cauchy. So here Gibbs set himself a schedule calling for sixteen hours of lecture attendance per week, as well as independent reading. It is not surprising, especially as his constitution was not the strongest, that he became ill from overwork and had to recuperate on the Rivera, fearful of having contracted tuberculosis. The next academic year 1867– 1868, Gibbs spent in Berlin. There, having learnt from experience, Gibbs did not try to pursue such an ambitious program of studies. One of the still surviving aspects of the German academic system, is that each university student keeps a *Studienbuch* recording on a yearly basis his/her program of lecture courses, exercise sections, and seminar participations. The Yale Archives retains possession of Gibbs' Studienbuch, so that we learn that in Berlin Gibbs signed up during the first semester to follow the lectures of Magnus on general physics, Kundt on acoustics, Weierstrass on determinants, Kronecker on quadratic forms; and during the second semester, the lectures of Magus on technology, Quincke on acoustics and capillarity, Foerster on least squares, Weierstrass on analysis, and Kummer on probability calculations. The next year Gibbs spent in Heidelberg, but no surviving documentation exists according to [4] which would indicate what Gibbs studied during his final academic year in Europe.

Second, Professors Anderson, Farr, and Taliaferro of the early days of our institution, who had not received their Ph.D.'s in Germany, had received their doctorates at Johns Hopkins. This university originated from the bequest of a wealthy Quaker businessman, Johns Hopkins, who provided funding in 1874 in his will for the founding of a university in Baltimore. Marsden writes the following about Johns Hopkins in [3, p. 150].

"The Johns Hopkins University opened its doors in 1876 and remained under [Daniel Coit] Gilman's leadership until his retirement in 1901. Unlike his situation in California [at Berkeley], Gilman had almost complete control over his institution. One of the legacies of the old-time colleges that the founders of the new universities typically retained was the wide discretionary power of the president. With a relatively free hand to implement his dream for a university, Gilman quickly built Johns Hopkins into America's leading graduate university, setting the standards for others to emulate."

Professors John Thompson and Peter Sin of our own department have both commented to me that it is remarkable that a course in Galois theory was offered at the University of Florida from its inception in 1906. No readily accessible text treating this topic in algebra was available until much later. It may also be noted that at the inception, a course entitled the *mathematical seminary* was offered. Marsden has the following comments on the introduction of the graduate student - faculty seminars into the American University, starting at Johns Hopkins, cf. [3, p. 153]

"German Lehrfreiheit — the freedom for the guild of professors independently to pursue its inquiries, publications and teachings — became a symbol for an emerging idea of academic freedom. This idea, in the minds of American reformers such as Gilman, was inextricably mixed with the simple ideal of pure scientific investigation, or the pursuit of truth. The graduate seminar was an important forum in which such investigation could take place. The seminar had developed in Germany as a model of how the research ideal and the humanistic ideals could be combined. It simultaneously stressed individual attention from professors, original scientific research, individual creativity, and honing of critical skills."

The inspiring effect this transplanted institution had on graduate students in the early 1900's is most vividly revealed in recollections about the Seminar held at Clark University in a special room in President G. Stanley Hall's home, cf. [5, p. 53]. Hall had engaged in studies in Germany prior to obtaining the first American Ph.D. in Psychology from the philosophy department at Harvard in 1878.

"Hall's most effective teaching was done in his famous Monday evening seminar. About 7:15 P.M. each Monday, all students in philosophy, psychology and education, and perhaps also faculty and invited guests, would gather in Hall's home across the street from the campus. Typically, two students each session would report on their own investigations or summarize the literature of a given field in a written paper. After the first, Hall would lead off the discussion and call for reactions. After thirty to sixty minutes of fiery debate, in which he might join, Hall would summarize the principal points and all would adjourn to the dining room for light refreshments. About 9:30 the second presentation would begin, and the meetings rarely broke up before midnight. Early on, the seminar was focused on specific readings, and sometimes an invited lecturer would make a presentation. But in its mature form the Monday evening seminar was the students' time on the frontiers, and as one of them, Lewis Terman, recalled the sessions,

'I always went home dazed and intoxicated, took a hot bath to quiet my nerves, then lay awake for hours rehearsing the drama and formulating all the clever things I should have said and did not.'

Hall himself in retirement, missed the seminar experience more than anything else, and felt *a peculiar lonesomeness* each Monday evening."

A third aspect of the pre-history of the Gainesville campus and such a practical thing, from some viewpoints, as the teaching mission of a department of mathematics at a large state university, is that our precursor, the Lake City Agricultural College was established based to some degree on funding provided by the Hatch Act and also the second Morrill Act of 1890, cf. [2, p. 21]. Here is what is written about the philosophical underpinnings of the first Morrill Land Grant Act of 1862 in [3, p. 115].

"... This act [Morrill Land Grant Act of 1862] represented the culmination of popular agitation for higher education in the mechanical and agricultural arts, a proposal that promised to help make the United States competitive in economic and industrial development. The cause was part of the emerging Republican agenda to develop the nation industrially and morally.

'We want a seminary,'

inveterate reformer Horace Greeley declared in 1858,

'which provides as fitly and thoroughly for the education of the Captains of Industry as Yale or Harvard does for those who are dedicated to either of the Professions.'

In 1858 the act had been passed by Congress but vetoed by President Buchanan as an unconstitutional infringement of the federal government. With the southern states absent in 1862, the way was cleared for the passage of the act, which was signed by Lincoln on July 2, 1862. The act provided for the proceeds from large tracts of public land to go to the establishment and support of colleges of agricultural and mechanic arts."

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I am first of all indebted to Norma Sue Ehrlich, my poor, long suffering wife, who has had to endure several years of listening to me ramble on about the early pioneer builders of the University of Florida as the manuscript has grown longer and longer. It has been very gratifying to have been able to study first hand from archival sources at the University of Florida Archives in Smathers Library the early struggle to get our current institution established, prior to World War I. The Archives Staff, especially Carl Van Ness, are to be complimented for their helpful assistance in this task. I have fond memories of my first timorous steps into Library East, at which time Carl first steered me toward the old university catalogues and records, and pointed out to me Dr. Herbert Keppel, as an early Professor of Mathematics and Astronomy. Several months later, Carl recalled materials left by Herbert Keppel that were stored in the Ben Hill Griffin Stadium at Florida Field, and Vann Ness's retrieval of these materials was directly responsible for the existence of the chapter on "Graduate education in 1894."

It has been a real pleasure to learn first hand from Mrs. Lillian Pirenian about President Murphree, Dr. Thomas Simpson, and Professor Zareh Pirenian; to correspond with Reverend Leonard Blanton about Dr. Thomas Simpson; and to correspond with Dr. John Benton about his father Dean John Benton, the founding Dean of the Engineering College. We had an informative telephone conversation with Dean John Maxfield of Louisiana Tech, who was Chairman of Mathematics in Gainesville from 1960-1967, which gave us his own personal perspective on airconditioning Walker Hall and recruiting A. D. Wallace. This was followed later by an hour long interview

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of Dean Maxfield, which he kindly granted me while we were both attending a winter meeting of the American Mathematical Society in Orlando during January, 1996. We were further fortunate to receive correspondence from Professor Wayman Strother during May, 1996, giving us his perspective of the A. D. Wallace appointment from the viewpoint of a second senior faculty member who was intimately involved in the recruitment process during the early 1960's. In addition, we have benefitted from a visit to the home of Professor S. Gould and Doris Sadler, correspondence with Mrs. Robert Blake and with Professor Robert Meacham (of Eckerd College), lots of recollections from Mrs. Edwin Hadlock relayed to me by her daughter Nancy, and lots of recollections from Professor Theral Moore, who joined the department in 1955, and his wife Nancy Moore. Professors Louis Block (who personally experienced University College), Al Bednarek, Kermit Sigmon, Jed Keesling, Beverly Brechner, Zoran Pop-Stojanovic, Jorge Martinez, Charles Nelson, Steve Saxon, and Rhoni Khuri have kindly responded with their recollection of events occuring in the 1960's and 1970's. Professors Gerard Emch, Antoinette Emch-Derriaz, Joseph Glover, Ralph Selfridge, Rick Smith, Alexandre Turull, and Chris Stark have helped me with a number of insightful comments, and Stark especially provided me with archival material from the University of Maryland pertaining to President Taliaferro of the Florida Agricultural College in his later more successful tenure at the University of Maryland. Professor Bob Burton Brown, who was the last Dean of University College, has kindly provided me with information about that institution. Reverend and Mrs. Benson Cain have also been helpful in recalling Mrs. Cain's girlhood days in Gainesville; Mrs. Cain's father graduated in the class of 1916 and she knew Dr. Thomas Simpson from attending the First Presbyterian Church. I also have benefitted from conversations with Professor Thomas Fay, Professor Hugh Cunningham, Lucius B. Gravely III (another U. F. alumnus who had Professor Franklin Kokomoor as a Sunday school teacher while attending our University during the early 1940's), Henry L. Gray Jr., Daniel Harmeling, Mrs. Winston Little, and Professor Phillip Bradshaw. It is also a pleasure to thank Mrs. Richard Ehrlich for calling my attention to George Marsden's book, The Soul of the American University, and for providing me with information about the University of Illinois prior to and during World War II. Dr. Richard Ehrlich has kindly provided me with helpful comments concerning the role of mathematics in industry prior to and after World War II. We also thank Sarah Hong and the Carleton College Archives, Northfield, Minnesota for providing us with materials about our very first Head Professor of Mathematics and Astronomy, the German native Dr. Karl Schmidt.

I systematically wrote to the Ph.D. alumni from the 1950's, and am grateful for information provided to me about their careers and student days by Drs. John Neff, Mary Neff, John Kenelly, Jane Day, Jan Andrus, Richard Yates, Thomas Horton, William Hare, Alvin Owens, and Emmet Low. University of Florida historians Dean

Michael Gannon, Professor Fredrick Gregory, President John Lombardi, and Professor Samuel Proctor (and his staff at the Florida Oral History Project) are also to be thanked for their kind encouragement of this project. Especially, as a result of Professor Proctor's extensive research in the Florida Oral History Project, we were able to posthumously learn from our former chairman Professor Franklin Kokomoor about his views of the development of the University from 1928–1960, posthumously learn from Mrs. Elizabeth Simpson about our third chairman Dr. Thomas Marshall Simpson, who served as chair from 1918 - 1951 and Dean of the Graduate School from 1939-1951, and posthumously learn from Mrs. John Benton about life in Gainesville in the 1910's and about Dean Benton and his efforts to build the Engineering School from 1905 up until his untimely death in 1930. (Mrs. Emily Ring is also deserving of our thanks for having taken the time to interview a number of these early figures in this Oral History Project). Professor Edward Keuchel and Dr. Robin Sellers of the Department of History of Florida State have helpfully supplied me with certain facts relating to President Albert Murphree and information they obtained from the Florida State Archives.

The current chair of the Mathematics Department, Professor Joseph Glover, was in on the inception of this lengthy project; when he told me that he had lists of all of the masters and Ph.D. graduates, I embarked on a project of writing to the alumni of the 1950's, hoping to gain some material for the *Walker Hall Review*. I never at all envisioned that I would wind up in the Archives reading presidential correspondence from 1904 and 1906!! Dean Gannon kindly informed me that I could find a complete set of catalogues in the Archives, and then later Professor Proctor suggested that I look in the *Sledd Letterbooks*, whatever they were, to try to find correspondence from Sledd to his early appointees. So that is how the library work all got started. Professor Glover has also provided me with some insightful comments in many discussions we have held on how the mathematics community moved into what we arrogantly would call "modern times," as well as encouraging me in my pursuit of this lengthy and unconventional endeavor.

Professor Paul Ewing Ehrlich December 3, 1996

Chapter 1

Thomas Taliaferro 1901-1904: A Johns Hopkins Graduate Comes to Grief in Lake City

When we survey the list of fifteen men that comprise the faculty of the University of Florida during its first academic year of operation 1905 - 1906 after the passage of the Buckman Act of 1905, we find that five professors Farr, Yocum, Conner, Blair, and Cox were relatively old hands on the Florida educational scene, having been at the Lake City Agricultural College, one of the ancestors of our current institution, since 1901 or even before. Yocum, the Professor of Philosophy, had even been President of the Lake City Agricultural College in 1892–1893 and 1897–1901. Professor James Anderson had been in Tallahassee at the Florida State College from 1903–1905. W. L. Floyd, who was Professor of English and Science in the Normal Department in 1905-1906, had been at the East Florida Seminary since 1892, with time out during 1902 - 1903 for graduate study at Harvard. On the other side of the picture, Dr. Andrew Sledd recruited faculty from outside Florida in his building program starting in 1904 as will be discussed in Chapter 1. Hence we find nine faculty members which are not quite such old Florida hands: Sledd himself and Benton, Crow, Flint, Hochstrasser, Rolfs, Thomas, Schmidt, and Sellards. However, Professors Flint, Hochstrasser, Schmidt, and Sellards had already been hired by Sledd in the summer prior to the 1904-1905 academic year, the last academic year before the Buckman Act of June, 1905, and were thus professors at the University of Florida in Lake City, as the Lake City Agricultural College was renamed in 1903. This then gives us a total of ten faculty out of 15 who had been on the academic staff of the University of Florida prior to the establishment of our current institution in 1905. Hence, we have some grounds for considering all of the mathematics faculty at the Lake City Agricultural College as our mathematical predecessors if we look at the question from a slightly broader viewpoint.

When I was reading Professor Samuel Proctor's dissertation The University of Florida: Its Early Years, 1853-1906 to obtain background for studying the 1904 Sledd Correspondence at the University Archives, Smathers Library, I was astonished to learn that the President of the Lake City Agricultural College had received a Ph.D. in mathematics from Johns Hopkins University in 1896. Thus it dawned on me that from a broader viewpoint, Dr. Thomas Taliaferro, President of the Lake City institution from 1901-1904, has certainly to be considered also one of the mathematical ancestors of the current department, given that most of the faculty which were here during the earliest years of the University of Florida at Gainesville had come from Lake City.

We have two sources of information about President Taliaferro, first, the Sledd Correspondence of 1904 obtained from the University Archives, Smathers Library (which includes a draft of Taliaferro's report on the academic year 1903–1904 at the Lake City Institute). Second, Chapter 16 of Proctor's thesis [1] concerns the Taliaferro Presidency at Lake City and is the primary source for all the material presented below.

The Taliaferro family ancestors included pioneer Virginia settlers related to the family of President James Madison. The Taliaferro's came to Florida after the Civil War, and built up logging and lumber businesses and by 1900 held investments in banks in Jacksonville and Tampa, a wholesale grocery business in Tampa, and timber-lands throughout Florida. One uncle, James P. Taliaferro, was even a United States Senator for Florida.

Thomas Hardy Taliaferro was born in Jacksonville on March 22, 1871, graduated from the Virginia Military Institute in 1890 with a degree in Civil Engineering, then taught mathematics at that institute and the following year, at the Missouri Military Academy. In 1892, Taliaferro began graduate work in mathematics at Johns Hopkins. He graduated in 1896 with a thesis on *The Focal Surfaces of the Congruence Formed by the Tangents to the Lines of Curvature of a Given Surface*, with supervisor J. Williard Gibbs. Following receipt of his Ph.D., Taliaferro became an Instructor in Mathematics at Pennsylvania State University.

After the resignation of President Yocum in 1901, the Board of Trustees of the Lake City Agricultural College met on campus on June 6, 1901, and Joseph Parrot, one of Henry Flagler's Florida business associates, nominated Taliaferro for the Presidency. Taliaferro was elected on the first ballot and accepted the position in a letter dated June 18, 1901.

The Lake City Agricultural College thus came to be headed by a large tall man nearly six feet tall, with reddish brown hair and initially, a brown beard to make him look older. Taliaferro was only thirty when he accepted the position, hence was the youngest man ever to be president of the Lake City College and one of the youngest college presidents in the United States at that time. Somehow, Taliaferro seemed to get on badly with the existing faculty almost from the first, perhaps being too impulsive, arrogant and patronizing. Much of the goings on at the Lake City Institution are detailed in a book written by Professor James Farr, the first Professor of English and German at the University of Florida [2]. Relations with the faculty went from bad to worse; apparently most upsetting were Taliaferro's methods and behavior when conducting classroom visits, for it is reported that he was more than willing to criticize the instructors in front of the students.

Taliaferro's last academic year 1903 – 1904 at the Agricultural College was particularly unpleasant and unfortunate. Letters from alumni all over the state, probably overstating the case, reached the Board of Trustees. It was especially rumored that the morale of the faculty had reached a low ebb and that student discipline was in shambles. It was claimed that if one student wanted to insult another, he would call him a *Taliaferro* and that the students often referred to the President as *that hairy old ape.* Apparently during the chapel service on March 31, 1904, the President remarked in such a fashion that he did not want to see any April Fools tricks played on campus, that this only served to encourage student pranks. During the night, guns were fired and bricks were thrown into windows of the rooms of studying students. Lights were smashed in the halls. When Captain Clark went out holding a lamp to quell the disturbance, the lamp was broken by a student throwing a piece of wood at the Captain. The next day, nearly the entire student body hid in the woods. Apparently, gun fire and vandalism on campus continued throughout the remainder of the semester.

During the spring elections of 1904, there was much devisiveness between liberals and conservatives. It was rumored that Taliaferro was trying to force the faculty to vote for his uncle's re-election. Foster Hall burnt down and a series of diseases swept the campus, according to Taliaferro's annual report, cf. Appendix A.

Eventually, the faculty started writing to the Board of Trustees asking that various charges be investigated, starting with Professor Cox of Engineering. The suspicious Taliaferro had in early April interviewed Cox in his office and made him give a promise of loyalty. However, by April 9th, Taliaferro charged that Cox had broken his pledge and called for his resignation. Cox invited the faculty to join him in protesting this action to the Board of Trustees. On April 11, Taliaferro, after conferring with the Chairman of the Board suspended Cox for insubordination on the basis of this treasonable letter, and ordered Cox to turn over his keys, papers, and other things relating to the Department of Engineering. Following Cox's suspension, seven faculty held a secret meeting and agreed to write to the Board of Trustees. Taliaferro regarded this as gross insubordination, because according to proper procedures, all communication to the Board of Trustees was supposed to pass through the President. Without waiting for any action on the part of the Board of Trustees, Taliaferro announced that he would call for the resignations of Professors Cox, Miller, Borger, Hadly, Gossard, Blair and Cooper effective at the end of the term. On April 26, the Board met in Special Session and instructed the President and faculty to take no further action prior to the ending of the term.

Even though it appeared that maybe a temporary peace had been arranged, it did not last. On April 27, Taliaferro issued a decree dismissing the offending professors, forbidding them to appear on campus, and ordering the student body to ignore these faculty. The faculty attempted to hold class in defiance of this order. The next day, Taliaferro had the classroom windows nailed down and the doors padlocked. Only the laboratories and library remained open. Some of the senior classes met outside, but mostly, classes failed to meet, and also, many students were ordered home by their parents, who had read about the disturbances at the Lake City campus in the newspapers.

With this turn of events, the Board could not refrain from taking action. The faculty lodged formal charges against Taliaferro and demanded his dismissal. The Board heard testimony from various faculty members on June 4, 1904. By June 21, 1904, the Board had taken its decision: both President Taliaferro and the seven dissident faculty members were asked to resign.

Shortly thereafter, Dr. Taliaferro left Florida to return to Johns Hopkins for a year of post-graduate work. In 1905, he accepted a position as Assistant Statistical Editor in the Bureau of the Census and in 1907, Taliaferro became Professor of Civil Engineering at the University of Maryland. Perhaps, Taliaferro had been mellowed a bit by age and his experiences in Lake City, for he had quite a successful career at the University of Maryland, where he remained on the staff until 1941 and was eventually known to the students as *Doc. Telly*.

In 1919, Taliaferro became the first Dean of Engineering; in 1920, Professor of Mathematics; in 1927, Dean of Arts and Sciences; and finally, in 1937, Dean of the Faculty.

George Callcott [3, p. 238] writes in his history of the University of Maryland that from 1892 until 1912, this institution was simply the Maryland Agricultural College and

"served much like one of the agricultural agencies growing up around it, providing the farmers' sons who came its way with a practical, vocational education. A multitude of presidents had failed by trying to push the institution beyond the immediate needs of the rural community, but patient [President] Richard W. Silvester succeeded by sensing exactly what the farmer wanted and then identifying the institution with these wants, however modest they were."

Callcott describes Taliaferro's role in the early growth of Maryland as follows ([3,

p. 240-241]):

"The other practical professional program was engineering which expanded from one part-time instructor in 1892 to eight instructors in 1912. At first [President] Silvester soft-pedaled engineering, calling it 'Rural Roadbuilding', 'Farm Drainage', or 'Farm Machinery'; but as students persuaded their parents to let them leave the farm, the president eventually admitted that the College was training technologists headed toward the city. Engineering, like agriculture, had its difficulties in emerging to academic respectability, and well into the twentieth century students spent much of their time studying blacksmithing, carpentry and mechanical drawing. Gradually, however, able Professors like Harry Gwinner and Thomas H. Taliaferro began to establish the bridge between mechanics and physics and to separate the subject into such technical fields as civil, mechanical and electrical engineering. The engineering program produced some of the most outstanding graduates the institution has had. Taliaferro's presence at the University of Maryland beginning in 1907 is commemorated still today by Taliaferro Hall, an engineering building."

Taliaferro's presence at the University of Maryland beginning in 1907 was commemorated by Taliaferro Hall originally an engineering building, but now renamed the Francis Scott Key Building.

References:

- Proctor, Samuel, The University of Florida: Its Early Years, 1853-1906, Dissertation, University of Florida, February, 1958.
- 2 Farr, James, The Making of a University: The Personal Memoirs of one Associated with its Growth, unpublished manuscript, University of Florida.
- 3 Callcot, George, A History of the University of Maryland, Maryland Historical Society, Garamond/Pridemark Press, Baltimore, Maryland, 1966.

Appendix A

President Taliaferro's Annual Report

In this appendix, we will allow President Taliaferro through the medium of his own writing, to present his own version of his last year in Lake City. A handwritten draft of the President's Report for the academic year 1903-1904 happens to be contained in the 1904 Sledd Correspondence files at the University Archives, Smathers Library, dated by coincidence June 21, 1904, the very day the Board of Trustees asked for his resignation.

First, Taliaferro begins by reporting that starting June 30, 1903, the Lake City institution had ceased to admit female students. As an apparent consequence, three lady faculty were dismissed: a Lady Principal, an Instructor in Romance Languages, and an Assistant in Biology. On the other hand, Mrs. F. H. Swanson was appointed Matron in charge of the Dining Hall, a personage who will turn up in early *Seminole* Yearbooks with the corresponding position here in Gainesville.

Taliaferro after summarizing these personnel changes, writes

"There seems to have been an inability on the part of the Faculty to recognize the disadvantageous conditions, arising from Fisk, Farr, etc., under which we labored this year, and a disposition to sit back and grumble rather than to work themselves, encourage the students and stimulate an interest. They have seemed to be totally ignorant of their responsibility in the matter and incapable of understanding their obligations to the Institution.

The remnant of military regulations governing Students has been a blessing. The new regulations have worked well but a few changes will have to be made in them in order to obtain the best results as regards discipline and scholarship. I believe however that we have the proper solution of the questions.

I have been pleased to note among the students a great change regarding the Institution. Where they were used to grumble they are now enthusiastic in comparison. We have lost many this year from various causes but with a few exceptions they have stated their intention of returning next year and bringing others with them. It is a hopeful sign although I do not expect great additions to our student body for some years to come. The State is not ready.

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After consultation with the Executive Committee Mr. Widman was sent out as a canvasser for students, he is now working in West Florida. As stated to the Board in December, after the fire, the Dining Hall Fund is behind. This has been due to high prices, food, board, falling off in students, etc., including bad debts. In accordance with the advice of Board I did not attempt to change quality of food and thus reduce expenses. In order to grow we must make the students comfortable. Many repairs, improvements and additions to equipment were made during the past year. The brick dormitory and Foster Hall were remodeled. Some changes were made in the wooden dormitory. The old Preparatory building was transformed into a reading room and Library with a lecture room for the Professor of English. The main building was repaired and now contains the offices, Commercial Department, lecture rooms, Assembly Hall, etc. The chemical laboratory was remodeled. The green house was thoroughly renovated. A shed was built for faculty work. A sewage plant was installed, it still needs a little work done on it. A rifle range was built for the military department. A new hay barn and a wagon shed were built. Plans were laid for improving the Campus but were given up on account of the fire. Apparatus was added to nearly every Department. Books were added to the Library. A certain amount of money was for the first time assigned to each Department and the method has worked well. There will each year be changes regarding the amount assigned. Debts were paid and the Institution is paying as it goes. We need money however in every Department. We have kept within our appropriation. The Alpha Tau Omega established a Chapter of the Fraternity at the University and the Kappa Alpha Fraternity is still discussing the situation. Jealousy at Tallahassee stands somewhat in the way. The fire which destroyed Foster Hall also destroyed the effects of the students who for the first time left their goods and chattels behind them when leaving for the holidays. As they were informed after consultation that the Board would try to do something for them although there was no legal obligation, I trust the Board will be able to give them something on their loss. The loss for the students amounts to about \$1200 or \$1500, instead of \$250 as they left nearly everything behind them. A small fire occurred in the wooden dormitory but no insurance was collected as in order to collect a few dollars we would have probably had our rate increased. The illness in the Institution was deplorable as it upset everything. I do not know how it could have been helped with the weather conditions far from normal and contagious diseases prevalent everywhere. We had outbreaks of Scarlet Fever, Measles + Chicken Pox and many students left as a result but we saved more than I had any hopes of saving. The Boca Raton Station was closed in September.

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During the past summer I served on the High School Commission and with a view to the improvement of our curriculum to accord with this work done by the public schools the preparatory course was remodeled and raised. The other courses will be raised as conditions permit. The students who graduated the past year undertook a higher grade of work than any previous graduates and the indications are that the character of work done was an improvement over that they had done in previous years. As the work was increased I expect the grades to be lower.

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Permission was given Dr. Chalker to clean up the ravine back of the University and the result has been beneficial, especially as regards Mosquitos. Furniture was bought after the fire to replace that destroyed. A good bargain was made.

I recommend ...; that renovation of the wooden Dormitory and necessary repairs be authorized; that the new Dormitory be begun, that a President's home be built; that Dr. Yocum's resignation be accepted; that F. H. Rolfs appointment be approved; that steps be taken to obtain an athletic fee of \$5 from each student; that the Trustees of the Institution in Osceola County be requested to furnish funds for the Farmers Institutes; that the Physician question be discussed again; that plans be made concerning Legislative matters pertaining to appropriations, etc.; that some money be appropriated to reimburse in a small degree the student losses by fire.

> Respectfully submitted T. H. Taliaferro President

June 21-1904"

The yearbook for the students of the University of Florida, the *Seminole*, was first published in 1910. In those days, the yearbook contains photographs not only of the student body, campus buildings, fraternities and clubs, but also of individual faculty members. Indeed, the first such Seminole has the following dedication:

" Dedication

In grateful appreciation of those who have directed us through our college years, this books is inscribed to

OUR FACULTY "

The faculty photographs taken as a whole from the 1909-1910 academic year give a vivid impression of a rather young faculty, really with just two exceptions, Farrah and Walker. Especially, Banks, Benton, Davis, Farr, Flint, Hadley, Keppel, Kicklighter, Thackston, Trusler, Vernon, Wilson, and even President Murphree himself are all rather youthful looking. Now Benton, Flint, and Keppel were hired under the previous president, Andrew Sledd, who was president of the current University of Florida from 1905-1909, and Farr had been hired already in 1901.

During 1904-1905, the academic year just prior to the passage of the Buckman Act of 1905, Dr. Andrew Sledd had taken up the presidency of the Florida Agricultural College in Lake City, which had been in Lake City since 1884. Sledd's predecessor, Thomas Taliaferro, president from 1901-1904, was not a renowned success; as Proctor notes in [1, p. 21], apparently he was known to the student body by the sobriquet of *hairy old ape*. The state legislature in 1903 had voted to change the name of the Florida Agricultural College to the *University of Florida*, and apparently with this more dignified sounding title, it was hoped that maybe the quality could also be improved.

Among the folders of the Sledd Correspondence — 1904 in the University Archives, Smathers Library, at the University of Florida, are testimonial letters from various professors especially written at the time Sledd was applying for the Professorship of Latin at Emory University in Oxford, Georgia. Most of these letters are addressed to Reverend Warren A. Candler; at that time, Candler was President of Emory. The next year he was elected Methodist Bishop for Georgia and the Candlers moved to Atlanta.

An early letter in this particular folder is illuminating, for it is written in 1894 when Sledd is completing his studies at Randolph Macon College, and preparing to go on to study the Classics at Harvard. It is interesting that apparently the whole faculty signed such a letter in those days, for we find the following [2]:

"

RANDOLPH MACON COLLEGE Ashland, Va. Feb. 28, 1894 his work has been characterized by accuracy and thoroughness not often seen in a student.

When he completed the courses in Mathematics and Greek, he won the prizes offered in these departments for the best work in the senior year. After he graduated in Mathematics, he was appointed by the Faculty, assistant to the Professor of Mathematics and he discharged the duties of this position in a manner that was entirely satisfactory to the College authorities

(Signed)	J.A. Kern, Vice Pres. and Prof. of Moral Philosophy
	Wm. A. Shepard, Chem. and Geology Prof.
	R. E. Blackwell, Prof. Eng & French
	R. B. Smithey, Prof. of Math.
	Richard M. Smith, Prof. of Greek & German
	John L. Buchanan, Prof. of Latin
	A. C. Wightman, Adj. Prof. Biology and Physics"

So from this letter, we learn that although we cannot claim Sledd as a mathematical forefather in the sense of having a Ph.D. in mathematics like his predecessor Taliaferro, at least Sledd had taught mathematics ! Next we learn from this personnel file that Sledd took two years of work at Harvard in the Classics. He has recommendation letters from J. B. Greenough, Prof. of Latin [I spent my freshmen year in a dormitory named Greenough Hall!], from John H. White, Dean of the Graduate School and Professor of Greek, and Fredric D. Allen, Professor of Classical Philology. White writes on July 6, 1897 that

"Mr. Sledd has spent nearly two years at this University and has impressed his instructors as a young man of much more than average ability and scholarship. He has excelled in his chosen field – the Classics – and has made distinguished attainments in these studies. In my opinion, he is well qualified for a position as Professor of Greek or Latin in a college"

Following Sledd's studies at Harvard, he spent a year at Vanderbilt, where the Professor of Greek Languages and Literature reveals in his recommendation letter to Bishop Candler that Sledd had been studying Vedic Sanskrit under his direction, continuing work in that area begun at Harvard.

Reverend Candler and the other powers in the selection process were sufficiently impressed that Sledd was appointed as the Professor of Latin at Emory College in 1898. Sledd took up this position in January and boarded at the home of the Candlers. In that way, he met the only daughter of the family, and a year later Sledd married Annie Florence Candler. In so doing, Sledd was marrying into a family that was to have great prominence in Atlanta and Georgia. As Candler, Warren's older brother, had hoped to become a physician, but in the aftermath of the Civil War, higher education for Asa was out of the question. As was apprenticed in his late teens to several doctors in Cartersville, Georgia to learn the pharmacist trade. In July, 1873, when he was twenty-one and finished his apprenticeship. As a Candler traveled by train to Atlanta, and spent the day going round to various pharmacies, searching for employment. Finally, at 9:00 p.m., George Jefferson Howard agreed to employ As on a trial basis, starting immediately, without pay. As a rapidly rose to the position of chief clerk in this drugstore, but then he had to return to Villa Rica, Georgia, where he had been born and raised after the death of his father, to get the farm in a position for sale, and to bring in the crops. At that time, As became responsible for his three younger brothers, Samuel, age 18; Warren, age 16; and John, age 12. All three of these brothers were able to attend Emory in Oxford, Georgia with help from their older brother Asa. Warren became a Methodist minister, as we already know, and in 1888 was appointed President of Emory, while in his early thirties. John became a lawyer, and Samuel remained in Villa Rica where he joined in business and farming with an older brother William. As returned to Howard's drugstore in Atlanta, but two years later at the age of twenty five struck out on his own, forming in 1887 the firm Hallman and Chandler, Wholesale and Retail Druggists. As a also married Lucy Elizabeth Howard in January, 1878, despite her father's opposition; Lucy was even sent away to several colleges to try to get her to forget Asa. Warren had married Sarah Cartwright in November, 1877 and the two couples honeymooned together at the family homestead in Carroll County. Then their mother Martha Candler was settled in Atlanta, and both Asa and Warren and their wives moved in and Asa's first son, Charles Howard Candler, and Warren's only daughter, Annie Florence Candler, were born in this home, which was paid for by the earnings of Asa's pharmacy. We will not dwell on the various business combinations and recombinations that went on during those years, just record that Asa Candler came to own what was really primarily a wholesale pharmacy which supplied three products which he either totally or partially licensed to other retail pharmacists. The first product was Botanic Blood Balm, advertised as B.B.B., which was represented as a blood purifier which would cure skin diseases, rheumatism, catarrh, kidney troubles, and other ailments. The second product manufactured was a popular perfume during those days, Everlasting Cologne. The third product was Coca-Cola. The inventor of this product, Dr. Pemberton, felt that it was a tonic which was intended to be offered to elderly people who tired easily. Now in those days, soda fountains were not open in the winter months by custom; that space would be used during the winter to display other goods for sale. Thus, in its earliest days, Coca-Cola syrup was simply sold to various regional soda fountains, where it would be mixed with soda and dispensed at the drugstore soda fountain during the spring and summer months. Asa Candler had first purchased a 1/3 interest in this unknown elixir, Coca-Cola in April, 1888. By August 30, 1888, Asa had decided to buy out the other owners and become the sole proprietor of Coca-Cola. At the age of 38, Asa in 1890 sold out his entire stock of pharmaceuticals just to concentrate on Coca-cola. In 1892, the Coca-Cola Company was first organized as a Georgia corporation and the title to the recipe for Coca-Cola was transferred to this corporation. The rest is obvious to the modern reader; Coca-Cola was successful beyond Asa's wildest expectations, and he became one of the South's wealthiest self-made millionaire's. His philanthropic and religious activities are well detailed in the biography [3] written by his oldest son, Charles Candler, in 1950. In the meantime, his brother, Reverend Warren Candler, after becoming president of Emory in 1888, subsequently left this position in 1899 after his election as Methodist Bishop of Atlanta at about the age of forty. The Candler brothers Asa and Warren were to join together in many Methodist charitable causes in Atlanta and Georgia, including the relocation of Emory College to Atlanta in 1915 after Vanderbilt University was removed from Methodist control during the 1910's. In this venture, Asa Candler himself donated one million dollars to the capital campaign which brought Emory to Atlanta instead of other competing sites.

Unfortunately for Sledd's career as Professor of Latin at Emory College in Oxford, he wrote an article in 1902 in the *Atlantic Monthly* entitled *The Negro; Another View*, which was considered far too liberal for Atlanta, and he was dismissed. In the unpublished manuscript *Autobiography of a Southern Schoolmaster* [4], Sledd reveals that his two years at Harvard greatly altered his views on the issue of race relations. He was astonished to find black and white students dining in the same restaurants and walking together on the Harvard campus.

It is interesting to see in correspondence from W. W. Carroll, the editor and publisher of *Monticello News* of Monticello, Florida, received after Sledd had been appointed to the Presidency of the University of Florida, that this article had by no means been forgotten.

"

Editor and Proprietor of Monticello, News August 8, 1904

Dr. Andrew Sledd Dear sir,

I have received a request from Mr. C. A. Finley for my editorial endorsement of the choice of yourself as president of the University of Florida. It will give me great pleasure to do what I can for the University and its president provided you will do me the honor to comply with a request which I shall make. Remembering a fuss which was kicked up about an article written by you for a Northern magazine I would be glad if you would kindly mail me a copy of the article referred to or a magazine copy containing same. I read many harsh newspaper comments on this article, and many alleged fragmentary quotations, evidently aiming to fasten on you the charge of being in sympathy with those who would foment ill-feeling between the negroes and whites of the South. As I have never had the opportunity of reading the entire article, I have, of course, never formed any opinion or based any prejudice on the same. I never did nor never will form an opinion on hearing merely one side. I am an Emory graduate, a Delta Tau Delta Club man, and know that the Emory students took no part in the agitation against you. However, there is some prejudice against you in this section owing to newspaper attacks referred to, and your sending me a copy of the article (which I will promptly return if you desire it) will aid me in materially helping the school if the tone of the article is as I have been led to believe it is.

Asking your indulgence for this trespassing on your time and patience and assuring you of my desire to do only what is right and fair, I remain

> Yours very truly, Ed. *Monti. News* W. W. Carroll"

Following Sledd's dismissal from the Professorship of Latin at Emory, Candler helped Sledd complete his graduate studies at Yale, then he obtained a professorship of Greek at Southern College in Greensboro, Alabama, [1]. It is interesting to learn in the Autobiography of a Southern Schoolmaster that Sledd gained great popularity in the North as a result of this article. He was offered the Presidency of Antioch College, which also carried the responsibility of the Professorship of History and Philosophy, but Sledd did not feel qualified in these areas and desired to remain in the South, helping to build up Southern educational institutions. He was also offered an Instructorship in Latin at Stanford, but the salary seemed inadequate to a man with a small family. Sledd felt that offering someone a presidency just on the basis of momentary notoriety such as he had achieved as a result of the appearance of the Atlantic article was the height of cynicism. Based on his educational experiences at Vanderbilt, Emory, and Southern, Sledd wrote the following in his autobiography [4, pp. 55-56]:

"Of course the authorities of denominational schools are apt to let denominational considerations outweigh educational in the choice of their faculty, and it not infrequently happens that positions which call for thorough training and acute and vigorous intellect are given to elderly or unacceptable ministers, particularly because of their prominence and conference relationships; and particularly because such places seem to offer the simplest solution of their maintenance so that the educational college, as such, is in constant danger of becoming educationally bankrupted through its efforts to provide for worn-out ministers, or succor denominational feelings and secure denominational support, but a precisely same condition often prevails in state institutions, and they are regarded as either means for building up either political machines, or hospitals and alms houses for the cure and care of decrepit politicians, and it takes a strong executive in a denominational school to garner this educational pressure in the interest of educational efficiency, but in a state institution to rise above political pressure and defy dominant political forces."

The local powers in Lake City and elsewhere in Florida, were determined to replace the unsuccessful Taliaferro at the end of the academic year 1903–1904 as noted above. In the 1904 Sledd Correspondence in the University Archives, we were even able to find correspondence during the time Sledd was considering whether to accept the presidency of the University of Florida. The Board of Trustees accepted the resignations of President Taliaferro and seven other Professors on June 21, 1904. Earlier in June, when it was already apparent that Taliaferro would probably be dismissed, inquiries were made to Sledd at Southern University as to whether he would be interested in the Presidency of the University of Florida, cf. [5, p. 424]. Sledd even felt out a family acquaintance concerning the Lake City University, [5, p. 424], a Lake City lawyer, L. E. Robertson. Robertson wrote to Sledd on June 6, 1904,

"During its years of existence [the Florida Agricultural College, now renamed the University of Florida], it has had its ups and downs, its seasons of prosperity and adversity. The trouble has been, it seems, to get a proper man at the head of the faculty, and that is the trouble at this time. Considerable money has been spent on the building, grounds, etc., and three years ago our State legislature made appropriations amounting to nearly \$100,000., for the purpose of buildings, purchases of lands, etc. The buildings are in good condition in the main, there having been one building known as Science Hall put upon the grounds since the last mentioned appropriation, costing, it is said in round numbers something like \$60,000. There is a Gymnasium building also, and Mechanic Arts are taught. It is on a safe financial basis, as it is supported by the Legislature, provided it is what it ought to be."

Then Robertson continues on as follows:

"The present President of the faculty [Taliaferro] has held his position for three years, and from the indications now, has been a decided failure."

On July 9, 1904, Dr. T. H. Taliaferro on his way out, sent a letter to Dr. Sledd in care of Bishop Candler, from which we learn that Sledd and Taliaferro have been acquaintances for some time, and, indeed, in the first sentence Taliaferro writes

"... yet in the same spirit that I have taken up the cudgels for you regarding the Emory matter, I am writing you regarding that which will follow [in terms of the politicking over the change in command at the University]."

Taliaferro warns Sledd of the propensity for rumor mongering in Lake City, speaks of how a Colonel Robertson

"went up the road with you to tell you how to run the institution,"

presumably when Sledd was visiting Lake City, warns Sledd about the pressures that will be brought to bear, and gives some frank assessments of current faculty members. So apparently, the above lawyer, Mr. Robertson was one of Taliaferro's enemies. Taliaferro mentions to Sledd, that in the aftermath of Sledd's visit to Lake City,

"... it is stated by some people that now everything will be under Methodist administration and all of the professors Methodists (I remember our conversation on that point.)"

as an example of the gossiping. When we browse through the Sledd Correspondence of 1904, we find judges, ministers, and state politicians writing him urging him to reinstate all of the former faculty. To try to help Sledd, Taliaferro drafted a letter to send out to all of the current students urging them to return the following year and supporting Dr. Sledd as the new President. However, in a letter of July 13, 1904, Sledd responded to Taliaferro that Sledd judged it best not to send out this letter.

"... I regret to have to say that in my judgment such action on your part would be unwise, while I recognize and appreciate your kind intentions in proposing such a course, I am of the opinion that it might rather embarrass than help me in the present situation"

Proctor writes [1, p. 21] that Sledd was given full authority to choose his own faculty and reorganize the curriculum. Sledd writing on July 23, 1904 to a chemist from Decatur, Illinois, who had inquired about a possible Professorship in Chemistry opening up, writes the following about recent events in Lake City: "... Owing to some unpleasantness in the former faculty of this Institution, the Board of Trustees has seen fit to accept the resignations of the President and seven members of the faculty. I have been recently put in the Presidential office and am seeking to make up a faculty for the places vacated by the action of the Board"

A follow-up letter on July 27, 1904, to this same professor reveals the following about the University in Lake City as Sledd found it:

"First, the maximum professor's salary has hitherto been \$1500. I trust to be able to raise that in the course of the next three years to \$1800, but there is no definite yearly increase fixed, in as much as we are largely dependent upon legislative appropriations.

Second, Houses may be rented for approximately \$300 per annum; there is perhaps some little difficulty in finding suitable ones, but I do not surmise that that would be a serious obstacle.

Third, unmarried men pay for rooms and board from \$15 to \$25 per month.

Fourth, our faculty consists of twenty-two. Our enrollment for the past year was 176, male, only.

Fifth, I believe that the enrollment will undergo a rapid and steady increase and that the sentiment of the State will be behind the Institution.

Sixth, we are unable to make any very liberal allowance to the Chemical department, \$500 to \$1000 being the outside limit. The department is, however, very well equipped, occupying conjointly with Physics, the whole of a two story building."

Sledd required all of the faculty not already dismissed by the Board of Trustees to re-apply for their positions, if they wished to be considered for employment under the Sledd Presidency. It is fascinating to see evidence of this unfold in the 1904 correspondence files. Many new applications were also received. These were all acknowledged by Dr. Sledd himself, first working from his father-in-law's domain in Atlanta, then later from Lake City. Applications for the Professorship in Mathematics were even received from as far away as Palo Alto, California.

Here is an example of a letter Sledd wrote in which he was reappointing a former faculty member, Professor A. W. Blair.

Aug. 14, 1904

Prof. A. W. Blair Progress, N.C. My dear Prof. Blair;

"

I take great pleasure in informing you that you have been unanimously re-elected to your old position on the faculty of this Institution, with the title from now on, of Assistant Professor of Chemistry.

I hope that you and yours are enjoying your little vacation and will come back to us refreshed in body and mind, with a brave heart and a good conscience, to do all that is right and best to make this institution what it can and ought, and God helping, must be. Let us pray for His help and guidance and go forward to do the right.

I find myself pretty well worn out and just now suffering with a cold, but I keep going and trust to be alright in a day or two. Remember me kindly to Mrs. Blair and the baby.

Very sincerely yours, President"

A more interesting example of correspondence with a re-appointed faculty member is provided in President Sledd's letter to Professor James Farr, who had been at the Lake City Agricultural Institute since 1901 and had received his Ph.D. from Johns Hopkins. Sledd re-appointed Farr, even though Farr had been one of the Lake City faculty that was dissatisfied with Taliaferro from the outset, and against whom Taliaferro warned Sledd in his cautionary letter cited above. Yet, Proctor [5, p. 420, 422] notes that Farr maintained his neutrality and friendliness toward both Taliaferro and the group of seven faculty members who were also dismissed by the Board of Trustees on June 21, 1904.

Aug. 31, 1904

Dr. Jas. M. Farr Union, S.C.

Dear Dr. Farr;

"

I should have answered yours of the 11 long before this, but have been so busy that it has been impossible for me to do so.

With reference to the English and German work for the coming year, I have not at present any specific suggestions to offer. (And you will let me thank you, in passing, for your great courtesy in giving me such an opportunity. I know that that is the highest compliment an instructor can pay the executive, and I appreciate it in proportion.)

I can give you this much of an idea as to my attitude and wishes in the matter of our curriculum, and this may help you some in the ordering of your work: I think that our literary work has been sacrificed to the scientific and practical, and as far as I am able to form an opinion on the basis of my very limited information, the latter class of studies have been developed out of due proportion to the former. If this view should prove correct, it is my desire to advance our literary work, and particularly English and German [Farr's specialization], certainly to a parity with any other work in this institution, and I am rather inclined to think that the work in these two languages ought to be first and foremost, both in this institution and in any other institution among English speaking people.

With reference to the elocution work, I think, as you suggest, that it would be well for Mr. Wharton to have charge of the preparation of the speeches.

Mr. A. H. Jackson has been awarded a fellowship of \$150 for next year, in accordance with the recommendation of yourself and other members of the faculty, and he will, of course, be expected to do some little work for us, but that can better be arranged when we all get together.

Last, and most imperative, I have to inform you that we are to hold the competitive examination for West Point Cadetship in this Institution, on Wednesday, the seventh of September. A large part of that examination, as you know, falls in your own department. I did not know whether it will be convenient for you to come to Lake City in time for you to give that examination in person or not. If you could do so, I think it would be very well indeed for you to be here. But if it is inconvenient for you to come on such notice (for in fact I overlooked notifying you, as I intended about a week ago) I should be very glad, indeed, to have you make out and send to me by return mail the examination paper that you would like to give and I shall either give it myself or request that some of the Professors who are present do so. That you may know about the type of examination that is given and the subjects that are examined on, I enclose a copy of the official information issued by the War Department on that subject.

Do not feel that it is imperative that you should be here in person to give this examination, and do not put yourself to any serious inconvenience in this matter, but please let me have the examination paper by return mail, if you cannot well be present. In any case, notify me, if you please immediately.

I thank you very much for your kind works and I am anticipating an exceedingly pleasant and profitable season, and look forward with great pleasure to an acquaintanceship and association with yourself, both in our official and in our private relations. I want us to have a tennis club and I want to play tennis with you whenever I get a chance. I am not much of a player, but I can bat the ball about as far as any man I have ever seen. Give my love to Mr. Ferren [a Lake City minister] and tell him that

I preached for him on Sunday and the people were very kind.

Very sincerely yours, President"

We learn from another letter in the Sledd files, that Unites States Senator S. R. Mallory on August 9, 1904, had written to Sledd requesting that the Lake City Institution give these cadetship examinations.

From the viewpoint of our own special interests in the early history of the Department of Mathematics , we find the following correspondence concerning the duties of the Professor of Mathematics.

"

July 23, 1904

Col. Jno. D. Letcher

3804 Second St., Des Moines, Ia.

My dear Sir;

"

Your letter of the 15 to Dr. Taliaferro has been put into my hands. In reply permit me to say that I am informed that the Professor of Mathematics does no teaching below the freshmen class that his only other college duty is to give the elementary instruction in astronomy, laid down in the catalogue. His term of service is nine months, and while the college might request some slight service during the vacation, it would not lay any imperative claim upon your time.

> Yours truly, President"

Unlike the case of the Professorships of Business, Chemistry, and Entomology, we unfortunately did not find extensive correspondence in which our first Professor of Mathematics Karl Schmidt applied or was nominated for a position at the University of Florida. We do find Schmidt mentioned in a letter Dr. Sledd wrote to E. D. Beggs of the Board of Trustees as we will detail below. But even better, perhaps, President Sledd's letter to Schmidt encouraging him to join the faculty and laying out a bit of Sledd's vision for the future has been preserved.

August 18, 1904

Dr. Karl Schmidt Flatt Hill, Lunenburg, Mass. Dear Dr. Schmidt: As I had the pleasure of wiring you, you have been unanimously elected to the Professorship of Mathematics in this Institution, on the terms agreed by us, viz:

\$1200 for the first year and \$1400 for the second year.

Our Institution here is in a transition stage and I look forward to great progress and prosperity during the course of the next few years, if we can be wise and discrete in our conduct of the school. Up to two years ago, the Institution was known as the Florida Agricultural College, when the Legislature changed our name to the University of Florida, with the idea that we should as rapidly as possible develop into an actual university. At present we are a hybrid, part Preparatory school, part college, part technical school and part — a small part — university, and it is our task to make of this hybrid (if you will allow me to mix my figures) a homogeneous and vigorous institution along university lines. Rather a difficult task, as you will perceive. The Legislature, however, is very favorably inclined and I think they will be liberally disposed towards us, and I think they will sustain us in any reasonable and intelligent effort, to cut off as rapidly as we can without bleeding ourselves to death, all of the elementary classes and to encourage and further foster in every sense in our power all the advanced studies. With this end in view, I have selected for our new faculty a group of young men in whose scholarship, character, vigor and enthusiasm I have absolute confidence. You will of course be interested in knowing who they are. Not to go into detail, I may name and describe them thus:

- Professor of Chemistry, Edward R. Flint, B.S. Mass. Agricultural College, Ph.D. Goettingen, M.D. Harvard; 39 years of age.
- Professor of Zoology, E. H. Sellards, M.A. University of Kansas, Ph.D. Yale, about 30 years of age.
- Head of Business Department, E. R. Dickenson, LL.B. University of the South, M. Accts. Washington Business College, Washington, D.C., about 30 years of age.
- Professor of Mechanical Engineering, M. T. Hochstrasser, B.S., M.E., Georgia School of Technology, about 30 years of age.

I am myself, a young man of 34, an M.A. of Harvard and a Ph.D. of Yale.

These are the new members of the Faculty. In addition, we have about a dozen old members still on the force; These, also are mostly young men between 30 and 40 years of age.
It is with this force that we hope and intend to achieve great things for the University of Florida. I know that we shall have your hearty and whole-souled cooperation in every progressive measure.

We are to hold examinations for the cadets in West Point [i.e., applicants to West Point] at this Institution on the seventh of September. If you can possibly do so, I should like very much indeed to have you come down in time to give the examination in Mathematics on that date. If you can get here, any Friday or Saturday before, it would be well, both for this specific purpose and in order that you might become acquainted with the people and the work. I shall have the Auditor send you the first installment of your salary by the first of September. If you would prefer to have that installment a little larger than the average, so as to help you in the long and expensive move, please let me know and I shall take pleasure in having what you desire sent to you. Please inform me immediately if you can be on hand by the time mentioned.

If you wish me to look around for a home for you, please notify me and I shall be glad to do so. Houses are rather scarce in town and it might be well to make an early start in order to get a satisfactory location.

Anticipating an exceedingly pleasant acquaintance and association with you, both personally and professionally, I am.

President"

Copy of the above sent with slight, necessary variations to Profs. Flint, Sellards, Hochstrasser and Dickenson."

Thus from this letter to Schmidt, we see that our observation of such a young looking group of faculty in the early Seminole yearbooks stems from deliberate recruiting policies of Sledd, probably later continued by Murphree. With the low salaries available, Sledd could not afford established mature stars, so he choose instead to recruit promising younger men, cf. [5, p. 425].

Fortunately, although no correspondence from Schmidt to Sledd seems to be available in the Sledd Papers at the University of Florida Archives, Professor Samuel Proctor was able to locate the following correspondence for me at the offices of the Center for Florida Studies at the Florida Museum of Natural History. First, Dr. Schmidt replied to Sledd's telegram informing him of the selection to the Professorship of Mathematics and Astronomy in Lake City as follows:

"President Andrew Sledd,

Dear Sir,

Your telegram informing me of my election to the Professorship of Mathematics and Astronomy at the State University of Florida was received this afternoon. I accept the appointment and enclose the short biography for which you have asked.

> Yours truly, Karl Schmidt

Lunenberg, Mass. Aug. 15, 1904"

Schmidt composed the following informational sketch for Sledd's inclusion in the catalogue:

KARL SCHMIDT, A.M., Ph.D., Professor of Mathematics and Astronomy

Graduate Student at the Universities of Marburg, 1893-94, Berlin, 1894-97; and Marburg, 1897-98, Germany; A.M., Ph.D., University of Marburg 1898; First Assistant in Physics, University of Marburg, 1900-01; Licensed Lecturer, Harvard University, 1901-03; Substitute for Professor of Physics, Bates College, Lewiston, Maine, 1903-04.

Here is Professor Schmidt's reply to Sledd's "vision letter" of August 18, 1904 which we quoted above:

"President Andrew Sledd,

Dear Sir

Your letter was received yesterday; it is full of that spirit of progressiveness for which I hoped. Be assured of my enthusiastic cooperation in your efforts to advance our Institute to a real University.

I shall be at Lake City in time to hold the examination in Mathematics for the cadets in West Point on the seventh of September; I expect tomorrow to receive information in regard to the dates of sailing of the steamers to Jacksonville and will let you know as soon as possible when we expect to arrive in Lake City. It would perhaps be advisable to instruct the Auditor not to send the first installment of my salary, as it would probably not reach me in time. Could you please find a good boarding house (or private family), where I might engage two rooms (connecting or adjacent) and board for myself, wife and Baby until we get settled?

You kindly offered to look around for a home for us; it would be a great accommodation if you could get the refusal of a house, if possible in a good secluded location, containing about seven rooms — besides kitchen, bath, and room for the maid; we expect to have Mrs. Schmidt's mother live with us after we get settled.

Thank you for the pleasure your letter gave me and believe me that I greatly anticipate to meet you and to have a share in the task that you have set yourself.

Sincerely yours, Karl Schmidt

Lunenburg, Mass. Aug. 23, 1904."

"

Since we find so many references to the cadetship examinations in Sledd's correspondence with the old and new faculty, we will not keep the reader in suspense but reveal that in a letter of Sept. 10, 1904 to Senator Mallory, Sledd reported that exactly two Florida young men had shown up to be examined, one from Palatka and one from Key West. Professor Schmidt had indeed arrived in Lake City on time to participate in this procedure, examining the candidates in Arithmetic, Algebra and Geometry. It is amusing to note that one of the candidates received marks of 20%, 0% and 0% in these three subjects from our predecessor Dr. Schmidt. The other applicant at least did better, scoring 80%, 20% and 20%.

From the viewpoint both of our interest in the development of the Mathematics Department, and also as an example of the sorts of pressures that were brought to bear on Sledd in terms of making the new appointments, we now detail the case of the applicancy of William N. Sheats, Superintendent of Public Instruction at the Educational Department of the State of Florida in Tallahassee. Sheats wasted no time contacting every member of the Board of Trustees and other prominent people in the State, and importuning them to flood Sledd with letters favoring his appointment as the new Professor of Mathematics. Apparently, the office of State Superintendent of Public Instruction was an elected position, and Sheats had recently lost a primary election, so that he was seriously looking for another position. Indeed, he had even hoped to become the next President of the University of Florida after it was clear that Taliaferro was on rocky ground, but this was apparently never taken seriously by the Board of Trustees. Already by July 9, 1904, Sheats has written to the Trustees requesting that they support him in finding a position under the new Sledd Presidency. Here is his letter to the Trustee C. A. Carson in Kissimmee.

> Educational Department, State of Florida Office of W. N. Sheats, Superintendent Tallahassee, July 9, 1904.

Hon. C. A. Carson, Kissimmee, Florida.

My dear Sir:-

Yours of July 8th notifying me of the election of Dr. Sledd as President of the University came duly to hand. I notified Mr. Harris [another Trustee] that as I was entirely without a position that I might accept a Professorship in Latin, Greek, or Mathematics, or the Directorship of the [Agricultural Experiment] Station. Would you object to letting me know if all of these positions are filled, or when they will be filled ? Or if you think it would be useless for me to apply for any position in the institution, will you please do me the kindness to say so, in order that I may not waste any time in annoying your Board any further,

> Yours truly, Wm. N. Sheats"

and at the bottom is a handwritten note,

"Dr. Sledd, Please note C. A. Carson".

Sheats did not wait too long to contact Sledd himself, at Bishop Candler's in Atlanta. Sledd was sent the following letter on July 13, 1904. In Appendix D taken from [4], the reader may learn in Sledd's own words how Sledd regarded this inquiry, especially in light of his views quoted above on the use of Southern educational establishments as dumping grounds for elderly clergy or politicians.

"I congratulate you upon your election to the Presidency of our State University. I was an applicant for this position myself, to which I was elected five or six years ago, but found it necessary at that time to decline on account of obligations I was under to those who had supported me for State Superintendent of Public Instruction. As I was defeated in the recent primary by very foul means I was induced to apply for the presidency of the University. I heard today that there were several vacancies in the faculty, and that it was left to you to nominate persons for these vacancies. I wired you this evening that I would like to have the Chair of Mathematics. I now say to you that I believe I could fill acceptably either Mathematics, Latin, Greek, Political Economy, Moral Philosophy; in fact, most any Chair except Natural Sciences. I am also an amateur farmer and could fill, with delight, the Directorship of the Experimental Station. I can produce all of the testimonials you desire from Florida, and again refer you to Bishop Candler and Doctor Dowman, Doctor Dickey, and Robert Park, your State Treasurer, all of whom have some knowledge of my ability and work here in Florida.

I wish to say, with modesty, that I believe I could attract more students to the University than any one man in Florida, and no man can charge that I have ever been disloyal to my ranking officer, or to any trust committed to me.

Trusting that I may have the pleasure of receiving a prompt reply,

I am,

Very truly yours, Wm. N. Sheats"

On July 19, 1904, Sheats wrote to Dr. W. F. Yocum, who had been a Professor at the Lake City Institution, in Monticello, Florida, requesting a recommendation to Sledd for the position.

"I want the professorship in Mathematics in the State University, Dr. Andrew Sledd will be in Lake City Thursday of this week to make nomination of teachers for the several vacancies.

Mathematics was my strong point in College, making 100% on every branch from Arithmetic on through Calculus and Mechanics, since I have been in office I have had no use for my Mathematics beyond Geometry and Trigonometry, am still well up that far, and would soon brush up on the texts beyond.

I believe I can excel nine-tenths of the professors in teaching that subject. My only disadvantage is, that I have not been in the school room for twenty years, but I have been inspecting schools and examining teachers on the Mathematical Course during that entire period.

Will you not write Dr. Sledd in Lake City, endorsing me for the place.

Yours truly,

Wm. N. Sheats"

By July 20, 1904, Trustee C. A. Carson, writing from the State Bank of Kissimmee, where he was President of the Bank, has written Sledd on behalf of Sheats as follows:

"As to Mr. Sheats, I believe he is thoroughly qualified for a chair, and would like to see him have it. He is strong and vigorous, is widely known and would help greatly.

The only question is as to whether it is wise to choose him as he was an applicant for Presidency.

Yours truly, C. A. Carson

Were you a fraternity man if so what."

It is clear that Sledd was less than thrilled with the prospect of having Sheats as Professor of Mathematics, especially in view of Sledd's aspirations for raising the educational standards which are revealed in his later letters to his new faculty, as quoted above in Sledd's letter to Dr. Karl Schmidt. But in any case, Sledd must have asked Sheats to furnish more details about his teaching and other credentials, for on July 20, 1904, Sheats mailed a somewhat plaintive sounding four page letter to Sledd.

"

Tallahassee, July 20 th, 1904

Dr. Andrew Sledd President University Lake City, Florida

My dear Sir:-

Yours of July 14th from Atlanta received.

The time is so short that I hardly know how to get up any testimonials of my teaching ability. In fact, I have been out of that business for twentyfour years, I being called upon to give such things.

As I wrote you, while my preference is Mathematics, I am equally as well up in Latin, or Greek with a little time to brush up in the latter. I have not had the privilege of examining teachers on Greek as I have on Mathematics and Latin. I am well up in Mathematics on Arithmetic, Algebra, Geometry and Trigonometry, but would have to brush up on the subjects beyond. I completed the whole course in Mathematics, and was reputed to be the best natural Mathematician in College, up to my graduation in 1873, after the Civil War.

I have kept up my Latin very well. Dr. Dowman and I both made an average of over 99 % in that subject throughout the College course.

The last year my class studied Greek, Professor Doggett gave me a mark of two full units higher than any one in the class.

I have read Political Economy and Moral Philosophy very carefully several times during the past few years.

It has been so long since I taught regularly that I hardly know where to go to get up testimonials of my teaching ability on either of the subjects mentioned. My inspection of schools and the method of instruction of hundreds of teachers during the past twenty years makes me infinitely a better instructor than if I had been simply practicing my own methods.

I received some very complementary letters with regard to the preparation of pupils on both Latin and Mathematics sent to five different Colleges and Universities during the same year, but I did not keep these, and I do not think a single professor holds the same position now. Of this number of pupils, James A. Brandon went to Vanderbilt University and took the Latin Medal at the close of the first year; Joe Twitty went to Mercer University from me and graduated in two years, sharing First Honor with the son of a professor in the College, who had been educated entirely in that institution; the same year I sent Alice Brimberry and four other girls to Weslevan Female College. Miss Brimberry entered the Senior Class and graduated in one year with the Latin and some other medal. The other girls entered the Junior Class and all stood well. Professor Bizian and Cosby Smith both told me that they were the best prepared girls on Mathematics and Latin that had entered that institution in years. Now, they are both dead, I believe. Miss Brimberry is now Mrs. J. B. Bussey of Cuthbert, Georgia, and will cheerfully tell who prepared her for College, and of the compliments paid on each of the girls on their preparation.

I could continue on this strain and make a long story telling the history of the pupils that I taught. Col. E. P. Cater, who taught with me in the East Florida Seminary, of which he was Principal for twenty six years, is now dead, and I do not know where a single one of the professors who were associated with us is now. You can now see the difficulty of me giving testimonials to my teaching ability, after doing nothing but supervising schools for over twenty years. I can refer you to one hundred successful men and others who went to school to me, but I have not time to get up testimonials from all of these, and I really do not suppose that you want them, but if you will wire Col. A. H. King, of Jacksonville, or Hon. W. R. Thomas, of Gainesville, ¹ old pupils of mine, and they will tell you the kind of teacher I am.

Prof. Tom F. McBeath, of the East Florida Seminary, at present in Orlando, did some Summer School teaching with me since I have been Superintendent, and will cheerfully tell you of my teaching ability.

I do not know what else to do in the short time I have, in fact, it looks hard that one who has devoted thirty-two years to teaching and supervising schools in this State and just across the line at Thomasville,

¹ed., who was the Mayor of Gainesville when the Buckman Act was passed and one of the forces who lobbied for our current institution to be in Gainesville instead of Lake City

Georgia, and who is reputed to have done as much for the educational uplift as I, should now be put to the necessity of getting up testimonials as to what I know, and my teaching ability right here in the State where I have worked so long and am so well known. It is like calling upon Bishop Candler to get up testimonials in Georgia that he has been a successful church worker and a capable minister of the gospel.

I leave the matter in your hands and am willing to furnish any number of testimonials if time be given me.

> Very truly yours, Wm. N. Sheats"

By this time, however, Dr. Sledd is getting a good bundle of recommendation letters for Mr. Sheats, for we find that on July 23, 1904, Sledd sends out over a dozen notes acknowledging receipt of testimonial letters written for Sheats. One letter writer, Howard Key, of the Agricultural Experiment Station sends his letter back to Sheats by mistake, so then on July 30, 1904, Sheats forwards Key's testimonial letter to Sledd appending the following note at the bottom:

"July 30, 1904.

Does it not seem a little hard that one who has given 28 years of his life to educational uplift in his State, and every one, friend and for [sic, foe], admits to his valuable service and ability, has now to beg for something to do for the first time in his life, when not a single damaging charge can be sustained against his character or work as teacher or supervisor ?"

Now Sledd also needs to start dealing with the Board of Trustees in connection with Mr. Sheats' battle to gain the Chair of Mathematics. We find several frank exchanges of correspondence preserved in the Archives. First to Hon. George Wilson, President of the Board of Trustees,

July 27, 1904

Hon. Geo. W. Wilson Jacksonville, Fla.

"

My dear Mr. Wilson:

Yours of the 26 at hand. I shall be very glad to adopt your suggestion and purchase the horse and outfit of Dr. Taliaferro, for the Station, at a total cost, as indicated in my last communication, of Two hundred dollars.

With reference to the application of Mr. Sheats, permit me to say that I have been giving the matter long and serious thought, and while I may say to you, confidentially, that in my judgment, to give him a position on the faculty would be inviting disaster to myself, introducing a constant element of friction and practically tying the hands of the new administration, I nevertheless realize the strength which might be brought to us by his connections with us, and it is there that I find the only ground at all for hesitation in the matter. Dr. Sheat's capacity and qualifications are conspicuously below those of the other applicants for the position, and it is my honest judgment that to put him upon the faculty at this time would be to inject into the Institution, at the very outset of the new administration that political element which we deplore and desire most earnestly to avoid. Neither do I believe that the University of Florida should be used as a means of support for defeated political aspirants or worn-out educators. I have many letters in commendation of Mr. Sheats and I notice that both they and his own letters seem to predicate the existence of some claim that he may have upon us for consideration, due to his long public service. Few, if any, of them could venture to assert that this gentlemen's intellectual qualifications or educational history are in the same class with others who desire the position. The predominant idea seems to be that Mr. Sheats has done something for education in the State, therefore, the State ought to take care of him, and this office of care-taking is supposed to fall logically upon the State University. I need hardly say to you that the recognition of any such policy on the part of the University would be both insane and suicidal. If we are to have a University we must make it along other lines than these. If our so-called University is to be a dumping ground for defeated politicians or worn-out public school men we had as well give up any aspirations for larger present usefulness and a finer future. I do not hesitate to say to you (this whole matter being entirely confidential, of course,) that I believe the department of Mathematics in this Institution would be entirely unsafe in the hands of Mr. Sheats, and that I anticipate further that he would assail the administration with or without excuse whenever and wherever he thought the administration vulnerable or his assault likely to promote his defeated ambition to occupy the Presidential chair. This is a frank assessment of my judgment in the matter. I shall, however, adopt your suggestion and write to the other members of the Board of Trustees, and consider with due care, their views in the premises, but I would still reserve my liberty of action in accordance with our agreement.

> Very sincerely yours, President"

A few days later, Sledd received correspondence from another member of the Board of Trustees, the attorney F. M. Simonton of Tampa concerning the Sheats' case.

"F. M. Simonton
ATTORNEY AND COUNSELOR AT LAW
TAMPA, FLORIDA
Dr. Andrew Sledd, Pres.,
Lake City, Fla.

Personal

July 29, 1904.

My dear Sir:-

I am in receipt of your favor of the 27th inst. in reference to the application of Hon. W. N. Sheats for the Professor of the Chair of Mathematics in the University, and asking my opinion as to his character, ability, and fitness for this place; and I have just wired you as follows:

'Sheats' character and ability excellent. See letter from me this day.'

I have known Mr. Sheats a good many years, and he has been Superintendent of Public Instruction of our State, as you know, for three terms. He is a man of great ability, and of high character and standing. Mr. Sheats' ability readily entitles him to a better position than a professorship. He is a man who is accustomed to lead and control, and I am somewhat apprehensive that he would not relish serving in a subordinate capacity.

He was, as you probably know, an applicant for the Presidency of the University, and was endorsed very strongly by nearly all of the various County Superintendents of our State, as well as practically all of the state officers. There was very strong pressure brought to bear in his behalf on the Board of Trustees; and, being an ambitious man, I do not know whether he would be content to follow while others lead.

These are the facts that I feel you should be fully acquainted with in making your selection. There is no man in the State that I entertain a higher opinion of in educational matters than Mr. Sheats; and it may be that everything would go along smoothly with him.

> Yours very truly, F. M. Simonton"

Next, Sledd received a letter from Trustee E. D. Beggs, an attorney in Pensacola.

"E. D. Beggs ATTORNEY-AT-LAW Pensacola, Fla.

August 1st, 1904.

Dr. Andrew Sledd Lake City, Fla.

My Dear Sir;

Your telegram of the 29th stating that you could not reach Pensacola Sunday was received Saturday morning. I trust, however, that you will soon be able to visit our city and West Florida as I think it would be of particular value to the University in holding old students and inducing new ones to enter there. I was exceedingly sorry not to have been at the meeting of our Board of Trustees when you meet with them and was elected President of the University, but I now desire to extend a hearty welcome to you and to assure you of my earnest support in the work. It will give me great pleasure to meet you and learn of your plans for the institution. It is very gratifying to hear of the encouraging news relating to what you are already doing in this work.

Regarding the application of Hon. W. N. Sheats for appointment to the chair of mathematics I presume you have ere this learned from the other members of the Board, and perhaps others, of his work in this State. I really do not know but little, if anything, of his work as a teacher as he was Superintendent of Public Instruction of Alachua County a number of years, following which he became State Superintendent and has held the position ever since. I feel quite sure he taught in his own county before becoming county superintendent, and I presume was successful. I understand he is an A. M. of Emory College and if so, that coupled with his experience since attaining the degree, should qualify him for the position. He is a strong personality and has undoubtedly materially improved and advanced the educational system of State, but his methods have at times evoked strong criticism and aroused antagonisms. The recent contest between him and his successful opponent for re-election to his present position was very bitter. Having been engaged for so long in executive work the question is whether or not he would readily and easily be adaptable to a professorship with all that implies of routine class-room work and subordinated in matters of administration. These were the things that I would have desired to discuss with you had you come to Pensacola at this time but owing to the delaying of your visit thought it best to write you. As you doubtless know he was strongly urged by his friends for the presidency of the University before your election. Summing up the matter, however, I will state that if you should decide to recommend his appointment I for one will be pleased to endorse it.

With kind regards and hoping I shall have the pleasure of soon seeing you believe me to be

Sincerely yours, E.D. Beggs"

This letter of Beggs' drew the following response from Sledd on August 3, 1904, most fully explaining his decision to select Dr. Schmidt over the Honorable William Sheats and also providing us with our second mention of who was to be our first Professor of Mathematics in Gainesville, the same Dr. Karl Schmidt.

"... One difficulty, however, I perceive that you are not aware of: that I will state to you as a matter of personal confidence. It is this. Prof. Sheats did not hesitate to inform me in a personal conversation that he acknowledged himself incompetent to teach the Calculus, which is the junior work in mathematics at this Institute. I may add that I entertain doubts of his competency to teach sophomore math as he has not had to do with the conic sections for a number of years; but you will see at once that a man who acknowledges himself incompetent to teach the junior mathematics is certainly not qualified for the position of Professor in this Institution

These facts have decided me not to recommend Mr. Sheat's nomination, but I am recommending instead of him a young man who is an A. M. of Harvard University, a Ph.D. of Marburg, Germany and who has a most brilliant record as a student and a teacher and an absolutely, unimpeachable moral character. There is in fact, no possibility of comparison between himself and Mr. Sheats"

In a letter written August 6, 1904, Trustee Beggs concurs with Sledd's decision

"I note what you say in reference to Mr. Sheats and the chair of mathematics, and also of the gentleman whom you have decided to recommend, and am sure you have done the best thing in taking the action you have"

On August 5, 1904, Dr. Sledd sends out the following letter to all the unsuccessful applicants (with appropriate name changes):

Lake City, Fla. Aug. 5, 1904.

Hon. W. M. Sheats, Tallahassee, Fla.

Dear Sir:

"

I regret exceedingly to have to inform you that after long and careful consideration of the case in all its bearing I do not think that it would be advisable for me to present your name to the Board of Trustees for election to the professorship of Mathematics in this institution. We are returning your papers.

Very truly yours,

President"

Then we have the final letter in the folder of correspondence with Sheats, his reply to Sledd's letter of August 5, 1904.

Tallahassee, Aug. 10, 1904.

Dr. Andrew Sledd,

Lake City, Florida.

My dear Sir:-

"

Your very kind letter of August 5th, informing me of your regrets that you did not deem it advisable after long and careful consideration to present my name to the Board of Trustees for election to the principalship in Mathematics in the Florida University, is received.

I knew very well from the time I saw the first line from you that I would not receive the appointment, and I regret that my friends kept annoying you about the matter.

I do not think it out of place to make the following request: I will thank you to furnish me all the letters of endorsement written you in my behalf. I do not think they can be of any service to you or that you care to keep them. I will cheerfully pay the cost of transmission. They may serve me as testimonials in the future.

I do not make it as a request but I will be very grateful to you, if you will let me know of the persons and their chief arguments against me which prevented my appointment, after the very liberal endorsement, I hear, from prominent educators and individuals in and out of the State. You know it is a great help to a man to know his enemies and their means of attack. If you will do me this kindness, I assure you that no one but myself shall know that you have been so generous to me.

Yours truly, Wm. N Sheats,

Dict. WNS/MVV."

Before we leave William Sheats, let us offer up a little bit of earlier Gainesville history in which Sheats played a role and which shows him in a kinder light. Now Sheats was in Gainesville, first as a Professor at the East Florida Seminary, as we have learnt from the above correspondence, then as Superintendent of Public Instruction for Alachua County Schools, prior to his election to the position of State Superintendent of Schools. During his time in Gainesville [6], Sheats was active in the formation of what is now called the First United Methodist Church on Northeast First Street. In 1886, the cornerstone of the Kavanaugh Memorial Church, named to honor the Methodist Bishop Kavanaugh, was laid. Among those active in the building of this church, who play a role in our own narrative, are William Sheats and also several ancestors of Mayor Thomas of Gainesville. The building of this church progressed slowly, as a result of a lack of funds. It was decided that the work would be done as money became available for this purpose. During one week in which funds were not even available for the weekly payroll, the stewards called a meeting to discuss what to do about this situation. This was during the time that Sheats was Superintendent of Public Instruction for Alachua County. When no one else came forward with any suggestions about how to get money for the empty treasury. Sheats rose and announced that he would sell one of his horses to raise some money for construction of this church. With his background of faithful Methodist stewardship, Sheats must have found Sledd's refusal to grant him a position at the Lake City Institute a bitter pill indeed.

(Interestingly enough, we can find on our current campus testimony to Sheat's later electoral success. Nathan P. Bryan Hall, which originally served as the Law School building, was put into service in 1914, being named for the Chairman of the Board of Control during the early years of the Sledd Presidency, whom we will encounter later in this and in subsequent chapters. The usual plaque in the wall reveals that in 1914, P. K. Yonge was Chairman of the Board of Control and the Superintendent of Public Instruction for the state of Florida was none other than W. N. Sheats!)

Sledd received other correspondence from those not appointed to these professorships described above, or from those not re-appointed to their former positions at the Lake City Institute when he informed them that they had not been selected and returned their application materials. In particular, one mathematics instructor, with eight years experience teaching in colleges and high schools, who was a graduate of the University of Virginia, but with only the masters degree, requested that Sledd reconsider his decision and also had the following frank comments about Ph.D. recipients in his own defense:

"... I cannot boast however of holding the degree of Ph.D. of any of our great universities attesting to the holder's ability on theories and technicalities and his unfitness usually on the ordinary duties of the lecture-room. A man educated on the whole curriculum course and especially gifted on one subject is more likely to be more successful as a teacher than a one-sided educated man."

Sledd replied to this rather unusual letter with a rather stern tone, informing the writer that such lack of grace on not receiving the position certainly did not help farther advance his case in the slightest degree.

It is also interesting to read the much more extensive correspondence we have between Sledd and the other newly appointed Professors mentioned in the above letter to Schmidt, namely, Professor Sellards, Flint, Dickenson, and Hochstrasser. First, the correspondence with the new Entomologist, Professor Edwin Sellards:

"

Marion, Kansas August 4, 1904

President Andrew Sledd Lake City, Florida

Dear sir: -

Your telegram stating that you have nominated me received this morning. Kindly write me when the election is confirmed. I will plan to come to the University one of two weeks before the beginning of the classwork in time to get the Department in order. Any catalogue or other general information that can be forwarded to me will be appreciated.

Thanking you for the nomination and anticipating pleasant associations,

Very truly yours, E. H. Sellards"

Sledd replied,

"

Aug. 9, 1904

Dr. E. H. Sellards Lawrence, Kansas Dear Dr. Sellards: I am in receipt of yours of the 4. I have already heard from three members of the Board of Trustees who vote for confirmation of the nomination for the Professorship of Entomology in this institution. I have no doubt that the other members will concur in this action. Just as soon as I know finally I will notify you. Meanwhile, I am sending you under separate cover a copy of our catalogue, from which you will get some idea of the work that has hitherto been done in your department. Let me call your attention especially to the fact that economic entomology must be strongly emphasized, as we are frequently called upon to consider and decide practical entomology questions for the fruit growers of the State. May I venture to suggest that if your reading has not been especially along this line, you would devote particular attention to it between now and the opening of the term.

I should be glad for you to be on hand by the first of September, in case, as I confidentially expect, your nomination shall be finally confirmed by our Board. I join you in anticipation of pleasant association and work together

Yours very sincerely,"

and this drew the following response from Sellards:

Lawrence, Kansas Aug. 22, 1904

President Andrew Sledd University of Florida Lake City, Florida

Dear President Sledd:

"

Your letter of August 18th received this morning. I am most pleased at the encouraging outlook for the new university. You may certainly count on my earnest cooperation in every advance. I am delighted to learn that so much energy is being put into the organization of the institution. You may expect me at Lake City during the first week of September. The regular installment of my salary will be sufficient. I greatly appreciate your sending it as well as your offer to make it larger than the average if necessary. Anything you find it convenient to do towards finding a location for me will greatly assist me in getting quickly settled. I am unmarried and shall not be difficult to satisfy. My first preference would be for (furnished) rooms at a moderate distance from the University, and if possible not too much isolated from other members of the faculty.

Very sincerely yours, E. H. Sellards"

The correspondence preserved between Sledd and Flint comes at a later point in time in the hiring process. From what has already been read, it should be selfevident that President Sledd would be busily preparing a new catalogue to showcase the Institution as he wished to mold it and reflecting the new faculty hires. Evidently, he sent Flint an urgent message for some data along those lines, for the first item preserved is a telegraph sent on August 8, 1904 briefly giving Flint's degrees and church affiliation. Perhaps we should not lay the full responsibility for the query about church membership on Sledd's shoulders, for in reading correspondence between Sledd and individual members of the Board of Trustees, we find that the banker, C. A. Carson, writing from the State Bank of Kissimmee to Sledd on August 5, 1904 among other matters informs Sledd that he would like Sledd to send him the

"church relationships of all of these gentlemen"

which Sledd had appointed as the new professorial staff.

From the following correspondence, one might almost wonder if Flint stopped being an academic chemist and attended Harvard Medical School because of low academic salaries in the 1890's.

Salem Aug. 25 '04

President Andrew Sledd Lake City, Fla.

"

Yours of the 18th received and read with much interest, and I assure you that it will give me great pleasure to cooperate with you in every way possible in the interest of the University, and I feel sure that any connection there will be a very pleasant one.

I note your kind offer to sent my first installment of my salary, and I shall start on the first boat down from New York, after its receipt, arriving in five or six days after. I think the regular amount will be sufficient.

As my family may remain up here for three or four weeks, I think I will wait a short time before I engage a house.

With many thanks for your kindness, Sincerely yours Edw. R. Flint"

This letter is followed in the archival material with the vita that Flint himself wrote for Sledd's use:

"Edward R. Flint

Born in Boston, Mass. in 1864. Attended the public schools of Boston, graduating from the English High School in 1882. The same year, entered the Mass. Agricultural College, at Amherst. Graduated from there in 1887 with degree of B.S.. Served as assistant chemist at the Mass. State Agricultural Experiment station for three years. In 1896, went abroad and attended the University of Gottingen, Germany, for two years, receiving the Ph.D.. On returning to this country in 1893, opened an office in Boston as an analytical Chemist for one year, and then accepted the position of Assistant Professor of Chemistry at the Mass. Agricultural College, remaining there six years. Resigned that position to enter Harvard Medical School and studied there for four years, receiving the degree of M.D. in 1903. Has since been one year in medical practice."

The next Flint document concerns correspondence with the Internal Revenue Service concerning the question of how to actually go about obtaining some alcohol for use in the laboratory work. Then finally, we find a handwritten memo on departmental stationary concerning the job performance of one of the three staff members in Flint's department at the time.

"Department of Chemistry E. R. Flint, Chemist A. W. Blair Robt. A. Lichtenthaeler Assistant Chemists

Lake City, Fla.

Nov. 29 '04

Pres't Andrew Sledd

Dear Sir:-

I regret to have to report that Mr. R. A. Lichtenthaeler is not prompt and regular in regard to his time, in the station laboratory, and that he is not accomplishing the amount of work that should be reasonably expected of him.

> Respectfully, Edw. R. Flint"

THE UNIVERSITY OF FLORIDA

Agricultural Experiment Station

It is amusing to see that Flint's M.D. from Harvard was put to good use in his position as Professor of Chemistry, for Sledd was able to write to parents encouraging them to entrust their sons to him, as in this letter of September 1, 1994: "... In addition to this, I have a regular physician placed on the faculty as Professor of Chemistry, and I propose to have a regular medical inspection and to pay the most careful attention to the health of the students, so that any case of sickness may be taken and treated in its earliest stages before it becomes severe"

However, when we read about all the diseases which swept through the Lake City University during the 1903–1904 academic year in Taliaferro's yearly report, we can better appreciate the urgency of the question as to whether the University should employ an on-site physician.

The next series of correspondence over a new appointment at the University which we found, occurred between Dr. Sledd and Edwin Dickenson. In the case of this appointment, correspondence has also survived in which the Tampa member of the Board of Trustees, F. M. Simonton, draws Dickenson to Sledd's attention.

"F. M. Simonton Attorney and Counselor-at-Law July 11, 1904 Tampa

Dr. Andrew Sledd c/o Bishop Candler Atlanta Ga.

My dear Sir;-

I am very glad you have been selected as President of the University of Florida. I sent Senator Carson [a Board member] some testimonials a few days ago on behalf of Prof. E. R. Dickinson [sic.]. I will say that I have known Prof. Dickinson since he was a boy; he formerly lived in Marion County near where Hon. George W. Wilson [President of the Board] and myself both resided; he is also well acquainted with Hon. F. E. Harris [another Board member]. Prof. Dickinson is a young man of marked ability, and if you select him as one of your faculty I believe he will be of good service to the Institution.

> Very truly yours, F. M. Simonton"

Then followed a series of letters between Dickenson and Sledd.

Atlanta, Ga. July 18, 1904

39

"

Prof. E. R. Dickenson Winter Park, Fla

My dear Sir,-

Mrs. M. C. Vickers has just suggested your name to me as a good man for our Business Department in the University of Florida. I write to suggest that you inform Mrs. Vickers that you were already in correspondence with me prior to any action on her part. If you do not do this she might, in case of your election, claim her full commission.

You must not regard this letter as committing me to your nomination even by the remotest implication. I emphatically disavow any such inference. I do not commit myself: but, in case you should be elected, I should like to save you this expense—

> Very truly yours, Andrew Sledd Pres.

P. S.— Are you a church member? "

A week later, Sledd sent the following letter to Professor Dickenson.

"

July 25, 1904

Prof. E. R. Dickenson Bradenton, Fla.

My dear Sir:

I am in receipt of your letter of July 25, and in reply permit me to say that I have given your application careful consideration and am so favorably impressed that there is but one thing that keeps me from tendering the position at once. You may be aware that the former incumbent is applying for a reinstatement. I must investigate his case and claim a little more closely before I can speak definitely as to whether I tender the position to him or to yourself. You will perceive that the situation is so far narrowed down that it is only a question between yourself and the former incumbent. Under the circumstances I think it would be wise for you, and that it is not a presumption on my part for me to request you to wait until Saturday of this week or Monday of next week to hear my final decision in this case.

> Very truly yours, President

P. S. – Please inform me by wire what is the lowest salary you would accept for the first year's service, with an increase a subsequent year, in case of satisfactory work."

Finally, we have a letter from Dickenson to Sledd in this exchange of correspondence. Apparently, Dickenson had accepted the position, and as with Flint, Sledd had requested some biographical details in order to aid in his preparing the new catalogue.

"Rollins College Business School Edwin R. Dickenson, LL.B., M. Accts., Director

Tampa, Fla. Aug. 20, 1904

Dr. Andrew Sledd Lake City, Fla.

Dear sir;

Your telegram to me at Palmetto was sent to Bradenton and Manatee and afterward forwarded to me here; hence the delay in replying. If you have further cause to write to me before the opening of the college term, address me here. Please send me several catalogues of the college.

A brief biography of my life is as follows.

I am a native Floridian. My early education was obtained from private tutors, until the age or 14, when I attended Florida Conference College at Leesburg, entering the Freshmen class. I attended the Florida State Agricultural College, now the University of Florida, in 1898–1899.

I attended the University of the South, Suwanee, Tenn in 1901–03, graduating with degree LL.B.

I have two diplomas from the Tampa Business College, and two from the National Commercial Institute, Washington, D.C., the last two conferring respectively the degrees B. Accts. and M. Accts.

I held the chair of mathematics in the Tampa High School 1901-02, and have been Director of the Business School of Rollins College, and Professor of Commercial, Constitutional, and International Law in the same institution, until the present time, resigning to accept the proffered chair in the University of Florida. ..."

Then Dickenson sends Sledd a follow-up note on a colorful letter head of a Tampa cigar factory.

"

Leonard & Co., Manufacturers of Clear Havana Cigars Factory No. 194 14

1401 Marion Street

Dr. Andrew Sledd

Lake City, Fla.

Dear Dr. Sledd;

Your kind letter was forwarded to me here. My home is in Tampa, not Bradenton.

My business connections give me peculiar advantage in securing positions for the commercial graduates I turn out — I am a member of a Tampa corporation in addition to my interest in this factory — but constitute a drain on my time as well.

Therefore, I think it will be impossible for me to come to Lake City as early as you suggest; but I will certainly be in attendance a few days before the University opens.

I heartily concur in the opinion that we should curtail the elementary work, and enhance the value of the institution along university lines. In addition to the Business Department in Rollins College, I held the chairs of Commercial, Constitutional, and International Law. I should be glad to see instituted in the University a similar course of study, believing it would be an excellent stepping stone to the full Law Department which I hope to see in the near future.

I would be greatly pleased if you would make a visit to Tampa before the University opens. We should have a great many students from here.

If you can come down, I will arrange with Brother Thrower for you to preach in the First Methodist church, as an introduction to our people. Of course, if you come you will be my guest during your stay in the city.

I will be obliged if you will have the Auditor send me \$150.00 on the first of September.

Thanking you for your cordial assurances, and anticipating an exceedingly pleasant year, I remain

> Very sincerely yours, E. R. Dickenson

Dic. to C. F."

Unfortunately, by this time, Dr. Sledd was apparently getting bogged down enough in administrative details that he felt unable to do any preaching outside of Lake City.

"

Aug. 24. 1904

Prof. E. R. Dickenson Tampa, Fla. I find yours of the 20 awaiting me on my return to this office and thank you for the same.

I have not been able to satisfactorily fill the position of Instructor in Shorthand and Typewriting in your department. If you know of any good man, or have any friend with whom you have worked and whom you would like to have in the place, I should be very glad to have his name and address and a little account of his work, at the earliest possible moment. The place pays only six hundred dollars.

I should be very glad indeed if you will do what you can between now and the opening to get us students. I had hoped to be able to come down to Tampa, Punta Gorda, Key West, and soon, but find myself so crowded with office work that I do not think that I shall be able to do so. I should be very glad indeed if you would do a little canvassing in our interest in that section of the State. We will, of course, pay all your expenses and you can attach your expense account to a sight draft on us at any time you see fit.

I look forward to a very pleasant and profitable year, and anticipate great pleasure in your acquaintance and association with us.

Very sincerely yours,"

Apparently, filling the position of the instructor of stenography and typewriting had indeed been giving Sledd trouble, because we find the following written to Robert McCay of Chicago, Illinois earlier on August 11, 1904.

"

Aug. 11, 1904

Mr. Robert McCay 269 N. 55 St., Chicago, Ill.

Dear Sir:

In reply to your letter of the 8 I have filled out and returned a notice of a vacancy in this institution. As you see, we desire a teacher of Stenography and Typewriting. We prefer a young man of about 30 years of age and a Baptist. Salary \$600 for nine months. Living expenses may be kept quite low. Please send by return mail, if possible, the names of one or two men you think would suit this place.

Very truly yours, President" So here is concrete evidence that Sledd was not going to appoint all Methodists as had been rumored by the gossips of Lake City.

Finally, Sledd writes Dickenson about his arrival in Lake City.

"

Aug. 26, 1904

Prof. E. R. Dickenson Tampa, Fla.

Dear Prof. Dickenson:

Yours of the 23 at hand. It will be quite agreeable for you to come to Lake City for five or ten days before the opening of school. I shall take pleasure in instructing the Auditor to send you \$150 on the first of September.

It was my intention, when I nominated you for your present position, to suggest that you should formulate and offer such a course in law as you have indicated to me. I do not know whether it would be possible to offer that course the present year or not, but if it be found possible I am very anxious to have it done, and wish it to be made a regular part of our work from now on. I also had in view in nominating you the further development of that line of work, as I see you have already surmised. I should be pleased to speak to you more fully about that when you reach Lake City.

I thank you for your kind invitation to come to Tampa. I am afraid, however, that it will not be possible to do so, owing to the great amount of work I have on hand just before the opening. If I find that I can come I shall be delighted to stay with you and shall give you due notice in advance.

> Very sincerely yours, President"

A last series of letters between Sledd and one of his new faculty members is with Hochstrasser. This correspondence is more concerned with curricular matters.

> 87 Merrits Avenue Atlanta Ga. July 30, 1904

Dr. Andrew Sledd Lake City, Fla. Dear sir;

"

I was not at home when your telegram arrived. That was the cause of the delay in answering the same and my reason for saying that I would write.

Supposing my application has been considered favorably, I ask for the following information. The date of the opening of the school, the titles of all books used in the M.E. and drawing courses, and whether or not Calculus is finished in the Junior year.

Would like to know what latitude I would be allowed in laying out the course.

Very truly yours, M. T. Hochstrasser"

Sledd sent the following reply:

"

Aug. 1, 1904

Mr. M. T. Hochstrasser

87 Merrits Avenue, Atlanta, Ga.

My dear Sir:

I am in receipt of yours of the 30, inst. In reply permit me to say that I expect to put your name in nomination before our Board and have no doubt that that nomination will be endorsed by them. As to your questions:

First, the entrance examinations take place on the 20th of September, but in case, as I expect, your nomination is confirmed by the Board it would be desirable for you to be on hand at sometime during the first week of the month.

Second, as to the books taught in your course, you will find them mentioned on page 80, following, in our catalogue, a copy of which I am sending you under separate cover.

Third, my information is that no mathematical instruction is given by the professor of Mechanical Engineering and that Calculus, according to our information, is finished during the junior year.

Fourth, with reference to the latitude allowed you in laying out and controlling your course, I may say that this year, if your work is successful, that matter will be entirely in your hands. For the present year, you will of course, be in control but will necessarily be somewhat limited by the situation, as you will find it, for the preceding work done by the students and the work laid out would be necessary to round out a course which they have already had. Aside from the determination of the course, it is both now and in the future a matter for your own best judgment.

> Very sincerely yours, President"

With Hochstrasser as with the others, Sledd requested biographical information as he was drawing up his new catalogue:

"

87 Merrits Avenue Atlanta Ga., Aug. 18th 1904

Dr. Andrew Sledd Lake City, Fla.

Dear sir;

Your telegram received. You requested a short biography for the catalogue. Would suggest the following:

Bachelor of Science in Mechanical Engineering, Georgia School of Technology, 1902; Adjunct Professor of Mathematics, G. S. T., 1902–1903; Drawing and Construction Work, 1903–1904.

In the 1902–1903 catalogue of the G. S. T., my name appears in the list of the faculty as follows. M. T. Hochstrasser, M. E., Adjunct Professor of Mathematics.

I would appreciate it if you would send me the following books, as I would like to look over them.

Elementary Mechanics, Stahl + Wood.

Graphical Statistics, Herman + Smith.

Applied Mechanics, Church.

You can send them by Express at my expense.

Very truly yours, M. T. Hochstrasser"

Thus, also Hochstrasser had had a position within a Mathematics Department. By this time, Hochstrasser had received the *recruitment letter* sent out to all the new faculty and replied as follows:

> 87 Merrits Avenue Atlanta, Ga., Aug 23, 1904

Dr. Andrew Sledd Lake City, Fla. Dear sir;

"

Your favor of Aug. 19th received. I would like for you to make the first installment of my salary, one hundred dollars (\$100.00).

I thank you very much for your offer to look out for a desirable house and would appreciate it if you could find a modest seven room house, in good repair, at reasonable rent.

I can come the first week in September if necessary, but if it is agreeable to you, would prefer not to come until Sept. 9th or 10th.

Very truly yours, M. T. Hochstrasser"

Now we may see how the new Lake City Library mentioned by Taliaferro as being established just the past academic year, in his June 1904 report to the Board of Trustees, fared in terms of Hochstrasser's prior request for the three engineering textbooks.

Aug. 26, 1904

Mr. M. T. Hochstrasser Atlanta, Ga.

"

"

My dear Prof. Hochstrasser:

I have your two letters. In regard to the books you asked for, I have them looked up, but the librarian is not here and we cannot find them. I shall ask the librarian, on his return, and if they can be found here, I shall send them by express immediately. I fancy, however, that you had best order them at once from the publisher.

I shall take pleasure in trying to find a house for you, but cannot give any guarantees as to what I can do, but will do the best I can.

I shall instruct the Auditor to send you \$100 on the first of September. It will be quite satisfactory for you to come on the ninth or tenth of September.

With pleasant anticipating of association with yourself, I am,

Very sincerely yours, President"

The final letter in this series of correspondence with Hochstrasser was the following:

87 Merrits Ave, Atlanta Ga., Aug. 28th, 1904 Dr. Andrew Sledd Lake City

Dear Sir,

Your favor of Aug., 26th received. I know it is unsatisfactory business to attempt to find a house for any one, and if you can find a place for us to store our furniture my mother will come down, when I do, and look for a house, but if you find a nice house and can get the refusal of it until we arrive, would like very much for you to do so. Thanking you for your kindness, I remain

> Very truly yours, M. T. Hochstrasser"

During this period Sledd was busy with his recruitment and reorganizing the curriculum. During July and August, Mrs. Sledd and their children remained in Atlanta with the Candlers. Several letters from Mrs. Sledd to her husband are preserved in the Sledd Correspondence of 1904, including this paragraph from a letter of July 30, 1904:

"However you are constantly in my thoughts & prayers. I pray to God daily to direct you in selecting your faculty & in all your work & to give you health & to keep your soul good & strong & true....

> Your own 'Little Wife' "

We also found a letter which Sledd wrote to his father-in-law on the difficulties of selecting a faculty and also asking for his help with student recruitment in Cuba. (The 1900 yearbook of the Lake City Agricultural Institute shows that one of the 16 members of the freshman class, Albert Bartlett, was from Cuba.) After discovering all of the correspondence concerning Prof. Sheats, we can certainly understand why Sledd would write that the

"faculty matter is the main source of my present perplexity"

in his letter to Bishop Candler.

"

July 25, 1904

Bishop W. A. Candler Atlanta, Ga. My dear Bishop: As you perceive, I am here and hard at work. The faculty matter is the main source of my present perplexity, but I expect to settle that, one way or another by the end of the week, then I expect to set out on my travels and be away from here most of the time until I return for my little family.

Our agent, Mr. Jnc. V. Wideman, is going off to Cuba to canvass [i.e., recruit students] for a while, and I should be exceedingly glad if you would send him three or four letters of introduction to prominent people in Havana or other Cuban towns. Mr. Wideman will be expecting these letters at Miami, Florida. If you can do so, please send them to him at that address by the end of the week. I am very well, and glad to hear, through Florence, that her mother is improved, and trust that the rest of you continue in good health. With love to all,

Affectionately yours"

From this and other correspondence in the Sledd file, we learn that it was common practice for the presidents and faculty to fan out across all nearby regions in late summer and *canvass* for students. A letter to Sledd from a friend at Southern University speaks of various faculty being currently engaged in canvassing. Also, Proctor [5] notes that it was not uncommon for educational institutions in those times to hire an agent to do recruitment work for them. In our own case, Professor Marion, one of the re-appointed members of the Lake City Institution was busy canvassing in Florida and filed this report, concerning competition with Tallahassee, i.e., Florida State College, earlier called the West Florida Seminary.

"

Central Hotel Manatee, Fla. Sept. 14, 1904

Dr. Andrew Sledd Lake City

Dear Dr. Sledd,

Please write M. C. Davis of Braidentown concerning the course in electrical engineering. His son will probably be with us to take that course. Mr. Rowlett and one other young man will start to Lake City Saturday. The Tallahassee people have covered this country like the dew, but I am following with our side of the question, and am doing good.

I hope to reach Lake City Saturday.

Sincerely yours, M. C. Marion"

Apart from learning about our earliest faculty members through their correspondence with President Sledd, it is fascinating to see the range of correspondence that University Presidents were expected to handle in those days. First, we see that President Sledd wanted to get off to an auspicious start in his program to build the quality of the University by setting up an appropriate ceremony to mark the change in administration from Taliaferro to Sledd. Thus Sledd wrote the following letter to the Governor of Florida.

"

Aug. 18, 1904

To His Excellency, The Governor Tallahassee, Fla.

Dear sir;

As you are doubtless aware, I have recently been elected to the Presidency of the University of Florida. It is my desire to have a somewhat formal opening of the Institution at the beginning of the next term, September twenty-first. I wish to prepare a program that shall command attention and respect from the entire State at large, and having prepared such a program I wish to send you a copy of it with a special invitation to be present to every member of the General Assembly of the State, to our leading educators and to other prominent men.

The program that I had projected is as follows:

ept. 23, 1904
Presiding
Address
Gov-Elect N. B. Broward
Address
Hon. F. A. Blount
of the University

Dismissal

for you to take chief place upon this program. Indeed, it seems to me that there is no one else who ought to or could fill your place on the rostrum of our State University. If you will come, I am sure that I personally, and the authorities of the University connectively, and the State at large will be much gratified by your courtesy, and this manifestation of interest in our Institution, and I am sure that the cause of higher education in the State would receive a great upward impetus, both by your presence and by your address. I shall be very glad indeed if you will give me the pleasure of entertaining you at my house during your stay in Lake City, and I assure you that I should deem myself and my home honored by your presence.

It is my intention to collect the addresses delivered on this occasion and print them in pamphlet form for gratuitous distribution. Of course you will notice that with such a program addresses ought to be limited to about twenty minutes, but we shall be glad for you to take as much time as your subject may demand.

Please let me hear from you at your earliest convenience and you will greatly oblige,

Yours respectfully, President"

We do not know exactly who spoke on this occasion, as a letter from a lawyer in Pensacola indicated he could not be present as desired as a result of a court case coming up close to that date, and Governor-elect Broward writing from Jacksonville indicated that he could not be present as previously promised, since he had just received a schedule of conflicting appointments made for him by the State Democratic Executive Committee. Also, writing to Board of Trustee member E. D. Beggs on September 3, 1904, Sledd notes that the Governor Jennings is unable to attend, Broward has a scheduling conflict, Blount thinks he cannot attend, and Dr. Frank Clark of Gainesville is off on a political campaign somewhere up North. Thus

"All of this seems to knock my plans into a cocked hat."

But some faculty correspondence refers appreciably to the quality of this inaugural ceremony for the new administration, so Sledd managed to get some program together for the opening of the new semester.

This is not the last we find of Broward in the Sledd correspondence for 1904. There is a bit of correspondence between Sledd and various Bryans, including W. J. Byran of the law firm of N. P. Bryan & W. J. Bryan of Jacksonville. According to Proctor [1, p. 23], the latter Bryan was not the famous William Jennings Byran, who ran for President of the United States and campaigned for *free silver*, but rather a cousin, William James Bryan. Sledd had met these Bryans through the Candler family, and Bryans were related to Napoleon Broward, just mentioned, as being the governor-elect; also the Bryans had been Broward's campaign managers during the Democratic primary of 1904, cf. [5, p. 471]. Thus it should not come entirely as a surprise to read the following in a letter from William James Bryan to Andrew Sledd on November 12, 1904:

"In pursuance of conversation with you, with reference to recommendations to be made by Governor Broward in his inaugural address in regard to educational matters, I had a conversation with him, in which he said he would be highly pleased for you to make any suggestions that you desire on that subject and submit them in writing and discuss them with him at some date convenient to you both"

On the back of this letter, written in pencil are various ideas pertaining to higher education, which thus might have been Sledd's own reaction to this letter from Bryan. The notes lead off with "New dorms

> New lecture rooms New teachers—state must provide"

and another column includes

"Increased attendance means increased expenses — no tuition — this must be met by State."

A more amusing letter from Byran to Sledd on September 7, 1904 concerns the topic of Sledd's preaching in Jacksonville as a means of getting to know the people of this city better and contains the following frank assessment of the usual quality of preaching in Jacksonville:

"... Answering your favor of the 5 inst. desire to say that I called up Dr. Poage over the telephone as soon as I got your letter, and he informed me that he had written you on yesterday asking you to preach here next Sunday, so I trust you will be able to be here and let the people of Jacksonville hear a good sermon, as they rarely do

.

While I think of it, my father is going to send a younger brother of mine to the University of Florida on your account"

A further instance of Sledd's attention to political matters is revealed by a letter of November 18, 1904, from United States Congressman Robert Davis, in which Davis indicates that Sledd had written him to urge him to support the Adams Bill "To provide for an increased annual appropriation for the Agricultural Experiment Stations."

In 1904, anyone with an interest however casual in the Florida Agricultural Institute, now renamed the University of Florida, felt perfectly free to correspond with the President himself, even in so small a matter as requesting a catalogue. Sledd answers many inquiries in great detail, especially detailed letters from parents concerned about their children's eligibility to study at Lake City, whether appropriate programs exist in Lake City for their children, or even concerned for their children's moral welfare. In addition to answering such letters, President Sledd also wrote letters to parents that had come to his attention, encouraging them to entrust their children to this reconstituted institution. In several of these letters, Sledd advises parents of the best train connections to Lake City, and always ends with a promise to have the prospective student met at the train station and safely taken to the campus.

July 30, 1904

Rev. C. W. Smith Jasper, Fla.

"

Dear Sir and Brother:

Dr. Tompkins informs me that you have a son whom you are thinking of sending to college this fall. May I request that you send him over to me? If you will do so we will do our best in his behalf as to his body his mind and most of all his soul. I may say to you that it is my purpose to do all in my power to inculcate in the students of this Institution, both by precepts and example, the highest sense and most consistent practice of right and truth and honor; that I lay, as the foundation stone of my administration. On it I propose, God helping me, to build a high and righteous education in and for the people of this state.

> Fraternally yours, President"

Perhaps, Sledd felt that there might be a question in some parents minds about sending their sons to the University of Florida in Lake City after the turbulent ending of the Taliaferro Presidency, for Sledd wrote the following on September 13, 1904 to a parent living in Orlando. (Indeed, after reading of the events during that past academic year in [5, Chapt. 16], it would be a matter of great surprise if parents were NOT apprehensive about sending their sons back to Lake City for the 1904–1905 academic year.) "... I am aware that there has prevailed a sentiment throughout portions of the State that we have no government in this institution and that the morals of the students is poor. Mr. Macelroy, I do not know what were the exact conditions prevailing here before I was elected to the Presidency here, and I cannot be responsible for the same, but I wish to assure you that so long as I retain my place it shall be my consistent desire and labor to lift the morals of this institution to the very highest possible place and I should leave nothing undone to make each and every student a better young man, in body, mind and morals. It is my firm belief that our civic institutions rest upon the morals of our people, and I shall insist upon the integrity of our boys and their strict obedience to every injunction of the regulations of this institution and our military will aid me effectively to do so"

In another letter, Sledd comments on the motto he has adopted, basically the same as our current Latin motto for the present University of Florida:

"

Sept. 2. 1904

Hon. P. H. Cason

Tampa, Fla. c/o Tampa Bay Hotel

My dear Sir;

I understand that you had a son in this Institution last year, and I take the liberty of writing and requesting you to send him back to us. You know, of course, that there have been considerable changes in faculty of the institution and its policy and purposes are greatly modified. I am taking the liberty of sending you a copy of our catalogue which will show the new members of the faculty, and I would respectfully call your attention to their history and degrees, as therein outlined. This administration proposes to do the utmost to make men of students of this Institution. To this end, it proposes to regard their bodies in order to forward their development, to keep them sound and to keep them healthy and pure. Their intellects will receive the most careful and efficient training, under instructors whose competency and character cannot be questioned. And we have adopted for our motto,

'Sound morals, the basis of good citizenship',

and it is our intention to surround our students with every strengthening and stimulating moral influence, and both by precept and example fit them for a high and vigorous activity in any department of worthy effort" Apparently, after Sledd had written enough letters to prospective students encouraging them to enroll, while at the same time Sledd was busy hiring faculty and re-organizing the curriculum, he settled on the following paragraph which is repeated with minor variations, in most of Sledd's letters answering prospective students.

"....., I wish to assure you that we shall be very glad to have you with us, and can say with all sincerity, that we shall do all within our power to advance your best interests, mentally, physically, and morally. It shall be our constant endeavor to build up this institution into one of the best in the South, and we expect to constantly labor to that end, and solicit your kind aid in this endeavor."

In several instances, Sledd almost seemed to go far beyond what we would now consider to be the call of duty in answering these inquiry letters. One correspondent describes herself as a *poor qirl* who has been working to save up money to attend an institute of higher learning, and believes that she can just about scrape up \$150 per year, coincidentally enough, the lower cost estimate Sledd uses for the cost of a year's study at the University of Florida when writing to parents or prospective students. She asks Sledd to advise her on what she should do. Sledd responds with a letter of several pages, in which he first informs her that unfortunately, his own institution is no longer admitting women, but then Sledd follows with a listing of colleges and seminaries in Florida, Georgia, South Carolina, and North Carolina which she might consider, and his opinion of each of these institutions. Another student writes from Carnegie, Pennsylvania, worrying about whether the incidental expenses, such as the breakage fee of \$5 per session, payable in advance, will be enough money to cover all possible contingencies that could arise during the academic year. This prospective student is obviously worried about the costs. Sledd replied on August 27, 1904 to this concern as follow:

"Dear sir,

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Yours of the 22 to hand. In reply permit me to say that I think you need not have any uneasiness whatever with reference to incidental expenses attending your residence as a student in this institution.

... it will be of interest to you to know that most of our students are young men here, distinctly poor, or of quite moderate means. It is no giddy whirl of dissipation here, and no very large expenditures on the part of our students. This is rather a democratic community, and no honest, intelligent and diligent student is apt to be embarrassed and will certainly never be ostracized because of limited income. Indeed, some of our leading and most influential students work for the Institution a part of their time in order to help pay their University expenses. You may set your mind at rest as to the idea that we have any rich and snobbish social set. We have not, and further, we do not desire to have them. With us now, and as far as my influence and authority can make it always

'The man is the man, for a' that'

and a good and conscientious student need not through any fear of being snubbed or ostracized by reason of clearly limited means"

While we are on the subject of students, it is amusing to record a description of hazing of one of the freshmen, then called *rats*, which drew forth correspondence between Sledd and Professor Rolfs at the Agricultural Experiment Station in Miami concerning how to handle this incident. The student had sent a letter to his parents about the hazing, who then apparently contacted Rolfs. Notice that this letter is written just a few days after the beginning of the fall semester.

"

Lake City, Fla. Sept. 23, 1904

Dear Momma and Papa,

I intended to write yesterday, but I wanted to find out a few more things first, and when call to quarters came, I had to study, and before I got through studying, a whole crowd of boys from all the classes above the freshmen, came into my room and proceeded to extend the initiation. The night before they made one stand behind a chair and bend over and let them strap me with anything from a razor strap to a belt, and some had sticks. I did not have anything but those linen pants, and it hurt like the mischief. Last night they blindfolded me, and then put indelible ink on my forehead, with a brush they wrote "RAT" on it. I got the most of it off, but the rest of the new boys have not gotten very much of it off. After they did that, they took a pair of scissors and cut four or five chunks of hair out of the middle of the top of my head. There were about 25 or 30 got such treatment. If they come again tonight, I will either go to Prof. Marion, or else knock a couple of them down with a chair. Last night Prof. Wharton was on the porch while it was going on, but he did not want to stop it."

Rolfs reply to Sledd about this matter from Miami on September 27, 1904 was

"The young man feels somewhat hurt in regard to this matter, but I think that it is merely a student's prank and that in the course of another year that young man will enjoy the fun on someone else"
Student complaints about final grades were already going on in 1904. First, Sledd got letters on issues left over from the Taliaferro administration. One student, going off to study at Columbia University in New York, the son of a Dry Goods, Clothing, Notions shop owner in Kissimmee writes to Sledd that en route to New York, he wishes to stop off in Lake City and complain about the grades

"which Taliaferro sent home"

Apparently, this student needed to take a transcript to Columbia University detailing his studies, so we thus obtain a listing of all courses taken by this particular student during the Sessions of 1903, and 1903–1904:

General Chemistry Eng. Literature and Rhetoric First Yr German Second Yr German Solid Geometry College Algebra Plane Trigonometry Analytic Geometry **Elementary Mechanics** Power + P. Transmission Ele. Mechanism **Graphical Statistics** Machine Design Physics: First + Second Semester Debating Mechanical Drawing Pattern Making + Mould Forging + Foundery Chipping + FillingMachine Tool Work **Testing Materials**

Later, Sledd receives a letter from another student bemoaning his mathematics grade of 50% and arguing that this could not possibly be right, since the instructor had made the comment in class toward the end of the semester that only 4 students were passing, and he was one of the four so named, could he come up to Lake City and discuss this matter personally with Sledd.

Of course, the Lake City University was, after all, also an Agricultural Experiment Station, so correspondence from farmers is to be expected. President Sledd received one letter from a southern Georgia farmer who told Sledd that he had heard such wonderful things about the work being done at the Lake City Experiment Station, and that he found the agents in the Georgia Experiment Stations close to his farm not to be very helpful or knowledgeable. This farmer sought advice on train connections from his farm to Lake City to consult with the Experiment Station personnel. Here is a letter Sledd wrote to a Lakeland farmer which I enjoyed reading.

"

Sept. 1, 1904

Mr. W. B. Bonacher Lakeland, Florida

Dear sir;

In reply to yours of the 31. Permit me to say that I take pleasure in referring your letter with a package of grape fruit leaves to our Horticulturalist, with the request that he give you a full and immediate reply. I trust that his reply will reach you promptly and be of service to you. If I can serve you in any way, pray command us.

> Very truly yours, President"

Sledd also had direct correspondence with various suppliers to the University. There were unpaid bills left over from the Taliaferro administration to deal with. He dealt with the Record Co. of St. Augustine in connection with printing up the newly written catalogue and reports of the Agricultural Experiment Station. This correspondence reveals that Professor Sledd himself corrected the proofs for the catalogue and for the publications of the Agricultural Experiment Station. There is correspondence with a supplier of provisions for the dormitories concerning the fairness of a supplemental charge for lard delivery, and on, and on. Bills were all referred to the Auditor for payment, but Sledd himself first received all this correspondence and decided what to do about it, before directing the Auditor to make appropriate disbursements.

From the viewpoint of the historical development of science and engineering on the Gainesville campus during the early years, perhaps the most interesting correspondence in the Sledd materials in the Archives occurs during Sledd's first academic term as President, when he is corresponding with Dr. Robert Benton, who was to become the first Dean of Engineering on the Gainesville campus once that position was established in 1910, and serve until his death in 1930. First, we see Benton mentioned in a letter of recommendation which Sledd received on November 11, 1904 for another candidate for a position, but where Benton was mentioned as follows in the last paragraph: "Dr. J. R. Benton of 1001 M. St., N.W., Washington, D.C., is another strong candidate. He is a graduate of Trinity College and Gottingen Univ., and has taught in Trinity College (Hartford, Conn.) and in Princeton Univ. He also taught a year at Cornell Univ. He is a very strong teacher and a man of splendid character and good personality. I hope you will correspond with him."

We do not have the correspondence from Sledd to Benton, but most interestingly, we do have the following long letter from Benton to Sledd in which Benton gives an outline of his past experiences and candidly speaks to the issue of whether someone with a Ph.D. in physics could be the Head Professor in Engineering.

"

1103–13th St, NW, Washington, D.C. Dec. 4, 1904

Pres. Andrew Sledd, University of Florida Lake City, Fla.

Dear sir;

I have received your letter of Nov. 22, and beg to apologize for the delay in answering it, caused by a short absence from the city. I am very much obliged to your telling me so frankly what the prospects are for the future of the position about which we have been corresponding.

Regarding my fitness for the position, I would say that I believe I am amply equipped with theoretical and book knowledge of Civil Engineering, but I must say quite frankly that my practical experience in engineering work has been rather limited. Also, what is perhaps a more serious objection, I do not have an engineering degree. At the beginning of my career I started out as a physicist, and the particular branch of physics in which I specialized is Applied Mechanics, especially Mechanics of Materials and Hydraulics. These subjects in their various applications form the science of Civil Engineering; on account of my proficiency in them I feel I am well equipped in the theoretical side of Civil Engineering.

The following is an outline of my past history. I am a graduate of Trinity College, having received the degrees of B.S. and B.A. from that institution. After graduation I was employed for a short time in electrical construction work by the Hartford Electric Light Co.; then I took a position as assistant in Physics and Astronomy at Trinity College, which I held for one year. After that I was employed for a short time in structural engineering work with the Carnegie Steel Co. in Pittsburg, Pa. Then I went to the University of Gottingen (Germany), from which I obtained the degree of Ph.D. in Physics. Upon my return to this country I obtained a position to teach Applied Mathematics in the Civil Engineering Course of Princeton University. After that, I taught Physics in Cornell University for one year, but gave up that position on account of the lowness of the salary. After that I was engaged in technical work for a short time, in the laboratory of Thomas A. Edison, and then I came to Washington, where I served as a computer in the United States Naval Observatory for several months, after which I was connected with the Bureau of Standards for one year, until last July 1. At present I am engaged in research work on elasticity and the mechanics of matter, under a grant from the Carnegie Institution. This work is carried out under the Geophysical Laboratory of the Carnegie Institution. My engagement terminates next July. It may happen that the Carnegie Institution will make a further grant to continue the work; but about that I can say nothing as yet. If if fails to do so, my former position at the Bureau of Standards is open to me by promise; but I should much prefer to take such a position as the one with you, for several reasons, one being that I am fond of teaching.

I am twenty-nine years of age, nearly.

Regarding character and general ability, I should prefer not to speak for myself, but to send you some testimonials, in case you wish me to do so. I should like also to send reprints of my publications, if agreeable to you.

If, in your opinion, my lack of an engineering degree and limited experience in practical engineering work are counterbalanced by thorough technical knowledge and successful experience in teaching scientific subjects, then I would be glad to be counted a candidate for the position next autumn or summer. If I fail to meet your requirements, then permit me to wish you success in finding just the right man.

> Very respectfully yours, J. R. Benton"

References:

- Proctor, Samuel and Langley, Wright, Gator History: A Pictorial History of the University of Florida, South Star Publishing, Gainesville, Florida, 1986.
- [2] This letter and all subsequent correspondence quoted was obtained from files from

the University Archives, Smathers Library, University of Florida, Gainesville, Florida during May, 1994.

- [3] Candler, Charles Howard, Asa Griggs Candler, Emory University Press, Emory University, Ga., 1950.
- [4] Sledd, Andrew, Autobiography of a Southern Schoolmaster, unpublished manuscript, University of Florida Archives.
- [5] Proctor, Samuel, The University of Florida: Its Early Years, 1853-1906, Dissertation, University of Florida, February, 1958.
- [6] Bloodsworth, Bertha, "That Certain Century: 1886–1986," Florida Living Magazine, December, 1986.

Appendix A

The Normal and Industrial School in St. Petersburg

One of the pleasures of looking through the Sledd correspondence in 1904 is to admire all the fine letterhead used by various correspondents. In particular, the letterhead of the Normal and Industrial School of St. Petersburg, which was to be shortly abolished by the Buckman Act of 1905, sports the following fine description of this institution at the top of the page.

THIS SCHOOL has a Faculty of Twenty-one Teachers, four fine School Buildings, with Modern Equipments, a Normal Department, a High School Department, a Model Graded School, a finely equipped Shop for Manual Training, fine equipment for Teaching Cooking and Sewing, a good Library, a fine Laboratory, a magnificent Gymnasium and Drill Hall, a Physical Culture Department for Young Ladies, a Cadet Company, an excellent School of Music, good Literary Societies, a School Orchestra, and a fine location on the west shore of Tampa Bay, in one of the most progressive and beautiful towns in Florida. A postal card will bring a fine catalogue.

Our Special Six weeks Term for Teachers

Will Open April 10th, 1905

On November 17, 1904, the Principal of this institution wrote the following letter to President Sledd.

"Pres. Andrew Sledd, State University Lake City, Florida.

Dear Sir.-

Your letter of Nov., 2nd has been received, and should have been answered sooner. You are correct in believing that it is my opinion that every school in this State should have its proper place in the great unit scheme. It seems to me that the Academic department of our school here should prepare students for entering the Freshman or Sophomore class of the State University. I will not write you further about this as I suppose I will have the opportunity of seeing you during the South Florida Fair at Tampa or at the meeting of S. E. A. [Southern Educational Association] at Jacksonville, and we can then discuss this matter. I shall be glad to become personally acquainted with you. I thank you for your kind invitation to visit Lake City. We shall be very glad to have you come here at anytime.

If you intend to come to Tampa during the South Florida Fair please let me know the date of your arrival in Tampa and how long you will remain.

> Yours very truly, Jos. E. Gutsinger"

Appendix B

The Board of Trustees in 1904

Here is a list of the members of the Board of Trustees of the University of Florida in Lake City in 1904.

George Wilson, President, attorney Jacksonville

Fred L Stringer, Secretary

C. A. Carson, President of the Bank of Kissimmee Kissimmee

J. R. Parrot, businessman Jacksonville E. D. Beggs, attorney Pensacola
Frank E. Harris, publisher of the Ocala Banner Ocala
F. M. Simonton, attorney

Tampa

It is especially interesting to a Florida history buff to see the name of J. R. Parrot on this Board, because Parrot was a business associate of the legendary Henry Flager. In his association with the Florida East Coast Railroad, Parrot also received correspondence from Sledd about issuing passes for various employees of the University and also of the Agricultural Experiment Station in Lake City, who were required to travel extensively in their jobs. One of the perks of the Presidency of the University of Florida in Lake City was to also receive a permanent pass for travel on the East Coast Railroad.

Appendix C

A Tour of the New Campus in Gainesville in 1906

A graphic description is given of the reaction of our Lake City predecessors, as they toured the construction site of what was to be their new location during the second academic year of our current institution, in Professor Samuel Proctor's dissertation, *The University of Florida: It's Early Years*, 1853–1906, Ph.D. Thesis, University of Florida, February, 1958, pp. 521–522.

"On a Saturday morning early in March, 1906, President Sledd, Vice-President Farr, and a group of the faculty arrived in Gainesville to inspect the campus site and to check construction progress. Enroute to the girl's dormitory at the East Florida Seminary, where a luncheon had been prepared by a group of ladies, the group was intercepted by a boisterous crowd of some two hundred boys, waving banners and shouting,

'We are going to be University boys!'

After luncheon the committee drove out to the campus site. The town practically ended at the Tampa and Jacksonville Railroad tracks. Farr described the approach to the new campus as follows:

'Beyond stretched a rough country road — on each side weedcovered fields, with here and there a Negro hut. About half-way out was a handsome new two-story residence, the home of Congressman Frank Clark Finally we came to the intersection of another road, leading south to Ocala. Before us, bounded by the two roads, stretched a sweep of pine woods, the part nearest to us low and water-covered — a desolate and forbidding scene. Beyond we could see signs of building activity. We drove up and found the foundations and part of the walls of the two dormitories, Thomas and Buckman, growing under the hands of the masons.'

All members of the group, Farr remembered, were depressed with their visit, and several of them wondered whether it would ever be possible to secure the

'large sums necessary to convert this bare spot into a plant commensurate with our ambition for the future great University.'

The committee returned to Lake City

'feeling chilled and discouraged.' "

The quotations in this passage are taken from a book authored by Professor James Farr entitled, *The Making of a University: The Personal Memoirs of one Associated with its Growth*, manuscript, University of Florida Archives.

Appendix D

Autobiography of a Southern Schoolmaster

The University of Florida Archives of the Smathers Library contains a typewritten version of the apparently unpublished autobiography written by Sledd at some time after the passage of the Buckman Act of 1905. Indeed, what we have in our possession in the Archives ends at this point in time. The autobiography first describes Sledd's interesting problems with student discipline in Arkadelphia, Arkansas, while he was working as a teacher and principal to raise funds for his college education. (Sledd states that his father, a Methodist clergymen, was ruined by the Civil War as were many other Southern gentlemen). Then Sledd describes going to Harvard to study the Classics after receiving his undergraduate training and a masters degree from Randolph Macon College in Virginia. He describes how his educational standards and his views on the need to drastically improve Southern standards were formed from his experiences at Harvard and the subsequent contrast in his teaching experiences at Vanderbilt, Emory and Southern, prior to receiving the appointment as the president of the Lake City University in the summer of 1904.

First, we will quote portions of [4, pp. 1, 3, 9-13, 16-24] which graphically reveal the challenges of teaching in the late 1800's.

"As this is to be the autobiography of a Southern schoolmaster it need not be burdened with the story of my childhood; though, certainly, the story of a childhood of a Southerner born just after the Civil War was not wholly without event of interest. Still, for our present purpose, it will be sufficient to say that I was born in Virginia of a good cultured family shortly after the close of the War. My childhood was spent in the shadows that were still darkening our South land after that terrific struggle, and I imbibed all the traditions of an ardent and patriotic Southerner, and grew up in the nurture and admonition of my people. I received my early education under W. Gordon McCobe of Petersburg, Virginia, whom his former students will all remember as a firely unconquored captain in the armies of the lost cause. I later attended Randolph-Macon College at Ashland, Virginia, where the same strongly Southern influences surrounded me in my college career.

As my father was a poor man the consequences of the war came to him, with the majority of other Southerners who had cast their fortunes with the cause of their people, it seemed desirable, as I learned later it was too necessary, that I should break into my college career by engaging in some employment which would enable me to pay the further expenses of my education, and so it came about in 1891 or '92 that I sought a position as professor of the public school in the little Mississippi town of Durant. I was, at that time, in my 21st year, and my only previous experience as a teacher, or, in fact, in any occupation of importance had been as a tutor in Mathematics in the Institution which I was attending.

I had not, up to this time, left Virginia, my native state, nor been separated at any great distance or considerable interval from my family or immediate friends; so that it was with a heavy heart and with many misgivings that I set out for my new, and as it seemed to me, responsible and honorous field of labor. I reached Durant about mid-day and immediately secured a private boarding house, as my meager salary would not justify a long continuance in the single hotel of the town.

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... for a company of my schoolboys who had run my predecessor away in disgrace determined to try a like humorous experiment with the young man from Virginia. Fortunately for me parts of their conversation were overheard by a man in the town who seemed to have taken a fancy for me. and who told me what was brewing. I was frightened because I did not know what I might expect, particularly as my informant assured me with the story of their treatment of my predecessor. I determined immediately, however, to put a bold face upon the matter and to fight for my place; and so I told my friend that if the boys tried anything of that sort I would not be responsible for the consequences. They might very well succeed, but I intended to fight, and somebody would be hurt before they accomplished their purposes. Strangely enough, or perhaps naturally enough, when this information reached the leaders of the school rebellion they decided not to risk a breach, and after I had made good in the boys' estimation in one or two minor engagements I was accepted by the student body and had no further trouble. Compared with my initial experiences the first week of my stay in Mississippi the remainder of my stay there was placid and uneventful. Occasional disturbances and occasional fracases, sometimes a little bloodshed, but all in all the days were fairly peaceful, and their memory is not without its pleasures.

From Mississippi I went to Arkansas to the town of Arkadelphia. The school there had been in a condition bordering on anarchy. Certain of the rougher element had knocked the principal down, and the morale of the school, which had never been of the best, had not recovered from that pugilistic experience. I found fighting one of the chief diversions of the boys, and either side in a physical encounter felt at liberty to reinforce his fists with stones or sticks, and even knives, and sometimes revolvers (though so far as I know, this latter never actually occurred during my regime). The school numbered about 300 students, and had four lady teachers in addition to myself who superintended the work and taught all of the so-called high school classes: and supervised, in a general way, the work of the negro schools of the town. Useless to say, that under such conditions really good work was impossible. It is not uncommon for laymen to accuse your public schools in the South of the grossest inefficiency, and it is certainly true, many, perhaps most of them, fall far short of being what they should be. And when you consider that the average pay of the Southern Schoolmaster is about \$40 a month; and that of the Southern schoolmistresses about \$30 you will not be surprised if no very high grade of talent could be secured at such figures. Indeed, the cause for surprise is rather in the fact that our Southern Schoolteachers are as good as they are, then It makes little difference what sort of man you employ, if having once employed him, whether at \$40 or at \$100 you proceed to give him a continuous series of recitations from eight o'clock in

the morning until noon; and from one o'clock until four in the afternoon. It is hardly possible for flesh and blood to render any creditable service when through six or seven hours of the day the grind of teaching must be endured; adding to this the amount of recitations, the great variety of subjects taught, and the wonder is that the teacher's inefficiency, or rather, that he escapes the insane asylum. Fifteen minutes of spelling, followed by twenty to arithmetic, and twenty to Latin, and twenty to Algebra, and twenty to Physical Geography, and twenty to Sociology, and Botany, and Chemistry, and Physics (save the mark); with a sprinkle of periods for Grammar, Composition and Rhetoric, and perhaps Greek or modern languages, and the only wonder is, as I have said, that the work is as well done as it is

Of course we must recognize that the South is poor; and consequent comparison between her section and wealthier section are even deceptive. It means a great deal more for a people whose average wealth is \$500 per capita to put a dollar in the public schools, than it means for a people whose average wealth if \$1000 per capita

..... Nevertheless we are supposed to maintain a discipline even better than that at home (which, by the way, is not difficult to do in some cases), and it frequently happens that parents send their children to the public school, it was certainly true of my school in Arkansas, either to get them out of the way at home when they are young and troublesome, or because they have gone beyond parental control; and they hope to have them broken in by the discipline of the public school. And when, by the way, a public school teacher fails to break in such a boy, one of his promptest and severest critics is the parent who had already made a failure in discipline in the home. When I took charge of the school in Arkadelphia the first difficulty that presented itself to me was the one of discipline, and I devoted myself to it with enthusiasm. I did not indulge in any pyrotechnics at the opening or set forth any elaborate scheme or rules and regulations, but when the first fight occurred, I gave notice that such conduct would not be permitted. It happened that one of the most pugulistic of my boys was Roy Salter from Illinois, a large strong and boastful youth, but not bad at heart, and by no means dull, as was afterwards developed. Roy had two fights within the first week. After the first I gave him notice that such practices must discontinue; after the second I sought a personal conference with Roy that my notice applied to him as well as to the smaller boys; that it was a notice that should certainly be enforced and I hoped he would give up his battling principles and join me to establish discipline in the school. He thanked me rather impulsively,

shaking hands with me as an evidence of his appreciation and purpose to fall in with my plan. I heard later, however, that he was talking among the boys, particularly among the younger boys who he could impress, to the effect that,

'if that young fellow undertakes to whip me I will knock him in the head with an axe;'

that he would not be whipped by the spectacled upstart from Virginia or anywhere else. Perhaps in pursuance of this belligerent scheme he picked a quarrel and had a severe fight before the close of the first of the week. I was both surprised and angered, as I may be free to say, alarmed. Surprised because I had thought the boy's previous protestations were genuine; angered to be so deceived and treated at naught; alarmed because I knew that such instances not infrequently proved a crisis in the school, – a crisis that might end in victory for the teacher or in humiliating defeat, and personal violence, as in the case of my predecessor; and more as in the case of another teacher a few miles away who had whipped one of his students and had later been shot dead at his desk by the angered boy. And I will say in passing, that my successor in Arkadelphia for the following year is reported to have had an illuminating experience. He whipped one of the students who had also been one of my own, and the next day the student's older brother and father came out with a cow-hide and club to punish him for his presumption, whereupon my successor drew a convenient pistol and shot the belligerent elders full of holes. In the light of these events and my Mississippi experiences it was not unnatural that I should feel some trepidation in the crisis which was presented to me by the defiance of Roy Salter.

The fight took place in the morning. I waited till afternoon to inflict my punishment. As I returned from my dinner I cut a stout cedar switch, purposing to lay on it the burden of my success or failure in the conduct of this school. I then sent for Roy, and invited him into the coal shed where I generally kept an axe, — used for breaking the larger lumps for the stove. We went somewhat sullenly, but without demur.

'Well, Roy,'

I said,

'I understand that you say that if I attempt to whip you, you are going to knock me in the head with an axe. There's your axe.'

'I never said it,'

he replied.

'Well, take off your coat.'

And I thrashed him in a way which seems to me to be almost unmerciful, but from that day forth Roy Salter was my loving and loyal friend; and from that day forth I had, at least, a grip upon the situation in that school.

The fighting problem, however, was not settled so simply. A few days afterwards three boys of a much lower and vicious type than Roy Salter, engaged in altercation which threatened to end in rather serious difficulty. The immediate trouble was between Jake Davis and Bob Saunders, but the larger Davis — the largest and most vicious boy in school — Jake's older brother — was aiding and abetting Jake in the effort to precipitate the difficulty. I told them to wait till after school (which they did) and then called them before me, and said that if the young boys had any just cause for fighting the older Davis boy and myself would act as referees and give them a fair quiet chance to settle the difficulty. This in a measure appealed to their fighting blood, and won me somewhat of their favor. But I said,

'If you have just cause for fighting I must be judge of what is a just cause for fighting, and I will thrash you and any others who break the regulations along this line.'

With that I dismissed them, and they came to terms. It was not to be expected, however, that such boys as the Davis boys then were would be very long out of mischief of one sort or another, and so it happened a few days later that Jake engaged in a fisticuff in apparent indifference to threatened consequences. Jake was a worse boy than Roy Salter; and he and his brother had knocked my predecessor down the year before, so I anticipated difficulty in his punishment. I went down town, therefore, and purchased a small but substantial rawhide, with a girdle for my wrist, so that in case of difficulty I could not easily be disarmed. When I got back to school I sent for Jake and talked to him and told him that I proposed to thrash him.

'Now,'

I said,

'take off your coat.'

He folded his arms across his breast and said

'You can't make me.'

(I may say that I had been playing football upon the college team, and so was not entirely without training and experience in pugulistic encounters). With a quick motion I seized Davis' wrist and twisted it sharply out from his body.

'Do you want me to break your arm?'

'No,'

he said,

'you would not break my arm. You knows that they would make you pay for it if you did that.'

'Well,'

I said, keeping his arm in somewhat painful position, and taking my watch with my other hand.

'I will give you three minutes now, to get off your coat.'

I gave him five, of course; and would have been glad to give him thirty, or any indefinite period, but when the five was up I dropped his arm; tackled him low, and lifted him with my shoulder and threw him on the floor so quickly and suddenly that he had no chance to know what was going on, or to offer any resistance. Then I grabbed him by the collar, and twisting it pulled him to his feet.

'Let me go,'

he said,

'I wants to throw up.'

But I knew I had him, for he was not armed, and I did not propose to let him go until he was throughly submissive. So I hauled him over to the coal box, and told him to go ahead which showed me that he was merely seeking some device to escape my throttling grip upon his collar; and saw also that he was either unarmed or had not the nerve to use his weapons. After a minute or two I let him go, and said

'Will you take off your coat now ?'

And he did with alacrity. I then thrashed him with my rawhide, and sent him home for the balance of the day. Needless to say that I saw visions of all sorts of trouble ahead; and when late that afternoon as I was starting from the school house, Jake's older brother came up in what seemed to me a rather belligerent attitude, and handed me a note. I felt at the very least that that would be notice to leave town at once, or to be shot on sight; and so I was congratulating myself upon the consideration shown me. I tore open the note and read with amazement:

'Dere Sur i am glad you waloped Jake, he neded it and i hop you will do it agin.

Very respectful, B. Davis.'

And so I won the heart of the father, if I cannot say as much for the son, and so escaped what would have been a certain chastisement when some weeks later I did flog both the Davis boys at the same time. It appeared that Jake had played truant, and had presented to his lady teacher an excuse which was manifestly forged; and which later development showed, was forged by Jakes' older brother in a fraternal desire to promote the holy cause of *hooky*. When the lady teacher found out the circumstances and presented the case to me she was in a quiver of excitement and alarm, and exhorted me tearfully

'to be careful and not run any unnecessary risk. They are bad boys.'

she said,

'they will stab you, or like as not they will even kill you.'

On that occasion I took counsel with an older brother who was then a professor in a so called college in the town; and he kindly offered me to send me several steady young men from the college—ostensibly as visitors to the school—at or about the time I proposed to thrash the boys. This offer I sadly declined, my pride would not permit of its acceptance. I did, however, slip into my pocket an old Sharpe *pepper-box* pistol; one of those like Mark Twain describes in *Roughing It*; and I thought with the possibility of a general volley on one pull of the trigger, I might be able to cripple one or both of my perspective assailants, but when I reached the school I gave over that idea, and decided that it was a dangerous thing for me to have a deadly weapon in such an encounter, as I had no desire to seriously injure the boys. So under the guise as a message home I sent one of the young boys back to my rooms with the curious little pepper-box, and then sent for the boys. I may say frankly that I sat upon the edge of my chair some ten or fifteen feet away from them at our interview, as I confidentially expected them to rush upon me; and I proposed to use the chair as a cudgel to break their rush. I talked with them a little about the case; pointed out the seriousness of the offense, and the necessity for punishment; expressing my regret for its necessity, — a regret which was

not altogether ??? or altruistic. I then called on the larger boy to step up and take his trashing. To my surprise he did so; and after the example of his older brother Jake meekly rose and submitted to his chastisement. The elder boy never returned to school—a loss which I did not deeply deplore. But after that I did not have any further trouble in the way of discipline. The school was mine by right of conquest. I knew it; the pupils knew it; the citizens knew it; and I literally enjoyed the reputation of being a holy terror, not only among the boys, but among the elders."

With such experiences under his belt in his early twenties, we can now appreciate how it would have seemed like childs' play by comparison to Sledd in the early years in Gainesville to round up a group of the students in the summer of 1908, and construct a small building for the Electrical Engineering Laboratory with the aid of these volunteers, when State funds were not available for this purpose. After the previous description of his disciplinary experiences in Arkadelphia, Sledd goes on in his autobiography to write about his studies at Harvard and his subsequent teaching experiences at Vanderbilt University and Emory College, his dismissal from Emory following the controversy stirred up by the *Atlantic Monthly* article discussed earlier in this chapter, his work for the Ph.D. in Latin at Yale, then his teaching at Southern College in Alabama, just prior to his taking up the presidency in Lake City.

We will allow Sledd to give his (possibly biased account) of his experiences in Lake City in his own words as written in [4, pp. 123-144]. In this material, we learn that insubordinate faculty were not above endeavoring to thrash college presidents in those times.

"In the spring of 1904 I received a letter from the Vice-President of the Board of Trustees of the University of Florida inquiring whether I would consider a proposition to take charge of that institution. After some further correspondence I presented my record and testimonials to the Board of Trustees and was invited by them to a conference in Jacksonville at which time I was elected to the Presidency of the institution. I found the institution was in a chaotic condition, consequent upon one of its periodic upheavals. The President and six or eight of the members of the faculty had been forced out of office, so that at the time of my election the institution had but a small part of the faculty remaining. It therefore, became one of my first duties to provide men to fill the vacant places, and in, the discharge of this duty I made my first acquaintance with practical difficulties of my new position, and with what after several years of experience seemed to me to be common difficulties in the state of Florida.

I found the financial situation of the institution in a general unsatisfactory condition and particularly I found that it would not permit payment of more than \$1, 200.00 to \$1, 500.00 as maximum salaries for the positions to be filled. This financial limitation did not at that time, however, work any very serious embarrassment, as I found that the Institution and the State were not prepared for men of already established reputations and commanding high salaries, and I knew that I could secure young University men with some experience and first-class training for those salaries as a starter. I, therefore, laid down this principle to guide me in the selection of the new faculty, namely, that I would secure the best men that I could find, both in education and in character, and with some successful experience in teaching for the amount of salary available. I determined further not to be influenced by family or political relationships or affiliations, but to seek purely from the standpoint of education and character, the best fitted for the work in hand.

Judging from my experience on that occasion and since this principle of selection seems to have been a novel one, and not altogether approved in the State, for among the numerous applications which I then received, were not a few whose chief claim to consideration was their connections and their influence in the state, and not their educational qualifications or experience and ability as teachers. One of these cases may serve to illustrate.

It appeared that the Honorable W. N. Sheats, at that time State Superintendent of Public Instruction, had just been defeated in the Democratic primaries to re-election to that office by the Honorable W. M. Holloway, a defeat, it may be said in passing, brought about largely by the malicious and mandatious agitation of the *negro question*, and the usual frantic assertion that Mr. Sheats was unorthodox in this particular. After his defeat for reelection he had been a very active candidate for the presidency of the Institution, and having failed of election to that office now sought a professorship under myself,

After my election it was necessary for me to return to Alabama to make provision for the removal of my goods and to visit my family in Atlanta. While in Atlanta I received the following telegram from Mr. Sheats:

'Desire Professorship of Mathematics in the University, Wire if application is desired.'

It seemed to me that I could not wisely give a categorical answer to this peculiar application, and I therefore wrote Mr. Sheats that if he would file his application and endorsement in due form I should be glad to give it consideration at the proper time. This letter brought a perhaps not unnatural protest, that a man of his years and prominence should be expected to furnish evidence of his fitness for the position which he sought, but unfortunately, though perhaps with a view toward strengthening his chance for the same position, he indicated to me that he was equally competent to fill any chair in the institution

'except Greek and the Natural Sciences.'

After some further correspondence and the receipt by me of many letters in Mr. Sheats' behalf he called on me on one occasion in my office and during the course of the conversation impressed me with his age and with my own efident [sic, evident] youth and inexperience. He further said that he could teach mathematics through plane geometry, and was a graduate of Emory College at some time in the '70's. It seemed to me amazing that a man should venture to apply for a position, and acknowledging at the same time that he could teach no higher that the work of the Freshmen class, and I had the temerity to call his attention to the situation. This naturally further added to my offense, and as he rose to leave he said:

'I do not wish to threaten you, but the new Governor is my friend, and if I don't get a position on this faculty this institution will be without a head.'

'That's all right, Mr. Sheats,'

I replied,

'it is not my business to take care of him, and I do not propose to assume the obligation. I intend to get the very best men I can for this position, and so long as I hold my present place I shall run the institution on that basis.'

As a young man without experience in such a position, and largely ignorant of the game of practical politics, I was both astonished and alarmed at such a threat, and I determined to put myself on record fairly with the new Governor, and to learn, if I could, what was the nature of the position which I had undertaken to fill. I consequently went to Jacksonville and called on Governor N. B. Broward, and told him plainly that I proposed to run the institution as an educational one and not as a political machine; and I wanted to know whether I was to go up against such political bluffs and bultizing or not, and if he wanted to make a political machine of this institution he had better get somebody else to take charge of it; that I could not and would not undertake to administer it in any such way; but that if he wished to make it a purely educational institution I would endeavor to do my best and make it a success. To his credit it should be said that the Governor endorsed my position and said at the conclusion of our interview

'If any place in the state should be free from politics either directly or indirectly, that place should be the state university.'

After this interview I returned to my work with a renewed determination to adhere to my original plans.

In pursuance of this policy I secured six or seven young university men, mostly with their third degree, and in all cases with some experience in college teaching; and with them entered upon the task which still sometimes seems so overwhelmingly discouraging of building a decent institution of a creditably high grade in the State of Florida.

The first step of the work was to make the institution honest and self respecting in its own organization and conduct. To this end three things were immediately necessary: First, the establishment of a reasonably high and rigid curriculum, and the honest enforcement of its requirements; second, the establishment of decency in discipline in the student body; and third, a careful and conscientious administration of the finances of the institution.

In the matter of curriculum it was necessary to reconstruct it from the ground up. The old curriculum had been irregular and unsatisfactory in many particulars; and we decided to make it over according to the average standard of Southern universities. Under the former administration, moreover, the president had taken the liberty of choosing passing grades according to his personal opinion in the matter and without regard to the professors reports; so that students were passed from class to class and grade to grade according to the views and judgment of the president and not according to the educational standards of the various departments. It can easily be seen that this practice would not be without its temptations and possible abuses; so that I found it necessary very strictly to maintain the dignity of the several departments and to emphasize the supremacy of the professors in charge of his particular realm.

In the matter of discipline I found that the race for numbers had led to an overvaluation of the students presence, and a hesitation to administer any discipline which might give offense or cause the voluntary withdrawal, much less such discipline as might request or demand his leaving the institution. Consequently not a few students and patrons of their institution felt that the student was conferring a benefit upon it by his presence there, and that he might do as he pleased in the matter of his work and his behavior; and that the authorities would not venture to jeopardize their interests and the funds of the institution by reducing the number of students through the enforcement of law and order. I did not then realize the force of this situation, but I set out firmly and emphatically to insist upon gentlemanly conduct and fairly decent work upon the part of the students. As a consequence we requested a few to withdraw, and dismissed and expelled not a few others, with the result, of course, at once of reducing our numbers and improving the quality and the tone of those who remained.

I have said that I did not then fully understand the elements in this situation. I realize them better now after three years experience, and it is my opinion that one of the most serious difficulties in the way of honest education in Florida will be found right here. First in the question of politics, second in the question of numbers. The institution has been and is, and perhaps as a state enterprise must in a measure always be, subject to political influences, and the executive who ventures to live independently of that influence, far less to bid it deviance, has a difficult road to traverse, and continually jeopardizes the permanence of his administration. Again the legislature, in whose hands the destiny of the institution lies, measures the success and effectiveness of the institution almost, if not solely, by the number of students enrolled, so that the executive whose hardihood in the enforcement of discipline and the maintenance of standard, reduces those numbers is continually inviting antagonism and possible defeat. It may be that the average legislator can have no other standard by which to measure the status of the institution of learning; it may be that educational honesty and high educational standards are too vague and abstruse for their consideration, and certainly I have found in Florida that the authorities, even the Board of Control ask chiefly WHAT IS THE SIZE OF YOUR ENROLLMENT, and not, WHAT IS THE GRADE AND THOROUGH-NESS OF THE WORK WHICH YOU ARE DOING. This situation has led first to a race for numbers, and as a natural consequence to educational inefficiency and dishonesty, and has in fact put a premium on educational fraud. So that if you should inquire concerning the public institutions of the state you would find that those were held in most esteem which had the largest number of attendants, and that those which in opposing this damaging educational policy reduced the numbers of their students by the maintenance of discipline and of grade, were regarded either as failing or as already failures. I have felt the pressure of this situation ever since I have been in the institution, and under it I have weakened somewhat in my insistence upon a reasonable grade of work for continuance in attendance, — a confession which I make with much humility, though I am

proud still to be able to say that I have not weakened in any particular in my insistence upon the decency of character and behavior in the student body. On the contrary I have expelled during the current year the son of the Congressman from this district, and the brother to a member of the Board of Control, in addition to others of less note and less influence, and I think it quite possible in doing this I have incurred and powerful antagonism. Nevertheless I hold it as a fundamental necessity in such an educational situation as prevails in Florida, especially to maintain a high grade and give no cheap degrees; and to insist upon decency of conduct upon part of the students in the institution.

In the matter of financial situation of the institution I found that most of the funds available were drawn from Federal source, and that during the preceding year and half of my predecessor's administration, a deficiency of about six thousand dollars had been accumulated, and this I undertook to reduce as far as possible during the first year of my administration, and I was able to cut this down by three or four thousand dollars by a rigid economy, amounting almost to niggardliness.

CHAPTER

During the first year of my presidency of the University of Florida there was but one unpleasantness within the faculty that perhaps is worthy of a detailed description. Among the members of the faculty who were not forced out in the presidential disturbance which culminated in the change of administration, was the professor of history, and the head of the Preparatory Department, Professor M. C. Marion. He had received me with the most emphatic and intense protestations of *loyalty to the* administration, and had declared that that was the first principle of his conduct; but it very soon appeared to me that he was without either competence and the character necessary for our work, and I began to feel that the best interests of the institution demanded his resignation. This feeling was brought on and emphasized by various minor matters throughout the year, thus, during the vacation before the opening of the institution a young man had applied to me for a position as assistant in the machine shop, and I had requested him to bring me letters from some of his professors and others who might be able to speak concerning his ability and character and fitness for the work. Among others he presented me one from Professor Marion commending him for the position. I could not, however, offer him the place, and shortly after I had notified him that I could not use him I said to Mr. Marion,

'I am sorry that I could not accept your recommendation in the case of Mr. Kirkland, but I did not feel that he was the right man for the work.'

Whereupon he said to me,

'Is the matter settled ?'

'Yes.'

'Is there no chance of its being reopened.'

Then said he,

'I think you acted very wisely.'

Naturally I could not harmonize his recommending a man with his approval, and on my rejection of that recommendation I could not find in this any evidence of either honest or intelligent loyalty to the administration of the school. When further he threatened to punch the head of a young assistant, and after the opening of the term repeatedly and grossly sought to bully and insult several of his colleagues, I could not but feel that he did not possess those elements of character which would fit him for his work. Added to this there was the growing conviction of his scholastic incompetence, so that by the spring of the year I had concluded that he must be removed. Consequently at the March meeting of the Board of Trustees in Tallahassee I requested his removal at the close of the year, which request was kindly and unanimously approved by the Board. About the middle of April I felt that I should notify Mr. Marion that I did not propose to recommend him, and I consequently wrote him a courteous note to that effect. It was then my privilege to experience his character. He took no notice of my communication, but as I learned afterwards undertook first to start up a division in the faculty against me similar to that which had resulted in the overthrow of the former president, and at the same time began to speak in the most bitter and insulting terms concerning myself, my character and work, both in the town and even in his classroom. He charged me with various deliquencies, and possibly remembering that the negro is the most effective club with which to slay a man in the South, he did so (I am reputably informed) secure several copies of the *Atlantic* Monthly for 1902 containing an article on the negro question which I have alluded to in a previous chapter, and distributed them in the town and discussed the article in his classes with a view to causing my dismissal for supposed heresies upon this question. I knew that something of this sort was going on, but I did not have very or exact information, and in fact

did not seek it, as I was my desire to maintain peace and dignity within the school until his term should naturally expire. Some weeks later, however, I believe in May, Mr. Marion came into my office (I may say that at this time I was crippled with an injured foot) and after closing the door requested permission to leave the institution at once, and not wait until the close of the year. Now it was customary in the United States that when a member of the faculty was requested to withdraw to give him either two months' notice or two months' pay in lieu there of; and when he requested to be relieved it was expected that such request should be given two months in advance, consequently I said to Mr. Marion,

'Under the circumstances, since you request to be relieved, you would not, of course, expect to receive any salary for the remainder of the year.'

'Yes,'

he said,

'that is just what I had expected.'

'Then.'

I replied,

'I refuse your request.'

I saw that he was fast losing control of himself, and he said,

'I have tried to stay on without telling you what I think of you, but —

Where upon I arose and said to him,

'It is a cowardly thing for you to come into this office, knowing that I am a preacher of the gospel and crippled, solely with the idea of insulting me.'

Whereupon he said in great excitement,

'Hit me, hit me.'

'No,'

I replied,

'I do not want to hit you but you must leave the office, and leave at once.'

Whereupon I stepped over to the door, and he stepped to the middle of the room, and said,

'I will leave when I get ready.'

'No,'

I said, as I opened the door,

'you will leave right now.'

After a moment's hesitation he took a head for the door which I held open for him. As he reached the porch he turned and shook his fingers and said,

'You have lied to me, sir.³

Whereupon without anger or malice, but as a preventative measure, and to protect my administration I struck him on the check. He struck back, and we tussled for a moment or two and staggered upon the steps. In the course of thus struggling we fell apart and struck the ground some feet the one from the other. By this time one of the professors and two or three boys came up to interfere. I then returned to my office and Mr. Marion went to his home.

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Shortly thereafter the Board of Trustees held a meeting to investigate the case, and exonerated me fully in the premises, and Mr. Harris went so far as to declare

'We will put a silver star in this porch where you smacked the bully who called you a liar.'

With the boys I was a hero, and as they passed my house that night, and for one or two following nights, they gave enthusiastic yells terminating in my name. The faculty sustained me unanimously, and presented their approval in the form of a communication to the Board of Trustees.

Mr. Marion, however, became naturally more active and vindicative than before. At least this is my surmise, as our official relations were terminated by my dismissing him the day after the events above described. The pastor of the Presbyterian church in Lake City told me later that Mr. Marion declared that I should never preach again in that church, and that if I were invited to do so he would station himself at the door with a shot gun and kill me before I should enter the door; and other threats came to me vaguely, which, however, were never realized in fact.

At this time the legislature was in session, and the incident above naturally afforded the enemies of the institution and myself an opportunity of increased activity.

CHAPTER

The members of the Legislature of 1905 from Columbia County were Dr. A. J. P. Julian, of Lake City, Mr. R. F. Persons of Fort White. My acquaintance with both of these gentlemen had been comparatively slight. Dr. Julian had said to me when I was first introduced to him by my predecessor, Dr. Taliaferro,

'We have see[n] what me[n] with records above criticism have been able to do in the institution before your time. They have failed, and now we shall watch with interest what a man with your record will accomplish.'

(This was, of course, alluding to my experience in Georgia in consequence of the negro article mentioned above.) Dr. Julian, was, however, a man of parts and training, and it was my intention to ask him to have the practice of my family, which intention I indicated to him, but later abandoned upon the election of a physician as well as a chemist ² to the chair of chemistry in the University. I think it possible that this action on my part may have offended him, and I have been informed also that he expected to be University physician, and my failure to have him appointed to that office may have added to this offense. Later in the year when Mr. Marion sought to bring me in disfavor and have me dismissed from my office, he consorted with Dr. Julian and had the *Atlantic Monthly* with my article on the negro question on exhibition in Dr. Julian's drug store.

Mr. Persons had a son in the University on my taking charge, and had indicated that he expected to favor appropriations in the legislature for the upbuilding of the institution. It appeared later, however, that he fell under the dominating influence of Dr. Julian, which may perhaps explain events which transpired during the session of the legislature. ...

Appendix E

Religious Considerations in the Early 1900's: William Henry Belk

We have noted in this chapter that the Board of Trustees member C. A. Carson inquired of Andrew Sledd about the religious affiliations of the proposed new faculty members Sledd was appointing for the academic year 1904, and that Sledd himself inquired of candidates for positions about their church memberships. Quite by chance,

²ed., Prof. Flint

C. E. McLendon supplied me with a book H. Covington, Belk, A Century of Retail Leadership [1] which shows that this was apparently far from an isolated practice in the early 1900's. This book was commissioned by the Belk department store chain to mark the 100th anniversary of the founding of the first Belk store in the rural community of Monroe, North Carolina in May, 1888, in a rented store by the then twenty six year old William Henry Belk. He had started working in another Monroe store, Heath's, at the age of 14. But by the time he was in his late twenties, he was eager to open his own business, which he did with \$750 he had saved, \$500 lent by an acquaintance, and taking over the goods from another failing merchant to stock up his store, [1, p. 13]. At the time, it was common for merchants to extend credit to farmers, thus exposing themselves to the vagaries of the rural economy. By contrast, Belk's basic business philosophy consisted of selling on a cash basis only and more cheaply than the surrounding merchants, the basic goods needed by rural customers. Especially, he stressed stocking dependable work shoes and working clothes sold at extremely reasonable prices to draw in the laborer or farmer for his own needs, hoping that he would then return to buy for the rest of his family. As a result of several factors, in 1895 Belk decided to open a second store in the much larger city of Charlotte, which then was the second largest city in North Carolina with a population of approximately 15,000. For comparison purposes, it is interesting to note that Davidson College was projecting a fall enrollment of 160 for the 1895–96 academic year. In 1891, Belk had persuaded his brother, Dr. John Belk to give up his medical practice in the rural town of Morven, North Carolina, thirty miles from Monroe, and join him in building up a group of stores. According to [1], the Belks used the following system to build up their group of stores in those times. They would take on promising young men, train them in their retailing philosophy, and observe their working habits for three or so years. Then if a young man seemed promising, they would offer him the opportunity to open a store in a new community, with the Belk brothers usually taking 2/3 of the stock in the new store and the promising young employee taking 1/3 of the stock and thus becoming a partner in the enterprise with the Belk brothers. The store would be known by a hyphenated name, such as Belk-Legget, Belk-Hudson, or a name more familiar to those of us in Gainesville, Belk-Lindsey.

Now in [1, p. 63], we read the following description of the typical Belk employee in the early days. The entire Belk family themselves, inspired by their mother Sarah Belk, widowed after the Civil War, were strong Presbyterians.

"... Working in the Belks' stores were a number of young clerks, department managers, and eager merchants-to-be. They were a hardworking and steady lot, all churchgoers, and most of them Presbyterians. Henry Belk was partial to Presbyterians and often checked on a newcomer's background with his local minister. The young men were loyal and dependable, honest, respectful, and deeply grateful for the chance to get a job in the Belks' store in Monroe or Charlotte. To be accepted into the Belk fold spoke well of them and their families back on farms in counties around Charlotte, especially Union, Mecklenburg, and Anson counties, where an informal recruiting network had emerged. At one time or another, one small post office in rural Anson County had delivered mail to John Belk when he was a county doctor and to the families of Hudsons and Leggets, who later emerged as leaders within the Belk organization."

Yet in this same time frame, it is interesting to read on [1, p. 63] that

"The brothers taught courtesy and respect for any and all customers. While North Carolina had gone through racial retrenchment, thoroughly disenfranchising blacks, the Belks permitted no color lines on the sales floor. Whites and blacks bumped and jostled one another to reach the bargains Henry Belk had laid out on his tables on sale days."

It is also interesting to read in [1, pp. 59–60] about Belk's methodology in selecting new communities for additional Belk stores.

"In late 1909, the [Belk] brothers paid a call on their old schoolmate from Union County, Hugh McRae Williams, who owned a dry-goods business in Sanford. 'Mack' Williams's son, Jim, had worked in the Belks' Waxhaw store for three years before going to work for his father in 1906 when the elder Williams opened his store. The Belks had heard the fatherson team was doing well.

Emma Hart, then a young seamstress, was working in the Sanford store when the Belks came in to talk business with their old friend and she overheard the conversation of the three businessmen. Recalling the meeting years later, she said the three talked about their childhood, about local crops, about business and payrolls in the town. Henry Belk looked Williams's store over. Then, in the midst of Henry's questions about the economy, he abruptly changed his line of inquiry.

'Never mind all that,²

Henry Belk said.

'Mack, how many churches are there around here?'

Williams told him and Belk followed with another question.

'Do the people here attend church services pretty well?'

Williams assured him that Sanford was as fine a Christian community as the Belks would find anywhere.

'In that case,'

Belk said turning to his brother,

'I don't think we can go wrong by coming to Sanford.'

More of the Belk business philosophy is described in [1, pp. 65–66, p. 68, p. 129].

"... Although the Belk name lent prestige and let those familiar with a Belk store know what to expect in a new location, the Belks believed that a new store would succeed based on the reputation of the local manager. He came first.

A solid reputation was important to Henry Belk, and he passed that along to his partners. Belk admonished a young man who left for a store of his own to be mindful of his position in the community and remember his Christian upbringing. Join a local church, he said, before getting involved in anything else. After building a reputation as a churchmen, then the young man could consider other civic involvement. Actually, a new merchant had little time for anything more than building his business. And a little prayer for divine guidance was helpful on days when the cash box held just a few dollars."

"The Belk's trained their partners to buy cheap and sell fast, turning over goods that could be purchased as mill ends, closeouts, or odd lots at low prices. The stores opened early to catch farmers on the way to market and clerks stayed late to give factory workers a chance to shop. The lights were on late at Hudson-Belk most every night except Wednesday, when the Hudsons and many of their employees headed to prayer meeting."

"... Belk's philosophy set his managers apart from the chain store managers who often rotated in and out of towns with no time to establish any relationship with a community. A Belk manager was not merely accepting a temporary assignment when he left Belk's office to take over his first store; he was expected to extend the same service to the community, particularly the church, that Belk practiced himself. In 1939, Belk dispatched Norman Scott to Columbia, S.C., with more instructions on the affairs of the Presbyterian Church in South Carolina than on store management.

'After I came here, he kept asking about the presbytery,'

Scott told a group of churchmen years later.

'I thought I was sent here to run the store.'

He said he did not find relief from Belk's repeated questions and directions for church work until the local presbytery was reorganized and the church hired a full time executive secretary."

On the other side of the issue, we find in [1, pp. 103–104] that Belk also benefited from his attention to the affairs of the Presbyterian Church.

"Belk often heard about new business opportunities, particularly about towns where a Belk store might thrive, through his contacts in the Presbyterian Church. Belk was a leader within the Mecklenburg Presbytery, which covered the counties around Charlotte. When he went to synod meetings, one former associate said, a preacher would tell him about a town where a merchant was going out of business or where a building was available for a new store. Belk would follow these leads, traveling to the town on Saturday, to measure the volume of the trade and then remaining for church services with the preacher's congregation on Sunday. If both the depth of the business and the depth of the religion were to his liking, then he would arrange to sign a lease or purchase a building on Monday."

In Chapter 8, we will read of Professor Franklin Kokomoor's vivid recollections of the difficulty of traveling to the University of Florida by automobile in the late 20's. Here it is interesting to read that the Governor of North Carolina had decided by the early 1920's to embark on a road-building program and the consequent opening up of more of North Carolina as fertile territory for new Belk stores, ending primary dependence on the railroads for moving goods and determining store locations, [1, p. 75].

"North Carolina, long stuck in the mud, embarked on an ambitious road-building campaign. When Charlotte's Cameron Morrison reached the governor's office in 1921, he pushed through a program to link the county seats of the state's one hundred counties with hard-surface roads. One observer reported that

'good roads became the third god in the trinity of Southern progress'

after industry and education. No doubt Henry Belk subscribed to Morrison's ambitious plans, ...

The road program of fellow Presbyterian Morrison literally paved the way for the future of the Belk network of stores. The Belk brothers had chosen the location for most of their early stores based on access to the railroads. During the first twenty-five years, they picked towns close to the Southern Railway line that cut through the Carolina Piedmont. Stores opened in Greensboro, Salisbury, Concord, Kannapolis, and Charlotte. Governor Morrison's road program would pave roads to every county seat and every state institution, from the mountains to the coast. As a result, the North Carolina road-building campaign, and similar ones undertaken in other Southern states in the 1920's, would open hundreds of opportunities to Henry Belk."

In Chapter 5, we will write briefly about the effect of the Depression on the University of Florida, drawing from the University of Florida Oral History Project interview [2] with Mrs. Mabelle Benton, and also on information from [3]. Here, [1, p. 99–101] give us a description of the Depression in the South as seen from the vantage point of North Carolina.

"Long before the rest of the nation, the South began experiencing the economic problems that would become even more severe and be known forever as the Great Depression. By the time of the stock market crash in 1929, Belk's stores were ending their second year of little or no growth in sales, despite the addition of fifteen new locations. Cotton prices had fallen from their 1927 high, tobacco prices were down, and Southern textile mills, rocked by violent strikes and declining demand, were slowing production. Everywhere Belk looked, there were fewer dollars available for people to spend in his stores. The governor even encouraged North Carolinians to live off their own land as much as possible, by planting vegetable gardens.

Bad weather, particularly a drought that dried up the South, complicated matters. Eggs dropped to twelve cents a dozen, and every merchant in town had two or three bales of cotton in front of the store marked,

'Buy a bale—5 cents a pound.'

Watermelons sold for fifteen cents, butter was twenty-five cents a pound. The few mills that were in production paid subsistence wages. As agricultural prices plummeted, businesses found themselves in trouble. The collapse of Asheville's Central Bank and Trust Company, a casualty of the failure of booming resort development business, was the first of 215 bank closings that hit the state between 1929 and 1933.

Henry Belk was first and foremost a merchant, but he had invested in many other businesses as well, including the Charlotte National Bank, which in 1938 merged with the Wachovia Bank and Trust Company. When Sam Scott told Belk he had recently heard from a friend in Lynchburg, Va., about traveling bank examiners checking banks in the Southeast, Belk had confidently replied,

'Mr. Scott, there is not a bank in Charlotte that is not in excellent shape.'

He expressed full confidence in the future.

Some weeks later, however, Scott was in the store when Belk, his blue chambray shirt dripping with perspiration, came running up the steps, taking them two at a time.

'Come back to my office,'

he told Scott.

'I want to talk to you.'

In the office, Belk said that he had just come from the witness stand and a grilling by the same bank examiner Scott had told him about.

'He even had Cameron Morrison [the Governor of North Carolina] on the stand,'

Belk said. The bank survived.

Like everyone else, Belk and his employees took in their belts as conditions grew worse. Salaries were cut, and managers watched every penny to keep bills paid. They struggled to meet payrolls. Karl Hudson in Raleigh, N.C., had to postpone every payday when the bank with his deposits closed and never reopened. Hudson called employees together and told them they would have to generate enough sales during the week to raise money for their salaries. Hudson made the payroll, though several days late.

Some Belk managers found themselves having to sell goods at less than they had paid for them. Their customers just did not have any money, and the refrain sales clerks heard most often was,

'Don't you have something for a little less?'

Store managers postponed repairs and renovations of their stores, despite the cramped quarters and dated appearance. It was hard to think about the future when there were only a few dollars left in the box each day. Despite the severe conditions, Belk stores remained open. In fact, Henry Belk was soon taking over new locations from owners who could not weather the storm. Belk opened twenty-two stores in 1930 and 1931, most of them in small North Carolina towns connected by the state-financed road system begun by Governor Morrison. With sound credit and available cash, Belk was in a position to buy goods at cut-rate prices. Just before the federal government's first round of economic recovery legislation went into effect, Scott went to New York, scoured the market, and returned home with first-class merchandise for one-fourth to one-third of the original price. Back home, he made a 2,000 mile swing through the South, visiting mills. When he returned to Charlotte, he had put together the largest purchase of goods that he would ever see.

'Shortly afterwards,'

Scott later recalled,

'we went under the NRA and the value of the goods doubled overnight.' "

Throughout these hard times, the Belk organization tried to help out the regional economy by placing orders at local mills or factories, in such quantities that these facilities were sometimes re-opened and could re-employ their workforces.

Here are two examples from [1, pp. 102–103].

"... Take the example of a rocker Scott ordered from the Thomasville Chair Company in Thomasville, N.C.

While visiting his sister in Lynchburg, Va., Scott saw a rocker that struck his fancy. Though it had originally been priced at \$79, she had bought it on sale for \$39. Scott turned it over to find out who made it, and he copied Thomasville's name, and the model number. When he returned to Charlotte, he called the company and asked them to send a salesmen by. The next day, a man was there to take his order for the chairs at \$14.75 apiece. That salesman thought he had

'met the biggest fool he had ever seen in his life,'

Scott said later. The salesman returned to the factory and told his boss,

'We have never sold more than twelve of these chairs to anybody, and he gave me an order for 400 and said he probably could use 1,000.'

Scott added just enough to cover freight and the expense of handling these chairs and advertised that any woman who could show she had brought \$50 worth of merchandise in a Belk store could get one of these chairs at cost. By the time he finished the promotion, Belk stores had ordered 7,500 of the chairs.

No one was happier about the success than the people in Thomasville. With the Belk order in hand, the factory re-opened. Townspeople and workers were so happy that they marched in a group to the Thomasville store to thank the Belk organization for putting them back to work.

On another occasion, Belk and Scott heard about yards and yards of gingham available at a mill near Charlotte. They bought all the owner had and asked if he could produce more of the gingham and other yard goods that Scott would send samples of. The man

'broke down and cried like a baby,'

Scott said, recalling the visit.

'He said he was broke and did not have enough money to buy groceries for the family.'

Starting production was out of the question in his financial condition. Mr. Belk told him,

'I want you to go today, and I don't mean tomorrow, to Charlotte and buy enough looms to fill this mill to make the kind of goods that Mr. Scott will send you samples of.'

The plant went back into production and Henry Belk joined another board of directors."

Now let us learn how our own Belk-Lindsey stores in Florida first came into being, [1, pp. 104–105].

"Some new locations were the result of sheer chance encounters. In 1934, Belk was returning from a Florida vacation when he stopped in Ocala, Fla., to cash a check. He went to a bank that he thought was managed by an acquaintance from the Presbyterian Church, but he got the wrong one, and the teller refused to take his check. He left the bank and was walking down the street when he bumped into Colin Lindsey. Lindsey had once worked for Belk in Charlotte, selling shoes and serving as Belk's chauffeur in his off hours. The two men fell into conversation, with Belk telling Lindsey about his troubles at the bank. Lindsey finally helped Belk get his check cashed at the right bank, and during their chat, Belk asked Lindsey if Ocala would be a good spot for a store. Lindsey said he thought there was a building available, and the two set out to find it. By April of the following year, Belk - Lindsey was open for business on \$18,000 in capital. Belk put up \$12,000 and Lindsey \$6,000. Belk had added another state. Belk frequently visited in Florida, where members of his mother's family had resettled around the turn of the century on land Belk had purchased. He had heard as a young man that a grower could make \$1,000 an acre from orange groves, and he had snapped up fifty acres at a ridiculously low price. The groves proved to be a source of income for the Walkup branch of the family, who managed the property for Belk, and a source of oranges for Belk, who shipped them to his favorite partners and relatives. The Belk family always stopped in Macintosh, a small town not far from Ocala, where he had always paid a lengthy visit to his cousin, Ginnie Robinson. She was disabled with arthritis, and the Belk visit offered the only relief for her daughter to get away for some time to herself. The Belks, with their maid and chauffeur, would perform the chores.

During the stay, Henry Belk would sit on the porch of his cousin's house and visit at a nearby country store. M. C. Quattelbaum's father owned the store. As a teenager, Quattlebaum always like to see the Belk family arrive because he knew he would have cash in his pocket by the end of the day. Belk gave children a dollar if they could recite the abbreviated version of the Presbyterian catechism. If a youngster could recite the Shorter Catechism—named for its writer, not its length—then he would pay five dollars. Quattlebaum learned them both and, he said years later,

'I'd hit that old man up for six bucks every year.'

In 1941, when Lindsey brought Quattelbaum to Charlotte to check with Belk before setting him up in a store, Belk gave his complete endorsement to the new manager.

'He's OK,'

he said.

'He knows the catechim.'

Lindsey was a nimble merchant. He filled his store with the standard order of goods for a small town store and with items not often found in Belk stores farther north. Lindsey sold venetian blinds, for example, installing them himself. He also established a delivery route of sorts, taking orders in his home-town of Macintosh and filling them weekly when he returned for the weekend to visit his family."

Our faculty colleague Professor Kermit Sigmon grew up in North Carolina so I questioned him about his recollection of the Belk stores. He replied that in Lincolnton, North Carolina, the town nearest the Sigmon farm, there was a Belk-Schrum store. In eastern North Carolina, near where his wife Ruth grew up, was located a Belk-Tyler

store. For major clothes shopping, Kermit was taken regularly to the much larger Belk store in Charlotte, however.

References:

- [1] Covington, Howard E. Jr., *Belk, A Century of Retail Leadership*, University of North Carolina Press, Chapel Hill, 1988.
- [2] University of Florida Oral History Project, transcript of interview with Mabelle Benton.
- [3] Proctor, Samuel and Langley, Wright, *Gator History; A Pictorial History of the University of Florida*, South Star Publishing, Gainesville, Florida, 1986.

 $Mathematics \ at \ the \ University \ of \ Florida \ in \ Gainesville$
Chapter 2 The Early History: 1905–1911

In accordance with the Buckman Act of June 5, 1905 of the State Legislature, and the coalescing of five of the public institutions of higher learning into two institutions, the *Florida Female College* in Tallahassee and the *University of the State of Florida* at a site to be determined by the Board of Control, our current institution can be partially viewed as a merger of the Agricultural Institute in Lake City and the East Florida Seminary in Gainesville. Thus the first academic year in 1905-1906 saw a grand total enrollment of 135 students, and the instruction was still provided in Lake City. The move to Gainesville occurred during June and July of 1906. The 1905-1906 *Catalogue* reflects this merger, for the cover is titled *The University of the State of Florida* on the upper part of the page, and on the lower portion, *Temporary location: Lake City, Florida* on the left hand side and *Permanent location: Gainesville, Florida* on the right hand side.

The motto printed on the inside cover, which continues to be seen in the catalogues throughout the period 1905-1910, is "Sound morals on the basis of good citizenship," which is still reflected in Latin motto "Civium in Moribus Rei Publicae Salus," on the current University seal, which Proctor [1] translates as "The welfare of the state rests on the character of its citizen."

Dr. Andrew Sledd, Ph.D, LL.D, has the title of President. Proctor's history [1] reveals all the politicking that went on between the Murphree supporters and the Sledd supporters, which resulted in Sledd being appointed the first President of the University of Florida, while the popular Murphree was consoled with the position of the first presidency of the *Florida Female Seminary*, now Florida State.

In this first academic year, the instructional staff listed for the University of Florida numbers 16 faculty members, including

- 1. Captain James Taylor, Commandant of the Cadets and Professor of Military Science,
- and two assistant professors,
 - 2. A. W. Blair, B.S., A.M., in Chemistry, and
- **3.** N. H. Cox in Civil and Mechanical Engineering.

The Professors listed in the order given were:

- 4. Andrew Sledd (President),
- 5. James Farr (Vice-President and Professor of English and German),
- 6. W. F. Yocum (Professor of Philosophy),
- **7.** Charles Conner (Professor of Agriculture),
- 8. F. M. Rolfs (Professor of Botany and Horticulture),
- 9. Edward Flint (Professor of Chemistry),
- 10. M. T. Hochstrasser (Professor of Mechanical Engineering and Drawing),
- 11. Karl Schmidt (Professor of Mathematics and Astronomy),
- 12. E. H. Sellards (Professor of Zoology, Geology, and Entomology),
- 13. J. R. Benton (Professor of Physics and Civil Engineering),
- 14. David Yancey Thomas (Professor of History and Political Science),
- 15. James N. Anderson (Professor of Latin and Greek),
- 16. C. L. Crow (Professor of Romance Languages).

Also an instructional staff of 6 faculty is listed for the Normal Department (teacher training) including W. S. Cawthon with an A.B. from Chicago in 1905, who provides the mathematical training for the teacher candidates.

In keeping with the tenor of the times, Sledd saw fit to impose on the student body during the years 1905 - 1910 the following regulations, which seem no longer to be found explicitly in the catalogues after 1910:

"Religious exercises. — All students are required to attend a daily morning service in the assembly hall, consisting of a selection from the Bible, a prayer and a song. The service is conducted by members of the Faculty.

The university is absolutely non-sectarian, but attendance upon some form of public worship service is required of every student. The choice of place of worship rests entirely with the student or parents. The pastors of all churches take an active interest in the spiritual welfare of the students. A letter from the parent or home church, addressed to the pastor or religious body in town, will call forth especial care and attention to the student in whose behalf it is written."

Nonetheless, Proctor [1] writes that in the 1920's, freshman and sophomores were still required to attend a weekly service, until President Tigert ended all required chapel attendance during his presidency, which began in 1928. In addition, as found later in the 1920 *Catalogue*, the attention of the student body is especially called to the Y.M.C.A Sunday activities, as well. An interesting discussion of the evolution of the morning chapel service is provided in Osborn's biography of President Tigert, cf. [3, pp. 279–280].

"Some of the issues discussed at these campus meetings overflowed from the halls of academia and attracted statewide attention; weekly chapel services were a case in point. Presidents Andrew Sledd and Albert Murphree required students to attend weekly chapel services, but by the time Tigert appeared on the campus there was a growing antipathy toward compulsory attendance at religious services. The new president agreed with the protestors, abolished compulsory attendance, and offered the students on a voluntary-attendance basis a 'semi-weekly convocation, a devotional program which in theory would be so attractive that students would willingly file into the auditorium and sit through the program with true undergraduate enthusiasm.' His hopes did not materialize; attendance was small and soon all religious services were dispensed with.

Certain outside forces joined hands with student religious groups in demanding the restoration of compulsory chapel exercises. Roger Babson, a friend of long standing who made his winter home in Lake Wales, wrote Tigert that a stronger religious influence existed on the campus of the Florida State College for Women than on the University of Florida campus and continued:

'There seems to be a strong disappointment on the part of parents that chapel has been given up The Florida native is instinctively religious and is very anxious that his child get a religious training. Therefore, the more you can emphasize religious features in appealing [to the legislature] for appropriations, the more successful you will be.'

Tigert assured Babson that he had analyzed the Florida situation correctly, but that he was misinformed concerning religious conditions at the university. During Murphree's administration compulsory chapel attendance applied only to freshmen and sophomores and violations were not punished. As a matter of fact, compulsory attendance could not be enforced in a state institution; the American principle of religious freedom and the separation of church and state made this obvious.

In the meantime, Tigert explained, the university had acquired a new building for the activities of the Young Men's Christian Association. In addition, various churches in Gainesville employed full-time student pastors and were making plans to acquire property adjacent to the university campus on which to erect student religious centers. The president did not know of a state university campus anywhere on which better religious conditions existed, but he was on the defensive about the demands of strong religious influences both on and off campus.

In February 1930 he instituted Religious Emphasis Week on the campus with a series of religious services conducted by Dr. George W. Truett of Dallas, Texas, president of the Southern Baptist Convention. For ten days, Dr. Truett preached two sermons daily; the morning services, held while students and faculty members were in class, were conducted in the First Baptist Church and the night services were held in the university chapel. All of the campus services were broadcast over WRUF. On the last night of the services, Tigert asked for a reaction from the radio listeners and 270 largely favorable replies came into the campus radio station from the surrounding area. In subsequent years distinguished clergymen of other religious faiths appeared on campus for the annual Religious Emphasis Week"

During 1905-1906, the listing of grounds and buildings contains the following sentence:

"The tract on which the buildings are located lies in the southern extremity of the town, sufficiently removed from the business quarter to avoid its distracting influences, yet near enough to be reached quickly in case of necessity. Of this tract, the thirty acres immediately surrounding the buildings are devoted to a campus, a drill ground, and the tennis courts. The remainder of the land, with the exception of some of the original hammock, is utilized for experimental purposes and as a farm."

During this first academic year, the list of buildings describes those in Lake City, consisting of nine buildings. Following the move to Gainesville, at first the campus consisted solely of three buildings which are described in the 1907 Record as the Main Building, the Dormitory, and the Machinery Hall. Procter [1, p. 28] writes vividly about the space difficulties during the Sledd years, and how in 1908, to remedy the desperate situation, Sledd himself and some student volunteers constructed the laboratory building for electrical engineering, using money obtained by selling firewood sawed from the trees cut down on campus to clear the space for Buckman and Thomas Halls.

During the Sledd presidency, the organizational structure of the University of Florida is described as follows:

- " I. The School of Language and Literature
- **II.** The General Scientific School, Which embraces 1 the
 - **1.** Chemical Course,
 - 2. Mathematical Course,
 - **3.** Natural History Course.

These courses are named from their chief element, and offer the student with a taste or need for Chemistry, Mathematics, or Natural History, unusual opportunities to devote himself to his chosen subject, and to fit himself either for further technical work along these lines, or for the study of Medicine, Surgery, Pharmacy, as a profession. These courses are of four years' duration, and lead to the degree of Bachelor of Science.

III. The School of Agriculture

IV. The Technological School

- **1.** Mechanical Engineering
- **2.** Electrical Engineering
- **3.** Civil Engineering
- 4. Short Course in Mechanic Arts

These courses are designed for students who desire to give their college work a strictly practical direction, and to prepare immediately for their life work in one of these lines. Every course requires a very large amount of

¹A few years later we find Physics added as a fourth entry in this school.

practical work, and the student who successfully completes these courses will be prepared to enter on his active profession immediately. Courses 1, 2, and 3 extend over four full years, and issue in the degree of Bachelor of Science in Mechanical, Civil, and Electrical Engineering, respectively; course 4 covers two years and leads to a certificate of proficiency.

NO LATIN OR GREEK IS REQUIRED IN SCHOOLS III AND IV.

V. The School of Pharmacy

VI. The Normal School."

It is interesting to observe that the B.S. in Mathematics requires in addition to advanced scientific electives, that the student take Chemistry I, II; Physics I, II; and Botany I.

It is a commonplace that scientific faculty at the turn of the century tended to do graduate work in Germany. We can see how this is borne out at the University of Florida. The Professor of Mathematics and Astronomy ² from 1905-1908 was **Dr. Karl Schmidt**. He had the following background prior to coming to the University of Florida:

KARL SCHMIDT

Professor of Mathematics and Astronomy

Graduate Student at the University of Marburg, 1893-1894, Berlin, 1894-1897, and Marburg, 1897-98; A.M., Ph.D., University of Marburg 1898; First Assistant in Physical Laboratory, Marburg, 1900-01; Lecturer on Mathematics, Harvard University, 1901-1903; Professor of Physics, Bates College, 1903-1904; Professor of Mathematics and Astronomy, University of Florida, 1904-05; present position, 1905—

During the academic year 1905–1906, Professor Schmidt served on the following Standing Committees of the Faculty:

- Entrance Examinations and Classifications, and
- Student Organizations.

The "university affairs" column of the *Gainesville Daily Sun* of October 18, 1908, records the following transition:

²In notes taken while in graduate school in 1894, Schmidt's successor, Herbert Keppel, listed many of the Departments of Mathematics in the world together with their faculties. This list reveals that even in Mathematics Departments with more than one faculty member, which were the exception, rather than the rule, it was customary for one member of the faculty to hold the title Professor of Mathematics and Astronomy.

"We found a few new faces among the faculty and Experiment Station staff. . . . Dr. Keppel has succeeded to the chair of mathematics, a position made vacant by the resignation of Dr. Schmidt, who owing to ill health, has been forced to give up teaching for a while."

Fortunately, we have been able to discover, at least, what ultimately became of Professor Schmidt after his resignation in 1908 from the young University of Florida. In early December, 1994, I received a surprise telephone call from Professor Samuel Proctor one afternoon. He had just discovered materials pertaining to Professor Schmidt that he had obtained in the 1950's which had been lost for several decades, placed inside of another file folder for another personality from the past! Now, President Sledd proudly proclaimed the military discipline at our early institution in newspaper advertisements that he wrote for various state newspapers to run during the summer of 1906 as our institution was moving to the new Gainesville campus. Nonetheless, Sledd requested faculty opinion on the issue of military discipline in the fall of 1906, for he received the following handwritten letter from Professor Schmidt in November of 1906 (cf. [2], the underlined words in the letter have been capitalized in the transcription):

"

Gainesville, Fla. November 19, 1906

Dr. Andrew Sledd,

President of the University of the State of Florida

Gainesville, Fla.

Dear Sir;

To your circular letter of Nov. 13, 1906, asking for an opinion on questions relating to the present military organization of the University, I return the subjoined reply. I am aware that I have largely given reasons rather than observations, this seemed to me justified, as the latter, however valuable, were in my own case insufficient and too much subject to error.

- I. The present military work has NOT so far to any appreciable amount decreased the work laid out, as the increase in military duties has been largely counterbalanced by a better qualified student-body and smaller classes. It is however important to remember that the present schedule was planned with the assumption of a minimum amount of military work, and it is a question how long the students will be able to stand the increase strain upon them.
- II. (a) The system INTERFERES with studiousness, in the deeper sense of the word:
 - 1) Perhaps the most important part of college work is that which lies beyond the limits of class room work, the following out of suggestions

made, and the opening up of new aspects and new ideas; all this is cut out as 'relatively unimportant' by the hurried and overcrowded student, trained to obey definite orders rather than to take suggestions.

- 2) The atmosphere of military organization with its frequent interruptions, exaggerated promptness, attention to numerous little duties and frequent enforced idleness (as waiting in readiness, as guards etc) is not that atmosphere of leisure and repose which engenders mutual interest and studiousness.
- (b) The discipline in my classes is good—and would be so without military discipline.
- (c) Class attendance IS, I think, promoted—except in so far of course as military duties interfere with such attendance.
- III The absence of the sergeant of the guard from all classes during a whole day
 - (a) seriously affects the individual student, in the following ways:
 - 1) if the work is of such a nature that it can be 'made up', it means an extra full day's work to be accomplished soon (in order to keep in connection with the work) when it must be admitted that the regular amount of work is already about as much as our students can stand. The 'making up' will therefore be HURRIED and SUPERFICIAL;
 - 2) Some work cannot be made up at all, such as lectures and incidental explanations; for notes taken by college students are at best suitable only for the writer himself and no substitute for the work in class;
 - 3) if I correctly understand the case, the loss amounts to practically TWO days of classroom work, as the sergeant comes to class the next second day unprepared and looses most of what is being done then;
 - 4) the enforced absence creates an uncertainty in the mind of the student as to whether difficulties that he may find are due to forgetfulness, lack of capability, or absence from class on the day when explanations pertaining to the subject were given, and thus interferes most decidedly with that spirit of MODEST SELF-RELIANCE which ought to be one of the most precious requirements of a college student.
 - (b) effects the class as a whole
 - 1) of course in so much as individual students are affected;
 - in some classes the instructor will find himself in a position where some part of the argument is missed by some one and the whole completely followed by none not on account of natural difficulties, but on account of absences on previous days;

- 3) it cannot be fair to call a student to account for ignorance on some point which, without his fault, he was prevented from acquiring; but it is impossible, on the other hand, to keep account of who was absent on that particular day when the subject was treated in class. Absence from class as sergeant of the guard will be an excellent excuse and subterfuge for real ignorance and lack of preparation.
- IV. Any detailed consideration of possible advantages or disadvantages of a military organization in a college would avail nothing, if it could be shown that the SPIRIT of the military organization is essentially OPPOSED to the spirit of the college. In order to determine what the teaching and controlling idea of a military organization is, it is important to remember that it is neither a part nor a miniature imitation of the essential features of the army. It omits all field work (scouting, reconoitering etc) and adopts merely the instruction in military subjects, drill, and military discipline. We need therefore consider only these phases and their spirit. Instruction in military subjects can be classed with other subjects of instruction and we have thus these two to consider: DRILL and MILITARY DISCIPLINE. The controlling idea of these is OBEDIENCE ('BLIND' obedience) to given ORDERS, without question of the VALUE of the order, so long as it comes from the appointed AUTHORITY; actions are required without the incurrence of any RESPONSIBILITY by the performer, who DEPENDS on his superior officers for the direction of his acts; criticism and concerted action, even in the form of petitions to the highest officer, however polite the language and however justified the complaint, are MUTINY; orders are obeyed to avoid PUNISHMENT, which necessarily must be of frequent application, as it is the chief means of upholding the system.

In direct opposition to all this is the spirit which ought to prevail in a college and to which its students should be educated — FREEDOM ('academic freedom'), by which is meant LAW-obedience, and which requires first and above all the CRITIQUE of the VALUE of the law from WHATEVER AUTHORITY it may come; because action carries with it individual RESPONSIBILITY, which under no circumstances can be shifted to other shoulders, as no one can escape the judgment of his own CONSCIENCE. It requires therefore INDEPENDENCE or rather SELF-DEPENDENCE. The good action is imperative, irrespective of *rewards* or PUNISHMENTS.

This is the ETHICAL side of college education. And in the deepest sense all its intellectual training contributes to and ends in Ethics.

To such freedom man is not born but EDUCATED by the awakening of the moral sense, establishment of right ideals, strengthening of the character, and devel-

opment of the intellect to DISCERN the Good from the Bad. It is therefore the question when does COERCION end, and when does education to moral freedom begin. The college, by its traditions, methods, and ideals, is preeminently the place for the latter. Military organization, as using opposing means to establish opposing ideals, has no place in the college proper; in the High School and Preparatory-School it may be appropriate. If, therefore, for other reasons, a military education should be deemed necessary, it would seem proper to confine it to the Sub-Freshman and Freshman classes.

Respectfully submitted,

Karl Schmidt Professor of Mathematics The University of the State of Florida."

Once this letter has been rediscovered, it does not come entirely as a surprise to learn that Professor Schmidt would become an ardent Quaker later in life. In the early 1950's, Professor Proctor received correspondence from a Professor of Philosophy, Herbert Schneider, at Columbia University (cf. [2]) and obtained the following assessment of Professor Schmidt's later career in an undated letter:

"You could no doubt get interesting auto-biographical details from Prof. Schmidt at Tamworth, N. H. Though his memory is not perfect, he likes to reminisce about his connections with [Paul] Natorp, James, Royce, etc., whom he knew very well. He was with us at Columbia for only a few months, but I had learned to know him earlier in Vermont. His most effective teaching was done at Carleton College, Minnesota, where he made a big impression on both students and faculty. His scientific approach and training were his strong point. But his exceptionally gentle and genial personality also made him many friends. In recent years he has become well-known in Quaker circles, for he is an ardent Quaker.

Some years ago in *The Review of Religion* I reviewed his metaphysics along with that of Boodin, but I have no copy of this review. I think his *Creative I and the Divine*³ is a first-rate and original piece of metaphysical analysis. He also wrote some good articles in the *Journal of Philosophy*. I'm sorry that since my removal here to the Unesco I am without my notes and library, and hence can answer only in these very general terms. ..."

Further, we could now determine that the Karl Schmidt, listed in the card catalogue as being born in 1874 and the author of the book *From Science to God*:

³ed., Dial Press, New York, 1937

Prolegomena to a Future Theology, Harper Brothers, New York, 1944, as Professor of Philosophy, Carleton College, was the very same man as our first Professor of Mathematics and Astronomy during 1904–1908! This book reveals that Schmidt's wife's name was Edith Kimball Schmidt, and he also thanks his daughter Baldura Schmidt Lindemann for helpful suggestions toward improvement of the text. Schmidt dedicates the book to President Donald Cowling of Carleton College who

"made Carleton a suitable place for the growth of philosophic thought."

In [3, p. 6] we find the following reference to Schmidt's studies in Marburg during the latter part of the nineteenth century:

"... I shall not forget the remark made by a brilliant professor of mathematics with whom I was studying in Marburg University—that I was wasting my time studying philosophy! And this was from a man who had himself been a pupil of Weierstrass and was a disciple of Riemann, both mathematicians whose creative thought was not given to the practical applications of mathematics but to its philosophy and logical clarification!"

In [3, p. 13], Schmidt offers the following comments on his earlier book which was mentioned in Professor Schneider's letter [2]:

"In a previous book [*The Creative I and the Divine*, Dial Press, New York, 1937] I presented a philosophy, in outline at least. It develops a methodology which accounts for our mathematics and physics; it proves itself adequate to establish ethics and aesthetics; and it leads to the establishment of the existence of a soul and of God. Assuming that God is the central topic of the higher religions, it seems worth while to determine what light is thrown by this philosophy on some of the cardinal tenets of Christian religion. Such concepts as 'Providence', 'inspiration', 'revelation,' attain a new vitality; the concept of 'God' receives new meaning......"

In [3, p. 20], Schmidt wrote

"If man is thus wedged between the demands of the scientific spirit and the conflicting demands of religion, is it any wonder that he becomes uncertain? For six days he is asked to think; can he stop thinking on the seventh? Some undoubtedly can, but many cannot. Hence their unbelief. They begin by asking for warrants of the objects of their beliefs; they end by doubting or denying even the existence of God. In early times man may have been convinced by miracles—he craved miracles. Thinking man cannot be amenable.

Thus we still have the clash between faith and reason on our hands."

A recent book by the historian of science Dr. Fredrick Gregory [4] treats among many other issues the topic of how the geological discoveries of the nineteenth century and the wide discussion throughout the whole world after the 1870's of Darwin's book On the Origin of Species published in 1859, effected German Protestant religious thought in the later portion of the nineteenth century. The general results of Gregory's work suggest that Dr. Karl Schmidt's own philosophical writings may be viewed as a very natural intellectual endeavor during the times in which he was a young scholar, and resonate well with the diverse theses swirling within the German intellectual community, themes to which Schmidt as a native German was exposed not only in his Gymnasium studies, but also while studying in Marburg and Berlin, just prior to the turn of the century. Much of Schmidt's writing discusses the question of truth; in [4, p. 17] Gregory writes the following about German intellectual concerns during the second half of the nineteenth century, emphasizing that these concerns were not restricted to German professors of theology or philosophy, but rather common to most educated Germans during those times:

"For most people in the nineteenth century, the question of truth was the key issue in the relationship between science and religion."

and in [4, p. 19] that a commonly held attitude then was that

"Truth is determined by what really exists. Our knowledge of nature, when it is correct, is the same as the truth of nature."

An example is given in [4, p. 110] of the Professor of Mathematics Carl Reuschle at Stuttgart University writing a book, published in 1874, on *Philosophie und Natur*wissenschaft: Zur Errinerung an D. F. Strauss⁴

The recent work [5] which gives extensive documentation for the emergence of the American mathematical research community in three phases, discusses in detail the second phase in which German doctoral study or postdoctoral study by Americans was common. This work reveals that most of the bulk of the Americans studying in Germany either studied in Berlin, where Karl Weierstrass was still lecturing until his death in 1897, or during the time period 1880–1890 tended to study with Felix Klein, first in Leipzig between 1880–1885, or in Gottingen after 1885. After 1890, when Klein wanted to wind down his involvement with American foreign students, then Sophus Lie, Klein's successor at Leipzig picked up the slack, and had 20 American auditors between 1892 and 1899, including Leonard Dickson, G. A. Miller, and H. F. Blichfeldt. Now this is precisely the time period during which Karl Schmidt spent two years in Marburg and three years in Berlin, and during which time he met his future wife, a native Bostonian, who was also visiting Berlin.

⁴ed., which would translate as *Philosophy and Natural Science: in Remembrance of D. F. Strauss.*

It is intriguing to speculate based on Schmidt's later career as a Quaker and philosopher at Carleton College, that perhaps he was attracted to Marburg based not only on the possibility to do graduate work in mathematics and physics, but also because a world renown exponent and main proponent of the Ritschl School of theology, Professor Johann Wilhelm Hermann, became a Professor at Marburg in 1880, after the publication in 1876 of his work *Die Metaphysik in der Theologie*. Gregory writes in [4, p. 328]

"that Hermann eventually brought considerable attention to Marburg. In addition to students from all over the world who came to study with him, including, according to Welch, a generation of Americans who pursued graduate study in pre-World War I Germany, a Norwegian and an American university bestowed honorary doctorates on him, as did the philosophical faculty at Marburg itself.

... Hermann remained at Marburg for the rest of his life in spite of numerous offers from other universities. What held him there, according to F. W. Schmidt, was his role as the soul of theology faculty and the possibility of interchange with the neo-Kantians of the philosophy faculty"

Once the materials from Professor Proctor alerted us to Schmidt's later career as a philosopher at Carleton College, we were able to obtain some materials from the archives at Carleton College [6] which helped fill in some of the details of Schmidt's life. Schmidt was born on August 28, 1874 in Frankfurt, Germany, into a family which included seven sisters. As a young man, he studied piano and tutored others, as well as pursuing his own academic studies. According to a clipping from the *Carletonian*, dated December 1, 1937, Schmidt

"started specializing in mathematics, but after taking physics, changed his course."

The Carleton archival sources reveal that Paul Natorp, one of the German philosophers mentioned in [4], was Schmidt's thesis advisor in Marburg. The newspaper clipping from 1937 offers the following account of Schmidt's arrival in America:

"A year in compulsory service in the army intervened after college and before the important first year of this century. In 1900 5 not only did Dr. Schmidt obtain his M.A. and Ph.D. degrees, but he came over to Boston to marry his fiancee, whom he'd met when she was visiting Berlin.

 $^{^5\}mathrm{ed.},$ actually 1898 according to Schmidt's own entry for the Lake City Agricultural Institute catalogue

Upon his return to Marburg, Dr. Schmidt became first assistant in the physics laboratory and was in charge of the time-service telescope. From that work he came to American, where he lectured for two years at Harvard upon the larger foundations of mathematics. The 27-year old licensed lecturer counted among his pupils three mathematics instructors and two instructors in philosophy. The others were graduate students, and several are now professors of philosophy at Harvard.

At Marburg he was a student of physics and mathematics as well as philosophy, and although in his later years his interest turned to the general problems of metaphysics and the philosophy of religion, his own system of thought bridged the gap between the sciences on the one hand and philosophy and religion on the other, a gap which so troubled the nineteenth century and also our own."

Schmidt later published portions of the material presented during these Harvard lectures in the *Journal of Philosophy* in three articles contained in volume 9 (1912), volume 10 (1913), and volume 30 (1933). A footnote in the second of these articles reveals that Schmidt delivered a presentation at a meeting of the American Philosophical Association held in January, 1910 at Yale University.

Apparently, one of Schmidt's successors as Chairman of Philosophy at Carleton College had the job of preparing a draft obituary notice and wrote the following additional comments which were not published in the above newspaper article (cf. [6]):

"At a time when few scholars knew of the new developments in logic and mathematics, even before Russell and Whitehead published *Principia Mathematica*, he was lecturing on the logical foundations of mathematics The general orientation of his thinking was neo-Kantian."

The Carleton archival sources are not entirely consistent on what happened to Professor Schmidt after 1908 and before he obtained an appointment at Carleton College as Acting Professor of Philosophy during 1927–28, then Professor and Chairman of Philosophy from 1928–1946, after the previous chairman, Professor John Boodin, received an offer from U.C.L.A. Mention is made that Schmidt had taught at Tufts, Northwestern, and possibly a second time at Harvard before coming to Carleton in 1928. This is partially confirmed by Schmidt's publication in 1913 in the *Journal of Philosophy* which lists Tufts as Schmidt's academic affiliation and the article in 1912 which lists Cambridge, Massachusetts as Schmidt's academic affiliation. Also Schmidt did some lecturing at Columbia University after his retirement from Carleton. Already by 1910 the Schmidt's were summering in Tamworth, New Hampshire, where Schmidt was to live in retirement until his death on August 26, 1961 at the age of 87. The Carleton materials also indicate that Dr. Schmidt continued his early interest in music, writing music criticism and remaining a skilled pianist. He was a loyal supporter of the Minneapolis Symphony Orchestra and a friend of the conductor Dmitri Mitropoulos of the orchestra. Schmidt's daughter Baldura Lindemann became a pianist as well; the Carleton archival material contains a newspaper article describing a recital which she presented on the Carleton campus in 1946. This review indicates that Mrs. Baldura Lindemann studied in New York and London for part of her training.

Dr. Schmidt's successor, **Dr. Herbert Keppel**, who was the Professor of Mathematics and Astronomy from 1908–1918 had the following background as described in the 1909 University Record:

HERBERT KEPPEL, Ph.D., Professor of Mathematics and Astronomy

A.B., Hope College, 1889; Graduate Student, Clark University, [Worcester, Massachusetts], 1892-1895; Mathematical Fellow, Clark University, 1893-1895; Instructor of Mathematics, Northwestern University, 1896-1900; Mathematical Fellow, Clark University, 1900-01; Ph.D. [Clark University], 1901; Instructor in Mathematics, Northwestern University, 1901-1908; Present position, 1909—

We have learnt from the Library Archives at Clark University that the title of Keppel's thesis is "The Cubic 3-Spread Ruled with Planes in 4-fold Space," although the thesis itself is a lost document at the Clark Library. In [7, p. 163], the following comments are made about Clark University, where Dr. Keppel took his graduate work. G. Stanley Hall, who first taught philosophy at Johns Hopkins in 1881 was later approached and asked to found Clark University as follows:

"In 1881 Hall's efforts to professionalize American scholarship took another step forward with the sudden opportunity to establish his own university. Jonas Clark, a businessman who had made a fortune as a San Francisco merchant during the gold rush, came back to his native Worcester, Massachusetts, offering to endow a great university. He chose Hall to be the founding president. Hall, in turn, convinced Clark that the university should be a Johns Hopkins without undergraduates, apparently to Hall the best of all possible worlds.

Although Clark University started with great promise as the nation's first purely graduate institution, it soon fell upon hard times. Jonas Clark, after showing somewhat too much personal interest in the enterprise during its first years, in 1892 lost interest entirely. Philanthropists were not likely to be deeply interested in pure academic research, without undergraduate colleges to provide both a justifying moral purpose and more immediate community service. Much of Hall's fine faculty abandoned Clark for the new University of Chicago, more securely endowed with Rockefeller money. Hall was left with little more than a graduate program in psychology."

It is interesting that Dr. Keppel turns up in the very first *Bulletin of the American* Mathematical Society 1 (1894–95) on page 127 with the following announcement:

"A graduate student at Clark University, Mr. H. G. Keppel, is taking a series of photographs of the mathematical models and portraits of mathematicians to which he has access. It will include stereoscopic views of about one hundred different models. Among the portraits already photographed are likenesses of Sophie Kovalevsky, Gauss, Abel, Euler, Newton, Laplace, Lagrange, John Bernoulli, Borchardt, Kronecker, Cayley, Benjamin Peirce, Kummer, Steiner, Monge, Lobachevsky, Bessel, Abbe Moigno, Mobius, Fourier, Fermat, Jacobi, De Morgan, Galileo, Huygens, Lambert, Arago, Tycho Brahe. Applications for copies of Mr. Keppel's pictures may be addressed to him and will receive his attention."

Professor John Kennison of Clark University, who kindly provided me with this reference, also noted that Clark University has photographs from that time period which were probably taken by Keppel.

Under the course descriptions for the Department of Mathematics and Astronomy for 1905-1906, we find Prof. Schmidt listed together with an unnamed assistant, Mr.

_____. The following paragraphs are found on the philosophy of studying mathematics in those times:

"The work in the Department of Mathematics is planned with a threefold purpose in view:

- 1. For the students who intend to SPECIALIZE in Mathematics, it provides the training necessary for pursuing their work. By offering different advanced courses in different years, a comparatively large number of courses is made available. Still it should be remembered that they give a necessarily one-sided sketch rather than a complete picture of modern Mathematics.
- 2. To those who need Mathematics as an INSTRUMENT it offers opportunities to become familiar with this instrument. The application of the methods of Calculus not only to Physics, Chemistry, Engineering, etc., but even to such seemingly remote realms as Psychology and

Political Economy, makes it advisable that this class should continue the study of Mathematics at least as far as Calculus.

- 3. To others it gives logical training in Analysis and Proof, introduces them to that scientific method par excellence of the Hypothesis, and introduces the idea of a deductive system in its classical form. Elementary (Euclidean) Geometry is studied with this purpose by all members of the Freshman class.
- The following courses are offered each year:
- Mathematics Ia. Solid Geometry. (5 hours during the first semester of the Freshman year.)
- Mathematics Ib. Plane and Spherical Trigonometry. (5 hours during the second semester of the Freshman year.)
- Mathematics IIa. Algebra and Introduction to Infinite Analysis. (5 hours during the first semester of the Sophomore year.)
- Mathematics IIb. Analytic Geometry. (5 hours during the second semester of the Sophomore year.)
- **Mathematics III.** Calculus I. –(3 or 6 hours through the Junior year.)

OF THE FOLLOWING ADVANCED COURSES, THREE AT LEAST WILL BE OFFERED EACH YEAR:

- **1a.** Advanced Calculus with Applications to Geometry
- **1b.** Introduction to Differential Equations. First course
 - 2. Introduction to the Theory of Functions. First course
- **3a.** The Theory of Equations
- **3b.** The Theory of Numbers
 - 4. The Theory of Functions of a Complex Variable
 - 5. The Theory of Differential Equations. Second semester
- 6. Modern Algebra. Galois' Theory of Equation
- **7a.** Elliptic Functions
- **7b.** Abelian Functions
 - 8. The Theory of Algebraic Functions of One Variable

For 1905-1906, courses 1a, 1b, 2, and 9 will be offered:

- Mathematics IV. 1a The course on Advanced Calculus with Applications to Geometry will treat of line and surface integrals; of envelopes, contact, curvature and torsion (Elective; first semester, Senior year)
 - **1b** The course on Introduction to Differential Equations will treat of some of the most important methods employed in solving Differential Equations. (Elective, second semester, Senior year)
- Mathematics V. 2 The course on Introduction to the Theory of Functions will aim to give a general theory rather than a detailed study of various functions. It will treat of numbers, infinite series and products, continuation of a function, conformal representation, with form and periodic functions. (Elective; both semesters, Senior year)
- Mathematics VI. -9 The Mathematical Seminary is a Research course. Subject for the year: Number Systems. Dedekind's and G. Cantor's theories will be studied in particular and the Principles of Critique of Cognition applied to them.

In connection with the Department of Mathematics a course in General Astronomy will be offered, consisting of lectures and recitations with practical exercises. No advanced mathematics is presupposed. Textbook; Young, *Manual of Astronomy*. (Elective; both semesters, Junior or Senior year)"

We have discussed in the Introduction how the wanderlust generation of Americans who had studied in Germany in the late 1800's were so impressed with the institution of the Seminar or Seminary, that they transplanted this German innovation back to their own institutions after returning to America. We have just seen listed in the catalogue "Mathematics VI–The Mathematical Seminary ..." as an example of this importation during the time when we had our first Professor of Mathematics and Astronomy, Karl Schmidt, who had taken the Ph.D. at Marburg University in Germany. Let us trace this Seminary course through the early catalogues until it disappears as a catalogue entry in 1913–1914, and is replaced in the catalogues by advanced course offerings. The 1905–06 catalogue reveals that the topic of Number Systems was treated in the Seminary for the academic year in question. Then for 1907-1908, we find the listing

Mathematical Seminary – Subject for this year: Higher Plane Curves (Both semesters, 3 hours).

This same listing occurs in the catalogue for the academic years 1908-1909 through 1912-1913, during which time Herbert Keppel had replaced Schmidt as the Professor of Mathematics and Astronomy. Finally, with the academic year 1913-1914, the Mathematical Seminary is no longer listed. Instead, the following new advanced course appears: Mathematics VII: Modern Projective Geometry. We then have a period of time in which certain courses are listed under the heading "Advanced Courses." During the academic years 1914-1915 through 1917-1918, the following two advanced courses are listed:

Theory of Equations and Modern Higher Algebra

Modern Projective Geometry.

In addition, in the Record for 1916–1917, the following is printed:

"A course of Teaching of Mathematics was given in 1916–1917."

After Professor Simpson replaces Professor Keppel as Professor of Mathematics and Astronomy during 1918–1919, a different set of Advanced Courses is listed, apparently reflecting Simpson's own interests:

Theory of Equations, Complex Numbers and Determinants

Modern Projective Geometry.

"Modern Higher Algebra" thus disappears from the Catalogue. During 1919–1920, the designation "Advanced Courses" is dropped from the catalogue, and the two courses listed above just appear at the end of the course list, not especially dignified by the name "Advanced Courses." By 1922–1923, the list of advanced courses has grown to the following four:

Mathematics VI. – Theory of Equations, Complex Variables and Determinants (3 hours)

Mathematics VII. – Modern Projective Geometry (3 hours)

Mathematics VIII. – Theory of Least Squares, Fourier Series (2 hours)

Mathematics IX. – Introduction to Higher Algebra.

Higher Algebra is back in the curriculum!

We return to 1905-1911 and consider a second scientific figure that played a most prominent role in the early development of science and engineering on the campus, Dr. John R. Benton. By the time of the 1911 *Catalogue*, we have encountered Benton as Dean of the College of Engineering, and Head Professor in both Physics and Electrical Engineering. The 1905-1906 catalogue lists the following information:

J. R. BENTON, A.B., Ph.D Professor of Physics and Civil Engineering

A.B., Trinity College, Hartford, Conn., 1897; Ph.D., Gottingen, 1900; Instructor in Mathematics, Princeton University, 1900-1901; Instructor of Physics, Cornell University, 1901-1902; Special investigation work in Physics, Carnegie Institution, Washington D. C., 1904-1905; Present position, 1905—

Just as we have found in the Mathematics curriculum, the specialization in Electrical Engineering was deferred until the Senior year. In the catalogue, we find the following entry for this department.

"ELECTRICAL ENGINEERING Professor Benton 6

- **Dynamo Electrical Machinery.** The principles of action of direct-current dynamos and motors; calculations of dynamos and motors; determination of characteristic curves; designing of electrical machinery; electrical testing. (Required of Seniors in Electrical Engineering course; 4 hours)
- Alternating Currents. Principles of single phase and polyphase alternating currents; alternating current machinery; theory of the transformer. (Required of all Seniors in Electrical Engineering course; 4 hours)
- Electric Lighting and Transmission of Power. Electric lighting; photometry; principles of illumination; design of distributing systems. (Required of all Seniors in Electrical Engineering course; 1 hour)
- **Telegraph and Telephone Engineering.** Design of telegraph and telephone lines; submarine cables. (Required of Seniors in Electrical Engineering course; 1 hour)"

⁶Dr. Benton was the author of a textbook An Introductory Textbook of Electrical Engineering, Ginn and Co., 1928 and also of Problems in Physics, to accompany Ames's textbook of General Physics, American Book Co., 1909. Mrs. Theral Moore recalls that Dean Benton died of psittacosis (parrot fever) in 1930 during his mid-fifties when the United States was in the throes of the Great Depression, leaving Mrs. Benton with the task of raising their four sons by herself. Mrs. Benton, a graduate of the Florida Female College discussed in this chapter, lived on until February 1981, remaining faithful to the memory of her late husband. During the 1960's, the Moores lived across the street from Mrs. Benton. Mrs. Moore would go with her sons, Mrs. Benton, and Mrs. Benton's yardman to the Evergreen Cemetary where Mrs. Benton and her yardman would work to keep the weeds off her husband's grave and also that of her son who died in World War II.

During the academic year 1905–1906, Professor Benton was apparently lucky enough to be on just one of the following Standing Committees of the Faculty: EN-TRANCE EXAMINATIONS AND CLASSIFICATION.

In an interview [8] by Professor Samuel Proctor in the Florida Oral History Project in 1969, Mrs. Mabelle Benton recalled what her husband had told her about why he came to the University of Florida:

Proctor:

"Mrs. Benton, did he ever say how he happened to come to Florida to accept the position at the Lake City School ?"

Mrs. Benton:

"Sledd. Dr. Sledd was a very scholarly man, and he was looking for scholars. It was quite remarkable at that early date that they had such a high percentage of Ph.D's."

Proctor:

"Yes."

Mrs. Benton:

"They really did. So Dr. Benton felt he would like to work with Dr. Sledd because he was a scholarly man, and he felt it was a small institution that had a chance of growth. I guess he thought he'd like to come to Florida."

As a final example of the scientific training of the early faculty on campus, we consider the well known

EDWARD R. FLINT, B.S., Ph.D., M.D. Professor of Chemistry

B.S., Massachusetts Agricultural College, 1887; Ph.D., University of Gottingen, 1892; Assistant Professor of Chemistry, Massachusetts Agricultural College, 1893-1899; Medical Student, Harvard University, 1899-1903; M.D., Harvard, 1903; Professor of Chemistry, University of Florida, 1904-1905; Present position, 1905—

During 1905–1906, Professor Flint was on the Standing Committees on Courses and Degrees, and on Schedules.

Here is what the 1906 - 1907 Catalogue reveals about the chemistry offerings under the provenance of Dr. Flint.

CHEMISTRY

PROFESSOR FLINT

The facilities for instruction in Chemistry compare favorably with those of the larger institutions of the South and are being steadily improved. The department is equipped with the necessary apparatus and material for instruction in general inorganic and organic, analytical and industrial chemistry.

Beginning with the Sophomore year, all students in all the courses are required to take general chemistry. In the scientific courses, the junior year is devoted mainly to qualitative, the senior year to quantitative analysis. Abundant laboratory work is offered in all of these courses.

Chemistry I. – This course is on general inorganic chemistry. During the first semester, the non-metallic elements are studied, by means of a text-book, lectures and recitations. Special attention is given to the principles underlying chemical union, and the theories and laws which govern the science.

In the second semester the metals and their more important compounds are studied in the same manner. (Three hours a week throughout the Sophomore year for the B.S. course and Junior year for the B.A. courses is required of all students.)

Chemistry II. – This is a laboratory course in general chemistry. In order to impress the principles of the science upon the minds of the students, they are required to repeat in the laboratory many of the experiments seen in the lecture room, taking notes of the same, and writing the chemical reactions as far as possible. Each one is required to perform over a hundred experiments designed to illustrate chemical principles, including the preparation of many of the elements and their most important compounds.

In the second semester the laboratory work is designed to study the reactions of the metals with a view to their classification. During this semester a portion of the time is devoted to a thorough course in dry analysis. (Two exercises a week throughout the Sophomore year, required of all students in the scientific courses).

"

- **Chemistry III.** This is a laboratory course in qualitative analysis, in the Junior year. (Three exercises a week, elective in the A. B. Course.)
- **Chemistry IV.** Includes course III with two additional exercises a week in the same line of work. (Offered as an elective in the Science courses, and required in the chemical course.)
- Chemistry V. This is a course in organic chemistry which includes lectures and recitations, although a text-book is largely depended upon. In the latter part of the second semester a portion of the time is devoted to organic preparations in the laboratory. A short course of lectures on the subject of metallurgy is given in the latter part of the semester, in which the chemistry involved in the reduction and fabrication of the more useful metals, as iron, copper, zinc, lead and silver, is explained. (Three hours a week throughout the Junior year, required of all students in the Chemical course.)
- Chemistry VI. This is a laboratory course in quantitative analysis. (Elective in the Senior year to students in the B. S. courses. Three hours a week.)
- Chemistry VII. In this course five exercises a week are devoted to laboratory work. During the first semester this is given to quantitative analysis, the exercises being selected with a view to familiarizing the students with the leading quantitative operations involved in the gravimetric, volumetric and electrolytic methods in vogue. As far as possible, the work of each individual is selected to aid especially in the line of work he may wish to pursue in the future, as medicine, pharmacy, analytical chemistry, etc.

During the second semester, the laboratory work is still further specialized for each student and is devoted especially to investigation on some one subject, leading to material for a thesis.

During two hours a week a course is given in chemical technology which comprises a consideration of the chemical principles involved in the manufacture, refining and preparation of the leading products of commercial importance. *Thorp's Outlines of Industrial Chemistry* is used as a text, lectures being given occasionally enlarging upon or explaining the subject matter of the book. Among the subjects studied may be mentioned fuels, sulphuric acid, the soda industry, the chlorine industry, fertilizers, cements, glass, pigments, coal tar, mineral oils, soap starch, sugar fermentation industries, explosives, textile industries, paper, leather, etc. In connection with this visits will be made to such facilities and chemical industries as may be accessible.

To those who desire it, a short course during this time is offered in the assaying of gold, silver and lead. (Seven hours a week throughout the Senior year. Required of students in the Chemical course.)

Chemistry VIII. – A course of lectures in agricultural chemistry, embracing the chemistry of soils, the atmosphere, plant and animal growth and feeding, fertilizers, dairy products, insecticides, etc. (Three hours a week for one semester in the Senior year. Required of all students in the Agricultural course.)"

At the end of the time period, 1905-1910, at the beginning of the Murphree presidency, (cf. Proctor, [1, p. 27]) the organizational structure of the University of Florida was revamped and both the College of Arts and Sciences and the Graduate School were set up. In taking this action, Murphree was following national patterns, cf. Veysey [9, pp. 264–268]. In the 1910–1911 *Catalogue*, the following organizational structure is present:

- I. Graduate School
- **II.** College of Arts and Sciences

Degrees offered–A.B., B.S., A.B. in Education

III. College of Agriculture

B.S. in Agriculture

IV. College of Engineering

- B.S. in Civil Engineering
- B.S. in Electrical Engineering
- B.S. in Mechanical Engineering
- V. College of Law

Curriculum leading to LL.B.

- **VI.** Sub-Collegiate Division
 - a). Sub-freshman course

- **b**). Short courses in Education
- c). Short courses in Agriculture
- d). Short courses in Mechanic Arts

The following information is to be found on the GRADUATE SCHOOL

- "Organization. The work in this school is under the direction of the Committee on Graduate Studies. This committee consists of Professors Anderson, Banks, Benton, Davis, Keppel and Vernon.
- **Degrees Offered.** The University is not in a position at present to lay any great stress upon the graduate work. Its work is mainly of a college grade and will doubtless remain so for a good many years to come. However, for the benefit of those who wish to carry their studies farther, the University does offer the degree of Master of Arts (M.A.) and the degree of Master of Science (M.S.). Many of the departments of the colleges are prepared to give courses leading to these degrees.
- **Prerequisite Degrees.** Candidates for the Master's degree must possess the corresponding Bachelor's degree of this institution or an institution of like standing.
- **Applications.** Candidates for the Master's degree must present to the Chairman of the Committee on Graduate Studies a written application for the degree not later than the first of November in the year in which the degree is desired. This application must name the major and minor subjects which are offered for the degree and must contain the signed approval of the heads of the departments concerned.
- **Time Required.** The student must spend at least one full academic year in residence at the University of Florida as a graduate student, devoting his full time to the pursuit of these studies.
- Work Required. The work is twelve hours per week. Six hours of this work must be in one subject (the major) and of a higher grade than any course offered for undergraduate students in that subject. The other six hours (major or minor) are to be determined and distributed by the professor in charge of the department in which the major subject is selected. It is understood, however, that no course designated primarily for students of a lower grade than the Junior class will be acceptable as a minor. It is also to be understood that while the

major course is six hours, these hours are not the same as in undergraduate work. It means that the professor has the privilege of using these six hours for recitations or examinations, but the student will find that considerably more time is required to prepare one of recitations than is the case in an undergraduate course.

Dissertation. It is customary to require a dissertation showing original research and independent thinking on some subject accepted by the professor under whom the major work is taken, but this requirement may be waived at the option of the professor, subject to the approval of the Committee on Graduate Studies."

It is interesting to read in the 1928 posthumous biography of Murphree [10, pp. 47-49] about this reorganization according to the recollections of the faculty who were on the small staff during the fall of 1909.

"... But during that term Dr. Murphree gathered his faculty together and said to them in substance:

'Gentlemen, it will look a little pretentious for our University to be organized into separate administrative groups known as colleges, but I am looking to the future. I propose that we establish the four colleges in the university group from the four outstanding departments of instruction. You will have to start with small enrollments, but all great things have small beginnings. Gentlemen, you will see the day when more colleges will be added. It is imperative that we lay a foundation for big things in the future.'

Dean J. N. Anderson of the College of Arts and Sciences was one of the group who listened to those words. As he discussed that memorable meeting of the University of Florida faculty, he said:

'It is the best illustration of his foresightedness that I know of. Dr. Murphree was a cautious man, but in matters affecting the growth of the institution he had chosen to head, he was fearless and aggressive.'

After placing the matter squarely before his associates of the University, Dr. Murphree took a vote on the organization of four colleges. The vote carried. The University of Florida became a university in fact. The organization provided for these four colleges: Arts and Sciences, with Jas. N. Anderson as dean; Agriculture, with J. J. Vernon as dean; Engineering, with J. R. Benton as dean; and Law, with A. J. Farrah as dean.

In addition to these colleges, there was a position as director of the Experiment Station and Superintendent of Farmers' Institutes and Extension Division filled by Prof. P. H. Rolfs. Dr. L. C. Crow was secretary of the general faculty, and Dr. E. R. Flint of the department of chemistry was resident physician to the University.

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'We who were selected deans found ourselves thrust into positions which seemed to be more or less honorary with no additional salary for the time being, but we quickly discovered that with the growth of the University our jobs would take on administrative proportions,'

said Dean Anderson.

The enrollment climbed steadily from that year.

At the close of the academic year 1909-1910, when Dr. Murphree was finishing the first year of his administration as president of the University of Florida, there were enrolled in the regular classes of the University 112 students

The results of Dr. Murphree's plan to broaden the scope of university instruction and work through the various colleges were apparent in the enrollment figures during the first year the plan was in operation, 1910–1911. The enrollment jumped from 186 to 241.

In [10, pp. 57-58], Dean John Benton had the following comments about the early days of the Engineering College.

'The College of Engineering was the third of the group of four colleges that were formed at Dr. Murphree's direction in 1910."

In charge of the course was Dr. J. R. Benton who had been with the University since 1905.

'As a matter of fact,'

Dean Benton relates,

'I arrived in Lake City on the same train with Dr. Crow and came down with him, Dr. Farr, Dr. Anderson and Major Floyd when the University came to Gainesville.

With the organization of the new College of Engineering, it seemed almost an act of pure *nerve* on our part to enter upon a curriculum that we were not equipped to give. However, we had confidence with Dr. Murphree that as our students advanced to the upper years, money would be found to provide the teaching staff and equipment; and our faith has been justified. Previous to this we had granted five degrees in engineering, the class of 1909 being the first to receive such degrees from the University of Florida. Our enrollment during the first year under the new organization amounted to only forty-eight and the number of graduates in engineering at the preceding commencement was only two.

The first class to graduate from the Engineering College as a distinct college was that of 1911, with five receiving degrees; three in civil engineering and two in electrical engineering. The first bachelor degrees in mechanical engineering were awarded in 1913.

In 1913 the University of Florida raised its entrance requirements, and although this did not greatly affect the content of the engineering curricula, it did at first affect the enrollment in engineering. The first class to graduate under the new entrance requirements—that of 1917—contained only one member.

Since then the enrollment and the size of the graduating classes have gradually increased, until the present enrollment of the college [i.e., in 1928] is nearly 300, and the number of graduates last June was twentyfive.

The total number of graduates from the College of Engineering has reached 181, of whom the great majority are engaged in engineering or related occupations in Florida, although some have strayed to all parts of the United States and the outside world. The number of former students in this college who have not graduated has reached nearly a thousand, and many of them are doing successful work in the industries of Florida and the nation, and have retained their contact with the University, which we are very glad to have them do.'

A curriculum in chemical engineering was first organized in 1917, while Dr. Flint was head of the chemistry department.

'In my association with Dr. Murphree, I found him always ready to give his associates a free hand in the administration of their work, but he tried always to give us his hearty cooperation. Dr. Murphree was not an engineer, but was always sympathetic and helpful with our problems. He was always seeking to harmonize. He could be patient, and was called upon frequently. I believe this had a lot to do with his success. President Murphree was often silent for the sake of harmony, and some may have gained the impression that he was not standing firmly for the right. But a little time would always show that he was waiting patiently to put into effect what he knew to be right.' "

To put the scale of operations in perspective in these pre-World War I times, some enrollment and graduation figures may be helpful. At the first commencement in June 1909, a total of 8 degrees were awarded; 1 M.S., 5 B.S.'s, and 2 B.A.'s.

The Roll of Students in 1910–1911 shows the following enrollments out of a total of approximately 300

College of Arts and Sciences: a			
Seniors	8		
Juniors	6		
Sophomores	16		
Freshman	23		
Three Year Short Course on Education	7		

 a All but three of the students in Arts and Sciences were from Florida.

College of Engineering b				
Seniors	2	Electrical Engineering		
	4	Civil Engineering		
Juniors	3	Electrical Engineering		
	2	Civil Engineering		
Sophomores	13			
Freshman	17			

 $^b\mathrm{All}$ of the students in Engineering were from Florida except for one student from London, England.

The Degrees conferred in 1909–1910 consisted of the following:

Doctors of Law	2	
B.A.	3	
B.S.	2	General Science
	2	Civil Engineering
B.A. of Law	3	

The scale of things in those times is also nicely illustrated by an article in the May 27, 1908 *Gainesville Daily Sun* describing the Closing Exercises.

"The graduating exercises of the class of 1908 began Tuesday morning at 10:30 in the auditorium. The building was crowded, a large number of those present being strangers, although the majority were from Gainesville. While the crowd was gathering the Duval Orchestra of Jacksonville rendered excellently several selections. The exercises began with a short address from Dr. Sledd, announcing the character of the occasion. He then asked Dr. Hay to invoke the divine presence.

The second 'honor man' of the year, Mr. Jas. S. Shands, was then introduced, and in a few well chosen words welcomed the audience to the exercises.

After this salutatory the orchestra rendered another selection. Then Dr. Sledd gave a concise and pointed statement as to the conditions now existing in the University.

This was followed by the baccalaureate address by Governor Broward. Apt in illustration, full of common sense, this address was greatly enjoyed by all.

After a musical selection, the degrees and medals were conferred. Persons, R. F., and Shands, J. S., were awarded the degree of B.A., and Fisher, C. M., Earman, J. B., Gammon, J. R., Carter, P. J., and Cason, T. Z., were awarded the degree of B.S.. After those degrees were conferred the degree of M.S. was conferred with special credit upon H. S. Fawcett, B.S. (Iowa State College).

The president of the Board of Control, Hon. N. P. Bryan, was then introduced, who awarded the medals to the winners. The Buckman Medal, given by the board for the best work done in the Department of Civil Engineering, went to Mr. Hadley Taylor. A medal offered by the Colonial Dames was won by Mr. R. F. Persons with an essay entitled 'England's Commercial Policy Toward the Colonies.' The winner in the Freshman-Sophomore declamation contest was adjudged to be Mr. O. W. Drane. The winner of the oratorical contest from the Junior class was Mr. W. D. Martin; from the Senior class, Mr. P. J. Carter.

The awarding of these prizes was followed by a masterly valedictory by C. M. Fisher, the first 'honor' man.

The president then made several announcements, chief of which, perhaps, was the establishment of a new professorship, that of 'Secondary Education.' The incumbent of the new chair was Capt. Geo. M. Lynch. He also made announcements of courses of lectures to be offered next year in Gainesville under the auspices of the University Extension Committee. Each of the four lecturers, Doctors Sledd, Farr, Crow, and Banks, offered two courses of sixteen lectures each. Dr. Sledd's courses were on 'Education in the South' and on 'The elements of Ethics;' Dr. Farr's 'Contemporary Novels and Novelists' and 'The Literature of the South;' Dr. Bank's on 'Economic Problems.' The audience was then dismissed by Dr. Hay with the benediction, and the session of 1907-08 was over."

References:

- [1] Proctor, Samuel and Langley, Wright, (1986), *Gator History; A Pictorial History* of the University of Florida. South Star Publishing, Gainesville, Florida.
- [2] Schmidt Correspondence, Florida Oral History Project, Anderson Hall, University of Florida.
- [3] Schmidt, Karl, From Science to God: Prolegomena to a Future Theology, Harper Brothers, New York, 1944.
- [4] Gregory, Frederick, Nature Lost? Natural Science and the German Theological Traditions of the Nineteenth Century, Harvard University Press, Cambridge, Massachusetts, 1992.
- [5] Parschall, Karen and Rowe, David, The Emergence of the American Mathematical Research Community, 1876–1900: J. J. Sylvester, Felix Klein, and E. H. Moore, American Mathematical Society, History of Mathematics, Volume 8, 1994.
- [6] Archives, Carleton College, Karl Schmidt File.
- [7] Marsden, George, The Soul of the American University, Oxford University Press, New York, 1994.
- [8] Florida Oral History Project, University of Florida, interview of Mrs. Robert Benton, by Professor Samuel Proctor, February 26, 1969.
- [9] Veysey, Laurence, *The Emergence of the American University*, University of Chicago Press, Chicago, 1965.
- [10] Armstrong, Orland K., The Life and Work of Albert Murphree published for the Murphree Memorial Fund, 1928.

Appendix A

Dean John R. Benton Remembered

We have indicated in a footnote in this chapter that Dean Robert Benton died in his mid-fifties in 1930. Following up on that footnote, we will now provide other material about Dean Benton in this appendix rather than in the next chapter, since that chapter is more focused on the Mathematics Department itself than this Chapter 2. The 1930 Seminole Yearbook contains the following tribute to Dean Benton:

"The world of science recognized and admired his deep and comprehensive learning; the entire University felt and profited by the force of his ideas. The College of Engineering over which he presided as Dean for so many years, stands as a monument to his ability as an administrator, to the inspiring power of his steadfast character. His students knew this, and took pride in it; but for his kindly, understanding nature, they loved him. Believing that the University has lost one whose influence will always be felt, we dedicate this, the twenty-first volume of the Seminole.

> In Memoriam: Dr. John R. Benton June 6, 1876 – January 8, 1930."

Second, in the interview [8] with Dr. Proctor referenced above, Mrs. Mabelle Benton comments about her impressions of her husband's service at the University of Florida and his interaction with the student body.

Proctor:

"So he went off to Gottingen to study physics. Obviously, science was always his great love and interest."

Mrs. Benton:

"Yes, actually the university was so small when he came here, that he told me one time that he had taught every class that was offered in engineering. But that wasn't surprising. You see, when they would get a new man, they would get him to teach some specific thing, and Dr. Benton could turn to something else.

Actually at the time of his death he was still teaching two classes, one in electrical engineering and one in physics. The physics was first-year physics because he said he wanted to get to know the students the first year they came. As long as he lived they kept physics in the engineering department so that gave him a chance to know the freshmen engineering The electrical engineering class he taught was a junior class. He had written the text for that at the urging of the dean of the university, Purdue, I guess

Mrs. Benton:

"No, I guess he [Dean Benton] had a reputation for being pretty strict in his grading. Somebody said this to me the other day. Dr. Crow had flunked him in Spanish when he was working for his master's degree. And I said I knew he had done it for more than one person, and I thought it was a mistake. In other words, if a person, if that wasn't his main interest, and he was just taking that Spanish to get the credit because he had to have it to get his degree, and if he had made almost a passing mark, why not give him a passing mark? But Dr. Crow just hewed the line."

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Proctor:

"Was Dr. Benton that kind of grader?"

Mrs. Benton:

"He was to some extent, but I don't believe he would have failed a man if he, you know, were right on the edge of passing. But I was going to say this. I do know that some of his students who were poor students were good friends. So I don't think he was too unreasonable."

Elsewhere in the oral interview, Mrs. Benton recalls hearing the following told her. An engineering student recalls another student telling him that Dr. Benton asked him to come to his office and there Benton told this student

Mrs. Benton:

"'... You are not living up to your capacities and what you really could do. You could do better than this.' I don't know how many students Dr. Benton had talked to this way,

but I do think that he felt an interest in his students very much."

Another thing Mrs. Benton mentions in [8] is that, of course, there was no formal Placement Office in those times. But Dean Benton and Dr. Chandler organized the Florida Engineering Society in order to form industrial links, and in this way, Benton and Chandler placed the engineering college graduates themselves.

Appendix B

What Became of Andrew Sledd?

Naturally, after uncovering all the material presented in Chapters 2, 3, and 4, my wife Norma and I were rather curious as to what had become of Andrew Sledd after he retired from the presidency of the University of Florida in 1909 at about the age of forty. Fortunately, I found a little volume, Albert Barnett, Andrew Sledd — His Life and Work, printed at the Candler School of Theology of Emory University, apparently in 1956, which has the following introductory remarks by John Bransford Nichols.

"In 1938, ⁷ feeling the need of some ministerial meetings in which emphasis could be devotional and intellectual, several ministers in the Alabama-West Florida Conference met and inaugurated a seminar which soon became known as the Andrew Sledd Study Club.

During the years since, the group has grown in numbers and the members have grown spiritually and mentally through worship, fellowship, writing and hearing papers, and discussion of the many themes which have been considered in the semi-annual meetings.

The group honored itself by choosing a name that commemorates the teaching and preaching ministry of Andrew Sledd, one of the most eminent Methodists this Conference can claim.

This monograph by Albert E. Barnett was presented as a paper in the spring session of 1956."

We have already seen that Sledd studied at Randolph-Macon College in Ashland, Virginia, graduating in 1894. We have not remarked that he was a star baseball player, playing first base and also gaining renown for the distances he could hit the ball. Also at Harvard, where Sledd received the M.A. in Greek in 1896, Sledd continued to play baseball with the Harvard team and apparently was known as one of Harvard's great players during those times, according to [1]. We have seen in Chapter 1 that Sledd accepted the chair of Latin at Emory College on graduation from Harvard in 1896 and that as a result of boarding with President Warren Candler, came to meet the Candler's only daughter Annie Florence, whom Sledd married in 1899. The couple had nine children. In [1, p. 10], we learn of the specific incident that had prompted the *Atlantic Monthly* article on the Negro question which was to result in Sledd's resignation from Emory in 1902.

"... A lynching took place at a way station between Atlanta and Covington in the early Summer of 1902. Excursion trains were run from Atlanta to enable Atlanta folk to see the ghastly remains of the victim. Himself enroute home from Atlanta, Sledd was sickened when a souvenir hunter exhibited a charred finger bone and the remains of a knee cap as

 $^{^7\}mathrm{ed.},$ just a year before Sledd's death in 1939

treasures to take home. Physical nausea might have ended the reaction of some men, but not A. Sledd. Here was a challenge to decency and civilization and he took his pen as the weapon with which to slay this dragon of barbarism. This was the origin of his article that appeared in the *Atlantic Monthly* for July 1902, Volume 90, pp. 65-73..."

Here is Barnett's summary of this article for his seminar presentation, [1, p. 11-12].

"By way of introduction, he criticizes the usual discussion of the general subject at two points:

- (1) With Southerners, the discussion is too largely sectional and partial;
- (2) With Northerners, lacking experience of actual conditions, discussion is theoretical and designed to meet conditions that they do not understand.

The South, in other words, insists the problem is local, not national, rejects light from the outside, and meets offers of aid with a surly,

'Mind your own business.'

The North, comparably, approaches the problem from the side of preformed theories. The truth must be sought between these extremes.

Positively, Sledd then argues that the Negro question is as national as the Tariff and Immigration, that its solution rightly enlists the interest of people as people regardless of sectionalism, that it requires an approach as rational as that employed in solving any problem. In effect, he declines to admit that here is a problem apart.

Two fundamental facts, he feels require recognition at the outset:

(1) The fact of inferiority: The Negro is in fact, in the main, lower in the scale of development than the White. Immediately and devastatingly, however, he adds that this inferiority is not irremediable, but is rather of the sort that may be erased by environment, i.e.,

'the indefinite continuance of favorable surroundings and the lapse of indefinite time.'

In other words, the Negro is a person, God's creature, with all the potentialities persons as such embody. Inferiority, though immediately real, is temporary and in no sense irremediable.

(2) The Negro has inalienable rights: The tendency in the South is to carry the admitted fact of the Negro's inferiority to the point of *dehumanizing* him.

'He is either unnoticed or despised.'

Precisely this is seen to be the crux of the problem.

'If the Negro could be made to feel that his fundamental rights and privileges are recognized and respected with those of the White man, that he is not discriminated against both publicly and privately simply and solely because of his color, that he is regarded and dealt with as a responsible, if humble, member of society, the most perplexing feature of his problem would be at once simplified, and would shortly, in normal course, disappear.'

Tragically, however, the Negro at his worthiest and best

'may not eat at the restaurant of the whites, or rest at the white hotel ... and if, on a Sabbath, they would worship in a white man's church, they are bidden to call upon God, the maker of the black man as well as of the white, and invoke the Christ, who died for the black and white alike, from a place apart. As things stand, the Negro must *know* and keep his place, a place determined not by his *ignorance* ... viciousness ... offensiveness but solely on the fact that he is a Negro.'

He then discusses lynching, citing statistics and records, as a flagrant and logical expression of this predominant attitude of contempt, and insists that alteration of contemptuousness is prerequisite to a cure of the disgraceful and barbarous practice.

Reverting to the basic proposition that the Negro has inalienable rights, Sledd continues trenchantly:

'There is nothing in a white skin, or a black, to nullify the essential rights of man as man The home of a Negro is as sacred as that of a white man; his right to live as truly Godgiven. If a Negro can be kicked and cuffed and cursed, so can a white man. If there is no wrong in dishonoring a Negro's home, there is no more wrong in dishonoring the white man's. If the Negro criminal may be burned at the stake with the usual accompaniments of fiendish cruelty, a white man guilty of the same crime, deserves, and should suffer the same penalty.'

Concluding, Sledd generalizes in threefold affirmation:
- (1) 'The radical difficulty is not with the Negro, but with the white man! So long as the Negro is popularly regarded and dealt with as he is today, his problem will remain unresolved'
- (2) 'The development of a free people is a process of law, the gradual unfolding and expansion of the inherent potentialities of the race. If they are capable of advancement, they will inevitably advance; if not they will inevitably fail and fall out; and no artificial conditions, temporarily created can permanently affect the operation of this law.'
- (3) 'The solution is, therefore, to give the Negroes fair and favorable conditions, and suffer him to work out, unhampered, his destiny among us.' "

So Sledd wrote this article when he was in his early thirties, the repercussions of which followed him to Florida as we have seen in Chapter 1. Barnett has a colorful description of the immediate reaction to this article in the town of Covington where the Sledd's were residing, [1, p. 4].

"Unfortunately, the College ⁸ was changing presidents, and the incoming executive had his eye on the Episcopacy ⁹ though he was to wait until 1920 for actual election. Sledd was burned in effigy at Covington and there was real danger that he might be tarred and feathered and ridden out of town on a rail. With his characteristically cool courage, he did not even bother to mention these dangers to his young wife. This turned out to be fortunate, because in complete innocence Mrs. Sledd dressed herself and baby Frances in their *Sunday best* and went shopping in Covington, the afternoon of the day of the noon burning in effigy. The citizenry assuming that Mrs. Sledd knew what had happened and was contemplated took this shopping expedition as an exhibition of superb calm in the Sledd household and were themselves calmed and shamed, with the result that no further violence took place."

As we have already learned in Chapter 1, following Sledd's resignation from Emory, he accepted his father-in-law's financial aid to enter graduate study at Yale University, where he received the Ph.D. in 1903 in Latin. Barnett comments that at Yale, Sledd was active in football and boxing. During this time, Mrs. Sledd and baby Frances stayed with Sledd's sister in Norfolk. During the summer months, the Sledds resided with Bishop Candler in Atlanta. We have seen previously that Sledd spent 1903– 1904 at Southern University in Greensboro, Alabama, as professor of Greek. Barnett himself entered Southern University as a freshmen in 1913 and reports [1, p. 4]

⁸ed., Emory

⁹ed., i.e., in obtaining the rank of Methodist Bishop,

"there still lingered on the campus ... reports of Sledd's sensational feats as a baseball player and coach of the college team in 1903-1904 when he taught Greek in the College."

Dr. Zebulon Judd, who was on the faculty of the University of Florida, had the following recollection in [1, p. 5] of the struggle between President Sledd and Professor Marion previously presented in the *Memories of a Southern Schoolmaster*:

"... Judd told me that he was returning to his office after lunch one afternoon and saw two men in a physical clinch on a small gallery outside the window of the president's first floor office. As he got to them, the wrestlers fell to the floor and rolled off onto the ground without relaxing their grip. There at his feet, to his complete dismay, lay President Sledd and a professor whose incompetence had required notice of dismissal from the faculty. He separated the combatants without too much difficulty and helped mollify their emotions. The offending professor had reacted with violence to Sledd's notice and physical altercation ensued. A beatific smile and gentle spirit, never meant reluctance to fight on Sledd's part whether the fight involved physical force or the employment of what a brother of the Atlanta Conference later called the use of his *rapier tongue*."

A good example of Sledd's stubborn insistence on defending his principles even where a more diplomatic approach might be safer occurs in the unpublished *Autobiography* of a Southern Schoolmaster. In the portion of this manuscript in which Sledd is discussing the low standards in Southern higher educational circles and how a higher quality of faculty is needed to alleviate this situation, Sledd devotes a whole page to a harsh criticism of his father-in-law Bishop Warren Candler's performance as president of Emory College.

One of Sledd's daughters comments in [1] about Sledd's construction with student volunteers of an early campus building which we mentioned in Chapter 2.

"Father ... hated false pride and glorified in the dignity of manual labor. He taught us to do anything that needed to be done, as long as it was right. No honest labor was below his dignity. With his own hands, he helped to build a small building to house the Mechanical Arts classes at the University of Florida, to make the money go further. This wooden structure was built between Buckman and Thomas and has long since been demolished."

Proctor [2, p. 27] offers the following account of Sledd's resignation from the Presidency of the University of Florida in April, 1906. The account begins actually, with Sledd's appointment to the Lake City Institution in 1904.

"While Sledd had the full support of the Board of Control, there were several influential state officials who had never liked him. In 1905, after the Buckman Act, members of the State Board of Education tried to block his appointment as president. They preferred Albert A. Murphree, president of the West Florida Seminary of Tallahassee. If it had not been for the strong endorsement of P. K. Yonge and Nathan P. Bryan, who persuaded Governor Broward to support him, Sledd would never have been appointed president.

Animosity toward Sledd continued after the University opened in Gainesville. The anti-Sledd faction blamed him for low student enrollment, protesting that entrance requirements imposed by Sledd were *too rigid*. Presidents of the state institutions were then selected annually in Florida, and the matter of Sledd's reappointment was on the agenda for the March 1909 meeting of the Board of Control.

The vote on the reappointment was postponed, however, because the State Board of Education—which had jurisdiction over the Board of Control—was adamant about getting rid of Sledd. Among those on the State Board of Education who favored a new president were the newlyelected governor, Albert W. Gilchrist, and the state attorney general, Park Trammell. There was even a threat that funds for construction of new buildings on the campus were blocked unless action was taken against Sledd.

Although the Board of Control members were willing to continue their endorsement of Dr. Sledd, he decided in early April to resign. His resignation was accepted and the board immediately offered Albert A. Murphree the presidency. Murphree accepted, and his administration began July 1, 1909."

Barnett [1, p. 6] offers a rather more diplomatic account of these events.

"The emotional aftermath of conflicts engendered by transfer of the University from Lake City to Gainesville caused Sledd to conclude that his continuance as president of the University constituted a liability to its progress. Of his own volition and on this disinterested basis, he resigned at the close of the academic year in the Spring of 1909. The Board of Regents demonstrated their admiration of him by unanimously resigning. With characteristic objectivity and self-forgetfulness, Sledd induced them to reconsider for the good of the university."

During the summer months, Sledd and his family returned to Atlanta to Bishop Candler's home and Sledd wrote feature articles for the *Atlantic Journal*. In November, 1909, Sledd became pastor of the First Methodist Church in Jacksonville. Barnett recounts in [1, p. 6].

"He chose to join the Florida Conference ¹⁰ in part, to show the political *big wigs* of Florida that he had no fear of them and that his resignation from the Presidency of the University did not mean they had or could run him out of the state! He found Jacksonville a *vice-ridden* city and his vigorous leadership of reformation crusades rekindled the ire of the same politicians who had opposed him at the University. His family now numbered four children, and their need of a yard in which to play and of a less vice-saturated environment than downtown Jacksonville afforded made Sledd hospitable toward the invitation to the Presidency of Southern University which came during the Summer of 1910. He moved to Greensboro ¹¹ and began his tenure in the Presidency extending 1910–1914. In the Fall of 1913, I became personally acquainted with him during the last year of that tenure, when I entered Southern University as a freshmen for the year 1913–1914.

Sledd immediately offended many *oldtimers* by having the books of the University audited and by requiring a more careful payment of the modest tuition of \$25.00 a term. By rigid economy and careful management, he kept the University solvent and throughout his administration paid all salaries save his own in full. He won the confidence and support of townsfolk by paying all local bills in full when presented and by conscientiously safeguarding the credit of the University at the local banks. Professors' salaries were low, the highest being \$1800.00, but Sledd assembled and held an able faculty, demonstrating that professors do not live by bread alone, but are appreciative of scholarship and inspiring integrity in Administration. The Chapel was the point of contact between the student body and President, and once during each week he was the speaker. There was always a full attendance when Sledd spoke and all of us knew that here was a man of deep seriousness, unquestionable integrity, vital religiousness, who gave his own uttermost and who demanded the best of which others were capable. He made no distinction between personal and institutional ethics, and two unforgettable statements illustrate this indissoluble unity: Of the college he would say,

'This college doesn't have to survive: I'd sooner lock the doors and throw the key in the bushes than to be party to keeping it alive dishonorably.'

¹⁰ed., of Methodist ministers,

 $^{^{11}\}mathrm{ed.},$ Alabama

Of the person, he would say,

'Necessity requires no moral compromises. A man never actually has to do but two things: die and face the judgment of a righteous God.'

Somehow, this tall, gaunt, fast walking man who seemed to push himself so mercilessly, made those two convictions stick in my mind. He did not hesitate to enforce them concretely in cases of student discipline. The son of a prominent minister in the Alabama Conference had a fight with a Negro on the streets of Greensboro a few years before I entered as a student. He beat the Negro badly with a pool stick. Dr. Sledd ascertained the facts and promptly had the sheriff jail the student and saw to it that he spent a night in jail. Then he telephoned the boy's father and notified him of the boy's arrest and expulsion from the college and suggested that he come and get him. The extent of his cooperation with the wrathful father was in getting the boy out of jail and helping him leave town without criminal prosecution. Nor would he admit the young hothead next year! One afternoon, a half dozen boys hid in the gallery of the gymnasium to peep at the coeds practicing basketball. Billowing black bloomers and long black stockings and wrist length sleeves didn't offer a too extensive visibility, but the boys of those days were grateful for *small favors*. Two of the President's nephews from Virginia were among the *peepers*. Next morning at chapel, the President handled the matter in this terse fashion: Six young men sneaked into the gallery of the gymnasium to watch the coeds practice. That is not to happen again. Just how definitely do I mean that? This definitely; the man who does it again goes home on the next train! Everyone knew exactly that would happen, and thereafter, save on public occasions, no boy came near the gymnasium when the coeds were using it. Knowledge of the swift and inevitable penalties for misconduct meant that disciplinary problems hardly existed under the Sledd regime."

In 1914, the Candler School of Theology was formed at Emory University. Sledd left the presidency of Southern University and became the first Professor of Greek and New Testament Literature and also served as librarian of this theology school. Sledd was to remain in this position until his death in March 16, 1939, almost one year after his eligibility for retirement in November 7, 1938. Also during this general time period, Sledd served on the Board of Public Instruction of Decatur County, for most of those years serving as the treasurer. We have further evidence for the reduction of salary during the depression, in that it is recorded in [1, p. 9] that Sledd's salary had been reduced from a maximum of \$4,000 to \$3,200, a reduction of twenty percent. Here is a story told about Sledd's continuing to maintain standards while at the Candler School of Theology, [1, p. 9].

"... a student who had begun the study of Greek in Sledd's classes at Greensboro matriculated in Candler School of Theology and proposed to register for a reading course in Greek.

'You will have to take an examination in grammar'

warned the austere professor. The candidate took said exam and came hopefully next day to get the verdict. Sledd looked up from his desk with the inimitable smile with which he usually greeted everyone and said,

'Walter, you made forty on the exam, and I must tell you I am not in the least sorry. You will need to take the elementary course, and this time you must master it.' "

Here is another circumstance detailed in [1, pp. 14-15] with which Dr. Sledd had to struggle, while at the Candler School.

"Financial reverses that were to sap his energy for twenty years were added to this bereavement ¹² in quick succession. Seven children in the modest bungalow which the Sledds had managed to buy hardly left room for orderly living. An advantageous sale of the smaller house was negotiated and a more adequate home was contracted for. Everything was being done on a *cost-plus* basis, and before the interior of the new house was completed, the contractor presented receipted bills for \$22,000! Dr. Sledd was dismaved, but was held by contract, and should ered the debt, unpayable from a maximum salary of \$4,000, to be reduced when depression struck by 20%. He took engagements that paid immediate honoraria in the effort to discharge his debts and was never free for the kind of writing that would have measured his exhaustive scholarship and honored the University that cut his salary by 20%. He lost his home under mortgage foreclosure and when its sale at auction was insufficient to discharge the unpaid balance of the mortgage, the mortgage holders took a *deficiency* judgment under an iniquitous Georgia statute, under the authority of which they took other real estate holdings and garnished Sledd's reduced salary at the University. At the time he died in 1939, I wrote Mrs. Sledd to express interest in buying selections from his library. She was forced to reply, that only the insurance left her was exempt from the *deficiency*

¹²ed., the death of his oldest son Andrew at age 16 in 1919 shortly after a high school track meet in which Andrew entered too many events, then developed malignant endocarditis

judgment above mentioned, and that furniture and books would have to be held under these claims.

'So at present,'

she wrote,

'I may not sell any of his books. Perhaps later I may be able to do so. I'd be only too glad to give them to you. I know it would please Mr. Sledd to know you had them.' "

Sledd was known within Methodist circles for his writings on religion. He wrote tracts on the Gospel of St. Mark, the Acts of the Apostles, and on various version of the Bible [*The Bibles of the Churches*]. He contributed regularly to the *Adult Student and Teacher's Magazine* for thirty years and was also a member of the original committee for writing the New Testament portions of the Revised Standard Version of the Bible.

Apparently like our long time chair Dr. Simpson, Dr. Sledd wrote poetry. Barnett records in [1, p. 10] that the following poem was found on Sledd's desk at Emory after his death.

" FAITH I'm cast upon a troubled time; Old roads seem blocked, new roads untried. In doubt, I halt, but may not stand: The forward urge possess me; I must move on. I want to know the right, the true, — Some order of the scheme of things — To be a part of some great plan In which to lose, and losing, thus To find myself. What shall I do? I'll thrust this want, This voice from out the vast that speaks In me larger, nobler terms Than brutish self or dull despair, And follow on. 'And if I fail?' I cannot fail: In that answer the soul I've found in effort to become, — Which is itself becoming, —all That I have dreamed."

An interesting postscript to this appendix was provided to me in the form of e-mail correspondence with our alumni Professor John Neff (Ph.D. 1956) of Georgia Institute of Technology. He wrote me the following in August, 1994: Neff was recruited from Case Institute of Technology to join the Department of Mathematics at Georgia Tech in 1961 by none other than Dr. Marvin Sledd, who happened to be a son of Andrew Sledd!

"Andrew Sledd's son, Marvin, was chair at Tech from 1957 to 1962, and, in fact, hired me in 1961. I thought the statue between Peabody and Sledd Halls was Sledd, but discovered in 1992 that it was Murphree. We stopped off between Walt Disney World and Atlanta just after Christmas. I recall that the late Marvin Sledd did not take kindly to my casual remark that the hand of the statue often held an empty 12 oz. beer bottle. A statue of Kosziusko in Cleveland, Ohio, across from the Case Inst., also held an empty beer bottle, thanks to Case Students. ...

More on Marvin Sledd. He told me his father rode in the lead wagon of a mule train, when the University moved from Lake City to Gainesville. He had a shotgun in his lap, because the Lake City people were mad when they lost the University. I think I have seen a picture of this wagon. Marvin's mother was a Candler, from the family who acquired Coca Cola last century. Perhaps this made it easier for father Andrew to leave Gainesville for a theology professorship at Emory. I think Marvin was born here and told me of seeing downtown Atlanta in flames in the great fire of 1917. Marvin had an undergraduate degree (in Engineering) from Emory before World War II, he served in the Marine Corps during the war and came to Tech probably about 1951, after getting a PhD from Eric Reissner at MIT after the war."

References:

- Barnett, Albert, Andrew Sledd His Life and Work, Candler School of Theology, Emory University, 1956.
- [2] Proctor, Samuel and Langley, Wright, Gator History: A Pictorial History of the University of Florida, South Star Publishing, Gainesville, Florida, 1986.
- [3] Osborn, George Coleman, John James Tigert-American Educator, University of Florida Press, 1974.

Chapter 3 Summer, 1906: Off to Gainesville

In [1] and [2], Professor Samuel Proctor has given fascinating accounts of the intense competition between Lake City and Gainesville for selection as the permanent site of the new University of Florida created by the Buckman Act of 1905 and of the difficulties involved in actually moving the institution from Lake City to Gainesville during the summer of 1906. For instance, some Lake City residents brought a civil suit against the State charging that the 1884 contract which had located the Florida Agricultural Institute in Lake City would be violated if the University of Florida were relocated to Gainesville. Cawthon continued the packing operations, keeping in nightly telegraph contact with the Board of Control Chairman Nathan Bryan in Jacksonville and with President Andrew Sledd in Gainesville as to whether he had been arrested for violating an injunction against this move. Fortunately, the injunction was dissolved by Circuit Court Judge John Malone on July 19, 1906. A later problem which arose, was the reluctance of the Lake City citizenry to assist in the move. Hence, wagon teams and drivers, as well as laborers to assist in the packing, had to be brought in from Gainesville. Proctor gives a description of the dramatic march out of town on Monday, July 23, in which Cawthon rode at the front of the procession in the first wagon carrying a rifle, with members of the faculty in the other wagons, and the laborers walking behind, while silent and dour crowds lined the streets of Lake City, watching as if at a funeral procession. Proctor has told me that even 50 years later, when he was doing research for [1] and interviewing residents of Lake City, that bitterness still remained against the University of Florida for the choice of Gainesville as permanent site over Lake City, and that the citizens of Lake City would send their sons to college in Georgia rather than to the University of Florida in Gainesville.

In Appendix C of Chapter 1, we have indicated the gloom that possessed our early faculty after their spring tour of the new campus in March, 1906. We will take up this narrative, and detail from President Andrew Sledd's own viewpoint, the move from Lake City to Gainesville during the summer of 1906. At this time, a new technology was introduced into the President's office at the University of Florida. This was the use of a *Columbian Letter Copying Book* whereby, after a letter had been typed up, it was pressed into a blank page of a 500 page book with some kind of a press, and left an impression of varying quality. So, while I have read correspondence for Chapter 1 to and from President Andrew Sledd during 1904–1905, where actual copies or originals of the letters have been preserved in loose form, beginning with the academic year 1906–1907, we seem just to have the Sledd Letter Books most easily accessed in the Archives, four volumes from this first academic year. The very first book [3] which was brought out for my examination in the Archives happens to cover the time period June 1, 1906–October 12, 1906 exactly when Sledd was involved in moving the University from Lake City to Gainesville in time for the September 26, 1906 opening. As we did in Chapter 1, we will let Sledd himself describe certain of the events of this relocation in his own words.

The first matter dealt with at length in this letter book is the recruitment of a Professor of Agriculture and Horticulture. In July, 1906, Sledd is corresponding with various persons concerning the possible appointment of Professor N. D. Barrow of Louisiana to this post. It appears that Sledd's dealings with Professor Marion as related in Chapter 1 may have impressed Sledd sufficiently that instead of issuing an educational goals statement as he did to Professor Schmidt as recorded in Chapter 1, here we find Sledd writing the following on July 6, 1906 when requesting an assessment of Barrow's fitness for this position.

- "... I should be very glad to have information on the following points:
- 1. His training and educational history. Can he do work in both agriculture and horticulture of a fairly advanced grade?
- 2. His personality. Can he get on well and pleasantly with students and colleagues? Has he had any difficulties of this sort in his past experiences?
- **3.** Is he likely to be able to win the affection and esteem of students and the people generally, so as to build up and enlarge his field of work?"

In reading the correspondence concerning this position, we find that applications were received from a fairly wide geographic area, including the University of Missouri-Columbia; the Science Agency in Durham, North Carolina; the Agricultural College in New Mexico; Alabama Polytechnic in Auburn, Alabama; and from the cities of Raleigh, North Carolina; Chicago; Victoria, Texas; Rochester, Michigan; Columbus, Ohio; Woodbine, New Jersey; and Toronto, Canada. In reading this correspondence, we are again reminded of the scale of things in those days, for Sledd writes to Barrow that during the past year, the Department of Agriculture and Horticulture on the Lake City campus had only been dealing with 3 or 4 students. A later letter in the correspondence concerning this position, written on July 26, 1906, reveals that perhaps Professor Barrow has been worrying about the work loads at such a small institution: for Sledd writes

"Replying as to the question as to terms and conditions of your election to the University I beg to say that as I understand the case you are elected to the Professorship of Agriculture and Horticulture at a salary of \$1500 for the work of the regular school year, which is eight months. Of course, I understand that you will do the usual committee work, and will be ready to help in any other ways during the school year whenever emergency arises, or necessity demands. In other words, I understand that in accepting the position you will do all in your power to promote both the special and general interests of the University, and the University will be neither unjust nor exacting on you. I will make this point as it sometimes happens, as you are aware, that an instructor refuses to do any form of extra work, even during the regular period of his service; and while we shall not probably have occasion to call on you I think it desirable that we should understand that I may be at liberty to do so if emergencies arise, provided that the University calls are neither excessive nor unreasonable.,,,

Apparently, Barrow was not sufficiently enthused by such terms of employment, for we find in the University Record for 1906-1907 that the position is filled rather by

R. W. CLOTHIER, B.S., M. S., Professor of Agriculture and Horticulture

B.S., Kansas State Agricultural College, 1897; M.S. Kansas State Agricultural College, 1899; Assistant in Chemistry, Kansas State Agricultural College and Experiment Station, 1897–1901; Professor of Agriculture and Chemistry, State Normal School, Cape Girardeau, Missouri, 1901–1906; Assistant in Agronomy and Graduate Student, University of Missouri, 1906; present position, 1906–

Now when I was considering whether to relocate from Columbia, Missouri to Gainesville during 1986, one of my concerns was whether the summer temperatures in this state were humanly bearable to a Northerner. I had attended a weeks conference at the University of Florida during August, 1982, and was extraordinarily impressed with the shortness of the shorts of all of the students, and also the uniformly hot and humid temperatures. Unfortunately for me, in the fall of 1986 the only people I knew on the staff were the new chair, Professor Gerard Emch and a new Professor Michael

Fried, who had been one of my teachers in graduate school, and both of these men were experiencing their first academic year in Florida. Thus I was unable to get any first hand information about the Florida summers. Hence I was mildly amused to find the following letter which Sledd wrote to Clothier trying to recruit him to Gainesville, in which Sledd was trying to put the unpleasantness of the climate here during the summer in the best possible light. [I showed this letter to my charming wife Norma and she expressed the opinion that maybe I was being too hard on President Sledd and that the climate had changed for the hotter since 1906.]

"

September 13, 1906

Prof. R. W. Clothier

Columbia, Mo.

Dear sir;

I have received yours of the 10th and take pleasure in answering the questions you ask.

The University and the Experiment Station were for a long time united; the President of the University acting also as the Director of the Station. This continued until the present year when the President got the Board to appoint Prof. P. H. Rolfs as Director of the Station. The Station, will, however, follow us to Gainesville just as soon as practicable. Prof. Conner is going to leave the station for North Carolina, and I do not think that the Director Rolfs has as yet secured a man for the work.

You will observe from this that the work of Agriculture and Horticulture in the University is entirely separate from the Experiment Station work, and is devoted to instruction in these two subjects. We shall have ample ground in our new domain, though we shall be much hampered for funds during the first year owing to the removal of the Institution from Lake City to Gainesville, and the necessary heavy expense attending the effort to make preparation for it in its new location.

The Professor of Agriculture in the University would be on duty eight months, for which he would receive a compensation of \$1500. The Experiment Station workers, as you know, are on duty for 12 months.

The amount of money available would be small during the first year. We shall, I think be able to give you what was absolutely necessary in the way of laboratory facilities, but could promise you little beside that for the first year.

I do not think that you will find the weather nearly so hot here as in Kansas. I was myself born and raised in Virginia, and I get along in the climate very well indeed. We generally have a breeze at night, and the temperature in the shade, I should surmise seldom goes higher than 96 to 98. I think you should find the climate to be altogether agreeable.

I should like very much indeed to know whether these statements are satisfactory to you, as my choice of man for this place is narrowed down to yourself and possibly two others, so it is very desirable for me to know whether you could be reached and could accept at once.

Very truly yours President"

Another issue that arises in the move from Lake City to Gainesville is the following. As the Lake City institution was no longer co-educational after 1904, apparently enrollments of those interested in teaching careers were not sufficiently large to justify the continuation of the Normal School, which had been in operation during the first academic year 1905–1906 of our institution, spent in Lake City. Thus we find correspondence pertaining to Professors Cawthon and Floyd, in connection with this structural reorganization. For instance, this letter on June 5, 1906 written in connection with Cawthon's application for a position at a high school in Savannah, Georgia, reveals Sledd's own style when writing letters of recommendation!!

"Prof. Cawthon has taught Mathematics in the Normal Department of this Institution during the past year, but owing to serious modifications in the constitution of the University his position has been abolished. The fact is, that the effort to run a Normal Department for men only as could easily have been seen has not proved a success and has necessitated changes in the scheme. In these changes Mr. Cawthon's place was abolished and the Normal Department was made into a department of pedagogy in the University proper. Mr. Cawthon thus leaves us with no discredit to himself, but in fact with an excellent reputation with the authorities of this Institution as a Christian gentleman and an effective teacher. I think that you will find him particularly strong as a teacher and disciplinarian.¹ His scholarship is adequate for the work involved, and I believe he would prove an effective and satisfactory man for the position."

As fate would have it, Cawthon apparently was not awarded this position, and in fact he is listed in the 1906-1907 Record with the position of Librarian. We learn more about Cawthon in a letter of Sept. 20, 1906 written to a prospective student from Norfolk, Virginia inquiring about the possibilities of part time work; recall that the semester did not begin until Sept. 26. Sledd writes

¹ed., remember Arkadelphia?.

"... We employ students in sawing wood, firing furnaces, and sometimes as janitors and assistants in the shop. This work is not looked down upon in the Institution, but brings but small compensation—say, from \$5 to \$10 per month. I believe that our Librarian is going to use an assistant in order that he may study for his Master's degree, but he would not expect to pay the assistant more than \$6 or \$8 dollars"

It is interesting that W. S. Cawthon's name appears on the dedicatory plaque for Walker Hall, dated "A.D. 1926 ... Rudolph Weaver, A.I.A., Architect" on the listing of the members of the State Board of Education as

"W. S. Cawthon, Sup. Pub. Inst., Secretary."

Thus we find that Cawthon attained precisely the same office that William Sheats had held in Chapter 1 prior to his defeat for re-election. Margaret Rice recalls a trip during her childhood to Tallahassee with some historian and her mother, Mrs. Elizabeth Simpson, during which Cawthon was interviewed about the development of the University of Florida and Mrs. Simpson took shorthand notes of Cawthon's reminiscences.

Professor Samuel Proctor has reminded me that off times in the olden days, especially if men were teaching at *seminaries*, they often simply assumed military titles which then later were always associated with their names whether or not these gentlemen had ever seen any military service, unlike the case of Colonel Walker. Thus in Gainesville history, we find that both Mayor Thomas and Wilbur Floyd, who taught at the East Florida Seminary are often referred to as Major Thomas and Major Floyd.² Correspondence from a letter recommending Wilbur Floyd for the Professorship of Physics at the South Carolina Military Academy reveals that Floyd had been the teacher of science in the now abolished Normal Department and that during 1905-1906, Floyd had obtained the master's degree from the University of Florida while teaching that same year. It is striking to learn from the 1906-1907 Record that even though Floyd was teaching without the Ph.D. degree, that he had taken a year of graduate work at Harvard in 1902 - 1903 during the time period 1892 - 1905during which he was at the East Florida Seminary, first as Instructor of English, then as the Professor of Natural Science. Well, we remember Griffin-Floyd Hall, so it must be that Floyd remained with us in some capacity. Indeed, the 1906-1907 Record reveals that Floyd had the title of Assistant Professor of Biology and Physics during our first year on the Gainesville campus.

 $^{^{2}}$ ed., and investigations revealed that in fact William Thomas had not seen military service, but had served as Professor of Languages at the East Florida Seminary, as well as attending this institution himself.

It is interesting to learn that during 1906, both Sledd and Murphree were serving on a committee of the Florida Educational Association which was studying what curricular requirements should be required of Florida high schools. Among the recommendations, was the unfortunate need to reduce the amount of work required in the high school course because of the meager resources in the state at that time. Even though Sledd was a Greek scholar, the report recommended that the study of Greek in high school be dropped, as it was just too difficult to obtain teachers with a knowledge of Greek. The question also arose as to the desirability of Latin work versus scientific study. Here it was reluctantly conceded that it was easier to find Latin instructors than science instructors, even though some members of the committee would have liked to drop Latin in favor of science. Finally, it was concluded that with present resources, the Florida high school education for producing sound American citizens would have to be grounded on the three fundamentals of English, history and mathematics, for the time being.

Early in June, we find correspondence between President Sledd and Mayor Thomas as to which home Sledd should rent following the move of the University from Lake City to Gainesville. This correspondence shows that Sledd rented the Taylor house at a cost of \$36 per month. Earlier in Chapter 1, correspondence between Nathan Bryan and Sledd indicated that Bryan had a nephew in Kissimee, whom Bryan hoped would in due course of time be sent to the University of Florida. Here is part of what Sledd wrote to this nephew, Eugene Bryan, on July 12, 1906.

"I have secured a most excellent house just on the edge of town on the side of the university, and about a mile from the new buildings, I should judge, although it may be a little less. There is an excellent granolithic ³ sidewalk all the way, so that it will be convenient as possible. It is a very nice place, and the most suitable to be had in Gainesville at this time."

A letter of July 28, 1906 written to Carlos F. Canova of Palatka reveals that Sledd hopes to take in several suitable boarders, in addition to Bryan, and that the charge will be \$150 for eight months, but that the boarders should regard themselves as being members of the family. The 1906–1907 Catalogue reveals that Eugene Bryan held the rank of Lieutenant in Company A of the student body and that Carlos Canova held the rank of Captain in Company B of the student body. Canova was a junior who was majoring in Civil Engineering.

Now the move to Gainesville unfolded on several fronts: first, the physical removal of equipment from Lake City to the campus; second, the continued recruitment of students during this time period, the arrangement of the new schedule and opening

³ed., an artificial stone of crushed granite and cement

ceremonies, obtaining contracts for supplies like groceries and blackboards for the new University; third, getting the grounds and buildings in shape for the opening ceremony on September 27, 1906; fourth, publicizing the new University in Gainesville with advertisements, press releases, and newspaper articles. We will not comment in much further detail about the first very well known aspect, beyond recording that on July 27, 1906, for example, Sledd wrote to Albert Murphree that he was shipping 16 carloads of stuff by rail from Lake City to Gainesville and

"One of the livery stables refused to let us have any teams, so it was necessary to bring up teams from Gainesville. But I think, under the circumstances, the people of the town behaved very well."

and noting that in a letter of July 26, 1906 to Board of Control Chairman Nathan Bryan of Jacksonville, Sledd wrote that he had personally helped the laborers move the things for shipment to Gainesville in the rain and had caught a nasty cold in so doing, so was going to Atlanta to spend several weeks with his wife to recuperate. Especially during this time, Major Floyd was in charge of receiving the freight as it arrived in Gainesville.

Here is some correspondence with Professor John Benton concerning arrangements in the new quarters. The first letter of July 7, 1906 undoubtedly concerns the rooms which will be available for the engineering and physics instruction.

"

July 7, 1906

My dear Dr. Benton,-

I send you a rough sketch of the best rooms I can provide for you next year. They are the whole of one section of the second floor and are near the engine and other station machinery — light and warm, & I have given the roughest outline, but I guess it will serve for you to indicate anything you may want done. The partition can be cut if necessary, — not the heavy walls.

In arranging your rooms, please do not call for anything but what is really necessary for the work next year. You understand our situation, and will realize the necessity for what I say.

I cannot yet answer the rest of your letter, but will do so soon. I do not see any chance of the expenditure you suggest.

I am glad you are getting on so well.

Very sincerely yours,"

Several months later, Sledd writes to the architects in Columbia, South Carolina, concerning the final preparation of the scientific rooms for the new term.

Sept. 13, 1906

Messrs. Edwards & Walter, Columbia, S.C.

Gentlemen:

"

I have received yours of the 11th and read the same with interest. I do not think it likely that I will give any orders that would affect you except in the matter of plumbing. I have given the orders for Dr. Flint's plumbing and that in the kitchen, and I shall have to have some put in Dr. Sellard's, Dr. Benton's, and Professor Floyd's rooms, but I think there will be no possible difficulties in the premises. I will, of course, protect you should any arise.

Very truly yours, President

SA "

Here we should pause to note that President Sledd is now employing L. C. Algee as Stenographer, according to the 1906–1907 Record, which explains the SA which we find on most of this correspondence. It is interesting to learn in a note written by Sledd on October 10 to Lt. Ball, Commandant of Cadets, that in fact Algee is himself one of the students working their way through college, and that Sledd requests that

"Cadet L. C. Algee be excused from all forms of military duty, as his office work makes that imperative."

The 1906–1907 Record also reveals that Dr. Benton was the Chairman of the Committee on Schedules. That explains correspondence over the summer to Benton written to Benton's parents home in Sewickley, Pennsylvania in which Sledd requests that the Philosophy courses be scheduled either early in the week or late in the week, so that Sledd will be free to travel over the weekend. A second glance at the University Record reveals that during our first academic year in Gainesville, President Sledd had the title *President, and Acting Professor of Philosophy*; so we learn that Sledd was filling this position in the absence of a professor of philosophy and in that role, Sledd writes a New York publisher and requests that possible philosophy texts be sent him for examination, including Fite's Ethics.

A consultation of the *University Record* reveals that the following philosophy offerings were in the catalogue for the first academic year in Gainesville:

PHILOSOPHY

THE PRESIDENT

The courses in Philosophy are designed not only to provide that modicum of knowledge and training which is deemed desirable for the general student, but also to lay the foundation, and possibly furnish the impulse, for further and more technical studies in this department. The class work in each course will serve mainly to coordinate and render consistent a large amount of collateral reading dealing with several subjects discussed in the textbook. As the work progresses, special studies on given topics will be required from time to time, and the results of these studies will be presented and discussed before the class.

- Philosophy I. Psychology. A general introductory course. Tichener's Outline of Psychology, and James's Briefer Course will be used in class during the first term. During the second term Lloyd Morgan's Comparative Psychology will be used in class and portions of Wundt's Human and Animal Psychology and Ladd's Physiological Psychology will be taken as collateral reading. (Required of Pedagogical students, Junior year; elective; both semester, 3 hours.)
- **Philosopy IIa.** Logic. An elementary course. Creighton's *Introductory Logic*. Lectures and studies in the history, development and systems of logic. Exercises. (Elective; first semester, 3 hours.)
- Philosophy IIb. Ethics. A general course. Especial emphasis will be laid on the Principles of Ethics. Lecture and studies in the history of Ethics, and discussion of various ethical systems. Fite's Introductory Study of Ethics for class use, and James Seth's A Study of Ethical Principals for collateral. (Elective; second semester, 3 hours.)
- **Philosophy III.** Introduction to the Problems of Philosophy. In this course the great problems of Philosophy will be briefly presented and discussed, as for example, theism, pantheism, materialism, dualism, rationalism, empiricism, etc. Paulsen's *Introduction to Philosophy* will be used as a text, and collateral reading in various authors will be assigned in connection with the topics studied. Special subjects will be assigned for written discussion. (Elective; both semesters, 3 hours.)
- **Philosophy IV a and b.** This is a course in the History of Philosophy and requires two years for its completion. The work of the first year

treats Ancient Philosophy, that of the second Medieval and Modern. Weber's *History of Philosophy* will be used as a guide text. (Elective; both semesters; two years, 3 hours.)"

Recall from Chapter 1, that Professor Benton did not marry until 1914. Thus we learn from correspondence, that as a bachelor in Lake City, Benton had been living with the students in the dormitories as a monitor to help maintain discipline, and counted on this lodging to save on expenses. A sharp correspondence ensued when Sledd was not certain at the time of writing on Sept. 7, 1906 to Benton, still in Sewickley, as to whether this arrangement could be continued in Gainesville.

"... and if quarters for only one professor in addition to the Commandant were available Dr. Sellards should certainly have the preference in assigning them: both by reason of the fact of his long and faithful service and his natural expectation of its continuance and by reason of the great smallness of his compensation as a professor in the University. Of course, I do not believe that any of you receive sufficient salaries, and it is my own constant effort to educate the Board to a like view, but at the same time you are receiving distinctly more than several of your colleagues who are not without training and experience, notably: Doctors Sellards, Thomas, Schmidt, and I should not have been willing, and am not now willing to enter into any form of contract that would further increase your salary in disproportion to theirs. This will, I think, make clear our different points of view in this matter.⁴ At the same time I want you to understand distinctly that I do realize and regret the inconvenience it may have put you to (though that inconvenience would be no greater than that under which all of your colleagues, including myself, must labor for the coming year).

I can see that only one solution for the case along the lines that you suggest, and that is: that you should either put up your portable cottage on the campus with a distinct and written understanding, of course, that it could be removed at your pleasure, and take your meals in the Mess Hall to which I am willing to consent to the usual rate of \$12.50 per month, or you might secure board at some other place in town for a little while, probably not more than two months, or three, by which time it is probable that two or three houses will be available in the immediate vicinity of the University at which you might be able to secure rooms, with or without board, and make some other arrangement for living in the whole or part of one of them.

⁴ed., Dr. Benton apparently regarded it as being part of his terms of employment that lodging would be provided for him in the dormitory.

I suppose, however, that these features of the matter may remain unsettled until your arrival, and you may be sure, of course, as always that I will do what I can reasonably to help contribute in any way to your comfort and to your pleasure.

> Very truly yours, President"

Fortunately, later correspondence reveals that Benton was able to secure lodging in the dormitory as a monitor, so that this issue was safely resolved and the future of engineering on campus remained in the pioneering hands of John Benton up until his death in 1930.

Correspondence reveals that a curious aspect of the Buckman Act was that apparently there was no officially sanctioned mechanism for disbursing funds during the summer months when the University was not in session, or maybe no extra funds were provided apart from the regular budget for the 1906–1907 academic year to pay for the move from Lake City to Gainesville. Also, it appears that a certain Mr. Groom or J. G. Kellum, Secretary to the Board of Control, may have been less than cooperative on this issue. In a letter written on July 7 to the Chairman Nathan Bryan of the Board of Control, Sledd reveals that he is beginning to work on getting the grounds of the new University site in shape for the opening in September.

"I am going to take Cox⁵ and old man Mitchell over to Gainesville on Monday morning, in order to have Cox run out correctly some of the fence line, which are not now right; and go over the ground with Mr. Mitchell to indicate to him what he is to go to work on first &.

I shall get him to fencing the whole tract; — then on the athletic field and campus, — and shall tell him to get the necessary hands in order to push the work right along. Cox has just come to know of me if I can advance the money for the trip, – and I told him yes. And that to other things of the same sort, and you have one great defect of the Buckman Bill."

Around two weeks later on July 23, 1906, Sledd writes the following to Bryan.

"Mr. Mitchell writes that he has spent \$30 for labor on the new grounds, fencing, during the past week, and that he is in need of some more money. He says that he can use additional hands to good effect, if he can pay them, — but he says, also, that he must pay up every Saturday night, or he cannot hold any help worth speaking of; and, consequently, can do nothing on the work set for him to do.

⁵ed., Assistant Professor of Civil and Mechanical Engineering

I have already advanced him \$10 on his expense account, and \$45 for his payroll, and I am not able to do more; — neither, I may say, do I think I ought to be expected to do anything of the sort. Still, I may add that while on this unpleasant subject, I have been able to get extra colored help here for the rush of moving simply because I have personally guaranteed them their pay at the end of their week, or day, if they count it that way. This will mean a very considerable draw on my very meager resources; and I shall have to wait again until the middle of August before I can hope to get any of it back again, — if I can continue to carry on the scheme, and the work that depends on it.

I do not want to trouble you; — but this is distinctly not my business. I cannot be expected to keep these public enterprises going out of my own pocket. As you know, I have repeatedly paid and paid to keep things from going to pieces, without a word of thanks, or the very slightest evidence of official appreciation. To speak plainly, it is a shame, — for which Groom is in the main responsible. Will you kindly give me official instructions as to what course you desire me to pursue in the premises?

Shall I discontinue the work Mitchell is doing at Gainesville, and recall him for lack of money to keep him going? and shall I dismiss the men here who are looking to me for prompt settlement, and let this work drag on indefinitely? Please let me know at once.

I am sorry to write you this, but you see the difficulty; and it is up to you in your official capacity to say what is to be done about it. I am not able, or willing, to run this enterprise on my own funds, even supposing I had any funds. I realize that it is not your business to put up any money, any more than it is mine, but I want your directions as to the letting of the work go to the bowwows, if need be, for lack of the funds necessary to carry it on. Observe this "practical defect of the Buckman Bill."

On July 25, 1906, correspondence to Major Floyd indicates that he was being sent \$500, of which \$100 was for Mitchell to pay the hands at work on the University grounds and the remainder to pay the freight bill for shipping materials from Lake City to Gainesville. On that same date, a letter to Bryan requests that the board borrow \$500 and deposit this sum with a Gainesville bank. A letter of July 28th to Bryan reveals that Sledd had also lent Professor Flint \$250 on a note for 4 months, endorsed by Sledd and that Sledd believed that his original estimate of \$1500 for moving costs would prove to be valid. On July 28th, a letter to Prof. P. H. Rolfs in Lake City requests that Rolfs call on Mr. Jernigan for monies to pay the men working on stump removal at the Gainesville campus.

As September approaches, we find President Sledd writing to various suppliers

in an effort to get Buckman and Thomas Halls equipped in time for the opening. For instance, on September 6, 1906, Sledd writes to various school supply companies, such as the Central School Supply Company of Chicago, Illinois, requesting bids for blackboards, *either genuine slate or hyloplate*. Sledd also writes Mayor Thomas concerning the question as to whether the University of Florida owns the blackboards in the academic building of the former East Florida Seminary in downtown Gainesville. On September 7th, Sledd writes the following letter to the architects:

"Messrs. Edwards & Walters, Architects Columbia, S.C.

Gentlemen:

I have just seem Mr. Robertson and Mr. Bouis and given them directions to have the Chemical Laboratories fixed up with all water connections made according to the action of the Board at its meeting before the last when this matter was referred to me. I have also instructed Mr. Bouis to have the sinks put in the kitchen at the proper places. We are crowding the work as rapidly as possible, and will open on time though we have a great deal to do.

> Very truly yours, President."

On September 7th, Sledd files the following progress report with P. K. Yonge, a member of the Board of Control.

"I am glad to say that I have succeeded in getting a good force of hands, and am pushing the work to the utmost. We have nearly got the main building in shape for occupation, and if we could have the other dormitory turned over to us this morning we could have both buildings ready for occupation by the middle of next week. I have also a good force on the campus—about 20 men, but that is a terrific task, and I cannot yet see light enough to say how we may come out on that. We have, however, a good force and am working them to the limit."

On September 8th, Sledd writes the Auditor, W. P. Jernigan, in Lake City

"We are now in need of the mule and wagon that we use around the buildings and Mess Hall. If Will Smith is trustworthy and reliable please have him start through the country if he knows the way with the mule and wagon. If he cannot come get some other good driver who does know the way to come through with it." Also on September 8th, Sledd orders

" 24 planks 10 ft. long 13" wide and 3-4, or 1 in. thick 3 planks 14 ft. long, other dimensions as above 40 running feet of 2 1-2 in. bed moulding 100 running feet or quarter-round "

from the Eddings Manufacturing Company of Gainesville. On September 11th, Sledd complains to this same local firm

"One of the windows has fallen out of the shop, frame and all, so far as I know entirely without fault of ours ... give this your immediate attention and have it securely replaced at once."

On September 10th, we find President Sledd writing the General Electric Company in Atlanta; the Crocker-Wheeler Co. of Amphere, New Jersey; the Allis-Chalmers Company in Atlanta; Westinghouse in Atlanta; and the Florida Electric Company in Jacksonville requesting bids for supplying electric motors. Also, on September 10th, Sledd writes the General Superintendent of the Western Union Telegraph and Cable Co., c/o Local Agent, Gainesville, Florida requesting that accounts be opened for the University of Florida and the Agricultural Experiment Station, just as had been the case in Lake City. On September 11th, Sledd sends the following letter to Professor Floyd:

"Maj. W. L. Floyd Nicolas, S.C.

My dear Maj. Floyd:

Yours of the 10th received and contents noted. We could, of course, use you here, but as Capt. Cox will be in and Dr. Benton shortly I do not think it is imperative that you come before the 21st.

Professor Cawthon and I are busily engaged in the work of the University and have little time for loafing, or, indeed, for prayers and cleanliness.

> Very sincerely yours, President

SA"

On September 12th, Sledd again writes P. K. Yonge concerning progress with the building and grounds:

"Yours of the 11th just to hand.

Relative to the front fences, may say that I have taken Mr. Mitchell and his squad off the side and back and put them on the front fence and expect it to be completed by the opening if nothing happens to prevent. I have had one gate cut in temporarily by the buildings, as the main road will not be in good shape to use at once."

On September 13th, Sledd writes a number of firms, including the Swift and Company in Jacksonville, requesting bids to supply the dining hall with various provisions:

The Swift and Company is requested to bid for

3000 pounds of Butter 3000 pounds of Lard
500 pounds of Lard compound
500 pounds of White Meat
16 crates of Hams, 14's to 16's also
Sausages, breakfast bacon, soap, and washing powder in lots to suit "

Grocers in Gainesville and Jacksonville are requested to bid on

" 100 bu. I. potatoes 100 bu. Sweet Potatoes 8 cases Quaker Oats 8 cases Quaker Force 8 cases Quaker Cream of Wheat 500 # Coffee500 # Salt500 # Rice5 bbb. Grits 100 # Evaporated Apples 100 # Evaporated Peaches 50 # Prunes 500 # Lard Compound16 Crates Hams 14 to 16's 500 # White Meat 6 Bxs. Soap, 100 bar size. Armour's Light House 1 1-2 BBls. Washing Powder "

Correspondence of September 19th reveals that the winning bids went to W. S. Dorsey Co. of Gainesville and the following two Jacksonville suppliers: Baker and Holmes Co. and the Van Deman Company. However, Armour and Co. had not responded to Sledd's previous letter and he requested them a second time to bid on the butter, lard and meats. A letter written on October 4th to the Baker and Holmes Co. in Jacksonville reveals that apparently the Gainesville grocers were not at all happy that Sledd was purchasing provisions from Jacksonville: "... As I understand it, this is a holdup on the part of the merchants of Gainesville, to make a State Institution buy at retail rates. We have purchased for the last two years from Mr. Riley in Jacksonville without any protest from the merchants of Lake City, and I do not appreciate or approve this action on the part of certain local dealers in this town

I may say, also, that we are outside of the city limits, and as an actual fact there is no more reason, except proximity, why we should deal with the grocers of Gainesville than with any other grocers; and I may say further, that I intend to buy for this Institution where ever I can buy the cheapest, without reference to the sentiments or the conduct of any parties concerned."

On September 14th, Sledd writes the H. & W. B. Drew Company of Jacksonville, ordering rubber stamps: Signature Andrew Sledd Gainesville, Florida.

Also on September 14th, Sledd sends the following letter to Jernigan:

"Mr. W. P. Jernigan Lake City, Fla.

Dear Mr. Jernigan;

I have received yours of the 13th with enclosed salary check for \$210.30, and send you herewith my receipt for the same.

I think it desirable that the Military supplies should be started off at once. We are not quite ready for them, but we had better have them handy.

I note what you say relative to the mule, and it may be the Board will pay the bill, but I cannot be certain of that.

I think your office safe, furniture, records, etc. had just as well as come next week.

I will try to get you all bills by Wednesday.

Have not heard from Drew relative to your receipt blanks.

I am glad that you paid Mr. Perry the \$3.50. I am enclosing you check for the same. Did you, by the way, pay \$3.44 for my telegraph bill as Mr. Algee requested, in view of the fact that I forgot to enclose check in my letter concerning the matter?

We are delighted to hear that Mrs. Jernigan and the little girl continue well. I know you feel a head taller and switch around in proportion to your new dignity. You may give her our love and tell her we hope to see her soon. If it can possibly be done, you ought to be in your office and everything in shape by the opening on the 26th.

> Very cordially yours, President

SA Encl: Receipt Check"

The human side of President Sledd is nicely revealed in this letter to the dining hall matron, Mrs. Swanson:

"

Sept. 8, 1906

Mrs. S. J. Swanson Lake City, Fla.

Dear Mrs. Swanson,

I have received yours of the 6th and have asked Mr. Algee to meet you at the train. Your quarters will be ready for occupancy, and of course there will be a plenty that you might do, but I am afraid that you will be rather lonely there so far away from any neighbors or any occupancy until school opens; but you can consider that after your arrival, Mrs. Sledd would be very glad to have you stop with us for a few days, as we have abundant room.

I remember approving the bill for board due you for Gainesville men, and I think it passed at the last session of the Board and you ought to receive your warrant directly from Mr. Kellum. If you do not receive it by the 10th inst. write me and I will take pleasure in sending you the amount.

> Very respectfully yours, Andrew Sledd President"

On this same day, Sledd writes J. G. Kellum, Secretary to the Board of Control, in Tallahassee, explaining that this was money for the board in Lake City for the Gainesville men who helped pack up things for shipment from Lake City to Gainesville. Sledd writes "... she [Mrs. Swanson] says she needs this little amount, (I believe it was about \$18), in helping her moving to Gainesville, and I will appreciate it if you will look up the amount and see if it was approved by the Board, and so make special effort to get a warrant for Mrs. Swanson, either through Mr. Croom, or send it to her immediately"

In a letter of September 12th to Kellum, Sledd writes

"Thanking you for your courtesy in this manner and in the matter of Mrs. Swanson"

so we learn that these monies were able to be disbursed to help Mrs. Swanson pay her moving costs.

On September 18, 1906, Sledd writes the H. & W. B. Drew Co. of Jacksonville requesting name plates for doors and recitation rooms for Buckman and Thomas Halls, desiring that his order be filled by the opening next week if the cost would be reasonable. From this letter, we have a complete listing of all the rooms on campus during our first academic year in Gainesville! The following name plates were ordered:

Philosophy English Education Chemistry Mechanical Engineering Mathematics Zoology Physics History Classics Modern Languages Agriculture Military Science **Civil Engineering** Biology President's Office Secretary's Office Auditor's Office Matron's Office Director's Office Library Museum Chapel

Dining Room Kitchen Literary Society Toilet: 33 plates.

On September 19th, Sledd responds to a letter from a returning student from Jacksonville as follows:

"I have yours of the 18th to Dr. Sellards saying that you and your brother will be here on Sunday or Monday. I am very glad, indeed, that you are coming back, but I think you had better not come till Tuesday night, or Wednesday morning. We still have a good deal to do to get the buildings in shape for students, and we do not wish to be over crowded so soon. We will reserve you a good room, according to your request."

By September 25th, Sledd seems already to be settling into the civic affairs of Gainesville, for he writes Ferdinand Bayer of Gainesville thanking him for his letter informing Sledd of his election as Second Vice-President of the Gainesville and Alachua County Hospital Association. Also on September 25th, the University seems to finally sever its ties with Lake City, for Sledd writes C. A. Finley in Lake City that according to the provisions of the Buckman Act, the Board of Control was now to turn over the Lake City Agricultural Institute property to the Board of Education of Lake City.

We noted earlier that President Sledd handled all the publicity himself. Here are several examples. First, there is the advertisement that Sledd wrote for insertion in the *Gainesville Daily Sun*, *Jacksonville Times-Union*, *Pensacola Journal*, *Miami Metropolis*, and *Tampa Tribune* newspapers for recruiting students during July, 1906. So in addition to *canvassing* and requesting current students to turn up further prospects themselves, it was apparently customary to run newspaper advertisements to try to increase enrollments.

"UNIVERSITY OF THE STATE OF FLORIDA GAINESVILLE, FLORIDA

A High Grade Institution for young men. Literary, Scientific, and Engineering course.

Strict Military Discipline

Fall Term opens in Gainesville Sept. 26th. For catalogue and information address,

ANDREW SLEDD, President Lake City, Fla." Then in August 14, 1906, Sledd wrote these newspapers to change the address in this advertisement to Gainesville from Lake City, as we had gotten moved by that point in time. These advertisements were discontinued on October 4, 1906.

Perhaps the reader recalls from Chapter 1 the terrible luck President Sledd had lining up speakers for the opening ceremony during his first year in Lake City. On September 6th, Sledd is writing various state notables requesting their participation in the Opening Ceremony to be held in Gainesville at 3 o'clock in the Assembly Hall of the University building. He requested the Honorable Frank Clark, State Senator for Alachua County, and Mayor William Thomas to give 5 to 10 minute introductory remarks. Then Sledd wished to have the following speakers present remarks of approximately 15 minutes duration on the following topics:

N. P. Bryan on The University of the State of Florida

Dr. Lincoln Hulley of DeLand on Educational Comity

President A. A. Murphree of the Florida Female Seminary on the Unity of the State School System

Hon. W. A. Blount, Pensacola, on *The State University*, *The Institution of All the People*

Governor N. B. Broward on Education and Citizenship

Hon. H. H. Buckman on The Higher Educational Situation in Florida.

We did not find a program of the opening ceremony among the materials in [3], but did find Sledd's notes acknowledging acceptances from Blount, Broward and Murphree on September 13th as well as letters of October 6th to Broward and Murphree as follows:

Oct. 6, 1906

Governor N. B. Broward Tallahassee

"

Dear Governor Broward,

I owe you an apology, but in the rush of the season I have overlooked the fact that I should pay all of your expenses on your recent and most appreciated visit to the University. We have, of course, paid your hotel bill, and I should be very glad, indeed, for you to send me a general statement of the other expenses connected with your trip, so that we may send you the amount.

I sincerely hope you will pardon this oversight, and beg to remain

Very sincerely yours, President

SA"

Proctor on [2, p. 26] notes that Broward, Murphree, and Bryan from outside Gainesville and Congressman Frank Clark and William Wade Hampton, Sr., from Gainesville, spoke at the dedication.

Turning back to advertisement efforts, we find the following letter written to *The Tropical Sun* of West Palm Beach on September 15th:

"Gentlemen:

I thank you very much for your card of the 12th with your offer to give us a little write up if I would send it in to you. I enclose a brief statement concerning the University, and should very much appreciate your using it if you can to advantage.

Very truly yours,

President"

Luckily, even though Sledd's draft was not pressed into the Columbian Letterpress, his response was placed in this letterpress, so we can relay what he wrote.

"THE UNIVERSITY OF THE STATE OF FLORIDA

The University of the State of Florida will begin its new season in its new quarters at Gainesville on the 26th of the current month. This event marks an important epoch in the educational history of the State. The institution represents a condensation of all the higher institutions for men which were previously sustained by public funds. It now begins its new career in its new location, and we, together with all patriotic citizens of the State, wish for it the ample success which it deserves. Its curriculum is high — comparing favorably with the other state institutions in our sister states; and it offers most excellent advantages for thorough education to the youth of Florida. Its charges are as low as they can be made. Free tuition, no charge for medical fee, laboratory fee, library fee, or any other fee except that of a registration fee which is five dollars per year. Its discipline is on a strictly military basis: and the ideal of the institution is both intelligent and righteous citizenship. We believe that the University of Florida has bright prospects if properly supported by the people of the state, and we wish it all success in its worthy efforts."

On September 19th, Sledd sent the following article to the *Jacksonville Times-Union*, the *Tampa Tribune*, the *Miami Morning News*, the *Pensacola Journal*, and the *Gainesville Sun*.

"NEWS NOTES FROM GAINESVILLE

The University of the State of Florida will open in its new quarters on the 26th of the present month. The buildings are exceedingly handsome, and a large force of hands is engaged in getting them and the grounds in readiness for the opening. Prospects are bright for a good attendance, and there is every reason to look forward to a successful year.

On Thursday the 27th at 3 P.M. formal exercises will be held in the College Chapel. Among the speakers of that occasion will be the Governor N. B. Broward who will speak on the subject *Education and Citizenship*; Hon. N. P. Bryan, Chairman of the Board of Control, who will speak on *The University of the State of Florida*; and President A. A. Murphree of the Florida Female College on *The Unity of the State School System*. Hon. Frank Clark, M. C., will make the opening address. It is the desire of those in authority to mark the new era in the educational history of the state, and no effort will be spared either now or later to make the University of the State of Florida a worthy member of the educational institutions of our country."

In [2, p. 27], Proctor has noted that anti-Sledd elements in Florida blamed Sledd for low student enrollments while he was president of the University of Florida, claiming that Sledd should lower his too high entrance requirements to insure a larger student body. On the other hand, in Appendix D to Chapter 1, we presented Sledd's assertions that

"the race for numbers had led to an over valuation of the students presence, and a hesitation to administer any discipline which might give offense or cause voluntary withdrawal, much less such discipline as might request or demand his leaving the institution."

After reading through the Sledd Letterpress [3], we were inclined to believe that the evidence favors President Sledd's viewpoint. We present here a series of letters Sledd had to write to parents, and caution the reader to try hard to remember that these letters are written just one mere week to at most two weeks after the start of the term.

First, we see that much the wiser for experience, President Sledd is heading some potential trouble off at the pass and writes the following to a father in Ocala on September 17th, prior to the opening of the term.

"As time approaches for opening of school I think it proper that I should write you relative to John and his possible return to the University. John gave us a great deal of trouble last year, and it is my opinion that it would be best for him not to come back—certainly if he returns in the same spirit in which he was with us last year—he will probably be expelled before Christmas, for he has the handicap already of a bad reputation gained by much disorder last year. I would, therefore, suggest to you to send John to some other school, or if that is not practical, to have a very plain understanding with him that he returns in danger of expulsion if he even begins any conduct similar to his behavior last year.

John is a bright boy and there is no reason why he should not make a success as a student and in after life, but he was more troublesome and disorderly than any other boy in school last year, and we were on the point of dismissing him two or three times. I think you ought to know these facts in view of John's possible return."

The Roll of Students in the University Record reveals that this letter was sufficient to prevent John's return to the University of Florida.

On October 1, 1906, President Sledd sends the following letter to a father in Arcadia, Florida:

"Dear Sir;

I regret to half to write to you at this early date about a matter of this sort, but I must call your attention to it immediately and ask you to act upon it at once. Last week, upon your son's request, I endorsed a check for him to the amount of \$15, and the same has been returned dishonored by the bank. I cannot, of course, afford to lose this amount, and unless it receives your attention and is settled by you, it will be necessary for me to take prompt and drastic action against your son. The bank states that the signature to the check is unauthorized, and, therefore, refuses, to pay it. This, of course, leaves your son open to a charge of prosecution for forgery. I desire to avoid any such proceedings, but at the same time I must request you to pay this amount—unless you prefer for your son to take the consequence of his conduct."

On October 4th, Sledd writes the same father the following note:

"I have received yours of the 2d with enclosed check for \$15 to protect the check dishonored by the bank, drawn by your son. I infer from your letter that your son was not guilty of criminal conduct in the matter, and I shall not, therefore, institute any proceedings; but you will understand, of course, that such action of his at the beginning of his college career will throw him under suspicion, and it will be necessary for him to conduct himself very well, indeed in order to remove the suspicion which he has put upon himself at the beginning of his course. I thank you for your courteous adjustment of the matter."

We were amused and yet saddened to find the following correspondence on October 5th to a mother from Atlanta whose son had written her that he was enjoying his course work at the University of Florida:

"Dear Madam;

I have received yours of the 2nd relative to your son and his work, and regret to say that he has started off very badly indeed. Up to last night he had not attended a single class, and I have put him in close arrest for ten days in punishment for his habitual neglect. Under the circumstances, the idea that *he is very much pleased with his teachers so far* is a little remarkable, for up to last night he has not become acquainted in class work with any of them.

I do not wish to discourage you with reference to your son, but I am afraid from this start, and my judgment of him as I see and talk with him, that he will not make a success unless he undergoes some very radical changes."

On October 8th, Sledd follows up with a second letter to this same mother:

"it will be necessary for your son to go home, as he does not seem to have either the ability or the inclination to attend to his work. ... he does not seem to be prepared to enter the lowest class, so that it is impossible to put him in a lower class, and worst of all he does not seem to try. I will keep him a little longer, but I cannot hold out any hopes to you of his success; and chiefly because of his own attitude in the matter."

Correspondence from Sledd to the Commandant of Cadets, Lieutenant Ball, reveals that apparently the above behavior was not an isolated incident and also offers an example of the procedures leading up to expulsion.

October 8, 1906

Lt. L. R. Ball, Commandant of Cadets University of the State of Florida Gainesville, Fl.

Sir;

"

- 1. I have been unable to find where Cadet Captain Janes Dougherty has reported to any of his classes in the University.
- 2. Similarly, Cadet Private H. H. Damairitt, has registered, but cannot be located in any of his classes.

- 3. Cadet Private J. Malphure registered for the Sub-Freshman Class, but does not appear to have reported to his classes.
- 4. Cadet Private J. J. King has not reported to his Sub-Freshmen Mathematics, or his Sub-Freshman Science.

Will you kindly inquire into the correctness of this information, and if no satisfactory explanation is forthcoming, inflict a prompt and proper Military punishment for this neglect of duty. I would suggest the possibility of reduction in rank, or of close arrest, as meeting the case, unless satisfactory explanation can be made by the cadet involved.

Respectfully,

President

Dictated, but not read by President"

Oct. 8, 1906

Lieutenant L. R. Ball, Commandant of Cadets University of Florida Gainesville, Florida

Sir;

"

I have the honor to acknowledge the receipt of your communication of the 8th of October, recommending the expulsion of Cadet Private Burt Dyal and R. S. King for continued absence from duties and from classes, and absolute disregard for all Military Authority.

As expulsion is the supreme penalty which the University can inflict, and must be inflicted with great care, I respectfully request that you give more fully, and in detail, the special failures and derelictions in duty for which you request the expulsion of these men. I am particularly anxious to know whether they have been guilty of any actual or constructive insubordination; whether they have disregarded or violated any pledge or definite order; whether, in short, their conduct is sufficiently aggravating in intent and in detail to justify the inflictment of the final penalty upon them.

For your information and guidance in this and similar cases I would call your attention to the fact that the University provides for suspension, or dismissal for less aggravating offenses than for those which call for expulsion. The suspended student may be reinstated at the beginning of any term subsequent to the term in which he was dismissed upon an affirmative vote of the majority of the faculty, but the student who is expelled is permanently excluded from the institution. I mention this in order to bring out for your information as to whether the conduct of Cadet Private Dyal and King has been sufficiently aggravated to justify this final penalty.

Sincerely,

President

SA"

Here is one last example of student disciplinary problems. On October 9th, Sledd writes the following to Lieutenant Ball:

"Will you kindly detail a non-commissioned officer who was in the University last year to find one, Donald Marcus, who has been sent to town by his parents to enter the University, and has been loafing instead of registering and beginning his work. I suggest that you detail a non-commissioned officer and a private who knew Marcus, and give them instructions to bring him to the University dead or alive."

On October 11th Sledd writes the following letter to the father in Tallahassee of this student.

"My dear Sir:

I have received yours of the 8th with enclosed Money Order stated for \$25 to be put to the credit of your son Donald, in the University. As I wrote you before, Donald was in town, but had not registered at the University and was loafing in the city. After the receipt of your wire I had the commandant detail a couple of men to go up town and put Marcus under Military Arrest and bring him out to the University. He is now under Military Arrest, according to my wire of yesterday, and will be kept under Military Arrest on a diet of bread and water until he is ready to resume proper discharge of his University duties, unless you wish me to send him home. If you wish me to send him home I will do so at once. If you wish me to break him in, and will support me in the administration of discipline I will undertake the proposition, although I do not wish to do so. I do not think that it is in accordance with the proper ideals and conduct of a University.

Respectfully yours,

Andrew Sledd President

SA"

Added in pen to the bottom of this typed letter is the following

"P.S.: Donald ran away again last night, and I do not know where he is."

Let us conclude this chapter on a more cheerful commemorative note by presenting the list of the faculty and officers of the University of Florida as taken from the University Catalogue of 1906-1907, the first year that our University was located in Gainesville:

FACULTY AND INSTRUCTORS

ANDREW SLEDD, Ph.D., LL. D., President and Acting Professor of Philosophy.

JAS. M. FARR, A. M., Ph.D., Vice-President and Professor of English.

W. F. YOCUM, A. M., D.D., Professor of Education.

EDWARD R. FLINT, B. S., Ph. D., M. D., Professor of Chemistry.

M. T. HOCHSTRASSER, B. S., M. E., Professor of Mechanical Engineering and Drawing.

KARL SCHMIDT, A. M., Ph. D., Professor of Mathematics and Astronomy.

E. H. SELLARDS, M. A., Ph. D., Professor of Zoology and Geology.

J. R. BENTON, A. B., Ph. D., Professor of Physics and Civil Engineering.

DAVID YANCEY THOMAS, A. M., Ph. D., Professor of History and Political Science.

JAS. N. ANDERSON, M. A., Ph. D., Professor of Latin and Greek.
- C. L. CROW, M. A., Ph. D., Professor of Modern Languages.
- R. W. CLOTHIER, B. S., M. S., Professor of Agriculture and Horticulture.

LOUIS R. BALL, 1st Lieutenant, 13th U. S. Cavalry, Commandant of Cadets, Professor of Military Science.

N. H. COX, B. S., Assistant Professor of Civil and Mechanical Engineering.

W. L. FLOYD, M. S., Assistant Professor of Biology and Physics.

OTHER OFFICERS

K. H. GRAHAM, Auditor and Book-keeper.J. A. FORSYTHE, JR.,

- Physical Director.
- W. S. CAWTHON, A. B., Librarian.
- MRS. S. J. SWANSON, Matron.
- L. C. ALGEE, Stenographer.

References:

- Proctor, Samuel, The University of Florida: Its Early Years, 1853-1906, Dissertation, University of Florida, February, 1958.
- [2] Proctor, Samuel and Langley, Wright, *Gator History: A Pictorial History of the University of Florida*, South Star Publishing, Gainesville, Florida, 1986.
- [3] All letters from President Andrew Sledd have been obtained from the Sledd Letterbook for 1906, Volume I, which was kindly provided to me by the University of Florida Archives, Smathers Library during June and July, 1994.

Appendix A

Charles Crow Remembers Gainesville in 1906

The Archives in Smathers Library contains around a dozen works written in the 1930's by Professor Charles Crow about the development of various Florida institutions. This collection includes one volume [1] dated 1937 in the LUIS catalogue and titled History of the University of Florida through 1908/1909. This work turned out to be a photocopy of a typed manuscript about the development of the University of Florida. Now we should recall that Professor Crow, born in 1866, received the Ph.D. from Gottingen in 1892 and came to the University of Florida in 1905 as Professor of Modern Languages after serving as Adjunct Professor of Romance Languages at Washington and Lee University during 1899–1905. Thus in reading Crow's account of the first year of our institution in Gainesville, we can gain a perspective on this first academic year 1906 - 1907 from someone who was actually here during that time period and also consulted with various other surviving faculty members in compiling his recollections. Unfortunately, our own Professor Karl Schmidt is not mentioned directly in this volume. Crow only comments that four faculty members left during the early years in four different departments including mathematics, three for reasons of bettering their salary elsewhere and one because his pay was reduced during a period of illness. (Recall that after teaching here from 1904–1908, Karl Schmidt left and was succeeded by Herbert Keppel in 1908.)

An somewhat unhappy aspect of the history of our early institution is revealed in Crow's manuscript. First, the last year in Lake City during 1905–1906 must have been difficult since the townspeople were displeased to be losing the University to Gainesville. But then Crow writes that during the Sledd presidency in Gainesville, 1906–1909, that the Gainesville people were not too cordial toward the University either, because the Gainesville residents had been attached to the East Florida Seminary which was shut down in 1905 after the passage of the Buckman Act.

In this chapter, we have seen President Sledd and the faculty hurrying to try to get the new campus in sufficient shape for the opening ceremonies on September 27, 1906. Crow writes that the Buckman and Thomas Halls were constructed to be as large as possible, given the available budget, but that the interior workmanship was not of the best quality. Crow notes that the faculty would meet weekly during those years and discuss student disciplinary problems in painstaking detail; indeed, we have seen in this chapter that there were significant problems with discipline of the student body. Crow writes that several early faculty members recall that during the first faculty meeting in President Sledd's office, a large chunk of plaster fell dramatically from the ceiling onto Sledd's desk. Crow writes further that during this first year in Gainesville, plaster was falling all over the place from the ceilings, so they just pulled all the plaster down themselves to avoid having it fall on top of someone.

Apparently during the earliest years in Gainesville, Lake City seemed to the faculty to be more lively than Gainesville. Recall that we have already seen that during those times, no lodging was available close to campus in the Sledd letterbook correspondence. This is confirmed by Crow's comments in [1] that the early faculty found it inconvenient to walk such a great distance to get to their classrooms every day. We also know from Mrs. Benton's reminiscences [2], however, that by 1915, there were lodging places available close to the University, especially on 13th Street.

In [1], Dr. Flint is described as being a kindly, genial soul with a benign view of humanity, so that in both Lake City and Gainesville, the students would try to get medical excuses from Flint in the infirmary in order to avoid taking examinations for which they felt unprepared. Dr. Flint would oblige, but also dose the student with a preparation called Dover's powder. Apparently, Crow found Flint a little too lenient by Crow's standards; but we should also recall Mrs. Benton's comments on how Crow delighted in failing masters candidates in the Spanish proficiency examination. Crow's manuscript also reveals that as Dr. John Benton, one of Dean John Benton's younger sons recalls, that there was quite a camaraderie among the early faculty, given the small faculty size and small student body size. Crow writes quite explicitly about this. One of the pastimes of both students and faculty was to take walks in small groups. Here Dr. Flint was a fond participant on these excursions and loved to locate snakes, and explain which were poisonous and which nonpoisonous. Various snakes were collected by Flint and kept in the University in cages in various locations. In one incident, Crow recalls that the business manager K. H. Graham became too engrossed in conversation, and absentmindedly rested his hand on a cage containing a rattlesnake. When he came to full consciousness of where he had placed his hand, Graham remarked that he was lucky to be alive, just a matter of inches!

Crow also writes that during the first year in Gainesville, not only was the campus located far from the town, but also most of the lights in Gainesville tended to go out by 9:00 p.m. — apparently even Lake City had more of a nightlife. Crow reports that the main leisure pastime of the student body on campus was swimming in the numerous sinkholes on the grounds, or else trying to swing on a rope over one of the sinkholes without falling in, wearing, of course, the mandatory military uniform. As the campus was under military discipline, and the students were not supposed to leave campus without permission, the mandatory Sunday Church attendance must have seemed like a welcome break from the dusty campus grounds. Crow writes that Dr. S — would take his meals with the boys in the dining room; apparently this must refer to President Sledd. There were times when the electricity would mysteriously go off for several minutes. On these occasions, the student body loved to hurl biscuits, especially in President Sledd's direction.

At one point during the first academic year in Gainesville, President Sledd had

impressed the student body by having killed several snakes on the campus grounds while walking home to downtown Gainesville in the early evening. Some of the student body then decided to make a fake rattlesnake for President Sledd to kill on his way home, taking a piece of hose and also arranging to simulate the sound of the rattle of the rattlesnake's tail. As Sledd would be walking home at dusk, the students felt they had a good chance at fooling the President. Sledd came upon this rattlesnake, and attacked it vigorously with his cane. At that point, the students hidden in nearby bushes gave him a round of applause.

We have noted in the Sledd letterbook correspondence in this chapter that Sledd seemed to have difficulties getting money out of Tallahassee; recall that there was disgruntlement over the choice of Sledd instead of Murphree as first President of the new University of Florida. Thus during the first year of our institution in Lake City during 1905 – 1906, Crow recalls that the salary warrants for the faculty were not sent for the first two months from Tallahassee, then even after pay was grudgingly sent, it was somewhat delayed. Apparently, this problem did not arise at the Florida Female Seminary in Tallahassee, headed by the more popular President Albert Murphree. Even during later years, when economic times were supposedly bad, instead of paying the salaries in full at the beginning of the month, they would receive pay twice monthly. One might suspect that this informal practice might have been the beginning of the current biweekly pay periods. Another time, pay was suspended for one month. One faculty member immediately went home without teaching his classes, if he was not being paid, he announced. But the next day, he was back, even though there still remained almost a month left in the pay period.

Crow notes that toward the end of the Sledd presidency, relations between the students as a group and the faculty as a group did not seem quite as cordial as had been the case in Lake City. Crow wonders if perhaps some of Sledd's disciplinary procedures might not have contributed to this development. Crow recalls the case of a very popular senior on campus who was involved in producing a little newspaper which was handed out at commencement to the graduating students. Sledd informed this student that he did not wish to see a certain cartoon of the Commandant of Cadets appear in this newspaper. When this material appeared on campus, Sledd picked up an issue and found the offending cartoon present despite his instructions to the contrary. Sledd immediately expelled the offending senior, the day before graduation without calling a faculty meeting and having the faculty vote upon this expulsion, which was the stated procedure as we have seen from the Sledd letterpress correspondence to Lieutenant Ball in this chapter. The expulsion of this popular senior just the day before graduation, of course, did not serve to further endear President Sledd to the student body. The student, who became a prominent Floridian as an adult, only received his diploma belatedly several decades later.

References

- Crow, Charles, History of the University of Florida Through 1908/1909, Archives, Smathers Library, 1937.
- [2] Florida Oral History Project, transcript of interview of Mrs. Mabelle Benton, by Professor Samuel Proctor, February 26, 1969.

Chapter 4

The Early History of the Department of Mathematics: 1911 through the 1930's, the Simpson Years

The Graduate Secretary has the responsibility of maintaining lists of all masters theses and doctoral theses which have been written by graduate students in the Department of Mathematics. Also, a copy of all of these theses has been placed in the Chair's office in the Department of Mathematics. These sources show that the first masters degree granted by the Department was awarded in 1928, and the first doctoral degree was awarded in 1950, the same year that the American Mathematical Society first published the research journal *Proceedings of American Mathematical Society* to complement the older *Transactions*.

A collection of old University of Florida catalogues and University of Florida Records is maintained in the Special Collections Room on the first floor of Smathers Library. The early catalogues, starting with 1905–1906 and carrying on up until the 1920's contain leisurely descriptions of how the University of Florida came to emerge on its present site in 1906. According to the University of Florida Record for 1911, the 1905 Buckman Act of the state legislature provided for the coalescing of five of the then existing public institutions of higher learning in the state of Florida

- 1. the *Florida State College* at Tallahassee which stemmed from the West Florida Seminary (1857)
- 2. the (White) Normal School at DeFuniak Springs (1887),

- **3.** the *East Florida Seminary* in Gainesville (1853),
- 4. the South Florida (Military) College in Bartow (1895), and
- 5. the Florida Agricultural Institute in Osceola County (1903) [1]

into just two institutions,

- 1. the *Florida Female College* and
- **2.** the University of the State of Florida.

It is interesting that the catalogues make no mention of several other institutions of higher learning in the state which are also listed in Proctor's history [2] as follows:

1. the Normal School for Negro Students in Tallahassee (1887),

2. the Florida Agricultural College (1884) in Lake City, and

3. the Normal and Industrial School (1901) in St. Petersburg.

Thus when we look at the 1911 *Catalogue*, we should remember that this is just a few years after the establishment of our current institution under the Buckman Act. Academic year enrollment for 1911-1912 stands at 302 students. At that time, the campus map shows six buildings on campus, including two dormitories,

- 1. Buckman Hall, a familiar name from the Buckman Act, and
- 2. Thomas Hall; named after Mayor Thomas of Gainesville;
- **3.** a Machine Shop (shop work in the engineering sciences);
- 4. the Dynamo Laboratory (laboratory work in Electrical Engineering);
- 5. the Science Hall of two stories containing classrooms and laboratories for Botany and Horticulture, Chemistry, Physics, Zoology and Bacteriology; and
- 6. the Experimental Station Building (an agricultural experimental station).

It is noted that an Engineering Building is under construction, and much is made of the fact that all buildings are furnished with electricity, heat, light, and running water. It was apparently not felt necessary to list the location of the mathematics department. Then P. K. Yonge (President, Southern States Lumber, Pensacola) was on the Board of Control of the University and Albert A. Murphree was President. During those times, the catalogue listed the entire instructional staff, so we find exactly 26 instructors listed, including two student assistants in Chemistry. The Department of Mathematics is still represented on this list by exactly one individual, Professor H. G. Keppel, Ph.D. (Clark), listed as being responsible for the instruction in Mathematics and Astronomy. Elsewhere in the catalogue, where the information about Mathematics and Astronomy is printed, a second individual, M. D. Hadley, A.B., is also listed as assisting Keppel with instructional duties.

Now the faculty listing for 1911 for the College of Arts and Sciences reveals that Professor Keppel was more the rule than the exception, and that many faculty members handled several departments. The following instructors are now listed as comprising the staff of the College of Arts and Sciences:

- Albert A. Murphree, Ph.D. (Johns Hopkins) President
- James N. Anderson, Ph.D. (Johns Hopkins) Dean of the College of Arts and Sciences Professor of Ancient Languages
- James M. Farr, Ph.D. (Johns Hopkins) Professor of English
- Edwin R. Flint, Ph.D. (Gottingen) Professor of Chemistry
- John R. Benton, Ph.D. (Gottingen) Professor of Physics
- Charles L. Crow, Ph.D. (Gottingen) Professor of Modern Languages
- Enoch Marvin Banks, Ph.D. (Columbia) Professor of History and Economics
- Herbert S. Davis, Ph.D. (Harvard) Professor of Geology, Zoology, and Bacteriology
- Herbert G. Keppel, Ph.D. (Clark) Professor of Mathematics and Astronomy
- Major Edgar S. Walker, U.S. Army (Retired) Commandant of Cadets, and Professor of Military Science
- Wilbur L. Floyd, M.S. Professor of Botany
- George M. Lynch, A.B. Professor of Elementary Education and Supervisor of Rural Schools

John A. Thackston, Ph.D. (New York University) Head, Department of Education, Professor of Secondary Education and Inspector of High Schools

Harvey W. Cox, Ph.D. (Harvard) Professor of Education and Philosophy

Now it should be recalled, of course, that in those times, all American workers put in much longer hours and worked more days per week than is now customary. But still it is interesting to look more closely at the 1911 *Catalogue* and notice the following further examples of multiple duties.

First, Professor Benton is not only found in Arts and Sciences, but also under the College of Engineering faculty roster; Benton has the title, Dean of the College of Engineering, and Professor of Physics and Electrical Engineering. Thus Benton not only was Engineering Dean, he also provided instruction in physics and electrical engineering. In this context, we should recall Mrs. Mabelle Benton's reminiscences in Appendix A of Chapter 2.

More interestingly, perhaps, to the readers of the Walker Hall Review, we find that under the instruction in Civil Engineering, that three instructors are listed, including the same Major Walker listed above after which Walker Hall was later renamed from Engineering or Mechanical Engineering. By 1918–1919, we find that Walker has obtained a promotion to Colonel E. S. Walker, U.S. Army (retired) and is still Commandant of Cadets, and Professor of Military Science and Tactics. But in the 1920 *Catalogue*, someone else has taken over the military instruction, and Colonel Walker is now in Mechanical Engineering with the title, Instructor in Descriptive Geometry. Amazingly, we even encounter Colonel Walker in the 1943–1944 *Catalogue* as a Professor of Drawing (Special Status). More information about Colonel Walker's role on campus during World War I is contained in Appendix H to this chapter.

Returning to the 1911 *Catalogue*, we find the following course of instruction at that time listed under Mathematics, fairly similar to 1905-1906:-

Mathematics Ia. Solid geometry (5 hours), required of all freshmen

Mathematics Ib. Plane and Spherical Trigonometry (5 hours), required of all freshmen

Mathematics IIa. Plane Analytic Geometry and College Algebra (3 hours)

Mathematics IIb. Differential and Integral Calculus (3 hours)

Mathematics IIIa. Differential and Integral Calculus, continued (3 hours)

- Mathematics IIIb. Solid Analytic Geometry and Theory of Equations (first semester). Advanced Calculus and Differential Equations (second semester)
- Advanced Calculus with Applications to Geometry. The description indicates that the second part concerns the application of calculus to the theory of envelopes, contact, curvature and torsion of twisted curves
- Mathematical Seminary. Subject for the year Higher Plane Curves (both semesters, 3 hours)

During the early years of the University of Florida, the standing committees and faculty appointed to them were listed in the catalogue. Thus we learn that Professor Keppel was on the Entrance Examination, Graduate Work, Publicity, and University Publications Committees. Entrance requirements in mathematics consisted of 2 years of algebra and one year of geometry: the five books of plane geometry. There was then no tuition charged for Florida residents except in the College of Law. The dormitory charges were \$57 for the fall semester and \$60 for the spring semester. Students (males only, of course) were required to wear a gray uniform, which was listed as costing \$23. Already at this time, a half-apology is made in the catalogue that only the masters degree is offered in terms of higher studies opportunities. One interesting part of the catalogue reveals that the faculty, including President Murphree himself, stood ready to offer public lectures, free of charge, at high schools across the state on topics printed in this catalogue. Murphree himself offered 8 topics with the University of Florida listed, naturally as this eighth topic. Dr. Keppel is listed as being ready to lecture on a A Trip through Holland (illustrated). It is also indicated that the faculty stand ready to help with the establishment of reading circles in local communities. The purpose of this program was, of course, to build up friendly relations for the new University throughout the state of Florida. However, this lecture program was not a success and was eventually abandoned. More effective in building public good will toward the University, were the efforts of the Agricultural Extension Division and the Agricultural Experiment Station in improving Florida agriculture, and also the Farmer's Short Courses offered on campus. The College of Arts and Sciences contains a department of Biblical Instruction, headed by none other than President Murphree himself. Courses are offered to the juniors and seniors in the Bible as a possible block of electives among six others. A final note from 1911; H. H. Buckman of Jacksonville is listed under *awards* as offering a handsome medal each year to the student in the College of Engineering with the highest grade point average for the year.

In the *Seminole Yearbook* for 1917, descriptions of some of the professors in the College of Arts and Sciences are given. The following is written about Professor Herbert Keppel:

"The College of Arts and Sciences teaches the student above all to think for himself. It is for the most part under such men as Dr. Herbert Keppel, who has never been given a fair mathematical problem which he could not solve:"

Two further glimpses of Professor Keppel come to us from two different sources. First, one of Dean Benton's sons, Dr. John Benton, has written the following in response to an earlier draft of this chapter:

"It was interesting to read about the early days of the University in Gainesville. One personal reaction on my part as I noted the names of Dr. Charles Crow and Professor Herbert Keppel was to think that there was camaraderie and mutual respect among the early faculty members for my father named his second son (Charles Richard) after Dr. Crow and his third son (Hugh Herbert) after Professor Keppel. (Additionally, Dr. Crow was Charles' god-father.)"

In later correspondence, Dr. John Benton recalled that five of the pioneering faculty members, who served under both Presidents Sledd and Murphree, were known as the *Faithful Five* in certain university circles by 1930. These faithful five were Professors Anderson, Benton, Crow, Farr and Floyd. A photograph taken in 1928 after Murphree's death is captioned

"Five Members of the University Faculty Who Antedated Dr. Murphree in Service."

John Benton recalls that after Dean Benton died on January 8, 1930, the comment was made that Dean Benton was the first of the Faithful Five to die, and the youngest.

Returning to the subject of our own Professor Herbert Keppel, we found second, the University Archives contains an interesting legacy of Dr. Keppel, a notebook which Dr. Keppel titled on the cover *Mathematics and Pedagogy: Notes taken while reading* and dated April 20, 1894. These notes were taken from Keppel's study of journal articles and also his attendance at a course during the time he was pursuing his graduate studies at Clark University. The first item he copied is a "Report of the Committee of Ten," which concerns setting uniform admission standards for university admissions and suggestions for curricular reform in the high schools and prep schools concerning the teaching of arithmetic and geometry. Keppel translated portions of an article by a German professor, Prof. Dr. Rethwisch, concerning German education in the 1800's. He made notes on material comparing German, French and American high schools. He made notes on two articles published in the Bulletin of the New York Mathematical Society in the October 1891 and the October 1893 issues, *The Teaching of Elementary Geometry in German Schools* by Alexander Zimet, and Instruction in mathematics in the U. S. by Professor T. Safford of Williams College. The notebook includes notes taken at a course of lectures given at Clark University by Dr. Henry Taber beginning on April 14, 1893, with the first page containing a reference to a journal article of de Morgan's. Finally, Keppel made comments on his teaching experiences at the "Academy of Northwestern University" from September, 1895 to June, 1896 using the text Wentworth's *Plane and Solid Geometry*.

In 1918, a famous epidemic, [3] the Spanish influenza swept across the world, reaching Florida by October, 1918. Proctor [2] writes that during the first week of October approximately one-third of the student body and many of the faculty including President Murphree and Professor Keppel became ill. Several students and Professor Keppel died as a result of this disease. In this context, however, a third glimpse of Professor Keppel comes to us from Mrs. Benton's recollections in her Oral History Interview [4] with Professor Samuel Proctor in 1969 in which Proctor asked her about this epidemic as one of many topics.

Proctor:

"Mrs. Benton, do you remember the epidemic of the First World War?"

Mrs. Benton:

"Oh yes, yes. Who would forget it? Dr. [Herbert Govert] Keppel, who taught math, died in that."

Proctor:

"Keppel, yes."

Mrs. Benton:

"He was a wonderful person."

Proctor:

"A good friend of Dr. Benton?"

Mrs. Benton:

"That is right. Of course, I had known him ever since I had been in Gainesville and admired him very much. Actually, he was the one who took over my Sunday school class [at the First Presbyterian Church] when I dropped out [after her marriage to Dean Benton in 1914]. He lived with the Burgers, who lived on Thirteenth Street, just a block from University Avenue. [The Bentons lived where the Holiday Inn now stands at the corner of University and Thirteenth Street.]"

Proctor:

"So the flu epidemic was a bad time for Gainesville, wasn't it?"

Mrs. Benton:

"It was terrible. Dr. Keppel had been working for the YMCA and I don't know whether in other states than Florida, or just entirely in Florida, but anyway he got it somewhere along. And he knew that he was ill, but he wanted to come home. By that time he'd gotten married, he was an old bachelor when he married. He had just been married during the Christmas holidays before that and this was the fall, just when school was starting. And he came back to Gainesville to die. That was a most tragic thing, because he was such a wonderful person."

Proctor:

"Was anyone in your family ill?"

Mrs. Benton:

"No, we escaped."

Proctor:

"Did you do any nursing on campus with the students?"

Mrs. Benton:

"Well, I guess I didn't because I was tied down at home with little children [the Benton's had four sons]. But those who were free did I'm sure. And one of the most valiant workers was Mrs. Walker, Mrs. E. S. [Edgar Smith] Walker."

Proctor:

"Colonel Walker."

Mrs. Benton:

"Walker Hall was named for her husband. She was really a wonderful person. A lot of people didn't entirely approve of her methods, but she was good hearted and a hard worker and worked among the poor and the sick. And used her own money. She was a Stringfellow, and they had means besides his salary. He was a retired army officer and probably got something from that. Also he taught in the engineering college for years and years." An article about Professor Keppel published in the *Gainesville Daily Sun* in October 1918 fills in more details about Keppel's life not revealed by the University catalogues, as well as supplying the rationale behind Keppel's choice of community lecture topic "A Trip through Holland (illustrated)" as mentioned earlier in this chapter.

"LIFE SKETCH OF DR. H. G. KEPPEL

Doctor H.G. Keppel, head of the department of mathematics of the University of Florida, died at his home in Gainesville on Saturday, October 5.

Herbert Govert Keppel was born April 7, 1866, in Zeeland, Michigan. His father, Govert Keppel, was born in Holland of a family well known in southern Holland from the time of the crusaders, and came to this country at the age of nine years. His mother, Marie DePree, was also born abroad and came to this country in childhood. Her family were French Hugenots who had immigrated to Belgium during the persecutions of the seventeenth century. Both parents came as members of a Dutch community which settled in southwestern Michigan, and Doctor Keppel always retained many of the traditions and sentiments of his Dutch ancestry.

Doctor Keppel graduated from Hope College, Holland, Michigan, with the degree of A.B., in 1889, and spent the following year in clerical employment in Washington, D.C., in the census bureau and pension bureau. The next year he taught mathematics in the high school of Orange City, Iowa, and this led him to decide taking up the study of mathematics as his life work. He spent the years 1892 to 1895 at Clark University preparing himself to receive the Ph.D. degree in mathematics, but left there to take a position as instructor in mathematics at Northwestern University before receiving his Doctor's degree. During the Spanish-American War he saw service as a Y.M.C.A. secretary and incurred typhoid fever while in the service. He returned to Clark University in the fall of 1900 and received his Ph.D. degree in 1901, after which he returned to his former position in Northwestern University, and remained there until 1908, when he accepted the position of professor of mathematics at the University of Florida, which position he held until his death. During the past summer, he was asked to serve on the national commission to inspect the mathematical teaching offered by war Y.M.C.A. In connection with this work he made a trip to Gulfport, Mississippi, and contracted the Spanish influenza there, arriving home seriously ill about a week before his death. His life was one of those which had been sacrificed to the war, since his death was a direct result of exposure and lack of care while on war duty.

There is probably no member of the faculty of the University of Florida who was more universally loved than Doctor Keppel. He was not a man who sought popularity or prominence in any way, but was always ready to become a friend of those with whom he was associated, and to interest himself in their interests. He had all the qualities of a good teacher — thorough scholarship, patience and sympathy, and his lively sense of humor was one of the delightful features of his teaching. Among his colleagues on the faculty there are hardly any who have not enjoyed intimate companionship with him.

His services to the University of Florida have been very great, not only in teaching within his department, but also in the important share he has had in the building up of the university and in the shaping of its policies; and at times when counsels have been confused and measures have been proposed which inclined to opportunism or extremism, or educational quackery, he has always exerted a strong influence for sound principles, moderation, and genuineness.

In his personal tastes, Doctor Keppel's interests of late years leaned more to philosophy than to pure mathematics. He was exceedingly fond of travel and had made several tours of Europe, especially in the country of his ancestors.

He was a member of the First Presbyterian church of Gainesville, and took part in many church activities.

Doctor Keppel was a member of the American Mathematical Society, National Education Association of University Professors, the Atheneum Club of Gainesville, and the honorary fraternities of Sigma Xi and Phi Kappa Phi, and a fellow of the American Association for the Advancement of Science. He was member of an International Commission on the Teaching of Mathematics in colleges.

He is survived by his wife (formerly Miss Anna Kramer of Detroit), by his mother, two brothers and three sisters."

The earlier Obituary Notice in the *Gainesville Daily Sun* provided these further details of Keppel's death:

"Dr. Herbert G. Keppel, professor of mathematics at the University of Florida, died at his residence on West University Avenue Saturday night at 11:45 o'clock. Pneumonia was the cause of this good man's death, brought on by Spanish influenza, contracted while absent from home at Gulfport, Miss. He was three days en route to Gainesville after first being attacked by the disease, and he reached home in a weakened condition." This unfortunate death of Dr. Keppel while still in his early fifties, during the Spanish influenza epidemic resulted in the arrival on campus of Dr. Thomas Marshall Simpson, and, indeed, from the viewpoint of departmental leadership, we could regard 1918–1951 as the Simpson years, because Simpson would serve as Head Professor of Mathematics, later Chairman, once that title came into usage, of the Department from 1918–1951 and Dean of the Graduate School from 1939–1951. Indeed, he was only the second Dean of the Graduate School, following our first such dean, Dean James Anderson. Although no surviving records left by Dean Simpson himself seem to be readily accessible on campus, we are able to find Dr. Simpson listed in the 1955 American Men of Science and thus learn the following about his background from that source. He was born in Addison, Maine on February 19, 1881. Mrs. Pirenian recalls that Simpson may have attended Boston Latin School before matriculating at Harvard College.

THOMAS MARSHALL SIMPSON A.B., A.M., Ph.D.

A.B., Harvard, 1905; Private school teacher, Boston, 1905–1907; Private school teacher, Baltimore, 1907–1908; Instructor, University of Wisconsin 1908–1918; A.M., University of Wisconsin, 1910; Ph.D., University of Wisconsin, 1916; Professor of Mathematics, University of Florida, 1918–

A telephone call to the Department of Mathematics at Wisconsin revealed that Dr. Simpson's thesis title was *On a Functional Equation of Abel*, but nothing more. However, on January 22, 1997, I was surprised to receive the following e-mail query from the noted analyst (with an interest in special functions) Professor Richard Askey of the Department of Mathematics of the University of Wisconsin:

Dear Prof. Ehrlich,

The Math. Dept. at the Univ. of Wisconsin is having a meeting in May to commemorate the 100th anniversary of our first Ph.D. in mathematics. I will be talking about the work on special functions at Wisconsin. One thing I would like to mention is the thesis of Thomas Marshall Simpson, which was on a functional equation of Abel. Unfortunately, there is no copy of the thesis in our library and he does not seem to have published a paper on this. I checked with the library or archives at the Univ. of Florida, and just got the following message. Have you any idea whether this thesis might be somewhere buried in an obscure place at the Univ. of Florida, or have any leads to relatives who might have his copy?

The reason for thinking that this might have something to do with special functions is an earlier thesis written under Van Vleck's direction. This deals with the functional equations obtained from taking the functional equations for $\sin(x + y)$ and $\sin(x - y)$ and the corresponding ones for cosines, and finding the general solution. The general solution involves theta functions. In the paper on this work published in 1916, there is no mention of Abel, but in fact Abel was the first to consider this equation. Since Simpson wrote his thesis under Van Vleck, it is possible the thesis dealt with special functions.

Thanks for any suggestions you might have, Sincerely, Dick Askey askey@math.wisc.edu"

As with Herbert Keppel, we are fortunate to have a second Oral History Interview [5] which was conducted in November, 1977 by Emily Ring with Simpson's second wife, Mrs. Elizabeth R. Simpson, as part of Professor Proctor's materials which were made available to me. The following information is thus obtained on Dr. Simpson's early years.

Mrs. Simpson:

"Dr. Simpson was born on the east coast of Maine. I believe the little town was called Addison. He left there and went to Boston where he attended the Boston Latin School. He graduated there with honors and received a scholarship to Harvard. He also got awards of various kinds. I had in his library a number of autographed books; he was quite a classics scholar. The Boston Latin School is one of the very oldest in the country, and the people who graduated there almost always went to Harvard. He owned signed books which I turned over at his death to the rare book section of the university library here. He had a number of autographed items that they wanted, so I gave them, knowing they would be well cared for. He went to Harvard and graduated in three years with the class of 1906¹. From there he went to the University of Wisconsin at Madison."

Mrs. Ring:

"He majored in classics?"

Mrs. Simpson:

"No, he majored in mathematics; he had a double major in mathematics and physics. He was also a scholar in Greek and Latin. He got a master's. He taught while he was doing his graduate work in Madison,

¹ed., 1905 according to the 1955 American Men of Science

and he and Frances Shulte were married. After he received his Ph.D. in mathematics, he came to the University of Florida. They had three children — two boys and a girl. They came to the University of Florida where he was head of the Department of Mathematics and also the only instructor. That was in 1918.

While here I believe he contributed a great deal to building up the standards of the university. He brought so many outstanding people to the Department of Mathematics — men like Zareh Pirenian, Dr. Franklin Kokomoor, and many, many others. A number of people have now passed away. He built up the department to about fifteen or twenty when [he] retired. He kept the department headship after he became Dean of the Graduate School ... he and I worked together in the graduate school, in Anderson Hall², when about the only male students around were the lame and those men too old for military service. In the summer we had women teachers. He headed up the program for people in the service who came back to school"

In keeping with Mrs. Elizabeth's Simpson's recollections of Dr. Simpson's fondness for the classics, we should also mention that several people, including Mrs. Edwin Hadlock and Mrs. Margaret Rice, one of Elizabeth's daughters, have mentioned to me that Simpson wrote poetry, which he liked to share with others. In Armstrong's 1928 biography of President Murphree, the following memorial poem by Dr. Simpson is published, [6, p. 141].

OUR LEADER

He ruled with kindness. Men are won, he knew, by love: That golden rule of life he found within the Book. He ruled with wisdom straightly sent him from above. He ruled with patience that misfortune never shook.

He ruled with dignity becoming to a king,

Yet firm, by winds of doctrine never turned aside. He ruled with vision. When the crows were clamoring, He saw beyond, to where the true and false divide.

He ruled with loyalty to man and faith in God. He ruled with honesty and purity of heart. His even-handed justice needed not the rod; From righteousness and mercy he could not depart.

The measure of his greatness we can never know.

 2 ed., from 1943–1951

"

However hard the task, he smiled and said, 'I can.' Our wonder grows, as looking on this world below, We see how, when the need is great, God sends a man.

-T. M. SIMPSON"

Now we turn away from the reminiscences of Mrs. Simpson, back to the drier information contained in the 1920–1921 *Catalogue* and the 1921–1922 Announcements. Academic year enrollment for 1920–1921 stands at 823 students. The Commencement Address delivered on July 7, 1921 is contained in this volume; it was by Judge Thomas Schakelford, Sr., on *The Mind of Man.* P. K. Yonge is still on the Board of Control. A listing of the student body is printed in the catalogue. By now the campus has grown to 12 buildings from 6.

- 1. Thomas and
- 2. Buckman Dormitories;
- **3.** Mechanic Arts Shop;
- 4. Science Hall now containing only Chemistry, Biology, and Geology, and the University Museum;
- 5. the Agricultural Experiment Station Building;
- 6. Engineering Hall containing Civil, Electrical, Mechanical Engineering, Mechanic Arts, and Physics;
- 7. the Agricultural College Building;
- 8. University Commons containing a dinner room and kitchen, and an annex which is the *Y.M.C.A. Hut*;
- 9. Language Hall which is the home of the College of Arts and Sciences, and the Departments of Language, History and Economics, Mathematics, Sociology and Political Science and in the basement, a bookstore and the offices and press of the *Alligator*;
- 10. George Peabody Hall, newly erected for \$40,000 from funds donated by the Peabody Board of Trust, which contains Education and Philosophy, Teacher-Training Work, and the general library of the University
- **11.** the College of Law Building;

and finally,

12. a combined Auditorium and Gymnasium.

A description is still furnished of the amenities enjoyed by all of these buildings electricity, heat, light, running water. By now the Mathematics Department has tripled in listed size to a professorial teaching staff of three:

Professor Thomas M. Simpson, Ph.D. (Wisconsin) Professor of Mathematics
Assistant Professor William S. Perry, A.B., M.S. Assistant Professor of Physics and Electrical Engineering
Acting Assistant Professor Peter H. Lucas, A.B. Acting Assistant Professor of Mathematics and Physics.

Elsewhere in the catalogue, Henry C. Johnson is listed with the job title of Fellow and Assistant in Mathematics. Additionally, the Summer School Staff listing for 1920 contains the following names:

- G. M. Lynch, A.B. Mathematics
- A. E. Gladding (no degree listed) Mathematics
- E. S. Barney, A.B. Methods in arithmetic.

The listing of George Lynch is especially interesting. First recall that Lynch is listed in the 1911 Catalogue with the title of Professor of Elementary Education and Supervisor of Rural Schools. However, if we look in Lynch's background from the early 1905-1906 Catalogue, and also in Proctor's thesis [7], we find that Lynch had quite a diverse teaching career. In particular, Lynch served on the instructional staff of the East Florida Seminary in Gainesville as the faculty member in charge of mathematics instruction prior to the formation of the University of Florida by the Buckman Act. According to Proctor's history [7] of the origins of the University of Florida, Lynch was himself a graduate of the East Florida Seminary, who had been teaching school in Melrose and then Green Cove Springs prior to his appointment to provide the mathematics instruction at the East Florida Seminary in 1896. Apparently, Lynch's instruction was of such a caliber that mathematics was strengthened to one of the best departments in the Seminary, as Algebra, Plane and Solid Geometry, Trigonometry, and Calculus were offered. In the 1905–1906 Record of the University of Florida, Lynch puts in an appearance, but now in the Normal Department as instructor of Geography, History and Civics. Indeed, the Record carries the following description of Lynch's educational background corroborating Proctor's discussion:

GEO. M. LYNCH, A.B.

A.B., East Florida Seminary, 1891; Professor of History and Civics, East Florida Seminary, 1897–1899; Professor of Mathematics, East Florida Seminary, 1899–1905; Assistant Commandant, East Florida Seminary, 1900–1905; President, Florida Teachers' Association, 1904; Present position, 1905–

Even in 1920, the Department of Physics still contains only two professors listed as providing instruction:

Professor John R. Benton, Ph.D. (Gottingen) Professor of Physics and Electrical Engineering

Assistant Professor William S. Perry

as above. Professor Benton is still Dean of the College of Engineering, and Professors Benton and Perry continue to teach the Electrical Engineering courses as well as the Physics courses. During the June 1, 1920 commencement, the following number of degrees are awarded:

Number and Type of Degrees Awarded		Field or College
5	B.A.	Arts and Sciences
5	B.S.	Arts and Sciences
15	B.S.	Agricultural
2	B.S.	Agricultural Education,
3	B.S.	Education
6	B.S.	Civil Engineering
6	B.S.	Electrical Engineering
3	B.S.	Mechanical Engineering

The tuition fee for the College of Law is now \$40 per year. There is otherwise no in-state tuition, but the out-of-state tuition is also \$40 per year. There is a registration fee of \$10 per year, and a student activity fee of \$15 per semester payable on entrance. The Board and Lodging costs are given as \$90.00 per semester.

The list of faculty committees reveals that Professor Simpson is serving on the Committees of Admission, Schedule, and Student Organization. The Graduate School reports that it now offers masters degrees of the following type: M.A., M.A. in Education, M.S., M.S. in Agriculture, M.S. in Education.

The Mathematics course listing now consists of the following:

- Mathematics A. Solid Geometry (2 hours)
- Mathematics B. Plane Trigonometry and Logarithms (2 hours)
- Mathematics I. Plane Analytic Geometry and College Algebra (3 hours)
- Mathematics II. Spherical Trigonometry and College Algebra (1 hour)
- Mathematics III. Differential and Integral Calculus (3 hours)
- Mathematics IV. Solid Analytic Geometry and Calculus (2 hours)
- Mathematics V. Advanced Calculus and Differential Equations (2 hours)
- Mathematics VI. Theory of Equations, Complex Numbers, and Determinants (3 hours)
- Mathematics VII. Modern Projective Geometry (2 hours).

The offerings in the Department of Physics consist of the following:

- **Physics I.** General Physics
- **Physics II.** General Laboratory Physics
- **Physics III.** General Electricity and Magnetism (2 recitations, one 2 hour laboratory exercise per week)
- **Physics IV.** General physics, including mechanics, heat, sound, light, electricity and magnetism. Designed to meet the needs of the General Student and of those taking the Pre-Medical Course.
- The following wish list description is also found —
- Advanced Courses in Physics. Six advanced courses in physics, as electives for Juniors, Seniors, and Graduate Students have been planned:
 - 1. Advanced Experimental Physics,
 - **2.** General Mathematical Physics,
 - 3. Mechanics and Acoustics,
 - **4.** Heat,
 - **5.** Optics,
 - 6. Theoretical Electricity

A check of the catalogues a few years later reveals that these courses were indeed successfully introduced.

Finally, the Department of Bible Studies is now headed by a familiar name to all current Gainesville residents, Professor Ludwig W. Buchholz, A.M., who has the title under the listing of *Officers of the University* of Professor of Education and School Management, and Counselor for the School of Disabled Soldiers. L. W. Buchholz was the father of F. W. Buchholz, who would serve as principal of Gainesville High School for many years. F. W. Buchholz also had the distinction of receiving his training in mathematics at the hands of Albert Murphree at the Florida State College between 1901–1904, cf. [6, p. 37] or Chapter 6.

In 1927–1928, all the members of the student body are still listed, including summer school students as a separate list. The President's Report of 1940 reveals that 2,073 students were enrolled during the regular terms. Now the campus map contains 21 buildings, and Murphree, first elected President in 1909, is listed as being deceased on December 20, 1927 with Dr. James M. Farr, encountered earlier in 1911 as the Professor of English, continuing the academic year as Acting President. We find that Turlington is now on campus as a Professor of Agricultural Engineering with a doctorate from Cornell. The Mathematics Department is now housed in Peabody, instead of Language Hall. Then Peabody is described as containing Education and Philosophy, Sociology, Mathematics, Teacher Training. The third floor houses (temporarily) the School of Architecture, and the University Architect is on the second floor. The Graduate School still only offers the Masters degree.

In this catalogue, the Department of Mathematics now contains 9 people offering instruction, but no one is listed as head of the department. It must have been obvious then that the one person with rank of Professor was in charge.

THE INSTRUCTIONAL ROSTER BY RANK CONSISTS OF:

Thomas Marshall Simpson, Ph.D. (Wisconsin) Professor of Mathematics

Wilbert A. Little, A.M.

Associate Professor of Languages and Mathematics, (part time) [Professor Philip Bradshaw has recollected that Little taught Latin.]

William Harold Wilson, A.M., Ph.D (Illinois) Associate Professor

Bernard F. Dostal, M.A. Assistant Professor

Franklin Wesley Kokomoor, Ph.D (Michigan) Assistant Professor Charles A. Messick, M.A. Assistant Professor
Cecil Glenn Phipps, A.M. Assistant Professor (on leave)
Allen Craig, A.B. Instructor
Joseph H. Kusner, A.B.

Instructor

The names of eleven Fellows and Graduate Assistants are also listed in the catalogue, but none in mathematics are listed. Yet in 1928, the Instructor Allen Craig listed above, received our first Masters degree in August with the topic An Exposition of the Galois Theory of Equations and supervisor Professor Simpson. The second and third recipients of the Masters degree are Uri Pearl Davis, On the Prime Number System, June 1930, with no supervisor listed, and Samuel W. McInnis, A Study of Hilbert's FOUNDATION OF GEOMETRY, June 1931, with supervisor Professor Simpson. During the rest of the early part of the 1930's, we find that of the staff listed above, Associate Professor Wilson, Assistant Professors Phipps and Kokomoor are listed in the Department's list as directing masters theses, but surprisingly also Instructor Joseph Kusner, A.B., is listed as directing the seventh masters thesis, Mitchell Rosenberg, The Foundations of Point Set Theory: Transfinite Arithmetic awarded in June 1933. This apparent mystery is resolved by consulting later catalogues, which reveal by that time, Kusner had received his doctorate from Pennsylvania (apparently then a center for the new research field in the U.S. of topology) and held the rank of Assistant Professor. The offices of individual faculty members are listed in the catalogue; part of the faculty was in Peabody, part in Mechanical Engineering (now called, Walker Hall, where part of the Department was located until 1997!). In view of data turned up in slightly later catalogues, we presume that the faculty shared offices in that time, although individual office assignments are not given in the 1927–1928 Catalogue, only building assignments. University-wide committee assignments for the faculty are still listed, just as in 1911 and 1920. Professor Simpson, Associate Professor Little, and Assistant Professor Kokomoor served on the Committee for Religious Welfare (of the student body). Further, Professor Simpson served on the Committees of Admission and on the Committee for Correlation with High Schools. Volume 35 of the American Mathematical Monthly contains a description of the 12th annual meeting of the Mathematical Association of America, held in Nashville on December 29 and 30, 1927. One hundred sixty-seven members of the M.A.A. attended this meeting, including Professors Dostal, Kokomoor, and Simpson from the University Of Florida.

Now on looking at the course listings in the 1927-1928 Catalogue, we find that the offerings have a much more familiar look to them. During those times more

advanced courses were published, apparently, with the name of the faculty member, regularly responsible for that offering. Thus we find that Kokomoor has introduced an intermediate level course in the History of Mathematics.

The following Graduate Courses are listed:

Introduction to Higher Algebra. Simpson

Theory of Groups of Finite Order. Simpson

Mathematical Statistics. Wilson

Fourier Series and Harmonic Analysis. Simpson

The Function of a Complex Variable. no instructor listed

Differential Geometry. Wilson

The Economics Department is offering a course entitled *Elements of Statistics*. At that time, the Physics Department was of comparable size to the Mathematics Department and had a staff of 1 Professor, 2 Associate Professors, 2 Assistant Professors including Arthur Aaron Bless, Ph.D. (Cornell) with an office in Mechanical Engineering, and 3 Instructors.

A full description is also given of the courses offered during the Summer School. It is interesting to see that the mathematics course offerings fall into two groups the first of which might be termed remedial and consists of what looks like a review of arithmetic as well as of high school mathematics. The *regular* offerings consist of the following courses. I have indicated which were taught by Professors Simpson and Kokomoor that summer, given prominent role in the early development of the department of these two professors:

Solid Geometry.

Plane Trigonometry. Simpson

College Algebra.

Plane Analytical Geometry. Kokomoor

College Geometry. Kokomoor

Elementary Calculus. Kokomoor

Calculus. Simpson

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The Teaching of Mathematics.

Professor Philip Bradshaw [8] has recalled that this last course, *The Teaching of Mathematics*, was an offering that Dr. Kokomoor would teach in summer school for "the great number of teachers who wanted graduate certificates,"

While discussing the late 1920's, one of our most successful undergraduates, John Barkeley Rosser, should be mentioned. First Professor Kermit Sigmon of our department, then our 1950's Ph.D. graduate Professor John Kenelly, called my attention to Rosser. Kenelly, in particular, told me the following folk lore about Simpson and Rosser. Apparently, Rosser had come to Simpson's attention as a bright undergraduate at Florida. This led to Simpson's advising Rosser to study Bertrand Russell and Alfred North Whitehead's book *Principia Mathematica*, which must have inspired Rosser to undertake his eminent career as a logician. Rosser was born in Jacksonville on December 6, 1907 and received his B.S. from the University of Florida in 1929. But before completing his doctoral work at Princeton in 1933, Rosser received the Master's degree in physics in 1931 at the University of Florida with a thesis On the extension of certain theorems of mathematical physics and their subsequent application to problems in wave mechanics. After Rosser received his Ph.D., he spent 1935–1936 as a National Research Fellow at Harvard, before rising through the ranks at Cornell beginning in 1936 as an Instructor, then leaving his Professorship at Cornell in 1963 to take up the directorship of the Mathematics Research Center of the U.S. Army, on the Wisconsin campus at that time, until his retirement in 1978. Rosser's studies in physics must have stood him in good stead toward the end of World War II as Rosser spent 1944 - 1946 as the Chief of the Theoretical Ballistics Section of the Alleghenv Ballistics Laboratory in Maryland. This work resulted in the publication of the book with Robert Newton and George Gross, Mathematical Theory of Rocket Flight, in 1947. Dr. Kenelly recalled Rosser as being the author of the text Logic for Mathematicians. Our younger logician colleagues in the department, like Professor Douglas Cenzer, recall Rosser as being the author of the book Simplified Independence Proofs: Boolean Valued Models of Set Theory, published in 1969 as well as Rosser's being President of the Association for Symbolic Logic during 1950–1953 and an editor of the Journal of Symbolic Logic.

During the 1920's and 1930's, members of the Department of Mathematics were active in the Southeastern Section of the Mathematical Association of America; the first organizational meeting of this section had been held in Atlanta in April, 1922. Professor Thomas Simpson served as Section Vice Chair in 1931 and Section Chair in 1932. Professor Franklin Kokomoor served as Vice Chair in 1934 and Section Chair in 1935. Here is the announcement of the program for the sectional meeting held in April 1933.

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THE MATHEMATICAL ASSOCIATION OF AMERICA

SOUTHEASTERN SECTION

March 17, 1933.

Fellow Member:

The Southeastern Section of the Mathematical Association of America will hold its eleventh annual meeting at the University of Georgia, Athens, Ga., Friday–Saturday, April 7-8.

Professor Frank Morley of Johns Hopkins will be the chief speaker. Professor Morley has been an outstanding leader in the field of mathematics in America for the past twenty-five years. His contributions to the study of mathematics have been many and valuable.

Anyone who is interested in mathematics is invited to attend all of the meetings including the dinner. High school teachers of mathematics are urged to attend. If you can attend the dinner (in Lucas Hall, Friday, April 7, at 7:00 P.M., price 50 cents, informal dress), please notify Professor D.F. Barrow, Athens, Ga., before April 6.

Faithfully yours,

W. W. Rankin, Sec. Ch. Program Com., Duke University, Durham, N. C.

PROGRAM

April 7,	Presiding, Professor T. M	. Simpson, Chairman,	University of Florida.
4:30 р.м.			
	"Anabia Mathematica in t	he Derly Area?	20 min

Professor F. W. Kokomoor, University of Florida.	20 mm.
"Methods of Proof in Geometry" Mr. Herman Usher, Supt. Public School, Buena Vista, Ga.	20 min.
"Subfreshman Mathematics" Professor Cecil G. Phipps, University of Florida.	20 min.
Round Table Discussion—Value of Recreational Prob- lems and Puzzles in Studying Mathematics, Led by Pro- fessor Floyd Field, Georgia Tech.	30 min.

6:00 P.M. Adjournment.

Friday

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7:00 p.m.]	Dinner in Honor of Professor Frank Morley, Johns Hopkins Univ. Professor R. P. Stephens, Presiding, Univ. of Ga.	
	"An Experiment in Standard College Courses" Dr. C. M. Snellings, Chancellor University of Georgia.	
	"What is a Mathematician?" Professor A. B. Morton, Georgia Tech.	
	"To the Teacher of Mathematics, a Toast" Professor J. F. Messick, Emory University.	
	"The Old Order Changeth" Professor Frank Morley, Johns Hopkins University.	
Saturday April 8, 9:30 A.M.	Business Meeting, Professor T. M. Simpson, Presiding.	
10:00 A.M.	"A Study in Probability" Professor P. R. Hill, University of Georgia.	20 min.
	"The Jacobian Algorithm for Periodic Continued Fractions as Representing a Cubic Irrationality" Professor J. B. Coleman, University of South Carolina	20 min.
	"Algebra and the Plane" Professor Frank Morley, Johns Hopkins University.	50 min.
	"Convergence of Infinite Exponentials" Professor D. F. Barrow, University of Georgia.	20 min.
12:15 p.m.	"A Time Integral in the Calculus of Variations" Professor Beckwith, University of Georgia	20 min.

Adjournment."

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Turning to the 1934–1935 academic year *Catalogue*, we find that now Professor T. M. Simpson is listed as being Head of the Department of Mathematics. Just as today, the University is printing many different things: a schedule of classes offered, a schedule for Freshman Week, a general catalogue, a catalogue of the Graduate School (or more precisely, the Upper Division). John Tigert is President of the University,

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....

James Anderson is Dean of the Graduate School. ³ Matherly is now Dean of the College of Business. Professor William Wilson of the Department of Mathematics is Assistant Dean of the College of Arts and Sciences, serving under Dean Townes R. Leigh. ⁴ In addition to awarding masters degrees, the Graduate School is now offering the Ph.D. degrees in two academic areas, Chemistry and Pharmacy (and also Pharmacognosy, which is descriptive pharmacology dealing with crude drugs and simples, according to Webster's Dictionary). During the commencement ceremonies of the summer of 1935, 7 Ph.D.'s are awarded:

Number	Field or College
3	Chemistry
1	Pharmacology
3	Pharmacognosy

Ph.D. Degrees awarded at the Summer 1935 Commencement Ceremonies.

Instruction in the University is divided into elementary instruction, which is organized in its own college, and the Upper Divisional Instruction, which has its own catalogue, much like the catalogue of the Graduate School today. The following statement is found about *Woman Students* in the catalogues of that era:

"The University of Florida is an institution for men only, except during the summer term. Under certain circumstances, woman students may be admitted to the professional schools of the Upper Division. ... consult the Registrar for further information."

However, a check of the 1935 Summer Session student enrollments reveals that about sixty percent of the students studying during the summer session are women; especially, in the College of Education, the enrollment for the First Term of the summer session consists of 142 men and 690 women. Professor Philip Bradshaw [8] has recalled that

"women, beginning in 1935 were admitted to Pharmacy, Agriculture and Law. The rubric, I believe, was that any college was to admit women if the course or degree was not offered at FSU, then FSCW. ⁵ The Graduate School was always open to women."

 $^{^{3}\}mathrm{In}$ 1939, Simpson is listed as being Acting Dean of the Graduate School.

⁴The American Men of Science reveals that Professor Wilson served in the Arts and Sciences Dean's office in various capacities from 1928–1946. Then in 1946, Wilson became the Head Professor of Freshman Logic in University College and also a Counselor in University College.

⁵ed, i.e., Florida State College for Women.

The Mathematics Department staff for 1934 in the *Upper Division Catalogue* consists of the following 10 people, listed again by rank:

Thomas M. Simpson Ph.D. (Wisconsin) Head Professor
William H. Wilson Ph.D. (Illinois) Professor
Franklin W. Kokomoor Ph.D. (Michigan) Professor
Cecil Glenn Phipps Ph.D. (Michigan) Associate Professor
Joseph H. Kusner Ph.D. (Pennsylvania) Assistant Professor
Hallet H. Germond Ph.D. (Wisconsin) Assistant Professor

Bernard F. Dostal M.A. Assistant Professor

Zareh M. Pirenian M.S. Assistant Professor

Uri Pearl Davis M.A. Instructor

Samuel W. McInnis M.A. Instructor

The Faculty Directory reveals that the Faculty of the Department of Mathematics all have offices in Peabody, but also that there are 3 people in each office. Now, from 1928–1929 to 1934, Kokomoor has risen from Assistant Professor to Professor. Phipps has gotten his Ph.D. and risen from the rank of Assistant Professor to Associate Professor. As previously mentioned, Kusner has also received his doctorate from Pennsylvania and been promoted to Assistant Professor. The second and third recipients of the masters degree from the Department in 1930 and 1931 are now Instructors in the Department. [Thus we can detect a pattern in those times of teaching while working on the masters, then continuing to teach with the rank of Instructor while taking summer work at an institution like Chicago for around five summers, then taking a year's leave to write the thesis and earn the Ph.D, finally attaining the rank of Assistant Professor.] The courses offerings have grown slightly: Dostal is listed as teaching a course entitled *Heaviside Operational Calculus*, Kokomoor has introduced a course on *History of Elementary Mathematics* and finally Phipps is teaching *Functions of a Real Variable*.

It is interesting to consult the schedule for the second term of 1934–1935 and see what sort of things the senior faculty are teaching, cf. [9]. Simpson has the following five courses: 2 sections of College Algebra, Functions of a Complex Variable, and Integral Calculus. Kokomoor is offering Plane Analytical Geometry, Mathematics for Agriculture, Business Mathematics, Elementary Mathematical Analysis, and Synthetic Projective Geometry. Phipps is teaching Plane Trigonometry and Logarithms, Elementary Mathematical Analysis, Integral Calculus, and Advanced Topics in Calculus.

Since this is still the time period of the Great Depression, let us return to [4] and record Mrs. Mabelle Benton's recollection of that period in her Florida Oral History interview:

Mrs. Benton:

"There wasn't much stirring in Florida. There just wasn't anything here."

Proctor:

"Then we went into the real estate collapse in the 1920's."

Mrs. Benton:

"That was in 1925, I believe. And then the ..."

Proctor:

"Then the hurricane."

Mrs. Benton:

"Then the stock market in '29 and then all of those Depression years."

Proctor:

"Everything got starved—salaries and libraries and buildings."

Mrs. Benton:

"I do know that. A number of younger men in the engineering college would accept jobs here and there because it paid better. I told Dr. Benton if he really wanted to go somewhere (my father was still living, father died just two years before Dr. Benton), that I was willing to go with him. I mean, I felt responsible for Father, but I felt it was his career, I was willing to go with him. But he felt that he was established. He had thrown in his lot with the university and he would stick it out. Besides, we had our own home." Despite the throes of these hard economic times, during the thirties, Kokomoor has two masters students, Kusner has one masters student, Phipps has one masters student, Simpson has 4 masters students, including C. Bassel Smith who later served as the specialist on elasticity theory in the department, and himself directed 13 masters students between 1948 and 1963 and 8 doctoral students during the 1950's. Finally, Wilson directed two masters theses which were awarded in 1932 and 1933.

A check of the *Mathematical Reviews Author Index* for 1940-1959 reveals that Cecil G. Phipps's research area was mathematical economics. It is interesting to note that a paper Phipps published in 1952 on *Money in the Utility Function* received a mathematics review report by the eminent mathematical economist Kenneth Arrow.

We indicated earlier that Dean Benton's son, Dr. John Benton, recalled that the faculty must have been a closely knit group during the 1910's when the staff and student body size was so much smaller than today. Evidence provided by a second link to the past indicates that this must have also been so during the 1930's and 1940's as well. Mrs. Lillian Pirenian is not only the wife of former staff member Professor Zareh Pirenian, who was on the faculty of the Department of Mathematics from 1931 until 1972 when he retired, but also Mrs. Pirenian grew up in Gainesville where she attended the public school system. As a Gainesville High School junior, she valued the privilege of studying geometry under Mrs. Dorothy Phipps, wife of Professor Cecil Phipps of the University of Florida Mathematics Department. Mrs. Pirenian remembers President Murphree as being a strong Baptist, yet when Reverend John R. Cunningham was pastor at the First Presbyterian Church, Dr. Murphree attended the First Presbyterian Church because of the quality of Dr. Cunningham's sermons. Mrs. Pirenian also remembers the Colonel Edgar S. Walker's attended the First Presbyterian Church, and Mrs. Walker happened to be Mrs. Pirenian's girl scout troop leader. Mrs. Pirenian recalls that under Preacher Ulysses S. Gordon, a block of seats was set aside at the First Presbyterian Church for a different fraternity each week, thus encouraging church attendance by that particular fraternity at least on that particular Sunday. Mrs. Pirenian told me that the faculty referred to each other with nicknames; Professor Pirenian was sometimes called *Pi*, Mrs. Pirenian referred to Dr. Simpson as Dr. Tom and to Dr. Kokomoor as Dr. Kok. (I have also learned that in former times, Professor Theral Moore was always called T. O.). During World War II, when fuel for automobiles was rationed and thus driving was curtailed, Preacher Gordon asked Mrs. Pirenian to help him organize a class at the First Presbyterian Church for young married couples. (Incidentally, our own Professor Simpson and Mr. Chester Yates, both Elders, taught this weekly class alternating every other Sunday). Mrs. Pirenian bicycled through Gainesville with her young daughter in a bicycle carrier calling on the young wives and encouraging them to attend this Sunday school class with their husbands. Zareh Pirenian was born in Bardizag, Armenia in October 30, 1901. He came to the attention of the English expeditionary forces during an American-British expedition into Constantinople, serving as a translator. Pirenian had read widely much Western literature in the European languages rather than translated into Armenian, so he was prepared to study in the West, and came to the University of Florida at age 17. He enjoyed sciences as well as mathematics. A favorite Armenian proverb by which he was taught was

"Speak little, and you will hear much."

First, Pirenian waited on tables, then worked in the library to finance his education. Then, he came to the attention of Simpson during his undergraduate studies, and Simpson appointed Pirenian to teach calculus during his senior year in college at Florida, thus helping him financially in that way. Pirenian was also president of his fraternity, Lamda Chi Alpha, during his senior year. As a result of his love of science, Pirenian decided to do masters work in Chemistry, even though Simpson encouraged him to study mathematics, and thus Pirenian received his masters degree in Chemistry from the University of Florida in 1928, following upon the receipt of the B.S. in mathematics in 1926. Then Pirenian studied at the University of Chicago while also serving as an Instructor of Mathematics, then Assistant Professor at Alabama Polytechnic (later renamed Auburn) during the time period 1927–1930. Pirenian met Professor Bolling H. Crenshaw, Chairman of the Mathematics Department at Auburn, through this position. Even before Pirenian returned to the University of Florida in 1931 as an Assistant Professor of Mathematics, a book Mathematics of Finance came to be written, with joint authors Simpson, Crenshaw, and Pirenian, the first edition published by Prentice-Hall in 1930 with later updates in 1935, 1950, 1951, and 1969. A typewriter was available on the second floor of Walker Hall on which Pirenian typed revisions to this text and also solutions to the exercises.⁶

The Pirenians were married in 1939. Mrs. Pirenian recalls that Zareh's office was in Walker Hall 101 (prior to renovation) and later in the 1950's, Zareh had office mates Morse and Hutcherson, thus confirming the fact that the faculty were three to an office, even in the more recent days of the 1950's. Mrs. Pirenian recalls that during World War II, Zareh was involved in the A.S.T.P. program (= Army Special Training Program) where uniformed army recruits were given mathematics training by our faculty, even though they were not registered students at the University. The students were marched into the classroom by a drill sergeant, ordered to sit down, had their mathematics class, then were ordered to stand up, and marched out at the end of the class period by the sergeant.

⁶During Professor Theral Moore's first semester here in 1955, his teaching assignment consisted of topology, a section of calculus, a section of basic mathematics (unified trigonometry, analytic geometry and calculus), and two sections of business mathematics, using the Simpson, Pirenian, Crenshaw text. Moore's opinion based on this direct teaching experience, was that the Simpson, Pirenian, Crenshaw text was extremely well written.

A second closer study of the catalogue reveals more about the division of instruction into the Lower Division and Upper Division. Indeed, in 1934, an administrative structure was being implemented at the University of Florida which survived until around 1978, namely, the division of instruction into the *General College* which administered work of the Lower Division, and the Upper Division, which included advanced undergraduate courses and the graduate programs.

(When this structure was abolished in 1978, then the Lower Division was absorbed into Arts and Sciences, with the resulting name change to the CLAS, the College of Liberal Arts and Sciences, with Professor Charles Sidman, History, as the first Dean, serving from 1978–1988. Also, Little Hall was originally constructed to be the home of the General College.)

Proctor [2] writes that the idea of the Lower Division stemmed from President Tigert himself. Beginning around 1930, Tigert wished to see a revision of the undergraduate curriculum, but met with resistance from many faculty members and deans. Tigert continued to push this concept, and in 1934, the Board of Control approved his plan for a major curricular reorganization. Proctor [2, p. 35] writes

"A Committee was appointed with Walter Matherly as chairman, and chemistry professor Alvin A. Black and education professor Winston W. Little. Within weeks, the committee presented its first report. It primarily addressed the need of providing education for those students who had to leave the University before completing their degrees. Approximately onehalf left before completing their sophomore year, and about two-thirds never graduated.

The report recommended that a new lower division be created to provide courses that would *stimulate intellectual curiosity* and *encourage independent work*. Student progress would be measured by *abilities, appreciation, skills* and *understanding* and not by courses passed and credit hours accumulated. A Board of Examiners would administer comprehensive objective tests [i.e., multiple choice]. Required courses would cover the social sciences, biology, physical sciences, logic, basic mathematics, English and the humanities. There would also be eleven elective comprehensive courses."

Interestingly, anecdotal evidence provided by an alumna of the University of Illinois at Urbana reveals that in the late 1930's this institution also had a very high freshman dropout rate; anyone with a high school diploma from any Illinois high school was automatically eligible for admission during the end of the enrollment period, but not by any means guaranteed the successful completion of an undergraduate degree, cf. [10]. The change in curricular organization shows itself already in the 1935 *Catalogue*, during the first year of operation under this new system. All newly admitted students entered the General College which had the following mandated curricula for the first two years.

FIRST YEAR

- C-1 Man and the Social World
- C-2 Man and the Physical World
- C-3 Reading, Speaking and Writing
- C-4 Man and His Thinking (one term) General Mathematics (one term)
- X Military Science and Physical Education

SECOND YEAR

- C-5 The Humanities
- C-6 Man and the Biological World
- Y Military Science and Physical Education

At that time, no *clock hours* or class grades were awarded for these classes, although it is claimed that frequent testing was given for the purpose of progress reports. Instead the students of that time faced a battery of 8 Comprehensive Examinations of 6 hours each. Superior students could petition to take several of these tests without taking the courses. Also, students who wished to enter the College of Engineering could take C-2: General Chemistry in place of the above general course and also an unnumbered course in *Mechanical Drawing and Descriptive Geometry* during the first year. A Summer Shop Course continued to be required of engineering students, or the *student could present 12 weeks as a student helper in an approved shop, power plant, or industrial plant.*

Professor Philip Bradshaw, who studied at the University of Florida between 1935–1940 and later was on the faculty here, had the following recollections about the founding of the University College, [8]:

"The idea of University College was locally backed by John Tigert. At that time, Minnesota, Wisconsin, Columbia College of Columbia University, and several other private and state institutions had general colleges. Tigert was very much aware of this movement, as he had been U. S. Commissioner of Education before becoming President of U. of F. UC ⁷ was, unfortunately, not acceptable to U of F faculty. He brought it to pass by fiat.

⁷ed., University College
Any high school graduate from a Florida high school was automatically eligible to enroll at U.F. Drop-outs were frequent. In 1935, I heard a weak student say

'I must last until Thanksgiving,'

so the local newspaper can report that he attended the University of Florida. Indeed, many left at Thanksgiving or Christmas and never returned, except as *alumni*.

... Winston A. Little, M.A., was the second dean of University College after W. J. Mathingly, who was the first dean of University College, 1935 – 1936 and dean of Business Administration. The late dean of UC, Bryon S. Hollinshead, had in 1950 written with others and edited *General Education* in a Free Society. UC, 1935–1978, became the premier college of its kind."

Having studied the Lower Division in more detail, we return to the Upper Division to list the Mathematics Graduate Course listings in the *Graduate Catalogue*:

MATHEMATICS GRADUATE COURSES IN THE 1935 Graduate Catalogue

Math 502. Vector Analysis

Math 508. Project in the Mathematics of Finance

Math 511–512. Introduction to Higher Algebra

Math 515. Theory of Numbers

Math 518. Theory of Groups of Finite Order

Math 520. Mathematical Statistics

Math 0521. Empirical Analysis and Curve Fitting

Math 0522. Method of Least Squares, Statistics

Math 524. Synthetic Projective Geometry

Math 525-526. Econometrics

Math 0534–0535. General Projective Geometry

Math 0536. Foundations of Geometry

Math 540. Fourier Series and Harmonic Analysis

Math 542. Heaviside Operational Calculus

Math 549–550. Theory of Infinite Processes

Math 551–552. Advanced Topics in Calculus

Math 555–556. Functions of a Complex Variable

Math 557. Differential Geometry

Math 559–560. Functions of a Real Variable

Math 0568. History of Elementary Mathematics

Math 575. Fundamental Concepts of Modern Mathematics

Our final look at the Department of Mathematics in this chapter is from the 1939–1940 *Catalogues*, on the eve of the entry of the United States into World War II. The Commencement Address for July 20, 1940 is delivered by George C. Gibbs, Attorney-General of the State of Florida, and concerns the events leading up to World War II and the sacrifices that will be demanded of that generation of students, even though this is still prior to the entry of the United States into the Second World War. Student enrollment has grown to 3,546 during the regular academic year. John Tigert is President of the University, James Anderson is listed as Dean of the Graduate School, Emeritus, and finally Thomas Simpson is not only Head of the Department of Mathematics, but also Dean of the Graduate School, with his Dean's Office in Language Hall, now called Anderson Hall. The rest of the Mathematics Faculty is now all located in Peabody, mostly with two or three persons to an office.

A half decade after the establishment of the Lower Division, the General College has apparently blossomed into a fine bureaucracy. Each of the Comprehensive Courses now has a faculty member in charge. Thus, Professor Franklin Kokomoor now has the title of *Chairman of Comprehensive Course-42: General Mathematics* and an associated office listed as being Peabody 106. The course offering schedule for the spring semester of 1940 reveals that Mathematics C-42 meets 4 days per week, and during this spring semester, 15 sections of this mathematics class are being offered, with 12 sections in Peabody, 2 in Language Hall, and 1 in Engineering.⁸

Consulting the class schedule for the Upper Division reveals that Professor T. M. Simpson is still listed as the Head of the Upper Division Mathematics, with his office listed as Language Hall 11, that of the Dean of Graduate School. In the Upper

⁸After the dismantling of the General College in 1978, this course had a metamorphosis into the current MGF 1202: Fundamental Concepts of Mathematics which had 14 recitation sections in the fall, 1993 semester.

Division, 29 sections of mathematics classes are being offered, including 12 sections in Basic Mathematics and 6 sections in Differential and Integral Calculus. The *Graduate School catalogue* lists 128 faculty as offering courses in that division during the academic year. The Graduate School now offers doctoral work in Animal Husbandry (Animal Nutrition), Biology (Zoology), Chemistry, Pharmacy and Pharmacognosy. During the summer commencement ceremonies of 1940, however, only 2 doctorates are awarded, one in Biology and one in Pharmacy. The following courses have been changed or added to the Graduate Course listings for the Department of Mathematics. Mathematics 520 has been retitled as Advanced Statistics. The following three new courses have been introduced: Mathematics 519—Theory of Probability and Theory of Sampling, Mathematics 522—Finite Differences and Interpolation, and Mathematics 529—Biometrics. Hence, graduate work in Statistics is offered in the Department of Mathematics.

Apparently, the faculty size in the department now stands at 12 professors. These are listed in two groups. First, in the *Lower Divisional Catalogue*, the following (alphabetical, apart from the Chair) list is found:

C-42: General Mathematics Faculty

Franklin W. Kokomoor Ph.D.

Professor of Mathematics in the College of Arts and Sciences Chairman

- Uri Pearl Davis M.A. Instructor in Mathematics in the College of Arts and Sciences
- Bernard F. Dostal M.A. Assistant Professor of Mathematics in the College of Arts and Sciences
- Theodore S. George M.A. Instructor of Mathematics in the College of Arts and Sciences

Joseph H. Kusner Ph.D. Associate Professor of Mathematics in the College of Arts and Sciences

Samuel W. McInnis M.A. Assistant Professor of Mathematics in the College of Arts and Sciences

- Ernest C. Phillips, Jr. Instructor of Mathematics in the College of Arts and Sciences
- Cecil G. Phipps Ph.D Associate Professor of Mathematics in the College of Arts and Sciences

Zareh M. Pirenian M.S.

Associate Professor of Mathematics in the College of Arts and Sciences

Edward S. Quade Ph.D.

Instructor of Mathematics in the College of Arts and Sciences

It is interesting to learn from the 1939 *Seminole* that Professors Phipps, Quade and George taught the general science course C-2: Man and the Physical World in Lower Division during the 1938–1939 academic year.

In the *Graduate Catalogue*, the following professors are on the list of those providing graduate instruction during the academic year: Hallet Germond, Franklin Kokomoor, Cecil Phipps, Zareh Pirenian, Edward Quade, and Thomas Simpson. Thus not all mathematics faculty taught in both the Lower and Upper Division each semester, even in 1940. We should emphasize that several current faculty members have stressed that the Department of Mathematics was highly unique throughout the period of existence of the Lower and Upper Divisional instruction, as being the only department in Arts and Sciences which did not have substantially different staffs for these two different divisions.

These two lists reveal the following changes in the Department of Mathematics since 1934–1935. Professor William Wilson has retired. New faculty Theodore George and Ernest Phillips have been added. While McInnis received the masters degree in 1931 and Davis in 1930, McInnis is now an Assistant Professor while Davis remains an Instructor. Hallet Germond, Joseph Kusner, and Zareh Pirenian have all been promoted from Assistant Professor to Associate Professor. But Dr. Quade has obtained a doctorate from Brown University, as well as being found on our masters list as our fifth masters student, receiving the M.A. degree in 1932 with thesis title *The Development of the Idea of Integration* with supervisor T. M. Simpson.

The Committee on Religious Welfare of the Student Body, ceased to exist already in the 1935 *Catalogue*. But in 1940, a growing list of Faculty Committees is found, including new Committees on Use of Space, Tenure, and Retirement. Wilson is serving on the Retirement Committee. Simpson is on Scholarship and Loans, Research Council, University Examinations, and Chair of the Graduate Council. Kokomoor is Chair of the Student Publications Committee and also on the General College Administrative Board. Kusner is on the University Publications Committee.

Returning to the 1955 volume of American Men of Science, we find that a year after retirement from the University of Florida in 1951, Dr. Simpson went to Henderson State Teachers College in Arkadelphia, Arkansas to serve as a consultant for general education and to assist this institution on setting up a curricular and organizational structure like the University College and Lower Division at the University of Florida. We are also fortunate at this juncture, because Dr. William Ray Hare, Jr., Ph.D. in 1961 from our department with advisor Professor Jerry Gaddum and Professor John Maxfield as Dissertation Committee Chairman, had met Dr. Simpson precisely during this time when Simpson was at Henderson State. Professor Hare, now at Clemson University, writes the following about Dean Simpson:

"... As Henderson State Teachers College (Arkadelphia) was adopting the general or university college program from the University of Florida, Dr. Simpson was hired as a consultant in general education and moved to Arkadelphia ... in 1950. ⁹ I had classes under him up through summer school, 1955, at which time he took a position at Southwestern (now Rhodes) College in Memphis. (He was a staunch Presbyterian.) He spent two years there, before retiring permanently from active teaching. He built a new home in Gainesville and moved back in the spring/summer of 1957, and I visited them occasionally during the first year in graduate school. I occasionally ran into him on campus, where his innate intellectual curiosity had him trying to learn Russian at age 80– !! We somehow drifted apart and I just know he died of some form of cancer in, probably, the mid-1960's. ¹⁰

He regaled me with stories of his undergraduate days at Harvard ... where he had advanced calculus under Osgood, algebra under Bocher, and Shakespeare under Kittredge. In fact, when the head of the English department at Henderson had a stroke 2-3 days before the start of a semester, he stepped in and taught the course in Shakespeare Liz Meux took the course and said that it was one of her memorable classes.

He went to Wisconsin for the Ph.D. which he got around 1912—I think his work was in Complex Analysis, but I'm not sure. He shared an office with someone very famous, like George Birkhoff, maybe and told about the proof by this person of some well known Poincare conjecture—every continuous 1-1 map of the closed annulus onto itself has at least 2 fixed points. (Or some such theorem—don't quote me literally—I always called it the *washing machine* theorem!)

He came to the U. of F. which was really just getting started after consolidation of several institutions of higher learning around north Florida. His home for most of those years was across US 441 from the campus and a block or so south of the Administration Building. He told me of how so much of the land on both sides of 441 were cornfields and pasture lands back in the 19teens. He mentioned hiring Kokomoor from Michigan around 1918¹¹ and they worked together as a team for many years. Also

⁹ed., actually 1952

 $^{^{10}}$ ed., in 1962

 $^{^{11}}$ ed., actually 1927

he hired Phipps, Pirenian, then C. B. Smith much later"

Dr. John Meux, a second undergraduate at Henderson State who later received the Ph.D. degree from our department in 1960 with a thesis directed by Professor Russell W. Cowan on "Orthogonal polynomial solutions of a class of fourth order linear differential equations", has similar memories of Dr. Simpson.

"My first contact with Dr. Simpson was as an undergraduate at Henderson College in Arkadelphia, Arkansas. The time frames are somewhat fuzzy since this was about forty years ago, but I believe that Dr. Simpson had either directed (or had assisted in) the establishment of Henderson's *General College* program. This program was patterned after the general college program then in use at the University of Florida. This was, of course, after Dr. Simpson had retired as Dean of the Graduate School at the University of Florida.

I believe Dr. Simpson did some teaching at Henderson but I was never in one of his classes. As one of only five or six mathematics majors, however, I talked with Dr. Simpson on several occasions.

After graduating from Henderson in 1953, I did not see Dr. Simpson again until the summer of 1957. By that time, Dr. Simpson had retired again and moved back to Gainesville, while I had completed a master's degree at the University of Arkansas and had moved back to Gainesville for Ph.D. work in mathematics.

My family (wife and five-month old baby) arrived in Gainesville in late May of 1957 and were promptly welcomed by Dr. and Mrs. Simpson who showed us around, had us to dinner, and introduced us to many people. Their kindness and thoughtfulness enabled us to adjust quickly to our new environment.

Contacts with Dr. Simpson were frequent during my three years at the University of Florida. We were occasionally invited to the Simpson home and he often dropped in at the student union where a group of us would be drinking coffee and talking.

I particularly recall one morning when I came upon him sitting by himself at a table in the student union. As I approached I heard him muttering in a completely incomprehensible (to me) manner. He glanced up, waved me to a chair, muttered a few seconds longer, and explained that he was taking a course in Russian and was practicing his accent.

He was a gentleman I will never forget."

We return to Mrs. Elizabeth Simpson's Florida Oral History Project transcript [5] to gain her perspective on these later years of the 40's, 50's and 60's as concerns Dean

Simpson and herself. It is interesting that both Mrs. Pirenian and Mrs. Simpson were vividly impressed by the A.S.T.P. program.

Mrs. Ring:

"Those were the days when we had ROTC. We had navy boys on campus and air force boys."

Mrs. Simpson:

"Yes, we had them from all the services who came here for just a few weeks. As I remember, it was about six weeks."

Mrs. Ring:

"Didn't they wear their uniforms to class?"

Mrs. Simpson:

"I think so."

Mrs. Ring:

"And they would stand up until the professor told them to sit down."

Mrs. Simpson:

"I don't remember the details because I never attended one of the classes. But that brought some students on campus which was good for the university. Then of course, after the war, the G.I. Bill came in, and many of the young men came back. Some had been wounded; some were in very good shape. They took advantage of their opportunity to get university work, and they were very serious minded students."

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Mrs. Simpson:

"Yes. Well, Dr. Simpson wrote several textbooks. He wrote an algebra and geometry book on his own. Then he and Pirenian ¹² collaborated on a book which was for college students. Their most successful text book was *The Mathematics of Finance*. There were a number of revisions The book was a very popular mathematics text, and it was translated into foreign languages, or maybe it was just sold in places like Canada. Long before Dr. Simpson died, 100,000 copies had been sold, which is pretty good for a mathematics text book. Mr. Pirenian had done the work of

 $^{^{12}\}mathrm{ed.},$ and also Crenshaw

setting up the problems on the page. He was a very meticulous person as well as a fine teacher. He arranged for the problems on the page so that at the bottom of the page you came to the end of the problem — you never had to turn over the page to finish up the problem. The publisher told him he had never seen such a manuscript in his life. There was nothing he had to do to change it. It was just perfect."

Mrs. Ring:

"And then Dean Simpson died in 1952?"

Mrs. Simpson:

"No, we were married in 1952, he died in 1963. After he retired and before we were married, he got a call from a little town in Arkansas, Arkadelphia, where Henderson State Teacher's College was. The Ford Foundation was setting up a program for training teachers in basic subjects rather than in so much education methods. Henderson was asked to be included in that group. Dr. Simpson took the job of coordinating the program for Arkansas. He was sent to Henderson State Teacher's College in the fall of 1952, and we were married just before we left. I left the university, and we went there for one year. But each year, they asked him to stay on another year, so that we were there for three years?"

Mrs. Ring:

"Did you like it there?"

Mrs. Simpson:

"I loved it. Arkansas is just such a friendly, wholesome place In the meantime we built a home here [in Gainesville] after Dr. Simpson had sold the Simpson place opposite the university."

Then as we were moving into the house, we got a long distance call from Southwestern at Memphis, Tennessee, which is a Presbyterian College. [They] wanted him to come and teach. He wanted to go; I knew that. He was ill that summer because he had a gall bladder problem. When he went into the hospital, they wanted to operate on him, but he wanted so badly to go to Memphis to teach that we postponed surgery. I put him on a very strict diet, and we moved to Memphis. We remained there two years."

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"And seventy-one when we were married, and he was teaching actively for five years after his retirement."

Mrs. Ring:

"It sounds to me as though you took very good care of him if he worked all those years after he was retired."

Mrs. Simpson:

"Oh, yes. He had a very strong constitution. He was born in the snows of Maine and was brought up in Boston. He was very hearty [and] rugged. He used to laugh and say that only the strong lived to grow old up there because the young ones were frozen to death before they grew up."

Mrs. Ring:

"Perhaps that explains why you have so many people in Maine up in their nineties?"

Mrs. Simpson:

"I think it does. They are tough, and if they can last to grow up, they are very active to go on into an old age."

Mrs. Ring:

"Did you like being in Memphis?"

Mrs. Simpson:

"Yes, we liked it very much."

Mrs. Ring:

"It was quite different from Arkadelphia?"

Mrs. Simpson:

"Yes, quite different. Dr. Simpson was a strong Presbyterian. He had been a ruling elder in the First Presbyterian Church here for many years.¹³ In those days, they didn't rotate the position of elder very much.

Yes, Preacher Gordon [a well known pastor of the First Presbyterian Church from 1928–1968] was a very close friend of Dr. Simpson. In fact, the first meal he had in Gainesville when he came here was at the Simpson home. They were very close all of those years. It hurt Dr. Gordon quite badly when Dr. Simpson died He [Dr. Simpson] died in February, 1963, just before his eighty-second birthday."

 $^{^{13}{\}rm Reverend}$ Leonard Blanton has informed us that Mrs. Frances Simpson was Nursery Supervisor for 18 years at First Presbyterian Church.

Mrs. Ring:

"Well, we want to thank you for coming on such short notice and giving us the story of your life, Elizabeth."

Mrs. Simpson:

"I didn't talk very much about Dr. Simpson. I know Dr. Proctor knew him very well. The old *Who's Who* has his basic dates — the dates of his first marriage and his birthplace, because it was a little town. We had a home in Sullivan, Maine, for several years after we were married. We went there in the summer which was wonderful. Most of the time when we went up there, however, we were fixing up that old house, repairing blinds and cutting grass which had grown too high all around. But it was a wonderful experience."

Mrs. Ring:

"If there weren't quite so many fogs up there, I would be happy."

Mrs. Simpson:

"We didn't usually go until July, and we came back early in August."

Professor Robert Meacham, founding member of the Department of Mathematics at Florida Presbyterian College in St. Petersburg, Florida (now Eckerd College), informed me that Dean Simpson had donated a set of journals to the University of Florida Mathematics Department, which were kept on the third floor of Walker Hall, mainly for the use of the graduate students. This material included a a complete set of the *Bulletin of the American Mathematical Society* going back to Volume I which was published in 1895! When the Florida Presbyterian College was established around 1960, Professor Meacham requested the Florida Mathematics Chairman at that time, Professor John Maxfield, to donate these journals to the library at Florida Presbyterian College, since the University of Florida Libraries contained all of the material Simpson had given the Department. Professor Maxfield agreed to this request, and thus Dean Simpson's own journal collection now resides in the Eckerd College Library.

As a concluding note to this chapter, it is interesting to observe that the scientific honorary society Sigma Xi has had a chapter on campus since 1937. During the academic year 1941–1942, Professor T. M. Simpson served as President of the University of Florida Chapter of Sigma Xi, over 20 years after arriving on campus in 1918 in his mid thirties, as the Professor of Mathematics following the death of Professor Herbert Keppel in October of 1918.

References:

- [1] The consistent inclusion of this institution in the discussion of the foundation of the University of Florida in the University Records is a curious puzzle for the following reason. Professor Samuel Proctor (personal communication, March 29, 1994) has kindly informed me that while the Agricultural Institute of Osceola County was approved by the state legislature in 1903, it only existed on paper as funds for its operation were never voted. It ceased to exist, of course, even on paper with the passage of the Buckman Act.
- [2] Proctor, Samuel and Langley, Wright, (1986), Gator History; A Pictorial History of the University of Florida, South Star Publishing, Gainesville, Florida.
- [3] Pop-Stojanovic, Zoran. Personal communication.
- [4] Transcript of Florida Oral History Project Interview by Dr. Samuel Proctor of Mrs. Mabelle Benton, February, 1969.
- [5] Transcript of Florida Oral History Project Interview by Mrs. Emily Ring of Mrs. Elizabeth Simpson, November, 1977.
- [6] Armstrong, Orland K, The Life and Work of Dr. A. A. Murphree, Murphree Memorial Fund, printed by St. Augustine Record Company, 1928.
- [7] Proctor, Samuel, (1958), The University of Florida: its early years, 1853-1906, Thesis, University of Florida.
- [8] Bradshaw, Professor Philip, Personal communication, July 1994.
- [9] Perhaps we are seeing here an illustration of what Samuel Proctor in reference [2, p. 37], cites as one effect of the Great Depression at the University of Florida: "courses were eliminated from the curricula, classes were increased in size, weekly teaching loads were expanded to sixteen hours, and salaries were reduced from ten to fifty percent." After conferring with Florida Governor David Scholtz in 1933, University of Florida President Tigert had to reduce the budget from \$748,000 to \$561,000.
- [10] Ehrlich, Eleanor Ewing, Personal communication.

Appendix A

Enrollments at the University of Florida during the academic year (not including summer session)

Source: Report of the President of the University for the academic year 1939–1940.

1905 - 1906	135
1911 - 1912	302
1920 - 1921	823
1924 - 1925	1,488
1927 - 1928	2,073
1930 - 1931	2,388
1934 - 1935	2,848
1939 - 1940	3,456

Appendix B

The Philosophy of the Lower Division and General College

The following interesting statement is found in the 1951 *Catalogue*, which sheds some light behind the rationale for forming the Lower Division and Upper Division in 1935:

"In a reorganization ... in 1935, all freshmen and sophomores were placed in one college. The University College administers all the work of the Lower Division, which includes the pre-professional work for the Upper Division schools and colleges, and a core program of basic education for all students. In 1944, the American Council on Education defined this program.

'General Education refers to those phases of nonspecialized and nonvocational education that should be the common denominator, so to speak, of educated persons ... the type of education which the majority of our people must have if they are to be good citizens, parents, and workers.' "

Appendix C

Books authored by mathematics faculty members at the University of Florida from 1911-1940

Here I have listed all books published at any date whatsoever, by all persons who were on the instructional staff between 1911–1940. Especially, this reveals that Dr. Quade, who received the fifth masters degree from the Department of Mathematics in 1932, a doctorate from Brown University, and was an Instructor here in 1940, later appears to have been a systems analyst with connections to the Rand Corporation.

Karl Schmidt: (born in 1874)

- 1). From Science to God: Prologomena to a Future Theology, Harper, 1944 (201 S352f)
- 2). The Creative I and the Divine, The Dial Press, New York, 1937.

Craig Thornton Allen: (born in 1905)

Hogg, R., and Craig, A., Introduction to mathematical statistics, MacMillan, 1959, 245 pp. [519.9 H716i]
3rd edition, 1970; 4th edition, 1978, 438 pp. [346 H716i4]

Hallet H. Germond

Research in trade and industrial education, Daytona Beach, Florida; University of Florida, School of Trade and Industrial Education, 1941, 89 pp. [LC1043.G471 1941]

Franklin Wesley Kokomoor: (born in 1890)

- Historical highlights of the Gainesville Kiwanis Club, 1923 1963, Gainesville Kiwanis Club, 1979.
- 2). Mathematics in human affairs, Prentice-Hall, 1942, ?54 pp. [510 K792m]

This book reveals Kokomoor's interests in the history of mathematics, and also, has references to the Bible, reflecting Kokomoor's interest in religion. For instance, on p. 8, Kokomoor cites I Kings 7:23 as evidence that π may have sometimes been taken to be 3, i.e.,

"And he made a molten sea, ten cubits from one brim to the other ... and a line of thirty cubits did compass it round about."

The role of the Catholic church in medieval scholarship is also discussed in the first chapter. Kokomoor stresses the many sided interests and occupations (outside of mathematics) of many of the contributors to the development of mathematics, from Greek times up through the nineteenth century.

3). The teaching of elementary geometry in the seventeenth century, Bruges, Belgium, St. Catherine Press, 1928. [513.07 K80t]

This last item consists of a reprinting of Dr. Kokomoor's dissertation which appeared as three articles in the history of science journal *Isis*.

- a. The first portion, Isis 10 (1928), pp. 21-32, consists of a list of seventeenth century textbooks available in various libraries in the United States which Dr. Kokomoor had examined. Kokomoor studied old texts at the libraries of the University of Chicago, the University of Michigan, Columbia University and the New York City Public Library. He also thanked two individuals, Professor David Eugene Smith of the Teachers College of Columbia University and George A. Plimpton of New York City for giving him access to their private libraries.
- b. The second portion, Isis 10 (1928), pp. 367–415 is on The Distinctive Features of the Seventeenth Century Geometry. This portion discusses how the teaching of geometry, at that time primarily an advanced subject suitable for the final years of gymnasium study in Germany or college study elsewhere, evolved away from the Elements of Euclid, which had been the chief curricular source in prior times.
- c. The final portion, in *Isis* **11** (1928), pp. 85-110 is on the *The Teaching of Elementary Geometry in the Seventeenth Century* and discusses aspects of teaching this material which can be deduced from the texts examined.

Joseph Harrison Kusner

The nature and human significance of mathematics, Second Preliminary Edition, 1937. [510.1 K97n2]

Thomas Marshall Simpson: (born in 1881)

 Crenshaw B., Pirenian, Z., and Simpson, T., Mathematics of finance, proceeded by Elementary commercial algebra, Prentice-Hall, 1930, 383 pp. [510 C915m]

Here is a paragraph from this book which I especially enjoyed and which will serve to provide an illustration of the writing style of those times: "Caution. In speaking of a sum of money, it is absolutely essential to know the *time connected with that sum*. Manifestly, the enthusiasm with which we would receive the promise,

'I will give your \$100,'

would be dampened if the promiser immediately added the words

'50 years from now.'

In particular, the words

'\$5000 due in 3 months,'

shall mean that the \$5000 will be \$5000 at the end of three months. Consequently, under business conditions, it would not be worth \$5000 today."

- 2). Crenshaw B., Simpson T., Pirenian, Z., Commercial algebra, college course, Prentice-Hall, 1935, 174 pp.
 3rd revised edition, Prentice-Hall, 1950. [510 C915c, resp., 510 C915c3]
- 3). Simpson T., Pirenian Z., Crenshaw B., Mathematics of finance, Prentice-Hall, 1951 [510 C915m3]
 4th edition, Prentice-Hall, 1969 [510 C915m4]
- 4). Plane trigonometry and logarithms, Winston, Philadelphia, 1930, 174 pp. [514.5 s613p]. Next edition - 1944

Charles A. Messick: (born 1896)

Symmetric functions of infinitely many elements, Ph.D. thesis, University of Chicago, 1930, 46pp.

Zareh Pirenian: (born 1901)

Chemistry M.S. thesis in 1929 at the University of Florida with title *Study* of methods of separation of metals of the platinum group.

See under Simpson for other books.

Edward S. Quade

- 1). Analysis for military decisions, Rand McNally, 1964, in the Rand lectures on Systems Analysis [335 Q1a]
- 2). Analysis for public decisions, American Elsevier Pub. Co., 1975, 322pp. [H61.Q16]
 2nd edition, North Holland, 1982

 Miser, H., Quade, E., Handbook of Systems Analysis, North-Holland, 1985, [T57.6.H365 1985]

Appendix D

Dean of the Graduate School Thomas Simpson's Annual Report for the academic year 1943–1944

Not only did the President of the University have to write an Annual Report which is to be found in these old catalogues, but also, we find reports to him included from all the deans of the various divisions. In particular, from Dean Simpson's report of 1943–1944, the following information is obtained. Graduate Study at the University of Florida was first established in 1910. Since that time through the 1943–1944 academic year, a total of 695 Masters degrees had been awarded and a total of 38 Doctoral degrees.

Appendix E

Size of the Instructional Staff in the Department of Mathematics (not including Graduate Assistants)

1911	2: 1, 0, 0, 1
1920 - 1921	3: 1, 0, 2, 0
1927 - 1928	9: 1, 2, 4, 2
1934 - 1935	10: 3, 1, 4, 2
1939 - 1940	12: 2, 4, 2, 4
1951 - 1952	28: 5, 7, 6, 8 a

Here "x : a, b, c, d" denotes a total of x persons on the Instructional Staff with "a" Professors, "b" Associate Professors, "c" Assistant Professors, and "d" Instructors.

^a and also included 2 Interim Instructors

Appendix F

Life in Gainesville in the 1910's and 1920's as Remembered by Mabelle Williams Benton

The Florida Oral History Project Transcript [4] of Mrs. Mabelle Benton as recorded by Professor Samuel Proctor in February, 1969, not only has provided us with valuable information about Dean John R. Benton and Professor Herbert Keppel as recorded in Chapters 2 and 4 above, but also provides a fascinating glimpse of life in Northern Florida during the early part of the twentieth century.

Prior to her coming to Gainesville in 1913 and her marriage to Dr. Benton in 1914, Mabelle was teaching school in Orange Park, Florida, for two years before entering the Florida Female College in the fall of 1906, shortly after this institution was established under the Buckman Act of 1905 with Dr. Murphree as President as described in Chapter 2. Orange Park at that time was a small resort destination for wealthy Northerners near Jacksonville. Mrs. Benton had several brothers living in Jacksonville, and her father was practicing medicine in Williston. She comments that in that time period, she always traveled by train to visit either her brothers in Jacksonville, or her father in Williston.

Mrs. Benton comments that when she went to the Florida Female College in Tallahassee in fall of 1906, that she recalls there being only two automobiles in all of Tallahassee. Again, the students traveled to college by train, with everything they needed for the year contained in a large trunk, except their umbrellas and raincoats which were carried with them on the train, in case it was raining when they reached their destination. While at the Florida Female College, Mrs. Benton met the Murphree family, as a Murphree daughter was also studying at the Female College at the same time while Murphree was President from 1905-1909.

After graduation from the Florida Female College, Mrs. Benton obtained a position in 1913 in Gainesville as the fourth grade teacher in the Gainesville public school located on University Avenue where now the Kirby-Smith Building stands. Mrs. Benton recalls that there was one building for the lower grades, and one building for the high school. Also during the year that she was teaching fourth grade, Mrs. Benton taught a Sunday school class at the First Presbyterian Church. Of course, she did not own an automobile, but in that former location of the First Presbyterian Church, it would have been within walking distance of where she taught and boarded.

Proctor:

"What did Gainesville look like [in 1913]?"

Mrs. Benton:

"I guess the population was something like 5,000. That was before the day that they had any library at all. The first library in Gainesville was an Andrew Carnegie Library which was torn down quite a number of years ago. Then another library was built on the same spot, which has been the library until quite recently."

Proctor:

"Where did you live when you were teaching [fourth grade]?"

Mrs. Benton:

"On University Avenue, just a block or two from school. It was known as the Dowling house. It was Mrs. Dowling that ran it."

Proctor:

"It was like a boarding house?"

Mrs. Benton:

"A boarding house, about next door to the McCreary and Merchant homes."

Proctor:

"You lived there and you took your meals there?"

Mrs. Benton:

"That is right."

Proctor:

"Were the streets out that way in northeast Gainesville paved?"

Mrs. Benton:

"I guess University Avenue was sort of roughly paved with crushed rock, as I remember it."

Proctor:

"From the school up to the courthouse square?"

Mrs. Benton:

"Yes, and out to the campus because the University was already there."

Proctor:

"Were there some brick streets around the square area — North and South Main Street?"

Mrs. Benton:

"Well, I dimly remember that. The Methodist Church took over the property which was the old East Florida Seminary. I attended the Presbyterian Church, which was on University Avenue. So, my goings and comings were mostly on University Avenue."

Mrs. Benton:

"There were some real large homes. People built larger homes in those days. You hoped that you would be able to have a maid, at least part of the time, so you could afford to build a larger home. Most of the homes were quite large."

Proctor:

"What about entertainment?"

Mrs. Benton:

"They had the Chautauqua and, the year I was teaching here, they had at least one lecture there. I think they had one or two plays. Shakespeare plays, or something of the kind."

Proctor:

"What about the area west of the courthouse square, as you proceeded out University Avenue toward the campus?"

Mrs. Benton:

"That hopefully, was to be the main residential street of the town and a few nice homes were built along. But the town was slowly developing. The Depression came on and so on, and there weren't too many homes built. Eventually, the powers that be, I don't know whether it was the city commission or the real estate people or who, they began trying to get business in and voted business. So the University Avenue did not develop as what the original city fathers had hoped, as a beautiful residential street leading to the University"

With some apparent difficulty, Dr. Proctor was able to pry out of Mrs. Benton, how her husband and she had met; a social was held one afternoon with teachers and some of the university faculty invited. The Benton's were married in 1914. They first rented a home on University Avenue, then built one in 1915 on University Avenue, exactly where the Holiday Inn now stands. Unfortunately, later two fraternity buildings were constructed between the Benton's and the corner of University and Thirteenth Street, also where the Holiday Inn now stands today, so the Benton's obviously had a bit of a noise problem as they were raising their four boys in that location. Again, Mrs. Benton recalls that the primary mode of transportation was walking, with few automobiles in Gainesville. Even though Dr. Benton had a Model T Ford, apparently, one did not use an automobile in the 1910's as casually as we do today. Professor Proctor inquired of Mrs. Benton about the use of horses in Gainesville at that time.

Proctor:

"Were there many of these little surreys that people had?"

Mrs. Benton:

"I don't believe there were There were buggies or surreys for rent, but I don't believe many people kept any sort of a carriage."

Proctor:

"What was the social life like for faculty and faculty wives in those early days, Mrs. Benton?"

Mrs. Benton:

"I guess there was not very much. Way back in those days, people walked. You went to call on the new people, and they returned the call and such. That was about all."

Now Dr. Crow, Dr. Herbert Keppel, and the Andersons all lived on Thirteenth Street not far from the University. Thus, these seemed to have been the Benton's closest friends at the University. Even though Mrs. Benton had known a daughter of the Murphree family in Tallahassee as mentioned above, the Murphrees did not live close to the Bentons in Gainesville, and thus perhaps, were not such good friends as Crow, Keppel and the Andersons.

Proctor:

"You walked for the most part?"

Mrs. Benton:

"Yes, Gainesville just encompassed a very small area."

Proctor:

"Well, where did you do your shopping? Your grocery shopping, for instance?"

Mrs. Benton:

"To some extent we telephoned for things. I don't know where the store was. There were four Higgenboggen brothers, and I don't know how many of them worked in the store and ran it, but some of them did"

Proctor:

"So you telephoned and they delivered things probably by surrey or carriage to you, wagon?"

Mrs. Benton:

"A wagon something, probably a wagon."

Proctor:

"So you didn't have to go shopping like ladies have to go today too much?"

Mrs. Benton:

"No, we might have gone occasionally, but I think it was mostly by phone."

Appendix G

Pre-World War II Faculty Biographical Sketches

In this chapter, we have given a good deal of information about our past chairman Professor Thomas Simpson and also some information about our past colleague Professor Zareh Pirenian, which was kindly supplied by his wife Lillian Pirenian. Chapter 8 will be devoted to the Chairmanship of Professor Franklin Kokomoor, so we will not discuss him here.

In this Appendix, we present the biographical highlights that we have been able to obtain on some of the other personalities mentioned in this chapter, who happened to have supplied information to the 1955 American Men of Science.

Allen Thornton Craig was our very first masters student on our list, receiving his degree in 1928 with supervisor Professor Thomas Simpson and title An Exposition of Galois Theory of Equations. Craig was born in Marion, Alabama on August 5, 1905. He received the A.B. from the University of Florida and the M.A. as we already know in 1928 from the University of Florida. He was an Instructor at the University of Florida during 1929–1930, then went to what was at that time called the State University of Iowa in Iowa City, receiving the Ph.D. in 1931. Craig rose through the ranks at Iowa State, serving as Assistant Professor from 1934–1938, Associate Professor from 1938–1942, then receiving promotion to Professor in 1945. His biographical sketch reveals that during World War II, he served with the University of Columbia Research Group M in 1942 and then in the U.S. Naval Reserve during 1942–1946. He lists his research interests as *mathematical statistics, sampling theory*, and *independence problems* and indeed we have noted in Appendix C of this chapter that Craig co-authored a statistics text in 1959.

Bernard Francis Dostal lists his area of general interest in the 1955 American Men of Science as Mathematical Physics. Dostal was born in Vienna on January 11, 1888 and became a naturalized United States citizen in 1913. He received his A.B. from the University of Wisconsin in 1914, and the A.M. from that same institution in 1915. During 1915–1916, Dostal was a Fellow at the University of Indiana, then in 1916 a Fellow at the University of Pennsylvania. He served in the Signal Corps of the U.S. Army during 1917-1919. Then Dostal was on the research staff at A.T. & T., followed by a position as research engineer at the Kortsa Diesel Motor Company during 1919–1923. Dostal then returned to academia, serving as an Instructor at the Engineering College in Michigan from 1923-1927 and coming to Florida as an Associate Professor in 1927, the same year Kokomoor joined the staff. Dostal retired from our faculty in 1953 in his sixties with the rank of Associate Professor, then went to Marquette University beginning in 1953. Dostal lists his research interests as engineering; number theoretic functions in electrical engineering; number theoretic functions in quantum mechanics; non-Aristotelian logic in mathematical physics; harmonic analysis of weather phenomena; operational calculus and differential equations.

Theodore Samuel George listed his area of interest as *Applied Mathematics*. He was born in Grove City, Pennsylvania on October 10, 1911. He received the B.S. from Grove City College in 1932, then taught high school in Pennsylvania from 1932-1934. Following this high school teaching, Professor George went to Duke University where he taught as a graduate assistant from 1935-1938 and received his masters degree in 1936. George then served as an Instructor in our department from 1938 – 1942 and did summer work at Brown in 1941 and Pennsylvania during 1946-1948. During this time period, George was able to receive his Ph.D. in mathematics from Duke in 1942. Reflecting Professor Sam Proctor's account of World War II at the University of Florida, George left our staff in 1942 and served in the United States Navy from 1942–1946. Following the war, George took a position as Consulting Engineer and Head Consulting Mathematician with the Philco Radio Corporation during 1946–1951. Then he became Chief, Operations Analysis, Air Force Missile Test Center, Patrick Air Force Base in 1951. He lists his areas of interest as Applied mathematics in communications; statistics of noise in electronic equipment; electrical network design; operations analysis.

Our third recipient of the masters degree, **Samuel W. McInnis**, with supervisor Professor Thomas Simpson and title *A Study of Hilbert's* FOUNDATIONS OF GEOMETRY, spent a long teaching career in our department. McInnis was born in O'Brien, Florida on January 25, 1891. We do not know much about his early history, except that he records that he taught elementary school in Florida from 1910-1916and served in the Medical Corps of the United States Army during 1918. After World War I, McInnis received the A.B. from the University of Florida in 1923, then was supervising principal in the Wauchula public schools from 1923-1929. In 1929, McInnis returned to our Department with the rank of Instructor and taught until his retirement with the rank of Associate Professor in 1958. He records his interests in mathematics as *geometry and algebra*. Retired Professor Samuel Gould Sadler informed me that McInnis was fond of duck hunting; Sadler recalled McInnis hunting on Paynes Prairie.

The reader blessed with a good memory for trivial details may recall that William **Perry** assisted both Professor Simpson with mathematics instruction and Dean Benton with physics and electrical engineering instruction during the early days of our institution in the 1910's. Perry was born in Ft. Deposit, Alabama on January 7, 1883. He received the A.B. in 1906 from the very institution where Andrew Sledd was Professor of Latin after being dismissed from Emory, namely, Southern University in Alabama. Perry served with the rank of Instructor in Physics at the University of Florida from 1910–1917. Then after the receipt of the M.S. from the University of Chicago in 1917, Perry was promoted to Assistant Professor in 1917 and then to Associate Professor in 1927. Professor Perry retired in 1947, and that is all the information we have from the 1955 *American Men of Science* for Perry.

Professor Cecil Glenn Phipps was born in Skidmore, Missouri on July 24, 1895. He served in the United States Army during World War I from 1917–1918. Then Phipps received his B.A. from the University of Montana in 1921. Phipps went to Minnesota with the rank of Instructor and Assistant in Mathematics, serving in this position from 1921 - 1924, and receiving the M.A. from the University of Minnesota in 1924. Phipps then served as an Instructor at the University of Florida from 1924 – 1927, but went on leave to complete his studies at the University of Minnesota during 1927–1928, receiving the Ph.D. degree in 1928. Phipps then returned to the University of Florida, serving with the rank of Assistant Professor from 1927–1929, Associate Professor from 1929–1943, and receiving the promotion to Professor in 1943. During 1944–1946, Phipps served as an Instructor in the U.S. Army University in France. He lists his areas of interest as approximation of functions of real variables and *foundations of mathematical economics*. In Professor Charles Crow's manuscript on the early history of the University of Florida, a monthly faculty discussion club, the Atheneum Club, already established by the time of the Sledd Presidency in Lake City, is mentioned. Members would work up lectures on subjects outside their academic specialties for presentation to the others at these monthly meetings. Professor Samuel Gould Sadler informed me that Professors Franklin Kokomoor and Cecil Phipps had been participants in this Atheneum Club; Phipps recruited Sadler into membership.

Edward Shaumberg Quade was born in Jacksonville, Florida on June 28, 1908.

He received the B.S. from the University of Florida and was our fifth masters degree recipient, receiving his M.S. in June, 1932 with supervisor Professor Thomas Simpson and title *The Development of the Idea of Integration*. During the time that he was pursuing his graduate studies, Quade taught as an Instructor in our department from 1929–1932, thus apparently during his senior year, just like Professor Pirenian had also done. Quade went to Brown University for further graduate study and received his Ph.D. in 1936. He taught at Brown from 1932–1934, but then had the rank of Instructor at the University of Florida from 1935–1940, followed by the rank of Assistant Professor from 1940–1942. Quade served in the United States Naval Reserve during 1943–1945. After this war service, Quade returned to the University of Florida as an Associate Professor during 1946–1947, then received promotion to the rank of Professor in 1947. However, Quade left Florida in 1948 as a Design Specialist at Douglas Aircraft, then was hired as a Mathematician at the Rand Corporation in 1948. As we have noted in Appendix C, Quade apparently was very successful in this area, authoring three books on systems analysis.

Our final colleague whom we were able to track down in the 1955 American Men of Science is William Harold Wilson. Wilson was born in Edwardsburg, Michigan on November 17, 1892. He received the A.B. at Albion College in 1913, the A.M. from the University of Illinois in 1914, then the Ph.D. from the University of Illinois in 1917. Wilson served as an Instructor at M.I.T. from 1917–1919, then went to the University of Iowa where he served first as an Instructor, then an Assistant Profesor from 1919– 1926. Wilson joined our department in 1927 with the rank of Associate Professor, and was promoted to Professor in 1929. Thus the three new faculty members to which Dr. Kokomoor will refer in his reminiscences in Chapter 8 as comprising the staff during 1927–1928 along with Simpson are Dostal, Kokomoor and Wilson.] Wilson served as Assistant Dean of Arts and Sciences during 1928–1930, then Acting Dean from 1930–1933, Assistant Dean from 1933–1941, Associate Dean from 1941–1946. In 1946, Professor Wilson took over the job of heading up the Comprehensive Course Man and his Thinking, for he lists his title as Head Professor of Logic, University College and also Wilson became involved with student advisement in 1946 as well. He retired in 1959 with the title of Professor Emeritus of Mathematics and Logic, and Counselor. In the 1955 American Men of Science, Wilson lists his interests as functional equations, general education and counseling.

Appendix H

The University of Florida during World War I

Here is what is written in the 1918–1919 University Record concerning the role

of the University of Florida during World War I. Recall for purposes of comparison in terms of the number of men trained, that in 1911-1912 the regular academic year enrollment was only 302 students and the corresponding enrollment in 1920-1921was 823 students.

"ARMY TRAINING SCHOOL

J. R. Benton, Educational Supervisor

R. E. Chandler, Associate Supervisor

GENERAL STATEMENT

Under special arrangement with the Committee on Education and Special Training of the U. S. War Department, vocational instruction was given to enlisted men in various specific trades useful in the Army. The men were under regular army discipline and while here, in addition to vocational training, received military training under the following officers:

ALFRED S. KNIGHT, Captain, Inf. U.S.A., Commanding Officer HUGH B. MAHOOD, Captain, Medical Corps U.S.A.

ROBERT K. OSBORNE, 1st Lieut. Inf. U.S.A.

CHARLES R. CROSSETT, 1st Lieut. Inf. U.S.A.

DONALD R. MORRISON, 1st Lieut. Dental Corps. U.S.A.

JOSEPH V. MCKENNA, 2nd Lieut. Inf. U.S.A.

RAYMOND W. HOGAN, 2nd Lieut. Q. M. Corps U.S.A.

The first detachment (275 men, all from Florida) arrived on June 15 and left on August 13. The occupations for which these men trained are listed below, together with the number of men each, and the names of the instructors:

Bench Woodworkers, 20; H. B. Foster.

Carpenters, 23; F. H. Winston.

Chauffeurs (Army truck drivers), 100; E. D. Hulbert, assisted by E.C. Wilson, J. W. Chapman, E. B. Paxton, W. H. Howell

Electricians, 20; L. E. Means, Jr.

Machinists, 12; A. J. Strong.

Radio Operators, 100; J. L. McGhee, assisted by A. P. Fowler, E. S. Traxler, T. J. Swearington, Jr., W. S. Perry ¹⁴

The second detachment (330 men, 150 from Florida, 180 from Georgia) arrived on August 15 and left on October 13, having received instruction as follows:

Auto Mechanics, 80; E. D. Hulbert, assisted by E. C. Wilson, W. M. Howell

¹⁴ed., recall that Perry taught both physics and mathematics when Simpson first arrived on campus

Carpenters, 20; F. H. Winston.

Chauffeurs (Army truck drivers), 40; J. W. Chapman.

Electricians, 20; L. E. Means, Jr.

Machinists, 10; H.B. Foster.

Radio Electricians, 40; T. J. Swearington, Jr.

Radio Operators, 100; supervisor, J. L. McGhee; E. S. Traxler, assisted by E. L. Williams, T. J. Barns.

Telegraphers (Morse), 20; A. P. Fowler.

The number of men given above are those called for by contract and differed slightly from the actual number in attendance, which was usually greater at the beginning of the period of instruction, and owing to discharges, less at the end.

The contract between the War Department and the University called for the instruction of four additional detachments of enlisted men of 270 men each, to arrive on October 15, 1918; December 15, 1918; February 15, 1919; and April 15, 1919. The occupations to be taught and the number of men called for in each by contract are shown below, together with the instructors appointed.

Horseshoers, 20; L. T. Roux

Machinists, 15; H. B. Foster.

Motorcycle Mechanics, 80: E. D. Hulbert, assisted by J. W. Chapman,

E. C. Wilson

Pipe Fitters, 15; R. T. Irving.

Radio Operators, 100; supervisor, J. L. McGhee; E. S. Traxler, assisted by T. J. Swearington, E. L. Williams, A. P. Fowler

Surveyors, 20; H. L. Thompson.

Telephone Linemen, 20; L. E. Means, Jr.

With the arrival of peace, the need for further vocational training of soldiers ceased, consequently the War Department did not send the men for whom it had contracted after October 15. The staff of the Army Training School was disbanded on December 13."

A somewhat more lively and colorful glimpse of this same period is provided in Orland Armstrong's 1928 book *The Life and Work of Dr. A. A. Murphree*, p. 85-88. Also, this source offers us the first substantive treatment of Colonel Walker's presence on campus which we have found so far.

"Military Training on the Florida Campus

'Who is the happy Warrior? Who is he That every man in arms should wish to be? ... It is the generous Spirit, who, when brought
Among the tasks of real life, hath wrought
Upon the plan that pleased his boyish thought:
Whose high endeavors are an inward light
That makes the path before him always bright:
Who, with a natural instinct to discern
What knowledge can perform, is diligent to learn;
Abides by this resolve, and stops not there,
But makes his moral being his prime care.
— William Wordsworth'

When land-grant colleges were first established, the government stipulated that military training must be provided to the students enrolled. Consequently, when the University of Florida was first founded, military training was introduced as a part of its activity.

Col. E. S. Walker, who came to the University to take charge of military training in 1908, was one of Dr. Murphree's closest friends. Col. Walker was the president's golfing companion on many an afternoon's playing around the greens of the Country Club. It is safe to say that each man found the companionship of the other delightful.

Dr. Murphree was greatly interested in military training. He kept in close touch with Col. Walker and with the military department of the University at all times, and did all that he could to raise the standard of military training to the high level that it reached previous to his death.

Col. Walker came to the University of Florida in the fall of 1908. He found only one military company with about fifty students. For eight years the department had a slow but steady growth in enrollment. The installation of the Reserve Officers Training Corps in 1916 gave a great impetus to the department, for it meant that government inspection would be made and that uniforms would be issued by the government. The year 1917 brought the entrance of the United States into the world war, and raised the military training being done at colleges and universities to the highest importance. Dr. Murphree was quick to sense this importance, and gave Col. Walker and the military staff at the University of Florida every encouragement in co-operating with the government in the training of students. In 1918 the Student Army Training Corps was established at the University, with about 400 men in the battalion. During the summer of that year a vocational training school was also established on the Florida campus. The purpose of this school was to train young men in trades and vocations needed in warfare, such as motor mechanics, cooks, and the like.

The summer of 1918 furnished no vacation for Dr. Murphree, nor for scarcely any of the members of the University faculty. The spirit of winning the war had seized every loyal American. The University campus was turned into a camp. A large searchlight placed on top of Peabody Hall flashed here and there around the campus, throwing the dark places suddenly into light. Sentries were placed at all the gates and before dormitories, and no one could enter the grounds after a certain hour without being challenged.

It was during the following fall that the flu epidemic broke out on campus. The auditorium, which was then on the upper floor of the Agricultural College, was turned into a hospital and a number of the men were requisitioned into hospital service.

During this critical period in the life of the University, and in fact, in the life of the very nation itself, the firm, calm but energetic nature of Dr. Murphree asserted itself. One who worked shoulder to shoulder with him in those trying times has paid him this tribute:

'I have seen the University president work until exhausted during those days of the flu epidemic, and then come back early the next morning to plunge into the exacting duties again. He carried with him during such times of stress an optimistic spirit, and his presence among men and women who were trying to alleviate suffering or minister to the unfortunate was an assurance that all his heart, mind and physical power were at their disposal.'

During the period of the Student Army Training Corps the personnel of the staff of Officers under Col. Walker was augmented by a score or more, and this number remained on the campus during the vocational training days. ¹⁵ Dr. Murphree showed to the military staff a spirit of co-operation at all times, and won from them frequent expressions of esteem.

The signing of the armistice on November 11, 1918, brought to an end the immediate necessity for training students for warfare, and necessitated a vast amount of work in getting military training back to a peace time condition. But the spirit of military training had quickened on the campus of the University of Florida, and Dr. Murphree held before Col. Walker and the military staff the aim of building up an honor Reserve Officers Training Corps at Florida.

¹⁵Other contradictory sources (i.e., an obituary article in the *Gainesville Daily Sun*) indicate that Colonel Walker served as a recruiting officer for the State of Florida during World War I.

The University was placed on the honor list for the first time in 1919. At this time there were 400 honor students in the battalion. It was a signal honor for Florida, for the inspectors from the War Department in Washington declared the Florida battalion to be among the best six in the country.

In 1919 Col. Walker was retired by the government as head of the R.O.T.C. at the University, and the apointment was given to Major Ward. Col. Walker has maintained his connection with the University, however, and in discussing his relationship with Dr. Murphree said:

'I knew him both officially and socially and he was one of the best friends I ever had. He believed in the value of military training, for he felt that it was splendid discipline, and everyone who came in contact with him knew how definite were his ideas of discipline.

Dr. Murphree was good natured always, but was especially genial, friendly, and full of humor when we would be taking trips together. Before Gainesville had a golf course, we used to go to nearby cities to play. It was as a golf player that the human traits in Dr. Murphree's character became most apparent. He kicked about bad shots and was elated over good ones. He always made it a point to get the best clubs on the market.'

Col. Walker recalls that on a return trip from St. Augustine, where he and Doctor Murphree had gone to arrange the details in connection with the gift of the University organ, they were accosted by a man in ragged clothing who asked them for a ride as far as Palatka, saying he was an ex-service man who had been wounded during the war. Dr. Murphree picked him up and talked to him as cordially and with the same friendly interest he showed to all persons, and had made a friend of him when he left him at Palatka.

In 1920 the R.O.T.C. of the University of Florida again made the distinguished college rating for the Fourth Corps area. To attain this rating it was necessary to be among the six highest out of the sixteen college and university corps of the southeastern section of the United States. The rating was done by the United States army inspectors who made minute examination of the personnel, equipment, discipline and general efficiency of the student troops."

Appendix I

Epidemics Prior to the 1920's

We have seen in this chapter, that our second Professor of Mathematics and Astronomy, Dr. Herbert Keppel, died in the Spanish influenza epidemic in October, 1918. We take our current medical capabilities so much for granted, that I decided to provide some historical material on how Floridians coped with such diseases prior to having much reliable medication available to deal with public health problems. While treating the Spanish influenza epidemic in Florida, several historians contrasted this with the Yellow Fever Epidemic of 1888. Thus it seemed appropriate to recall this earlier epidemic, as well as the 1918 epidemic.

Jess Davis's *History of Alachua County* [1, p. 43-44] contains an eyewitness account of the 1888 Yellow Fever Epidemic provided by B. M. Tench, which was recorded by Davis in an interview with Tench probably in the early 1950's.

"Like a blow in the face to the people of Florida was the announcement from the office of the Mayor of Tampa that Yellow Fever was epidemic in his city. It was early Spring of the year 1888, ten years before the great Dr. Walter Reed made the statement of discovery that the only way whereby the yellow fever germ could be spread was by a mosquito, and the only way to stop the Yellow Fever was to control the mosquito.

The people of Gainesville and Florida were justified in being almost panic- stricken for just ten years before, in 1878, Yellow Fever had killed fifteen thousand people in cities and towns along the Gulf Coast in Louisiana, Mississippi, and Alabama, and some up the Mississippi River in Tennessee. One hundred and thirty-two towns and cities had outbreaks of *Yellow Jack*.

The announcement by the Mayor of Tampa was a courageous and commendable act. It broke a long-established policy. Until that date, it was the policy of towns and cities to withhold and even deny the existence of any contagious disease within their borders. The memory of man for things that bring disaster and death is long, indeed. Alachua County and other counties quickly placed guards on all road and rail entrances into the county. Since the guards were armed with guns, they became known as *shot-gun guards*, and the action was called the *shot-gun quarantine*. The legislature of Florida hurridly enacted rather loose authorizations for the county guards. The guards were located at county lines. An officer boarded every passenger train with power to put off, at the next county line, any person not having a health card or certificate. The law was enforced to the hilt. The health certificate had to be signed by a qualified, recognized person stating that the traveler had not been in a quarantined or infested area within the past two weeks.

Most towns following the action of the county, established guards at or near the city limits. *Yellow Jack*, like time, marched on, with some of the wayside stops on the Atlantic Coast Line Railway, until it reached Jacksonville about the first of July. The disease came north along the Seaboard Railway and hit Fernandina about the first of August. Both railroads had completed their lines to Tampa about the year 1883. Tampa had a population of a little more than 5,000 people (5,132).

The port of Jacksonville was closed and all rail traffic stopped. Many business houses locked doors. At first, Fernandina denied that Yellow Fever was there, but the longshoremen struck, led by a huge Negro on a big white horse; he was a powerful rabble-rouser. Looting soon followed. The Mayor wired the Governor for assistance as he feared the town would be burned. He still denied the existence of *Yellow Jack*. The Governor, Perry, wired Capt. I. E. Webster of Gainesville to assemble his Company and proceed to Fernandina. The railroad agent, Mr. H. E. Day, the Mayor of Gainesville, and most of the citizens believed that *Jack* was in Fernandina, so the Gainesville Mayor, J. B. Brown, insisted to the Governor that Yellow Fever did exist in Fernandina. The Governor made further inquiry of the Mayor of Fernandina who emphatically denied that there was fever in his town.

The Governor took him at his word and ordered Capt. Webster to proceed to Fernandina with the Gainesville Guards. The Commander of the Ocala Rifles received like orders.

Captain Webster prepared to board the Seaboard for Waldo and Fernandina. The train was scheduled to leave at 8:00 p.m. It was a soft summer night in late August; a full moon was shining. Most of the ablebodied people in Gainesville were gathered on the streets to see the boys off on that fatal trip, which, before the consequences were over, was to bring death and disaster, and suffering, and heartache to a great many Gainesville families, and set the city back, retarded in its growth, from ten to twenty years.

News that the guards had been ordered to Fernandina swept over the town in a very short time. City officials, the ministers, the physicians, and in fact, nearly everybody in Gainesville who could get uptown, soon gathered; first, at the intersection of Main and University Avenue. The Armory was located over what is now the Woolworth Building. With the exception of the occurrence of the Second Battle of Gainesville during the Civil War, this was the most momentous and dramatic incident ever recorded in the history of Gainesville.

National Guard Units of that day were very much on the social side. Its members were drawn from the most cultured and intellectual leading homes and families in Florida. The Gainesville Guards had one of the finest double quartetts in all of the National Guard organizations. Further, the entire company like [sic] to sing. It was well-known for its marching and singing.

So, the Guard started for the Seaboard Air Line Station, with hundreds of people, some cheering, and some grim-faced, joining in to march. The marching song, We'll hang Yellow Jack to a Sour Apple Tree, As We go Marching On, was begun and joined by every voice. Then a more serious vein pervaded the marchers and they were singing, Onward Christian Soldiers. The crowd was increasing at every block. By now, many Negroes living in the depot area had joined the crowd and joined the music with the spiritual fervor that only members of that race can contribute.

The train was thirty minutes late. The Guards and the crowd sang on and on, spiritual songs at first, then followed by Stephen Foster songs, and others predominating in the South. The train rounded the curve, stopped, the Guard entrained, and the people melted into the night, having participated in one of the most heart-moving concerts in the strangest setting that Gainesville will ever know.

Later, came the Day. Gainesville and Ocala had been spared. But on the 17th day of September, 1888, the chairman of the Board of Health, in all honesty, was forced to announce that Yellow Fever was epidemic in Gainesville. Pandemonium reigned. Fear and hurried exodus was the order of the day, or rather, night. Gainesville officials, the newspapers, and the people, having kept faith with the State and responded to the Fernandina riot case, now must pay. As indicated above, many people succeeded in getting out of Gainesville before the city was quarantined and manned with guards at all entrances.

So far as can be determined, there is no record, nor can anyone say with any degree of accuracy, just how many people in Gainesville died of Yellow Fever. A quarantine camp was established just on the rise of the hill and north of the Waldo-Williston cut-off road intersection with southeast 4th Street, which is the Evergreen Cemetery Road. Many who died were burried hurridly and without true records made of the name of the deceased, or a marker provided. When the road was paved a few years ago, bones and other signs of graves were obvious to the persons doing the grading. Suffice it to say that shortly after the epidemic as many of the bodies whose graves could be identified were transferred to the Evergreen Cemetery.

A momument was erected near the walk from the courthouse corner of the square dedicated to the memory of those who lost their lives in the Yellow Fever epidemic. On the north side is this inscription:

'Erected in Memory of Their Deceased Comrades by Company A, 2nd Bn., Florida State Troops, 1890.'

On the south side of the monument is the inscription:

'Died of Yellow Fever, 1888, contracted While on Duty at Fernandina.'

The east side bears the one name, 'Sgt. M. F. Miller,' and on the west side is the inscription, 'Lieut. E. A. Evans.'...

The fence was torn down around the Courthouse about 1908. The monument was removed from the courthouse grounds around 1922 and now stands at the entrance gate of the Evergreen Cemetery....

Following is a copy of a letter from the Adjutant General's Office, State of Florida, Tallahassee, dated October 30, 1888 (pen and ink letter) addressed to Captain I. E. Webster:

> Adjutant general's office state of florida tallahassee, oct. 30, 1888

Capt. I. E. Webster Comdg. Co. "A", 2nd Battn.

Capt:

Enclosed is the Treasurers' check 875 on First National Bank of Palatka for \$194.24, being amount (less 3 cents enclosed of the pay-roll of your Company for services at Fernandina, Sept. 6 to 12, 1888. I also enclose our copy of the pay-roll in order to enable you to distribute the amount. Please return same.

> Very Respectfully Yours, D. Lang Adjt. Gen. "

T. Fredrick Davis's *History of Jacksonville* [2, pp. 180-186] provides a much more graphic account of the events of this Yellow Fever Epidemic as seen from the Jacksonville viewpoint:

"In the early spring of 1888, a peculiar fever, the nature of which baffled the physicians somewhat, was prevalent in Jacksonville and several persons died of it. Early in the summer some of the cases had well pronounced symptoms, but it was not officially proclaimed yellow fever until some time later. The case that brought out the announcement was that of a man named McCormick, who had come here only a few days before from Tampa, and who was first reported sick on July 28. On August 8, the populace was thrown into frantic excitement by the annoucement that four new cases had been found, and two days later the Board of Health issued a proclaimation that the yellow fever was tending to assume an epidemic form. Many persons had already left the city, and this proclamation intensified the alarm to such an extent that all outgoing trains and boats were crowded to the full capacity, while the public roads were congested with terrified people, fleeing in every conceivable conveyance and on foot, scores of them having no destination in particular and uncertain as to where they were going. Many of those who were unable to pay for transportation to the few places which generously opened their gates to them, suffered great hardships, as a rigid quarantine was immediately declared against Jacksonville by nearly every community south of the Mason and Dixon line, and these unfortunate people were driven from town to town in their search for shelter. The intense excitement that prevailed throughout the surrounding country is indicated by the act of the citizens of Waycross, Ga., in threatening to tear up the railroad tracks if refugees were permited to pass out of Jacksonville by way of Waycross, even in locked cars and passing that town at a high rate of speed. As a protective measure, the authorities at St. Augustine turned back all mail matter from Jacksonville, although it had undergone thorough fumigation; and other places in the State refused to allow merchandise of any description to come into their respective communities from the infected district, while some local Boards of Health went so far as to exclude such things as machinery, wagon wheels, railroad iron, ice, and even silver dollars. To enforce these regulations armed guards surrounded nearly every hamlet in Florida and southern Georgia. The natural result of this shot qun quarantine, as it came to be known, was that business in Jacksonville was completely paralyzed, in fact practically ceased. The Clyde Steamship Line discontinued its service, and then soon followed the discontinuance of all up-river boats. The States north and west brought such pressure to bear upon the U.S. Marine Hospital Service, that the Surgeon General ordered a camp of detention near Boulogne, on the St. Marys River, afterward called Camp Perry, where all refugees bound north or west by

rail must remain for ten days before proceeding. Thus every avenue of escape was closed to the remaining residents of the city, except through a detention camp where accomodations were exceedingly meagre, consisting of well-worn tents that were of little or no protection against rain; coarse food; insufficient bedding; no hospital accomodations; and where, at first, ladies and children had to eat at the same table with negroes. Such was Camp Perry during the early stages of the epidemic and numbers of people preferred to remain in Jacksonville amid all the horrors of the yellow fever rather than subject themselves and their families to these vicissitudes. The conditions at Camp Perry were later greatly improved.

Towns and cities all over the country, though fanatical in their efforts to prevent the arrival of refugees, yet generously offered money and supplies to the unfortunate community; but it was decided that for the time being at least, Jacksonville could care for herself out of the donations of her own citizens, It was not until the 22d of August that a formal request was made for assistance, and it was addressed only to the citizens of Jacksonville, those here and away. The constantly increasing need, however, made a general appeal necessary, and on the 5th of September notice was sent out that money and supplies would be received from the country at large. Contributions immediately began pouring in from corporations, benevolent societies, mayors of cities, boards of trade, chambers of commerce, banks and individuals all over the United States. ...

Jacksonville during the progress of the epidemic was a place of utter dispair. Hundreds of men were at work cleaning up the city and suburbs, burning trash, and disinfecting; every able-bodied man who applied for work was given something to do, at a nominal salary, the authorities believing that this was the best method to handle the situation as to idleness, and at the same time bring the sanitary conditions to the greatest perfection. But with all this activity, the deserted stores and residences and the serious countenances of the citizens, told plainly the story of the calamity; and at the night there settled over the city an uncanny stillness, broken only by the occasional rattle of the death carts or the muffled noises of those whose duty called them out after dark. The odors arising from the free use of disinfectants surcharged the atmosphere and furnished the basis for the statements of the negroes that they could

'smell the yellow fever in the air.'

It was a situation well calculated to crush the stoutest heart. At the time people thought the best way to escape the yellow fever was to remain indoors from sundown to sunrise; but they were utterly in the dark as to how to combat the disease, as is evinced by the experiments conducted for that purpose. One of the first was the *concussion experiment*, the theory being that concussion caused by the firing of heavy cannon charges would kill the yellow fever microbes. The only result attained, however, was the breakage of windows in several churches and numerous other buildings.

'The concussion theory was first advanced in the fall of 1877, by Mrs. H. K. Ingram, of Edgefield, Tenn., in the publication of a paper entitled *Atmospheric Concussion as a Means of Disinfection*. She claimed that the explosion of gunpowder in a room would kill mosquitos and other insects by concussion and that the same principles were applicable to the destruction of microbes in the air. (Published in the *Jacksonville Sun and Press*, Sept. 13, 1877).'

... Huge fires of pine and tar were kindled at night in different sections to purify the air and prevent the spread of the infection; tar was supposed to possess great virtue in this respect. Depopulation was finally decided upon as a means of bringing the epidemic to an end, and for the purpose the people were requested to go to the camps provided for them. Camp Mitchell, named for Dr. Neal Mitchell, was established about seven miles west of the city. Camp Howard, another refugee camp, was located in North Jacksonville, about two miles from the city limits and just beyond was the Sand Hills Hospital. Several hundred people went to these camps. In the meantime two or three special refugee trains were run out of Jacksonville. One of these trains, bound for Henderson, N. C., by reason of unavoidable delays, was two days in reaching destination and five cases of vellow fever developed en route. A panic ensued among the passengers, while a rigid quarantine was maintained against the infected cars by the other cars of the train. Upon their arrival in Hendersonville, the patients were taken to the hospital, where every attention was accorded them. Hendersonville threw wide her doors to the people of stricken Jacksonville from the very first, and kept them open until the last.

A strict requirement was that all mail matter should be thoroughly fumigated. Two fumigating stations were maintained, one at LaVilla Junction, near town, and the other near Waycross, Ga. The Waycross fumigating car, from August 1 to December 1 handled 2,536,845 pieces of mail matter, and each piece had to be handled four times in the process of fumigation.

Those who applied for work to the relief association represented only a small percentage of the idle who would not or could not leave the city.
When it became known that an appropriation of \$200,000 had been made by the Congress.... The prospect of being fed without having work to do lured many to the infected district, and the checking of this inflowing tide necessitated the placing of a cordon of armed guards around Jacksonville and the suburbs, including South Jacksonville. In the early part of September a house to house canvass was made, which census showed 3,945 whites and 9,812 colored then in the city.

The stupendous undertaking of providing for the needy and worthy poor devolved upon the relief association formed early in the epidemic. After investigation, rations were issued to those in actual need of them, a ration for an adult for one week being: 2 pounds of bacon, 3 pounds of meal or 2 pounds of flour, 3 pounds of grits or two pounds of flour, 1 pint of molasses, 1/2 pint of salt, 1/4 pound of coffee, 1/2 pound of sugar, and 1 bar of soap. The total number of rations issued in this way during the epidemic was 196,538. In special cases certain delicacies were issued to the sick on the order of a physician. A physician had written an order, but inadvertently left a space above his signature. In this space a thirsty patient inserted the words

'one case Mumm's quarts; 6 bottles claret.'

Another patient, by adding the figure 2, raised his order for 1 chicken to 12 chickens. The system was changed. One sad case will illustrate the distress prevailent before systematic relief measures were adopted. A gentleman walking down the street met a boy crying bitterly. The little fellow said he was hungry; that his mama was lying in the house there dead, and that his sister and himself had had nothing to eat for over a day. Investigation revealed the mother lying in the room where she had died 24 hours previously and the father just breathing the last when relief arrived.

On November 26, when the temperature fell to freezing, the epidemic was generally considered at an end, although occasional cases continued to be reported from the suburbs until December 6. The last death from yellow fever occurred December 5. The Board of Health issued a proclamation that December 15 should be the day when refugees might be allowed to return to Jacksonville; but those who would not remain at night might come in on December 10, the penalty for disobdience of these laws being \$500 fine or 30 days imprisonment.

On December 15 hundreds of citizens arrived by trains and boats, many reaching the city late the previous night by conveyance or on foot. Extra trains were run on all the roads and they came into Jacksonville filled to capacity. With 4704 cases and 427 deaths (324 white and 103 colored) charged to account, the great epidemic became a matter of history."

The same source has the following account of the 1918 Spanish influenza epidemic in Jacksonville, following the conclusion of World War I, cf. [2, pp. 272–274]:

"In his report to the City Commission, December 31, 1920, the City Health Officer, Dr. Wm. W. MacDonell, said:

'On September 18, 1918, influenza, or grippe as it is sometimes called, was first brought to our attention as occurring in prisoners at the city farm. The disease gained a momentum all over the city, so that by October 1st it was reported to the City Commission as being epidemic in Jacksonville. Warning notices were inserted in the newspapers with directions as to symptoms and what to do if taken sick. On October 4, a call was issued for volunteer nurses. On the 7th, cases and deaths had become so numerous that the schools were closed by the Superintendent of Public Instruction, after conference with the city Health Officer. The motion picture shows closed their doors voluntarily upon the informal request of this department. The City Commission, on October 8, by order, closed all amusement places and soft drink parlors, and placed a ban on indoor public gatherings; and on October 10 ordered all retail stores opened at nine a.m. and closed at four p.m., so as to limit street-car congestion. A soup kitchen, for those unable to secure nourishment, was opened on October 10, in the basement of the Union Congregational church by the Sunday School. Deliveries were then made by citizens in automobiles, and over one hundred cases were served the first day. St. John's Parish guild took over some of the work on the 11th, and a kitchen was also opened for negroes, in Stanton School. Following this a diet relief organization was formed, and all of these activities were grouped under systematic management, funds being contributed by many citizens. On October 12, General Duvall, commander of Camp Johnston, tendered the use of four army portable soup kitchens, which was accepted. This relief organization served 5,709 white and 11,084 colored cases from October 10 to October 22, when the necessity for such relief no longer existed. Emergency hospitals were opened at the Y.M.C.A. and at the Y.M.H.A. buildings, at Stanton school, and at St. Luke's Hospital. The local Red Cross stood sponsor for the hospital at Stanton school, and their ambulance and the sanitary detachment were on the job day and night.

The peak of the epidemic was reached about the 13th of the month (October), on which day there were 39 deaths. New cases apparently ceased to develop by the 22nd (October), and at the end of the month there had been 464 deaths from influenza or complicating pneumonia. The disease ran through all the susceptible material before it died down. It is estimated that there were nearly 30,000 persons infected with the disease and that none of our published precautions had any effect on the disease.

In January, 1919, there were 471 additional cases reported, and for the year 1919 there were 621 cases with 64 deaths.

In 1920, during February and March, there were 2,541 cases, with 79 deaths. A large number of physicians reported in 1920 that about one-quarter of their cases had a previous infection, in 1918.'

The forgoing tells the official story of the epidemic of 1918. There was no panic among the people like that of the yellow fever epidemic of 1888, for the *flu* was everywhere, all over the world, and there was no place to go to escape it. Yet the same dreadful hush hung over the community during those four weeks of October; the same resignation to the inability to combat the spread of the disease; the same serious countenances and indications of mourning—all served to remind the old citizen of the terrible time thirty years before. The business thoroughfares of the city looked deserted, and many of the stores were closed with a sign 'All sick,' hanging on their doors. As the Health Officer says, the precautions recommended had no effect, and doctors and nurses suffered in greater proportion than the layman, perhaps because of the superhuman demands upon them.

While the 427 deaths during the yellow fever epidemic of 1888 were stretched over a period of 4 months, the 464 deaths from the flu of 1918 occurred within a period of about 4 weeks. The rattle of the death carts of 1888 was supplanted by the whir of the motor in 1918, as the trucks took their loads away.

It is well to note that the complicating pneumonia which caused most of the deaths from influenza, developed in nearly every case from a relapse, as the result of the patient's getting out of bed and becoming chilled while the fever of the first attack was on him, or too soon after it had left him." While we have been able to present an account of Dr. Keppel's death from the memorial article in the Gainesville Daily Sun and also Mrs. Benton's recollections of this influenza epidemic in Gainesville, we have not been able to locate a detailed description of this epidemic at the University of Florida. Thus, as a partial substitute, we conclude this appendix with a description of how this epidemic effected the University of Missouri-Columbia, a comparably sized university town, cf. [3, pp. 442-444].

"One of the circumstances which made the last few months of the war period excessively hard, not only on college campuses but all over the country and for that matter all over the world, was the epidemic of Spanish influenza. It was known to be spreading in other parts of the world before it reached America, and steps were taken to insulate America, all to no avail. In August and September of 1918 it appeared among soldiers and private citizens and spread rapidly. In Columbia ¹⁶ the doctors forwarned people and issued statements as to what might be done to avoid the disease. But within a week after the S.A.T.C.¹⁷ went into effect on October 1, there were seventy cases of the disease among students. On Monday following the opening of school an order was issued to suspend all University work, but for the students to remain in Columbia. The suspension of classes was continued from day to day, and all Columbia schools, churches, and movies were closed. The University campus was closed to all persons except students; members of the S.A.T.C. were forbidden to use the east campus or the Library Building, while other students were excluded from the west campus. Even members of the Faculty could enter the west campus only by a permit issued through the President's office. After the suspension of classes had been in effect for three weeks, the University was opened again on Monday, October 26, but only for members of the S.A.T.C. These soldier-students were required to wear masks in the classroom. The reopening of school was postponed for other students, but it was thought that the disease was so well under control that it was safe to allow the soldiers to return to their school work. Finally, all classes except in the University high school and elementary school were resumed on Thursday morning, October 31. All students and Faculty were required to wear masks.

The University, in the meantime, had converted the old Welsh Military Academy, west of the M. K. & T. railroad tracks, the Kappa Sigma fraternity house, and the top floor of Switzler Hall into temporary hos-

¹⁶Missouri

¹⁷Student Army Training Corps

pitals. Instructions were issued for making or purchasing the required masks. In the course of the epidemic many students and members of the Faculty died. The first student to be buried was Lawrence Stewart, son of a University professor. The epidemic returned with renewed violence in the latter part of November, and the University closed for the term on December 6. The epidemic was the worst that had ever visited the University campus and was probably the chief reason why the fall term was so devoid of worth-while scholastic attainments. Notice was issued through the President's office that classwork for the next term would begin on Wednesday, January 1, with registration on the two preceding days, but that all students would be required to wear masks..... in the fall of 1918, fraternity life practically disappeared from campus, and the chapter houses were taken over by the University and used as barracks or hospitals....

Social life on campus gradually disappeared during the war years.... By the fall of 1918 all student dances had ceased, for the men were under military discipline and were not excused to attend social affairs; even if they had been given furloughs for the dances, the doctors would have banned such an assemblage of people that fall. Social gatherings ceased in the churches, and for several Sundays religious services were forbidden by the Board of Health.

..... during the fall of 1918 there were no intercollegiate athletics at all for Missouri students, for under the order of the University Board of Health, all football games were cancelled. This was one of the reasons why the students thought of that fall as being such a drab term."

References

- [1] Davis, Jess G., *History of Alachua County*, 1824–1969, Gainesville (?), 1970.
- [2] Davis, Frederick T., History of Jacksonville, Florida and Vicinity, 1513–1924, Quadricentennial Editon of the Floridiana Facsimile Reprint Series, University of Florida Press, Gainesville, 1964.
- [3] Stephens, Frank F., A History of the University of Missouri, University of Missouri Press, Columbia, Missouri, 1962.

Appendix J

Colin Gunn, Class of 1916

Among the many fine people I have been privileged to come to know since leaving the University of Missouri and joining the University of Florida, are Reverend and Mrs. Benson Cain, now "retired" in Melrose after spending many years as missionaries to Japan. Mrs. Cain fortuitously happens to be a daughter of Colin Gunn, who attended the University of Florida from 1912–1916, graduating with the Bachelor of Science in Agriculture in 1916. Mrs. Cain alerted me that her late father had participated in Dr. Samuel Proctor's Florida Oral History Project, completing a transcript in this program in 1979; so that's how the material in this appendix came to my attention. Mrs. Coline Cain grew up in Gainesville and through her family's participation in the First Presbyterian Church came to know our early head Dr. Thomas Simpson and also his daughter Ruth. Mrs. Cain then attended the Florida State University during the days that it was still an institution for women only. When I asked Mrs. Cain if she had any Simpson stories for me, she told me an aspect of those times, when Gainesville was so much smaller than it is today; the children of the University faculty tended to keep a little apart from the others, and socialize more with each other. Thus, Mrs. Cain did not know the Simpsons as well as I would have liked from the viewpoint of using her as an oral historical source. However, Mrs. Cain recalled seeing Colonel Walker and his wife Mrs. Sally Stringfellow Walker at church services at First Presbyterian Church; at that time, Walker would have been in his 80's.

Simpson stories or no Simpson stories, we are lucky enough to learn posthumously from Colin Gunn himself about attending the University of Florida when things still centered around Buckmann and Thomas Halls. What is not revealed in this oral history transcript [1] is that to help with college expenses, Gunn and another student ran a small business on campus where they would take the coats of students, press them at night in the basement of the dormitory, and have them back ready to wear the next morning to class, freshly pressed.

Here are the portions of the interview [1] which pertain to student life in Gainesville in the early 1910's!

"C: I was born at Greenwood, Jackson County, Florida on November 16, 1892.

S: I see. What was your father's name?

C: Colin Campbell Gunn.

- S: And your mother's name?
- C: Annie Elizabeth Rawls, her maiden name.
- S: Now was your father a farmer?
- C: No, my father was a country school teacher.
- S: Oh, I see.
- C: All of his life.

S: Uh huh. Did he teach high school or grade school?

C: Well, mostly rural schools. He taught some high school, but he was primarily concerned all of his life with seeing that these sharecropper children, who didn't have much opportunity, learned to read and write. Some very interesting folk tales about his experiences are all scattered out through there. That's where he spent most of his time. Now he did become later Superintendent of Education of Jackson County.

S: Well, then he must have known Mr. [William] Sheats, [Superintendent of Public Instruction] too.

C: Oh, Uncle Bill, yes indeed. Yeah, then [William M.] Holloway [Superintendent of Public Instruction] too.

S: Do you remember both Mr. Holloway and Mr. Sheats yourself?

C: I remember them, yes, casually as, of course, I was just a youngster at the time. Yes, I remember them both."

Mr. Colin Gunn graduated from high school in Marianna County, then studied for one year in a Presbyterian preparatory college, Palmer College, in DeFuniak Springs, during 1909–1910. Then he returned to Marianna for more high school work. From the age of six, Gunn had wanted to study in the College of Agriculture. We resume the oral history transcript [1] as Gunn starts discussing his student days at the University of Florida.

"S: Now you said that you took your meals in the mess hall. How did that operate? Was it like a cafeteria?

C: Oh no, it was like a boarding house. They were seated. I was a waiter. Served tables in the dining room, what are called the mess hall, which I believe is now called the Commons.

S: Yes sir. So you brought the food to the table?

C: Oh yes, yes.

S: And then it was passed around?

C: Yes.

S: How many meals a day did they serve there?

C: Three.

S: They served all three meals? Were they at one definite time that you had to be there or you wouldn't get food?

C: Oh yeah. Yeah. They locked the doors, as I remember, after so many minutes. You're not permitted to enter after—I've forgotten what it was, but as I remember it, they closed the doors after so many minutes. Opened them on a certain schedule, and then if you weren't there for that, you just didn't go.

S: Let me ask you this. When you first started school at the university, did they have compulsory chapel services?

C: Yes, except I believe the law school was not required to attend chapel. Well, let's see. I'm not really positive about that. But there was some difference. Yes, all underclassmen certainly.

S: Where did they hold those services?

C: Well now, the first years I was there, the chapel, as we called it, was the second floor of the north end of what's now the agricultural college. ¹⁸ And then buildings were not entirely completed, ag. and one or two others, and the entire north end of that was left open, not divided into classrooms as it is now, and that was called the chapel. You attended chapel in there, you know.

S: Did they move that later on while you were a student?

C: I don't believe they did.

S: It was always there?

C: I don't think I ever went to chapel anywhere else except in the ag. building.

S: I have been told by some other people that occasionally a member of the faculty would read some Scripture and then say a few words to the students.

C: Yes, that's right.

S: Did you all sing hymns or anything like that?

C: I don't recall that we did.

S: Let me ask you this now. When you started school, where did you go to pay your money and register for classes? Do you recall?

C: I believe the business office at that time was in what is now called Language Hall.¹⁹

S: Would that have been Mr. [Klein] Graham's office?

C: Oh yes. Yes. Klein Graham was the business manager at the time. I'm quite sure that it was what is now Language Hall.

S: Was there any sort of a book store in that building, where you get your books for your classes?

C: No, I don't recall where we got the books. I really don't.

S: Do you remember if there was anyone to help you to select your courses? In other words, for you, someone who wanted to go into agriculture, was there someone there from the College of Agriculture to tell you what to take?

¹⁸ed., so this would now be called Griffin-Floyd Hall

¹⁹ed., renamed Anderson Hall in 1949

C: I don't think so.

S: You just used the catalog? The list of courses?

C: I think that's the way it was.

S: Okay. Was there a gymnasium of any sort on campus when you started? Either a brick building or a wood building ?

C: I don't recall that there was.

S: Was there any sort of man made swimming pool, or did people just have to go in the sink hole or something?

C: No, there was a swimming pool during the time that ... I don't know where it was when I entered or if it was completed during the time I was there, but I do remember that there was an open air swimming pool.

S: Uh, huh. Can you tell me roughly where it was, perhaps compared to Thomas Hall?

C: It was south and west of the dormitory.

S: Oh, I see. A litle over where they built the brick gymnasium? In that area?

C: Oh, yeah.

S: I was going to ask you about military training. I assume you had to go through compulsory military training?

C: Yes, we went through three years of that.

S: Uh huh. Did they make you buy your own uniforms or was that issued to you?

C: I don't definitely recall about that. It must have been issued to me; I would've remembered if I had to pay for it [chuckle].

S: What sort of military training do you think was involved in it?

C: There was class room study of what we called drill regulation, approached in a book. It was a class period and then we had drills.

S: How frequently did you drill?

C: I think it was three days a week. I'm not positive about that, but I think it was three days a week.

S: Did they teach you to use firearms?

C: Oh, yes.

S: Do you remember if each man had his own equipment with him or whether that was stored in a certain place, whether there was a sort of armory or barracks or something ?

C: No, I don't remember. I don't think we kept it in our rooms. I think we kept it in storage somewhere, but I'm not perfectly clear on that.

S: Okay, when you fell in, in formation, where did you fall in and where did you drill on campus?

C: We used to fall in in front of Thomas Hall, and then drilled between what was then two dormitories. There were only two dormitories at the time, Buckman and Thomas Hall, and there was quite an area in between, and we did most of our drilling between those two dorms.

S: I see. Did they ever take you off-campus on any kind of march or maneuver, that you recall?

C: The only one I recall was, I believe, a Confederate veterans reunion in Jacksonville. We took the, we spoke of it as a battalion. There were three companies at that time, and they took the battalion up there for a week, one at a time, of course, three or four or five days, whenever the convention was held up there in one of the parks.

S: Do you remember who the commanding officer was while you were a student? Would it have been Major [Edgar Smith] Walker?

C: Yes, indeed.

S: It was?

C: Yes sir.

S: Can you tell me anything that you remember about him, about his personality, and the way he acted, what kind of man he was?

C: Well, one outstanding thing I remember about Major Walker was his ability to remember names. Now he would call the individual students by names from the very beginnig. I can remember that very clearly, one of his traits.

S: Uh huh. Was he a big man, Mr. Gunn? Was he a large physical man?

C: Oh, no, no. Colonel Walker was neither tall nor large. He had been a cavalryman as I remember it. He was not a large man. 20

S: Let me ask you about the library. Where was the university library located?

C: Now let me see. When I finished school it was in what is now Peabody Hall, I think we call it. But before that I think it was in another building, because I remember Peabody was under construction at the time that I went there.

S: Do you recall where, in the building the library was located, what part of the building?

C: Well, it was on the first floor, if I recall.

S: Is that where you did your studying for your classes?

²⁰ed., the previous Professor of Military Science and Commandant of Cadets, Lt. L. Ball had been very unpopular with the student body. Among other things, Lt. Ball led the battalion on marches through Florida back country of 5 to 6 miles duration, riding his horse, while the students marched on foot.

C: Oh, I did very little studying over there.

S: Did you study in your dormitory room?

C: Oh yeah, oh yeah.

S: I see. Do you remember if the library was open in the evenings or on the weekends ?

C: Oh yes, it was open in the evening I'm sure, yes.

S: Did you belong to a fraternity or other social organization while you were a student?

C: I didn't belong to any Greek social fraternity while I was in college. I belonged to the agricultural club, I believe they called it, and YMCA, perhaps some others, but that's all I recall right now.

S: Can you recall where the YMCA held their meetings and their exercises?

C: I think at the chapel. And there was the ag. building that I referred to earlier. I think we met there.

S: Did they have any sort of dances or picnics or get-togethers, the YMCA I mean, for students and for girls from the town of Gainesville?

C: I don't recall any.

S: Do you recall any part of the university or any organization of the university holding dances or get-togethers of that kind of students and for girls from Gainesville? Or did they do that stuff?

C: I don't recall any except the fraternities' dances. Of course they had them.

S: Were those fraternity dances open to other students as well as to the fraternity members? Do you recall?

C: I don't remember if there was any distinction made there. I don't recall.

S: Where would a student have gone, since the university was all male at that time, to meet a girl in Gainesville at that time? Was there any way one could strike up an acquaintance with a girl?

C: Through the churches, as I remember, was about the preferrable way of meeting up with several partners of different kinds from the local people.

S: Do you remember many of the students going to church services?

C: Yes, they went to them.

S: Would you say most of them regularly attended church services?

C: Well, I don't know what percentage of them attended, but quite a group usually attended, yes. Of course they had the young peoples organizations in the churches which the students attended, you know, BYPU, and Christian Endeavor, and the Epsworth League, and that kind of thing. And the students always, well not always, but many of the students went there. And of course all of the young people in Gainesville. The girls were there.

S: In those days before there were many paved roads, did many of the students go up to Tallahassee over a weekend, do you know?

C: [chuckle] I don't recall that many of them went up there in those days.

S: It was too hard to get there?

C: Oh yes. It was quite a chore to get to Tallahasee and back then.

S: So they probably didn't start doing that until the late '20's and 30's, would you say?

C: Oh yes. I imagine it was about then. I don't know if there's been much of it since that time.

S: Do you recall seeing or hearing about many students using liquor on campus in those days?

C: No, I don't recall that it was looked upon as being much of a problem. Of course there was some of it, there was no question about that. I remember one evening or one night it was, I was awakened by a group out there. They were quite happy. But this was, I guess, three or four of the boys, I don't know where they'd been or what it was about, but they just happened to be right near my window. I don't recall any real difficulty.

S: Would they have been liable to get into a lot of trouble if they had been caught by a faculty member?

C: Oh, I think so, yes. We didn't have a student government in the beginning. Student government was set up while I was a student.

S: Did you have anything to do with that, Mr. Gunn?

C: No, I didn't have any important or active part in it.

S: Do you recall if many people smoked at that time? Smoked cigarettes or cigars, or anything like that?

C: Well, there was some pipe smoking, quite a bit. I don't remember about cigarettes, but I guess they did. I didn't pay much attention to it. I was never interested in cigarettes. I was a pipe smoker, and I do recall some of them smoked pipes, some just smoked cigars. I remember one thing that the boys used to laugh about, one student that made the remark that it was going to be expensive for him to pass a certain course because he'd have to supply the professor with his black high-priced cigars [chuckle].

S: Can you tell me how people generally dressed to go out to class in those days? By that I mean, was a student expected to wear a tie or

anything like that?

C: No, I don't recall that there was anything said about our dress. However, we didn't go barefooted and in shorts like they do today. But we went just conventionally dressed just like we did at home or like we did on the street or anywhere else.

S: And there were no regulations of any kind, as you recall?

C: I don't recall any.

S: While you were a student, were the freshmen still expected to wear a little beanie, a rat cap?

C: Oh yeah. Oh yeah. [laugh] We had rat caps back in those days.

S: Did the upper classmen enforce any of the rules that freshmen were supposed to follow, such as wearing the rat cap?

C: On yes. Unofficially, yes.

S: But they kept a pretty sharp eye about that?

C: Oh yes, indeed.

S: Can you tell me some of the other things that a freshman would be expected to do or to know?

C: No.

S: Were they expected to know the names of certain faculty members?

C: I don't remember any requirement about which or how many they were supposed to know. Take into account in those days we knew everybody on campus: professors, or students, or garbagemen, or what not. Everybody knew everybody else in those days. There were only 300 or 400 of us.

S: Do you recall who cleaned up in the dormitories? In other words, were there maids or janitors or whatever who looked after these buildings?

C: Yes, quite clearly I remember Mrs. [S. J.] Swanson [matron] and Mrs. [Margaret] Peeler [assistant matron] who took care of it. Of course, they had several employees who did the work. But they looked after the rooms and took care of all of that kind of stuff. The dormitories then were built in sections, you know, fire proof sections. I don't remember how the work was divided up, but I remember those two ladies quite definitely, quite favorably. They saw to it that stuff was being kept right. We were supposed to keep our rooms for the most part, but they did come around each morning and sweep the rooms out.

S: Were these people who worked for Mrs. Swanson and Mrs. Peebler Negroes?

C: Yes, they were for the most part Negro women, as I remember it.

S: Uh, huh. What about the laundry?

C: Oh gee, we had an influx of Negro women on Monday morning, always.

S: They would come and get it for you?

C: Oh yes, they could come in and the boys would have it ready and they take it out and bring it back on Friday, I guess. I don't remember what day they brought it back. I think it was quite a common thing for a student to have a wash woman.

S: Now that would have been a private arrangement between the student and the woman, right?

C: Oh yeah. On yes.

S: Had nothing to do with the university?

C: No.

S: Where did the students go to buy their clothes in Gainesville?

C: On, Barnett's and Burkhim's downtown.

S: Down in the square?

C: Yes, those are the two names that occurred to me right away, but there were others. Old Chitty's, of course, has always been down there on the square. Well, there were several others, but those three were the old timers in this city. Fletcher Barnett and Louis Burkhim and H. M. Chitty, were the three men's clothing stores that everybody knew, and had been there for quite a long while. I guess they're all out of business now.

S: Were there any clothing stores, or were there any stores of any kind north of the campus, across the street, in those days?

C: Oh yes. There was one or two eating places. There was a big frame building where the — what do they call the restaurant down there now? Anyhow, that was run by a Greek called Alex; I forget what his other name was. And then there was a small place run by a man and his wife who we knew as Uncle Dud. His name was William, I think. Those two places were run, I think, in what's now called the Gold Coast out there.

S: Were there just those two boarding houses?

C: Well, to begin with. Of course later on Ma Ramsey came in, and set up her place, and some others perhaps. I don't recall. I know in her later years they used to put, in the summer time, when the extension service brought in the 4-H Clubs, the dormitories were closed and Mrs. Ramsey fed them.

S: Were there private houses?

C: Oh, the faculty was built all along University Avenue. Yes, indeed.

S: All the way along there while you were a student?

C: Yes. In that block from Thirteenth Street on west to over past where the restaurants are now.

S: Were you involved in athletics when you were a student, Mr. Gunn?

C: Not enough that anybody ever knew that much about it.

S: Not on a team?

C: No.

S: Where did they play? Where did they hold football games during that time?

C: Of course it's hard to remember now [chuckle].

S: Was it around where Florida Field is?

C: Yes, it was in that vicinity there.

S: Uh huh. Can you tell me a little bit about what you remember [Albert A.] Murphree [President of the University of Florida], what sort of man he was?

C: You know, the one thing I will always remember of Dr. Murphree is that when you entered the president's office, Dr. Murphree was the person that greeted you. I made the statement many, many times that he's the only executive I ever knew that occupied the front office and had his secretary or help in the back office. I distinctly remember that when you entered the president's office you were greeted with what we always referred to as that million-dollar smile.

S: Uh huh. I understand that he was also a great one for remembering names.

C: Oh, indeed he was, yes sir. He knew them all; he knew their parents and everything. Yes, indeed.

S: And he would greet you when he saw you on campus.

C: Oh, yes. Yes, sir.

S: How about Dr. [James M.] Farr? Do you remember Dr. Farr?

C: Quite well. I remember him as an English prof. and as vicepresident of the university. He was not president at any of the time that I was there. Dr. Murphree died after I graduated. But I knew Dr. Farr as a prof. quite well.

S: Did you have courses with him?

C: Oh, yes. Indeed, yes. I remember that he boasted he was one English department head that never published a text book [chuckle]. I also remember that he went to South Carolina every summer, because he was a native of South Carolina, and when the dormitories closed, of course, we have the summer school every summer that the teachers came to. Those of us who worked there in the summer on campus were permitted to keep our rooms and to board in the dormitory and we also served, I did, as others did, in the mess hall. But when it was out, we had to rustle for ourselves, and Dr. Farr went to South Carolina as I said, every summer. One occasion when they closed the dorms we had moved to Dud's place across the street over there, the place I spoke of, Uncle Dud's, and we went over there one morning and Dr. Farr had returned from his vacation and he was there for breakfast and I said to him,

"Doctor, I hope you enjoyed your vacation."

And he said,

"Indeed, I did. I spent it all fighting Cole Blease [a candidate for the governor of South Carolina]."

Cole Blease was a militant South Carolinian, you know.

S: That's right.

C: And he says he certainly enjoyed a summer fighting Cole Blease.

S: I understand he was kind of a feisty person and also that he was something of a boxer.

C: I don't recall about the boxing part of it. He was quite energetic and always ready with a come back, feisty with his conversation.

S: Uh huh. Did you ever have any classes with Professor [Charles Langley] Crow, [Professor of Modern Languages]?

C: No, I never had any language courses, modern languages courses. I knew Dr. Crow. Of course we knew everybody, as I said in those days. I knew Dr. Crow, that is I had a speaking acquaintance with him, as we did all the profs., but I never had one of his classes.

S: How about Professor [H. G.] Keppel, [Professor of Mathematics and Astronomy]?

C: Oh yes [laugh]. Oh boy, I sure sweated through trigonometry under Keppel. Yes sir. Yes sir. He was good.

S: Uh huh. How would you describe him? Was he a big man, was he an old man when you were a student?

C: Well, he was not excessively overweight, but he was a well built man, broad shouldered. He was actually close to six feet tall. He was, I mean, not over that. An excellent mathematician.

S: Uh huh. That sounds like a German name. Did he have any kind of accent that you can recall?

C: Oh no. Let's see, I expect you would notice it on first acquaintance perhaps, but very soon you'd forget that there was any. 21

S: Uh huh. Do you remember him as being a hard professor? Demanding?

C: Well, he expected you to come up with assignments that were given. And very considerate. I didn't have any complaints.

S: Did you know Dr. Cox, Harvey Cox, who was an education professor?

C: Oh well, casually only. I had no work under Cox at all. I had a room-mate who was very, very fond of Dr. Cox. He thought he was a wonderful person.

S: Since you were in agriculture, you will remember Professor [Peter Henry] Rolfs, [Dean of the College of Agriculture].

C: Oh, quite well, yes.

S: Did you know him at all well? Did you have much contact with him?

C: Well, I knew Professor Rolfs quite well, I think, yes, Director of the station. I worked in the experiment station building a great deal as a student. I did everything—preparing charts and running mimeographs, laboratory work, and everything else that is in that building, you know, for different individuals. I remember one incident [chuckle]. Two incidents, I remember. The first one, there was a man by the name of [John] Belling [Editor and Assistant Botanist to the Experiment Station] who was a scientist and who was working on velvet beans. The old Florida velvet beans were full of sticky spines, you know, and hard to handle. And Dr. Belling, who was English, at the time had undertaken to, some way, to work those spines off of the Florida velvet bean. Part of my activity as major student in the university was working with Dr. Belling in the laboratory, picking the beans from the field and then counting the dead ovules and other things that were factors in the laboratory. And [chuckle] on one occasion, one of the scientists from the third floor — Dr. Belling's office was on the second floor—came in with a specimen—I don't remember what it was — of some kind that had been sent in for identification. And he came along and asked Dr. Belling if he could identify this and he said,

"No, no. I don't know. I don't know. I don't know."

Well, he said,

"Well, all right, thank you,"

²¹ed., Keppel was of Dutch ancestry.

and he walked out and went down to the director's office which was Rolfs, you see, old Rolfs was a domineering character, a wonderful man, and he came back up and stopped in and said,

"Mr. Belling, would you be interested in knowing what the chief said?"

"Oh, I say, I do, I would. It would be interesting. It would be interesting."

"Well, he said it was so and so,"

and he had two long names, you know, and Belling said,

"Oh yes, yes, yes. So I thought at first, too, but it isn't, it isn't, it isn't [chuckle]."

It didn't make any difference to him what the chief said.

Yes, I knew Mr. Rolfs quite well. He spoke to my wife and I about going to Brazil at the time that he went down there. But we had other ideas. I knew the Rolfs' family. There was Mrs. Rolfs and the two daughters. They grew pineapples down in St. Lucie County, I believe it was; they used to talk about the pineapple operation down there and all that.

But I did some work for Mr. Rolfs. I remember one thing he said to me one time. I was working for Mr. B. F. Floyd [Plant Physiologist, Agricultural Experiment Station] in physiology, plant physiology, the plant physiologist, on the third floor and he said,

"He's got some work he wants you to do. Suppose you go down and see him? He'd like you to get some work done for him."

And I went down there and he had some drawings he wanted made. And I said,

"Professor Rolfs, I'm honored that you asked me to do this and I would enjoy doing it, but I don't draw anything. I can't, I just don't do that at all. I just can't do it. There's no use my undertaking it, because it would't be successful."

'Well,'

he said,

'You can do that.'

'No,'

I said,

'I am embarrassed, but I just can't do it. That's all there is. I just don't draw anything.'

And I says,

'Sir, it'll be ridiculous.'

'Well, that's all right, take it out.'

Well, I come back with some drawn lines made on a piece of paper, and there was this old gentleman and he looked at the stuff and he looked at me and he say,

'Well, Gunn, are you sure you can draw your breath? [laugh-ter]'

S: Well, he wasn't lacking in a sense of humor anyway.

C: Oh, no, he was not lacking in any sense of humor. He was all right. He was a good friend of mine. I got to know him quite well.

S: Do you remember Dr. [Edward R.] Flint, the chemistry professor?

C: Oh yes, yes. Yes sir. He was campus physician at the time. That was when we didn't have any hospital or anything of that kind. The third floor or — Thomas Hall, was it? The A Section of one of the halls — I think it was Thomas — was what they called the Infirmary. We had a nurse up there, Miss [Mary] McRobbie, a wonderful English woman. And if a boy were to get banged up, or had a siege of Dengue Fever one time and things like that, you know. If you'd get a cold or something, they'd send you up there and she'd give you an aspirin or something and send you home. Once in a while they keep them a night or two to get the fever out of them, but that was all the medical — and Dr. Flint, who was campus physician, was head of the Department of Chemistry.

S: Uh huh. Did you ever have any courses with Dr. Flint?

C: No. Well, wait a minute. Now I believe I did have one freshman course with him.

S: Was he a hard teacher?

C: No, not particularly. I don't recall him being what I would consider a hard teacher. In fact, I didn't have it hard. [chuckle]

S: That's a good way to go.

C: I think I got by pretty easy, I thought. I was very much impressed by all the ones that I had. I remember particularly that the week that I graduated, my father died out at Jackson County and I was away for the last examination, and one of them particularly that had been difficult for me, a course that I elected and it had taken so much work that I was quite worried about that and it was one that I missed while I was gone. When I came back, I went over. The prof., his name was [H. S.] Davis, [Professor of Zoology and Bacteriology]. He gave me the questions and I went into the other room there. Sat there and mulled over them a little bit and I just simply couldn't concentrate at all. So I went back by his desk and told him there was no use in me taking any more time there, that I wasn't getting anywhere at all. I simply couldn't concentrate on that stuff. And he said,

'Well, just leave it there.'

And I went back the third time and told him that; I said,

'I don't know what I'll do about this, but I simply can't concentrate on it, that's all.'

And he said,

'Oh, well, don't let that worry you. I sent your grade in while you were gone anyway.' [laughter]

S: I wish I would have met somebody like that. Did you have any occassion to know Dr. [J. R.] Benton, the engineering professor?

C: Oh, we knew Ickey. Everybody knew Ickey, you know.

S: Ickey?

C: Ichabod Crane. That's the way \cdots

S: That's what they called him?

C: Yeah. He carried himself somewhat like you had read about Ichabod Crane and he went around campus that way. But he was a very brilliant man. No question about that. I had no work under him, but I had a few contacts with him. Admired him very much.

S: Was there any place in Gainesville for the students to go for entertainment in those days? Was there a motion picture house or \cdots ?

C: Oh, yes. Yes, every time we won a football game we had a shirt tail parade downtown. And took in the picture show, you know. Oh yes. They had, I think two picture shows. The first one was down near where the old post office building is. I've forgotten what they called it. But anyway, that was the first I remember, and there was one uptown. Then there was a local theatrical group here that used to put on plays in the old Baird Theater building. And those were once or twice a year. The local talent.

S: Mr. Gunn, when did you graduate from the university?

C: Oh, it was 1916.

S: 1916. Where did they hold the graduation ceremony? Do you remember?

C: Wait a minute \cdots I'm not sure.

S: But would you tell us briefly what you did then in your career after you left the university? Did you make use of your agricultural degree? Is that what you went into?

C: Well, you know, I've heard it many times since I've finished school that very few people wind up in what they had as a major. Well, that was true in my case from an economic point of view. The Depression brought it on, as I presume was true of others. When I came out, as I've already related, my father died just as I was graduating, and of course what I needed was an income. I had two other brothers, one was in school at the time that I graduated and one was still to come, and still had a sister, quite a bit younger, and my mother. So the state had just been invaded by the citrus canker, which is a disease of citrus that you've heard of, of course. And Wilmon Newell Director of Agricultural Experiment Station and Agricultural Extension Division] was brought over. He had been in Louisiana, had done an outstanding job over there. The Plant Board was created in the 1915 legislature, and Dr. Newell came over to set the thing up. And I've said facetiously a number of times, although it's pretty close to the truth, that the Plant Board hired everything that year that had an agricultural degree and could walk. Well, I met both of these qualifications. So I went in, with this canker first thing, and then went to Fort Myers. I had never been further south than Gainesville at the time and I didn't know anything about citrus. Of course I'd had some courses, but that was one advantage I had. I remember definitely that I was quite egotistical about it at the time. But they gave us a test and they ran us through a cram course as we came out of the school, you know, enrolled us in these special classes, and they put us to work, then they ran us through this test. And of course those of us from Florida, although I had not majored in citrus, had some of those courses and we had a little advantage over the boys from Idaho and Nebraska, and New England and all. And we had two grades, those that made more than seventy-five, I believe it was—I may be mistaken about the grades—but anyone that made the higher grade, above a certain grade got \$75.00 a month. And the ones that made between that and sixty-five, if my figures are correct, you got \$65.00 a month. Well, I got into the higher grade point. And I didn't make an exceptionally high grade, but I got above this number,

whatever it was, so I got \$75.00 a month when I came out of school.

S: Could you tell us a little about the nature of that work that you did with the citrus canker down there in Fort Myers?

C: Well, what we did was to inspect the trees and to find places that were infected, you know. In this, I believe they are still arguing about whether it was a bacteria or a fungus, but that's beside the point. Wherever we found this disease up there, why, we destroyed the tree.

S: The whole tree, not just the \cdots .

C: Oh yeah, yeah. Dig it up.

S: Did you burn it too?

C: Oh yeah. Burn it right there. Don't move it off the property or anywhere else. You see, we'd disinfect. We wore coveralls, white coveralls over everything and we dipped them in bichloride solution before we went into a property and then when we came out of a property, and then before we went into the next property. Even though the suit had been dipped when we came out of this property, before we went on to the next one we dipped it again, taking no chances, naturally.

But I went through that then, on, around Lee County and I went down to Wauchula one time from there to see some stuff that was quite heavily infested and to do some work down there. But most of my time was spent at Fort Myers. There and at Wauchula. I was down in Bonita Springs, and a few other places along the coast down in there. But what we did was to go out in the morning and just walk slowly around the trees, you know, and spot these splotches if you could find them. "

The transcript [1] goes on to talk about Gunn's other ventures and how things were during the Depression, but that is not really germane to our purpose here, so we refer the reader to the Florida Oral History Project, for a first hand account of survival during these times. One thing Mr. Gunn did append to the transcript was the following written material:

"Additional information: after two years of working to make money to come to the University of Florida, I had made \$67.50. I put \$7.50 in a railroad ticket from Marianna to Gainesville, \$60 in my pocket, and came to the University of Florida and graduated in four years with very little help from the outside. I received a bachelor of science degree in agriculture, membership in Phi Kappa Phi Honor Society, and Alpha Zeta Agricultural Honor Fraternity. Some years after graduating, I received notice of election to Gamma Sigma Delta National Honor Society."

Given Mr. Gunn's recollections about Dean Benton, it is appropriate to quote here also from Major Wilbur Floyd's comments on the unveiling of the Benton Memorial Tablet during the Twenty-Fifth Anniversary Celebration of the University of Florida held on February 12, 1931, cf. [2, pp. 196–197]:

"As a leader he manifested his ability by selecting able co-workers, by making prompt and accurate decisions, as doing as well as counseling, by manifesting faith and vision, and inspiring associates with energy, confidence and assurance. With his own hands he helped to build the first little dynamo house and installed the equipment therein, at a time when funds were so low and prospects so poor the building was called 'Calamity Hall.' This served as an electrical laboratory till funds became available to erect the hall which was recently named for him. ²²

Fitness for use he always placed above show or ornamentation. When the buildings which now house the college were designed, he gave attention to every detail and insisted on changes in the architect's plans that would better adapt them to the uses and purposes for which they were intended.

It is characteristic of an earnest, practical man that he go directly to his objective, whether it be moving from one place to another, performing an experiment, solving a problem, or reaching a conclusion. This was a conspicuous trait of Dr. Benton. He wore a path across the campus in the most direct line from his house to his office, solved problems by the slide rule, illustrated his lectures by plain, well-drawn figures, and administered his duties as dean by direct, unequivocal methods.

Three years ago at an alumni luncheon, those of us still here who were members of the first faculty, were named and honored as the 'faithful five'. Dr. Benton is the first of this group to be called by the death angel. We who remain cannot find words to express our feeling of loss of him who for twenty-five years was our friend and companion. No one remembers him to have uttered one impure thought, one allusion of indelicacy, or one unbelieving suggestion. His fidelity to duty, his untiring labor for the advancement of the institution which means much to all of us and into which he has woven the warp and woof of his nature, will ever be remembered. We have been drawn closer together in a spiritual way by him, and feel stimulated to carry on because his spirit still lingers with us."

Philip S. May, Past President of the Alumni Association had the following remarks, which amplify on Mr. Gunn's recollections, cf. [2, p. 198]:

 $^{^{22}\}mathrm{ed.},$ Benton Hall, later torn down before the erection of Grinter Hall, currently occupying the site of the former Benton Hall

"A little more than twenty-two years have passed since I first knew the late Dean Benton. My first sight of him will never pass from my memory. He was making his way across campus, along the straight line about which Major Floyd has told us, and from that sight of him I knew whence came Ichabod, the name by which he was affectionately known on the campus. But only in stature, gait and profession did he resemble the schoolmaster of Sleepy Hollow; in mind and soul he was distinctly John Benton, a man of rare talents, character, and effectiveness. There is generally a coldness about efficiency, but Dean Benton, probably the most efficient man with whom I have every been intimately acquainted, was first a great soul with genuine warmth of personality."

References

- Florida Oral History Project, University of Florida, interview of Colin D. Gunn, by Stephen Kerber, dated December 1, 1979.
- The Record of the University of Florida, Bulletin of the Proceedings of the Twenty-Fifth Anniversary Celebration, February 12, 1931, Vol. 24, no. 5, (March 15, 1931), pp. 183-214.

Chapter 5

Albert A. Murphree: A Mathematics Professor at the Turn of the Century

Surprises on top of surprises! First we learn early in the late spring of 1994 that President Taliaferro of the Lake City Agricultural Institute had received the doctorate in mathematics from Johns Hopkins, when that was the leading institution in the country for graduate study. But then in mid-July we chance upon a biography [1] of President Albert Murphree published in 1928, written by the first Professor of Journalism, Orland Kay Armstrong, after Murphree's death on December 20, 1927, a biography which is not even listed in the on-line card catalogue. To our amazement, we learn that Murphree had majored in mathematics in college, and was hired in 1896 at the West Florida Seminary in Tallahassee as the instructor in mathematics. Who says that mathematicians cannot be excellent and innovative administrators!

It is interesting to see the many points of similarity between Sledd and Murphree, although they apparently had a falling out resulting from the decade of politicking leading to the passage of the Buckman Act and the campaigning for the presidency of the University of Florida. Both Sledd and Murphree were sons of the Confederacy born in 1870; primary sources in the case of Sledd and material in [1] in the case of Murphree prove that both men would allude to the Southern cause during the Civil War when exhorting students. Both had a very sincere desire to build up the quality in southern university and high school education, and to instill a fine moral character in their graduates. To that end, both men emphasized clean, amateur athletics and a rigorous code of student conduct. Both men taught school briefly before undertaking their serious college work. Both Sledd and Murphree married into distinguished Southern families, had long, happy marriages, and were active in church work. Both were apparently talented college mathematics students, and both had taught mathematics, although Sledd's mathematics teaching was limited to a brief period at Randolph-Macon. Sledd became president of the University of Florida in his mid-thirties, Murphree when he was about forty.

Albert Alexander Murphree was born in Chepultepec, Alabama in April, 1870, the fifth child in a family that would comprise ten children. While his father's ancestors were Methodists, his mother was a Baptist who raised her children in the Baptist Church. At first, Albert was educated in a one room country school house described as follows by an older brother in [1, p. 21]

" 'Our schools were the typical one-room log cabins of that day. The first school house Albert attended was such a structure, to which we walked three miles and from which we walked three miles back home at night.

'The seats in that school were made by splitting logs and fitting legs into them. At first we did not have any desks. Our books were few. Our writing and ciphering was done on slates. Father and some other men got together and built a long desk with the hand-planed surface, and we were tremendously proud of that. For ink, we had pokeberry juice or 'nutgall'. This later ink was made from the ball that grows on the oak tree. We would take the balls and boil them in water. A dark brown juice was the result, which made a very acceptable ink. Our drinking water came from a spring and was carried into the school room in a cedar bucket, from which we all drank out of a common gourd.' "

When Albert was ten, the family moved to Walnut Grove, where Albert attended what was called the Walnut Grove College, chartered by the Alabama legislature which taught what would now be considered high school and junior college work.

On graduation from Walnut Grove in 1887, Murphree obtained a position in a country school in Tennessee. The next year, Murphree obtained a position as a superintendent of city schools in Cullum, Alabama. Then he was principal of the Summit Institute in Alabama. Armstrong's biography is not as graphic as Sledd's *Autobiography of a Southern Schoolmaster* in recounting details of Murphree's early teaching experiences; we only find in [1, p. 23]

"... It was a mighty humble beginning and he had all the trials and difficulties both of teaching and discipline that the one-room school house teacher of the '80's experienced. It was splendid training for the young pedagogue."

Following this work experience, Murphree enrolled in the University of Nashville, later merged into Peabody College. There he majored in mathematics. Unlike Sledd, apparently Murphree's further studies had to be undertaken while on the job; Murphree seems to have undertaken further work while serving as President of the West Florida Seminary, receiving the M.A. in 1902. On the other hand, as we have noticed in our reading for Chapter 4, both early faculty members W. L. Floyd and W. S. Cawthon of our own institution took masters work at the University of Florida while simultaneously serving on the faculty. Both Rollins College and the University of Alabama awarded Murphree honorary Doctor of Laws degrees, the latter institution in 1909 just as Murphree was leaving Tallahassee to take up the presidency of the University of Florida, after Andrew Sledd's resignation in April, 1909. Not only did Murphree enjoy studying science in college, but also enjoyed the work in public speaking and was additionally blessed with a tenor voice of sufficient caliber, that he was engaged as a soloist during his days in Tallahassee.

After completing his work at the University of Nashville, Albert felt it might be interesting to take a real change of locale and accepted a teaching position in a high school in Cleburn, Texas. Unfortunately, Albert contracted typhoid fever prior to the end of the term. We cannot resist quoting the lively account of his illness given in [1, p. 24]:

"... He wired his brother Walter and his brother Ethridge as to his condition. The latter brother was then in Paducah, Kentucky. He went at once to Cleburn and found a deplorable condition. Two doctors in the town, bitter rivals, were both attempting to treat Albert and neither was proving effective, perhaps through thorough disagreement as to what should be done. Ethridge promptly called them together and came to an agreement with them in regard to how his brother should be treated.

After many weeks of suffering, Albert rallied and recovered. Before the sickness, he was a robust, well proportioned, hearty young man. The disease left him emaciated and thin. He decided, if possible, to secure a school back in his native state, or nearby. Word came that a mathematics teacher was needed at the West Florida Seminary in Tallahassee. The job was offered Murphree, and he accepted."

So Murphree arrived in Tallahassee for the academic year 1895–1896. Now Sledd had met his wife Annie Florence Candler while teaching at Emory College. Murphree made the acquaintance of one of the trustees of the West Florida Seminary, Colonel John Henderson. Henderson was a lawyer and a railroad counsel according to [1, p. 25]. He was vice-president and chief attorney for the Florida Central and Peninsular Railroad, for example, and was involved in Florida state politics. The Hendersons were Episcopalians, who had lived in Tallahassee for several generations. Again, it is tempting to quote [1, p. 27] concerning the marriage of the Murphrees: "Professor Murphree and his bride left at once on a honeymoon trip in a private railroad car, furnished by Professor Murphree's newly acquired father-in-law. Mr. Wm. V. Knott, present state auditor and a lifelong friend of Dr. Murphree, remembers being in Baldwin when the train carrying the private car with the bridal party, passed through on the way to Jacksonville and thence north.

'I waved my hand at the party anyhow,'

Mr. Knott says with a twinkle.

The honeymoon was spent in Tate Springs, Tennessee. They were gone about three weeks. Then they came home and took up their abode in the Henderson house.

Another school year was begun in September and it brought a big promotion to Professor Murphree.

A vacancy had occurred in the office of the President of the College. Professor Murphree seemed to be the logical man to fill it. Accordingly, at the age of 27, young, robust, and full of health, Albert A. Murphree was appointed President of Florida State College...."

We have seen in Chapters 3 and 5 that at our own institution up into the 1920's, it was common for staff members to play several roles, such as simultaneously being head professor of physics, Dean of the Engineering College, and head professor of electrical engineering. Another example was the combination of the head professorship of economics and history. We learn in [1] that just because Murphree had had a remarkably rapid rise to the presidency of the West Florida Seminary he did not abandon the teaching of mathematics to a new staff member, but kept on doing this as well as receiving his new administrative duties. Here are several reminiscences of Professor Murphree in the mathematics classroom from [1, p. 25, pp. 37-38].

"'He was a real mathematician, and he knew how to teach his subject,'

recounted one of his former students, now a successful business man in Florida.

'I remember how he would come to the board and review my work with a grim and critical eye. H'm, so that's the problem!' he would say.

'Well, that part of it is wrong ... and that part of it ...!' and by the time he was through I would find most of it was wrong, sometimes. But Prof. Murphree would show the right way before he got through.' " F. W. Buchholz, a long time principal of Gainesville High School and then County Superintendent of Schools for Alachua County, had the following recollections of Dr. Murphree as a mathematics instructor during the time period 1901-1904.

"... I remember quite vividly how Dr. Murphree would come driving up the hill every morning behind his big roan horse. Occasionally he would walk the mile from his home to the college, but most of the time he would drive the roan hitched to his one-seated top buggy. That horse always looked as though he received the best of care.

'Altogether I had four classes under Dr. Murphree: plane trigonometry, spherical trigonometry, analytics and astronomy. Dr. Murphree's classes were no cinch. He expected hard work and plenty of it. His classes were always planned, with the result that he knew exactly what he should do each morning. He would bustle into the door directly on the moment, and would begin assigning board work before he had reached his desk. He never took time to call the roll and yet the roll was always taken. He would do this by glancing over the class room at a time when the students were all employed. His usual schedule was board work first and then the assignment and explanation of the succeeding lesson.

'Dr. Murphree was a natural-born teacher. He seemed not to follow any particular pedagogical rules, but knew instinctively how to react to certain individuals and problems. He could handle anything that came up. He was very clear in explaining the problems, but would not drill them over and over, expecting cooperation, work, and attention from the students.

'He never had any difficulty in discipline. Because of his forceful personality, his well-planned work, and the clearness of his explanations, he had the interest and attention of the class and his work was carried out according to schedule. Once in a while, when he did become angry, there was a real explosion. He would tolerate no impertinence or shiftlessness on the part of his pupils. At one time, the class in analytics had not been keeping up with their work and one morning they walked into the classroom to discover an exceedingly stiff and difficult examination on the board. No one passed, and the monthly grades suffered accordingly. The next month there was a great increase in diligence in his classrooms.

'Dr. Murphree never had any difficulty in finding the culprits after a student escapade. The day after Halloween, for instance, when a number of missing gates had been reported to his office, he would call all the boys together and ask the guilty ones to stand up. They usually responded, especially if they had known him from previous experiences, and the matter was speedily readjusted. In case the guilty student did not respond when first called upon to do so, Dr. Murphree would take each student separately and begin a process of elimination by a series of questions worthy of the most brilliant lawyer. He was always successful in his contacts with his students because he thoroughly understood boys.' "

Class sizes at the West Florida Seminary in those times are reported in [1, p. 28] as averaging fifteen to twenty students.

In 1901, Professor L. W. Buchholz, the father of the student just quoted, joined the faculty of the West Florida Seminary from Tampa, where he had been county superintendent of schools. Buchholz and Murphree became long time friends. Murphree decided that two additional dormitories should be built and lobbied the State legislature to attain this end. During the academic year 1901–1902, these dormitories were completed. Also, as a partial means towards attracting students from a wider area of the state, Murphree got the legislature to change name of the institution to the Florida State College. Recall that in Chapter 1, we reported on Professor Marion canvassing for students prior to the opening of the term in Lake City. Well, L. W. Buchholz recalls in [1, p. 34] that Murphree sent him canvassing for students back in the western part of the state in 1903.

> " 'I recall that there were only about 120 students enrolled when I went there in 1901, and that all of these students came from Leon county, with the exception of students from two other counties. With the additional dormitories, the enrollment quickly grew. And yet Dr. Murphree was not satisfied with the scanty registration we were getting from the counties west of the Chattahoochee River where the students seemed inclined to go to colleges in nearby states. So in 1903 he asked me to travel over the western end of the state in behalf of the college. I went out and did my best at the job.'

Whether or not Dr. Murphree's lieutenant did the job can be learned from the students of the college in that day, who recall that in the fall of 1904, over 400 students enrolled. There were so many of them that they could not all get into the chapel for the opening services, so Dr. Murphree conducted two chapels, in order that all could be accommodated. The records show that seventy-five students came from Hillsboro county alone, due in a large measure, no doubt, to the influence of their old educational leader [i.e., L. W. Buchholz]."

We have noted in reading the Sledd correspondence for Chapter 1, that the Lake City Agricultural Institute as well as the new University of Florida offered what was called *Sub-freshmen classes*. In Lake City, two years of work below entering college grade was offered. After the move to Gainesville, this was reduced to one year of pre-college work. In [1, p. 28], the following commentary is found on the state of public education in Florida toward the turn of the century.

"The college [i.e., West Florida Seminary] had one academic department. The only professional part of the college was the teacher training department and Dr. Murphree seemed more interested in this than he did in any other part, owing to the state's educational status. At that time, there were only five or six high schools in the state, and fully that many minor colleges. Consequently, there was great rivalry among the colleges and most of them had preparatory schools so that the students could make up for the scarcity of high schools. There was a three-year preparatory school in connection with the college. Because of the need, it was Dr. Murphree's great ambition to produce efficient educational leaders and teachers for the public schools. A three-months spring term for teachers was held every year, after the majority of public schools had closed, so that the teachers could receive an additional education. At least one-half of the students who attended this spring course were twenty-five years old or over."

In 1905 with the passage of the Buckman Act, Murphree faced a career decision at the age of thirty-five; his father-in-law wished him to become a lawyer, Murphree himself still had his heart set on remaining in higher education and continuing to try to improve the educational standard in the South. As we know, he accepted the presidency of the Florida Female Seminary, when the presidency of the University of Florida went to Andrew Sledd. Both men had been the top contenders for this latter position.

As we further know, during the spring of 1909, Dr. Andrew Sledd resigned from the presidency of the University of Florida, and the Board of Control turned to Dr. Murphree. It was not an entirely easy decision to leave Tallahassee, since his wife had deep roots there, but the opportunity to build up the education of the young men in Florida seemed like a worthier endeavor than remaining in Tallahassee. We have discussed in Chapter 2 how the faculty recalled Murphree's reorganization of the university structure with the establishment of the Colleges of Agriculture, Arts and Sciences, Engineering, and Law. Thus Professor Anderson was both Dean of Arts and Sciences and Dean of the Graduate School as well as Professor of Latin and Greek. During the almost twenty years of the Murphree presidency, the enrollment grew from 186 students in 1909 to surpass 2,000 in the 1927–1928 academic year; much is made of this enrollment growth in Armstrong's book [1] published in 1928. During the Murphree presidency, the Teachers College, Summer School, Extension Division, College of Pharmacy, and College of Business and Journalism were all established. The Alumni Association was put on a sounder footing and the Anderson Memorial Organ was obtained for the University Auditorium. The Library was expanded and a Library Building was placed into service during 1925–1926, replacing cramped quarters first in Thomas Hall, later in Peabody Hall. Given Murphree's own keen interest in music, it is gratifying to see that the University Glee Club was organized in 1925 and the University of Florida Band was encouraged and enlarged. As we have seen in the 1911 University Record, President Murphree considered the campus Y.M.C.A. to be important, and was fully supportive of this institution. Perhaps reflecting Murphree's own musical talent, one of his four children, his daughter Alberta Murphree Worth, had a fine soloist voice and studied music at Peabody College and then the Baltimore Conservatory of Music. Elizabeth Simpson's Florida Oral History Project transcript [2] revealed that Mrs. Simpson studied voice with *Berta* Worth, this very same Murphree daughter, here in Gainesville, prior to World War II.

Unfortunately, Mrs. Murphree died in March, 1923, when President Murphree was only in his early fifties. He never recovered from this loss, [1, p. 131], although he tried to seek partial solace in outdoor activities such as golf with his male friends, like Colonel Walker. Murphree himself died less than five years later on the morning of December 20, 1927, only in his late fifties. Vice-president Farr succeeded Murphree for the rest of the academic year, then President Tigert took over the reins of our University during the academic year 1928–1929.

President Murphree was active in the affairs of the First Baptist Church, where Dr. Thomas V. McCaul was pastor since 1922. During the last years of Murphree's life, he taught the Men's Bible Class in Sunday school at this church. On January 29, 1928, a special memorial service was given at the First Baptist Church in honor of President Murphree. The seven remaining members of the University of Florida who antedated Dr. Murphree at this institution, Dr. James Farr, Dr. Charles Crow, Dr. James Anderson, Dr. John Benton, Major Wilbur Floyd, Mr. Klein Graham, ¹ and Colonel Edgar Walker, gave a silver plate which was placed on the pew during this service where President Murphree usually sat. Here is the inscription of this plate:

> IN MEMORIAM ALBERT ALEXANDER MURPHREE, A.M., LL.D.

PRESIDENT OF THE UNIVERSITY OF FLORIDA 1909-1927 DEACON, SUPERINTENDENT OF SUNDAY SCHOOL TEACHER OF BUSINESS MEN'S BIBLE CLASS MODERATOR SANTA FE RIVER ASSOCIATION PRESIDENT FLORIDA BAPTIST STATE CONVENTION

¹ed., the business manager

VICE-PRESIDENT SOUTHERN BAPTIST CONVENTION TRUSTEE SOUTHERN BAPTIST THEOLOGICAL SEMINARY MEMBER SOUTHERN BAPTIST BOARD OF EDUCATION

BY THE SEVEN SURVIVORS WHO ANTEDATE HIM AT THE UNIVERSITY.

References:

- Armstrong, Orland K, The Life and Work of Albert Murphree, published for the Murphree Memorial Fund, Record Company of St. Augustine, 1928.
- [2] University of Florida Oral History Project, transcript of interview by Mrs. Emily Ring of Mrs. Elizabeth Simpson, November, 1977.

Chapter 6

Graduate Education in Mathematics in 1894

Among the scientists important in the early development of the University of Florida which we discussed in the last four chapters, many still have a kind of presence on campus, even though it might not be noticed by most of the current undergraduates.

Where Grinter Hall now stands, next to Walker Hall, Kermit Sigmon recalls that in the 1960's stood a very dilapidated building named Benton Hall which was torn down for the construction of Grinter Hall in 1969.

But then a building in the present engineering complex, was named John R. Benton Hall. This building currently serves as a laboratory building for Electrical Engineering, fittingly enough. Among other facilities in this building, are the Florida Solid State Electronics Laboratory, the Micro-electronics Laboratory (which has a commemorative plaque of its own as the Rosser Laboratory), the Electronics Laboratory, the University of Florida Power Affiliates, the Power Systems Simulations Laboratory, and the Noise Research Laboratory. We also still have today on campus the Benton Engineering Council, the Engineering College Student Council, which has undoubtedly evolved from the Benton Engineering Society, found in the Seminole yearbook as early as 1915. There is no plaque marking the date of construction of the newer Benton Hall, with the Governor of Florida and Board of Control at that time grandly inscribed, as for the older campus buildings like Walker Hall and even Grinter Hall, but we find the following memorial plaque to Dean Benton in one of the corridors near an entrance to the new Benton Hall:

> In Memoriam John Robert Benton, Ph.D. First Dean of the

College of Engineering 1910–1930 University of Florida *He being dead yet speaketh*

Dean Thomas Simpson has a less grand presence on campus in the form of Simpson Hall, a dormitory in the Graham Residence Area. Nestled between a Coca-cola machine and a snack machine on an outer wall of this building, we find the following memorial plaque to Dr. Simpson:

THOMAS MARSHALL SIMPSON EMINENT SCHOLAR, TEACHER AND AUTHOR THOMAS MARSHALL SIMPSON SECOND DEAN OF THE GRADUATE SCHOOL AND FOR MANY YEARS HEAD OF THE DEPARTMENT OF MATHEMATICS CONTRIBUTED SIGNIFICANTLY TO THE EDUCATION OF STUDENTS AT THE UNIVERSITY OF FLORIDA. HIS SCHOLASTIC INTEGRITY STANDS AS A BEACON FOR THEM WHO SEEK KNOWLEDGE

On this marker, unlike that of Dean Benton, no dates are given. Also, Simpson's second wife has left materials with the Center for Florida Studies, which is a second evidence of Simpson's presence on campus.

While no building on campus is named after Dr. Franklin Kokomoor, just during the spring of 1994, the University of Florida Chapter of the Phi Kappa Phi honorary society established seven scholarships which were to be named after distinguished past presidents of the Florida Chapter of Phi Kappa Phi. One of these scholarships so established is the Franklin W. Kokomoor Scholarship.

The first Professor of Mathematics and Astronomy, Dr. Karl Schmidt has a rather less public presence on campus than the three scientists just discussed. The main sources attesting to Schmidt's presence are the information found in the 1905–1906 Record as reported in Chapter 3; the recruitment letter from President Sledd, reported in Chapter 2 and further correspondence at the Center for Florida Studies; and Schmidt's book *From Science to God* in Smathers Library. Unfortunately, the *Seminole* yearbook was not issued until 1910, so we have seen no photograph of Professor Schmidt in any campus sources.

No building on campus or honorary society has been named in honor of our second Head Professor, Dr. Herbert Keppel. But he survives in the *Seminole* yearbooks from
1910–1918 and also from Mrs. Benton's reminiscences, as recorded in Chapter 5. Even before I had discovered Mrs. Benton's account of Herbert Keppel, one afternoon when I was working in the Library Archives, the gentleman Carl Van Ness, Assistant University Architect, who had first steered me to the 1911 Catalogue and Herbert Keppel as being the Professor of Mathematics and Astronomy during my first time ever to set foot inside Library East, told me that he recalled that some *diaries* of Herbert Keppel were contained in storage in the University Stadium and that these things could be retrieved for me, if I wished. Naturally, I jumped at the chance, eagerly looking forward to reading Keppel's comments about the teaching load and student body at the University of Florida between 1908 and 1918.

Unfortunately, it turned out that the material in the Archives is not a diary describing events at the University of Florida at all, but rather two volumes of notes Keppel took at Clark University while a graduate student in mathematics. Indeed, as mentioned in Chapter 4, the first page of this material in Keppel's own handwriting in the first portion (as packaged by the Archives) is inscribed with the following title:

Mathematics and Pedagogy

Notes taken while reading Clark University, April 20, 1894

and this dating is consistent with the chronology given in the 1909 Record for Professor Keppel's educational experience prior to joining the University of Florida. Especially, this notebook reveals that Keppel devoted a good portion of his studies to high school and university curricular matters and teaching methods. The second portion of this material is untitled. An unsolved puzzle is also presented by this notebook. For in the first part of this material, Keppel only wrote on every other side of the pages. Someone else who obtained possession of Keppel's notebook has written out quizzes for various mathematics classes, including trigonometry and mathematics of finance. There is even placed in the middle of this notebook a yellow flyer, which turns out to be The Orange and Blue Florida Daily Bulletin, Vol. III, No. 7 for Tuesday, September 18, 1928. On the back of this flyer, are found more drafts of quizzes and tests. Since I am confident from evidence provided by the 1955 American Men of Science, that Dr. Simpson did indeed arrive at the University of Florida in 1918, and Dr. Keppel is no longer to be found in the yearbook, I also have confidence in Dr. Sam Proctor's statement that Dr. Keppel died in October, 1918. Unfortunately, this second person who was writing down all these examinations in Keppel's note book a decade or so after Keppel's death, did not once identify himself or herself by name. In any event, if anyone wants to know what tests were like in the 1920's at the University of Florida, this material awaits them in the University Archives. The Orange and Blue Florida Daily Bulletin which accidentally thus came to light is itself interesting because it gives an example of the Chapel Programs that were held in those times.

The student body was directed to be seated in the University Auditorium by classes, the faculty was to be in place on stage, and the following program was promised:

Organ Prelude	
Hymn	
Scripture and Prayer.	Dr. T. V. McCaul
Introduction of President Tigert	by Dr. Farr
Address by President Tigert	
University Songs,	led by University Cheer Leader, Keezell.

Let us return to Keppel's notebook and see what sort of curricular matters were of concern to our profession in the late nineteenth century. As mentioned in Chapter 4, the first portion of this notebook consists of Keppel copying apparently in its entirety, a study on curricular matters called the **Report of the Committee of Ten**. Professor John Kenelly, Professor Charles Nelson, and Dean Bob Burton Brown all told me that such names were common for national educational reports in those days. Kenelly told me that educational concerns of that era included setting national standards for high schools so that the colleges and universities would not have to test individually all applicants for admission to their institutions. Indeed, in my browsing through the University of Florida Records of the 1910's, I found that students from approved senior high schools of Florida could gain admission by certificate; the principal had to fill out a standardized form available from the University. A later catalogue contained a list of *certified high schools*. If a student had not attended a *certified high school*, then he was obliged to take entrance examinations. The Committee of Ten according to Keppel's notes contained university faculty, and high school and preparatory school principals. The Committee was chaired by Professor Newcomb and included Professor Byerly of Harvard (Harvard has a Byerly Hall), Professor Cajori of the University of Colorado, Professor Fine of Princeton University, Professor Olds of Amherst College, and Professor Safford of Williams College.

The **Table of Contents** of this report as copied by Keppel was as follows:

- I. General Statement and Conclusion
- **II.** Special report on teaching arithmetic
- **III.** Special report on teaching concrete geometry
- IV. Special report on teaching of algebra
- V. Special report on teaching formal geometry
- A. A radical change in teaching arithmetic. The course should be (a) abridged and (b) enriched.

- **a.** Abridged by omitting entirely those subjects which perplex and exhaust the pupil without affording any really mental discipline.
- **b.** Enriched by a (1) greater number of exercises in simple calculation and (2) in the solution of concrete problems
- I. Subject matter to be curtailed or omitted:
 - a. compound proportion
 - **b.** cube root
 - c. abstract mensuration
 - d. obsolete denominate quantities
 - e. the greater part of commercial arithmetic
- **1.** Percentage should be reduced to needs of life
- 2. In profit and loss, simple and compound interest examples not easily intelligible to the pupil should be omitted
- **3.** Fractional periods of time in compound interest are useless and undesirable

Here are three further paragraphs from this document:

"Colleges should supplement their written admission examination in geometry by oral ones; and a substantial part of the examination, whether written or oral, should be devoted to testing the ability of the candidate to construct original demonstrations."

"The binomial formula for fractional and negative exponents had better be reserved for college; for positive integer exponents, the pupil should verify it by actual multiplication."

"Also either in school or college synthetic or projective geometry should be taught."

Following up on the Report of the Committee of Ten, Keppel made notes on admission requirements of various universities and colleges, often with recommended texts given. Thus the following is found for M.I.T.:

"In June, 1894 and thereafter, applicants will be required to pass an examination in Solid Geometry or in Advanced Algebra. It is the intention of the Faculty to require both of these subjects at no distant date." A goodly number of colleges on Keppel's list required Wentworth's *Elements* as the required geometry text. It is then interesting that elsewhere in Keppel's notebook, he comments on his experiences while teaching a course in geometry at the *Academy* of Northwestern University during the time period September to June 1895–96 using Wentworth's *Plane and Solid Geometry*.¹ Keppel notes which theorems or constructions gave the students difficulty, improvements to proofs, and corrections to the text.

As mentioned in Chapter 2, after Keppel studied the material on the Report of the Committee of Ten, he copied or translated material concerning educational matters from various journals. He translated first from the German an article by Dr. Rethwisch, Deutschlands hoheres Schulmesser in neunzehnten Jahrhundert. Then he took notes on an article by Professor T. H. Safford published in the October, 1893 Bulletin of the New York Mathematics Society on "Instruction in mathematics in the United States." Keppel copied an article comparing curricula in American, French, and German high schools. Then he took notes on an article by Professor Alexander Zimet published in the October, 1891 Bulletin of the New York Mathematical Society on "The Teaching of Elementary Geometry in German Schools." This article contains the comment that an inferior geometry text by Kambly was in the 74th edition and used in 217 German high schools. This article recommends, rather, the use of a much less popular book Jacob Falke, Propadeutik der Geometrie, published in 1866 in Leipzig by Quandt and Haindel. This entry is also interesting, because we shall later see that in Graduate Research Professors A. D. Wallace's address to the Florida chapter of the Phi Beta Kappa in 1971, one of the fancy (by present day standards) vocabulary words Wallace employed is this same *propaedeutic*.

The next portion of Keppel's notebook consists of a listing of various mathematics departments throughout the entire world, together with their faculties, at differing dates. Keppel's own heading for this material is *Professors of Mathematics as given in Minerva 1894–95.* From this source we learn that in the late nineteenth century, it was common for educational institutions to have a position of *Professor of Mathematics and Astronomy*, even if the department contained more than one Professor. We also find that in 1837, the Alexander Zimet referenced above was an Assistant Professor at the University of Michigan which even then had a faculty of 2 Professors, 2 Assistant Professors, and 4 Instructors. There, however, the titles of the two professors were Professor of Mathematics at Johns Hopkins had a Professor of Pure Mathematics, a Professor of Mathematics, and a Professor of Mathematics and Astronomy.

¹This entry points up a difficulty with possibly inaccuracies in the University of Florida Record, for this source places Keppel at Northwestern as an Instructor only at a slightly later date beginning in 1896.

It is also interesting to see in Keppel's notes, that at the time the Faculte de Bordeaux was surveyed for this listing in the Minerva, that Hadamard was a Dozent in Astronomy and Mechanics. Harvard could be proud of the following four Professors: James Mills Peirce, Professor of Astronomy and Mathematics; Charles Joyce White, Professor of Mathematics; William Elwood Byerly, Professor of Mathematics; and Benjamin Osgood Peirce, Professor of Mathematics and Natural Philosophy.

The next portion of the notebook changes character. In retrospect, after reading this second portion of Keppel's notebook completely, we may deduce that the Mathematics Seminar at Clark University met on Saturdays and what Keppel was doing in this later portion of his notebook was first, taking notes at the lectures in the Seminar, and secondly, preparing materials for his own presentation. Also, dates in this section indicate that parts of this material were written down in 1893, before the first portion on curricular matters which I have described above. This second notebook begins with several lectures by Dr. Henry Taber, delivered starting at 4 pm on Friday, April 14, 1893 on the topic of *Symbolic Logic*.² The first page contains a reference to a research article of De Morgan, "On the structure and syllogism," published in the *Cambridge Philosophical Society* in Volume 8. Also an article of Peirce in the *American Journal of Mathematics*, Volume 7, and Peirce's *Studies in Logic* are cited. This part of the notebook contains beautifully drawn Venn diagrams. In Dr. Taber's estimation,

"Charles Peirce has written ably on Boolean calculus,"

as recorded by Keppel.

The next portion of the notebook deals with questions in analytical and constructive plane geometry. The first lecture, delivered by Dr. Taber on February 18, 1893 is entitled *To express mathematical properties graphically*. References include Clifford's Mathematical Papers, Salomon's Conic Sections, and work of Poncelet. Taber gave the following definition:

"Metrical Theorems: these are theorems which require the measurement of lines or angles to be taken into consideration."

Projective geometry and something called the *harmonic conjugate* involving distances between points plays a role in this mathematics. Keppel records the following conclusion to this course of lectures:

"We thus see that any angle may be expressed graphically. The property of an angle which is not destroyed by projection is then—that if

²Taber was perhaps William Story's best Ph.D. student at John Hopkins, taking the degree in June, 1888. When Story was selected as the founding Professor of Mathematics at the new Clark University, Taber joined him as the docent, Oskar Bolza as the associate, cf. [2].

from the vertex of the angle lines be drawn to the two circular points at infinity, these lines will form an harmonic range or ratio, which divided by $-2\sqrt{-1}$ gives the value of the angle. Dr. Taber said in conclusion,

'I believe this is one of the most wonderful theorems in Geometry. I think it is due to Laguere; the whole subject is due to Poncelet.' "

These lecture notes are followed by reading notes on Dowling's *Notes on Analytical Metrics*, then by a presentation of Mr. Hill on Saturday, March 4, 1893, in which Hill discussed the problem:

"express graphically the theorem that the three angles of a triangle are equal to two right angles."

Again the anharmonic ratio and complex variable arithmetic was used in this demonstration. During this same seminar, Mr. Nichol's also spoke about the problem to

"Express graphically the statement that the tangent is perpendicular to the radius at the point of contact in a circle."

The demonstration employed the harmonic conjugates.

Next Keppel took reading notes from a book entitled *Carr's Synopsis*.³ Here are three examples of the sort of thing discussed:

Section 4717. All circles pass through the same two imaginary points at infinity and through two real or imaginary finite points.

Section 4718. Concentric circles touch in four imaginary points at infinity.

Section 4722. Any two lines including an $\angle \theta$ form, with the lines drawn from the two circular points at infinity to their point of intersection, a pencil of which the anharmonic ratio is $\exp(i(\pi - 2\theta))$.

Next Keppel took reading notes in French from the book M. Chasles, Apercu des Methodes de Geometries, Paris, 1875.

Then, apparently also in preparation for his own Seminar lecture, Keppel starts consulting the German equivalent of the current *Mathematical Reviews*, the Jahrbuch uber die Fortschritte der Mathematik, published by the Prussian Academy of Science in Berlin, starting first in 1868, thus even predating the Zentralblatt, which only started publishing in the 1930's. With the Jahrbuch material, sometimes Keppel copied the German text, sometimes he translated it into English. He surveyed

³you information superhighway junkies, I pulled down the LUIS to track the date of this reference and found 755 entries under CARR; too much trouble.

the works of the following authors: J. Frischauf, Die Geometrischen Constructionen von Mascheroni und Steiner; De Coatfront, Sur la geometrie de la regle, Nouvelle correspondance de mathematiques III, 204–208; F. Kessler, Beitrage zur Geometrie des Zirkels; F. Bessel, Grundzuge der Geometrie des Cirkels, Archiv der Math. und Physik von R. Hoppe, LXVII, 44–63; and finally, J. S. Mackay, Solution of Euclid's problem with a rule and one fixed aperture of the compass by the Italian geometers of the sixteenth century, Edinb. Math. Soc. Proc. V, 2–22. The next portion of Keppel's notebook contains material translated from the German taken from the collected works of Jacob Steiner, specifically from Die geometrischen Constructionen ausgefuhrt mittelst der geraden Linie und eines festen Kreises, als Lehrgegenstand auf hoheren Unterricht-Austalten und zur practischen Benutzung. The following amusing statement, as translated by Keppel, is to be found on the applicability question in those days:

"If the constructions of Mascheroni are of great benefit to the mechanic and the manufacturer of astronomical instruments, then it is reasonable to believe that the present work will be of benefit to engineers and surveyors."

Now we come to the final portion of Keppel's notes in this volume, which I have copied in their entirety, for this is Keppel's preparation for his own lecture in the Saturday seminar after all this studying of these French and German sources.

Restricted Conditions in Geometrical Constructions (A synopsis of a report made to the Math Sem at Clark University in 1894)

Preliminary

With a ruler we can

- 1. Draw a straight line when two points of it are given.
- 2. Find the point of intersection of two lines
 - (a) When one of the lines is given entire and the other only by two of its points
 - (b) When both lines are only given by points which determine them
- 3. When a circle is in the plane to find the intersection of it with a line of which only two points are given

With a compass we can

- 1. Draw a circle or arc when size and position are given
- 2. Find the points of intersection of two circles

- (a) When one is given entire in the plane and the other has only its size and position given
- (b) When both have only their size and position given
- 3. When a line is given in the plane to find the intersection of a circle with it when the position and size of the latter are given
- 4. To lay off a given length on a given line.

The cases which we consider are:

- 1. Compass with fixed opening–Pappus, etc.
- 2. Ruler alone–Brianchon, and Schroten (16?? 1659)
- 3. Ruler and compass with fixed aperture—Italians of the 16th century
- 4. Compass alone—Mascheroni
- 5. Ruler and fixed circle in the plane–Steiner

The ancients considered a problem in geometry as capable of solution when its construction required no other apparatus than the ruler and compass. They seem however to have known that for some problems at least the conditions could be further reduced.

Cantor (Vorlesung uber Geschichte I, p. 383) says that passages in the works of Pappas of Alexandria show plainly that the Greeks were acquainted with a geometry which admitted of a single opening of the compass.

Several mathematicians have also since then tried to solve geometrical problems by assuming fewer conditions than those required by the ancients, or by somewhat changing the conditions. The several efforts may be summed up under the following six heads:

I. Using one fixed aperture of the compass

Besides Pappus and the Grecian geometers, we know that Abul Wafa Muhammud (940–998 A.D.) a Persian astronomer and geometer solved problems by this means. **Ref:** Cantor, Geschitchte I, p. 638

II. Using the ruler alone

The first to adopt the ruler alone seems to have been Franciscus von Schroten (1615–1660) Professor at the University of Leyden **Ref:** Cantor, Geschichte II, pp. 606–628 Chasles, Apercu..., Paris, 1875, pp. 98–99

Many of the problems were of practical application to surveying and in them besides using the ruler he considers that accessible lines can be measured. Brianchon (1785–18–) and Servois (...) have also solved many problems by means of the right line alone: they gave the name *Geometrie de la regle* to this method (**Ref:** Chasles, Apercu du math., Paris, 1875, pp. 98–99, pp. 213–215). Other problems of the same kind are found in *Recreations mathematiques* d'Azaman (?) (edition of 1778). A work on surveying by Mascheroni also adopts this method.

III. Using a ruler and a compass with fixed aperture

This seems to have been a favorite problem with the Italian geometers of the 16th century. Among them who used this method was Scipione del Ferro $(\ldots -1525)$, Hieronimo Cardano (1501–76), Nicolo Tartaglia (1506–1559), and Luigi Ferrari (1522–1565). The first named above is also known to have discovered the solution of the cubic equation having a special form. This discovery was not published, but was communicated to his friend Fiore, who proposed the problem to Tartaglia in a contest. The later solved the problem and generalized it, but he also refrained from publishing his results and communicated them in confidence to Cardan. He however betrayed the trust and published the results some years later. Ferrari, a devoted pupil of Cardano took up the defense of his master when Tartaglia began his severe attacks. He challenged Tartaglia to a public contest and in one of these the latter proposes a number of problems to be solved by means of a compass with one fixed aperture (Ref: Cantor II, p. 453)

Some of Tartaglia's problems follow.

1. In any triangle to construct a square of which one side shall lie one outside of the triangle

"Let be the longest side of the triangle abc"

With that incomplete phrase, nothing more is written in the notebook, and so ends our knowledge about Herbert Keppel's preparation for his lecture in the Mathematics Seminar at Clark University during the late nineteenth century.

We were interested to find in the October, 1994 issue of the American Mathematical Monthly, a short article [1] by Professor Norbert Hungerbuhler of the ETH-Zurich entitled A Short Elementary Proof of the Mohr-Mascheroni Theorem. A sentence in the introduction to this article helps put some of Keppel's studies in perspective: "In 1879 Lorenzo Mascheroni surprised the mathematical world with the theorem that every geometric construction that can be carried out by compasses and ruler may be done without ruler It turned out that Georg Mohr had proved this theorem in 1672 already.... The proofs given by Mohr and Mascheroni are quite complicated. Later easier proofs have been developed."

References:

- Hungerbuhler, N., "A Short Elementary Proof of the Mohr-Mascheroni Theorem", American Mathematical Monthly 101 (1994), pp. 784-787.
- [2] Cooke, Roger and Rickey, V. Fredrick, "W.E. Story of Hopkins and Clark," in American Mathematical Society History of Mathematics, Vol. 3 (1989), A Century of Mathematics in America, Part III, ed. P. Duren, pp. 29–76.

Chapter 7

Dr. Franklin Wesley Kokomoor, Chair from 1951–1960

We have already seen in Chapter 5, how two early faculty members of our department, Professors Thomas Simpson and Franklin Kokomoor, especially stand out in terms of long years of service in bridging the gap from the days of a student body of about one hundred and a handful of faculty to a student body of several thousand and a staff, including instructors, of over forty. We have seen how Simpson served as Head Professor from 1918 until 1951 and how Kokomoor served as Head of Freshmen Mathematics from the time of the inception of the University College in 1935 until his retirement in 1960. Of course, when Simpson was Dean of the Graduate School, Kokomoor must have had a large role in running the department on a day to day basis, until he himself was the chair from 1951 until 1960. Just as President Sledd was able to speak for himself in Chapter 1 through the Sledd correspondence, Dr. Kokomoor has left us two documents at the University of Florida Oral History Project at the Florida Museum; first, a document he himself wrote, entitled The Years of My Life [1], which was apparently written to provide background for his oral interview; and second, the transcript of the oral history interview [2] conducted by Robert Johnson of Dr. Kokomoor on August 17, 1973 when Kokomoor was in his early 80's, which turned out to be over 50 typed pages. Also in the Kokomoor file at the Museum, is an undated clipping [3] from the Gainesville Sun written by Anita Mitchell Tassinari describing an interview of Dr. and Mrs. Kokomoor conducted by Ms. Tassinari when Dr. Kokomoor was ninety and Mrs. Kokomoor was eighty-four. It is interesting that Mrs. Kokomoor's comments on life in Gainesville in the late 1920's are rather reminiscent of Mrs. Benton's recollections which were presented in Appendix F of Chapter 5. So in this chapter, we will flesh out the material of Chapter 5 as pertains to the Kokomoor's by drawing on these sources, as well as several additional sources which were in Kokomoor's file at the University Archives,

Smathers Library. First, a manuscript [4] written by Professor Freeman Hart after his retirement on the Kokomoors; second, an article and a picture of Dr. Kokomoor which seems to have been published in a Florida alumni publication in June, 1966; third, some press release material stemming from the time of Kokomoor's retirement in 1960.

As I was working on Chapter 5 several months before discovering references [1], [2], and [4], I came across quite by accident, a picture of Dr. Kokomoor astride his bicycle correctly attired in a suit, contained in the 1939 *Seminole*, while I was leafing through these old yearbooks in the University Archives looking for pictures of our former colleagues. Indeed, this 1939 yearbook is dedicated to Professor Kokomoor with the following inscription:

This volume of the *seminole* is

respectfully dedicated to Doctor

Franklin Wesley Kokomoor,

Professor of the Department of

Mathematics, and Chairman of

the Board of Student Publications.

Now from the vantage point of the 1990's, it seems rather remarkable, first, that a yearbook of an entire University would be dedicated to a mathematician and second, that a mathematician would be in charge of the Board of Student Publications. So this dedication reveals that Dr. Kokomoor had what would seem to most of us today, a high involvement in student affairs on campus. This impression of Kokomoor's high visibility was confirmed a month or so later when I was consulting Dr. Proctor's thesis in the University Archives and noticed for the first time Kreher's book of photographs [5], We are the boys from old Florida ..., which happened to be placed on top of Proctor's thesis. Unfortunately, many of the people in these old photographs are not identified by name, but leafing through this book, I was pleasantly surprised to come across a photograph of Professor Kokomoor, wearing white shoes and standing in front of a chalkboard on which was written the binomial expansion. This photograph was captioned

DR. KOKOMOOR Mathematics Professor Chairman, Student Board of Publications.

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Finally, as we have mentioned in Chapter 5, in the late twenties and early thirties, three members of our Department, Thomas Simpson, Wilbert Little, and Franklin Kokomoor all served on the Committee for Student Religious Welfare.

We do not feel we can improve on sources [1], [2], and [4] in describing Kokomoor's family background. Professor Freeman Hart writes in [4]

"Franklin Wesley Kokomoor was born of German parentage in Dale, Indiana, on July 10, 1890. He was the son of Henry Fredrick Charles Kokomoor and Sophia Wedaking, his wife, who had made a home for themselves in southern Indiana, a few miles away from the Ohio River and thus with Kentucky neighbors not too far away. As the name indicates, the Kokomoor family moved from the Netherlands over the border into Germany and from there the grandfather emigrated to America, first to Hamilton, Ohio, and then to Indiana. As part of the price that needed to be paid for living on the still somewhat untamed frontier the grandfather was robbed and murdered as he returned from taking the produce to market.

Dr. Kokomoor's father, then, set up his home as part of his father's own holdings and there ten children were born of whom Franklin Wesley was the youngest. One of the three-mile away neighbors of the Kokomoors was the Thomas Lincoln family and their son, Abraham Lincoln, who lived in the community, during his formative teenage, that is, from seven to twenty-one. The old world loyalty to church and home brought to America by the Kokomoors and their neighbors, enhanced rather than diminished by the rigors of frontier life, undoubtedly made its impact on the life of Abraham Lincoln. (It was in this community that Lincoln as a boy of nine years waited by the wayside that he might ask a circuit rider to preach his mother's funeral sermon.)"

Dr. Kokomoor in [2] has the following comments on this heritage which led him to a deep involvement in community service and religious works.

Kokomoor:

"I got interested in the Methodist work because I was brought up that way. Back in the community where I grew up, these were German people who had come to Ohio first or Kentucky. If you'll notice on my mother's side, they settled in Kentucky, but they all came from Germany. I'd say the first generation I think this must have happened, they came into contact with the Methodist people. And so, they formed what they called the German Methodist Church, which was exactly like what we now call United Methodist Church."

Johnson:

"I see."

Kokomoor:

"But they were organized as separate conferences in order that they could take care of German-speaking people. A lot of the people didn't understand any English. A lot of them brought up in the German Methodist Church. They spoke nothing but German when I was a little bit of a youngster, but by the time I came home, the tenth in a family of ten children, they were getting to talk quite a lot of English at home and everywhere else."

The four daughters of the family all became homemakers in Dale. Of the six brothers, one died as a small boy, three were carpenters in Dale, and one older brother became a medical doctor. He was the one who was apparently the most successful in getting their father to talk about his experiences during the Civil War in the Northern Army. Kokomoor writes in [1] that his father had been apprenticed to a shoemaker when the Civil War broke out. His father enlisted in the 42nd Indiana Infantry at the age of 18. During the third year of the Civil War, Kokomoor's father was shot twice in battle which then led to his capture and imprisonment, first for 6 months in Libby Prison in Richmond, then for 13 months in Andersonville Prison in Georgia. In [2], Kokomoor related

Kokomoor:

"I was told through my older brothers of some of the experiences. Of course, they formed this prison right out in the open fields, you might say. There were a few trees around there and they cut most of them down to make room ... and then they built a big fence out of the logs.... And they just herded these men as fast as they could get them into this prison camp. They had no sanitary arrangements of any kind, just a little brook that ran through there had fairly fresh water to start with, but soon it became stale and stagnant and putrid, so it must have been a pretty tough place to live."

Kokomoor's father died in 1909. Franklin was attending a high school in Dale that had only offered two years of education, but just when Franklin came along, changed to offering four years of education. Thus Franklin found himself one of the first two students to graduate in 1909 from this local school with four years of high school education. Franklin and his bride to be, Flora Mae Weller, lived near each other in the Dale area, but went to different little schools, even though they attended the same Methodist church. In [2], Kokomoor has the following comments on how high school education was perceived in those times by most Americans in those parts.

Kokomoor:

"... And, of course, everybody who went to high school in our day [the early 1900's] was preparing to go to college."

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Kokomoor:

"... But in our day, they didn't even think a high school education was necessary. What good does Latin do you? My heaven! My older brothers asked me that question dozens of times. They were carpenters. And they said, you can't make any use of Latin. Of course, we had Latin required of us. I took four years of Latin in high school, and geometry and algebra and so forth. They weren't good to you at all. They were carpenters. They could do all their carpentry work without knowing any algebra. Other people were pretty much the same."

Johnson:

"Oh, I see."

Kokomoor:

"So they quit and maybe would go as long as they had to, which would be through sixth, seventh, or eighth grade and then they didn't have to go to school anymore, so they'd get the job. That was the big thing."

After graduating from high school, Kokomoor worked at carpentry with his brothers for several years in order to save up some money to attempt to obtain a college education. He comments in [2]

Johnson:

"What got you interested in mathematics over the years? Was this as a young person or did you have to wait until you got into college before ...?"

Kokomoor:

"No, very young. I guess if I gave you a brief answer, one particular teacher got me interested in mathematics. He was principal of the little two- year high school which I attended in Dale and I took several courses with him and then got so interested in mathematics I kept right on."

Johnson:

"So in other words, right from the start, you were, had this interest in mathematics."

Kokomoor:

"Oh, yes. I never could quite get rid of it, although I did even try, because as I said before, I was very much interested in going into religious work too."

Johnson:

"Yes."

Kokomoor:

"In which I wouldn't have used very much mathematics, but I always got back to mathematics in a very short time."

Johnson:

"I see you worked on a farm and also as a carpenter to earn money for college. Was it pretty rough in those days? This was around 1911, 1912? Tell me something about your college days."

Kokomoor:

"Well, of course, my biggest handicap was lack of money. We had no relief organizations of any kind, no fellowships, no scholarships, any source of getting extra money or even borrowing money unless you knew some private person who could help you out financially, so, for two years, I worked at carpenter trade mainly because I had brothers who were carpenters and I worked with them, made a little money. And Valparaiso University in northern Indiana was, was at that time, known as the poor boy's school, It was a large school."

Thus, Kokomoor took his undergraduate work at Valparaiso University, graduating with the B.S. degree in 1915. He describes his student days vividly in [2].

"... but when I got there, I got there so late that I couldn't get a job for the first term I had a little money, I'd paid in advance \$16.80 for twelve weeks of board. Figure it out for yourself. At \$1.40 a week. And I didn't buy as much as a bag of peanuts extra. I lived off of that. Of course, we got oatmeal every morning for breakfast and an apple and maybe a little something else I can't think of now. Milk, of course, with the oatmeal. Each Monday or each Tuesday or each Wednesday of each week, each meal we had the same thing that we've had that same day all the previous weeks.

Then the second term, I got a job washing pots and pans in this same dining room owned by the university called Heritage Hall Then later on, I made a little advancement. I got a job as janitor in Music Hall. It wasn't quite as messy as washing pots and pans, but my last year was the big thing. I got a job as teacher of University Physiology, which was a required course for all pharmacy students. That was a much more suitable job.

... The reason why I happened to get this job was because I had a few electives that I could take and I was always, always thought that I would be interested in, learning more about the human body ... and so I thought I'd take this, what they call University Physiology. I just took it as an elective."

Johnson:

"I see."

Kokomoor:

"I liked it very much. I did very well in it, I think. Anyway, at the end of the year, the professor asked me if I didn't want the job to teach the laboratory. Of course I had taken that laboratory, worked through that year myself. As well as class work. And that's how I happened to do it. I was not connected with pharmacy students at all."

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Johnson:

"Now you graduated with a B.S. degree in 1915."

Kokomoor:

"That's right."

Johnson:

"What were your plans after that? Did you more or less set out on your own for the first time, or did you have a connection here or there that ...?"

Kokomoor:

"Well, I'm ashamed to answer you honestly, but I'll have to. I didn't have any plans. I didn't know whether I could do anything. I was doing all right very well, as a matter of fact in my class work, and schoolwork and so on, but I was a very timid person. I couldn't go out among the world among strangers, and do what I had seen lots of other people do. So I was just more or less finishing the course. But somebody from the Georgia Normal College and Business Institute came to Valparaiso and was looking for a teacher of mathematics mainly, and a few other things along with the mathematics. And he had gone to the office of the vice-president who, at that time, handled the placement work, whatever placement work was done by the school at that time. he just recommended me to this man and this man looked me up and talked to me and asked me if I wanted the job and that's how I got into teaching."

The Georgia Normal College and Business Institute was located in Douglas, Georgia, not far from Valdosta. Douglas also contained the Eleventh District Agricultural College.

Johnson:

"... But what type of math courses were offered in those days? Was there general math?"

Kokomoor:

"No, they didn't offer a general mathematics at all. It was always something like algebra — arithmetic, of course, algebra, and, and maybe an advanced course in algebra and geometry, plane geometry, solid geometry, following pretty much the pattern of the old Euclid's geometry. They didn't have what we had called later on general mathematics."

Johnson:

"I see."

Kokomoor:

"Or comprehensive mathematics, which we didn't have any. They had each subject pretty well separated into algebra, geometry, trigonometry, and analytic geometry and so forth."

Kokomoor writes in [1] that after this one year, 1915-1916 of teaching at the Georgia Normal College,

"... my mind was unsettled as to whether I wanted to continue teaching or enter the ministry, for I was very much interested in both. So I decided to move a bit deeper toward the ministry to learn more about it, and so I entered Nast Theological Seminary in Cleveland in the fall of 1916. But W W I was coming closer and unexpected job openings were appearing.

In the fall of 1917, I was offered an appointment in the Methodist ministry at Edgerton, Ohio, with the opportunity of continuing my ministerial preparation by taking a Conference supervised 5-year study course, with annual end-of-year examinations. It was a plan then approved by the Church by its officers for on-the-job-trainees. I took this course, and continued it until the fall of 1921 it was completed and I was ordained an Elder by the Methodist church."

The Kokomoors were married on November 1, 1917. In [3], Mrs. Kokomoor comments

"Things moved more slowly in those days,"

laughed Mrs. Kokomoor.

"Frank and I grew up only one and a half miles apart and attended the same church. But before we were married he had earned his first degree and worked several years away from home, and I had started teaching school.

Ours was an old-fashioned wedding in my family home in Rockport, Indiana. We prepared food for almost a week before the wedding."

In [1], Kokomoor continues his description of their half decade in Edgerton as follows:

"World War I days came closer to us, and in the spring of 1917 our country entered it. Very quickly there appeared vacancies in the old work areas due to the movement of people from them into the better paying war jobs. A vacancy suddenly appeared in the Edgerton schools, and being certified, I was offered the principalship of the Edgerton school system, the work to be handled along with my work as a minister. Thus for four years I did double duty in the community. After that — from 1921 to 1923—I served exclusively as superintendent of schools there.

This experience revived my interest in the further study of mathematics, which continued to be my favorite subject of study."

In [2], Kokomoor comments more fully about the World War I period, especially recalling the difficulties of the German-American community during this conflict. However, we will not reproduce that particular discussion here.

Johnson:

"Did you find an interest in the ministry, and also teaching in mathematics compatible? I see you went to a theological seminary in 1916."

Kokomoor:

"Well, I didn't get very through. World War I came along and a vacancy arose everywhere, so I was offered a job and I finished it on the job. I found teaching and working a ministry were very compatible, as a matter of fact. Not exactly the same, I understand, but you're among people, you're working with people. In both cases, you learn how to present things to people, so they understand what you mean and what you want them to grasp and so forth. And either one is good practice and preparation for the other, I would say."

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Kokomoor:

"Well, America got into the World War, I believe in the spring of 1917. And, that was while I was in my first year at the Nash Theological Seminary. And, almost immediately, they needed civilian war workers as well as enlistees in the army and so forth."

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Kokomoor:

"I didn't say that in there [i.e., in [1]], but I volunteered to go in as a chaplain But you see I was thirty-one years old, I mean I was twentyseven years old when I got in I volunteered a year or so later than that. You see, we didn't get deeply into the war immediately when we entered the war. A couple of years before we got to begin to pick up the troops and so on. I thought maybe it would be a good service I could give. So I did volunteer, but I was told I was a little too old. They were taking younger men. I wasn't too old according to the regulations, but they still preferred to get someone ... a younger man."

Johnson:

"Uh huh."

Kokomoor:

"So that's why I didn't go into the service."

Johnson:

"Now you're a principal, also a minister, and also a teacher I believe in these days."

Kokomoor:

"That's right."

Johnson:

"That's quite an active, twenty-four years there."

Kokomoor:

"I was plenty busy."

In [1], Kokomoor writes the following about his deciding to go to graduate school at the University of Michigan beginning in 1923.

"This experience [in Edgerton] revived my interest in the further study of mathematics, which continued to be my favorite subject of study. Hence in 1923 I was transferred to the West Side Methodist Church in Ann Arbor, Mich. so that, along with my church work I might pursue the study of graduate mathematics at the University of Michigan. This I did for four years, 1923–1927, doing, along with my ministerial work, full time graduate work in mathematics for three of those years and serving as full time instructor at Michigan for the fourth year. And thus in 1924 I received the A.M. degree with major in mathematics and a minor in physics, and in 1926 the Ph.D. degree with minors in philosophy and physics."

An interesting comment in [2] is that his choice of graduate school was in part dictated by the fact that certain institutions like the University of Illinois, did not accept any credits for work done at Valparaiso, whereas others like Yale and the University of Michigan would transfer all of Kokomoor's undergraduate credits. Kokomoor's supervisor was Professor L. C. Karpinski and Kokomoor wrote his thesis, as we have already indicated in Appendix C of Chapter 5 on *The teaching of elementary geometry in the seventeenth century*. Later in 1928, Kokomoor published three articles in the history of science journal *Isis* on this material, as noted in Appendix C, Chapter 5. An interesting comment in the oral transcript [2] concerns how Kokomoor obtained access to some of the materials used for this study. "... I worked for two weeks one time down in the fourth basement on Park Avenue in New York in the private library of, of George A. Plimpton, who was at that time, head of Ginn and Company, printing. And he was a collector of some of these rare and very costly and precious mathematics books. Most of them not even printed, just written in longhand and so on. He had his private library down there and the man under whom I worked at Michigan [Dr. L. C. Karpinski] knew Plimpton and in that way, I had access to the use of this library. Now, no library can replace these things. Nobody, you can't get these things. I'm a little worried about all of these universities in the state of Florida. They can't all have good libraries now."

More information is provided about Professor Karpinski and the study of the history of mathematics in America during those times in Appendix C to this chapter.

In the fall of 1927, Dr. Kokomoor began his service at the University of Florida with the rank of Assistant Professor. In sources [1] and [2], Kokomoor comments on aspects of the development of the Department that we have seen second hand from the University Records and Catalogues in Chapters 3 and 5, including Dr. Simpson as Head Professor, the establishment of the Lower Division, and the introduction of the Department of Religion. Kokomoor recalls that during his first semester, the professorial rank consisted of Dr. Simpson and three assistant professors, all new to the University. In [1], Kokomoor summarizes all these changes as follows:

"During the years of my active professorship great changes took place in the University and correspondingly in the department of mathematics. The mathematics staff grew from 4 when I began my work here in to 44 when I retired as head of the department in 1960. The number of sections taught in any semester increased at least ten-fold. New courses were offered and old ones were updated ... By the time I had become head of the department in 1951 we were among the early departments to receive approval for offering the Ph.D. degree."

In [2], Johnson asks Kokomoor concerning his coming to Florida in 1927:

Johnson:

"What about the courses and some of the personalities you recall in these days now?"

Kokomoor:

"Well, when I first came as I said in my notes that I gave you there, there were only four of us in the department and three of us were new. Two others besides myself, just new. We taught fifteen, eighteen hours a week of classwork and, and that was the full content of our mathematics offering here. But in the course of time, as we got more students and new colleges, and new colleges needed new mathematical services and so on. We kept on growing until I retired. I guess we were offering at least ten times as many sections in mathematics in any one term or semester than we did at the time when I first came here. We kept adding new members of the faculty and we'd work hard to get the best talent available from a variety of our better universities, so we had faculty members from the University of California, the University of Chicago, the University of Illinois, the University of Michigan, Ohio State University, Yale, and Harvard."

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Johnson:

"Who was the department head?"

Kokomoor:

"Dr. T. M. Simpson was head of the department when I came here and he was head until I took his place."

Johnson:

"I see."

Kokomoor:

"And he retired, and so I took his place as head."

Johnson:

"Was he one of the prime movers in this development?"

Kokomoor:

"He was one of them and he had a staff. We all worked under him. We all worked very hard and we kept putting in new courses, keeping them updated, making them comparable to the best courses that were offered in the, in the other universities, so that of the country and adding new courses and making new demands. There were a lot of changes. For instance, at one time, there was almost no statistical mathematics taught. Well, we put in statistical courses and kept, they kept growing and so forth and demand for them kept growing. Anybody who knew about mathematics now knows that mathematics and statistics is one of the extremely important subjects to study. I knew the number of new courses developed in the course of time. For instance, a course like topology which very few people now outside the realm of mathematics still have any interest in or knowledge of, but it's a very growing subject. It's an amazing, surprising subject so far as the richness of its content and so forth was concerned. So, we had to keep up with all the progress that was going on in the country and we put in new courses to meet the demands, And I thought by that time — I guess it was in the early thirties or early forties. Well, the general college was set up in 1935. That more or less took all of our attention when we were doing that. But after we had the general college set up and going, we were working on developing the mathematical offerings and so on. And we did a great deal of very hard work getting our department equipped in every way with faculty and with course offerings and so forth to offer the Ph.D. in mathematics. And we were among one of the earlier departments to be approved for offering the Ph.D's."

Elsewhere in [2], Kokomoor has the following additional comments on Dean Simpson.

"He and I had been working together ever since I came here. There was never a hitch between us. We worked together like a team should work, I should say. And so there was perfect harmony between us. We had what we thought was the right and sane philosophy of mathematics and philosophy of teaching, so that when he moved down to the office of the dean of the graduate school, I really was sort of the acting head of the department of mathematics.

We gradually built up the department in that way. One of the things we did during that period was to strengthen our staff by two or three more very good Ph.D.'s with experience from other places. And we offered a doctor's degree in mathematics."

In the *Gainesville Sun* interview [3] Kokomoor has the following comments about his early days in Gainesville, which partly explain his strong and continuing interest in the students and their welfare, which was demonstrated by a consistently high level of committee work both on and off campus during Kokomoor's whole time in Gainesville and even into his retirement years.

"The student enrollment in 1927 was just over 2,000, so you see we were a small and close knit school. The professors developed strong ties of loyalty and pride in their university, perhaps because each of us became intimately involved in campus activities, as well as teaching" One of the most enjoyable parts of [2] is Professor Kokomoor's recollections after over 40 years of the delights of traveling down to Gainesville to take up his first full fledged university position in 1927.

Johnson:

"... What were your first impressions of Gainesville when you came here in those days (1927)? You were with your wife, I guess, and you came down and you were instructor or assistant professor or, what was this?"

Kokomoor:

"I came as an assistant professor. Well, my impression of Gainesville was not quite as surprising and shocking to me as my wife's impressions. She had never been down South."

Johnson:

"I see."

Kokomoor:

"And I had been down at Douglas teaching at Georgia Normal College and Business Institute."

Johnson:

"That's right."

Kokomoor:

"And I knew more about what the South was like. I loved it."

Johnson:

"Right."

Kokomoor:

"I have always loved the South and still do. You couldn't get me up above the Mason and Dixon Line and spend a winter unless you chained me up."

Johnson:

"So, it is merely a climatic reason you like the South?"

Kokomoor:

"Other reasons too."

Johnson:

"Yeah."

Kokomoor:

"And I like the people of the South. People of the South were like the people of the Middle West. They're more open and approachable. Less independent, I almost thought than the people of the East, Northeast. The people of the South are open and you can talk to them. You can get acquainted with them and so forth. I think there is not so much difference any more."

Johnson:

"Perhaps not."

Kokomoor:

"You see, travel and communications have changed so much since, back in the day when I came to Gainesville. You went somewhere by train or you went in your own automobile and they were pretty scarce. I did have my own automobile when I came to Gainesville. We drove down in our automobile."

Johnson:

"That must have been an interesting trip. How long?"

Kokomoor:

"Five days. It took me five days to get here from southern Indiana."

Johnson:

"Five days."

Kokomoor:

"I could do it in one day now."

Johnson:

"What highway approached Gainesville in those days?"

Kokomoor:

"Well, the near, the best road from Cincinnati or Louisville or Evansville to Florida in those days was U.S. 41. There was already a U.S. 41 in 1927, paved most of the way, but very poorly paved in most places, not paved in some places at all. But it was marked fairly well. It was already marked out as a United States highway.

You had to do a lot of detouring. If you detoured, you detoured through dirt roads invariably. After it was raining, you'd go through the mud or it would be soft."

Johnson:

"Where'd you stop on the way down? I, I was surprised that Dr. Byers [Charles F. Byers, first chairman for *Man and the Biological World*] mentioned the other week they did have motels. Oh, I believe they called them tourist courts in those days. Did you stop at them?"

Kokomoor:

"Well, they had towns, I guess, would come closer to it. They didn't call them motels. That name developed later on."

Johnson:

"Yes."

Kokomoor:

"But, anybody who had a building of any sort could set up a building along U.S. 41, and they could make a sleeping quarters or something like that, could put up a sign. There were no laws regulating it and you didn't have any restrictions about water supply or anything. You used the well right there next to his house or next to his barn."

Johnson:

"Yeah."

Kokomoor:

"... the water that he used. I recall one time we were coming down. It must have been within the first year or two after, probably the second summer — the first summer after we spent the winter here. We went up North to visit our folks and when we came back, we had to do a long detour in Georgia above Atlanta. And we're getting along toward the latter part of the afternoon and it's raining. We had to detour on a muddy, red clay or yellow clay dirt road. And so I kept plowing along in low, trying to keep myself in the middle of the road, to keep from sliding off on the right or on the left side. And it got dark early. One time, I thought certainly I had stopped completely, but I just managed to get out of the place. Had the family with me. I had two children then, and my wife. And we were getting quite worried. Still on the detour, and it was thundering and lightening. If it were lightening, I couldn't see whether I was on the road or not. Otherwise, more or less guessed at it. Anyway, I was getting very discouraged, when suddenly I saw ahead of me a bright light. And when I came to it, the detour came upon U.S. 41 at right angles, and right across the road from where the detour ended was a barn. They had the big double doors of the barn wide open and they had it all lit up with electric lights — Dad's Place, and Booths, or something of that sort. I just drove straight across U.S. 41 into the driveway of that barn and we spent the night there. We slept in a granary, a corn bin, I suppose it was. Just barely big enough to put a cot or a couple, bed in it. And then, next to it was another corn bin and the children slept in that and that's the way we spent our night. That's the kind of motel we had."

Johnson:

"But you were glad to see it that night."

Kokomoor:

"Some detours that you found, that we found in Kentucky for several years, had to be made right down in the bed of a creek. Dry, dry bed of a creek. It was the only way you could detour, just around somewhere they were building a highway."

Johnson:

"That was in the late '20s now?"

Kokomoor:

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"That's right."
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Johnson:

"So you say your wife had a different impression."

Kokomoor:

"Well, she didn't like it. Was one of the worst things we struck as far as she was concerned. Housing was very, very tight in Gainesville when we came here. You see, this boom, the Florida boom was on along about 1924, 1925 and it began to break in South Florida and gradually the banks began to close up by 1929."

Johnson:

" Okay, you can just pick up where you left off."

Kokomoor:

"So, when we came to Gainesville, I couldn't find a house to rent. Hunted all over the city and everything was taken except an old house right downtown. There's a parking lot there now. The house is gone, but it didn't even stand vertically. It was an old dirty house that I could have rented. And we didn't want it at all. So we lived in a tourist camp for two and a half weeks and maybe three weeks while I was looking for a house. And of course, that was very unpleasant for my wife and family to live in that tourist camp. No air conditioning, hot. We arrived the last day of August. So the first week or two or three weeks of September and it happened to be a very dry, warm September. She'd have been glad to go back up North if she could have. But, then I bought the house that I lived in, a little house. We lived there a year. I bought this ... it wasn't quite finished. We had to wait until the carpenter had it finished. And we moved into that."

Johnson:

"So you had to buy a house instead of finding one for rent?"

Kokomoor:

"I had to buy one, yes. But we've never changed. We still live in that house. I built it a little bigger as time went on and its probably twice as big in floor space now. It is just an ordinary house, but it's quite comfortable and livable. Not in a good residential section anymore. There are rooming houses around, but we don't have any trouble at all."

Johnson:

"Right. Yeah, I guess. Gainesville's real estate's changed quite a bit since the 1920's."

Kokomoor:

"Yes, there was a cornfield or two between the University and the courthouse downtown along there what is now West University Avenue. Believe it or not, there was."

Johnson:

"Cornfield."

Kokomoor:

"Cornfield. Raised corn every year for two or three years."

Johnson:

"Did you find it very difficult to live on your salary in Gainesville in those days or?"

Kokomoor:

"Well, of course you had to be economical in everything that you did, but we were brought up that way. Both my wife and me. She and I were brought up that way. As a matter of fact, we have never had any financial troubles in that way at all because we just live economically. So we managed to get along all right. I was offered \$2400."¹

Johnson:

"This was an assistant professorship?"

Kokomoor:

"As an assistant professor. But they said, 'That's all the money we think we have,' but they said, 'it may be that we could get a little more for you.' I, of course, didn't expect any little more, but after I had been here about two or three months or six months, I guess it was — half a semester maybe, I was told that I would get \$2500, that they found a little more they could get for me. But that was what the salary was. That sounds like very little now, but then, it's understandable. Everything was a lot cheaper then."

 $^{^{1}}$ It is amusing to note that that is precisely the amount that Andrew Sledd was offered in 1904–1905 as President of the University of Florida in Lake City. Also, a faculty wife has told me that many years ago when she was baby sitting for a Professor William Fox in the business school, Fox told her that Kokomoor was so frugal as Chairman with the Mathematics Department's budget that he would even turn back unused monies to the Dean.

We have deduced from the University of Florida Records in Chapter 5 that academic planning for the establishment of the Lower Division must have been going on during the academic year 1934–1935. In [2], we can find Dr. Kokomoor's recollection of this process as the faculty member responsible for planning the new mathematics offering in the Lower Division.

Kokomoor:

"... I still believe the General College was a good thing."

Johnson:

"Tell me something about that now."

Kokomoor:

"I don't say that that is the only way to get an education. As a matter of fact, I got an education without having a General College but I still think that our General College set up was a good way to give students a good education. A good start in education, of course. You see, our philosophy was after all, when you go to college, about the first two years of your college work is basic training. And it's really basic in almost any aspect of life you go into. So we set these courses up. We built up these courses so there were six of them. You mentioned Dr. Byers a while ago. He worked hard on what they called in the beginning *Man in the Biological World.* ... *Man* ... *in the Physical World*, and *Man and his Thinking*. *Man and his Thinking* involved philosophy, logic and mathematics. And so we built these six courses up in that way. For instance, ... Somebody who goes into history, or social sciences of any kind, no matter what he majors in later on, isn't there a certain amount of mathematics that everybody ought to know and be familiar with?"

Johnson:

"Oh, yes, indeed."

Kokomoor:

"... we outlined what we thought would be desired for a course in mathematics, if we were going to require that mathematics of all students regardless of what they were going to major in, or even if they intended to stay only a semester or one year and drop out of the university. And so to begin with, in the fall of 1935, not having a textbook available, it was my job to get up some sort of temporary course for the fall. So that summer, the summer of 1935, I published, I think it may have been maybe

a 100 page paper-back pamphlet. That was what we called *The Syllabus* in General Mathematics - C-42 Syllabus.

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..... This was not a permanent piece of work. We had two textbooks from which we selected problems, and assignments were made in this little syllabus for the day-to-day work. And then we had collateral readings taken from about twelve or fifteen books, pamphlets, and so on, some very new, some very old.

... We got along with that kind of arrangement for several years, shifting around a little, making a few changes, but not any fundamental changes. And I was encouraged to write a textbook for the course, and I began working on it along about 1940. In 1942, Prentice-Hall published this textbook [*Mathematics in Human Affairs*] that I referred to

This text was for a two-semester course. Only the first semester was required of all students [or they could place out of this, of course, and take calculus], but the College of Education required both semesters as Kokomoor recalled it."

In Chapter 5, we presented the recollections of Mrs. Pirenian, Mrs. Simpson, and Mrs. Ring on the role of our campus in training armed forces troops during World War II. In 1973, Dr. Kokomoor had the following recollections of this time period in [2]. An official version of the activities of the University during World War II as described by President Tigert in his Biennial Report for the period ending June 30, 1944 in the University Record is presented in Appendix A to this chapter.

Johnson:

"Speaking of the war, did you realize a large increase in student enrollment following the war?"

Kokomoor:

"Well, in, at the beginning of the war, we had probably fourteen or fifteen hundred students in the university at any one time. And then when the, when the war came, this university being a school for men only, you understand"

Johnson:

"Yes, sir."

Kokomoor:

"It wasn't made co-educational until about 1945 or 1946 as I remember.² And also, this being a university land-grant school, which had compulsory military training, and nearly all those boys, able-bodied boys, took military training and at the end of the second years, they became lieutenants—first, second lieutenants—in the Army. So, when the war came, they called them out very fast. And, they also drafted a lot of our students and we had no women, so our enrollment dropped way down at the very beginning of the war. "

Johnson:

"I bet."

Kokomoor:

"Then the Army began sending us students, student army training that they called the Student Army Training Corps, I believe. And very quickly, we got 2500 or 3000 new students coming in from various places for special training. Now, all of these students had to have mathematics, among other things."

Johnson:

"I see."

Kokomoor:

"Then a very short time after that, the Air Force began sending us students, one flight after the other. They call their sections flights. It's actually a mathematical flight. And, so we had probably 200, 2000, or 2500 students in the air training course. They had to have mathematics, a much more elementary type, but the Student Army Training Corps they sent those boys down here and many of them went right on through and finished the College of Engineering or something like that here. So we taught a lot of mathematics then."

Johnson:

"I bet."

 $^{^{2}}$ ed., actually in 1947.

Kokomoor:

"We taught a lot of mathematics to both of them."

Johnson:

"I guess following the war, the increased interest in science and so forth allowed an enrollment increase."

Kokomoor:

"Oh yes. Following the war, the veterans came back and, and many of them went back to college. They were really very good students too, because they were serious-minded, a little older, and very much determined to make good. And we found them, I thought, to be much less frivolous and carefree and so forth than the average person who comes out of high school who doesn't really know if he wants to go to college or not. And is more interested in getting into a social fraternity or something like that than he is to make good in some particular course of study."

Johnson:

"Right."

Kokomoor:

"So we found a very fine group of students developing right after the war."

The following enrollment figures taken from the University Records bear out Professor Kokomoor's recollections; here we present the civilian enrollments during the regular term (excluding summer school) for the time periods under discussion during this chapter not previously given in Appendix A to Chapter 4.

1940 - 1941	3,438
1941 - 1942	3,239
1942 - 1943	2,710
1943 - 1944	691
1944 - 1945	938
1945 - 1946	3,216
1946 - 1947	7,373
1947 - 1948	9,787
1948 - 1949	11,840
1949 - 1950	11,709
1950 - 1951	11,046
1951 - 1952	9,937

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The enrollment figures given for the Army Specialized Training Program from June 13, 1943–June 30, 1944 are 1,495 students. It is interesting to note that the 1945 University Record reveals that a two year non-degree curricula in *Agriculture for Veterans* is being offered. The cover for the brochure for this program even features President Tigert and Dean Hume standing in a field with two of the students in this program who are holding the bridles of several dairy cattle; so one focus of this program was on providing training in dairy farming. Another page of the Record reveals that we were offering a *Veterans Refresher Course in Law*. In the President's Biennial Report to the Board of Control for the period July 1, 1952–June 30, 1954, President John S. Allen, who had taken over temporarily following the death of President J. Hillis Miller, writes that

"The rising tide of enrollments which began in 1946 and reached a peak in 1949 represented a backlog of students, mostly war veterans, whose education had been interrupted or deferred during a period of military service. Since 1950, G.I. enrollments have progressively declined, but there has been a conspicuous rise in normal freshmen enrollments."

Freshmen Enrollments during September :	
1950	1,791
1951	1,771
1952	2,615
1953	3,270

Indeed, the following figures are given for

In [6, p. 38], the following is written about World War II at the University of Florida:

"In the fall of 1939, World War II began in Europe. After passage of the draft law in 1940, students began withdrawing from the University to join the armed services. Many more left the following year, particularly after the bombing of Pearl Harbor, December 7, 1941. Some did not return after the Christmas vacation to take their final examinations, but they were given credit for the work that they had completed. Many of the faculty also went into the armed services, and the Alumni Office began publishing a monthly bulletin for the University servicemen entitled *The Fighting Gators*.

The University again entered into contracts to bring in troops for training. In February 1942, a first contingent of 750 enlisted men arrived. They lived in the dormitories, ate in the dining room, and attended classes with the dwindling number of civilian students. Large numbers of men were also trained at the University in the Administrative Officer's Candidate School. In addition, the Army Air Force established an Air Crew Training Program at the University."

In the University of Florida Oral History Project transcript [7], Mrs. Elizabeth Simpson recalled in 1977 that during the World War II time period, our own Head Professor, Dean Thomas Simpson, had been in charge of securing a sufficient number of mathematics instructors to cover the classes taught in these training programs. With faculty leaving to fight in the War as Proctor mentioned above, this was apparently not such an easy task. Mrs. Simpson recalls in [7] that

"they had to get anybody on campus who could teach any kind of mathematics. They would bring them into the program. I know Dean Norman of education taught mathematics—plane geometry."

President John Tigert served as president of the University of Florida from 1928, just a year after Kokomoor's arrival, until his retirement in 1947. Following an interim presidency of one month by the Dean of the College of Agriculture, Dean Harold Hume, Dr. J. Hillis Miller took over the presidency of the University and would serve from 1947 until his death in 1953. During his presidency, new dormitories for men students were constructed and the first dormitories for women students were constructed, Tigert Hall was constructed, the Century Tower was erected, the Presidential residence was constructed on its current site, and planning for a medical center was begun in 1950, to name just some of the projects begun during the Miller administration. After Miller's death, this complex would be named the J. Hillis Miller Health Sciences Center, in his honor. In [6, p. 40], Miller is described as

"... a strong willed man with an excellent sense of public relations. He was determined to bring national attention to the University of Florida. He realized that this would take both time and money, and Miller actively courted University alumni and members of the Legislature."

Here is Professor Kokomoor's impression of the Miller administration from [2].

Johnson:

"... It's been said that Florida gained a national reputation, at least reached a national prominence, as a school academically with the presidency of J. Hillis Miller. Of course, every president has contributed to the development of the University of Florida. What do you feel about that now with Dr. Miller? So much was done while he was here. From an academic standpoint, what do you think, as far as scholarship funds available, the organization of the college, the various departments? You have any ideas on that?"
Kokomoor:

"Well, it's my feeling that it is the flow of time and the circumstances that come about along with the flow of time that really produced these things. I think that J. Hillis Miller was a good president, but anybody else could have been a good president in that day too, because circumstances and conditions were ripe for the University of Florida to expand and develop. There were signs of that not only in Florida, but in other parts of the country too, but Florida especially was very obviously in the limelight because the state was beginning to develop in many different ways. And people were coming to Florida. And when you get people to come together in a certain place, one of the first things they think about is 'Do we have good schools?, Do we have a good university?' "

Johnson:

"Right."

Kokomoor:

"'Can our boys and girls and so forth get what they really need and want in this place?' It all worked together. And, so, I think that probably the time was right for some of these things. It was a little bit that way when I came. There was sort of a jump. Took place before I got here, and was in the process when I came here. It leveled off and then, it came to the time when we reorganized the lower division. And there came a new impetus, don't you see? We had a lot of people working mighty hard on how to build the lower division. And that bore some valuable fruit.

I think just about the time I retired — 1960 — a great change was taking place. I have seen tremendous changes here in the university just since I retired in 1960. And I think it's as I have said, it's the changing circumstances that bring these things about. Of course you could have leadership that would drag its feet, but I don't think we ever did have. You can have leadership sometimes that can do a whole lot to give an impetus, to speed it up. And I think we have had some of that. I think President Miller worked very hard on some of those things."

Even though the campus became co-educational in 1947, Mrs. Nancy Moore, who received her undergraduate degree in the June 1959 commencement, has recalled that even during the 1950's certain expectations were commonly held about the female students. During her first semester, Nancy found herself being the only female student in a section of accounting, and found the Professor was not encouraging in her pursuit of this subject area. Nancy recalls that as a general expectation of those times in

Florida, it was felt that girls who majored in arts and sciences would work as secretaries until they married. If need be, they could also take further work in education and then teach. Alternatively, majoring in education was a second generally encouraged career path in those times. Another anecdote from this period provides another illustration of how hard it was to break down all the traditional male bastions. There was something called the CI for College Inn on University Avenue across from the Boys Dormitories. It was a long tradition of the male students to stop off at this place for an ice cream cone. When several females dared to enter this male bastion, they were not refused service, but the men students in the CI at the time did not make the ladies feel at all welcome.

At the beginning of this chapter, we recalled that another side of Kokomoor's personality was his longstanding interest in the welfare of the student body, as manifested by his participation on campus committees concerned with religious issues. Not only was Kokomoor on the Committee for Student Religious Welfare, while that existed, he was also Chairman of the University of Florida Board of Directors for the Y.M.C.A. In this context, he was involved in the construction of the Florida Union building in 1936, which included space for the Y.M.C.A. on the second floor. This project had actually been begun with the help of William Jennings Bryan as statewide chairman of fund raising in 1923, before Kokomoor's arrival at the University, but the Florida land boom collapse just prior to the Great Depression, caused many donors to be unable to honor their pledges, so that the construction was delayed over a decade, cf. [6, p. 34, p. 36].

We have seen in Chapter 2, that in the beginning, daily chapel attendance as well as Sunday church attendance, was required and that participation of the student body in the Y.M.C.A. was strongly suggested in the 1911 University Record. As the student body grew larger and more diverse, it is apparent that strains developed from such a homogeneous regimen. Kokomoor discusses this aspect of the maturation of the University of Florida in [2].

Johnson:

"Right. There's quite a bit you had to do in the organization of the Department of Religion here. I believe you've mentioned some others. Dr. Philpott [Harry Philpott] and perhaps Dr. Scudder, is it?"

Kokomoor:

"Yes."

Johnson:

"Let's discuss that a bit. That's interesting. I know, of course, they have a department here, but I've never known the organization of it, how it got started."

Kokomoor:

"Well, this is how it got started. As I have written there on that, as I may have told you before, we had a YMCA. We called it the University of Florida YMCA. And it was housed on the campus. When I first came here, it was housed in a little old wooden building that had been sort of a mess hall for the World War I soldiers."

Johnson:

"World War II, I guess?"

Kokomoor:

"No, for World War I. Yeah. And it stood about where the old cafeteria ... Is there still a cafeteria in the snack place in the back of the this old Florida Union?"

Johnson:

"No sir."

Kokomoor:

"In the basement?"

Johnson:

"No sir, not to my knowledge."

Kokomoor:

"Well, there used to be."

Johnson:

"Not being used anyway."

Kokomoor:

"That's where the building stood and that was the headquarters for the University of Florida YMCA when I first came to the university. I found out very shortly after I was here that the University of Florida was under fire because there were people of different religious denominations. Some of them Christian, there were Jewish people and there were people of other religions from foreign countries who couldn't see why the university budget, why the state of Florida should furnish the money to support a Young Men's Christian Association?"

Johnson:

"There was contention in other words, from other religious sects?"

Kokomoor:

"Right, right."

Johnson:

"Because of the Christian aspect of the YMCA?"

Kokomoor:

"That's right. That's right. And so the university decided to ... Well, it was decided about that time just to abolish the University of Florida YMCA, but then we had absolutely no activity of any sort on the campus of the university. Different denominations had their headquarters out around the campus, but there was nothing to tie them together, nothing to probably steer them a little bit to help them to unify their work or anything of that sort. So it was felt there ought to be something that the university could do in that way. We didn't want to make any particular kind of a Christian out of anybody, but we did want to give them an understanding of the significance of the Christian way of life there because America was built upon that sort of thing. So, President Tigert [John J. Tigert] appointed a committee ³ to study the whole problem and make recommendations. I was chairman of that committee. I remember there were Dean Beatty [Robert C. Beatty] was one of the members of that committee."

Johnson:

"Dean Beatty was what? In Arts and Sciences?"

Kokomoor:

"Well, no. Dean Beatty was the associate director of the YMCA when I came here. And when the YMCA was discontinued, they made him assistant dean of students later on J. Wayne Reitz, who later became president of the university, was on that committee and John Maclachlan who was the head of the sociology department was on that committee. I remember a few others. Dean Leigh [Townes R. Leigh] who was dean of the College of Pharmacy at that time. Anyway, we studied the whole thing. We consulted with the best religious leaders all over the country. And got their ideas and studied to find out what was going on at other universities."

 $^{^3\}mathrm{ed.},$ around 1945

Johnson:

"What was Dr. Philpott's position at the time?" Dr. Harry Philpott?"

Kokomoor:

"Dr. Philpott was not here at the time. He had done his graduate work in Yale University Divinity School."

Johnson:

"I see."

Kokomoor:

"And he was very shortly after that looking for a job."

Johnson:

"I see."

Kokomoor:

"He was our second man that we brought here. And Dr. Scudder was also a Yale graduate. Different departments — one the philosophy, religion, and the other religious education and so on. But, we recommended a department, a department of religion, just like you'd have a department of mathematics. Not a department that would do evangelistic work or of any sort, but a department that would set up courses and tell what Buddhism was, and Confucianism was, and what Zoroastrianism was and what have you, as well as Christianity, Judaism, and all of those other things."

Johnson:

"You mentioned now that the contention from the other sects about the YMCA. Do you think this was a student-inspired department?"

Kokomoor:

"No, I don't think so at all."

Johnson:

"Do you think the faculty decided it was necessary for the students?"

Kokomoor:

"No, I don't think it was student inspired. I don't think it was initiated by students. I think it was initiated by a few people who are gunning for certain things, who are trying to find something wrong, and that was a good thing, too. They really had a point and we realized that they had a point. And so, I think that's what started it. Anyway, that's what started the Department of Religion. And I think our committee did practically all of the initial work and practically all of the spade work, too, in getting that department going."

Another interesting aspect of the publications of Dr. Kokomoor listed in Appendix C of Chapter 5 is that Kokomoor authored *Historical highlights of the Gaines*ville Kiwanis Club, 1923–1963, published in 1979. In the Oral History Transcript [2], Kokomoor gives an interesting account of the reason for his participation in the Kiwanis organization.

"... It especially appealed to me because my interest was more or less selfish, I would say. It gave me a chance to make contact with people from other religions, from the business concerns of the city. For instance, as a teacher of mathematics, or head of the mathematics department even, what contact would I make if I weren't interested in that sort of thing? What contact would I make with some businessmen who weren't particularly interested in what was going on in the Department of Mathematics? When we both hold membership in a civic club like the Kiwanis Club — I'm not talking about the Kiwanis Club as if it were the only one. There are other civic clubs can do the same thing and do the same thing you understand. But you get well acquainted with a cross-section of the leaders of the city. And that, I thought, was a very valuable thing."

The final aspect of [2] to consider is Kokomoor's discussion of his fifteen years service on the Board of Student Publications, with which the dedication of the 1939 issue of the *Seminole* Yearbook is connected.

Johnson:

"Right. Well, let's go back to one other extracurricular activity. You were involved in so much over the years. This period of fifteen years when you were chairman of the Board of Student Publications. I imagine it was quite interesting."

Kokomoor:

"Oh, yes. I spent many a long night with the Board of Student Publications.

Kokomoor:

"Back in our day, when I was chairman of the Board of Student Publications, every student paid a certain fee. Out of that fee, there was so much for The University of Florida *Seminole*, the yearbook. And there was so much for the student publications, of Student Publications. We kept it very closely budgeted, and within budget. When I took over, it was in deeply in debt and that was one of the orders that I had when I was appointed as chairman of the committee by the president.⁴ And he said,

'I want you to get that back on the solid financial standing,'

and we really had to fight to come out even on it, which we did, but made a lot of student enemies by having to do that. We did put out a yearbook that all students had paid for. And therefore, each student came around and got a yearbook. Every student could get his picture in it"

Kokomoor:

"... And so, we had on the Board of Student Publications back then ... three members of the faculty who usually voted, not counting the chairman, and three members of the student body."

.

Kokomoor:

"And you could have a split between the students on one side and faculty on the other side. And we often had some very hot debates and great disagreements and so forth. And some of the students got the idea that the students of the Board of Student Publications were on one side and the faculty on the Board of Student Publications were on the other side, which was never the case actually. But they publicized that, talked it over the campus and they got it to be believed. I had our secretary make a check back for I don't know how many years, in fact clear back to when I had begun as chairman of the Board of Student Publications, as to how faculty members voted and how student members voted on every issue that came up. We didn't find but one or two instances in which the students all voted one way and the faculty all voted one way and the chairman had to break the tie. Those were on little old silly questions as

⁴ed., Tigert

to whether we adjourn now or whether we stay until one o'clock in the morning to finish up the work or something like that."

Johnson:

"... So, other than a period of fifteen years, anything else besides yearbooks and *The Alligator*? What else was involved with this job?"

Kokomoor:

"Oh, little things that'd come up, you know. For instance, one time the president called me along about one o'clock or midnight, I guess it was. *The Alligator*, incidentally, came out once a week then and it was the full-sized thing."

Johnson:

"Just a regular newspaper then."

Kokomoor:

"Yeah. A regular newspaper size came out in the middle of the week, and I remember one time the president called me. This is just one incident. There were a lot of them like this, but somebody had told him that there was a certain article that was going to be published in *The Alligator* that was violently critical of the governor, and something the governor had done recently and maybe the legislature, too. And, of course, back in that day, the university was almost entirely dependent on the legislature for all the money that it had to operate with."

Johnson:

"What time are we speaking about now, sir?"

Kokomoor:

"We're speaking about 1927 when I first came here to I suppose, 1945 or so. All of these government grants and all of these grants by private foundations and so forth, there was very little of that that came the way of the University of Florida back in that day. So we had to depend upon the appropriation of the legislature for the money that we had to operate the university with. Well, Dr. Tigert called me and said that some legislator had told him that they were going to publish as we had a kind of a militant editor at that particular time, and, so I went down, dressed: I had been in bed. I dressed and went down to The Gainesville Sun office that published *The Alligator* at that time for us. Sat down and talked to this boy about this thing for an hour and a half, tried to point out to him that he was really doing the university more harm than good by publishing that. It would accomplish just the opposite because he had antagonized legislators and antagonized the governor, and maybe they would react in that sort of a way. It was a little hard for me to see that they would, but the president thought they would. And so, I went on home. He hadn't said

'I'm going to do it,'

or anything, but then when *The Alligator* came out, he hadn't published it. Things like that, you know, I ran into a whole lot of things like that."

Now let us turn our attention to some of the new faculty faces on the scenes during the 1950's that we have not discussed in Chapter 5. An interesting aspect of this decade for me, is that there were three faculty members at the University of Florida, who were all doctoral students of Professor Leonard M. Blumenthal, the leading light at the University of Missouri-Columbia [whom the writer, as a young assistant professor in the late 1970's, came to meet during Blumenthal's mellowed out retirement years. Interestingly, Blumenthal had a deep love for the Classics, just like our own Head Professor Simpson. In his heyday, Blumenthal would intimidate the younger men on the small Missouri faculty by reciting appropriate Greek and Latin quotations during faculty debates.] These professors, David Ellis, Theral Moore, and Jerry Gaddum, were not all at the University of Missouri, or on the staff at Florida, during the same time period, however.

During the time I was at the University of Missouri, from 1976–1987, the older staff members still recalled Ellis among the Blumenthal students for his brilliance. David Owen Ellis even stands out among the entries in the 1955 American Men of Science, for he is careful to list his general area of interest as "Modern Mathematics". rather than just "Mathematics" like everybody else. Ellis was born in Springfield, Missouri on November 9, 1925. He received the A.B. from the University of Missouri-Columbia in 1946, then had a teaching assistantship in the Chemistry Department at Missouri during 1945. He worked as an electrochemist at the Pratt and Whitney Corporation during 1946, then returned to Missouri with the rank of Assistant Instructor in the Department of Mathematics from 1946 - 1948 at which time he received the masters degree in mathematics. He held the rank of Instructor in the Mathematics Department and also held a Gregory Fellowship I was surprised to find that these graduate student fellowships went back such a long ways during 1949–1950 and in 1950 received the Ph.D. at Missouri. Ellis came to Florida as an Assistant Professor from 1950–1952, and was promoted to Associate Professor in 1952. He left Florida just before Theral Moore arrived, going to the Institute for Air Weapons Research with the title of Senior Mathematician and Consultant. Professor Ellis was rather

overweight, and apparently died of a heart attack at Clarkson University when informed that the building in which he was working was on fire, even though the fire was small and easily extinguished. [This was remembered by the old guard at Missouri as well as by Theral Moore.] It is interesting that corresponding to his description of general area of interest as "Modern Mathematics", Ellis lists as membership the Mathematical Society of France, and describes his research interests in [8] on a more detailed level as *lattice theory*, *distance geometry*, *general topology*, *abstract algebra*, *applications of Boolean algebra to digital computers*, *geometry of radiation therapy*. While here, Professor Ellis directed the doctoral dissertations of Randall Conkling, H. D. Sprinkle, Alfred Lehman, and Robert Bagley. In the *Mathematical Reviews Author Index*, 1940–1959, we find that Ellis has over thirty publications, including papers in the *Bulletin of the American Mathematical Society*, the *Quarterly Journal of Mathematics of Oxford*, the *Acta Mathematica*, and the *Duke Mathematics Journal*.

The second of the Blumenthal students, Dr. Theral Orvis Moore has been on the staff here since 1955 and is thus the only faculty member remaining from the Kokomoor Chairmanship who is still on the faculty. Moore was born in Emerson, Arkansas, and even has a grandmother who was born in President Clinton's home town of Hope, Arkansas. Moore first went to college in Magnolia, Arkansas, then received the B.A. from the University of Arkansas in 1949. He taught for a year in the high school ⁵ at Warren, Arkansas and thus had a keen interest in Sledd's memoirs of teaching at Arkadelphia], then returned to the University of Arkansas and took the masters degree in 1951. Moore did further graduate work in mathematics at the University of Missouri, receiving the Ph.D. in 1955. Theral has recalled for me that he had followed but never overlapped with David Ellis, first as a graduate student at Missouri, then as a young faculty member at Florida. Indeed, Dr. Kokomoor even assigned Moore to the same desk and chair which Ellis had used while he was on the staff here prior to Moore's arrival; accordingly, the desk chair was quite commodious. Moore recalls that the department hired three people that year, including Alton Butson who left for Miami University after four or so years. Moore talked with me about his recollections of looking for his first job in the mid-1950's. Money was apparently tight around the whole country, not just in Florida. At the University of Oklahoma, Moore was told that tenure track offers were not made without an interview, but that no funds were available for an interview. If he would come as a temporary assistant professor, then after one year, when he would obviously be available for an interview, he would be given a tenure track appointment. In connection with his application at the University of Alabama, Theral was surprised one day to receive a telephone call from a staff member of the University of Missouri Business School, an Alabama alumni, who

⁵Moore's teaching assignment consisted of eighth grade arithmetic, two business mathematics, two geometries, one second year algebra, and one period supervising a study hall.

explained that he had been contacted by the Chairman of the Alabama Mathematics Department and asked to interview Moore in connection with a possible tenure-track job at Alabama. At Florida, Moore suspects that because Ellis had preceded him at Missouri, then at Florida, that the Florida Department assessed Moore by questioning Ellis. Theral received only a telegram from Dr. Kokomoor promising a tenure track Assistant Professorship subject to funding approval. Not quite sure what to make of the definitiveness of such an offer, Dr. Moore consulted Professor W. Roy Utz, another one of the old guard at Missouri when I was there, and the Missouri faculty assured Theral that this was a genuine offer, so Moore came to the department in 1955 as we indicated above. We have earlier commented that Simpson and Kokomoor had the formal title of *Head Professor of Mathematics and Astronomy*. When Theral was considering joining the department, he went to the Library at the University of Missouri to consult the Florida catalogue. There he found, for example, that John T. Moore was listed with the title of Associate Professor of Mathematics and Astronomy. As reported in Chapter 5, Moore went back to his records to find out about what the teaching loads had been like here in the 1950's. He found that during his first semester, he had been teaching 17 hours, including the graduate topology course recall Dr. Kokomoor speaking of topology above in the University of Florida Oral History transcript [2]], a section of calculus, a section of basic mathematics (unified trigonometry, analytic geometry and calculus), and two sections of business mathematics. During this time period, Dr. Moore was asked to teach topology a good deal of the time, and this resulted in his writing a well known textbook *Elementary* General Topology, Prentice-Hall, 1964. An amusing Blumenthal story Theral told me is the following; during his early years at Florida, while teaching the 17 hours per semester, Theral received a letter from Professor Blumenthal, who taught a lot less than 17 hours per week, suggesting that Theral write up his dissertation results and that they publish this as a joint paper. Moore replied to Blumenthal that with his heavy teaching load and problems with eyesight, that he felt it would be more appropriate for Professor Blumenthal to write this work up for publication. Theral recalls also that Kokomoor's title as Head Professor of Mathematics and Astronomy was more than just a formality, in those times prior to the transferral of astronomy instruction to the Physics Department. Theral recalls that once something happened to the Astronomy Building and Kokomoor received a telephone call asking what he wanted done with the telescope mount in connection with this damage.

One custom of the 1950's and 1960's that Professors Moore, Sigmon, Nelson and our Ph.D. alumni Professor John Kenelly of Clemson have recalled for me is the famous beginning of the semester meeting at which the teaching schedule was given out. Apparently, then the Department Chairmen would just get the student enrollment figures on Friday or Saturday, then draw up the final teaching schedule at that time. On Sunday afternoon, there would be a faculty meeting with the graduate students also attending, and Dr. Kokomoor would give out the teaching assignments at that time, then the seminar times could also be easily arranged as everybody was on hand. Remember earlier in this chapter, we learned that Kokomoor had worked for several years at carpentry to earn money for college, and alumni press releases found in the Archives indicate that Kokomoor enjoyed doing carpentry around the home. Dr. Kenelly has recalled that Kokomoor designed some kind of metal board apparatus which he used in drawing up the teaching schedule during his chairmanship. In comparison, my colleagues at the University of Missouri have told me that even as late as 1975–1976, the academic year just prior to my arrival in 1976 as a fresh assistant professor, the longstanding custom had been to not give out the teaching assignments completely until the very first day of classes. My collaborator at Missouri, Professor John Beem, recalls being told as a new faculty member to come in very early on Monday morning to get his teaching assignment, in case he happened to be assigned an 8 o'clock class.

The third of the Missouri graduates, Dr. Jerry Gaddum, was the son of the Professor in charge of *Man in the Physical Sciences* in the University College. He also had President J. Wayne Reitz as his boy scout troop leader. Unfortunately, Dr. Gaddum died at the early age of 39 and his wife Maxine later had a memorial plaque erected to his memory which now stands in a little pedestrian garden beside Walker Hall, not far from Carleton Auditorium.

HERE IS LOVE, AND HERE IS TRUTH AND HERE IS ROOM FOR JOY AND LAUGHTER

> JERRY W. GADDUM 8-16-24 2-14-64

WITH GRATITUDE FOR HIS BRAVE LIFE OF INTELLIGENCE AND INTEGRITY.

Earlier in this chapter, we quoted Dr. Kokomoor describing how the Department of Mathematics came to introduce statistics courses on campus as we mentioned in Chapter 5. The 1963–1964 University Record reveals that since 1954, there had been a Southern Regional Graduate Summer Session in Statistics which rotated among the University of Florida, North Carolina State College, Virginia Polytechnic Institute, and Oklahoma State University. Obviously, at a land grant state university which is also an agricultural experiment station, there are statisticians. But, in fact, we learn in the 1963–1964 Record that prior to this academic year, there has been no separate Department of Statistics major at the University of Florida, however, a Department of Statistics program with its own curriculum was being formulated, in the College of Agriculture. On the other hand, as I have mentioned in Chapter 5, we have a complete collection of all of the Ph.D. and masters theses written by our graduates and the Ph.D. students are even required to provide a biographical sketch with their thesis. Thus we learn the following about Dr. Ernest Lytle, who received his Ph.D. in 1956 with advisor Professor H. A. Meyer and thesis title *The Determination of Some Distributions for Which the Midrange is an Efficient Estimator of the Mean*, this title itself a certain proof that graduate statistics existed in our department in the mid-50's:

Ernest James Lytle, Jr., was born on June 28, 1913 at East Lake, Florida. He graduated from Ocala High School in 1930 and entered the University of Florida where he held the Competitive State Senatorial Scholarship for four years. His activities included campus politics, captaincy of the southeastern conference championship swimming team, monitorship in Thomas Hall and advanced ROTC. His undergraduate studies were in mathematics and economics, for which he received the B.S. degree with honors in 1935. He received his M.A. degree in the same fields in 1940. He served in the Army Coast Guard Artillery from 1941 to 1945 and returned to active service in 1950, serving in Korea. He was returned to inactive status in 1952, where he presently holds a Major's commission in the Adjutant General's Corps.

He has been a teacher and principal in the Marion County high schools and for two years was assistant in research at the Statistical Laboratory of the University of Florida, where he concentrated on research in the Monte Carlo method. At present he is instructor in the mathematics department of the University of Florida. He was elected to Kappa Delta Pi (education), Kappa Phi Kappa (education) and Florida Blue Key (leadership) fraternities.

Now if this doesn't seem to indicate the existence of a Statistics Laboratory in our Department in the 1950's, I don't know what else would. On the other hand, when I talked with people who had been here during that time, like Dr. John Kenelly of Clemson and Dr. Richard Yates, now retired to Colorado, or asked several current Professors in the Department of Statistics whom I know, or even asked Professor Samuel Proctor, the resident expert in University of Florida History, none of them had any recollection of a Statistics Laboratory either in Walker Hall, or anyplace else on campus. This Lab is also never mentioned in any of the catalogues of this time period. When I wrote to Dr. Lytle, who is on the *Walker Hall Review* active mailing list, I learnt from Mrs. Lytle that unfortunately, Dr. Lytle had died in 1988, and thus would be unable to help me to obtain information about this facility. However, Mrs. Lytle passed on the material I had sent Dr. Lytle, to one of his sons, Dr. Steven Lytle, who happens to be an Associate Professor of Health Sciences at the University of Central Florida specializing in computers and their application to the health care industry. Dr. Lytle and I had several exchanges of correspondence by e-mail. Here is his e-mail message of April 30, 1994:

"I was born in Gainesville in 1951 at AG Hospital. We lived there until 1956 when we moved to New York for a year. My Dad took a job at IBM right after he finished his Ph.D. I am a 5th generation Floridian and my parents were both Floridians too. We must have been like the Beverly Hillbillys moving to NY State! We moved back to Gainesville after one year. I remember the Stat lab very clearly. I don't know what it was called officially. It was located in one of those temporary type buildings that become so permanent on university campuses. It was next door to a sink hole, I remember that very clearly. My Mother would drive me there almost every afternoon to pick up my Dad from work. Usually, we were early, and I would throw rocks in the pond or we would go inside and I would play with IBM cards. The cards had stripes on the tops and came in all colors. I am to this day known as an authority on computers and information systems in the health care industry. I guess it rubbed off. I understand, but don't know if its true, that the Stat lab was really the precursor to what we think of today as the regional data centers, such as NERDC."

So the puzzle is resolved by the fact that the Statistical Laboratory was not in Walker Hall at all, but was rather in a group of temporary buildings, no longer standing, close to the sinkhole which is named *Dairy Pond* on the campus map, now between McCarthy and the Marston Science Library. Later in the spring semester, Professor Kermit Sigmon recalled for me that when he came to Florida in 1963 as a graduate student and up until 1986 when the Marston Science Library was opened, that the mathematics books were scattered all around the campus, with the statistics material, especially, being contained in a library in the Agricultural Building, McCarthy Hall. Finally, when I was chatting with Professor Charles Nelson in early June of 1994 about the olden times (he joined the staff in 1966), I tried a shot in the dark and asked Chuck if he remembered the Statistical Laboratory. Well, I finally found a current faculty member who recalled seeing this facility and who could indeed confirm Steve Lytle's memory that it had been in a temporary building by the Dairy Pond sinkhole. So, this definitely established the involvement of our own department, prior to the formation of the modern Department of Statistics at the University of Florida in 1965, not only in offering graduate courses in Statistics, but also in operating some sort of a campuswide consulting facility in Statistics. Another piece of evidence for the existence of this facility, although not its location, over the course of several decades, came earlier in April when during a long and tedious faculty meeting in the Walker Hall Lounge, my attention wandered from the topic at hand, and in so doing, I looked in the book case next to my chair and to my pleasant surprise, discovered that the department possesses a copy in the Walker Hall Lounge Library of the 1955 American Men of Science.⁶ This reference contains the following entry for Dr. Herbert Albert Meyer. His broad area of interest is listed as Mathematical Statistics. He was born in Lamont, Iowa on November 4, 1905. He received the B.S. at Des Moines in 1926, which might perhaps now be called Drake University. He then went to the University of Iowa and received the M.S. in 1927 and the Ph.D. in 1929 in the Department of Mathematics. During 1927–1928 he held the rank of Fellow in the Department of Mathematics at Iowa. After receiving his Ph.D., Dr. Meyer served as Professor of Mathematics at Hanover College from 1929–1943. Then during World War II days, he moved to the University of Indiana, with the title of Acting Professor, Army Specialized Training Program. In 1946, Professor Meyer came to the University of Florida and lists his title as Professor and Director of Statistics Laboratory. He lists his research interests as actuarial mathematics and probability. During his time on the faculty, he directed 10 masters theses and the doctoral dissertations of Landis S. Gephart, Ernest G. Lytle, and Francis G. Hatfield. I have spoken with Professors Ronald Randles and Richard Schouffer of the Department of Statistics on campus, and those professors inform me that Dr. Meyer had a fine reputation within statistical circles for his work. During the academic year 1954–1955, Professor Meyer was President of the University of Florida Chapter of the scientific honorary society Sigma Xi.

Also involved in the Statistics graduate education was a second faculty member of our department, Professor Dudley Eugene South. South was born in Creston, Ohio on August 31, 1900. He received the A.B. at the College of Wooster in 1922, then served as an Instructor of Mathematics at this college from 1922–1924. South was at the University of Kentucky with the rank of Instructor from 1924–1928. During this same time period, he also received the masters degree from the University of Michigan in 1927, then held the rank of Assistant Professor at Kentucky, while he must have done further graduate study during the summers; recall we have mentioned this method of advancement in Chapter 5. For South received his Ph.D. in Mathematics from the University of Michigan in 1939 and then was promoted to Associate Professor at Kentucky in 1939 and to the rank of Professor in 1943. During the academic year 1942–1943, Professor South visited the Florida State College for Women in Tallahassee (now F.S.U.), and left Kentucky for our department in 1952. During the 1950's, South supervised 10 masters theses in our department.

A second area of applicable mathematics in the Department during this time

⁶This was extremely helpful to me since none of these references of that vintage are contained on campus except at the Medical School Library. The oldest thing shelved in the public access area of Smathers Library is a 1986 Who's Who in America, for example.

period was the theory of elasticity. Here we had Professor Charles Basel Smith, who was so secretive about his first name, that none of the Ph.D. recipients I have corresponded with or spoken to had any idea that Professor Basel Smith's given first name was Charles. Unfortunately, C. Bassel Smith was apparently not inclined to fill out questionnaires from publishers, so we do not have any entry for him in the 1955 *American Men of Science*. From the University Catalogues, we learn that Prof. Smith joined the Department in 1946 with the rank of Associate Professor and had received the Ph.D. from Wisconsin. However, we also find C. Basel Smith on the Master's Degree List as our tenth masters student in 1935 with Dr. Thomas Simpson as supervisor and title A Study of Non-analytic Functions. Now the masters candidates are not required to bind a bibliographical sketch in with the departmental copy of their theses, but by chance, Basel Smith is the exception to the rule, so we gain the following early information about him, but about none of the other masters graduates.

"Biographical Sketch

The writer was born in Marlinton, West Virginia, on November 21, 1911. He attended an elementary school in Fort Pierce, Florida, to which he moved in November, 1916. He was graduated from Fort Pierce High School in 1928.

The undergraduate studies of the writer were pursued in the College of Education of the University of Florida, and he received his Bachelor of Science in Education degree in June, 1935.

Graduate studies were taken at the University of Florida from 1933 to 1935 in two winter sessions.

While an undergraduate the writer was a member of Phi Eta Sigma, freshman scholastic fraternity, Kappa Delta Pi, honorary Education fraternity, and Phi Kappa Phi, scholastic fraternity."

Now this sketch suggested investigating something which a graduate of the University of Illinois in 1941 with the B.A. in mathematics (and several years later the Masters) had told me; during the Great Depression, the male students with interests in mathematics at the University of Illinois tended to major in secondary education since they could get jobs as high school teachers, thus the small group of mathematics majors at Illinois consisted primarily of female students, [9]. I had hoped to check this at the University of Florida by reading the other biographical sketches of our masters graduates from the 1930's, but was thwarted in this aim since only Dr. Smith had provided us with this sketch in the departmental copy of his masters thesis.

The first doctoral dissertation awarded in our department, is to Alvin Jewel Owens in June, 1950 with supervisor C. Basel Smith and dissertation title, *Effect of a Rigid* Elliptic Disk on the Stress Distribution in an Orthotropic Plate. Consultation of this thesis reveals that the mathematics which Smith was studying concerned questions which actually arose when one studied the mathematics of sawing tree trunks in order to make lumber boards. This thesis also reveals that in those times, there was an institute in Madison, Wisconsin, the United States Forest Products Laboratory, which studied mathematical and physical questions which arose in sawing trees to make lumber, and that Dr. Smith had done work this institute. For one of the references in Owens' thesis is

"C. B. Smith, Effect of Elliptic or Circular Holes on the Stress Distribution in Plates of Wood or Plywood Considered as Orthotropic Materials, Madison, Wisconsin: United States Forest Products Laboratory, Report No. 1510, 1944."

Fortunately, when Dr. and Mrs. Owens showed up on campus on December 29, 1995 after not having been in Gainesville since 1951, Ayla Anthony in the Mathematics Office directed them to my door, Little 414, and I happened to be one of the few people working in Little Hall that day, so close to the New Years Holiday. The Owens wondered what had become of the faculty they had known in the late 1940's, especially C. Basel Smith and Herbert Meyer. Thanks to my having already worked several years on the historical project, I was able to tell them even more than is written in this book. Both Owens had taken some educational work in Iowa, as had Professor Herbert Meyer, so they recall the Meyers being very helpful in their settling into life in Gainesville. The Biographical Sketch in Owens' thesis reveals the following:

"The author was born September 26, 1918 at Campbell, Missouri. In 1936 he was graduated from Central High School, Cape Girardeau, Missouri. He was graduated in 1940 from Southeast Missouri State College with the degree of Bachelor of Arts. He attended the banquet given for the ten highest ranking freshmen and also the banquets for the upper five per cent of the Junior and Senior classes given by the American Association of University Professors. Upon graduation, he received an appointment as a graduate assistant, Department of Physics, State University of Iowa. The degree of Master of Science was conferred in June 1942. He then accepted a position at the Burnside Laboratory of E. I. du Pont de Nemours, Inc. He joined the Navy in 1943, and was graduated from the Naval Aerial Navigation School, Coral Gables, Florida. He was an instructor and later served a year and a half in the Pacific, and was promoted to the rank of lieutenant. After the war, he returned to study at the State University of Iowa. In 1948 he was initiated into the Iowa Chapter of the Society of the Sigma Xi as an associate member. In the fall of 1948, he transferred to the University of Florida. He held a Graduate Fellowship for the year 1949–1950. He is a member of the Mathematical Association of America and the American Mathematical Society."

Dr. Owens recalled playing tennis with his advisor. After one year in an off-campus appartment, the Owens were able to move to the Flavet (= Florida Veteran) Village, which was helpful since these were fairly inexpensive (maybe \$29 per month?). Owen's office was probably in one of the temporary buildings, but he recalls the departmental office, and Kokomoor's office as being in Peabody. Of course, Dean Simpson was in Language Hall (now Anderson) in those times. Owens recalls Benton Hall (torn down to make way for Grinter) as being a little dilapidated. Since Mrs. Owens had her degree in Chemistry, she was able to work at the agricultural experiment station while they were in Gainesville. The Owens' offer in our department included a smaller teaching load than that which he had at Iowa and also a much greater salary.

The year 1950 marked a transitional time in our institution. The Owens were very fond of Gainesville. On graduation, Kokomoor told Owens that he would like to have him join the faculty, but told Owens to write for other offers so that he could offer him an appropriate salary. Soon Owens had an offer from Alabama Polytechnic (now Auburn). He came back to Kokomoor with the news. Kokomoor said,

"All right, come back to the office by noon, I will have an offer for you."

Owens came back at noon, but Kokomoor was not there. Owens spoke with the secretary, who telephoned Kokomoor, then told Owens to go back to his office and await a telephone call from Kokomoor in a little while. Finally at 5:00 p.m., Kokomoor called Owens, and told him that Dean Simpson and he had spent all day in the office of a new Vice-President who was determined not to hire any of our own doctorates. Even though Owens had taken his bachelors and masters in Missouri and Iowa, then had military experience from World War II, Simpson and Kokomoor could not budge the Vice-President. The absolute power of the chairman had slipped a notch, and Owens found himself going to Auburn instead of remaining in Gainesville.

A bit later, Owens found himself at the University of Missouri - Rolla. After a year, dissatisfied with the academic salary level, Owens went to work for General Dynamics in San Diego. Later, he and several others founded their own company, which was later sold. Now he is engaged in Owens Associates, still located in San Diego.

During the time period of 1948 through 1966, Professor Smith supervised 13 masters theses and 12 doctoral theses, including that of Robert Blake, who was also on our staff during the Kokomoor years. Dr. John Kenelly had Prof. Smith as his instructor in complex variables and Dr. Mary Neff, who worked under Prof. David Ellis, but then had Prof. Blake as dissertation supervisor after Ellis left Florida, recalls studying elasticity theory and tensor analysis from Professor Smith.

Professor Jane M. Day, now Professor of Mathematics at San Jose State University received the M.A. degree in January, 1961 with Professor Smith as supervisor and title A Study of the Location of the Zeroes of Certain Complex Polynomials With An Application. Professor Day sent me the following recollections of Smith in an e-mail message of August 24, 1994:

"C. B. Smith was my Masters thesis adviser. I had taken several courses from him and thought he was an excellent teacher. He collected homework every day and graded it himself. He was the first college math instructor I'd had who did that, and the first one for whom I worked regularly! I am still very appreciative of the discipline he instilled in me, and my teaching style has always included collecting some HW regularly and grading it myself."

Fortunately, our twelfth doctoral graduate, Dr. Emmet Low, who received his degree in June 1953 with supervisor Professor C. Basel Smith and title, *Vertical Loading on a Straight Boundary of an Orthotropic Plate* wrote me a long letter dated June 20, 1994 which provides a personal glimpse of C. B. Smith.

"I must say the mathematical background I brought from Stetson was weak and I became discouraged with trying to do the level of work expected. I was in Basel Smith's Complex Variables and Theory of Elasticity. The first was fairly easy, but the Theory of Elasticity was populated with several doctoral students, several faculty, and one master's student me — and I felt over my head. We were using some things I had never heard of and I felt lost sometimes. We rotated the presentations of sections and, as the junior member of the group, I felt uncomfortable making my presentations to persons much further along than I was. When I wanted to drop it, Dr. Smith gave me some good support and encouragement and I had no real trouble with it.

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... Dr. Smith was one of the best professor I ever had. He was well organized and gave beautiful lectures. I believe he had taken his Ph.D. at Wisconsin and had worked for the U.S. Forest Products Laboratory in Wisconsin prior to coming back to Florida and continued to do research for them and the Office of Naval Research. I remember coming into his office one day and he was very excited. Using the mathematics associated with the theory of elasticity, he had just developed a way to make plywood with an increased shear strength over regular plywood. I note that all commercial plywood is made with an odd number of layers placed at right angles alternately to accommodate possible warpage due to moisture content changes. His method used an even number of laminations placed at predetermined angles, but not at right angles. One of its potential uses was in the building of hulls of mine sweepers which could have no ferrous metals in them.

Dr. Smith had a lovely wife, a son and a daughter and was a devoted husband and father. I remember his telling me about his years as a student at the University where he was a champion tennis player. When I was involved with passing the German and French language proficiency tests, he told me about his dating a girl who was a German major while he was studying to pass his German tests. He laughingly noted that the relationship did not last long after he passed the tests."

A second faculty member in the elasticity theory group was Robert Blake. Now Blake received the 15th masters degree from our department in May, 1945 with supervisor Professor Cecil Phipps and topic *Circular Arrangements* and the 9th Ph.D. from our department in January, 1953 with supervisor Professor C. Basel Smith and topic *The Solution of Certain Problems of Plane Strain in Laminated Orthotropic Structures by Means of Polynomials*. Blake's Biographical Note in his thesis reads as follows:

"Robert George Blake was born in Cornell, Illinois, on May 4, 1906. He is the son of Fred and Ethel Hunt Blake. He graduated from Cornell High School in 1924 and received a Junior College Diploma from Illinois State Normal University in 1926. He has received from the University of Florida the degrees of Bachelor of Arts in Education in 1938 and Master of Arts in 1945. He is a member of Phi Kappa Phi. He has taught in the public schools of Livingston County, Illinois, and of Leon, Hernando, Alachua, and Lake Counties in Florida. He came to the University of Florida in 1943 as Instructor of Mathematics, War Training Program, and was promoted to the rank of Assistant Professor of Mathematics in 1949. In 1929 he married Genevieve Grelle of Brooksville, Florida. They have one daughter, Nancy."

Blake's entry in the 1955 American Men of Science re-emphasizes his long teaching career in the public schools of Florida — this was from 1926 until 1943, when Theral Moore recalls as these documents indicate, that Blake came here during World War II to teach in the armed forces instructional program run by Dean Simpson as discussed earlier in this chapter. Moore recalls Blake telling him that Blake taught in Brooksville and Tallahassee in Florida. For a time, Blake and Moore were office mates in Walker Hall.

A third faculty member in Applied Mathematics on the staff during the Kokomoor chairmanship, who happens also to be listed in the 1955 American Men of Science, is Professor Florence Virginia Rohde. It is interesting that our current faculty member Professor Jed Keesling went to junior high school in Gainesville, while his father was on the engineering faculty, and Jed recalls meeting Dr. Virginia Rohde at a church which he attended at the time and hearing her play the violin during church services. Rohde was born in Davenport, Iowa on May 15, 1918. She received the A.B. from Iowa State Teachers College in 1939, then the M.M. in Music from Rochester in 1940. She taught public school in Iowa from 1940-1942, then went to the University of Miami in Ohio, receiving the A.M. in 1945. After that she taught at Ohio State as an assistant in mathematics during the academic year 1945-1946. Rohde then went to the University of Kentucky with the rank of Instructor in Mathematics and Astronomy and received the Ph.D. there in 1950. Rohde came to Florida in 1950 with the rank of Instructor in 1952 and was promoted to Assistant Professor in 1952. Keesling recalls that Rohde taught a course in astronomy while in our department. She is currently an emeritus professor at Mississippi State. In the 1955 American Men of Science, she listed her research interests as engineering mathematics, deflection of beams, elasticity.

Professor Robert Meacham was another member of the Department of Mathematics during the Kokomoor chairmanship who specialized in Applied Mathematics. Meacham was born in Moultrie, Georgia on May 1, 1920. He attended Southwestern College in Memphis (now Rhodes College), receiving the B.S. in 1943, according to the 1955 *American Men of Science*. He was in the U. S. Navy during World War II, serving as a radar, torpedo, and gunnery officer on a submarine in the Pacific. In January, 1946, Meacham entered Brown University and received the Sc. M. in 1948 and the Ph.D. in 1949 in Applied Mathematics. He then went to Carnegie Institute of Technology (now Carnegie-Mellon University) where he held the rank of Instructor during 1949-50 and the rank of Assistant Professor during 1950-54. By the spring of 1954, the Meachams had decided to return to the South. Professor Meacham has written me the following in an e-mail messsage of Sept. 2, 1995 concerning his decision to leave Carnegie Tech:

"The Dean at Carnegie Tech proceeded to hire a math department chairman without involving members of the department. The new chairman was Walter Leighton, who, at the time, was in charge of the mathematics section at OSRD (an Air Force research group). Six or seven mathematicians left Carnegie Tech within the next two years after Leighton came on the scene. The others had worked with Leighton before and did not want to stay at C.I.T. with him in charge. I did not know Leighton myself, but this seemed to be a good time to leave C.I.T. since we had already decided to come back South.

Katherine and I were delighted to receive Kokomoor's offer to come to the University of Florida. We continued to be very happy there."

In this same e-mail message, Meacham, a Presbyterian, described his decision to leave the University of Florida and relocate at Florida Presbyterian College as the founding member of the department of Mathematics at that new institution:

In August 1959 I was invited to come to St. Petersburg to participate in a curriculum conference at this new college. Dean John M. Bevan asked me to set up the mathematics program. He had already invited me to be the founding professor of mathematics, but I declined. At the curriculum conference I met the others who had signed on as founding faculty. The program we set up was so exciting that we agreed in August 59 to join the others a year later, when the founding freshman class would arrive.

Consequently the entire year 59-60 was my last year at U. Fla...."

Dr. Meacham would serve for the next thirty years as chair of that department at Florida Presbyterian (now Eckerd College) in St. Petersburg, until his retirement in 1990.

Because of his background in Applied Mathematics, Dr. Meacham was also able to help our faculty with consulting work at Patrick Air Force Base during his years at the University of Florida. He wrote the following to me in an e-mail message of September 4, 1995:

One of my contributions to the department was to help about five professors to get summer or longer jobs at the rocket program at Patrick Air Force Base. A former graduate student of mine at Carnegie Tech contacted me about working for the Mathematical Services department of RCA Service Co. I signed on as a consultant, beginning in June 1957. I put my friend in touch with Andrew Sobczyk, Gaines Lang, Al Butson, and Robert Ackerson. (Ackerson went with RCA Service Co. after two summers, and so he was not involved in the grousing about things at U. Fla. in 1959-60.)"

Professor Jed Keesling had mentioned Professor Andrew Sobczyk to me as a faculty member from the Kokomoor era, but Sobczyk did not bother with an entry in the 1955 *American Men of Science*. Thus apart from the letter from our Ph.D graduate Dr. Jan Andrus quoted later on in this chapter, I had no specific information about Sobczyk: "I regarded Andy as about the most stimulating member of the mathematics department. Nearly every year he led us in a faculty seminar on one topic or another. He was more widely known than any other professor. I believe that he stayed one year after Maxfield was appointed chairman. Andy arranged things that year so that he commuted between Gainesville and Miami, teaching courses at the University of Miami on Tuesday, Wednesday, and Thursday, and teaching on Friday and Monday at the University of Florida. After that year, I believe, he accepted an appointment at Clemson University."

Another senior faculty member who was recruited to Florida in 1948 and produced a number of masters and doctoral students during this time period, was Professor William Robert Hutcherson. He was born in Glassgow, Kentucky on December 20, 1898 and received the A.B. degree from the University of Kentucky in 1922 and the A.M. from this institution in 1924. Then Hutcherson followed the same career path that we have encountered previously, taking further graduate work during the summers at Chicago during 1925–1927 and in 1929. During this time period, Hutcherson was on the faculty at Berea College. Like Kokomoor, Hutcherson was interested in Methodist church work, himself serving as a lay Methodist minister. Hutcherson first served as head, department of the junior high school at Berea from 1924–1926, then from 1926 - 1928, he had the title of associate professor of physics, astronomy and mathematics at Berea. Then from 1928 - 1948, he was simply in the mathematics department, serving as Professor and Head of this department from 1929–1948. During this time period, Hutcherson was able to study at Cornell University as a Fellow in 1930–1931, receiving his Ph.D. in 1931. In the 1955 American Men of Science, he describes his research area as *involution in algebraic geometry*, which correlates well with the titles of his research articles. His 1960 Ph.D. student Dr. John Kenelly has described this area in more up-to-date terms as geometry. [Kenelly's thesis title is AnInvolution of Period Seventeen.] In 1942, Hutcherson secured an appointment as a University and U. S. Government Fellow at Brown University. He finally left Berea College in 1948, apparently serving as an Acting Associate Professor at Florida and then spending a year at Northwestern State College in Louisiana with the rank of Professor, then returning to Florida in 1949 with the rank of Professor. Professor Kenelly recalled the following anecdote about his advisor in an e-mail message of April 13, 1994 :

"Another story about Hutcherson. He took me to Michigan State to the summer AMS meeting to present my first geometry paper. (and be introduced to all his geometry colleagues—several which resulted in potential jobs for me) There was a fragmented nation wide train strike while we were there and we had to return in bits and pieces from Michigan to Florida. There were numerous interruptions and overnight stops in the Midwest and KY and TN. Everywhere we went, Hutcherson had relatives and we were picked up, hosted, fed, and housed at almost every stop along the way."

While we are dealing with Professor Kenelly's recollections, we will jump ahead of ourselves a bit in the order of this chapter, and tell about the *bull pen* in Walker Hall for the graduate students, as Kenelly insisted that I do. Professor Kermit Sigmon also recalls this facility still being in use when he was a graduate student beginning in 1963. Prior to the renovation of Walker Hall in the early 1970's, a large room was on the third floor where now Walker Hall Rooms 301, 302 and 303 are located. Wooden desks were placed around the outer wall and grouped in the middle of the room. Now in those times, the primary teaching assignment of the graduate students was teaching the Comprehensive Mathematics C-42 course using in the 1950's the Kokomoor text Mathematics in Human Affairs mentioned earlier in this chapter. Since the Lower Division had a Board of Examiners which did all the testing [apart from weekly quizzes], the graduate students had no responsibility in assigning final grades for the course. Thus this room was simply a place where the C-42 students came for help with this core course in the Lower Division. Hence, not much productive work could be done in the room, and Kenelly recalls that the graduate students used to meet in the union for burgers and fries and to talk about mathematics. An amusing aspect of this bull pen was that given the large number of instructors per desk, that each student just had the use of one of the desk drawers, with the most senior student on each desk having the use of the large middle drawer. Another recollection Kenelly related was that in those days, the Graduate Students were required to attend the Colloquium series. Since Kokomoor and Hutcherson were ministers, and Edwin Hadlock was an Elder of the First Presbyterian Church, the graduate students used to call the front row where the senior faculty sat for these Colloquia, the *Deacon's Row*. A final story that Kenelly told me, indicates as Theral Moore agreed, that during the Simpson, Kokomoor and Maxfield eras, that no matter how nice a person the Chairman was, a certain level of power, rather than a consensual management style, was assumed. Kenelly recalls the following incident in his own graduate student days concerning Professor Kokomoor and himself. Professor Kokomoor somehow indicated that he wanted to speak with Kenelly, then asked Kenelly if he would like to accept a certain teaching assignment with the rank of Interim Instructor accompanying this teaching assignment. Apparently, Kenelly was not sure that he wished to take on this teaching obligation. Then Kokomoor asked him,

"You wish to graduate from this department, don't you?"

and repeated the question, as to whether Kenelly wished to become an Interim In-

structor and teach this particular course. This time Kenelly understood that it behooved him to accept the assignment with alacrity.

Now we turn to the specialist in mathematics education in the department during the Kokomoor years, William Atkins Gager. He was born in Cold Springs, Pennsylvania on December 23, 1897. He received a B.S. in 1919 from Pennsylvania State College, then was an Instructor in Civil Engineering and Experimental Engineering at this same institution from 1919–1923, receiving the M.S. in 1923. Gager served as a Sanitary Engineer for the Johnstown Water Company in Pennsylvania from 1923– 1926. He came to Florida and served as a high school teacher from 1926 - 1927, then as the Head of the Mathematics Department at St. Petersburg Junior College from 1927–1942. He received the Ph.D. in mathematics in 1940 from Peabody College. He held the rank of Associate Professor at the University of Florida from 1942–1949. and the rank of Professor after 1949. Gager was involved with the Air Forces and Army Specialized Training Division on campus from 1943–1945. He served as the Associate Editor of the journal Math Teacher from 1950-1953 and as the Editor of the journal Math at Work from 1948-1952. During the summers of 1948 and 1949, Professor Gager attended a summer institute at Duke University under the direction of Professor W. Rankin of the Duke Department of Mathematics. Following up on this workshop, Gager prepared a series of

"25 lectures on the use of mathematics in large industries, of interest to teachers."

He also wrote with Professor Kokomoor and others, for the State Department of Education in Tallahassee, curricular materials for grades seven through twelve, entitled *Functional Mathematics*. The aim of this series was to

"pull out of compartmentalized courses being taught in high schools all the concepts necessary for effective living in a mechanical age"

and to

"add topics more closely related to personal finance, consumer education, and responsible citizenship."

In the 1955 American Men of Science, Gager lists his scientific interests as mathematical needs of junior colleges, revisions of secondary mathematics curriculum; sanitary engineering; mathematics essentials for the war effort; functional mathematics.

Another interesting personality in the Gainesville Mathematics Department during the 1950's was Dr. Russell Walter Cowan, a specialist in ordinary differential equations. He was born in Oakland, California on February 26, 1912. He received the A.B. from the University of California at Berkeley in 1932, the M.A. in 1933, and the Ph.D. in 1935. He served as an Instructor of Mathematics and Astronomy at the College of St. Scholastica from 1935-1938. He then was Instructor, later Assistant Professor at the University of Alabama from 1938-1947, and came to the University of Florida with the rank of Associate Professor in 1947. He lists his research interests in the 1955 American Men of Science as Analysis; differential equations; difference equations; solutions of a linear difference equation of the second order with quadratic coefficients.

Professor Cowan supervised five Ph.D. theses between 1956 and 1962. Professor Theral Moore recalls that Cowan's differential equations courses were popular with the graduate students, because he dotted every i and left nothing to the imagination. As an aspect of such a precise personality, Professor Cowan liked to see things arranged in certain orderly fashions. During a certain time, the mail boxes in Walker Hall were accessed from inside the departmental office instead of from the hall corridor as today. Apparently, Cowan believed very strongly that the fluorescent light fixture of this mail room should be extinguished upon leaving this room, and would always turn it off if he found it left on. To foil him, some fellow faculty members or graduate students with a sense of humor left the lights on and the string hidden on top of the ceiling light fixture. That did not faze Professor Cowan in the slightest, I am told. He would get a yardstick and fish the string down from the top of the light fixture, then turn out the light.

There is a second legendary story that several people have related to me about a faculty member from this time period throwing a desk chair through the window of a Walker Hall third floor class room, when his ire was provoked by undergraduates nailing the windows shut so that this professor could not open them to cool the room down during the depths of winter to what he regarded as the correct temperature for his class room, but a temperature which the students apparently found to be freezing. Sources tell me that the real incidence which gave rise to these legends was somewhat milder. One time when the desks and chairs in this classroom were not arranged in a sufficiently orderly fashion, this faculty member corrected this, throwing them about in his anger and may have hit a female student with a desk by mistake. Another time, when the blinds were not properly adjusted, apparently this faculty member's attempts to correctly adjust them resulted in their being thrown out the window; this incident seems to have given rise to the legendary *chair out the window* story.

Theral Moore and Gould Sadler have recalled another little Kokomoor story about one of the mathematics instructors who was here between 1955 and 1960. This individual kept missing his Friday class, getting someone else to teach it for him, and boarding a bus after 12:00 every Friday to leave town presumably for the weekend. After Kokomoor learnt of this practice and it was not stopping, he personally went down to the bus station to tell this instructor that he had better get off the bus and go teach his class or he would not have a position any longer. During the 1950's and 1960's, it was common at Florida as elsewhere around the country for graduate students to hold the rank of Interim Instructor or Instructor if they had shown promise while earning their master's degrees and were working on their Ph.D. Here are some vitas about some of our younger instructors who taught in our department and who received their Ph.D. during the Kokomoor Chairmanship, and who happened to be listed in the 1955 American Men of Science.

Swend Theodore Gormsen was born in Denmark on February 24, 1909. He received the B.A. from Ohio State in 1935, then taught in Blasdell High School in New York from 1935–1937, in Liberty High School from 1937–1940, then in Lakewood High School in Ohio from 1940–1943. Gormsen served in the U. S. Naval Reserve from 1943–1946 emerging with the rank of lieutenant commander. During the academic year 1946–1947, Gormsen was an Instructor in mathematics at Syracuse University. Then he came to the University of Florida with the rank of Assistant Professor in 1947 and held that rank until 1954. He received the M.S. in 1949 according to the University Card Catalogue with a thesis title *Some Applications of Mathematics to Electrical Engineering*, Mathematics thesis, M.S., even though he is not on our list of masters candidates. While continuing his teaching, he did doctoral work with Professor Hutcherson and received the Ph.D. in 1954. Dr. Gormsen then became a Professor at Rollins College in 1954.

James Crutchfield Morelock was born in Martin, Tennessee on February 7, 1920 and received his B.S. from Memphis State in 1941. He served in the armed forces from 1941–1946, then went to the University of Missouri-Columbia with the rank of Assistant Instructor in Mathematics from 1946–1948 and received the M.A. from Missouri in 1948. Morelock then came to Florida with the title of Instructor of Astronomy and Mathematics from 1949–1952. He received the 7th Ph.D. from our department in 1952, with supervisor also Professor Hutcherson. He then joined the Mathematics Department of Alabama Polytechnic (now Auburn) with the rank of Assistant Professor.

We have seen from several examples on our own faculty in this chapter how the need for training our armed forces in mathematics during World War II seems to have created a sufficient demand for instruction that a number of people left high school teaching for positions at the state universities. Also, in the aftermath of World War II and the enrollment boom from the returning G.I.'s entering college under the G.I. Bill, a similarly large demand must suddenly have been created for people who could teach mathematics, especially at the elementary level, in our nation's colleges and universities, for we can also see from the 1955 American Men of Science, a second wave of people leaving high school teaching for the state university. A further example on our faculty was Howard Kenneth Lewis. Lewis lists his area of interest in the 1955 American Men of Science as being Electrical Engineering. Lewis was born in Windsor, New York on October 19, 1896. He received an E.E. degree from Syracuse University

in 1923, then was a teacher of physics, later head of the science department in Florida High Schools from 1924–1940 and an Assistant Principal from 1940–1946. In 1933 Lewis received a Bachelors of Pedagogy degree from the University of Toronto. He came to the University of Florida with the rank of Assistant Professor of Mathematics in 1946, when he was around 50 and retired in 1962 with the title of Associate Professor and Counselor, so apparently he was also involved in student advisement.

John William Young was born in Toronto, Ontario on November 16, 1912. But yet he received the B.A. from the University of Florida in 1934. Then he taught in the Palm Beach County Schools from 1934–1941, serving as Principal at the Riviera School from 1937–1941. He also continued his studies at the University of Florida, for he received the B.S. in 1937 and received the M.A. as our 13th masters student in 1940 with supervisor Professor Kokomoor and title, "*Geometry on the Basis of Veblen's Assumptions*. Then Young served in the armed forces during World War II, earning a Bronze Star for Merit in 1945 and also several other awards, and emerging with rank of captain. Following the war, Young was appointed to our department with the rank of Instructor in Mathematics from 1946–1952 and held the position of Assistant Professor during the academic year 1953–1954. He wrote his thesis on differential equations under the direction of Professor Russell Cowan, receiving the 8th doctorate in August, 1952 with the title *Non-Classical Orthogonal Polynomials*. In 1954, Dr. Young joined the Applied Science Division of I.B.M.

Finally, we turn to one of the senior faculty members during the Kokomoor Chairmanship with interests in number theory and complex variables, Edwin Harold Hadlock. Like Simpson, Hadlock was born in Maine, in Gorham, Maine to be precise, on September 17, 1901. He received the A.B. from the University of Maine in 1924 and the M.A. in 1926. Following the by now familiar pattern to those of you who have managed to read this far in this chapter, Hadlock served as an Instructor of Mathematics at the University of Maine during 1924 - 1927 while working on his master's degree. Then Hadlock went to Cornell and studied number theory with the noted American number theorist Burton Wadsworth Jones; Jones was at Cornell from 1930-1945, then moved to Boulder, Colorado for the rest of his career as one of the builders of the modern Colorado department. Hence, Hadlock and Hutcherson knew each other as graduate students at Cornell! Mrs. Hadlock recalls that Jones may have made the move to Colorado for health reasons, maybe a mild form of tuberculosis. Now Hadlock received his Ph.D. degree in 1933, during the Great Depression when academic positions must not have been easy to come by. At the time, there were three vacancies at Chulalongkorn University, the Siamese government university, in mathematics, civil engineering, and electrical engineering. The Siamese government asked the International Institute of Education, of which Edward R. Murrow was chairman, to aid this university in filling these positions. Mrs. Hadlock recalls that only certain universities world wide were eligible to nominate candidates for these positions, with each institution, such as Cornell, able to nominate two candidates. The nomination process took place during the fall of 1932. By January or February of 1933, Hadlock learned that he had been selected as the candidate representing the United States in the national competition for the mathematics position. On June 14, 1933, Hadlock learned that he had won the world competition for the open position in mathematics. The electrical engineering professor was chosen from Sweden and the civil engineering professor from Switzerland. Hadlock had to travel to Woods Hole, Massachusetts, the summer vacation place of the Siamese government representative in the United States, to sign a three year contract. Also, Hadlock requested a travel allowance of 200 pounds of English money rather than an earlier figure of 150 pounds. Thus on July 22, 1933, Edwin and Janet Hadlock found themselves on a Canadian Pacific train bound for Vancouver. In Vancouver, Hadlock learned that the request for extra travel monies had been granted. The couple set sail from Vancouver on the ship Empress of China, which sailed via the Aleutian Islands to Yokohama, Kobe, Nagasaki, the Inland China Sea, Shanghai, Kowlook, Hong Kong, Swatow, and finally to their destination of Bangkok. The Siamese kept the thirty mile river passage to Bangkok deliberately shallow as protection against warships, so that the Empress of China had to wait until high tide. Hadlock served as Chairman there during a second three year term from 1936 to 1939. All three of the Hadlock children were thus born in Bangkok. As World War II was breaking out in Asia, Professor Hadlock decided to leave with his family and come back to the United States in 1939. Nancy Hadlock Moore wrote me in an e-mail message on Februrary 2, 1994

"... If we had not left when we did, we all would have been put in a Japanese Concentration Camp like the other westerners. My parents had friends who wouldn't leave and they ended up in one of these camps—women and children too. They kept the men longer than their families."

Back in the States, Hadlock managed to get a position at Boston University during 1940. Nancy Moore recalled after I showed her the Sledd Autobiography of a Southern Schoolmaster material that her father had mentioned, although not in detail, some rough students in the classes at Boston University, who would put matches in the teacher's erasers hoping that the matches would be lit as the professor tried to erase the board. Fortunately, in 1941, Professor Hadlock was able to move to the more benign atmosphere of Hastings College, a Presbyterian college in Nebraska, where he served as Professor and Head of the Department from 1941–1948. Then in 1948, Dr. Simpson hired him into our department where he served as Associate Professor from 1948–1953 and as Professor from 1953 until his retirement in 1972. In those days, still at a much smaller university than now, Professor Simpson informed Preacher Gordon of the First Presbyterian Church that the Hadlocks were Presbyterian, then Preacher Gordon sent them a nice letter welcoming them to the First Presbyterian Church on their arrival in Gainesville. Also, Dean Simpson knew that an English professor, Dr. Spivey, was leaving Gainesville, so he recommended to the Hadlocks that they purchase Dr. Spivey's house. A niece and nephew of Mrs. Hadlock, who happened to be at the University of Florida, went over and inspected the house, so the Hadlocks bought this property sight unseen. Mrs. Nancy Moore recollects that in 1948, twenty one years after Professor Kokomoor had found a tight housing situation in Gainesville in 1927, housing also happened to be in scarce supply. During 1948 through 1972, Professor Hadlock directed five masters theses and nine doctoral theses, and also collaborated with Professor Theral Moore on several papers on number theory. These two professors also discussed a draft of a complex variables book that Hadlock had written; Moore put these rough notes into a polished final form and the Moore and Hadlock complex variable book was published in 1991, several years after Hadlock's death in January, 1988.

As part of this study of the history of the University of Florida Mathematics Department, I wrote to 11 of the Ph.D alumni from the 1950's who were still on the *Walker Hall Review* active mailing list, inviting them to sent me comments about their graduate student days. As reported above, one of these alumni, Dr. Ernest Lytle, had died in 1988. It is interesting that out of the remaining 10 possible respondents, that three of the Hadlock students sent me their recollections, including a nice long response from Dr. Thomas Horton, describing his long and interesting career at I.B.M., then at the American Management Association, which I published in full in the Spring, 1994 issue of the *Walker Hall Review*. I also received a long and helpful letter from Dr. Emmet Low, a student of C. Basel Smith, and I have had some e-mail correspondence with Dr. Mary Neff and Dr. John Neff.

We start with the three responses I received from the Hadlock students: Dr. Thomas Horton (Ph.D. 1954), Dr. Richard Yates (Ph.D. 1957), and Dr. Jan Andrus (Ph.D. 1958). In this last case, we should mention that as described in Chapter 4, that the first time a junior faculty member supervised a thesis in these times, they were required to take on a senior faculty member as dissertation supervisor, and the younger faculty member was listed as co-director. Thus Andrus was really advised by Alton Butson who left around 1950 for a long career at the University of Miami as we indicated previously in this chapter, although Professor Hadlock is listed as his official advisor.

Dr. Thomas R. Horton, M.A. in 1950 (Prof. W. Hutcherson), Ph.D. in 1954 (Prof. E. Hadlock), wrote the following to me on March 11, 1994.

"Many thanks for your two recent letters. It was quite a surprise to learn that the University's Department of Mathematics now boasts a historian. And just in time, too, since I have apparently attained the status of a subject for historical research. I was delighted to hear from you, for I very much enjoy the *Walker Hall Review*. And you certainly have my permission to profile my recent award in its Spring edition, if you wish to do so.

With respect to my career, after graduating from Stetson University with a major in mathematics in 1949 and attending the University of Wisconsin for one summer session, I became a graduate student at the University of Florida. And as you know, I earned a masters degree under the direction of William R. Hutcherson in 1950. At that time a teaching career seemed appropriate (and one of the few careers available to mathematics majors), so I returned to my secondary school alma mater, The Bolles School in Jacksonville, which was then a military school. (Bolles had been founded in 1933 at the beautiful but failed San Jose Hotel, a Mediterranean architectural gem that was meant to resemble an ancient Spanish castle when it was built in 1926, incidentally the year I was born. The great depression, coupled with a land scandal, brought the hotel's plans to a sudden end before its first guest arrived. The hotel was then leased to the Florida Military Academy, which failed to meet its financial obligations, and soon the new Bolles School was established by the owner of the property on those beautiful grounds overlooking the St. Johns River, south of Jacksonville.) To answer your question, Bolles continues and indeed, flourishes today as a non-military, co-educational school, and for the past three years I have been serving on its Board of Advisors. This May I'll attend my 50th class reunion.

The return to Bolles was a great experience. The training I had received there had benefited me in my two-and-one-half year stint in the U.S. Army, in which I enlisted on the day of my high-school graduation in 1944. Moreover, its high academic standards had stood me in good stead at Stetson. While at Stetson I married a 'coed' so my wife and I lived in a dormitory at Bolles, surrounded by cadets. At the end of our first year, I was named Commandant, the person in charge of discipline, homesick boys, and various crises. Most of the teachers I had known as a student were still on the faculty, and I suddenly became their colleague. In a sense I "gave back" to Bolles the two years I had spent there as a student, but in truth I received much more as a teacher than I gave. Soon, however, Mrs. Horton and I felt confined by the cloistered atmosphere of a residential school, and at that time I thought that college teaching looked attractive. Meanwhile, a good friend at Gainesville, John Hoffman, then a graduate student in physics, was urging me to return for a Ph.D. So in the Fall of 1952 we returned to the University.

In those days, the University of Florida was a relatively small and

undistinguished institution by today's standards. The surge of returning GI's had subsided. As a graduate teaching assistant, I taught only freshmen mathematics, using Franklin Kokomoor's textbook, Mathematics in Human Affairs. I do not recall the name of the building in which these classes were held, but the room was much larger than any in Walker Hall and rather densely populated, upwards of forty students. I would see Dr. Kokomoor riding his bicycle to and from work each day. He was always generous with his time and helped me recruit students in need of tutoring, which provided a bit of needed extra income. He and we belonged to the University Methodist Church, whose pastor was Thaxton Springfield. I recall that one sermon included a reference to something that had increased threefold, and then increased threefold once more. The minister referred to this combined increase as sixfold, I remember Dr. Kokomoor's catching my eye and smiling. Apparently, Dr. Springfield had not read the ubiquitous Kokomoor textbook. I remember a number of mathematics faculty members, including Blake, Cowan, Meyer, John Moore, Phipps, Pirenian, and Lang. In particular I recall the excruciating experience of Lang's class in real variables. On the positive side, I remember Basel Smith as a very productive applied mathematician and D. E. South as an excellent teacher. I very much admired W. R. Hutcherson and for that reason selected him as my masters degree advisor. I was interested to learn from the material you sent that apparently I was the first graduate student he advised.

When I returned for my Ph.D., those and other members of the faculty were still at Florida, but there was an exciting new addition in the person of David Ellis, who quickly developed a coterie of admirers. He attempted to recruit me as one of his students, but somehow I was less impressed by him than some others. After groping around for a while, I settled on the field of number theory and approached Professor Hadlock. Again, I was interested to learn from you that I was among the first doctoral students he supervised. Both Hutcherson and Hadlock were wonderful peoplepatient and diligent. Indeed, I am sure that I selected number theory simply because it was Professor Hadlock's specialty. While I have never regretted this choice, that very selection probably discouraged my pursuit of a career of teaching at the college level. As you probably know, a scholar named Leonard Dickson had earlier 'catalogued' the findings of centuries of research in number theory, and through perusing Dickson's books I concluded, perhaps wrongly, that this particular field had been farmed for so long that it seemed almost farmed out. I was therefore unsure of my own ability to conduct significant successful research in the field,

something I would need to do if I were ever to achieve tenure. Meanwhile, I was being urged to return to Bolles and went through a period of career confusion that I later learned is common for young people. I even gave some brief thought to becoming an actuary.

At about that time, however, a new invention called the computer was capturing the public eye. Two then recent masters graduates, Norman Rasmussen ⁷ and George Fultz, ⁸ had joined I.B.M. and suggested that I do the same. Coincidentally, a conference on the topic of Monte Carlo techniques was held at the University (in 1954), and attending it was Dr. Cuthbert Hurd, I.B.M.'s Director of Applied Science. Also at this conference were such noted scientists as Stanislaw Ulam. Dr. and Mrs. Hurd took Mrs. Horton and me to a rather elegant (for Gainesville) dinner, and I did join I.B.M. soon after receiving my Ph.D.

Incidentally, our days at the University coincided with the national hysteria about communists and communist sympathizers. Senator Joseph McCarthy had advised President Truman in 1950 that the State Department was riddled with communists. In 1953 the U.S.S.R. exploded a hydrogen bomb, and the Rosenbergs were executed. The following year, J. Robert Oppenheimer was dismissed from government service, and Joe Mc-Carthy's witch-hunting activities culminated in nationally televised hearings. As students, we had no TV set (and, for that matter, no car), but my ear stayed glued to the radio throughout these hearings, and I developed a lifelong enthusiasm for political serio-comedy which has lasted through Watergate, Irangate, and now Whitewater."

Dr. Horton worked at I.B.M. from 1954 until he took early retirement in 1982 at the age of 55, before this sort of thing became common. At I.B.M., Horton started as an applied science representative, then worked in such fields as weather forecasting, vehicular traffic control, and air traffic control. His assignments included heading the I.B.M. Space Computation Center in Washington, D.C., in 1957, which was involved in calculating orbits for our space satellites. Later, Horton was involved with Project Mercury. He was also a Product Manager, Vice President for Systems, Vice President for Marketing, General Manager of Advanced Systems Development Division, and finally the I.B.M. Director of University Relations. In this capacity, Horton worked closely with many colleges and universities, and for a time even served as a member of the Advisory Board of the University of Florida's College of Engineering.

 $^{^7\}mathrm{ed.,~M.A.}$ in June, 1953 with supervisor Herbert Meyer, On the Generation and Testing of Random Digits

⁸ed., M.A. in August, 1952 with supervisor Zareh Pirenian, *Pythagorean Triples and Primitive Integral Techniques*

In 1982, Dr. Horton joined the American Management Association as President and CEO. There Horton

"had the opportunity to meet many leaders in all walks of life, and Mrs. Horton and I traveled extensively around the world."

While with this organization, Horton authored, or co-authored the following books: What Works for Me: 16 CEO's Talk About Their Careers and Commitments, Random House, 1986; Beyond the Trust Gap: Forging a New Partnership Between Managers and their Employees, Business One-Irwin, 1991, (with Peter Reid); and most recently, The CEO Paradox: the Privilege and Accountability of Leadership, American Management Association, 1992.

Finally, Dr. Horton describes his current activities as follows:

"In 1992, I retired from AMA as Chairman and returned to my college alma mater, Stetson University, where I now serve as University Advisor, a sort of eminence grise, which has proven to be an altogether pleasant role. Upon my return to college, in contrast to my return to Bolles, there were NO faculty members I had known who were still teaching here Here I work with students and lecture occasionally, but in the Business School rather than in the Mathematics Department, and handle a variety of administrative tasks. This post provides both intellectual stimulation and a degree of freedom, so I am still able to travel fairly frequently with Mrs. Horton and give speeches

Over the past forty years, we have done a lot of things. Most important, we raised three daughters, all now grown. And during those years I often found myself deeply immersed as a volunteer in a variety of non-profit organizations. I had the opportunity to serve as a trustee at four colleges and universities, was Chair of the Association of Governing Boards of Universities and Colleges, and am now National Chair of an organization called *Kids Voting USA*, whose goal is to teach students (K-12) about the political process through classroom instruction and experiential education; the students are encouraged to vote at mock ballot boxes at regular voting precincts, the cost of voting being to bring an adult along. In 1992, over 500,000 students participated in pilot projects in ten states, and we hope by 1996 to have a presence in all fifty states."

Since Dr. Horton mentions being recruited by Dr. Cuthbert Hurd for I.B.M. in the mid-50's, it is interesting to turn to the 1955 *American Men of Science* and see how Cuthbert Corwin Hurd's career path led him into the senior technical management and I.B.M.; we find in fact that Hurd had spent over 15 years teaching at various

academic institutions. ⁹ Hurd was born in Easterville, Iowa on April 5, 1911. He received the A.B. from Drake University in 1932 then taught at Iowa State from 1932 - 1934, receiving the M.S. degree in 1934. Hurd was then a Fellow at the University of Illinois from 1934 - 1936, receiving the Ph.D. in 1936. From 1936 - 1942, Hurd was at Michigan State College, first as an Instructor, then as an Assistant Professor. From 1942 - 1945, Hurd served as an educational officer at the U.S. Coast Guard Academy, then from 1945 - 1947 was Dean at Allegheny College. Only in 1947, did Hurd move into industry, first with the Carbide and Carbon Chemical Corporation from 1947 - 1949 as the Technical Research Head, then joining I.B.M. in 1949 as Director, Applied Science Division. As we have tracked our graduates from the 1950's more or less at random, we should note that this Division hired at least four of our graduates: Fultz, Horton, Lytle, and Rasmussen.

Returning to our alumni correspondence, here are Dr. Richard Yates memories of his graduate student days at the University of Florida, which he sent to me in a letter dated March 7, 1994.

"When I first came to the University of Florida in 1952, the Mathematics Department was housed in Walker Hall (without the addition at the back). The Mechanical Engineers had moved out not too long before. They had air-conditioned part of the building on their own and took all the equipment, ductwork, etc. with them when they moved. There were large gaping holes in some of the floors, walls and ceilings where the ductwork had been installed. I particularly remember a large hole in one corner of Dr. Kokomoor's office. Of course, there was no air conditioning in the building then. Dr. Kokomoor was an extremely congenial person who took a personal interest in the staff and the graduate students. He welcomed having people come in just to chat and let him know how things were going for them. One of the things he was particularly proud of was framed on his office wall. During the Second World War the Mathematics Department had been deeply involved in Bootstrap Training for new soldiers. They had voluminous records which the Registrar's office didn't

⁹Coincidentally, Dr. Richard Ehrlich, Ph.D. in physics from Cornell in 1947, recalled meeting Dr. Hurd during Ehrlich's time in scientific management at the Knolls Atomic Power Laboratory in Schenectady, New York. Ehrlich's own recollection was that prior to World War II, industries in America, including General Electric, employed virtually no mathematics doctorates. After World War II, when P.D.E.'s could be solved numerically using the early generation mainframe computers, then research laboratories began employing Ph.D. mathematicians. One of Ehrlich's favorite anecdotes was the following: at Cornell, his thesis advisor told him just to assume a certain operator was positive in his dissertation research; a decade or so later, when Ehrlich was manager of the Theoretical Physics and Mathematics Group at the Knolls Atomic Power Laboratory, two of his mathematics Ph.D. employees proved that the operator had to be positive.

want since these students had never officially been U of F students. Dr. Kokomoor wrote the appropriate office in Washington to ask whether the records should be shipped there or could be destroyed. The reply stated that they should not under any circumstances ship the records to Washington. They could feel free to destroy the records they wished, but they should keep copies in duplicate of everything they destroyed. He chuckled every time he pointed out the framed letter to anyone.

Most of my anecdotes of graduate student days at U of F concern eccentricities of some of the faculty which are better not repeated here. The faculty held parties, occasionally, but the graduate students were not invited. One day one of my students who came from a farm in north Florida presented me with a 43-pound watermelon which he had grown. After I told a few people in the department about it, I was invited to the faculty party being held that evening with the stipulation that I bring my watermelon to share. I didn't hesitate to go although I felt a little out of place as the only graduate student there; the others certainly enjoyed the watermelon.

When I started in the fall of 1952, the Teaching Assistant stipend was \$900 per year. For that we taught one course in one semester and two the other. The graduate students taught C-41 (or C-42—I confuse the two course numbers now.) I don't remember any graduate student teaching calculus. C-41 used Kokomoor's book and was rigidly structured. The common exams were machine graded, so that all the instructors had to do was present the material in class and help students with their problems. The students varied a great deal, but the mathematically oriented were siphoned off into other courses, so that what was left tended to have many difficulties. For 1953 the stipend was increased to \$1200 per year. I felt so affluent that I bought a car.

I have only vague memories of faculty seminars. All I remember were one-hour presentations given by faculty members presenting their latest research results. They usually were abstruse enough that I followed for ten or fifteen minutes and them was lost. I suspect that was true of most of the graduate students and other faculty. I believe there were no continuing seminars addressing themselves to a single topic."

When I spoke to Dr. Yates over the telephone, he told me of one other custom that was apparently the fashion in pre-photocopying days. The graduate students had to make up a number of copies of their theses after these documents had been typed. There was a machine called an Ozalid in between the first and second floors of Walker Hall, smelling strongly of ammonia, which the students themselves used for
this purpose. Dr. Yates lived off campus next to the Kokomoor's during his graduate student days and recalls Kokomoor riding his bicycle to the University, just as in the 1939 *Seminole* yearbook photograph I found. Yates recalls how during the 1950's, Kokomoor would go off on Sundays to preach Methodist sermons in small churches in the country. Yates believed that 17 hour teaching loads for the faculty in the 1950's, as Theral Moore checked for me, could have been entirely possible.

Dr. Jan Andrus, currently a Professor of Mathematics at the University of New Orleans, responded as follows on March 7, 1994 to my request for information:

"I was very pleased to receive the material on the early history of your department. I have always felt warmness for the Department. Despite the size of the University, the UF Math Department was a very friendly place when I was there (1955-1958) and I felt I was a part of it even before I arrived. Dr. Kokomoor called me long distance to express his interest in my application. After arriving, I found the department to be friendly and helpful.

Alton T. Butson was my main advisor; Dr. Hadlock was listed as a co-director because of his seniority. Hadlock was my instructor in only one course. I found him to be a most earnest teacher. I have always been influenced by his concern that so many students of math have not stuck with it. Except for a couple of brief digressions, I have always stayed with it.

Please give my regards to Theral Moore, who was my topology professor. He is the only one of my professors who is still at Florida. All of his class thought highly of him.

Dr. Andrew Sobczyk was an influential member of the Department. For example, he organized a seminar on complex sets, in which I was a main participant. This has come in handy recently because I have become interested in linear programming and may have stumbled upon a new polynomial-time algorithm.

As far as I can recall, the choice of a particular advisor in the department was often based on the professor's recent record in advising students who completed their dissertation successfully. My choice was based on field of interest (algebra).

Although I had studied to be an algebraist, I was compelled to go into the defense industry after leaving Florida. I worked there for 15 years (with Lockheed, G.E., and Northrop) as an applied mathematician before returning in 1973 to the academic world at the University of New Orleans. Most of the industrial work was under contract to NASA. I worked on the simulation of the Saturn and Shuttle rockets and on optimal guidance methods. I held managerial jobs for brief periods, but did not like it. I should say too that I like University life much better than the industrial."

Dr. Sobczyk had been mentioned to me by Professor Jed Keesling as a faculty member of this period, but unfortunately I have been unable to turn up any information on him apart from this mention in Dr. Andrus's correspondence and Professor Meacham's recollections.

Now we turn once again to the reminiscences of Dr. Emmet Low, who received as noted above, our 12th Ph.D. with supervisor Professor C. Basel Smith in 1953.

"Since you are working with the history of the department, it might be of interest to look at the history of one of the persons strongly influenced by the department. I came from a broken home, my parents were divorced when I was five and Mother moved from Illinois to Orlando with her three children. It was in the depression and sometimes we had to use gifts of food and clothing. When I was ten, Mother married a man who was a printer with a fifth grade education. I graduated from Orlando Senior High School in 1940 with reasonably good grades and very high state test scores. However, going to college was not an option and I never even considered it. My first full-time job was at the Food Palace, Orlando's nicest grocery, as a general handyman working twelve hours a day, seven days a week for ten dollars a week. I note that until I enlisted in 1942, I gave my mother half of everything I earned. However, I never felt disadvantaged or disabled, (I am essentially blind in one eye) and never felt anyone owed me anything.

When I came out of the service the last of January 1946, my mother encouraged me to go to college. So, in March 1946 at the age twentythree, I enrolled in Stetson with no understanding of what a college was or what going to college meant. I had several wonderful instructors who gave me direction and advice, and toward the end of my third or fourth quarter, I decided to go to graduate school after graduation from Stetson in May 1948. I had completed my degree in approximately twenty-six months. During that time, I also delivered the Deland paper daily on a rural route and worked nights in a filling station on Main Street. I was invited to join a fraternity after a year and I did, but I had little time for extra-curricular activities.

I then went to the University of Florida with plans to get my master's as quickly as possible so I could go to work. It was a time of increasing enrollments, and so Dr. Kokomoor insisted that I take a teaching assistantship which I did with some reluctance. They handed me a course outline for the general math course ¹⁰ of which I was to teach two sec-

 $^{^{10}}$ ed., C-42

tions. Incidentally, because of the press for classroom space, many classes were taught on a Tuesday, Thursday, Saturday schedule. I started teaching with only a textbook and an outline. Somehow, I made it through the semester."

Earlier in this chapter, we quoted from Dr. Low's studies during his first year in complex variables and in elasticity theory. We resume Low's narrative after skipping that paragraph.

"During my first year, I decided to go for a doctorate and not stop with just a master's. I was interested in not just mathematics, but also how it could be used to answer questions in the real world. I took some engineering courses on the side and ran across a problem in prestressed concrete. So with the help of Dr. Smith and Professor William Lincoln Sawyer, head of engineering mechanics, I wrote a thesis on predicting creep or plastic flow in prestressed concrete. I flirted with leaving school after my master's and going into the prestressed concrete business, but decided against it. Who knows, I might have been much wealthier, but I doubt I could have had a better life than I have had.

That fall, I was offered a full time instructorship in the physical sciences which I took with the understanding I could continue to work on a doctorate. Incidentally, the regular teaching load was fifteen hours which was five classes. The first semester I taught five sections of the same course and, by the end of the week, I could answer the questions in class before they were asked.

The following year they moved me to physics full time where I continued until I graduated and went with the National Committee on Aeronautics, now NASA. I had one weak course in physics at Stetson and a junior level course in electricity and magnetism my first year at Florida so I was not very well prepared to teach physics. However, the way we think and work in mathematics helped me function in physics with relative ease and I really enjoyed seeing mathematics relate to the real world through physics. Incidentally, some of the graduate students in physics were good friends of mine and they used to bring problems from their graduate courses to me for help solving. With the good understanding of basic physics principles I had gotten from teaching physics and being fluent in mathematics, I was often able to solve their problems even though I had not had the physics they had had. I have often used this as an example of the importance of having a good mathematical background for any students who expect to do any substantive work in physics, chemistry, or engineering.

At that time, most of the mathematics department was housed in Walker Hall and the physics department in Peabody. There was a landing on the stairs leading to the second floor of Walker where a copying machine using a process with the name Ozalid as I recall. It used a solution that included ammonia and, when it was in operation, you did not linger long going up or down the stairs. We used it to make copies of our theses and dissertations then.

During my years of teaching physics, my office was on the top floor of Peabody along with Morton Teller who was in charge of the physics lab. One day, I went to the bathroom for a moment and, when I returned a big chunk of plaster from the ceiling had fallen on my desk and chair. That someone who kept me out of trouble at the University also kept me from being hurt apparently.

Panty raids occurred in the early fifties when the male students would get together one night after dark, go to a dormitory housing females, invade it and make off with items of girls' underclothing. After a couple of these episodes, the administration used the football team with baseball bats to serve as guards for the girls dorms. I recall some of the boys taunting the football players for interfering instead of joining in the fun and the players responded with it was their scholarships that were on the line and they were not going to risk losing them just for a little risque fun.

Some of the girls joined in the fun and would go to a balcony and toss down armloads of clothing. The university identified all of the participants they could and even conducted searches of some of the rooms of suspected participants looking for evidence such as girls undies. At one of the disciplinary hearings, a young man from South America was charged through evidence found in his room. He commented that he thought the panty raids were just an American college custom, that he had seen pictures of panty raids in Life magazine recently that had occurred on other campuses and, on the night of the raid when the boys said,

"Come on, we're going to raid the girls dormitories,"

he went along for the fun. He stood around watching and, when a girl tossed down a bunch of underwear, he reached up and grabbed one as it floated down to take back as a souvenir. He was let off, but some students were expelled even though the semester was almost over and they lost all credit for work in that semester. I remember sitting in a meeting with some of the administration as they discussed how to avoid or prevent problems like these with students. One of the older administrators commented, "Remember there are many more of them than us and some of them are smarter than we are, so we're not going to be able to stop all of it."

I often remembered his wise comments over the years as I served as an administrator trying to deal with students. Incidentally, times have really changed and many of the actions taken by the administration then could not be taken now.

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Those years at Florida were a wonderful time in my life. Dr. Kokomoor was a warm and understanding person with a delightful family. He was ambidextrous and could write quite well on the blackboard with either hand. I believe his doctorate was from the University of Michigan. He was an ordained Methodist minister and had supported his family while working on his doctorate by serving as a pastor in a church in Ohio¹¹....

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The atmosphere around the University during those years was really warm and pleasant and, I suppose, somewhat typical of the country for awhile in those postwar years. Most of us seemed to know where we were trying to go and went about our business in a friendly and cooperative manner. I had never heard of drugs other than alcohol, and I never became involved in it. Those years at the University and the people with whom I worked and played, I am sure, helped give me direction and values that stood me well over the ensuing years. I am sure you and your colleagues are doing the same for the students who are going through now, it must be a little harder. I attribute much of what I have been able to do and any recognition I have received largely to those experiences at the University

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In January 1954, I went to NACA, where a colleague and I developed methods to be used in the design of larger aircraft that probably is still in use today. This was in the McCarthy era and the atmosphere in governmental research was uncomfortable. A friend, Jesse Oroshink, who had received his graduate degree in physics at Florida soon after I went to NACA, went to work there also. His family was Jewish and had immigrated from Russia. Even though he and his brother had served in W W II and were honorably discharged, he was forced to leave because somebody thought he might be a security risk. I had gotten to know Jesse quite well at Florida. Through him, I learned a lot about Jewish

¹¹ed., actually in Ann Arbor

culture and developed, I believe, a more tolerant and understanding attitude toward other cultures that served me well later. So, after about eighteen months at NACA, I went to the University of Miami in 1955 as an assistant professor of mathematics.

When I started at NACA, I was assigned a problem that involved the analysis of stresses around rectangular cutouts in circular semimonoque structures, better stated as around windows and doors in airplane fuselages. It involved mathematics that included the use of matrices. My work at Florida did not include matrices, so I had to set about learning about them on my own. It gradually developed into trying to solve systems of integro-differential equations connected with difference equations. We were not able to solve the whole system, but after making some simplifying assumptions, we did get some solutions. Of course, this is normal in almost all applications and what we got was very useful. However, when I went to Miami, one of the first things I did was introduce a course on linear algebra, they did not have one at that time, and it became one of my areas of interest.

I spent 1959–1960 at the Courant Institute of Mathematical Sciences at New York University as a visiting research scientist. I worked mainly with Joe Keller, but also got a chance to know Peter Lax, Louis Nirenberg, Fritz John, Richard Courant and several others. It was a wonderful experience, and like my years at Florida, had a lasting impact on my work."

Following his return to the University of Miami, Dr. Low was promoted to Associate Professor, then circumstances propelled him into the chairmanship without the rank of Professor. This was an interesting opportunity as Low

"had a bent toward applied mathematics in a department that was mostly pure mathematics, but they asked me so I was willing to give it a try. I did develop a doctoral program and hired some good people including A. D. Wallace and visiting professors like Paul Halmos."

Low then served as Associate Dean, later Dean of the College of Arts and Sciences at Miami University. He also held a joint appointment with engineering and taught things like fluid flow, hydrodynamics and aerodynamics while still in the Mathematics Department. He was involved in the development of a biomedical engineering program with the medical school. He also worked with others on using radar to track hurricanes for the United States Weather Bureau and comments in his letter that the spiral bands around hurricanes happen to be the logarithmic spirals of basic calculus.

In 1972, Dr. Low decided to leave the University of Miami. During the last six years at Miami, he had been isolated from students and teaching as a result of his

administrative positions. He had hired a number of Virginia Ph.D.'s in building the department, including A. D. Wallace, so Dr. Low decided to relocate to Virginia at a smaller school where he could be closer to students. He decided to go to Clinch Valley College, as Dean of the College. There he has enjoyed working with students from the Appalachian mountains

"with a lot of native ability and good work attitudes."

He retired as Dean in 1986 to return to full time teaching. The Department of Education of Virginia was involved in setting up an electronic classroom to offer courses in AP English and AP Calculus in the high schools. So in addition to serving as departmental chair and teaching four courses at Clinch Valley College, Low took on the challenge of doing these television lectures which were broadcast at high schools which had too few students to offer calculus by themselves. Low formally retired in 1989, but remains active helping residents of the area with various mathematics problems involving computers and also occasionally still filling in on the Electronic Classroom network when needed.

Our 24th Ph.D. student, Dr. James Blake Wilson, also took the doctorate under Professor C. B. Smith, with a thesis entitled *On Orthotropic Circular Disk Subjected* to it's Own Weight When Supported at a Point. The letter I received from Professor Wilson of January 25, 1995 proved to be quite a pleasant surprise to me, for I learned that Professor James Wilson was the son of our early faculty member Professor William Harold Wilson who we first encountered as an Associate Professor in the 1927–1928 catalogue:

"You have surely unearthed a great amount of U of F history which gave me a trip down memory lane. The William Harold Wilson who joined the Math Dept in 1927 was my father, and my life from age three until age 19, when the Army called me to duty, was spent in Gainesville. Although my father moved into administration in the thirties, the ties of interest and friendship with the early members of the department and their families, whose children were contemporaries of my brothers and me, remained strong. My father remained in Arts and Science as Assistant Dean and later Associate Dean until after World War II, when, forced by ill health to 'slow down', he joined Dean Little's staff in the General College (he was chairman of the C-41 course, for which he had authored the textbook). He retired in 1960.

I am unable to add substantially to the information that you have on Dr. Smith. It is my understanding that his post-World War II interest in elasticity, particularly concerned with orthotropic materials, had some relation to war research on the use of plywood as a lightweight construction material for cargo aircraft. I cannot document this, however. I was in a glider component of an airborne division during part of the war, and it was my interest in applied mathematics and my perception of his interest that led me to ask him to direct my Ph.D. program. He was a man with a quiet but ready sense of humor, with an evident enjoyment of both teaching and research. It comes as no surprise to learn that he continued teaching following retirement.

Dr. Kokomoor was known to me as a family friend from earlier years as well as Department Chairman and a member of my graduate committee. He was thoroughly dedicated to education, community, and church. His writing on Kiwanis history is one evidence of his community concern, and I understood that he occupied the pulpit on occasion when area churches had need. His chairing of the department, as seen through the eyes of this graduate teaching assistant, was characterized by firmness, fairness, and a stern expectation of effective teaching. (His book, *Mathematics in Human Affairs*, was very successful as a textbook for courses like C-42 and was translated into several languages.) He sought to have a cohesive faculty and promoted occasional family outings of faculty and graduate students.

After receiving my degree under Dr. Smith in 1957 I joined the faculty at North Carolina State University (then N. C. State College) in the same year and have remained there throughout my career. Although retired in 1987, I have continued to teach (as Professor Emeritus) in the fall semesters for the past seven years. With a large offering of courses and large enrollments (8000 to 9000 registration in math in regular semesters) it has been possible to teach a variety of courses at all levels, which I have thoroughly enjoyed. Some favorites have been advanced geometry, advanced calculus, numerical analysis, and honors sections of calculus. I have been on a number of masters committees for math majors and for math education majors, but have not directed Ph.D. programs.

For seventeen summers I had Army Active Duty (two weeks) at USMA, West Point, in which I did consulting and writing for portions of the yearly revised Ordnance Engineering textbook and course syllabus. (I had taught there during the years 1951–1954.) In the nine years preceding my retirement, I was assistant head and later associate head of the NC State math department, with principal concern for directing undergraduate instruction and scheduling the teaching of hundred-plus faculty members and graduate teaching assistants." Since several of our faculty members were involved in the advisement process in the University College and Professor Kokomoor himself was closely involved in the development of this institution, it is appropriate to give some material from the 1948–49 Catalogue pertaining to "guidance":

"

GUIDANCE

If a Freshman is still undecided about his life's work, he is not urged to guess on registration day. His program may be made up largely from the comprehensives which help direct his thinking toward a desirable objective, together with approved electives that may further enable him to explore interests and needs. But whether the student is decided or undecided about his life's work, these comprehensive courses provide the basic preparation that every educated person should have.

Thus, since the purpose of general education is to replace fragmentation, the program absorbs much of the responsibility for guidance. Every subject or course of the University College program is designed to quide the student. During the time that he is making tentative steps toward a profession by taking several subjects to test aptitudes, interests and ability, he is also studying the several great areas of human understanding and achievement. The program is adjusted to the individual, but there must be a more substantial basis for adjustment than just his chance whim of the moment. The material of the comprehensive courses is selected and tested with *quidance* as a primary function. While, of necessity this training must point forward to distant goals, this work in the University College must also present materials which are directly related to life experiences and which will immediately become a part of the student's thinking and guide him in making correct *next steps*. Thus the whole program — placement tests, progress reports, vocational aptitude tests, basic vocational materials, selected material in the comprehensive courses, student conferences, adjustments for individual differences, election privileges, and comprehensive examinations — all are parts of a plan designed to quide students. Specifically, however, the University College has a staff of counselors located in the college office to help the individual.

Guidance, then, is not attempted at one office by one individual with a small staff, but at more than a dozen places. The whole drive of the University College program is one of directing the thinking of the student. While the necessary correlation and unification is attempted at the University College Office, throughout the University College period students consult the Upper Division Deans and department heads to discuss future work. During the last month of the school year these informal conferences are concluded by a scheduled formal conference at which each student fills out a pre-registration card for the coming year.

Every spring the University is privileged to give placement tests to all seniors in every high school of the state. Since high schools are also trying to acquaint the student with the common body of knowledge so needed by all, their records along with the placement test results indicate the variation that should be made in the program followed by a student at the University. As a result of placement tests a good student from high school may be excused from freshman work in one or more of the comprehensive areas."

We will give Dr. Franklin Kokomoor (posthumously) the last word in this chapter by quoting the final paragraph in reference [1], Kokomoor's *The Years of My Life*:

"As I began my life, so I have continued, with respect to my two main interests, teaching and religious work. Thus through the years, I have often done double work in the two, just as I started out to do during World War I. In all, I have taught for about 41 years, and have served as minister for about 21 years. But I have found through the years that these two professions supplement one another a great deal. As one of my outspoken parishioners in Ohio once told me,

'You preach better now that you have become a high school principal than you did when you were only a preacher.' "

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- [9] Ehrlich, Eleanor Ewing, Personal communication.

Appendix A

The University of Florida during World War II

In this Appendix, we supplement the information provided about the University of Florida's role in the national war effort during World War II by the recollections of Mrs. Pirenian, Mrs. Simpson and Dr. Kokomoor with more official information which is contained in the University Record in the Biennial *Report of the President of the University* of Florida to the Board of Control for the Biennium Ending June 30, 1944.

"REPORT OF THE PRESIDENT OF THE UNIVERSITY To the Honorable Board of Control of State Institutions of Higher Learning of Florida.

GENTLEMEN:

My last biennial report covered the period embracing the beginning of the war and certain adjustments that were made necessary at the University because of that fact. During the biennium closing June 30, 1944, the complete facilities of the University were involved in the war effort. At the same time, the entire program of service to civilians was kept intact. The details of all activities are set forth in the reports of Deans, Directors, and other administrative officers. I shall confine myself to the principal features and some of the high lights of the period, attempting in short compass to summarize this critical two-year interval. The period was one of constant readjustment and intense activity, and the University carried on, under most difficult conditions, with more success and less impairment of its normal functions than could have been anticipated.

In the early stages of the war, the enrollment did not fall so rapidly as might have been expected. In the academic year 1941-1942, which marked the opening of hostilities, 3,239 students were enrolled in the regular session and 3,202 during the summer terms. During the biennium under consideration the enrollment began to drop, and this tendency was greatly accelerated by the amendment of the Selective Service Act which reduced the induction age to eighteen years. Deferments were granted to a limited number of students who were preparing for certain critical occupations in the fields of engineering, physics, chemistry, and other technical areas essential to the best conduct of the war. Aside from these deferred students, available material for civilian programs at the University of Florida was confined to boys with physical disabilities, others under eighteen years of age, and a few women. By the end of the biennial period there were fewer than a thousand civilian students on the college level in the University. To these were added about five hundred students in the P. K. Yonge Laboratory School.

During the biennium the policy of the administration has been to hold together the staff of the University as effectively as possible while making the maximum contribution to the war effort, and preserving intact all of the services demanded for civilians. The reduced enrollment and the demand for trained personnel by the armed forces made it possible to grant many members of the staff leaves of absence for service in the armed forces or in war production activities. A high degree of flexibility has been maintained and, apart from the loss of some members of the staff who left the University for more remunerative positions, the integrity of the institution has been preserved.

A principal factor in carrying out the above policy has been the ability to use our facilities in large measure for assisting in the winning of the war. In my last report I described a Chemical Warfare School, the Civilian Pilot Training Program carried out in cooperation with the Civil Aeronautics Administration, and other war efforts. Three extensive training services, including an Officer Candidate School, an Army Air Force Crew Training Program, and the Army Specialized Training Program for engineers and technical personnel, have been operated by contract with the War Department.

The Extension Services, both General and Agricultural, have carried on enlarged programs, and wartime research has been stepped up tremendously both in engineering and in agriculture. Some of this research is confidential and may not be revealed until the war is over.

TRAINING PROGRAMS

On September 28, 1942, an Officer Candidate School was activated at

the University of Florida for the purpose of training officers who would serve the Army in an administrative capacity. There were about six of these schools in the country, the third of which was established at the University of Florida. Over 1,500 officers were instructed at and graduated from this School, nearly all of whom are now actively serving in the Army. The School was operated directly in cooperation with the Adjutant General's Office, War Department, and received high commendation from the War Department.

Following negotiations with the Army Air Forces, in February, 1943, there was activated at the University a program for the training of air cadets with a quota of 750 trainees. Beginning with the following May, and continuing with reasonable regularity with the graduation and replacement of approximately 150 trainees monthly until the close of the program in June, 1944, the University served in the training of 2,994 members of the Air Forces. The University was responsible for the academic instruction and physical training demanded in the program, while officers and men of the Air Corps were assigned to the detachment to provide overall supervision for the program and specific responsibility for the military training. The academic program consisted of mathematics, physics, history, geography, English, civil air regulations, and medical aid. Each trainee also had ten hours of flight instruction.

In June, 1943, there was activated a unit of the Army Specialized Training Program, having as its objective the preparation of technicians needed for the several services of the United States Army. The program at the University, to which 494 trainees were originally allotted, was designed to cover the Basic Phase Curriculum and the Advanced Phase Curriculum in Engineering. These were followed by a group of approximately 100 former advanced ROTC students of the University whom the military authorities returned to pursue their studies and training until openings in Officer Candidate Schools occurred, by nearly fifty trainees in the Preprofessional Curriculum leading to medicine and dentistry, and by allotments of reservists. In all, up to July 1, 1944, the University had enrolled nearly 1,500 men in these various phases of the Army Specialized Training Program. In the Basic Phase Curriculum, the trainees studied chemistry, mathematics, physics, English, history, geography, and engineering drawing; in the Advanced Phase, the trainees pursued those studies usually required by the professional schools of engineering, medicine, and dentistry. As with the Army Air Forces, the University assumed responsibility for instruction in the academic subjects and for physical training, while the Commandant and his staff had charge of the military training

and discipline.

Mr. Kenneth R. Williams, who was appointed Director of War Training Programs, resigned in May, 1944, and was succeeded by Dr. J. Hooper Wise. The President of the University served as a member of an Advisory Committee consisting of ten college presidents who were asked to cooperate with the War Department in planning and developing the Army Specialized Training Program.

Although contracts with the Federal Government did not permit profits to be made by the institutions having war training programs, a considerable saving was effected through the absorption by the Government of costs for operation, equipment, instruction, and other necessary functions which otherwise would have had to be paid from State funds. In the training of Air Cadets and in the Army Specialized Training Program a total of more than a million and a quarter dollars was paid to the University by the Government. Of this amount something over \$750,000 was expended on operation, on the Cafeteria, Residence Halls, Infirmary, Florida Union, Book Store, and on other service units. During these programs 1,600 men were fed three times a day and all were housed in the University Residence Halls. A sum of \$527,238.07 was transmitted to the State Treasury for payment of salaries, use of facilities, and depreciation on buildings and equipment. Details of finances during the biennium are set forth in the report of the Business Manager, but it may be noted in passing that there was a balance of \$69,426.36 available to the University from these two programs as of June 30, 1944.

These programs enabled the University to retain the services of most of its faculty and to utilize its plant facilities during the period when it experienced its lowest civilian enrollment. Through the extra funds made available by the programs, an opportunity was provided for paying the staff for overloads carried, and some increases in salary were made possible. Without these increases, there would have been considerably more sacrifice on the part of the staff, and the number of persons leaving the University for more remunerative employment would have been much larger.

There were other training programs, including pre-radar courses, in which some 150 students were trained in 1942 - 1943.

A very effective and important phase of the training given through the extension service of the College of Engineering was the Engineering, Science, and Management War Training Program, in which approximately 3,000 persons were trained during the first year of the biennium and 2,000 during the second year. Seventy-five sections of thirty-three different courses, ranging from elementary physics and mathematics for high school teachers to postgraduate courses in aircraft engineering, were given. This work was conducted under the direction of Professor N. C. Ebaugh, Head of the Department of Mechanical Engineering.

GENERAL EXTENSION DIVISION AND AGRICULTURAL EXTENSION SERVICE

Both the General Extension Division and the Agricultural Extension Service have considerably enlarged their activities during the past two vears. The General Extension Division has made a notable contribution to national and civilian defense. Approximately 2,000 men in the armed forces have been given correspondence courses through the University of Florida. The University, through this Division, follows the flag to where they are—to England, India, and literally to the ends of the earth. G. I. Joe has been offered 352 courses on the college and high school level. Numerous other war activities have been carried on by this Division, of which two were conducted in cooperation with the Adjutant General of Florida. The first involved the registration of workers on the job at Camp Blanding for Selective Service, thereby saving 200,000 vitally important work hours; the second, the coordination of the State Defense Council's training program. Schools were conducted for 1,773 instructors to train the Citizens Defense Corps in fire, gas, and other defense subjects required by the Office of Civilian Defense. By January, 1943, the State Defense Council reported a total of 86,641 persons enrolled.

During the present war the Agricultural Extension Service has been confronted with the greatest responsibilities in its history. In times past its activities have been confined purely to education. Because of the gigantic and essential demand for adequate food supplies, the Congress called upon the Extension Service to undertake the administration of a program providing for the recruitment, transportation, and housing of labor to relieve the shortage brought about by the drafting of farm youths into the armed forces. Under agreement with the United States Department of Agriculture, allocations of funds were made by the Federal Government for this important work. Twenty-six labor camps were provided with a combined housing capacity of more than 13,000 workers, and 3,650 laborers were imported into the State. Of these 1,600 were Jamaicans, 1,200 were Bahamians, and 850 were prisoners of war. These workers have been supplied for the harvesting of citrus fruits, strawberries, potatoes, peanuts, sugar cane, and other Florida crops. During the biennium \$275,000 was allocated by the United States Department of Agriculture to the Agricultural Extension Service programs, which were conducted with economy as well as efficiency. As a result, substantial balances were returned to the Government at the expiration of budgetary periods.

RESEARCH

More research has been done at the University during this biennium than at any other time in its history. Much of this research is related to the war effort, particularly in the fields of engineering and agriculture. Engineering research in behalf of the war effort has been subsidized by the Federal Government, and for this purpose approximately \$112,000 has been received during the Biennium. In addition, the 1941 session of the Florida Legislature appropriated \$50,000 for strengthening and developing the Engineering and Industrial Experiment Station. Funds from this appropriation were made available by the Budget Commission in the second year of the biennium. Most of the research being done for the Government is of a secret nature. However, rather outstanding results have been achieved, and these will create pride in all friends of the University when the facts are revealed. For the development of industries and the utilization of the State's products, researches are being carried on in the utilization of lime rock, waste products, particularly in the field of wood processing and canning, and minerals. The possibility of establishing a ceramic industry in Florida is being diligently explored.

There are two ways in which the State can enrich itself. It must either exploit the wealth created by others or create wealth for itself. Through the Engineering Industrial and Experiment Station the University has been given a fine opportunity for creative research which will upbuild the economic structure of the State of Florida.

Agricultural research has been applied vigorously in the fields of food production and nutrition since these were of major assistance in the war effort.

Not only in engineering and agriculture have there been increased activities in research but with the reduction of teaching loads, which have long been too heavy at the University, the scientific staff of the institution has been enabled to make larger contributions than have hitherto been possible. Through the Alumni Office, a monthly bulletin, *The Fighting Gators*, has been sent to parents of servicemen for transmittal to them in the field. Included each month are news items giving accounts of the activities of alumni in the armed services and listing those reported wounded, taken prisoners of war, or lost by death. At the end of the biennium, it was estimated that there were some 8,000 alumni in the armed services, and actual reports had been received from more than 4,000 of these. About one-half were graduates. Among the graduates 76 per cent were officers, 12 per cent non-commissioned officers, and 12 per cent privates and seamen. Of the non-graduates, 31 per cent were officers, 35 per cent non-commissioned officers, and seamen. One hundred and seventy-eight have been listed as killed in action, fifty-eight as missing, and thirty as prisoners of war.

It is a source of considerable satisfaction that the percentage of former students of the University of Florida who are serving in the war effort is as large as that of other institutions of higher learning. Furthermore, Floridians in all parts of the World War theatre have displayed unusual valor. In part, this is indicated by the fact that 235 have won some 553 decorations. Among the outstanding aces in the Air Corps are Lt. Don Fischer, '41; Captain Robert C. Miller, '40; Captain John F. Bolt, Jr., '41; Colonel John Alison, '35; Captain Herbert H. Long, '42; Lt. Louis A. Menard, Jr., '40; and Captain Sheldon Brinson, '38.

The contribution of the faculty in the war training, extension, and research programs has already been mentioned. As stated in my last biennial report, the University early adopted as a major policy the principle that positions made vacant by leaves of absence or resignations be filled only as emergency or necessity dictated. At the height of the training programs it was necessary to augment the faculty by recruiting additional members, some from beyond the borders of the State. In this way the staff has been kept flexible and has been adjusted to wartime demands. Annual leaves of absence were granted from the outset of the war emergency to members of the faculty and staff who could be spared for services in the war. Some members of the staff, occupying positions in critical fields, were requested to remain at the University rather than accept war service. One hundred and forty-eight members of the staff were granted leaves. Of this number 107 entered the armed services, including eighty-six from the instructional staff and thirty-one from the administration and maintenance staff. Five accepted positions related to the war effort, two pursued work towards their doctorate, while twenty-four whose services were not required at the University were allowed leaves for personal reasons. Practically all of those

on military leave have commissions in the various branches of the armed services.

CIVILIAN PROGRAMS

As previously mentioned, during the biennium there was a decrease in the enrollment of civilian students which was rapidly accelerated by the induction of able-bodied boys down to the age of eighteen years. However, the Army trainees, together with the civilian students, substantially increased the enrollment until, during the second year of the biennium, there was a total enrollment of 4,717 students, the greatest number of any year in the history of the institution.

All colleges and departments of the University were kept open and no educational opportunity was denied civilian students. Student government, the Honor System, most of the fraternities, intramural athletics, and the usual activities were continued. Intercollegiate sports were discontinued in the year 1943–1944. Some of the fraternities became dormant and their social activities were reduced to a minimum. During a part of the period under survey the University leased some of the fraternity houses and made them a part of the Residence Hall system for use of civilian students. This adjustment was necessary because the Army trainees occupied the campus residence halls.

BUILDINGS AND EQUIPMENT

The War Department paid the University 4 per cent on the value of buildings which were used in the war training program. These funds, added to those available from State appropriations, have enabled us to keep the plant in exceptionally good condition and even to improve some of the buildings. While the shortage of labor has, to some extent, hampered our maintenance service, the physical aspects of the University is, on the whole, better than could have been expected after two and a half years of war.

The Legislature, in its General Appropriation Bill of 1941, made provision for the erection of three new buildings at the University of Florida. These included:

- (1) an addition to the University library, \$150,000;
- (2) a College of Business Administration Building, \$150,000; and
- (3) a Dairy Barn, \$50,000.

The sum of \$80,000 was also appropriated for the rehabilitation of the Agricultural Experiment Station Building. Because of the shortage of materials and labor, it was impossible to erect any of the new buildings authorized. By constant and indefatigable efforts, the rehabilitation of the Agricultural Experiment Station Building, begun in the previous biennium, was sufficiently completed to permit occupancy. The renovated building is of fireproof construction and has a new interior design built into the walls and under the roof of the old building. The available space has been increased approximately one-third

CONCLUSION

As usual, at the close of the biennium, I feel deeply indebted to many persons and have no adequate words in which to express my gratitude. I have endeavored so to steer the University through these difficult war days as to preserve the essential elements of a great institution of learning, assist our nation in the most crucial war in history, and plan for a greater University to serve a greater Florida. In these efforts, I have had uncommon cooperation from my colleagues, both of the administrative staff and the teaching faculty, as well as from the students. These two years have been peculiarly burdensome for members of the Board of Control, because of the almost continuous readjustments in staff and budgetary requirements, not to mention the extraordinary problems arising of necessity from the war situation. I want to thank each of them for his patient consideration and for the constructive help which he has given. Beyond the Board of Control is the Board of Education which has, under the leadership of a Governor who, as an alumnus of the University of Florida, was peculiarly fitted to understand its needs, supported by us in every possible manner. And beyond the Board are the people of the State of Florida whose University we are endeavoring to administer. To all of these and others I express my grateful appreciation.

Respectfully submitted,

Jno. J. Tigert

President, University of Florida"

Now we may read what our own Head Professor Thomas Simpson wrote as part of this report, in his role as Dean of the Graduate School.

"REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I beg to submit the following report of the activities of the Graduate School for the biennium ending June 30, 1944.

During the war, the enrollment in the Graduate School has held up better than might have been expected. The lowest registration was reached in 1942, when 40 graduate students enrolled each semester of the regular year. The first term of the 1944 Summer School showed a registration of 97 students, an increase of about 28 per cent over the previous summer. A total of 70 master's and 7 doctor's degrees were conferred during the period. Throughout the biennium, we operated on a diminished budget with a reduction in the amount spent for research and for graduate council assistantships.

In the spring of 1944, the Graduate Council made a study of the problem of the master's degree. As a result of this study, we inaugurated a new degree, Master of Education, designed to meet the needs of in-service teachers.

The School of Trade and Industrial Education at Daytona Beach offered only two three-week terms in each of the summers of 1943 and 1944. Previously, it had offered three terms each summer. Ten to twelve graduate students were registered. A Short Course for Doctors of Medicine has been given in Jacksonville each year in June under the auspices of the Florida Medical Association, the State Board of Health, and the Graduate School of the University of Florida. These courses have been very successful, attracting from 150 to 200 physicians through a carefully worked out program of lectures by eminent specialists. In cooperation with the General Extension Division, the Graduate School has provided a special service to teachers in Jacksonville during the emergency. A graduate course was offered in the spring of 1943, the fall of 1943, and the spring of 1944.

Graduate research funds provided necessary X-ray equipment for biology, motion picture films for psychology, library material, and books and periodicals, for all departments offering graduate work.

There is a close integration of the Graduate School with the Research Council. Promotion of research by encouragement and aid to exceptional graduate students should continue to be an important part of our program. It is highly important to offer to such students inducements in the form of graduate assistantships and research fellowships, which will encourage superior students to pursue advanced work and independent research.

Respectfully submitted, T. M. Simpson, Dean"

Appendix B

Mathematics in a Dark Room

by Dr. Rick Smith, Department of Mathematics ¹²

His class is conducted the way one hopes for a mathematics class. He arrives on time, begins by asking questions, assembles a neat body of work on the chalk board, pulls the students into participation, and maintains an orderly environment. The class is engaged. They seem to sense the partnership between themselves and this professor. Someone once said to him, "You don't even know you have a handicap." Students have been known to take weeks to notice and some are never quite sure. He adamantly refuses to let anyone make a fuss about the fact that he is blind. He is a Mathematics professor, Theral Moore, and, as a TIP award winner, he is one of our best.

He came to UF in 1955 with a fresh Ph.D. from the University of Missouri. While not the oldest member of the Mathematics faculty, he has been here the longest. He was born with retinitis pigmentosa. The symptoms are tunnel vision and the fading of the central vision. Theral's vision degenerated rapidly leaving him with minimal sight and legally blind. In his junior year at the University of Arkansas a professor told him about the special binoculars that jewelers wear for magnifying close objects. With the binoculars, Theral could read, seeing a few letters at a time. As he points out, mathematical writing is terse and logically condensed, so the binoculars, which would be hopeless for any large amount of reading, worked well for mathematics. During this time, he continued his research in topology and wrote a book, *Elementary General Topology*, which appeared in 1964. He used the binoculars until 1972 when the retinal nerves completely detached and he became totally blind.

Visual vs. Formal. At this state I am going to speculate a bit on the cognitive modes of mathematicians. This is sure to stir up my colleagues, but maybe that is not so bad. I tend to view two modes in our discipline; the visual, predominantly for the geometrically oriented, and the formal, for the symbolically oriented. This is not a clean dichotomy. Simple Darwinian selection principles in graduate training ensure a Ph.D. mathematician is facile in both modes. Still, I would argue that within individuals there are tendencies or preferences for one mode over another.

¹²Editorial Note: in this appendix, we reproduce an article which our colleague, Professor Rick Smith, wrote for the *CLAS Notes* Volume **8**, Number 4, April, 1994, about Professor Theral Moore.

Moore is a topologist. Topology is a strongly visual, geometric subdiscipline of mathematics. This confounds me. He cannot see! He must deal with mathematical objects formally! I am wrong. He sees with his mind's eye. In 1972 he switched to number theory. Now this makes some sense, part of number theory are very formal. Ah hah! When he could not see, he reverted to formalism. Again I am wrong. He had no means of staying current in topology, so he began a collaboration with Edwin Hadlock, a number theorist. Through the grace of this collaboration he extended his research program. So much for arm chair psychology.

In 1962 Theral married Nancy Hadlock, the daughter of his future collaborator. They have two sons, Steven and David, and three grandchildren. Nancy escorts him to and from his classes. They recently completed a book, *Complex Analysis* (1991). In working on the book Nancy learned LATEX, a mathematical typesetting language. This is not a user-friendly WYSIWYG language. LATEX has more in common with a programming language than a word processor. Working from a set of notes she did the typing. A cadre of students checked the formatting. It was then read to Theral who would listen closely to the prose and re-weigh each argument. Then the revision loop would return to Nancy. In this manner they produced the book in just two years.

The Dark Room. To understand what he does I devised a Gedanken experiment. I imagined sitting in a dark room. It is a lecture hall. I can hear the speaker. "Now you will notice that along this curve ..." I cannot see his drawing. "If we come back to this index formula ..." He had written a formula on the board ten minutes earlier. Someone from the audience asks, "Is the second line on the middle board correct?" I am struggling to remember the layout of the boards. There is another question. "Can we not view the value m as ..." So it goes, my only hope for understanding is to keep a complete mental picture of the lecture. The thought experiment runs away from me. Now I am the speaker and the tables have been turned. I am speaking the speaker's words. Somehow I am writing the formulas on the board without seeing them, drawing the pictures and labeling them with values, without seeing them, and the questions are being addressed to me. It is in this runaway second part of the experiment that I begin to understand what Theral does every day.

The Narrative Flow. Theral prepares his lectures by listening to them. He has tapes of the books that he uses. In the past the tapes were prepared by student readers. Now he gets a full set of tapes from a company in New Jersey. Listening, he picks up the idiosyncrasies of the textbook, the examples the book uses, and the exercises. All of this material he organizes carefully. When it is presented, there is a rhythm to the lectures as he combines his story with board work.

My colleagues in the humanities have talked about the "narrative flow" in their work.

The narrative flow is built around a sequence of cues that is filled out in the presentation. Lectures in mathematics are much the same where theorems, formulas, and diagrams constitute milestones that guide the flow of the presentation on a theoretical terrain. We use pictures to display concisely the relationships among the variables as visual cues. Most of us carry a variety of cues into the classroom in the form of written notes, the textbook, overhead slides, and the like. Mathematicians can get by on relatively few cues because the logic propels the delivery. The resulting board work during the delivery becomes part of an almost self-sustaining set of further cues. Seeing the work as it develops provides more cues.

Theral cannot prepare for his classes in the same way. The variety of visual crutches that we use are not available to him. As I imagine it, he actually places in memory, planes full of graphical information. In computer graphics, a whole screen of data stored in resident memory is called a "back plane." Theral has numerous back planes which carry what his lecture will look like when it is presented. This keeps his board work organized. He knows where he is going to write the next line. He knows where he can erase. He knows where to go back to point to a relevant part when questioned. He knows the next cue in his story. Each lecture for him is an intellectual exercise beyond just the linear organization of the material. Experience has taught him how to piece the back planes together into a smooth narrative flow. In this way Theral Moore illuminates the dark room.

Apendix C

Louis Karpinski and American History of Mathematics Prior to World War II

We have learned in Chapter 8 that Franklin Kokomoor did his doctoral work at the University of Michigan under the direction of Dr. L. C. Karpinski during the 1920's, and that part of Kokomoor's research had involved two weeks of study at the private library of George Plimpton in New York City. We have also noted that Kokomoor published his dissertation in the journal *Isis*. Fortunately, in connection with the centennial of the American Mathematical Society, a three volume work was produced, which includes an article by Uta Merzbach on *The Study of the History of Mathematics in America: A Centennial Sketch*, cf. [1]. This article is the source of the materials in this appendix.

The two earliest workers in this area were apparently the Swiss immigrant Florian Cajori (1859–1930), who had come to the United States at the age of 16. After attaining the B.S. from the University of Wisconsin in 1883, Cajori studied at Johns Hopkins during 1884–1885. Then he spent three years as an Assistant Professor

of Mathematics and Professor of Applied Mathematics at Tulane. Cajori spent a year in Washington, D.C. as a researcher at the Bureau of Education, which resulted among other publications in the first comprehensive history of mathematics in the United States, cf. [2]. Following this year in Washington, Cajori spent the next 30 years at Colorado College, where he served as Professor of Physics from 1889–1898, Professor of Mathematics from 1898–1918, and Dean of the Department of Engineering from 1903–1918. In 1908, Cajori was asked to contribute to Cantor's *History of Mathematics*, evidence that Cajori was known in international circles.

A second major and extremely prolific figure in the American history of mathematics was David Eugene Smith (1860 - 1943). Smith studied art and classical languages at Syracuse University, graduating in 1881. Although Smith was admitted to the bar in New York State three years later, he preferred to teach mathematics at the State Normal School in Cortland at the same time as he was taking further graduate work at Syracuse. In spite of attaining a Ph.D. with a dissertation on classical art, Smith became Professor of Mathematics at the State Normal College at Ypsilanti, Michigan. He also took a degree in pedagogy there, before becoming "principal" of this normal school. Later, he became the Professor of Mathematics at the Teachers College of Columbia University. Merzbach has the following comments on one of Smith's books published in 1908, cf. [1, pp. 645-646]:

"Among his major works of the pre-World War I period one must single out *Rara Arithmetica, a Catalogue of the Arithmetics Written before the Year MDCI with a Description of Those in the Library of George Arthur Plimpton of New York.* Not only has this work remained a standard reference among bibliographers, book collectors, and historians of early modern mathematics, but it served to cement his friendship with Plimpton, who was the chairman of Ginn and Company from 1914 to 1931. Both men were collectors; for years, Smith assisted Plimpton in developing the mathematical parts of his library. Not surprisingly, Ginn published many of Smith's books."

Smith served on the American Mathematical Society Committee on Publications from 1903-1909, as an editor of the *Bulletin of the American Mathematical Society* from 1910-1920, and was Librarian of the American Mathematical Society from 1902-1920. He also had been active in the formation of the Chicago Section of the American Mathematical Society during 1896-1897. Thus Merzbach provides an example of how historians of mathematics were much more important in the affairs of the American Mathematical Society at the turn of the century than they would be during the post-World War II years. Merzbach [1, pp. 646-649] has the following comments about Smith's influence while he was serving at the Teachers College of Columbia University:

"Aside from his publications and his organizational activities, Smith exerted strong influence on mathematics education and the history of mathematics through his teaching. His courses were extremely popular.... Although his strongest influence was exerted on the students enrolled in Teachers College, it was not limited to these. Numerous students from the mathematics department in Columbia College attended Smith's courses; for example, E. T. Bell [1945] described his experience when sent there by Cassius Jackson Keyser (1862–1947), long-time member of the Columbia mathematics faculty, who taught history of mathematics himself at times and steered students to him.

In twenty years, Smith's graduate students at Teachers College produced respectable theses devoted to the history of mathematics education.... Smith's influence and collaborations extended beyond his regular graduate students, however.

In the academic year 1909–1910, an instructor from the University of Michigan spent a year's leave of absence at Teachers College. The stay resulted in a joint publication by Smith and Louis Charles Karpinski (1878–1956) on The Hindu-Arabic Numerals, which was widely hailed as the best exposition on this frequently treated topic. Karpinski was a graduate of Cornell University who had presented a dissertation on distribution of quadratic residues to obtain his Ph.D. degree from the University of Strassburg in 1903. He, too, had gained his first teaching experience as a young man, when he had taught mathematics at Berea College in Kentucky. After his return from Strassburg, he spent a year as instructor at the New York State Normal school in Oswego, after which he joined the faculty of the University of Michigan, where he remained the rest of his life. His interest and competence in the medieval period was demonstrated further in 1912 when his paper on "The 'Algebra' of Abu Kamil Shoja ben Aslam" appeared in Enestrom's Bibliotheca Mathematica.

By 1914, these individuals ¹³ formed an active group, promoting the history of mathematics as an independent research field, as a motivating subject for teachers of mathematics, as a stimulus for mathematical research, and as a source of general edification and pleasure. Conscious of the limited availability of reference materials and libraries, they collaborated in making requisite primary and secondary source materials more easily available, be it through book purchases, through trans-

¹³ed., Cajori, Smith, Karpinski, Woodward, Carus, Archibald

lations, through bibliographies, through text editions and analyses, or simply through reviews."

More information about Karpinski's later career is provided in [1, pp. 649 - 653]:

"During the post-World War I period, history of mathematics grew steadily in America and flourished within the mathematical community. It is true that World War I markedly affected research and international collaboration in history of mathematics as it did in other fields. For example, *Bibliotheca Mathematica*, whose rigorous editor had featured research contributions by Cajori, Karpinski, Miller, and Smith, ceased publication after 1914. The International Commission on the Teaching of Mathematics, in which David Eugene Smith had become of considerable influence, suspended its operations as well. Yet, during a period of institutional growth in this country, American historians of mathematics reached a peak of professional involvement and sharpened their research.

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On the founding of the Mathematical Association of America (MAA) in 1915, Cajori, Smith, and Archibald became even more involved in organizational activities. All three, as well as Karpinski, Miller, and others sympathetic to mathematical history, were charter members of the Association. Cajori served as president (1917–1918) and was a member of several committees which prepared lists of suggested mathematical books for college and junior college libraries – Archibald, Cajori, and Karpinski were elected vice-presidents of the American Association for the Advancement of Science; Archibald served as chairman of section A (mathematics), Cajori and Karpinski of the recently (1921) established section L (history).

Karpinski made a notable contribution to the history of medieval mathematics with his translation and edition of *Robert of Chester's algebra of al-Khwarizmi* [Karpinski 1915]. In the 1920's he continued to call attention to the medieval sources available for study in this country

The other Woodward-Carnegie project relates to the coming to this country of the Belgian historian of science George Sarton (1884–1956). Sarton, an admirer of Poincare, had turned from philosophy to study chemistry and mathematics. After obtaining his doctorate with a thesis

on the mechanics of Newton in 1911, he founded the journal *Isis*, the first volume of which appeared in 1912. It was conceived as an international journal for the history of science; Sarton edited it from his home outside Ghent. Upon the invasion of Belgium at the beginning of World War I, Sarton buried many of his research notes in his garden and fled to England. In 1915, Sarton came to the United States, assisted by Smith. The following year, he held an appointment at the philosophy department at Harvard. Woodward created for him a position as associate in the history of science at Carnegie, which became effective in 1918. It was this appointment that fed Sarton for many years, even after Harvard offered him research space and library facilities. In addition, the Carnegie Institution sponsored the publication of Sarton's monumental *Introduction to the History of Science*...; the scope of the project far exceeded available resources, however, and only three volumes could be completed.

Sarton is justly credited with establishing the history of science as an academic discipline in the United States and with shaping the basic research tools needed by workers in the field. Because his journal *Isis* had been the official journal of the History of Science Society since the founding of that society in 1924, it is often assumed that the Society was his sole creation as well. In fact, however, the establishment of the Society involved several American historians of mathematics, notably the indefatigable David Eugene Smith. In 1915, Smith had called attention to *Isis* through a note published in *Science*. In December 1923, Smith sent a letter to 45 individuals, suggesting a meeting in Boston. As a result, the next month, 37 individuals met and founded the History of Science Society; besides Sarton, the organizing committee included Archibald, E. W. Brown, Karpinski, Smith and H. W. Tyler, among others....

Merzbach has the following comments on American history of mathematics and American mathematics during the 1930's [1, pp. 653-657]:

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"Through hindsight it is possible to detect the beginning of a decline in mathematical history in the late twenties. By the end of World War II, American research results in the history of mathematics were becoming scarce, and the most widely read expository presentations sacrificed accuracy for literary bon mots or philosophic preconceptions. The best research was no longer published in the mathematical journals; and the occasional expository article dealing with the history tended to be chatty. The quality of courses in the history of mathematics, never very demand-

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ing, sank further. In the minds of most mathematicians, history of mathematics had lost any claim to status as a legitimate field of mathematical specialization.

In the early thirties, the change was not obvious. To be sure, in 1931 the $Bulletin^{14}$ dropped from its masthead the reference to being 'a historical and critical review of mathematical science.' It still carried an occasional historical book review; but neither in the *Bulletin* nor in other American research journals could one find the historical framework that had once surrounded many research articles. Yet there appeared to be other outlets for historical articles.

The Monthly continued to publish a variety of readable articles, covering a wide range of mathematical history, which occasionally included original research.

In 1932, a new journal was founded, entitled *Scripta Mathematica*. Its masthead proclaimed that it was 'A Quarterly Journal Devoted to the Philosophy, History and Expository Treatment of Mathematics.' The editor-in-chief of the journal was Jekuthiel Ginsburg of Yeshiva University; the listing of the editorial board read like a Who's Who in the History and Philosophy of Mathematics: it consisted of Archibald, Karpinski, Keyser, Loria, Simons, and Smith.... There was a pleasant mixture of original research and exposition in the historical articles; most active historians of mathematics contributed to *Scripta* at some time during the thirties and forties.

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The aging pioneers continued their work.... Karpinski continued his bibliographic work, culminating in his *Bibliography of Works Published in America Prior to 1850*, which appeared in 1940. Before his retirement in 1948, he had built up the mathematical rare book and manuscript collection at the University of Michigan, produced bibliographies on cartography, sold his map collection to Yale University, served a term as chairman of Section L of the AAAS, and, in 1941, been elected president of the History of Science Society.

The interest in popularization and biography during the late thirties and forties was not peculiar to the history of mathematics. Among American historians this was a time of major controversy concerning these two issues. ... American historians had come a long way since the turn of the

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¹⁴ed., of the American Mathematical Society

century in developing research strength and generational continuity and perhaps benefitted from vigorous debates. American historians of mathematics, however, had just begun to show their research potential. Their limited publication outlets for serious research contributions were being shut down by the spread of National Socialism on the European continent and the competition for increasingly limited resources at home. The disdain for historians expressed by men like ¹⁵ Bell was hardly designed to encourage young people with an interest in mathematics to take up the study of history. All of this exacerbated the major problem, which was that there was no new generation of historians of mathematics to take the place of those who were retiring in the 1930s. Smith and Karpinski had had substantial numbers of graduate students; but even among those who made sound contributions to the history of mathematics had been prepared to become mathematics 'educators', not historians of mathematics. Their careers were in teaching and administration; the time people like Sanford and Simons found to edit and produce historical articles is a testament to their devotion to the subject. Neither economic conditions nor the academic climate, said to have produced a 'schism in scholarship' [Higham 1970], could be expected to encourage many to take up a research career in a fading field."

As an interesting coincidence from the viewpoint of our own study, Merzbach's final paragraph [1, pp. 659] on Karpinski reveals that after ending his years at the University of Michigan, he retired to Florida to spend his remaining years as a book dealer.

References:

- Uta Merzbach, "A Study of the History of Mathematics in America: A Centennial Sketch," in A Century of Mathematics in America, Part III, ed., P. Duren, American Mathematical Society History of Mathematics, Volume 3, Part III (1989), pp. 639-666.
- [2] Florian Cajori, The teaching and history of mathematics in the United States, Washington, D.C., Government Printing Office, 1890.

 $^{^{15}}$ ed., E. T.

Chapter 8

The John E. Maxfield and A. D. Wallace Years: 1960–1970—The Research Climate Receives Increasing Emphasis

In 1957, the Soviets launched the first satellite into outer space, called Sputnik. I was a young boy at the time, but had already started watching television news specials with my parents. I can recall a whole series of scary programs on how the Soviet system was primed to overtake us in all areas of production, and that the United States had to do something about our lagging scientific and engineering education. A few years later in January, 1961, John F. Kennedy was inaugurated as President and at the time he took office, it was estimated that the Soviet growth rate was 6 percent to 8 percent per year, whereas the United States had a paltry growth rate by comparison of 2 percent to 3 percent. The Soviet Premier, Nikita Krushchev, had boasted that

"we will bury you—your grandchildren will live under Communism."

The Cold War was going full blast and I can recall that in this general time period, the newly created public television station in Schenectady, New York, started broadcasting a program on the Russian language every weekday at 6:30 a.m.. My parents purchased the book which went along with this program and for several months made my sister arise early with them and follow this program. For some reason, I was exempt from having to do this, but I did learn one or two Russian phrases. Thus Dean Simpson's study of Russian during his retirement fits very well into the cultural milieu of the times, as I remember them. On May 25, 1961, President Kennedy addressed a joint session of Congress in a nationally televised speech and among the things he said was

"I believe this nation should commit itself to achieving the goal before the decade is out, of landing a man on the moon and returning him safely to earth."

In this time period, then, there was a dramatic increase in interest in and support for building the scientific infrastructure, including educational, in the United States. Mrs. Nancy Moore, who was studying in the graduate education curriculum at the time, recalls this period at the University of Florida as follows in an e-mail note of June 28, 1994:

"I can't help but point out that until about 1959 +, the federal government didn't get actively involved with the school curriculum. Then it was because of Sputnik being shot into space by the Russians in 1957. The government felt that the US was behind in the space race. That was bad, because that meant that Russia might have new weapons to attack us from space.

I remember being enrolled in an education course in the 60's in which the constitutional basis of the federal government getting involved in education was discussed. There was no constitutional right for the federal government to get involved in education directly (that was left to the individual states), so the 'powers that be' saw that ... they could get involved under the guise of needing to defend the country. Of course, what started out as direct aid to the science curriculum (and the accompanying federal control) soon expanded to social sciences etc. (and the accompanying federal control that followed with the money).

I remember being in an education course in 1961 when the class was divided into 2 groups. One side had to argue in behalf of federal aid to education and the other half had to argue against it. That was a very controversial subject then. (Money yes, but control no)."

I also recall that when I was first at the University of Missouri, the long time faculty members told me how Professor Blumenthal, their leading researcher, had been opposed to getting outside grant money when this issue first arose.

Marsden has the following comments on this particular time period, [1, pp. 393–394]. President Harry Truman's Commission on Education, appointed in 1946, which filed its report in 1947

"... was a prophetic voice announcing the advent of an era in which the federal government would be a major force in making the educational wilderness bloom through technique. During the war the universities had made an important contribution to national defense. Perhaps the most telling sign of the times was that the most momentous development during Robert Hutchins's tenure at the University of Chicago was not anything having to do with the discussion of the humanities or natural law; it was that in 1942, under the Amos Alonzo Stagg football field, scientists at the university split the atom. That secret work was the iceberg of which many other university government contracts were the tip. The attitudes that emanated from such successful cooperation grew into a conviction among government leaders that the universities should continue to play a vital role in national defense during the Cold War era. By 1960 federal expenditures for university research had reached \$760 million (\$20 million each if distributed equally among thirty-eight top schools). Moreover, the National Defense Education Act of 1958 declared that

'the security of the Nation requires the fullest development of mental resources and technical skills of its young men and women.'

Accordingly,

'this requires programs that will give assurance that no student of ability will be denied an opportunity for higher education because of financial need.' "

Another interesting statistic given in [1, p. 427] related to the government expansion and vast increases in two-year colleges, community colleges, and higher education outside the humanities since 1960 is that while in 1960, about 15% of college faculty taught at a liberal arts college, by 1980, the percentage had dropped to 8%.

At the University of Florida, J. Wayne Reitz was President of the University from 1955–1967. During the early years of the Reitz administration, the Medical Sciences Building, the Teaching Hospital and the Pharmacy were completed at the J. Hillis Miller Health Sciences Center. McCarthy Hall was opened as the new home for the College of Agriculture and in 1965, Little Hall, named for the first Dean of the University College, Winston W. Little was completed. Dr. Linton E. Grinter had been hired in August, 1952 to succeed Dean Thomas Simpson. Grinter was hired with the title Dean of Graduate School and Director of Research. He had been at the Illinois Institute of Technology as Vice President and Dean of the Graduate Division there. He was the author of textbooks on structural engineering and mechanics and would serve as Dean of the Graduate School until 1968. A young, aggressive law school professor, Robert Mautz, who would later be Chancellor of the entire Florida University system, was moving up in the hierarchy. By 1954–55, he had the title of Assistant Dean and Associate Professor of Law. In 1958, Mautz became Dean of Academic Affairs.

In the last chapter, we have seen that Kokomoor worked during the late forties to get the Ph.D. program approved and our first Ph.D. was awarded in 1950. It is interesting to read the following about the development of the American University in general in this same time frame in William Duren's recent article in [2]:

"In the years 1950-1971 this country initiated an enormous expansion of graduate studies in all fields of arts and sciences, not just mathematics, bringing in many regional universities that had never given the Ph.D. before and enlarging the older established ones."

It seems apparent that when we survey the written records from the 1950's at the University of Florida, that production of Ph.D. and Masters students seems to have played the role that publishing plays in the academic totem pole during the 1980's and 1990's. We find Florida mathematics faculty like Russell Cowan, William Hutcherson, Herbert Meyer, C. Basel Smith, D. E. South serving as supervisors to approximately 10 masters students each during the 1950's and early 1960's. Edwin Hadlock and C. Basel Smith, were dissertation supervisor for approximately 10 Ph.D. students each during this same time period. We also find on consulting the Mathematical Reviews Author Index for 1940 - 1959, that the strongest dissertations would often result in a publication with the thesis advisor and student as co-authors. During the 1950's, we find publications by Cowan, Ellis, Hutcherson, Hadlock, Phipps, C. B. Smith in this Index, but still get the sense that with 5 course teaching loads, that publications did not seem to play the role that they came to play following the tighter job markets starting with the 1970's. Nancy Moore can recall that Dr. Kokomoor encouraged faculty participation in regional American Mathematical Society and Mathematical Association of American Meetings, and remembers her father preparing lectures for these events, but the emphasis to rush every latest little new idea into print seems to have been lacking. Joseph Glover has commented that probably the necessity for research grant renewal also had a lot to do with the increasing emphasis on numbers of publications during the 1960's and 1970's. Here is a University of Florida Press release found in the A. D. Wallace folder in the University Archives which speaks for itself about regional meetings and faculty participation:

"GAINESVILLE, March 1 — Dr. A. D. Wallace, newly appointed chairman of the Department of Mathematics at the University of Florida, will present one of two major addresses at the Southeastern Section of the Mathematical Association of America meeting Friday and Saturday (3/31-4/1) at Florida Presbyterian College in St. Petersburg.

More than 450 mathematicians from the Southeast and Puerto Rico are expected to attend.

Dr. F. A. Ficken, professor of mathematics and chairman of the Department of Mathematics at New York University, will give the second address.

During the two day meeting, 10 University of Florida faculty will present papers. They are: Dr. Lal M. Chawla, Dr. J. E. Maxfield, Dr. R. G. Selfridge, Dr. E. H. Hadlock, Dr. Amin Muwafi, Dr. William Gager, Dr. Robert G. Blake, Dr. C. B. Smith, Dr. Kermit Sigmon and Dr. Waldemar Olson."

On our own campus, there seems to have been an effort to build up research in general during the early 1960's, augmenting earlier efforts to build in the the applied sciences and engineering starting in the 1950's. The Records of the University of Florida reveal the following about the establishment of the Graduate Research Professorships. Even in the early and mid 1950's, there had been Research Professorships in Engineering and at various Experiment Stations. To name just a few, Henry Brown in 1952 joined the faculty and had the title in the catalogue of Associate Research Professor of Engineering and Industrial Experiment Station. Eugene Bovee arrived on campus in 1955 and had the title, Associate Professor of Biology and Sanitary Science and Associate Research Professor in Civil Engineering. Dr. Raymond Crist, a gentlemen who lived just a few houses away from me and who died in the spring of 1994, had been appointed already in 1951 with the title of Research Professor of Geography.

But if we are looking for GRADUATE Research Professorships in Arts and Sciences, the first we find seem to be the following:

Per-Olov Lowdin, Graduate Research Professor of Chemistry and Physics, 1960

Judson Brown, Graduate Research Professor of Psychology, 1960

Edward Garrett, Graduate Research Professor in Pharmacy, 1961.

So the establishment of the first Graduate Research Professorships in Arts and Sciences would seem, then, to coincide with the national movement in the late 1950's and early 1960's to build up the educational infrastructure, motivated in good part by Cold War fears. Professor Zoran Pop-Stojanovic also recalls that Graduate Research Professor John Slater, Ph.D. Harvard, hired in 1963 as a Graduate Research Professor in Chemistry and Physics was influential in the development of scientific research on the campus in the 1960's and 70's. (Slater was a member of the National Academy of Sciences.) Professor Al Bednarek has recalled that Dean Grinter was very interested in building up the research climate on campus with the aid of the institution of Graduate Research Professorship. Originally, these professorships were only in the graduate school, not formally attached to the departments [although this would later be changed during the Deanship of Charles Sidman, first dean of CLAS]. When someone stepped down from one of these GRP's, the graduate research professorship would not necessarily remain in the department. Other faculty have recalled for me conversations with Grinter in which he expressed his interest in appointing a Graduate Research Professorship in Mathematics and asked about prominent figures in Southern mathematical circles who could be brought to Florida to play a decisive role in building up the mathematics department. It was in these conversations that people recall the name of Alexander Doniphan Wallace, long time chair at Tulane, coming to the fore.

But it is interesting that evidence emerged serendipitously that even as early as the late 1950's, the administration was trying to help build our departmental research program during the Kokomoor Chairmanship. While writing up some memories of the Illinois mathematics department for my mother, I was led to read Paul Halmos's delightful book [3] and found to my surprise on [3, p. 239] that Professor Halmos writes:

"I continued to spend my quarters out of residence at far away places ... and I received nibbles (and sometimes offers) of jobs (often chairmanships) from several parts of the country (Urbana, Illinois—Gainesville, Florida—Pullman, Washington—Iowa City, Iowa). The period I am talking about is approximately the four year interval between 1957 and 1961."

Naturally, this raised in my mind the question as to whether Professor Halmos had been considered for the position of outside chairman when Kokomoor retired in 1960. By this time, I had already corresponded by e-mail with Professor Halmos about the University of Illinois, so I took the liberty of sending him an e-mail message asking if he could recall the nature of his negotiations with the University of Florida after 35 years. In response, Professor Halmos went digging through his files, and sent me the following letter on April 7, 1995:

"Dear Professor Ehrlich:

This is all I could find in the file labeled "Old job correspondence" — still in view of our recent reminiscences, it may interest you.

Best regards, Paul Halmos"
So here is a copy of the letter that Professor Kokomoor sent Professor Halmos, over 35 years ago:

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University of Florida Gainesville

College of Arts and Sciences Department of Mathematics Walker Hall January 17, 1958

Professor Paul R. Halmos Eckhart Hall University of Chicago Chicago 37, Illinois

Dear Professor Halmos:

We have open for the next academic year a research professorship that will presumably involve the teaching of one three-hour graduate class, conducting a seminar for members of our staff, and working and advising with some of our graduate students. We are looking for a man who would provide a general stimulus to our whole graduate program in mathematics. The salary would be from \$11,000 to \$13,000, according to the qualifications of the person employed. The position is intended to be one of permanent nature.

Your name has been suggested. I should like to hear from you as to whether you might be available. If you are interested and are planning to attend the Cincinnati meeting, I should like to talk the matter over with you at your convenience on Thursday, January 30. I'll be staying at the Sheraton-Gibson Hotel.

Four other members of my staff will be there several days longer. I'd be happy if you would talk to as many of them as possible, too. Altogether, we should be able to give you a fairly good idea of the nature of this position.

The four are: Dr. Alton T. Butson, Dr. Jerry W. Gaddum, Professor Diran Sarafyan, and Dr. Andrew Sobczyk.

If you are available and do not intend to attend the Cincinnati meeting, I'll give you any information you may desire by mail.

> Sincerely yours, F. W. Kokomoor, Head Department of Mathematics

FWK/bwf

This surprise offer from Professor Kokomoor drew the following response from Professor Halmos:

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January 27, 1958

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Professor F. Kokomoor Department of Mathematics University of Florida Gainesville, Florida

Dear Professor Kokomoor:

Thank you for your letter of January 17. The slight delay in my answer is caused by the fact that the letter had to be forwarded to me; I am spending the current academic year on sabbatical leave at the Institute for Advanced Study. The same reason forces my answer to your flattering inquiry. In view of my present leave I feel morally obligated to return to Chicago for at least one year, so that in fairness to you my answer had better be that I an NOT available next fall.

> Sincerely yours, Paul R. Halmos

Now at this time, we had a mathematics department faculty member, Professor Gaines Lang, who had been a teaching assistant at the University of Illinois when Paul Halmos was an undergraduate. Perhaps this had something to do with the choice of Halmos as a target for recruitment as a research professor. I sent Professor Halmos a follow-up e-mail message requesting permission to quote this correspondence and also asking about Gaines Lang. Halmos replied that

"Yes, Gaines Lang was my teacher and my friend—he is (was) a good guy."

In an article in the *Gainesville Sun* on July 16, 1994, Professor Seymour Block, Professor Emeritus of Chemical Engineering, who came to the University in 1944, had the following comments on the development of engineering at the University:

"In the late 1950's, the race to the moon was just starting, and along Florida's Space Coast, the heartbeat of high tech was pumping industry dollars into the economy. He said there was a serious movement to uproot UF's engineering department and move it to a new state school in

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Orlando, then called Florida Technological University, and now known as the University of Central Florida.

At that time, UF's engineering facilities consisted of only one building, one lab and an old Navy airplane hangar. Block worked on a committee that came up with a simple plan to stop the move.

'If we could get buildings built, they couldn't move it,'

Block said.

The plan was presented to engineering Dean Joseph Weil, who had plenty of friends in the Florida legislature, then still dominated by the Porkchoppers, those politicians from the Panhandle and North Florida who had the votes to control nearly any issue, despite being at population disadvantage with South Florida.

'He did his own politickin','

Block said of Weil.

While reapportionment eventually ended the regime of the Porkchoppers, Weil moved in time to get the construction money and firmly anchor the engineering college at UF.

Block had also been active in the American Association of University Professors, both on campus, statewide, and nationally. In the early 1960's, when Gov. Farris Bryant came to town, the organization hosted a dinner for Bryant, where Bryant dropped an invitation to Block

'to come and visit me.'

Well, the next year, when Bryant vetoed a \$700,000 appropriation for university faculty raises, Block decided to take up the governor's offer. The raises were an immediate issue, but Block also took along a plan proposed by the association that would expand and modernize the entire State University System with more money and more universities.

'He gave us a half-hour,'

Block said of the governor.

'We were in his office for an hour and half.'

Block didn't go alone; he invited two other faculty members so they could have a three-on-one advantage on the governor. The reasoning, he said, was that

'one could be thinking while the others were talking.'

Block described Bryant as a 'skin-flint conservative' who had a soft place in his heart for education. The group didn't get the governor to change his mind on the raise, but a month after the meeting, Bryant put together a task force to study higher education in the state. The group produced a study that mirrored the recommendations proposed by Block and his colleagues. Bryant then took the recommendation to a special session and powered them through the Legislature."

The University College was still going strong in the 1960's, which we should recall were turbulent years on college campuses, first, with Civil Rights issues causing dissension, followed a few years later by campus activities protesting the Vietnamese War. We happened to encounter an alumnus Daniel Harmeling, who graduated with the undergraduate degree in psychology in 1964, then took two years of graduate work in anthropology during 1964–1966. Thirty years or so after Professor Bradshaw remarked on the high dropout rates as we reported in Chapter 5, Harmeling recalls receiving the explicit impression after transferring in as a junior, but having to take some work in the Lower Division to remedy deficiencies in his course work in these basic requirements, that these courses were designed to weed the student body down to a decent size. He recalls being told,

"look to your right, look to your left, only one of you will graduate. This is what statistics show."

Nancy Moore recalled hearing the same phrase when she was a freshman in 1955-56. With this 2/3 attrition rate and the potentiality of being drafted to serve in the Vietnam War if one flunked out, apparently some students felt under some stress as Harmeling recalls. Indeed, his brother-in-law had precisely this experience happen to him, and has always remained bitter toward the University of Florida. In Chapter 8, we described resistance to female students entering the all male bastion of the College Inn. Harmeling recalls that in the early 1960's, the issue was the integration of this facility and recalls sustained picketing of the C. I. by students and faculty before it was integrated. Desegregation in Gainesville during the 1960's is also discussed in [4, p. 48]. Harmeling recalls that during the mid-60's, this flunk out policy came under increasing scrutiny; thus by the time Professor Lou Block was a student in the University College in 1965, he does not recall this vivid slogan of the 2/3 drop out rate being emphasized to the entering student body.

Now in our own Department, we would have had twenty years by 1960 of rule by a Chairman in his 60's, first, Dean Simpson in the 1940's followed by Professor Franklin Kokomoor in the 1950's. Theral Moore has recalled for me that as Kokomoor's retirement was nearing, no Chairman Search Committee was elected or appointed in the department, and that somehow the faculty expectation seemed to be that Professor

Dudley South, who would have then been entering his 60's, would be appointed the next Chairman by the administration. Instead, the old guard of the department was about to experience an influx of new faculty who led a somewhat more lively life style, including an outside chairman Dr. John Maxfield, then in his early 30's.

Professor Robert Meacham, whom we encountered in Chapter 8, sent me the following recollections concerning relations between the administration and the Department on the selection of Kokomoor's successor in e-mail messages during August and September, 1995:

"My recollections tell me that in the later fifties there were 15 to 20 full professors at the University of Florida. When it came time to replace Dr. Kokomoor, we discovered that Dean Linton Grinter was playing his cards very close to his chest: indeed he controlled the entire deck. Surprisingly he apparently never realized that we had friends at other universities and from them we learned a good bit about how Grinter was operating.

First we learned that he had invited Professor Kleene from the University of Wisconsin to apply, but Kleene said 'NO'. From John Curtiss at the University of Miami, we learned that Curtiss was also invited to apply, but Curtiss, who was a friend of several of us in the department, also declined. We got this information from Curtiss not on our campus, but at a regional meeting of the Mathematical Association of America. Professor Kenneth S. Miller, formerly from NYU or some other New York university, came to make a talk or two, but I am not clear as to whether he was there because of Grinter's invitation.

Why were the mathematicians annoyed at Grinter's end run past them? They felt that as professionals they should be involved in the selection of Kokomoor's successor. It is certainly true that by pouring money into the hiring of highly qualified mathematicians, the University of Florida's academic and research status improved considerably. Because Grinter did not involve them in the search for a successor, a number of those who were doing research and teaching upper level graduate courses became unhappy with the climate. When John Maxfield was appointed chairman, he arrived to find an unhappy set of professors.

In August 1959 I was invited to come to St. Petersburg to participate in a curriculum conference at this new college. ² Dean John M. Bevan asked me to set up the mathematics program. He had already invited me to be the founding professor of mathematics, but I declined. At the curriculum conference I met the others who had signed on as founding faculty. The program we set up was so exciting that we agreed in August

²ed., Florida Presbyterian College

59 to join the others a year later, when the founding freshmen class would arrive.

Consequently the entire year 59-60 was my last year at the University of Florida. I was therefore not affected personally by Grinter's go-it-alone approach to hiring a new mathematics chairman at U.F. Because I had experienced the same sort of Deanish behavior at Carnegie Tech, I was very glad that I had already signed on with Florida Presbyterian College before this academic year began."

Meacham recalled that over a several year period, Andrew Sobczyk and Alton Butson relocated to Miami University; Meacham recruited Dudley South down to Florida Presbyterian to handle the Statistics program; John T. Moore went to the University of Western Ontario; Russell Cowan went to Lamar University at Beaumont, Texas; C. B. Smith went to Trevecca Nazarene College in Nashville; and Cecil Phipps went to Tennessee Tech University in Cookeville.

The student newspaper, the *Florida Alligator*, from the fall of 1960, Professor John Maxfield's first semester as new outside chairman, gives a bit more vivid of a picture of the conditions Maxfield found when he arrived on the scene. A September issue of this paper reveals that enrollments were expected to set a new record; with one more week of late registration to go, 12,692 students had already enrolled. The University College, i.e., the Lower Division, which we have encountered in earlier chapters after its establishment in 1935, had an enrollment of 4,968 males and 2,178 females. In the Upper Divisional Instruction, the College of Arts and Sciences had enrolled 1,371 by this point in time, the College of Engineering had 1,041 enrolled, and the College of Education had 916 enrolled. There were two females registered in engineering and "one lonely male registered in a school of 66 female nurses." On the same page of the *Florida Alligator*, it is reported that the Seventh Annual Scholarship Convocation was to be held with guest speaker Dr. George Wald from Harvard lecturing on "The Origin of Life", and also Dean Robert Mautz was scheduled to discuss "the intellectual revolution on campus among the faculty and student body."

A long article in the September 23, 1960 *Florida Alligator* was devoted to space needs on campus, with extensive quotations from Dean Mautz and Dean Ralph Page.

"Overcrowded classes, a long brewing problem area, burst wide open this week as classroom jamming reached unprecedented proportions.

The critical conditions in jammed classrooms that prevailed as doors opened Monday caused a great shift of students from room to room, especially in Peabody Hall. Administrators were trying to re-allocate the largest classes as best as they could.

The direct cause of the overcrowded conditions was an enrollment increase of 509 students.

Dr. Maurice Boyd, head of the C-1 department, explained that junior colleges are not relieving the situation at the UF as expected.

'With 50 students in some C-1 sections, quality education and discussion become next to impossible,'

he said.

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Arts and Sciences, the hardest hit college, has an increased enrollment of 12.1 per cent over last year. Only two new teaching positions have been added, and that was a result of what Arts and Science Dean Ralph E. Page termed the 'desperate situation that prevails.'

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'What doesn't show up is the number of students from other colleges who take Arts and Sciences courses.'

Enrollment Up

'We're dealing with really astronomical proportions,'

he said,

'when you realize that our student course enrollment figures this year are 19,380 as compared with 18,355 of last year.'

Building-wise, UF's most pressing need is a social science-humanities classroom building and an architecture building, according to Dean Mautz.

'These were appropriated by the legislature, but the funds were never released by the cabinet because of the big freeze in Florida the winter of 1957-1958,'

he said.

The social science-humanities building will go south-southwest of the Administration Building if it is re-appropriated."

So that is the genesis of Little Hall!

In the September 30, 1960 *Florida Alligator*, an article headlined "Altered Schedules Eyed", to cope with increased enrollments and classroom crowdings, reported that

"Peabody, Anderson, and Walker Halls were visited by Dean Mautz during the busy morning hours.

'I saw for myself the crowded situation in those three most packed buildings,'

said Dean Mautz,

'and I will report on what I saw to University Vice-President Harry M. Philpot, who is chairman of President Reitz's 3 committee. 4 ', "

In these times, the Florida State Legislature met only every other year. Apparently, the support for education during the 1957 and 1959 terms had not been so munificent, as reflected in Mautz's comment above about appropriated funds being withheld as a result of a freeze affecting the citrus crop. In the October 4, 1960 *Florida Alligator*, an article headlined [Student Body President Robert] "Park Protests *Newsweek*'s Views" gave Bob Park's objections to aspects of an article in the September 26, 1960 issue of *Newsweek* on the role of the Florida legislature in supporting higher education.

"In a wire to Newsweek headquarters in New York City, Park stated:

'Florida is first in the Southeast in per capita income, but sixth in expenditure in the Southeast for higher education.

The University of Florida faculty is short 241 positions. Professors' salaries are shocking. Buildings are overcrowded. Alumni and students are conducting a statewide campaign to focus attention on the critical needs of universities of Florida for the 1961 legislature.'

Facts Show Lack

Park's statements said the facts on the needs of higher education in Florida

'clarify the need for truly inventive and forceful action in the Florida's university system.'

Park also stated,

'we are proud of Florida's great and recent progress in higher education and are anxious to keep this movement going forward.'

'Truth Must Out'

Park told the Alligator,

'the truth must be told to the people before the 1961 legislature meets. The trend of whitewashing Florida's higher education must be overcome,'

³ed., special

 $^{^{4}}$ ed., on crowded conditions

In reference to the content of the Newsweek article, Park said,

'A good story on the ⁵ University of South Florida was soured by misrepresentation of the full picture.

The legislature failed to provide sufficient funds for higher education in 1957, and cut the budget recklessly in 1959. Next year is sink or swim for higher education in Florida.'

he concluded."

The September 27, 1960 *Florida Alligator* carried an article about Dean of Arts and Sciences Ralph E. Page's guidelines for faculty promotion and salary increases. The overall evaluation was to be based on teaching quality (55%), research performance (30%), and service to the University (15%). A memo sent to department heads, according to the *Florida Alligator*, reveals a more detailed description of the criteria for the three areas of the academic trinity. In teaching, we find guidelines:

- "He has a soundness of reputation among students ... for excellence in teaching.
- His sources of material for teaching depend upon personal scholarship and current reading rather than continued use of the same lecture notes.
- He sees his own specialty against a broad cultural and intellectual background.
- He understands his students.
- Students accept his evaluation of their work as fair, although he maintains high standards."

In the areas of research and service, we find

- "He has consistently engaged in research.
- His research has been consistently published and cited with respect by other authors.
- His work has been original and creative.
- The number of graduate students he attracts is also a considered attribute.

Service Significant

 5 ed., new

- Service to the University is the least weighted phase of the faculty member's work, but each of the three divisions is looked upon as an integral part of a well-rounded program.
- Staff members are evaluated in 'Service to the University' by the extent to which their sincere interest is indicated by willingness to work at professionally unrewarding tasks to contribute to efficiency.
- Whether or not he has University or College committee assignments, and whether or not he is active in such organizations as Phi Kappa Phi, Phi Beta Kappa, A.A.U.P., etc., is taken into consideration."

Of course, here at this point in time we were still a good decade away from the renovation of Walker Hall, remembered so well by Professor Kermit Sigmon among other faculty who have discussed the University of Florida in the 1960's and 1970's with me. This need for renovation is dramatically reflected by a series of articles in the *Florida Alligator* concerning fire safety in Walker, Peabody and Benton ⁶ Buildings. On October 21, 1960, the *Florida Alligator* printed an interview with Chairman Maxfield titled "Math Dept. Not Able to Match Other Schools" and noted that "*The Alligator* this week investigates conditions in the Math Dept. in the fifth of the series on overcrowded conditions."

"One wall of Maxfield's office is covered by a pink and black schedule board, with the schedules, teaching load, and amount of training of his faculty.

Yellow stripes across certain hours indicate course being taken by faculty members or graduate assistants.

'We have 38 full time faculty members,'

said Maxfield.

'We would have had 40 but two did not come here—one simply didn't come, the other had to go elsewhere for more money.

The resultant shortage means that every graduate student teaching half-time must teach four courses yearly; every graduate student teaching one-third time, must teach three courses.'

At other schools, according to Maxfield, graduate assistants are ordinarily required only to teach two courses yearly.

Unusual Situation

⁶ed., now the site of Grinter Hall

'This is an unusual situation.'

he emphasized. Interim teachers — those working for advanced degrees — are a large portion of the Math department faculty.

'Every one of these teachers plans to get either a master's or a Ph.D. degree,'

says Maxfield.

Facilities for teaching in the underwater atmosphere of Walker Building are as in other buildings—inadequate.

The underwater look is due to the green skylights and stairways which angle up narrow dark hallways.

The 17 graduate assistants are housed in a room on the third floor, set in an alcove which juts two feet left on one side then two on the other to give a jigsaw effect.

There are five desks for these student-teachers.

There are not even 17 drawers for the 17 students.

Nor are there chairs for more than five people at once.

'That's my favorite room.'

says graduate assistant Arnold Inshel.⁷

'We graduate assistants get together there sometimes and discuss our mutual problems!'

Classes in the Walker building feature 18 or 20 foot high ceilings and blackboards set 30 inches off the floor.

One desk is located in a small hallway leading off the main hall into an office for two men.

Some Joke

Professor Heinryk Mince, ⁸ who has this hall desk, says jokingly,

'I talked to a student for half an hour yesterday before I found out that he just wanted to go by.'

He went on to say that at his former school there was a mathematics library and a mathematics reading room in the main building.

'There is nothing like that here.'

⁷ed., actually Insel

⁸ed., actually Minc

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Is the UF math department able to compete with the math departments of these other ⁹ universities?

'No,'

said Maxfield,

'Salaries are just not high enough, nor are conditions. Mathematics is a creative field, and new work is being done all the time,'

he says.

'We have several good people coming for next fall already.'

Main Problem

'Our main problem is to keep them and to build up our department to the point that we will be staffed by and producing outstanding men with advanced degrees.' "

Earlier on October 14, 1960, the *Florida Alligator* had printed an article "Dr. Reitz Asked by Bob Park For Fire Hazards, Safety Report" in which the student body president Bob Park was urging President J. Wayne Reitz to look into campus fire hazards, following the issuance of a pamphlet by the U. F. Alumni Association on this issue. In this pamphlet, it is stated that 13% of UF's buildings are ramshackle wooden firetraps, and clogged stairwell conditions existed in Anderson, Peabody, Walker and Benton Halls during class breaks at peak class hours. In preparation for the *Alligator* Homecoming issue, Pat Tunstall, Gator Editorial Assistant wrapped up her series of articles on overcrowded conditions with the following dramatic prose on Friday, November 11, 1960:

"Thirteen Thousand Students Hit Hardest

Ancient UF Class Halls Choked By Congestion at Peak Traffic Hours

A numbers game — trying to cope with seven stairways, seven doors, and hundreds of students — makes the internal triangle — Benton, Walker and Peabody halls — one of the most congested areas on campus.

Every hour on the half-hour, students pour into and out of the doors of these three buildings and head across Union Drive.

⁹ed., 21 Universities with which UF compares itself

Traffic is at its peak in the morning hours during class changes, as big cars, small ones, motor scooters, bicycles and students converge on the narrow drive.

Walker Building, with it's long marble stairway to the front door presents one peculiar problem.

The internal stairway, which seems to penetrate through the heart of the building to the back door is choked up with students going both ways, on either side.

The front door of Walker looks into a steep worn marble stairway, with abrupt turns and small landings. During the hours 7:40 to 1:40 at class changes, students and faculty are forced to shove themselves through the throng.

'Actually, you don't have to move very much,'

said one student on the way up.

'If you just stand still, the crowd almost forces you up.'

Everybody Pushes

Students do not use one side for up and one for down. Both wells are filled with book laden bodies pushing to the left, right and in the middle.

'Walking up sideways is the only way to go in Walker,'

said a girl.

'You can't slide through if you're going head-on.'

Separated from Walker by a narrow alley is Benton Hall. The two doors of Benton lead to Union Drive and Murphree Way.

On the Murphree side is a small hall, leading to another steep stairway, though not so narrow as in Walker.

Railing Weak

The stairway railing threatens to give way at the top landing if a student should lean on it.

'Remember last year when the plaster fell on the underside of students leaving the building. That was really something.' ..."

On the other hand, in this same issue, an interview with Dean of Academic Affairs Mautz is headlined "No Single Spark is Cause For Dramatic UF Change." Mautz writes "The Faculty furnishes the inspiration and leadership for intellectual activities, and defines the goals toward which all strive. This they have done with marked success. Objective measurements of intellectual leadership are difficult. Let me provide a few.

The faculty continues to attract a substantial amount of research and grant money. In 1959-60, the University had in process \$3,000,000 worth of projects financed by other than State appropriations. Articles in scholarly publications are increasing in number.

As a member of the Personnel Board, I see letters from persons at major intellectual centers of the world, which attest to the high quality of these articles. Other marks of recognition of the merit of their work increasingly comes to my attention. Books, displays, and art shows attract critical acclaim."

Earlier, in an October 28, 1960 interview with Board of Control Chairman J. J. Daniel, it was reported that the University of Florida Foundation had received an increased number of gifts and grants as a result of the "Sputnik hysteria." Mrs. Nancy Hadlock Moore had the following comments on these articles based on her own recollections of this time period:

"Walker Hall remained in that same fire trap status until it was renovated in the early 1970's. [Professor] Theral [Moore] should remember dates. And others would!

Benton Hall was so bad, it was recommended that only graduate classes were to be scheduled on the top floor. Was it because they wanted fewer people to be buried in the rubble in case of collapse? Or that and did they think the added weight of people at the top would make the building more apt to crumble."

In an e-mail message of June 14, 1995, Professor Kermit Sigmon was kind enough to share with us his recollections of these times:

"Paul,

I didn't arrive in Gainesville until August 1963, so I can only comment on things that I recall from that date forward. Here are a few comments:

— You mention the "renovation of Little Hall" at one point. I suppose you mean "Walker Hall". ¹⁰ This renovation occured during AY 1972-73. The department moved to Building E in the summer of 72

¹⁰ed., yes, I made a slip up here in the draft of this portion of the chapter I circulated to the faculty by e-mail.

and back into the extensively renovated Walker Hall in the summer of 73. Building E was the "barracks" (actually in the shape of the letter E!) sitting just north of the current Little Hall, where there is now a parking lot. Building E burned down (accidentally???) within a couple of years of 1973.

- During my 3 years as a doctoral graduate student (63-66), I was actually an "Interim Instructor", a line-item position, as mentioned by Maxfield (rather than a TA).
- The graduate student "alcove" mentioned was actually a rather large room on the west end of the 3rd floor containing desks packed in. In the prerenovated Walker Hall it sat where the current offices of Rao, Block, Cenzer, Pop-Stojanovic, Bao, and men's toilet now sit. My desk was in this room during my first year here.
- Note that then grad student Arnold Insel (not Inshel), quoted in the *Alligator* article, is one of the authors of the Friedberg/Insel/Spence Linear Algebra text used by some in MAS 4105.
- The prerenovation classrooms in Walker were unairconditioned with huge, noisy exhaust fans.
- Benton Hall was condemned sometime in the 60s because of danger of collapsing. The department once held its regular colloquium in a Benton auditorium. Grinter Hall replaced it, of course.
- When Walker Hall was renovated, those slate classroom blackboards mentioned in the 1960 article about the Walker Hall classrooms were preserved and used for the blackboards in the current faculty offices in Walker Hall.

These are a few thoughts spurred by the article.

Kermit

Professor Sigmon also recalled very vividly to me how the new outside Chairman Maxfield, then in his mid-thirties, had a commanding presence when Kermit was a graduate student; for Maxfield stood around 6' 6" and had a fine handle bar mustache. He also brought to Gainesville a collection of vintage Rolls Royces and a stretched Checker limousine. (Kermit recalls driving to an American Mathematical Society Meeting in Houston in the Checker limousine, with Dr. Maxfield and a group of graduate students during his time in graduate school here.) The ever helpful 1955 American Men of Science reveals that Dr. John Edward Maxfield was born on March 17, 1927 and had married his wife Margaret Waugh Maxfield in 1948. He received his B.S. in 1947 from M.I.T., the M.S. from Wisconsin in 1949, and the

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Ph.D. in mathematics from the University of Oregon in 1951. He had served as an Instructor in Mathematics at the University of Oregon during 1950-1951, then gone to the Naval Ordnance Test Station at China Lake, California in 1951. He listed his research interest as being in algebra and described his specialized research interests more specifically as "number theory; analog and digital computing techniques." The 1992–1993 American Men and Women of Science enables us to follow the trail further along. Here we learn that Dr. Maxfield had been at the Naval Ordnance Test Station from 1951-1960, and during 1958-1960 had served as the Head of the Mathematics Division there. He then served as Professor and Head of the Department of Mathematics at Florida from 1960-1967, as Professor and Head at Kansas State University from 1967-1981, and in 1981 became the Dean of the Graduate School and University Research at Louisiana Tech University in Ruston, Louisiana. This latter volume also shows "numerical analysis" as a third research interest of Dean Maxfield.

The card catalogue reveals three books with John Maxfield as co-author in the University of Florida Libraries. The first, with Ralph Selfridge, is titled *A table of incomplete elliptic integrals of the third kind*, and was released within the Department of Defense as NAVORD report 5643, NOTS 1870, then published by Dover Publications in 1958. Today this work is housed in the Reserve Section in Marston Science Library. The Forward for this book provides us with the following information as to its purpose [5, p. iii]:

"The tables included in this book were computed to solve a specific problem. It was found that the surface area of certain geometrical bodies could be expressed only in terms of the incomplete elliptic integral of the third and lower kinds. A search of the literature was made, which determined that complete values for the integral of the third kind were not available, and it was therefore decided to compute such a table.

This table will be of greatest use to physicists, engineers, and applied mathematicians who work in the fields of fluid dynamics, heat flow, and related topics. The integral appears in the solution of problems dealing with the motion of the spherical pendulum and related mechanisms, in problems of magnetic potentials due to circular current or of the gravitational potential of a uniform circular disk, and in certain kinds of seismological work.

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The actual computation of this table was performed in 1956 and early 1957 on an IBM Type 704 Calculator; the greatest difficulty was encountered not in constructing the table but in obtaining satisfactory checking."¹¹

¹¹ed., Professor Ralph Selfridge has informed me that this IBM machine was an early pro-

On [5, p. xi - xii], a bit more detail is given:

"The tables were produced ... using a simple Simpson's Rule method of integration. The results of integration were stored for each .01 radian, and printed out in groups of ten lines at a time. In order to compensate for accumulated roundoff in the angle, every .1 radian was fed in from a separate list, adjusting the mesh size for one integration, so that at no point is the angle in error by more than 10^{-7} .

The method of printing is naturally of concern, since a large amount of error can occur here. Printing was handled by the computer using a method known as echo-checking. With this process, the type wheels are set as ordered, and then an independent pulse is returned to the computer, indicating what symbol has been printed. A comparison of the return, or echo, with the initial command ensures that what was printed is what was desired. After being printed by the computer, the tabulation was reproduced by the photolithographic process, so that there should be no variation between the initial printing and the final result.

There still remained the problem of checking the computation. This was handled in the following way: Computation proceeded by Simpson's Rule with a mesh size of about .0025 until $\phi = 1.57$. At this point the mesh size was changed so that the next point was computed with $\phi = \frac{\pi}{2}$, yielding all the complete integrals. An entirely different method was then used for obtaining the complete integral, and this has been printed as the last line of each group in the table. Comparison between these lines gives a very excellent indication of the upper limit of the error. ... "

The second work [6], Contemporary mathematics for general education: algebra, was published with Margaret Maxfield and S. Gould Sadler, and was the text for the Lower Division C-42 General Mathematics course which the reader may recall being an aspect of life at the University of Florida discussed in earlier chapters; the Chairman of Mathematics served not only as Chairman of Mathematics in the College of Arts and Sciences, but also as Head of the C-42 Course: Contemporary Mathematics in the Lower Division. By this point in time, materials written by Professor Kokomoor for this course after the University College came into existence in 1935 and which served as the basis for Kokomoor's text book published in 1942, would have been used for 25 years.

The third book [7] in our library with John Maxfield as co-author is an undergraduate text book on abstract algebra published with Margaret Maxfield, titled *Abstract*

grammable computer with plug board wires.

algebra and solution by radicals, W. B. Saunders Company, 1971. This work is deliberately written to be read by the student encountering abstract algebra for the first time, as contrasted, say, with a well known work the author wrestled with in college, I. Herstein's *Abstract Algebra*. I cannot resist quoting just two lines of [7, page viii] which reveal the delightfully written style of this book, at least from the instructor's viewpoint:

"The Appendices can be used to further your interest along several different lines barely suggested in the text. They offer an opportunity for outside work to bolster a sagging grade. ..."

Professor Al Bednarek has recalled that Dean Linton Grinter was very much interested in building up the applied research on campus. Thus Maxfield, with his background in computation and scientific management at the China Lake Naval Ordnance Station, as well as his training in pure mathematics (both Margaret and John Maxfield had taken Ph.D.'s in number theory at the University of Oregon with supervisor Professor Ivan Niven), fit well into the administration's plans for campus development. The Professor Henryk Minc, mentioned above in the Florida Alligator article, was hired in 1960 and specialized in fluid dynamics. Also Dr. Maxfield hired several people who had been with him at the China Lake Naval Ordnance Station, including Professor Ralph Selfridge, currently in the Computer Science Department at the University of Florida. As we have already noted, in these far off days of 1959-1960, it was not felt necessary to spread a thin veneer of democracy over all proceedings. Professor Theral Moore still recalls very vividly how the choice of Kokomoor's successor was made. There was no departmental committee involved in the selection process. After the candidates selected by Linton Grinter had made campus visits, Dean Ralph Page, whom I quoted above in the *Florida Alligator* articles, came to meet with the Mathematics Department faculty and announced in resonant, orotund tones, that

"the choice of new Chairman was his to make, not the Departments,"

and that it would be Dr. John Maxfield.

At the Annual Winter Meeting of the American Mathematical Society held in Orlando during January, 1996, Dean John Maxfield kindly granted me an hours interview and thus I had the opportunity to speak with him myself about how he came to Florida. I asked him how a specialist in number theory came to be at China Lake instead of taking an academic position. Maxfield replied that the work during the summer while he was a graduate student seemed so interesting to him that when permanent employment was offered upon his receipt of the Ph.D., he accepted the position. He was the first mathematician in a group at the China Lake Naval Ordnance Test Station that designed the sidewinder missile. Maxfield confirmed that all "

the impressions I had received that Linton Grinter wished to change the mathematics at the University of Florida toward a more applied direction were indeed correct. One of the consultants at China Lake, Professor William M. Whyburn of the University of North Carolina at Chapel Hill, was a friend of Grinter. Whyburn had come to know Maxfield when Maxfield was head of the mathematics group at China Lake. By 1960, the work in mathematics at China Lake was becoming less attractive than it had been earlier, so Maxfield encouraged Ralph Selfridge (as well as Wayman Strother, whom we will encounter later in this chapter) to leave China Lake for academia, as well as leaving himself.

Over 50 years after Professor Karl Schmidt was offering astronomy as well as mathematics during 1905-1908, during the Maxfield chairmanship, mathematics was STILL offering Astronomy. The 1962-63 Catalogue and Record contains the following entries:

Astronomy

INSTRUCTIONAL STAFF 1961-1662

Maxfield, J.E., Head; Awtrey, R. A.; Cowan, R. W.; Morse, W. P.; Selfridge, R. G.

ATY 141 – DESCRIPTIVE ASTRONOMY. 3 credits

Not open to students who have had any other course in astronomy. An elementary survey of the astronomical universe. Primarily intended as an elective for those not majoring in a physical science or mathematics.

ATY 305 – Celestial Navigation. 3 credits

Prerequisite: MS 205 or its equivalent. Determination of position at sea and in air, guidance of marine vessels and aircraft. Topics studied include charts, the compass, dead reckoning, piloting, nautical astronomy, navigational instruments, the navigator's work at sea.

ATY 306 – CELESTIAL NAVIGATION. 3 credits

Prequisite: ATY 305. The second half of the course ATY 305-306.

ATY 316 – GENERAL ASTRONOMY. 3 credits

Prerequisite: MS 205 or its equivalent. Survey of the solar system. The earth, sun, moon, planets, comets, asteroids, and meteors. Recommended for majors in a physical science or mathematics, or those who have had some previous work or experience in astronomy.

ATY 317 – Advanced general astronomy. 3 credits

Prerequisite: ATY 316. The stellar system. Distances, masses, luminosities of the stars. Eclipsing and spectroscopic binary stars. Interstellar matter and the galaxies. An introduction to astrophysics."

Now that we are studying the Maxfield Chairmanship, fortunately we have entered a time period of which faculty members Al Bednarek, Charles Nelson, Zoran Pop-Stojanovic, and Kermit Sigmon as well as Theral Moore, all had graphic memories to share with me. Almost thirty years after the fact, Charles Nelson still recalled vividly from his first semester in Gainesville the faculty and teaching assistant meeting that was held on a Sunday afternoon in a room in the Architecture Building, just before the beginning of the fall semester. Professor Maxfield would have received the student enrollment figures that previous Friday and Saturday, and by Sunday afternoon, Maxfield would have worked out the teaching schedule. At this Sunday afternoon meeting, Maxfield handed every faculty member, interim instructor, and teaching assistant a 3" x 5" index card containing their teaching assignment for the semester. In those days, Nelson recalled, one did not complain to the Chair or Associate Chair about teaching assignments, but just do informal swaps. Also, since everybody was assembled together in one place, the Seminar Schedule for the semester would also be drawn up at this same time. Nelson recalls that when he arrived in 1966, Maxfield gave him the choice of sharing an office which was airconditioned, or having an office to himself which was not airconditioned. Chuck chose the former option, so found himself for a time in Little Hall 440 with office mate Jorge Martinez. (After Professor Ernie Shult went to Kansas State several years after Maxfield went there as new outside chairman in 1967, Florida Chairman Al Bednarek asked Nelson if he would like to move into Walker Hall, so Nelson found himself in Walker 107, now vacated by Shult's departure for Kansas.) During the Maxfield Chairmanship, part of Nelson's teaching assignment was the comprehensive C-42 course in the University College. Weekly quizzes were given, and Nelson liked to hand in a fill-in-the-blanks quiz of 10 questions to be typed up for this purpose. One day Nelson found Chairman Maxfield holding the typed quiz when Nelson came for it; Maxfield informed Nelson that from now on, he was to give a multiple choice quiz rather than a fill-in-theblanks quiz. Several faculty had recollections of Maxfield somehow obtaining room airconditioners for many of the Walker Hall offices. Of course, everyone remembered those Rolls Royces! Kermit Sigmon recalled a well known quotation stemming from the time that Maxfield left Florida for Kansas State:

"it was a pull, and not a push."

On February 21, 1994, I sent Dean Maxfield a letter inquiring about some of these issues. To my pleasant surprise, Dr. Maxfield telephoned me on March 16, 1994 and answered many of my questions, and later, sent me during the fall of 1995, a packet of newspaper clippings from his Gainesville years, which further helped fill in some details. Maxfield told me that at the China Lake Naval Ordnance Station, he had become the Head of Computing as well as Head of Mathematics, in charge of their computer center. At Florida, Maxfield was not only as Chair of Mathematics "

and Astronomy from 1960-1967, but also Director of the Computing Center from 1961-1964. One of the newspaper clippings shows Maxfield at a computing center dedication and reads

Computing center dedication

From left, UF President J. Wayne Reitz, Floyd B. Bowen of Lakeland, member of Florida State Chamber of Commerce, and Dr. John E. Max-field, director of UF's Computing Center, observe the new IBM 709, which is capable of computations 50 times faster that the one previously used by the UF.

After I showed this material to Kermit Sigmon, he recalled taking Numerical Analysis during 1963–64 with Professor Ralph Selfridge, whom Maxfield had brought to Florida with the rank of Associate Professor during the 1961–1962 academic year. (During 1959–61, Selfridge was involved with starting up the computing facility at the Miami University of Oxford, Ohio during the Strother chairmanship of that Mathematics Department.) By 1966, Selfridge had been promoted to Professor and was also Director of the Computing Center. Sigmon recalls having to bicycle from Walker Hall all the way to what is now called the Wallace Building in the agricultural complex near Fifield Hall on the other side of Lake Alice in order to have the Fortran programs which were assigned in this Numerical Analysis course run on a main-frame computer.

Maxfield told me that the recollections of several faculty members about the installation of air conditioners in Walker Hall were indeed correct. In Chapter 8 we have learned that when the engineering faculty left Walker Hall, they took their own air conditioning installations with them to Weil Hall, and thus during the Kokomoor chairmanship, Walker Hall was not airconditioned. Since the homes were also usually not air conditioned in Gainesville in those days, Maxfield recalled for me

"Secretaries or machinery could have airconditioning, but not faculty, using state money that is. It was clear that in order to get any kind of research going, one needed airconditioning. State money would pay for wiring the rooms for airconditioning, thus I bought either 9 or 13 room airconditioners at an auction, and donated those to the department when I left for Kansas State."

(In roughly this same time frame, Jed Keesling happened to be also living in Gainesville and attending junior high school. He recalled for me how during that time, only the main roads were paved, but not the streets in the subdivisions. Thus with the lack of airconditioning, Jed recalls his mother's battles with the dust stirred up by local traffic that would accumulate inside the houses especially during the hot summer months.) Maxfield also recalled for me that the Statistical Laboratory, housed in one of those temporary buildings by McCarthy Hall and which was discussed in Chapter 8, was being phased out early in his chairmanship as a Department of Statistics was being established in the Agricultural College.

Here is what the October 30, 1963 issue of the *Florida Alligator* had to say about the Rolls Royces:

"WHAT MATH HEADS DO FOR RELAXATION

Prof Repairs Rolls Royces

Owning a Rolls Royce is perhaps not such a novelty as it once was, but Dr. John Edward Maxfield has owned as many as 10 at one time. Maxfield, 35, is head professor of mathematics at the UF.

Evenings and weekends Maxfield surrounds himself with carburators, generators, radiators and other assorted automobile parts. With these within easy reach of his 6 feet 2 frame, he takes leave from the academic world and loses himself in his hobby.

Maxfield buys only Rolls Royces in need of repair.

'After all, repairing the cars is my hobby. I really enjoy working with such fine machinery,'

Maxfield said.

After Maxfield puts the cars in perfect running order, he sells them.

'Sometimes people just see one and want to buy it.'

To keep the cars in good running order, Maxfield and his wife, Margaret, drive their 6,000 pound machines everywhere they go.

'We often take them places most people wouldn't drive a jeep. They handle wonderfully,'

he added.

Regular gasoline is used in the cars. They average eight to 14 miles per gallon.

Most of the cars have 'Q' license plates, signifying they are at least 20 years old.

Maxfield does almost all of his own repair work except for reupholstering.

The chassis parts come from the Rolls manufacturer, but the body parts must be made as he needs them. Maxfield said that body work is hardest.

'I guess I just enjoy the mechanical work more,'

Maxfield said.

Maxfield's wife approves of his pastime. He said she has acquired quite a bit of knowledge about the Rolls Royce and is completely sold on the virtues of the cars."

An earlier article in the August 3, 1962 Summer Gator was headed

"Prof With Rolls Ain't Royalty"

and read in part:

"While most 'underpaid' UF professors consider themselves lucky to own a car of any make or vintage, one professor owns four cars.

And—they're all Rolls Royces, and the result of his hobby, not his profession.

Dr. John E. Maxfield, head of the UF mathematics department, owns four of the Classic cars, two of which are used daily by him and his wife.

Dr. Maxfield buys Rolls' which are not operating, restores them to working order, and then sells them.

'I never make money; I do it for a hobby,'

he said.

'I guess I make about 10 cents an hour for restoring the cars.'

Dr. Maxfield would sell his 1927 yellow and black convertible for about \$5,500, but he's not interested in selling any of his cars until he reconditions a 1930 Roadster which he has in California or until he has a 1938 Rolls' repainted.

Dr. Maxfield usually loses interest in one of his cars when it's restored to running order and then he offers them for sale. Next he buys another and enters the 'redeem, restore, resell cycle' once again.

He's been interested in the restoration of Rolls Royces for about 15 years. He said his hobby always attracts attention and allows him to meet lots of people."

A faculty member, Dr. Samuel Gould Sadler, who taught mathematics at the University of Florida from 1954–1972, also spoke with me during the summer of 1995 about Professor Maxfield. Sadler recalled that Maxfield had 6 tons of spare parts for the Rolls Royces and a large garage at his home for the repair work. Sadler recalled that Maxfield's father owned fruit groves in California, which were later sold as California population expansion caused the town first to encroach upon, then later engulf the Maxfield orchards. Maxfield later told me that his grandfather had been a

pioneering Californian, successful in the 1849 Gold Rush. Although this grandfather bought a farm and raised his children elsewhere, he spoke so glowingly of California that all of his children, including Maxfield's father, settled in California. Maxfield's father was indeed involved in farming as Sadler remembered, but as time went on, the increasing smog made farming more difficult, water became more costly as the population of the Los Angeles area expanded, and the taxes increased dramatically.

Gould Sadler was awarded the Doctorate in Education by the University of Florida, defending his thesis in February, 1950. He conducted an investigation "to establish criteria for awarding grants-in-aid from Federal funds to students on the college or university level". His Doctoral Committee contained Professors Franklin Kokomoor and C. Basel Smith from the Department of Mathematics. Sadler was still well remembered by some faculty for the creation of a partly humorous scroll, treating events in the history of mathematics. During a visit to the Sadler's home with Theral and Nancy Moore, I had the privilege of viewing this scroll, which Sadler made while taking a graduate course in the History of Mathematics from Dr. Kokomoor. The scroll turned out to be over 20 feet long, rolled up in the oriental fashion, and treated events in both the history of Western and Asian mathematics.

The following biographical sketch is contained in Sadler's thesis:

"Samuel Gould Sadler was born in Chatham, Massachusetts, September 30, 1914. He received his public school education in Mount Dora, Florida where he graduated in June, 1933. In the fall of 1934 he entered the University of Florida, attending irregularly until his graduation with the degree of Bachelor of Science in Education in August 1940. He received the Master of Education degree from the University of Florida in June, 1948. From June, 1948, to January, 1950, he continued graduate work at the University of Florida toward the Doctor of Education degree.

Mr. Sadler's professional experience includes five years of public school work (two as principal-teacher in an elementary school, the remainder in high school as a mathematics teacher) and five semesters as part time instructor in elementary mathematics at the University of Florida Mathematics Department.

From August 1, 1942 to November 11, 1945, Mr. Sadler served in the United States Navy as a communications officer. He served overseas with Headquarters Detachment, 8th Fleet for approximately twenty-two months. He was released to inactive duty with the rank of Lieutenant.

Mr. Sadler is a member of Kappa Delta Pi and Phi Delta Kappa honorary fraternities and has been active in graduate education affairs.

Mr. Sadler married Doris Isted on August 6, 1938. They have two

children, ¹² Frank Orin Sadler and Eugene Isted Sadler born December 18, 1939 and October 9,1942 respectively."

The Sadler's recalled for me that during Gould's graduate student days, they lived with their sons in Flavet II¹³ which at the beginning consisted of wooden structures set in an area of unpaved roads. Mrs. Sadler recalled very keenly watching the paving of the roads in that area while they were living in Flavet II. Sadler recalled a story from his qualifying examination days. In those times, graduate students from different departments all took their written exams at the same time. On the set date, they entered a room and were handled an appropriate envelop. Sadler's exam seemed mysteriously to need various tables. When Sadler telephoned Kokomoor and asked him about this, Kokomoor told him, no he did not need tables, just take his time. Sadler spent 9 hours completing the exam, which turned out to have been for a graduate student in Statistics, rather than himself. Sadler also showed me his copy of Kokomoor's *Mathematics in Human Affairs*, which was autographed by Kokomoor himself; this revealed that not only could Kokomoor write on the chalkboard with either hand, as several people have recalled for me, but he also was able to handwrite so that the text would read as if reflected in the mirror. Kokomoor had autographed Sadler's copy of his text in this fashion.

We have mentioned earlier in this chapter the new text for C-42, John Maxfield, Margaret Maxfield, and S. Gould Sadler, *Contemporary Mathematics for General Education: Algebra*, Allyn and Bacon, Boston, 1963. While the Kokomoor materials used during 1935-1960 had emphasized a historical treatment, the approach here, which would metamorphose into our current course MGF 1202: Fundamental Concepts of Mathematics, was summarized by the authors themselves on [6, pp. i–ii] as follows: (capitalized words were underlined in the original)

"

OBJECTIVES

When a mathematician helps solve a problem from any applied field education, agriculture, engineering, military logistics, chemistry — or when he develops new mathematical techniques that may some day be used to solve problems, how does he go about it? What, in short does a mathematician really do? Most of us are sophisticated enough to realize that mathematicians are not mere counters or adders, that many mathematicians are even inaccurate or slow at arithmetic. However, it is part of one's general education to have some idea what mathematicians do, just as one acquires some idea what physicists do and what artists do.

Two main features practically characterize mathematics. They are ABSTRACTION and STRUCTURE.

¹²They later had a daughter, Faye.

 $^{^{13}}$ ed., Flavet = Florida Veteran

To enlarge on what we mean by ABSTRACTION, we look at an example. It may not matter in a certain study whether we are multiplying the number-of-rows-of-stars-on-a-flag by number-of-stars-per-row or whether we are multiplying number-of-passengers-on-airplane by poundsof-luggage-allowed-each passenger. The numbers may be different, the ideas the numbers stand for are certainly very different; yet as multiplication problems they have an abstract similarity. It is this very feature that makes the list of fields using mathematics such a long one, for problems from missile testing and problems from studies of farm yields may conceal under their very different vocabularies a similarity that permits them both to be attacked by the same mathematical techniques. Our first job in Chapter 1 is to abstract the essentials of the arithmetic of whole numbers.

The study of STRUCTURE in mathematics is an attempt to 'see the forest for the trees'. With suitable abstractions made, the mathematician need no longer be confused by information that is to him extraneous and can study the interrelationships of what facts he has left. When he has analyzed their logical pattern he can compare and contrast that pattern with others, arising in other problems. In this book we are going to expose the structure of several different arithmetics, one of them [Chapter 3] not even requiring numbers, and compare and contrast them with each other.

Although many of us first meet mathematics as a tool subject, one that is used to solve problems, it also has standing as a subject of its own. Just as the machinists who use machine tools have their own counterparts in those who apply mathematics to solve problems, so those who invent and construct new tools for the machinists to use have their counterparts in the mathematicians who develop new mathematical language and techniques. Some mathematical creativity is directly inspired by the needs of the problem-solvers, just as the work of a tool-maker may be inspired by a direct need of the machinist. A mathematician may invent an arithmetic custom-made to solve certain types of problems. Other advances are made at secondary and tertiary levels, such as the invention of mathematical techniques that can be used to develop techniques that can be used to develop techniques. Some new mathematics comes into being without even this internal and multi-stage purpose.

So far as learning mathematics is concerned, a striking feature is the LANGUAGE of mathematics. We have to learn many new terms and learn the special ways they are used in mathematics. To see the reason for this we need only go back to the keys: abstraction and structure. To abstract what is similar among pines, elms, mimosas, and cedars, we have to have a

name for the concept 'tree'. Part of our problem in learning mathematics, then, is simply learning the generic terms needed for abstraction and then the terms needed to describe various structures.

You may find some of this material so different from any you have read before that you will question whether it really is mathematics! If you find yourself worried by such doubts, check to see whether the material is demonstrating to you these two features, abstraction and structure, for these represent the essence of mathematical work. Also, you may have recourse to the Introduction at the back of the book during and after your study of the five chapters, for an additional understanding of what mathematics tries to do.

Here is an example of the material covered from Chapter 5; it is shown that the ring of 2 x 2 matrices with rational entries is a ring with unit, but that multiplicative inverses do not always exist. It is remarked that the scalar matrices are isomorphic to the rational numbers, and also ideals are studied. When I asked Gould Sadler about the writing of the book, he told me that he had attended Maxfield's large lectures on the topics, taking notes, then they had all fussed with the exposition.

Another issue which had interested me was teaching loads. On the one hand, Theral Moore recalled teaching 17 hours here during the 1950's, but by the time Kermit Sigmon came here as an Interim Instructor in 1963 and began his graduate studies at Florida, the teaching load was then two courses. Naturally, I was eager to ask Dean Maxfield when he telephoned how this drastic change had been accomplished. He told me that two things had occurred which had so drastically reduced the teaching load for graduate students and faculty. First, Maxfield introduced the lecture-recitation system for the precalculus courses, thus reducing the contact hours of the graduate students. [Recall from the last chapter that Emmet Low had been teaching 4 sections of C-42, then 5 sections of Man in the Physical Sciences.] It was relatively easy to get Federal research grants in the early 1960's Maxfield recalled, so that faculty grants were used to get the faculty teaching load reduced. Finally, when A. D. Wallace was hired in 1963, he brought with him from Tulane a large sum of grant money, which helped in this effort. Any new faculty or existing faculty member wishing to do research could be given a two course teaching load. Toward the end of the Maxfield Chairmanship, the Department won a Center of Excellence award to support graduate students and/or postdoctoral fellows with N.S.F. funding.

By coincidence, an essay by Maxfield's thesis advisor, Ivan Niven, *The Threadbare Thirties* in [8, p. 209-229] discusses national trends from the thirties through the fifties.

"Teaching loads were higher in the thirties. In schools with the Ph.D. programs, three courses was a common load for younger faculty members, except at a very few major private institutions with slightly lighter loads. But four courses was a very common load at institutions with only a Master's degree program or no graduate work at all. Emeritus Professor M. Wiles Keller writes that when he went to Purdue University in 1936,

'most of the staff taught 18 hours per week.'

He added that loads of 15 hours were possible, presumably for a few more scholarly professors. This differential in teaching loads for scholars was not uncommon: Ralph P. Boas reports that at Duke University he was given only 3 courses

'as an incentive to research,'

where 4 courses was the nominal teaching load. Similarly, Abraham H. Taub writes that he went to Washington University as an instructor in 1936 with a teaching load of 13 hours a week, where the normal teaching load was 15 hours a week. He was given a 'research' allowance.

According to the AMS Survey ... headed by A. A. Albert, teaching loads in the midfifties were still around 10 to 11 hours per week for younger faculty members in the major state schools with Ph.D. programs.

Department heads in the thirties, secure in positions that they could hold as long as they wished, rarely consulted more than a small inner circle of professors, if that, about significant decisions on hiring, tenure, and promotion. They could control graduate admissions and graduate assistantships and fellowships, or delegate this control to trusted colleagues. Very few departments had a formal committee structure. In short, department heads could be, and many were, autocrats, benevolent in varying degrees. This system could be very effective if a strong department head was brought in to build up a lagging department, to offset the danger of mediocrity perpetuating itself. Nevertheless, there is greater justice in the modern practice of a periodic review of department heads."

Niven also writes that the two course teaching load did not arrive at the University of Oregon until the mid-fifties.

The preceding paragraphs leads us naturally to the topic of A. D. Wallace. As a preface, we should also introduce another new senior faculty member, Wayman Strother. The old, faithful 1955 *American Men of Science* reveals that Strother was born on April 23, 1923 and took the B.S. at Alabama State Teachers College in 1943. He served in the U.S. Navy during 1943–1944, then received the M.S. from the University of Chicago in 1949. After the receipt of this degree, Strother taught at Illinois Institute of Technology as an Instructor during 1949, and had taught at the University of Miami as an Instructor during 1948. He received the Ph.D. in mathematics from Tulane University in 1951 as a student of A. D. Wallace, then after a year at the University of Alabama, went back to Miami as an Assistant Professor in 1952. From 1959–1961, Strother served as the Buckingham Research Professor and also the Chairman of the Department of Mathematics at the Miami University of Oxford, Ohio. During the academic year 1961–1962, Strother came to the University of Florida as a Professor. During 1963, David Foulis, also a Tulane Ph.D., joined the department as an Associate Professor, and offered a seminar on Orthomodular Lattices. By 1964, Strother had left to be the outside chairman at the University of Massachusetts at Amherst, and in 1965 Foulis joined him there.

Alexander Doniphan Wallace was born in Hampton, Virginia on August 21, 1905 and died on October 16, 1985 in New Orleans. Apparently, Wallace worked in the naval shipyards in Hampton, possibly as a draftsman, prior to his entering the University of Virginia in 1931. He took the B.S. degree there in 1935, the M.S. in 1936, and the Ph.D. in 1940. He spent 1940–1941 at Princeton University as an assistant to Professor Solomon Lefschetz, then 1944 - 1947 as an Instructor at the University of Pennsylvania, before joining the faculty at Tulane University where he was on the faculty from 1947 - 1963 and chairman from 1958 - 1963. He came to the University of Florida in 1963, attracted by the opportunity to build up a second department in the South, following his success at Tulane, and served our institution until his retirement in 1973. At that time, according to Professor Al Bednarek, Wallace donated his mathematical books to the department; over twenty years later in 1995, when I idly examined some German volumes in the Walker Hall 201-F lounge and saw "Don Wallace, 1935" inscribed on the fly leaf, I found that several of these books still remain with us. As we have seen in Chapter 8, our own Ph.D. graduate Emmet Low attempted to move Wallace to Miami; so Wallace spent 1966-67 in Miami, befor returning to Florida to serve as Chairman of our department during 1967 - 1969, gratefully relinquishing this post in 1969, I suspect, when he received an appointment as the first Graduate Research Professor in the Department of Mathematics, a post he would hold until retirement in 1973. During 1968–69, Wallace also served as President of the University of Florida chapter of Sigma Xi. (The reader may recall that Dean Thomas Simpson had served as President of Sigma Xi during 1941–42, and also our faculty member Professor Herbert Meyer served as President during 1954–55).

Fortunately for our history project, Professor Beverly Brechner organized a Special Session in honor of A. D. Wallace at a 1986 meeting of the Florida Section of the Mathematical Association of American, and a volume containing the invited addresses happened to be located by Kermit Sigmon, a Ph.D. student of Wallace, abandoned in Walker Hall awaiting recycling, whence it came into my possession. Since Beverly was kind enough to organize this session, I will give her the first word, before quoting extensively from the addresses of Professors Robert Koch and Al Bednarek in this volume [9]. In an e-mail message of April 7, 1994, Professor Brechner wrote the following about her recollections of A. D. Wallace:

"A. D. Wallace hired me when I first came to UF, he was Chair of the department for one year after I arrived, and remained in the department for several years after that. I considered him a good friend.

Wallace told me one time (confidentially, but I can't see why it needed to be confidential) that he was brought to UF to build up the department. And he certainly made a difference in the attitude of the department toward quality and research. He generally went to lunch at what is now the Holiday Inn on 13th Street, and invited all who would, to join him. This had the effect of bringing together members of the faculty whose paths might not otherwise cross. Goals of the department were among the topics of discussion on many occasions.

ADW was responsible for the Florida Section of the MAA becoming a section by itself, splitting off from the Southeastern section. The geographical length of the state made it almost impossible for the people in South Florida to participate in the more northern activities of the Southeastern section. He made sure that top mathematicians were invited every year, which ultimately contributed to the success of our section. And our section is considered one of the most successful of the various sections.

In addition, he had many Ph.D. students, produced many papers, and in his time, was considered one of the outstanding mathematicians. My mathematical field was not close to his, nor was I interested in what he was doing. He asked me a topological semigroup question once, and I answered it after thinking for a few minutes. His reply was:

"You're a smart cookie. Why are you hiding?"

Perhaps he meant why wasn't I working in semigroups.

For all of the above reasons, I thought that there should surely be a special session in his memory, and perhaps it was appropriate for me to do it."

It was indeed appropriate, and while Professor Brechner has brought up the topic of the formation of the Florida section of the M.A.A., let us quote from Professor Meacham's recollections of this event as he commented on a draft of materials from the early portions of this chapter which I had sent him:

"Your statement about A. D. Wallace's strong participation in the 1967 meeting of the S.E. Section of the M.A.A. was also very accurate, but he also gave strong guidance in the rump session of the Florida mathematicians who wanted to break off from the Southeastern Section. We felt that the geography of Florida needed to be acknowledged by setting up a smaller region. One of our aims was to induce secondary school teachers to join with us in making an effective Florida Section.

There were five or six or so from Florida State University, about the same number from the University of Florida and a bunch more from the other colleges and universities in Florida. I did not list more than the first set of officers because I did not want to offend by omission many others who participated in the meeting and signed the original petition to the parent organization (Mathematical Association of America)."

Professor Robert Koch of Louisiana State University provided the following comments on A. D. Wallace's influence on Tulane University during the time period prior to his departure in 1963 for the University of Florida, [10].

"Professor Wallace was known to his friends and colleagues as Don. But it was many years after finishing up a Ph.D. with him before I was able to call him by his first name. This was due to the nature of our relationship, and not to his formality. He was, in fact, very relaxed, open and friendly. But this was combined with a great personal dignity. He was a very respectable person, a gentleman of the old South, a devoted family man, a man of high personal and professional standards, a stable and strong personality. He did not tolerate abuse. I recall once when as a student I greeted him one morning with

'Good morning, Prof.'.

His immediate reply was

'Good morning, Stude'.

He was what I would call a very mature person, in the sense that he had learned to control his emotions, and did not seem to indulge himself in excessive worry. He told me once that his major Professor, G. T. Whyburn, used to say

'do not fret about those things you are unable to influence.'

or something close to that.

In mathematical things he was always encouraging. I don't recall his criticizing any of his students work, except in the way of making helpful suggestions. I do recall his referring to a paper once as 'stillborn' but this kind of remark was his way of expressing a professional opinion, and not an offhand condemnation. He was very stimulating to be around and very constructive. He always had unsolved problems to suggest.

I don't know very much about Wallace's early life. He was born in Hampton, Va. in 1906 and went to the University of Virginia, where he received the Ph.D. degree in 1939. He worked under the direction of G.T. Whyburn, one of R. L. Moore's many distinguished students. He spent a few years as an Instructor at Virginia; some of his colleagues were D. W. Hall, J. L. Kelley, and G. E. Schweigert, all Ph.D. students of Whyburn. During this time period he wrote about a half dozen papers, dealing with monotone transformations, boundaries, fixed points, cyclic element theory. In short, the kind of mathematics dealing with mappings and structure of continua which Whyburn students probably all inherited a taste for. But Whyburn's interests also encompasses Algebraic Topology, as one sees in reading his Colloquim book. And so it was that Wallace went to Princeton, and served a year as Lefschetz' assistant. It was during this period that Wallace developed an expertise in Algebraic Topology. He took an Assistant Professorship at U. Pa. in 1941. In 1946 he gave an invited address to the AMS in New York City in which he outlined a modified approach to the Alexander cochain complex. This suggestion was brought to fruition by E. H. Spanier in his dissertation (U. Mich. 1947) 'Cohomology theory for General Spaces', Ann. Math. 1948, 407–427. This theory, which agrees with Cech cohomology theory (see Spanier's book Algebraic Topology), has become known as AWS (Alexander-Wallace-Spanier) cohomology. In 1947, W. L. Duren succeeded H. E. Buchanan in the chairmanship at Tulane, and revitalized the long-dormant graduate mathematics program. Duren had the vision of building up graduate mathematics, with the help of newly emerging Federal grant support of basic research. The National Science Foundation had just been formed by Truman, and other research-supporting agencies were beginning to form. Duren recruited A. D. Wallace from U. Pa. and B. J. Pettis, who had been a Ph.D. student of E. J. McShane at Virginia, as the nucleus of the program. Indeed, the University of Virginia had revitalized their graduate mathematics program in a similar way 12 years earlier. Wallace at the time was an Assistant Professor, and the offer was an Associate Professorship. Wallace took the offer to his Dean, who promoted him on the spot. Duren offered him a full Professorship, which he accepted. This move away from the Mathematical centers of the North-East must have required great vision and courage. But it is in keeping with Wallace's often stated goal of building up Mathematics in the South, a goal to which he remained devoted throughout his entire career.

The Mathematics Department was housed in Gibson Hall, one of the oldest buildings on campus, on the second floor. This building also housed the Philosophy department and on the 3rd floor was a museum (stuffed birds, I think.) The entrance to the 3rd floor was gated off, so we could only wonder what was up there. About 1960 the Mathematics Dept. moved to the 3rd floor, displacing the birds who knows where. I recall Egydio de Castro e Silva, who was on the music faculty of Newcomb College, close to where Wallace lived, and who was expert in the music of Villa-Lobos. Wallace loved classical music, and listened a lot to the phonograph. He had a grand piano in his home, but I don't know who played it other than his daughter, who was taking piano lessons. He was also an avid reader, and a long-time subscriber to the *New York Times Book Review*.

His teaching style was what one might call modified Moore. That is, a do-it-yourself approach, in which chunks are handed out for the student to prove (with no outside help). Most of Wallace's family tree have followed this technique, with, I think, very good results. It seems to me there is something very basic about the method. Not only does it get students in a research spirit, but the student presentations constitute an effective teacher-training experience. At an AMS meeting about 15 years ago. there was an invited hour speaker who spent the hour telling the audience that his newly written book was too technical to talk about. Wallace chaired a later session, and announced to all his 'principle of the bitesized chunk', according to which one breaks the subject down into small, expoundable pieces. Well, this is how he taught Algebraic Topology to generations of graduate students at Tulane. His notes, which had been carefully prepared over several years laid it out in small, do-it-yourself pieces. Imagine teaching Algebraic Topology to someone who does not know what a group is.

This reminds me of my first exposure to Wallace. I was an incoming graduate student, walking into the office for the first time. Here was this older man with a mustache and crew cut, and a pipe held together by wires, sitting with his feet propped up on the desk, two or three people standing around. He was saying

'Consider the set of all functions from the unit interval to itself.'

My jaw dropped, and I thought to myself, Good heavens, what is that? The recollection reminds me of a Gary Larson cartoon. It seems to me that it is quite common to return to first mathematical influences, and if so, I guess I'm lucky that Wallace's first words were not even more abstract. Wallace was an Episcopalian. I do not know how much of an influence religion was in his life; the subject never came up between us. He was a man apparently free of any noticeable prejudices. He once told me of his plans to hire a mathematician I know. I responded,

'Dr. Wallace, you'll never get along with this man.'

His response was:

'I can get along with anybody.'

And I believe he was right. He was understanding enough to accept shortcomings, and was forceful enough and convincing enough to lead things in his direction. This was the role he played at Tulane — to a large extent he influenced the direction of the department. This might have been very difficult to do except for the guiding wisdom and understanding of Bill Duren.

He championed seminars, not only his own, but general departmentwide seminars in which everyone, including students, presented papers. Of course, this was in the earlier days at Tulane, when there were a half dozen active faculty and about 20 graduate students. It was a close-knit group. Departments nowadays (e.g. LSU, UCLA) have gotten to be more like 4 or 5 subdepartments, and its a lot harder to have the family spirit that prevailed at Tulane. Each morning he made the rounds of the graduate students, saying

'What have you proved for today? Remember, A theorem a day brings promotion and pay!'

For the more advanced students there was always the threat to change one's grade. Wallace had two Ph.D. students at U. Pa., who worked in topology, ¹⁴ C. Saalfrank

G. Butcher.

His first students at Tulane all worked in set theoretic or Algebraic topology. The later ones were mostly in Topological Algebra and Partially ordered structures.

 $^{^{14}\}mathrm{ed.},$ both prior to 1946

(1950)	W. Conner J. W. Keesee	Separation axioms Algebraic topology (exact sequences for triples)
(1951)	W. L. Strother	Multi-valued functions (continuity, coefficient group)
(1952)	Haskell Cohen W. Gordon C. T. Yang	Algebraic Topology (cohomological dimension) Algebraic Topology (dependence on coefficient group) Algebraic Topology (relations with Cech theory)
(1953)	C. E. Capel R. J. Koch L. E. Ward, Jr.	Topology (inverse limit spaces) Topological Semigroups Partially Ordered Topological Spaces
(1954)	W. M. Faucett I. S. Krule	Topological Semigroups Quasi-ordered Topological Spaces

(1956) L. W. Anderson Topological Lattices

It was Wallace's custom to assign as a dissertation project an area, rather than a specific problem. It was easier to get started, and opened the door for further work after the dissertation. He frequently served as an intermediary for his students, trying to get them offers if they seemed disgruntled, encouraging them to apply for contract support, corresponding with them, and in general being fatherly about their careers. Of course, this was in the days when the market was open. He had numerous connections around the world. Indeed it was through those connections that he was able to attract A. H. Clifford, Karl Hofmann and Laszlo Fuchs to Tulane in later years.

... In 1955 he gave an invited address to AMS in Baltimore, entitled 'The Structure of Topological Semigroups.' It was on this occasion that a local newspaper article carried the lead: 'Mathematician says 'Mob is Map.'. (Mob was Wallace's nickname for topological semigroup; he was fond of short names, e.g. 'act', 'bing,' ' clan.')

We made several trips to meetings during the period 1949-53 and 1955-56 (when I visited for a year on the occasion of A. H. Clifford's arrival, and Wallace's first year's course on Topological Semigroups). Wallace did not drive a car at that time; he learned that skill after retirement from Florida in 1973. So Strother, Wallace, myself and one or two others made several trips to MAA and AMS meetings within driving range. He wanted to stay in touch with his neighbors. Wallace was always entertaining at meetings. His style was outgoing, and he did not allow things to drag very much—he would interrupt with questions or suggestions and bring the meeting to life. He was especially lively when chairing a session.

One was not safe sitting idly in the audience—he was liable to direct a question to you after the talk. One had to stay alert.

In addition to his published work are several sets of lecture notes, some of which have had wide distribution and considerable influence on generations of mathematicians. Some of these are: Notes on Algebraic Topology; Notes on Topological Semigroups; Relation Theory. In 1969 and 1971 Wallace organized conferences on semigroups and automata at U. Fla., from which there were 2 volumes of Proceedings. He served as a member of CUPM and SMSG. He was elected Governor of the MAA, and served on the Council of the AMS. He served on the Editorial Boards of Summa Brasiliensis Mathematicae, American Journal of Mathematics, and Semigroup Forum.

For those of us who were touched by his personality he was our hero, our leader, our friend. The bite-sized chunks he dispensed were little gems, pointing in the direction of larger, nobler goals. His trust and encouragement were a source of great strength. The Greeks said it:

'without trust there can be no love.'

We all loved him, and still hold him in mind as a continuing inspiration in our studies. The fundamental structures whose beauties he revealed to us are now our treasures and our responsibilities to develop."

I queried Professor Kermit Sigmon about this terminology above, and he replied in an e-mail message on November 1, 1995:

"... 'mob' was just his shorthand for a general 'topological semigroup.' And 'clan' was his shorthand for a compact, connected topological semigroup with identity ... 'a mob with a leader', as best I recall."

Professor Alexander R. Bednarek was born on July 15, 1933 in Buffalo, New York. He did his undergraduate work at the State University of New York at Albany, graduating Magna Cum Laude in 1957, then taking his graduate work at the State University of New York at Buffalo, where he received the Ph.D. in 1961. He spent 1961–1962 as a Senior Mathematician at the Goodyear Aerospace Corporation in Akron, Ohio, before returning to academia the next year, as an Assistant Professor at the University of Akron. He joined our department in 1963, the same year A. D. Wallace came to the department. He has worked both with A. D. Wallace and his successor as Graduate Research Professor in the Department, Stanislaw Ulam. This
later association led to Bednarek's serving as a visiting staff member in the theoretical group at Los Alamos National Laboratory, T-Division, as it is called, during 1976–1984. Professor Bednarek would serve as the first Associate Chairman of the Department during 1967–1969, then serve over 15 years as Chairman, from 1969, when he was in his mid-thirties, until 1986, and then again during the spring term of 1988. During his years as chairman, Bednarek was one of the organizers of two symposia held at Florida on Automata and Semigroups in 1969 and 1971, a conference on Finite Groups held in 1972, and two International Symposia on Dynamical Systems, held in 1976 and 1981. His association with Ulam has led to his serving on the editorial board of the *Ulam Quarterly* since 1989 and also to co-editorship with Mrs. Francis Ulam of an anthology, *Analogies between Analogies*, concerning the life and times of Stanislaw Ulam, published by the University of California Press in 1990.

Here is how Bednarek described in his own words A. D. Wallace at Florida as well as Bednarek's coming to Florida, cf. [11]

"My tribute to Professor Alexander Doniphan Wallace will be sprinkled with anecdotes from his years in Florida. It is my hope that these will form a montage that conveys his humor, his spirit, his generosity and his contributions to the mathematical life of the University of Florida and to that of the mathematical community in the State of Florida.

Those of you who had met him undoubtedly remember him as a rather formal individual—the women who met him will remember having their hands kissed. Some considered this demeanor a pleasant affectation. For example, I believe that he enjoyed being called 'Don'—even by those his junior. It is by this sobriquet that I will refer to him in what follows.

How did Don come to Florida?

In the early 1960's the University of Florida made a significant effort to build up the physical sciences, engineering and mathematics. Dr. L. E. Grinter, then graduate dean, had initiated his "graduate research professorship" — a faculty rank with perquisites designed to attract renowned scholars to our faculty.

A Tulane student of Don's, Wayman Strother, was a member of the department of mathematics at the University of Florida. He learned that Don might consider leaving Tulane if the terms were attractive. Wayman and John E. Maxfield, the chairman of mathematics at UF, made a trip to New Orleans to discuss the matter with Don. (Incidentally, Don always claimed that the middle initial 'E' in Maxfield's name stood for 'elongated'— John is at least six feet four inches tall.) As it turned out, the terms were rather severe, and when our president transmitted them to the Board of Regents and they, in turn, transmitted them to the Cabinet

acting as the Board of Education, they were rejected.

Fortunately the University of Florida had a friend on the Board who was interested in seeing this project materialize. He arranged for Maxfield to come to Tallahassee and to present his case to Governor Farris Bryant and to his Cabinet. The obstacle was Don's salary. Maxfield had proposed a salary exceeding that of the Governor. While Governor Bryant had no objection, there was one member of the Cabinet who thought it 'unseemly' that any state employee receive a salary majorizing the Governor's. A compromise, satisfying the Cabinet member in question and supported by the Governor, was reached. The National Science Foundation was to be approached to provide one-half of Don's academic year salary. This was done, and for at least the first year, the Foundation cooperated.

Since Florida is a 'sunshine law' state, no confidence will be breached if I tell you that Don came to the University of Florida in the fall of 1963 for an academic year salary of \$25,000. Moreover, this was a 10 month salary since we were then on the trimester system and the academic year was also 'elongated.' Shortly after moving to the University of Florida, Don attended a meeting of the American Mathematical Society in Miami. He was approached at a social gathering by a well-known and, on this occasion, 'well-oiled' mathematician who asked him whether it was true that his salary exceeded the governor's. Don responded,

'Yes, however, there are fifty governors but only one A. D. Wallace.'

When Don came to Florida, his mathematical interests were focused on topological relation theory. He had directed several dissertations in this area at Tulane. Wayman Strother's was one. Strother examined various extensions of the concept of continuity to topological relations. It was Don's intention to gather a group to explore, under his scientific leadership, these extensions of function theory and relational structures.

Don persuaded David Foulis, now at the University of Massachusetts then at Wayne State University, to join in this enterprise. At that time, David was working in lattice theory. He came to Florida in the fall of 1963 bringing with him a number of graduate students — some quite talented and all uniformly 'colorful.'

I never did determine how Don learned of my interest in this subject since I was not then personally acquainted with him. I suspect that he refereed a paper of mine that was to appear in *Fundamenta Mathematica*. Risking the appearance of a personal indulgence, I would like to relate how I met Don and how I came to be invited by him to join the mathematics department at the University of Florida. I do so in hope of elucidating his modus operandi.

Following graduate school, I accepted a position with a midwest aerospace corporation ¹⁵ where I spent a little over one year practicing, what I like to refer as, 'preventive mathematics.' Frustrated by the disconnected character of my assignments, missing teaching, and not wanting to undertake a major relocation, I joined the faculty of a small local university. 16I bought, and moved into, a new 'old' house in December 1962. In January 1963 I presented a paper at the annual meeting of the AMS held at Berkeley. Someone told me that Don wished to speak with me. Since I did not know him, nor what he looked like, we were introduced by a mutual acquaintance. Don and I discussed mathematics and he told me that he was moving to Florida in the fall. At no point in the conversation did he suggest that there might be an opportunity for me to do so. One month later, I received a formal offer to come to UF. The offer included a teaching load one-half my load at the time and a modest salary increase – even more modest than I realized when I later discovered the 'elongated' academic year. I accepted without visiting UF — for that matter, without having been in Florida. The promise of greater professional opportunity and excitement was sufficient. This promise materialized.

When Don arrived at UF in the fall of 1963, he initiated a lively seminar in Relation Theory. As was his habit, he had the notes of this seminar transcribed. Mrs. Lin — now Professor Lin at the University of South Florida — was the official 'scribe.' In perusing her notes, the works cited included those of: M. Stone, E. Zermelo, M. Zorn, G. Birkhoff, H. Vaughn, T. Szele, E. Witt, G. Schweigert, C. Berge, O. Frink, M. M. Day, R. Koch, E. S. Wolk, and, of course, A. D. Wallace. These citations may give you a feeling of the thrust of this activity. It represented a fusion of the algebraic, set theoretic, topological and function theoretic perspectives.

What was Don trying to accomplish?

My response to this question is based in part on fact and is in part speculation. Don was G. T. Whyburn's student. There was, as a consequence, a natural connection with the Polish school of topology. Aside from this natural scientific connection, I believe that Don was intrigued by the 'sociology' that resulted in the emergence, and the continuation, of the Polish mathematical tradition. A reading of the autobiographical

¹⁵ed., Goodyear Aerospace

¹⁶ed., Akron State

works of M. Kac, K. Kuratowski, and S. Ulam supports the contention that a conscious decision was made to concentrate the talents and energies of Polish mathematicians in the areas of general topology and functional analysis. That the Polish mathematical tradition survived the devastations of World War II is attributed by many to that decision.

It is fair to say that the successful development of the department of mathematics at Tulane University, in which Don played such a dominant role, mirrored — though on a smaller scale — the Polish model.

It was this success that Don hoped to replicate at UF. He had chosen an area that allowed for a reasonable entry level to mathematical research and that could benefit from his algebraic and topological expertise.

The experiment failed!

There is no clear single reason for this failure. There are, however, a few identifiable contributing factors.

- (1) Don's 'partners' were very much junior to him. While he enjoyed the role of mentor, their inexperience didn't help.
- (2) The direction of effort was too diffuse. It is difficult to imagine parts of mathematics that could not be subsumed under the label of 'relation theory.'
- (3) The early and mid-sixties were periods of considerable mobility in the mathematical community. This, coupled with a certain amount of administrative instability, led some, who could have contributed to this program, to come and stay but a short time.

Nevertheless, it was an exciting period in our department's history.

As mentioned earlier, Don initiated a very active seminar. A stream of visitors, especially from the Eastern Bloc countries, provided a powerful and exotic stimulus. The list of those from Poland, for example, reads like a veritable 'Kto jest kto' (Who's Who in Polish) of Polish mathematicians. Don and his wife, Willie-Catherine, were gracious and generous hosts. Their parties, occasioned by these visits, were open to all — graduate students as well as faculty. Just as 'a theorem a day brings promotion and pay' served a Tulane as a gentle prod toward activity, its Florida analogue was, 'Professor X, what have you done for our beloved discipline today?' I frequently responded, 'A great service—I stayed away from it.'

As the appended list of Don's Florida doctoral students reflects, in the mid-sixties his mathematical activity was once again focused on binary topological algebras. In addition, he brought his formidable topological expertise to bear on the area of functional equations — simplifying and

extending many results that up until that point had been of an algebraic character and whose proofs had depended on algebraic techniques.

In the fall of 1966 Don moved to the University of Miami. I do not know the particulars of his activities there. If I recall correctly, it was during that period that he helped engineer the appointment of Laslo Fuchs to that faculty.

The year 1967 proved to be a benchmark in the saga of the UF department. John Maxfield, who had been toying with the idea of leaving Florida for some time, accepted the chairmanship of the mathematics department at Kansas State University. Don was persuaded to return to UF as chairman. Since he was obligated to Miami for the academic year, he appointed a recruitment committee at UF to handle appointments for the 1967—68 academic year. I served as secretary.

As mind boggling as it may seem, that spring we hired 17 faculty members and 5 postdoctoral fellows—all sight unseen. Four members of that charter group remain and are presently active full professors.¹⁷

Although Don exercised considerable influence in the department during the 1963–66 period, he had no formal administrative responsibilities. It was intriguing to watch him discharge the duties of the new office. It should be noted that, essentially, there was no cadre of active senior faculty to assist him.

Don was fond of 'labeling' the committees that he formed; for example, GradCom (graduate committee), ExCom (executive committee), etc. Once some of us distributed a huge memorandum constituting the ultimate committee—KingCom.

It was around this time that Don, along with several others, initiated the move to form the Florida Section of the Mathematical Association of America. The first meeting of this section was held in 1968.

Don's mathematical activity at this point centered on what he called 'acts' or 'topological automata.' By this he meant a topological semigroup T, a topological space X and a continuous 'transition' $T \times X \to X$ satisfying

$$t_1(t_2x) = (t_1t_2)x$$
 for all t_1, t_2 in T and x in X.

Given the dominance of digital computers some objected to this generalization of 'automata.' In view of the current interest in computation in homogeneous media, e.g., optical or acoustical computation, Don may very well have been prescient.

¹⁷ed., James Brooks, David Drake, Jed Keesling, and Arun Varma (ed., deceased in 1995)

In 1969 we held the 'First Florida Symposium on Automata and Semigroups.' A second symposium on the same subject, dedicated to Don, was held in the spring of 1971. Professor R. J. Koch prepared a tribute to him on that occasion.

Don relinquished the chairmanship of our department in 1969.¹⁸ I succeeded him in this post.¹⁹ It had become clear at that time that the disciplinary emphasis in our department had to change. Given the size and complexity of the University of Florida, demands for mathematical support from various corners of the campus were increasing. Don was not completely sympathetic toward these shifts. He used to annoy some of our engineering faculty by pointing out that he was an 'applied mathematician' since he 'applied algebra to topology.'

Don continued his researches in topological algebra and directed three additional doctoral dissertations in this field prior to his retirement in 1973.

Upon the occasion of his retirement, a tribute was prepared. I'd like to close my remarks by quoting a part of it.

'Ever-mindful of the tradition of academe, his spirited perorations in their defense will be missed by the many groups whose gatherings were enlivened by the same. Don and his wife Willie-Catherine will be moving to New Orleans where we hope that they will spend many happy years indulging their particular tastes for: (1) overseeing the proper 'rearing' of their only daughter's (Alexandra's) children, (2) fine food, (3) southern architecture, (4) 'lettering the editor' and (5) science fiction.'

I sincerely hope this was so!"

Professor Beverly Brechner has recalled for me that in addition to the well known

"A theorem a day merits promotion and pay",

that A. D. Wallace was also fond of the saying

"A lemma a week is all I seek."

Professor Bednarek has also commented to me that Wallace was well known in the Gainesville community for his letters-to-the-editor in the *Gainesville Sun*. Here is the listing of A. D. Wallace's Florida doctoral students:

 $^{^{18}}$ ed., to become the first Graduate Research Professor in the Department of Mathematics

¹⁹ed., and Zoran Pop-Stojanovic later in 1972 succeeded Bednarek as Associate Chairman and Kermit Sigmon became the first Director of Graduate Studies

- 1964 Lin, You-feng Theorems on Topological Semigroups
- 1965 Lin, Shwu-Yeng Tzeng Relations on Spaces
- 1966 Borrego, Joseph Thomas Jr. On Borsuk's Paste Job and Related Topics
- 1966 Choe, Tae Ho Compact Topological Lattices
- 1966 Kermit, Sigmon Topological Means
- 1967 Shershin, Anthony Results Concerning the Schutzenberger - Wallace Theorem
- 1969 Khuri, Andrawas

Applications of Papkovitch Functions to Three-Dimensional Thermo Elastic Problems (this dissertation was originally directed by C. B. Smith, but Wallace saw it to its formal completion following Professor Smith's departure from the University of Florida).

- 1970 Chae, Younki Topological Multigroups
- 1970 Robbie, Desmond Some Theorems on Binary Topological Algebras
- 1972 McGrannery, Clark Boundary Points in Real Topological Semigroup Acts

The first student on this list, You-Feng Lin, had begun his studies at Tulane, and offered the following recollections of A.D. Wallace in [12]:

"On the 26th of September, 1959, after the school had started for one week, I nervously walked into Professor Wallace's office in the third floor of Gibson Hall in Tulane University. Before I finished apologizing for my late arrival due to reasons beyond my control, he signed my registration card and quickly handed me a stack of notes known as AT-1 (Algebraic Topology 1). AT-1 was a core course for the Tulane math graduate students, taught using the so-called Texas system (or R. L. Moore's System) by Professor Wallace. The notes contained only Definitions, Propositions, and Theorems without proofs. We the students were expected to present, to the class, our proofs of the Propositions and Theorems without outside help. Professor Wallace, overlooking every face from a seat against a side wall, would call students one by one to the board to present their work. During the student's presentation, he would encourage questions and participation from the audience, and often made encouraging comments or critical remarks. Omissions of statements as being trivial or obvious were never allowed. He said:

'If an assertion is obvious, it may be proved easily and quickly.'

The AT-1 class was always lively and everyone participated fully with proofs, counter-examples, questions and answers. There was no 'hand-waving' that ever got Professor Wallace's approval. He never gave any help or hint even when no one in class could give a correct proof. Need-less to say, AT-1 was the toughest and most challenging class for me (and probably for everyone else). As it turned out, it was also a rewarding experience for me.

I had heard senior grad students' fear of facing Professor Wallace's greeting,

'Ah, Mr. _____, tell me what you have done lately?'

To avoid embarrassment, we usually shied away from him whenever possible. It was the afternoon of Thanksgiving Day in 1959, the third floor of Gibson Hall was very quiet, but not empty; as I was strolling down the hallway trying to find a student to chat with, Professor Wallace suddenly stepped out of his office and greeted me:

'Ah, Mr. Lin, tell me what have you learned from AT-1?'

I hesitantly stammered:

'I like the Wallace Theorem and believe it to be true even for an infinite product of compact sets in the infinite product space.'

At first, Professor Wallace thought it wouldn't be true in the general form, but after listening to my shaky hand-waving attempt to prove it, he told me that he would like to see a written proof. The next day I handed him my proof. He read it quickly, then gave me a big hand shake and an approving smile. My fear of Professor Wallace disappeared."

This proof by Lin appeared as "A note on the Wallace Theorem", *Portugaliae Mathematica*, 19 (1960), pp. 199–201.

Dean John Maxfield offered me his own version of these events in our telephone conversation of March 16, 1994 which I recorded shortly thereafter as follows:

"An important person in helping build up the department was Wayman Strother. Strother, who came as a Professor in 1961, knew A. D. Wallace at Tulane. Strother also brought in David Foulis. Strother knew Marshall Stone and Deane Montgomery at the Institute for Advanced Study, so they tried to help in the building efforts. Strother also got A. D. Wallace interested in coming. But obtaining the offer for A. D. Wallace at \$25,000 was a non-trivial political task, since such high level appointments were passed on not only by the Board of Regents and the Governor, but also the Cabinet."

Fortunately, one of the Regents was very supportive of the effort, but still Maxfield had to appear before the Governor and Cabinet. The Attorney General was most opposed, but Maxfield doctored things up so that with grant money, during the first year, the portion of the salary supplied by the state was less than that which the Governor earned. Also Wallace would bring a great big grant with him and would not need to be paid summer salary. Thus the appointment was able to be pushed through.

"With Wallace here, we had a bridge to improve the research climate. Wallace had a large chunk of grant money and connections to Europe and Eastern Europe."

Both current faculty members Kermit Sigmon and David Drake, who were at Florida during these years, benefited from these visitors by developing connections with European mathematicians. I asked Kermit if he could recall some visitors names for me, and he responded with the following list off the top of his head, which had been here one academic year during the 1960's:

Horst Herrlich	topology	Bremen
Dieter Biallas	geometry	Hamburg
Guenter Graumann	geometry	Hamburg, later Bielefeld
Kay Soerensen	geometry	Hamburg
Hans Seybold	geometry	Munchen
Karlhorst Meyer	geometry	Munchen
KJ. Weinert	algebra	Clausthal.

Maxfield had his own little Wallace story for me from the Wallace chairmanship years that is somewhat reminiscent of the "applying algebra to topology" quotation Wallace liked to use with the Engineers. We had developed through Kenneth Kidd, a nice connection to the Mathematics Education Ph.D. program in which we had courses in Modern Geometry and in Number Theory which these graduate students would take. Wallace assigned these courses to a visiting Swiss and a visiting Austrian professor respectively, but did not bother to give them any guidance on the level of the courses. When Kidd came to complain about this disastrous teaching, Wallace told Kidd that he would not reappoint these two men to these classes. But then Wallace simply switched the courses each taught, again with disastrous results, and basically killed this connection with the Ed School.

In a letter of May 1, 1996, Professor Wayman Strother offered his own perspective on A. D. Wallace appointment.

"A number of people have given me credit for contributing to the hiring of Professor A. D. Wallace. Both Maxfield and Day mention that I was involved with Dr. Wallace and Professor Maxfield was involved with the University and State. That's worthy of underscoring. Each of us contributed an essential link in the chain. Professor Maxfield's administrative style made for perfect meshing of these two links. The one link to which I contributed was most visible but the many University links he forged in the background far outweigh. Even department heads experienced in facilitating the movement of appointments through the machinery of the University may not find it easy to appreciate what he did. Appointments near the stature of people previously appointed in the department or University don't happen automatically but require the department head's effort to make the machinery work. I submit that the universities by and large have faculty of the highest quality their machinery is designed for. I say that because I believe it is safe to assume that dedicated members of every department will have sought the upper limit and made appointments there.

An appointment at a quantum leap higher level than the University's machinery was designed for, required the support of people I had never heard of in the context of University administration. That his appointment had to be taken to the Secretary of Agriculture and his approval sought, for example, was a surprise to me! Unlike the President of the United States who appoints his Cabinet and can take action opposite from their recommendations if he wishes, certain elected officials in Florida are by statute members of the Governor's Cabinet and there are things the Governor cannot do without their approval. I believe they first turned this appointment down and Professor Maxfield went to the next meeting with the Governor and persuaded them! Though Professor Maxfield administered in an open style and I paid attention, I did not fully appreciate

the complexity of his task until I tried doing it later.

There has been some speculation about how Professor Wallace was persuaded to come from Tulane to Florida. The speculation is fairly well on target with the exception of the fact, indicated above, that things have been credited to me which should have been credited to Maxfield and me. But in retirement, I will, for the first time, attempt to verbalize some items on which I had maintained my own counsel.

My contribution to the hiring of gifted mathematicians was based on a simple truth. They give much weight to the question

'Where will I be a better mathematician?

Where will I contribute most to mathematics?'

For some of the best, that question is all important. Accordingly my recruiting efforts at Gainesville and elsewhere were not stimulated by rumors of availability. When I saw that the department I was in could provide real opportunity for someone to be a more productive mathematician, I just assumed it would be worthwhile to approach him with the idea of moving.

I had not heard from Professor Wallace or from anyone else that he might consider leaving Tulane. I only reasoned that he might. Some years earlier Tulane had undertaken to make a large scale improvement in the quality of their mathematics department and their efforts were fruitful. He was a major contributor to that successful endeavor. I thought his largest contribution to mathematics was his own research and his second largest was his influence on a department which produced Ph.D.'s who produced mathematics. [I later read that for some time a larger percent of Ph.D.'s from that department published mathematics than from any other mathematics department in America.] I thought his own research had become largely independent of location, and that his secondary interests could flourish at the University of Florida now as it had a Tulane earlier.

The University of Florida was undertaking an ambitious expansion and upgrading of its doctoral program in mathematics at the same time that many other universities were trying to do the same. There was nowhere enough qualified faculty to carry out the planned expansion of all of those programs at once. For a program to succeed it was necessary for it to distinguish itself from the others, including others with as much money.

I do not disagree with Professor Bednarek's statement about the salary

'as it turns out the terms were severe — \$25,000,'

but would like to say that if he were to replace the word severe by the

word optimal, he would get a another true and pertinent statement. Negotiations about a \$25,000 salary in 1963 showed the department that the University was serious about building the department. Negotiations about his salary showed the University that the State officials were serious about their interest in the University. The salary exceeding the Governor's got media coverage which informed the mathematicians of America that our State was serious about a doctoral program, as a salary one dollar below the Governor's would not have. Had the offer been trimmed below the Governor's salary we would have been without all the above assurances concerning support for mathematics and I would have exerted every possible effort to persuade Professor Wallace to reject the offer and stay at Tulane.

Having said the offer was optimal, I am obliged to say why it was neither too high nor too low. That it was accepted is another indication that it was high enough. Had we asked the University to exercise itself that strenuously without success, that would have been damaging to our department, and to others, in the future. Similary, having a mathematician exercise himself over an anticipated offer and then fail to make that offer is damaging to future hiring efforts. John Maxfield must have studied a man and studied the University well enough to know whether there was enough negotiating room for an agreement to be possible, before over-exercising either party. He didn't often set in motion a special appointment which aborted. We both knew this would not be an easy decision for the University and would not be an easy decision for Professor Wallace, but we thought it could be a good decision for both."

During my conversation of January, 1966 with Dean Maxfield, I had the opportunity to ask him about his relocation to Kansas State. He told me that the main straw that broke the camel's back in terms of his leaving Florida was an administrator's strong opposition to his traveling to Moscow for a month to attend the International Congress of Mathematicians when this was being held in Moscow in the summer of 1966. At Kansas State, they had had a doctoral program in chemistry and physics, but no doctoral program in mathematics. In order to retain a certain type of outside grant in these two fields, Kansas State was required to offer a Ph.D. program in mathematics as well. Maxfield was hired to establish the doctoral program in mathematics, and as some current Florida faculty recalled, Maxfield took some of the Florida professors with him to Kansas State over a period of several years. Maxfield also recalled a little problem with the pre-renovated Walker Hall which was not mentioned in the *Alligator* articles quoted earlier in this chapter; when it rained, the coeds tended to slip and fall on the worn Walker Hall stairwell discussed earlier. Mautz came over to investigate this problem one day, and slipped and fell on the stairs himself.

Many people have commented to me on Wallace's fine command of the English language and have recalled how receiving a memorandum from Chairman Wallace could send one scurrying to a dictionary. Mrs. Pirenian recalls Zareh laughingly showing her a memo Wallace issued during the throes of the Vietnam War Protest on campus, at which time, some of the English faculty apparently were dressing rather sloppily, possibly in solidarity with the anti-war movement. In this memo, Wallace ordered all faculty and graduate students to dress with all due sartorial splendor for their classroom appearances. In spite of my inquiries, however, no one had saved any of these wonderful memos. Fortunately, for our keener appreciation of what they were all talking about, I located in the University Archives in Smathers Library, the text of an address which A. D. Wallace delivered at the fall initiation banquet of the Phi Beta Kappa on December 2, 1971. This address has been reproduced in full in Appendix A to this chapter, and it gives a sample of Professor Wallace's powers with the English language.

We are now fortunate to have recollections of two mathematicians, Jane Maxwell Day and Kermit Sigmon, both of whom did their graduate work at the University of Florida during the Maxfield Chairmanship. Professor Sigmon told me

"Professor Wallace sparked more of a research climate in the department. He made sure that the department had a full program of seminars and colloquia. He instituted a Journals Seminar for the graduate students during which they had to report on research articles published in the journals. Professor Wallace also brought in several researchers in topological semigroups, like Professor David Foulis and apparently Professor F. M. Sioson. During the time I was in graduate school, I recall seminars on orthomodular lattices conducted by Professor Foulis for graduate students and some faculty. Professor Wallace conducted a seminar on topological semigroups and cohomology. The A. D. Wallace seminar met on Tuesdays and Thursdays.

Professor Maxfield was a commanding figure with a handle bar mustache, standing 6' 6". He had a collection of vintage Rolls Royces and also a stretched Checker limo. I recall driving to an American Mathematical Society meeting in Houston, stopping overnight in New Orleans, in the Checker limousine with Dr. Maxfield and a group of graduate students. In 1967, Professor Maxfield left Gainesville to become Chairman at Kansas State. He took several faculty members and a group of graduate students with him. The question arose as to how all of these vintage cars were to be transported to Kansas. A graduate student was charged with driving one of these vehicles, but it overheated and broke down as near as Lake City, and may have had to finish the trip being transported on a truck."

I asked Maxfield during our telephone conversation about the Checker limousine, and he replied that it was important to get the graduate students into a research atmosphere, attending mathematical meetings. He had encouraged them by taking them himself to the meetings in one of his vintage cars!

Al Bednarek told me the following Foulis story. Foulis tired of being eternally asked what orthomodular lattices are good for. He purchased a Cadillac and had his photograph taken with this vehicle, which he explained was purchased with the aid of grant money obtained to carry out his research program on orthomodular lattices!

A second alumnae, Professor Jane Maxwell Day, was kindly sent me the following e-mail recollections of her graduate students days on August 20, 1994:

"Yes I was at UF during the Wallace years. My thesis advisor was Wayman Strother, himself a Wallace PhD from Tulane. I think Wayman came to UF in 1961, recruited by the new chairman John Maxfield. Wayman taught a prove-it- yourself topology course, using Wallace's 'AT I' Notes, and I thought it was wonderful! I believe that Wayman was primarily responsible for wooing Wallace away from Tulane. The story I heard was that he and Maxfield developed a strategy to offer Wallace the opportunity to build another great math dept.; he insisted on a \$25,000 salary, which was about 3x what most UF profs made then; so they had to convince the university and legislators that Wallace would bring in so much NSF research money that UF would still come out ahead. And it all worked. Wayman referred to Wallace as 'ADWA,' other semigroupers called him 'the great white father' (his hair was very white), and everyone held him in awe. He always wore a silk suit with a rosebud in the lapel not typical mathematician attire!—but on him it looked just right.

We had many eastern European visitors after ADW came (in 63 I think). I was fortunate enough to be invited by Wallace to be his 'assistant' for two years, which meant taking notes in his course on semigroups and writing those up; and doing other things like helping visitors find housing, looking up early papers on topology, etc.

After I got my PhD in 64, Wallace invited me to do some research with him and I also got to teach some interesting stuff like Dimension Theory from Hurewicz and Wallman. I remember those as being great years. I had never really intended to 'be' anything, and only started grad school to kill some time before having a family. But Strother and Wallace were excellent teachers and encouraged me greatly. They both had gifted daughters, and great respect for Mary Ellen Rudin; perhaps those things explain their special willingness to encourage women in mathematics. I realized later they were way ahead of their time in that."

In connection with my writing an article about Professor Day for the *Walker Hall Review*, I requested a copy of her vita, and so came to learn that she had co-authored a paper with K. Kuratowski, "On the nonexistence of a continuous selector for arcs lying in the plane," *Indag. Math.* 28 (1966), pp. 131–134. I inquired about how this article came into being and received a follow-up e-mail message from Day on August 24, 1994:

"Hello Prof. Ehrlich:

Yes, 'AT I' was the name of the year-long 'prove it yourself' algebraic topology course which Wallace developed at Tulane and transported to UF. The first half was point set topology and the second half was the kind of cohomology Wallace liked, because it did not require the spaces to have any special structure (no triangularization or differentiable structure needed). I think people called it "Alexander-Kolmogorov-?? cohomology." Kermit Sigmon may remember the moniker better. The AT I notes contained definitions and statements of theorems, and each student in the class was supposed to prove all the theorems. There was a rigid ethic associated with AT I — each student worked alone, and did not consult books. Also, if no one had a proof of the next theorem when the class met next, class was dismissed. If one or more students had proofs, the instructor chose one person to put it on the board and then the class critiqued it.

I think Wallace used ATI to measure students' talent, as well as preparing them to work on semigroups—certain theorems in those notes were especially hard, and he knew how long it had taken earlier students to get the proofs, and the kind of proofs they had constructed. So he could compare new students to ones he had taught before.

Although Wallace's PhD was with G.T. Whyburn at U Va. and Whyburn was a student of R.L. Moore, as far as I know, Wallace never taught any course exactly the way Moore did. (As I have heard about Moore, he provided no definitions or theorems — students had to develop it all.) Yes, the Kuratowski with whom I wrote a very short paper is the famous topologist. He stayed in Gainesville several months, during the fall of 1964 I think, and was a really charming man. He asked a question in one of his lectures and I answered it with a counterexample, so that's how our joint paper occurred. The first time he lectured I thought 'This is going to be so boring,' because he wrote in a very careful and deliberate manner on the chalkboard, and he began with the definition of a topology, which by then I was sure I knew as well as anyone in the world! So I sort of mentally dozed off, only to come to a few minutes later realizing he was writing something on the board I had never seen before and suddenly it seemed he was writing much too fast! I did not underestimate him again.

C.B. Smith was my Masters thesis advisor. I had taken several courses from him and thought he was an excellent teacher. He collected homework every day and graded it himself. He was the first college math instructor I'd had who did that, and the first one for whom I worked regularly! I am still very appreciative of the discipline he instilled in me, and my teaching style has always included collecting some HW regularly and grading it myself. I didn't like complex analysis very much however, and had decided to quit after my MS — but then I discovered topology.

I think Wayman Strother still lives in south Florida; if you are going to write about the Wallace years, you definitely should talk with him. I probably have his address at home, and will try to remember to bring it to school and send to you."

Concerning European connections, let us mention another example, important to the Department. In 1961, A. D. Wallace gave an address at an International Symposium on Topology held in Prague and thus came to lecture at European universities in the following cities during 1960–61: Vienna, Austria; Bratislava, Czechoslovakia; Turingen, Germany; Budapest, Hungary; Krakow, Poznan, and Warsaw, Poland; Bucarest, Roumania; and Belgrad and Zagreb, Yugoslavia. Professor Zoran Popstojanovic was Wallace's host during his visit to the University of Zagreb in 1961; in 1965 Zoran came to the University of Florida as Visiting Assistant Professor, and would serve as Associate Chair from 1972–1986 during the Bednarek Chairmanship. (The more refined structure of Associate Chair for Undergraduate Studies, and Associate Chair for Graduate Studies was not put into place until 1984, when Professor Bruce Edwards would become the first Associate Chair for Undergraduate Studies.)

We began our story with the goings on in Lake City in 1903–1904, and have worked up to the 1970's. It is tempting to quote the final paragraph from Professor Samuel Proctor's 1958 dissertation, [13], *The University of Florida: It's Early Years*, 1853–1906, at this juncture; here Proctor is describing based on newspaper reports the inaugural ceremonies held for the opening in Gainesville on September 27, 1906:

"The audience, although wearied by the lengthy program, applauded the speeches. According to the newspaper account,

'all of Gainesville, male and female, from the wee bit of a youngster to those who were so advanced in age that they could not walk and were compelled to take other means of conveyance, were present ... and a happy crowd it was, too. The babies laughed and cooed as if they understood the situation, the faces of the elder ones were wreathed with smiles of satisfaction, the speakers seemed at the best and most enthusiastic mood, and in all it was an occasion the likes of which was never before witnessed in this city.'

The University's most difficult years were now over, and, although disappointments and discouragements still would be experienced and obstacles would still remain to be surmounted, the pathway to the building of a real University, with all of its challenges and opportunities, lay ahead."

We started with essentially one man departments under Karl Schmidt and Herbert Keppel prior to World War I, then saw some expansion with the coming of Thomas Simpson to Gainesville after Keppel died of the Spanish influenza in October 1918, especially during the brief prosperity of the 1920's. This brought another pioneering faculty member to the University, Franklin Kokomoor. Simpson and Kokomoor would labor together in the academic vineyards until 1951 when Simpson retired, only to keep on teaching elsewhere almost until his death. Together they worked to see the University through the trying days of World War II. Kokomoor then led us up until 1960, over thirty years after he first set foot in Gainesville. John Maxfield, coming from California as the first outside chairman in over 40 years, participated in national trends (with Florida, of course, taking these up five or so years later than the Northern institutions) in decreasing emphasis on service teaching as our primary mission, reduction in teaching loads, and an increased emphasis on research. As we have seen in this chapter, and as many current faculty who were here during those times have agreed, the appointment of A. D. Wallace in 1963, who would serve as the first Graduate Research Professor in the department after 1969, was the bridge to producing the department which I joined in 1987. The simultaneous appointment of Al Bednarek in 1963, provided us with the leader who would take us from 1969 up into the mid eighties. Other faculty, like Lou Block, Beverly Brechner, Philip Bacon, Thomas Bowman, Jim Brooks, Douglas Cenzer, Nicolae Dinculeanu, David Drake, Chat Ho, Rudolph Kalman, Jed Keesling, Jean Larson, Jorge Martinez, Charles Nelson, Vasile-Mihai Popov, Zoran Pop-Stojanovic, Murali Rao, Gerhard Ritter, Stephen Saxon, Rick and Jane Smith, Chris Stark, John Thompson, Arun Varma, Andrew Vince, Helmut Voelklein, Neil White, and David Wilson, many of whom I would meet while on an interview trip to the University of Florida during 4 days of December, 1986, would be recruited to the department during the Chairmanships of Maxfield, Wallace, and Bednarek. We will leave it to a future writer to seek out the many colorful stories stemming from Graduate Research Professor Stanislaw Ulam's winter visits to Gainesville during the Bednarek Chairmanship.

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Appendix A

Not With A Hatchet

Here is the text of the evening address delivered by Graduate Research Professor Alexander Doniphan Wallace at the initiation banquet of the University of Florida Chapter of the Phi Beta Kappa honorary society, on December 2, 1971.

"My text for this evening is taken from the consecration sermon for two archbishops and ten bishops preached by the Right Reverend Jeremy Taylor, Bishop of Down and Connor, at St. Patrick's Cathedral Church, Dublin, in 1660.

Those not entirely familiar with the tortuous ramifications of the religious history of that time might wish to know that the good bishop was an Anglican, of the Church of England. Charles II had returned from exile in the Netherlands, and since the Cromwellian Puritans scorned with most pious indignation the transmontane trappings of the Anglican Church as do the relevantists of today—there was a great dearth of religious overseers. Hence the large number raised to episcopal rank at that time.

Jeremy Taylor was forthright with his advice to the new Shepherds of Souls, and a few lines from his sermon, which I paraphrase in part, serve to indicate his thinking.

'Preach often'

— a twelve-hour preaching load? —

'and pray continually; let your disciplines be with charity, and your censures slow; let not excommunication pass for trifles, and DRIVE NOT AWAY THE FLY FROM YOUR BROTHER'S FORE-HEAD WITH A HATCHET'

He continues that God will call to a severe account the idle shepherd.

'Now, think you, will his anger burn, when he shall see so many goats standing to his left hand, and so few sheep at his right hand, and upon inquiry shall find that his ministering shepherds were wolves in sheep's clothing?'

He speaks next of the ill example and pernicious doctrine of the false shepherd, his care for money, and his careless treatment of the flock letting

'so many souls perish, while, if they had been carefully and tenderly, wisely and conscientiously handled, might have shined as bright angels.' It is here, tonight, that it is our pleasant obligation to pay homage to those who have 'shined as bright angels.' And it is to them that I address words of commendation for excellence, those who, in this academic democracy of opportunity, have by their effort placed themselves in the aristocracy of achievement. As a modern recension of Leviticus might have it,

'Let us now praise famous men and women.'

If we are to extol their accomplishments, we must ask what it is they have accomplished, what they were then and what they are now, what it was that they brought with them, what help aided them along the way and what hindrance there was on their path to excellence. But this is neither the be-all nor the end-all upon their bank and shoal of life, and we must not jump their life to come.

They—our bright angels—entered as timid freshmen (if there are timid freshmen in these days) upon a veritable chaos of well-intentioned confusion, beset on every hand with rules, regulations, prerequisites, and sound, if contradictory, advice from both their coevals and their learned seniors alike.

They were told—if they came the UC ²⁰ way—of the great dangers of departmentalization, and of professionalism, though in all probability they were not warned of the equal danger of cross-sterilization, nor of the invalid method of solving difficult problems in one discipline by relying upon the formulation of a dubious truth in some other discipline. They were subjected to bits-and-pieces education, what I may term jig-saw puzzle education. But they learned to fit the small multi-colored, queerlycut pieces into a pattern that gave them a picture sufficiently clear to at least surmount with some honor our system of academic book-keeping.

Perhaps it is unimportant what constituted the propadeutic barriers over which they climbed, for, whether with pleasure or with pain, their efforts met with success. If their brows were somewhat bloody, they had not, at least, been seriously maimed by the academic hatchet.

Among the greatest thinkers of this century was Alfred North Whitehead. He was — for a while — a mathematician and logician of great distinction, and he was always an eminent philosopher. I wish to do no evil to his memory when I say that he was a great educator, for to call a person an 'educator' now has a perjorative connotation.

Said Whitehead, and I paraphrase: A merely well-informed man is the most useless bore on God's earth. What we must have are people

²⁰ed., University College, or Lower Division

who possess both culture and expert knowledge in some special direction. Their expert knowledge will give them the ground to start from, and their culture will lead as deep as philosophy and as high as art.

And now our bright angels. They leave the domain of generosity (but not abstraction) and venture into an upper-division college, where specialization (but still not abstraction) is their share. University College was their bouillabaisse, and their olla podrida, but now they must eat the strong meat of specialization, prepared for their delectation by chefs of great expertise.

Now a person might think that the transition from UC to an upper division college would be smooth and relatively comfortable, for these are parts of the same university separated by no great distance, the one from the other. Perhaps there is frequent consultation and regular collaboration, meetings of faculties to insure that the curricula mesh and that the programs integrate toward a common end. Perhaps this is the case, but I have found little evidence to confirm it, and when I once raised the question at a Senate meeting the response was a sputtering burst of indignation, presumably at this daring attack upon an autonomous body. But perhaps the transition IS easily made after all, so let it go at that. At any rate it was no great obstacle to our bright angels.

Now the pleomorphy of an upper division college is considerable, and particularly so is A and S, where one ranges from the A of Anthropology to the Z of Zoology, by way of Chinese, French, Germanics, Slavics and Swahili, no doubt old French, old Italian, and possibly Old Outlandish. In any event each of our bright cherubim — then only in the diaconate attached himself to some department on the way to becoming an expert, to the extent that two years would permit.

We set them the task, and they accomplished it with excellence to spare, and there is not much more that one could ask of them. But there is, I think, something that must be said of our share in this educational operation. We have erred and strayed from the way of the good shepherd in at least two respects, as I see these things. At the risk of arousing the ire of my colleagues I should like to go briefly into them. It goes without saying that I have by no means matched educational philosophies with all of my colleagues, and I hope very much that my views are shared by many of them.

For one thing we have tried very hard to teach our bright angels, and our obsession with this teaching business has got sadly in their way of learning. For another thing, we have not disabused our students of the notion that they must be taught. We have left them with the fallacy of the schools, that they can be taught, that they ought to be taught, and that they will be taught, come hell and high-water.

One must presume that this is primarily an educational institution, and that the principal reason for students being here is to learn, and to learn to do. We all know this, but perhaps our love of teaching surpasses, on some occasions, our love of learning. Perhaps we try too hard to earn the munificent stipends which the legislature appropriates to us.

In these days we must be evaluated, and numbers must be attached to us via the arcane process of statistics, so perhaps we are trying too hard to get good grades on our evaluation sheets.

Whatever may be so, it seems to me that we attempt the impossible we try to make the students learn by trying to teach them, and failure is an inevitable outcome. The students succeed despite us.

Let me turn to an equally important, but different, aspect of our educational process.

A university catalog is most likely to be an accumulation of dusty rules, regulations, programs, requirements, prerequisites, and whatnots from a long forgotten past. I should like to see the great bulk of this swept away, and replaced by something more reasonable, and more pertinent to the educational process. There should be greater freedom of choice, including the freedom to make mistakes. The distributional requirements — born of academic protectionism and misplaced belief in professorial wisdom — ought to be abolished. If in this matter I am an iconoclast — a breaker of idols — then I must say that those with whom I am in disagreement are iconodules — slaves of idols.

Let the student take whatever he will, but in accordance with Whitehead's dicta there must be a major and, in order that there not be unfair competition in the academic arena, half of the courses over and above the major must be in the upper division. A short paragraph will encompass all college requirements. In this matter I do not speak for my Department, but I should vote—if I had the opportunity to vote—to at once strike down the pernicious demand that every student take mathematics. It would be improper to say what another upper division college ought to do, so that here there is only the A and S in question.

There is one additional matter that can be raised in this context, though it might at first seem out of place in this august assemblage, and that is the system of academic book-keeping. Now this keeping of grades, this attaching numbers to people is anathema. It is a necessary evil, but one under which we all squirm like a congeries of eels confined to a small aquarium. It appears to me that it might be simplified, to some benefit to all of us. I suggest that the present system be replaced by one with only three grades — Honors, Pass and Fail. Honors degrees and pass degrees have held sway in the British universities for several centuries, so that there is little question but that it might also be suitable here. It has built into it the pass-fail option. It has also the possibility of high reward for those whose interest is sufficiently great. But enough of this for now.

It might be thought, indeed with some truth, that I have concerned myself too much with telling my learned colleagues how to do their business, how to run their shops. But among our bright angels there are surely some who will one day be even brighter archangels, and who will sit in the seats of the mighty. From that eminence they may look backward, as even angels do, upon these notions.

As a mathematician it is presumed, I suppose, that I will say something about mathematics. Nothing technical, nothing to chill the joyous nature of this occasion, but only a few, almost casual but nevertheless penetrating, remarks on an ancient and honorable discipline. Whether it is my pleasure and your opportunity, or the other way around, let me say a little.

Some two thousand three hundred years ago a professor at the University of Alexandria, in Egypt, published an elementary textbook. He was not titled 'professor', for the word did not then exist, nor was his institution a 'university', and we think today that it was more like a research institute than a university. His name was Euclid, and today we call his textbook *Elements of Plane Geometry*. It is surely the most popular textbook ever to have been written, for after the passage of more than two millennia we use it still in one or another form. Had it been published by the same firm over all of these years it is clear that the firm would now surpass in wealth a thousand General Motors Corporations. Now the test of greatness is — to put it bluntly — survival. And Euclid's book has survived, and is in continuous daily use.

It is customary in the circles in which I move to denigrate writers of merely elementary textbooks. And I must say, in Euclid's behalf, that there is a great deal of his book that we do not teach, what one would recognize as 'new research' of that era. Essentially nothing is known of Euclid the man, and one can — and some do — debate Euclid's authorship of 'Euclid's Elements' in much the same way that Shakespeare's authorship of Shakespeare's plays is debated — but of course only by amateur cranks.

Euclid was certainly an archangel, but perhaps more of an archaeop-

teryx.

In the two thousand years that followed Euclid much mathematics was done—created, if you will—trigonometry and algebra. There were many bright angels who, no doubt, plucked quills from their wings to make their writing tools. But the entirety of these years must pass before the heavenly host was augmented by an angel of Euclid's worth magnitude, Issac Newton.

Here indeed was genius. In that Annus Mirabilis—the year of miracles—1666, or close thereto, this giant who stood upon the shoulders of giants—as he put it—discerned for the first time the workings of the heavens. As Alexander Pope put it—God said let Newton be, and all was light. And Laplace said, with some envy,

'It is given to but one man to discover the system of the universe.'

What is truly remarkable about this is that Newton not only discovered the system of the universe but invented the mathematics necessary thereto, without which its explication was impossible, and its theorems unprovable. His great book, written much later, he called *The Mathematical* Principles of Natural Philosophy. From an inchate pool of information and misinformation, gathered over the centuries by accretion and accumulation, replete with ambiguities and otiose moities, Newton constructed the first of the great scientific paradigms. So simple as now to appear simplistic, so banausic as to provide a road-map to the moon, a paralipsic but apodictic code, containing three commandments only, whereby the physical universe was ruled. From this trinity of dicta there came a veritable constellation of consequences, with scope and depth beyond even the imagination of Newton's predecessors, and his three commandments were to remain the rubric for physical science into this present century. But without the differential and integral calculus, which Newton invented, there would have been no language in which this could have been written, no formulary for the preservation of its observations, and no apparatus for its predictions.

If Euclid alone has looked upon beauty bare then Newton, that watcher of the skies, stood first upon the peak in Darien and looked into the open face of all the heavens.

But, over and above all of this, Newton was a superb experimenter and a man of many practical qualities. As Master of the Mint he was in charge of British coinage, perhaps the equivalent of today's treasurer of the United States. Earlier he had taken the leadership of Cambridge against an appointment which James II wished to make. Nevertheless, in common with all of us, Newton had his failures. He turned to theology, on which he wrote volumes—but to no avail. Theology has passed him by and even his heresies are forgotten.

What is this mathematics that most of us dislike so passionately, and avoid so diligently, however much we may marvel at those who practice it well?

It is an odd discipline which has its roots in far antiquity and yet continually plagues us here and now. It is as old as yesterday and as new as tomorrow. When the archaeologist digs into the ruins of some forgotten culture and finds, incised in metal or punched into clay, some relict of intelligence, there is almost certain to be some system of numeration, and this in general is the most quickly read of all symbols that are found. I know of only one exception to this; in as-yet undeciphered Etruscan, although the words for numerals are known, it is not known what word stands for what numeral.

One may make a conjectural definition of mathematics, or time of entrance of mathematics into civilization, in saying that mathematics arrived when it was first known that the 'two' in 'two men' and the 'two' in 'two women' were the same 'two.' To all of us this is a triviality, but there must have been a time when this triviality was still in obscurity. One may conclude that mathematics is, among very many other things, an abstraction.

In every civilization of the present or the past some mathematics plays a fundamental role. It would appear that this is a subject that was many times discovered in many civilizations, the one quite independent of the other. For the Mayans used, among other things, a numeration to the base 20, and the Babylonians one to the base 60, but in Minoan culture the base ten appears to have been used. So mathematics has about it a universality.

Is mathematics an abstract universal, or a universal abstraction?

There is another sort of universality about mathematics, which can most easily be apprehended in this fashion: More people on this campus use mathematics—in some form or other—than any other subject taught here, with one exception of our common English language. As has just been observed, mathematics is inter-cultural, in the sense that it is common to all sufficiently advanced cultures. But its intra-culturality is decided, for no discipline can today term itself a science without the use of some mathematics. Of course not always the same part of mathematics, for partial differential equations appear rarely in biology, and systems analysis and matric algebra are not regularly used in organic chemistry. As a somewhat unusual example, there appeared some 15 years ago a weighty tome in German entitled *Mathematical Jurisprudence*, and prior to that by 25 years, the mathematician Andre Weil reduced to mathematical form the so-called *marriage tables*, which state the permissible degrees of consanguinity for marriage. These are things beloved of anthropologists, and useful in their investigations of primitive cultures.

As a final example of intra-culturality, there is the problem of Geoffrey Chaucer, the English poet of the late 14th century, or perhaps one might say, the problem of 'the Geoffrey Chaucers.' In addition to the practice of poetry Chaucer appears to have been a civil servant who moved in diplomatic circles, and who had an important part to play in the wooltrade. In these activities, in addition to his literary work, he must have written many papers, or at least have signed his name many times. Yet there seems not to exist a single specimen of his hand-writing, or at least such was the case some 15 years ago.

Now it is supposed that Chaucer was somewhat of an astronomer, and had indeed written a book, or long paper, on the subject. Such a MS was found which might well have been written in Chaucer's time. This was subjected to linguistic and statistical analysis and the conclusion was that the probability was very high that it was in the Chaucerian rubric. The reaction of the critical experts of that period of English literature was as might have expected—it ranged from outward annoyance of such nonsense, through total indifference, to mild acceptance.

One may conclude that mathematics is abstract and universal. Strangely, if this has been given no thought, one may reason that intra-culturality implies abstraction. For how could some very concrete subject be so widely used in so many varying disciplines? Otherwise, it is its abstractness that makes mathematics so useful to so many.

There is about mathematics a mystique — perhaps some would say a hidden mystery — of a unique character, for which there appears to be no word, in any language, adequate for its description. One might perhaps use 'necessity', but this has not the desired connotation. What is meant can probably best be indicated by quoting from Einstein and Wigner.

There is no need to say anything at all about Einstein, he is too familiar. In a Rhodes Lecture which he gave in the thirties concerning physical principles he said this: I am convinced that we can discover by purely mathematical constructions the concepts and the laws connecting them with each other, which furnish the key to the understanding of natural phenomena. Experience may suggest the appropriate mathematical concepts, but certainly they cannot be deduced from experience. Experience remains, of course, the sole criterion of the physical utility of a mathematical construction. But the creative principle resides in mathematics.

As to Wigner, he is the recipient of a Nobel Prize and a professor of physics at Princeton. I quote from his paper 'The Unreasonable Effectiveness of Mathematics in the Natural Sciences' —

'The first point is that the enormous usefulness of mathematics in the natural sciences is something bordering on the mysterious, and there is no rational explanation for it. ... It is difficult to avoid the impression that a miracle confronts us here'

The role of mathematics in the biological, social and humanistic sciences is not yet known, for these disciplines have not yet found their Euclids and their Newtons. Although mathematics is much used in economics, for example, that useful and essential collaboration between these two disciplines seems not to have surfaced yet. Quite possibly the fault lies in mathematics, and it is by no means certain that mathematicians have yet invented the sort of mathematics necessary for the explication of economics.

There is a general misconception that mathematics is a science, and nothing could be more remote from the truth. If one uses the word 'science' in its very old meaning of a coherent and organized body of knowledge, then of course mathematics is a science and so is literary criticism, history, and so on. But mathematicians do not experiment with, nor do they make observations of natural phenomena. Both musicology and sociology are more scientific than mathematics. Harmony, as a subdiscipline of music, is a codification of the common practice of vertical writing of musicians in the 18th and 19th centuries. It is the collected and systematized deductions gathered by observing the practice of composers. Of course, every composer in his time is an experimentalist. Perhaps his manner of writing will some day be incorporated in the great musical paradigm, and become a part of the common usage of musicians.

The mathematician experiments in much the same manner as the composer, but the musician is much closer to reality, for one can neither hear nor see mathematics, it is all a figment of a fertile imagination, it has not the verisimilitude of reality. It would be wrong to suppose that mathematics came ex nihilo, out of nothing at all. But in a very certain sense it sprang from the imagination of man, as Minerva did from the forehead of Jove. Perhaps, if mathematics is not a natural science, it is an unnatural science. Whatever may be its numinous role in the body of all thoughts and things, there is constation of its panoptic necessity.

If a definition of mathematics cannot be approached in a positive fashion, then perhaps one should take the way of the NAY-SAYER (who is not the contrapositive of the yes-man) who sought to say what things were by saying what they were not. The doctrine of apophasy, of the nay-sayer, was a part of the eastern mystical theosophy, codified by Origen of Alexandria, who followed Euclid by some five centuries. It was cultivated later by others, and much of its development has been attributed to Saint Dionysius the Areopagite. Its influence on Saint Thomas Aquinas, in his Summa Theologica, has been emphasized. But the orthodoxy of the apophasist has gone the way of Newton's heterodoxy. Were I a philosopher instead of a mathematician, perhaps I could make something of the apophtic way. For mathematicians, as for apophasy, perhaps the only comprehensible thing is incomprehensibility. All of this is very close to nonsense, the vertiginous abyss of transcendentalism. Georg Cantor, the inventor of sets and functions, those mysterious notions that befuddle parents attempting to do their children's homework for them, spent more than the latter third of his life confined to institutions for the treatment of mental disabilities.

Genius is sometimes close to madness, and sense to nonsense. Some of the most pleasant nonsense was written by a mathematician. He was not a great mathematician, or even a good mathematician, and in fact the most that can be said for him was that he was a mathematical mediocrity.

He was a lecturer in mathematics at Christ Church College, in Oxford University, and the author of at least one rather poor book on mathematics, which was dedicated to Queen Victoria at her request. This was the Reverend Charles Lutwige Dodgson. His literary efforts were phenomenal, using 'literary' in its broadest meaning. At his death there survived his 'letter-book'—a compilation of extracts of the letters he wrote and received, with the gigantic total of almost 100,000 entries. His published works, excluding mathematics, run to some 1200 printed pages. He was a person of great piety, and social bravery, and vulgarity was to him the very worst of vices. He was a gentle man, in every meaning of this word.

Under the fictitious name Lewis Carroll, he wrote the most pleasant nonsense ever penned in the English language, *Alice in Wonderland*, *Through the Looking Glass*, and much else. His utterly fantastic imagination can best be brought forward in some of his lesser-known verse —

He thought he saw a rattlesnake

That questioned him in Greek; He looked again, and found it was The middle of next week. 'The one thing I regret,' he said, 'Is that it cannot speak.'

But his conclusions from irrelevant hypotheses were sometimes cogent —

He thought he saw a kangaroo That worked a coffee-mill; He looked again and found that it was A vegetable-pill. 'Were I to swallow this,' he said, 'I should be very ill.'

Lewis Carroll was certainly not an archangel, at least mathematically, but it is equally as sure that he was an angel, if only a very small one.

Mathematicians come in all shapes and sizes, and from all walks of life. Let me mention a few names, all in the archangelic hierocracy, with a brief attribution—

Galois was killed in a dual at the age of 20.

- Weierstrass specialized in drinking and dueling, taught only in high schools, and only became a university teacher at age 40.
- **Boole** was the son of an impecunious tradesman, had only a grade-school education, was entirely self-taught, and was never in a university.
- Vandiver never completed his college work, and became a member of the National Academy of Sciences. I had the pleasure of voting to give him an honorary bachelor of science degree.
- Sylvester taught briefly at the University of Virginia, until he was run out of town by the students, and later became a professor at the first of our graduate schools, Johns Hopkins.
- Ramanujan, an Indian Indian, never got a degree, wrote 'failed B.A.' on his visiting card, and was the supreme number theorist of this century.
- Kronecker did not become a university teacher until after he had made a comfortable fortune in business.
- Cayley took only the first degree, practiced law for 14 years, became a professor at Cambridge, and his collected mathematical works require 13 volumes. He was also a water-colorist and mountain climber.

Mathematicians are after all, human beings.

So much for the casual, if penetrating, remarks concerning my own field.

And now back to our bright cherubim and seraphim, and no less, to those whose support their sojourn in this grove of academe was made possible, their parents. To these we must express appreciation that they found this university a fitting place, a suitable depository for their hopes for their children. In this day of fluctuating interest rates, depression and recession, we are encouraged that their investment for the future of their progeny was a safe and sound one, for a good education rarely depreciates, whatever the state of the market. And to those who accompany our bright angels — their uncles and their cousins, whom they reckon by the dozens, and their aunts — our pleased acknowledgment of their presence here.

In this event I stand in surrogate to Polonius, that sentitious father of Ophelia in Shakespeare's Hamlet. You will recall his pious platitudes, uttered in stained-glass attitudes, that flow of verbal morality and sage council, given to direct conduct and opinion of others. In my role as nonteacher I must forgo this. In its place, and I hope more welcome, the very sincere congratulations of all of us to the initiates of this evening.

It is somewhat of a mystery as to why those in charge of this occasion might have thought that a mathematician would be an appropriate speaker. Whatever may have been their reasoning — or their unreasoning my most grateful thanks to the officers of the chapter, and in particular to Dr. Spivey, for the opportunity of making public some of my views on education. There are also others.

At such times as this, occasions of tedious oratory, I am reminded of Old Father William and the questioning youth. I trust that my dear wife will forgive the allusion.

'You are old,' said the youth, 'and your jaws are too weak

For anything tougher than suet:

- Yet you finish the goose with the bones and the beak Pray how do you manage to do it?'
- 'In my youth,' said his father, 'I took to the law,

And argued each case with my wife;

And the muscular strength which it gave to my jaw Has lasted the rest of my life.'

For your kindness and courtesy in listening so patiently to this septic torrent of quotations, my boundless gratitude.

Thank you, very much."

Appendix B

The Center for Applied Mathematics (CAM)

As I write, one of the strengths of the University of Florida is the existence of about 200 centers and institutes on campus. One of these, historically connected with the Department of Mathematics and with some of the personalities encountered in this chapter, is the Center for Applied Mathematics. Recently, Professor David Wilson of our department (with the assistance of Professor Zoran Pop-stojanovic on historical matters) wrote up a document for the departmental web page which gives the history of this center, and with Wilson's permission, we have reproduced the relevant portions of this write-up below:

"The Center for Applied Mathematics (CAM) was formed in 1974 through a cooperative effort of Professors A. R. Bednarek and Knox Millsaps. Letters of support for the formation of the center were provided by a number of prominent University of Florida individuals including E. T. York, Linton E. Grinter, and Harry Sisler. Dean Grinter wrote an extensive white paper delineating the structure, goals, and aspirations of the center. In addition, in a letter to Dean Harold Hanson he made the following remarks.

'My thought, expressed in the white paper attached, is that an opportunity exists to train applied mathematicians here at several levels by using courtesy appointments of qualified faculty to a Center for Applied Mathematics. This Center would require a half-time Program Director and a Coordinating Committee to establish degree standards. Hence costs would be minimal. Nevertheless, the effect in the South, and therefore upon Washington sponsors, might be quite significant because comparable degrees seem limited to Rice, Georgia Tech and North Carolina State.'

Chancellor Robert Mautz set in motion the formal mechanism for the creation of the center in a letter dated 6 February 1974, when he wrote:

'I note that establishment of the proposed interdisciplinary Center for Applied Mathematics will aid in the training of students at both the undergraduate and graduate levels in various aspects of applied mathematics. While I encourage the interdisciplinary approach and optimization of campus resources in mathematics which this center may engender, establishment of the Center should not be interpreted as encouragement to plan any additional degree programs in the mathematical sciences at this time.

The University of Florida is hereby authorized to proceed with the establishment of an interdisciplinary Center for Applied Mathematics. No further action is necessary.'

The Center was started at The University of Florida because of the presence of a strong group of internationally recognized applied mathematicians including the late Stan Ulam, late Karl Pohlhausen, M. Popov, and M. Longuet-Higgins. Soon this impressive group was joined by another internationally recognized authority, the late L. Cesari, who was instrumental in organizing the First Symposium on Dynamical Systems, held at UF during 24–26 March 1976. The funding for this symposium came from the State of Florida's Quality Improvement Program. Five years later, during 25–28 February 1981, the CAM held the second Symposium on Dynamical Systems (under the same source of funding as the first). The central theme of the symposium was the relation of dynamical systems to current research on ordinary and functional differential equations, partial differential equations, stability theory, and optimal control. The Proceedings of the symposium was published by Academic Press. Also, during 1981 the CAM organized a Seminar on Stochastic Processes with funding from the Division of Sponsored Research. The proceedings from this conference were published by Birkhäuser. The CAM organized three more Seminars on Stochastic Processes, the last held in 1995. Funding for all these seminars came from the Division of Sponsored Research and the College of Liberal Arts and Sciences. The Center also sponsored the Sir Jeffrey Taylor memorial lecture series, which featured many distinguished speakers including Stan Ulam, Mark Kac, Felix Browder, G. Carrier, and M. Longuet-Higgins.

Administrative Structure

In his letter to Vice President Bryan dated 17 January 1974, Dean Harry Sisler proposed the following structure for the Center.

- \star The Council
- \star External Scientific Advisory Board–consisting of internationally renowned mathematical scientists
- \star Administrative Structure
- $\star\,$ The Faculty–consisting of existing faculty members from several departments

The original council consisted of Associate Vice President Robert A. Bryan, Dean Wayne H. Chen, Dean Harry Sisler, and Dean C. A. Vander-Werf. The Council has now been replaced by Professor Karen Holbrook, Vice President for Research and Graduate Education. The original External Scientific Advisory Board consisted of J. P. LaSalle, C. C. Lin, J. B. Rosser, G. C. Rota, and S. Ulam. The original administrative structure consisted of Co-Directors A. R. Bednarek and Knox Millsaps. The original faculty in the Center included individuals from the following academic disciplines.

- \star Electrical Engineering,
- \star Engineering Science, Mechanics, and Aerospace,
- \star Industrial and Systems Engineering, and
- \star Mathematics."

As I am writing in 1996, this institution is seeing a renewal under the directorship of Ulrich Kurzweg from Aerospace Engineering, and Zoran Pop-stojanovic and David Wilson from Mathematics. An new External Advisory Committee has been formed, including Michael Barnsley, John Dennis and Avner Friedman.

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