

A Brief History of the Department of Geology at Syracuse University

by

D.F. Merriam

Department of Geology, Syracuse University, Syracuse, NY

History of the Department of Geology at SU begins with the arrival of Alexander Winchell in January of 1873 as first chancellor and professor of geology, zoology and botany. He was the first to occupy ordained chair 13 (geology, mineralogy and botany) in the new University which had been formed under the sponsorship of the Methodist Church. Winchell actually was second choice after the Rev. Erastus O. Haven (later second chancellor of SU) declined the appointment because of other commitments (Galpin, 1952).

Winchell, born in Dutchess County, New York in 1824, had been educated at Wesleyan (graduating in 1847) and had won distinction as professor of geology, zoology and botany at the University of Michigan as well as serving as director of the Michigan Geological Survey. He also had been president of Masonic University at Selma, Alabama, and attracted considerable attention with his book on "Sketches of Creation". The Board of Trustees and Faculty were impressed with his accomplishments and offered him the position; after some consultation with friends and family he accepted.

Winchell however soon became disenchanted with being chancellor. It required an inordinate amount of his time and there was the constant problem of raising money for the fledgling university. He was a "...bold and mighty thinker" but "...a scholastic hermit." "The affairs of men in general or of students out of the class room did not interest him" (Smalley, 1920). So after only two years he resigned as chancellor but remained on the faculty teaching for another 5 years (Table 1). Undoubtedly part of the decision to relinquish his administrative duties was based on domestic affairs as well as distaste for attending petty duties and details, which meant in his words "leaving my intellect to lie fallow" (Galpin, 1952). A year later he accepted a position at Vanderbilt University and divided his time between the two universities until he received a call to return to Michigan.

Winchell was first of all a scientist and scholar. He published almost 100 papers including nine books. A list he kept of his literary compositions numbered 566 (Winchell, 1892). He was cofounder of the Geological Society of America and of The American Geologist. He has been called the "Father of GSA" and served as its third president in 1891.

Winchell was a popular lecturer and was described as "...an effective, if not an eloquent speaker" (Smalley, 1920). He could bridge the gap between science and religion and had the remarkable ability to inspire and impart knowledge to others - "no man since the days of the elder Agassiz has done so much to familiarize the more intelligent portion of our

Table 1 - Heads and Chairmen of Department of Geology - SU

| | | |
|-----------|-----------------------------|--|
| 1873-79 | Alexander Winchell | Prof. of Geology, Mineralogy and Botany; Prof. of Geology, Zoology and Botany |
| 1879-83 | ----- | ----- |
| 1883-91 | Lucien Marcus Underwood | Inst. (later Prof.) of Geology, Botany, and Zoology and in 1889 Prof. of Mineralogy ¹ |
| 1891-94 | Rev. Charles Wesley Hargitt | Prof. of Biology and Geology |
| 1894-95 | ----- | ----- |
| 1895-96 | Edmund Chase Quereau | Prof. of Geology and Mineralogy |
| 1896-1900 | ----- | ----- |
| 1900-31 | Thomas Cramer Hopkins | Chm., Dept. of Geology |
| 1906-31 | Charles Henry Richardson | Chm., Dept. of Mineralogy |
| 1931-45 | George Babcock Cressey | Chm., Dept. of Geology and Geography |
| 1945-58 | Earl Taylor Apfel | Chm., Dept. of Geology |
| 1958-63 | William Meredith Merrill | Chm., Dept. of Geology |
| 1963-70 | John James Prucha | Chm., Dept. of Geology |
| 1970-71 | Ernest Hathaway Muller | Interim Chm., Dept. of Geology |
| 1971- | Daniel Francis Merriam | Jessie Page Heroy Prof. & Chm., Dept. of Geology |

¹This appointment apparently was the beginning of the Department of Mineralogy which administratively was separate from Geology.



Top row (left to right): A. Winchell, L.M. Underwood, I.C. Hopkins
Middle row (left to right): C.H. Richardson, G.B. Cressey, E.T. Apfel
Bottom row (left to right): W.M. Merrill, J.J. Prucha, D.F. Merriam

American communities with the great deductions and the established results of our science" (Orton, van Hise, and White, 1892). In February and March 1876 the University all but suspended activities as Winchell organized a school of geology providing instruction in elementary and advanced geology and in addition delivered 10 lectures on "The Derivative Origin of Species". The following year he repeated his performance with eight popular lectures, "Chapters from the Lifetime of a World". Apparently, he returned to the campus only once after leaving (in 1879) and then to give the J. Dorman Steele lecture in 1888. He died in Ann Arbor in 1891.

The Department has recognized his contributions with the Alexander Winchell Distinguished Lecture series given annually to commemorate his inauguration on 13 February 1873, and the Winchell Distinguished Alumni Awards. Winchell Hall was opened in 1900 as a university dormitory.

The first classes of geology were given in Hall of Languages (HL), although some of them were given in the Myers Block in downtown Syracuse. Room 31 HL was listed as the location on Wednesday and Friday of Winchell's course on geology for seniors during the winter term (13 weeks) of 1875. Geology was required of seniors in the classical curriculum during their third term and of sophomores in the scientific curriculum during their third term.

By the time Winchell left in 1879, geology was an established course in the university. He was replaced by Lucien M. Underwood (instructor and later professor of geology, botany and zoology, and 1889 professor of mineralogy), who had been a student of Winchell's and had just obtained his PhD from SU in 1879. He was followed by the Rev. Charles W. Hargitt, a biologist by training, who was professor of biology and geology from 1891-94. Apparently no geologist was on the faculty in 1894-95 and again from 1896 to 1900 although geology courses were offered. Edmund Chase Quereau was professor of geology and mineralogy from 1895-96. Others during the late 1800's who taught geology were Frank Smalley, who received a masters in geology but a PhD in Latin; Oscar Rogers Whitford, a mineralogist and later with King Gold Mining and Developing Co., and Edward Henry Kraus, a student of German and mineralogy, who later distinguished himself at the University of Michigan.

The first graduate degree in geology was granted in 1876 to Frank Smalley (AM '76). Early PhD's include:

| | |
|------|--------------------------|
| 1876 | Miles Gaylord Bullock |
| 1879 | Frederic William Simonds |
| 1879 | Lucien Marcus Underwood |
| 1881 | Henry Joseph Rice |
| 1884 | Samuel John Sornberger |
| 1887 | David Worth Dennis |
| 1888 | Nicholas Knight |

In 1900 Thomas Cramer Hopkins was appointed professor of geology. Hopkins had been educated at Stanford University and had just received his PhD from the University of Chicago. Previously he had been an instructor in chemistry at DePauw University, assistant state geologist of Arkansas, and assistant professor of geology at Penn State College. He was

assisted in mineralogy by Edward Kruas who received his PhD in 1901 from the University of Munich. Kruas left for Michigan in 1904 and was replaced by Charles Henry Richardson (PhD, Dartmouth) in 1906. Richardson rose through the ranks from instructor to professor and Chairman of the Department of Mineralogy by 1909. Burnett Smith (PhD, University of Pennsylvania) was appointed an instructor in 1907.

It was in 1907 that the small three-man department moved to their new quarters on the third floor of Lyman Hall of Natural History (which also housed the Departments of Biology, Zoology, and Forestry). The Geology Department library was moved from HL to Lyman during the term break in early 1908.

Thomas Cramer Hopkins (1861-1935) was an inspirational teacher; he was well liked and respected. Often the Geology Club met at his home located adjacent to the campus. Hopkins had been associated earlier with R.A.F. Penrose (later benefactor of GSA) and F.W. Simonds (PhD, 1879 from SU) working for J.C. Branner (Stanford University) as assistants on the newly established State Geological Survey of Arkansas. His prestige in academics was "rated in part by the number of his published works" (almost 50 titles) and "his wide acquaintance among geologists of the times added significantly to the benefits to be derived from his teaching" (Holmes, 1977). He had a productive professional life considering he did not receive his PhD until he was 39. In 1958 W.B. Heroy endowed scholarships for the outstanding junior and senior majoring in geology in honor of his beloved professor who died in 1935. Since 1959, 27 undergraduate students have received the award.

The Geology Club was founded on 4 November 1905. The first vice president was William Bayard Heroy (PhB, '09) later benefactor and supporter of the Department. The Club was reactivated in the late 1920's and has been active since sponsoring field trips, seminars, and social activities. A professional geology fraternity, Pi Eta Sigma, was founded on 27 November 1915 and was active for about ten years.

The first part of the 1900's was a busy one, although activities were interrupted by two World Wars and seriously curtailed by a major depression. George B. Cressey became chairman of the combined Department of Geology and Geography in 1931. Hopkins and Richardson both retired that year. By 1945 the Department consisted of five faculty members, and some 50 advanced degrees had been awarded. Some of the graduates of this time include A.E. Brainerd (MS, 1912), Florence Huck (AM, 1920), Louis W. Ploger (AM, 1922 and later on the faculty), Chauncey D. Holmes (AM, 1927), Stewart H. Ross (MS, 1928), Louis Wade Currier (PhD, 1930), Samuel S. Goldich (AM, 1930), Marjorie Hooker (AM, 1933), Harry J. Klepser (AM, 1933), Neil A. Miner (AM, 1933), Andrew J. Mozola (MS, 1938), Russell F. Kaiser (MS, 1939), and Robert F. Black (AM, 1942).

The New York State Geological Association had roots in Syracuse. Announcement of the first annual intercollegiate geological field meeting held in central New York (1925) and hosted by Hamilton College was issued by SU's Harry N. Eaton, secretary. Eaton then served as president in 1926 for the 2nd meeting in Syracuse. In addition the 13th (1937),

22nd (1950), 36th (1964), and 50th meetings were held in Syracuse.

After WW II the Department of Geology and Geography was split and George Cressey (PhD in both geology and geography) became chairman of geography and Earl T. Apfel became chairman of the Department of Geology. Apfel was followed by William M. Merrill as chairman in 1958 and John James Prucha in 1963. Ernest H. Muller was interim chairman in 1970-71 and Daniel F. Merriam became the first Jessie Page Heroy professor and chairman in the spring of 1971. The faculty was increased to 6 by 1962, 8 in 1963, 10 by 1970, and 11 by 1971.

Numerous scholarships and awards have been established over the years to honor outstanding students and alumni. In 1961, Chauncey D. Holmes provided for an award for excellence in beginning geology, which is given annually to students with the highest grade in the introductory course and shows the most promise in science. The Newton E. Chute Graduate Award was established in 1975 to be given annually to the graduate student judged outstanding based on scholarship, service to the Department, and professional promise. In 1976 the Faye M. Merriam Scholarship was endowed for a full-time SU undergraduate geology major to be awarded on academic achievement, need, and professional promise. The Marjorie Hooker Award (AM 1933), established in 1977 in support of research, is given annually to the thesis or dissertation proposal judged outstanding by the faculty.

SU Department of Geology Alumni are honored for their achievements each year. The awards are recognized for the alumni contributions to their profession and service to the Department. To date nine awards have been announced and include:

- 1976: Louis A. Fernandez (PhD '69)
Marjorie Hooker (AM '33)
Vincent E. McKelvey (BA '37)
- 1977: Samuel S. Goldich (AM '30)
Chauncey D. Holmes (AB '25, AM '27)
Yngvar W. Isachsen (BA '42)
- 1978: Robert F. Black (AM '42)
B. Churchill Loveland (BS'16)
James R. Slater (MA '17)

In addition to Department awards, on occasion the University confers honorary degrees. Geologists and others associated with the Department have been honored and include: ScD's: E.H. Kraus '20, W.R. Jillson '21, W.F. Libby '57, W.B. Heroy '58, M.K. Hubbert '72, and V.E. McKelvey '75; and honorary LLD's: W.N. Rice '86, L.S. Smith '17, and E.H. Kraus '34.

Each year, since 1972, the Department has hosted a Geochautauqua in the fall. The first one was in conjunction with the Heroy Geology Laboratory dedication in 1972. The topic that year was "The impact of quantification on geology" and the speakers were G.Y. Craig of Edinburgh University, R.A. Reymont of Uppsala University, M.K. Hubbert of the U.S. Geological Survey, W.C. Krumbein of Northwestern University, S.C. Robinson of the Geological Survey of Canada, and J.C. Griffiths of Pennsylvania

State University. Proceedings of the symposium were published in the Syracuse University Geology Contribution (SUGC) series.

The Department initiated the SUGC publication series in 1973 with a paper on "Geology in the Service of Man" by V.E. McKelvey (BA '37). A publication outlet had long been needed for the Department and the new series filled that need. The first publication, which was both timely and relevant, was dedicated to the promotion of geology in the Upstate New York area.

An auspicious event took place in the history of the Department in 1966. William Bayard Heroy (PhB '09) approached the University with an offer to contribute money towards a geology building. Heroy had been supporting the Department through gifts for scholarships, equipment, and research during the previous 10 years. His offer was accepted graciously and the building named in his honor. The building was completed near the end of 1971 and the Department moved between semesters in December of 1971 and January 1972 from their third-floor quarters in Lyman where they had been since 1907 to the spacious new Heroy Geology Laboratory (HGL).

Heroy also endowed a distinguished chair of geology in honor of his first wife Jessie Minerva Page Heroy (PhB '08). D.F. Merriam was the first to occupy the position.

Heroy (1883-1971) was active in many geological organizations and had served them in many capacities (Conselman, 1974). He was cognizant of his education as a factor in his success both as a professional geologist and in business, and as a result he gave generously to his alma mater, Syracuse, to Southern Methodist University, where he spent much time in his later years, and to the Paleontological Research Institution in Ithaca. He gave money to both SU and SMU for buildings to house their geology departments. In recognition of his many accomplishments he received many awards and honorary degrees. He died in 1971.

In 1978 the Department consists of 11 faculty (including vice chancellor J.J. Prucha), 40 graduate students (MS, MA, and PhD) and another 5 completing requirements off campus, and about 55 majors (both BS and BA). The curriculum stresses field work and computer applications including geomathematics. As a medium-sized department with limited resources, all fields are not covered but an all-around basic education is offered at the undergraduate level. Specialization is possible at the graduate level, with either the group concerned with events on the stable interior of the craton or with continental margins. About 1500 students a year enroll in introductory courses where they get an understanding of geology and an appreciation for their environment.

The future at this time looks bright for geology and the Department anticipates an active and exciting time during the remainder of the 20th Century.

ACKNOWLEDGMENTS

I would like to thank the following people for help and information in regard to the Department: Mrs. Virginia Wood (adm. asst. 1956-72), Mrs. Beverley O'Brien (adm. asst. 1972-), Mr. B. Churchill Loveland (BS '16), Dr. Chauncey D. Holmes (AB '25, AM '27), Dr. Stewart H. Ross (MS '28, PhD '51), and Dr. Ernest H. Muller (faculty 1959-).



TO A CAMBRIAN TRILOBITE

Oh thou, great warrior of th'emergent earth,
First conqueror of Neptune's mighty deep,
Reveal the secret of thy early birth,
And where and how and why you came to reap
The fruits of life's emergent evolution,
To conquer all that dared to live. Oh, say
For me the reasons for your dissolution,
What mighty battle ended your life's day.
Although you dwelt in glory for a time,
You were not destined to immortal be.
New types replace the old, for in its prime
This form must cede to that control o'er sea.
So tell--must man, who now is king o'er all,
In prime of life be overthrown and fall?

Barbara Eaton Ferguson, PBK AB
Syracuse, 1949

(from the fieldtrip guide for the NYSGA Silver Anniversary Meeting,
Syracuse University, 28-29 April 1950)

REFERENCES

- Conselman, F.B., 1974, Memorial to William B. Heroy, Sr.: Am. Assoc. Petroleum Geologists Bull., v. 58, no. 12, p. 2537-2538.
- Holmes, C.D., 1977, Thomas Cramer Hopkins (1891-1935): an appreciation (notes to supplement L.W. Ploger's Memorial to T.C. Hopkins in Geol. Soc. America Proc. 1935, 1936, p. 255-261): unpubl. notes, Syracuse Univ. Geol. Dept., 7 p.
- Smalley, F., ed., 1920, The golden jubilee of Syracuse University, 1870-1920: Syracuse Univ. 206 p.
- Galpin, W.F., 1952, Syracuse University, the pioneer days, v. 1: Syracuse Univ. Press, 270 p.
- Merrill, W.M., 1960, Geology at Syracuse University 1890-1895: unpubl. notes, Syracuse Univ. Geol. Dept., 6 p.
- Anonymous, 1892, Alexander Winchell, an editorial tribute: The Am. Geologist, v. 9, no. 2, p. 70-148, 273-276.
- Winchell, N.H., 1892, Memorial sketch of Alexander Winchell: Geol. Soc. America Bull., v. 3, p. 3-13.
- Orton, E., van Hise, C.R., and White, C.A., 1892, Eulogium of Alexander Winchell: Geol. Soc. America Bull., v. 3, p. 56-58.
- Ploger, L.W., 1936, Memorial of Thomas Cramer Hopkins (1861-1935): Geol. Soc. America Proc. 1935, p. 255-261.

OTHER SOURCES OF INFORMATION

- Smalley, F., ed., 1899, Alumni Record and General Catalogue of Syracuse University 1872-99, 989 p.
- Smalley, F., ed., 1904, Alumni Record and General Catalogue of Syracuse University, v. 2, 698 p.
- Smalley, F., ed., 1911, Alumni record and general catalogue of Syracuse University, v. 3, pt. 1 and 2, 2289 p.
- Smalley, F., ed., 1925, Alumni record and general catalogue of Syracuse University, v. 4, 1523 p.
- American Men of Science, various editions
- Syracuse University catalogues and bulletins