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Geography

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GEOGRAPHY

By Ralph C. Brown
ACKNOWLEDGEMENTS

Recognition of assistance in the preparation of this record is a risky affair because of the possibility of neglecting some. UND Department of Geography faculty members including Professor Emeritus Bernt Lloyd Wills and his wife Evelyn have provided suggestions and recollections. Professor Dan Rylance and his capable assistants in the Special Collections Room of Chester Fritz Library and personnel in the UND Registrar's Office deserve special recognition. Mr. David Ross Keys, a student assistant and geography major gleaned material from those sources.

Other sources include Annual Reports of the Department of Geography beginning with 1971 - 72; reports of UND Registrar Mr. R. O. Wilson to the President from 1927 to 1947; and Professor Louis Geiger's University of the Northern Plains, UND Press, 1958.

Most helpful has been "A History of the Geography Department at The University of North Dakota," (mimeo.) Department of Geography, The University of North Dakota, March 1965, 13 pp. Much of that work, prepared by Mr. Terrence G. Miller M.A. UND, has been reproduced here with minor changes and additions. Mr. Miller is acknowledged for his efforts and Ralph Brown takes responsibility for errors and omissions.

Thanks also to Ms. Charlotte Minier and her predecessors who maintained the files.

In his history of the department Miller observed that geography at UND had a development similar to that of the university; overcoming obstacles and setbacks to achieve slow progress. University Vice President Henry Montgomery, Professor of Natural Science, offered what Miller referred to as "basic geographic concepts" in the original 1884 University of North Dakota Curriculum. One year later the 1885 University Catalog listed a political geography background as an admission requirement for B.A., B.S., and Normal Department degree students. Ms. Emma Mott, UND's first female Instructor, offered remedial geography to students whose preparation was inadequate. Two Geology courses were offered which included physical geography according to the course descriptions; plus courses which included map drawing, meteorology, and astronomy.

By 1893 the University Catalog listed geography in the Normal Department as follows:

The geography in the fall term of the third elementary year will be a model treatment of one or more of the Grand Divisions. It will thus be essentially professional work, and will be required of all Normals. The work presupposes a good knowledge of Common School Geography for admission to the class, and map drawing receives special attention.

Astronomy, geography, and geology were required of Normal Students in 1898 as part of a course offered by Professor Earle J. Babcock, a Geologist and Chemist. When Miller wrote his history the Department of Geography was housed in Babcock Hall, named for that distinguished professor. Many years later a building housing the Geology Department was named in honor of
Professor Arthur G. Leonard who, in 1902, offered a program that included physiography, landform evolution, and meteorology.

A College of Liberal Arts was organized 1903 with a Department of Geology and Mineralogy; Professor Leonard, Chair, with his colleague Professor Babcock, comprised the faculty of the department. In 1908 two courses were offered by Mr. C. C. Schmidt, M.S. Minnesota, Superintendent of Schools for Grafton, Instructor in Agriculture, Nature Study, and Geography at UND, and later Superintendent of the UND University High School, as requirements of the Summer School Program for Teachers, perhaps in response to a demand from in-service teachers. The following is from the 1908 University Catalog:

Physiography of North America: A political and commercial geography of the United States, map sketching, latitude, longitude and Standard Time. Field excursions to a flour mill, cracker factory, and a candy factory.

W. M. Bryant, M.Acct. was appointed Instructor in Commercial Geography, Business Methods, and Accounting. Degrees indicated in this report are the highest earned and not necessarily held at the time of the incident cited such as initial appointment to the faculty.

Assistant Professor Howard Edwin Simpson, Ph.B. Cornell College, M.A. Harvard University, was appointed to the faculty of the Department of Geology in 1909, the first UND faculty member who should be considered a geographer. Simpson developed the geography program during the twenty nine years he served at UND. Simpson's career included service as Principal and Superintendent of Public Schools in Iowa, Assistant in Geology and Geography at Harvard 1903-05; Instructor in Geology and Secretary of the Faculty at Colby College 1905-07; Field Geologist in Pennsylvania 1907-09. He was a charter member of the UND Chapter of AAUP organized 1914. AAUP membership at that time was restricted to established scholars who had taught for at least ten years.

Titles of his successive appointments reflect the development of the geography program at UND. Assistant Professor of Geology and Assistant Director of the State Geological Survey; Associate Professor of Physiography; Associate Professor and Professor of Geologic Geography; Head of the combined Department of Geology and Geography and Director of the State Geological Survey. He also served at various times as Visiting Professor at the University of Chicago; Principal Geologist Federal Public Works Administration and Natural Resources Board. Simpson began his career at UND offering the Physiography and Meteorology courses earlier instituted by Leonard and Babcock, and geography through the University Extension Division. He died three years before the formation of a separate Department of Geography for which he had labored for twenty nine years.

In his history of UND Geiger (pp. 304, 376, 398) indicated that Simpson was an influential campus politician associated with a little group of colleagues including Bek (Dean), Gillette, Libby, and Wheeler, who determined University affairs and the selection of a President. Geiger further states (pp. 219, 362, 392) that Simpson became an internationally known consultant on ground water. He also is reported to have been involved in the original planning of the Pick-Sloan Missouri River Project, later known as Garrison Diversion.
One hopes that Professor Simpson was not an Environmental Determinist. However, 1914, when that concept had raised its ugly head in North America, Simpson offered Geographic Influences, a course title reflecting Ellen Churchill Semple's textbooks of that era. Also he is reported to have considered the influence of climate on man in a Climatology course he instituted at that time. Note material from the 1926 catalog, cited below, where the course Human Geography is based chiefly upon the work of Semple and another arch determinist Ellsworth Huntington.

1909 Summer School Program course offerings included Political and Commercial Geography of South America, Europe, Asia, and Africa. Physical Geography also is listed with the notice that 'topographic charts now are studied in class.' By 1911 the University Catalog carried the following course descriptions:

Commercial Geography: This subject treats of the numerous commodities produced in the different parts of the world accessible to man; it also treats of the markets of such commodities and their transportation. Commercial geography regards the world purely from a commercial and industrial standpoint. A series of lantern slides, illustrating various phases of the subject, have been procured, and illustrated lectures are given from time to time. The school also has a valuable museum containing many materials of commerce, both raw and manufactured, which are drawn upon for class use.

Physiography: The various forces which are shaping the earth's surface are first considered, followed by the study of the composition of the earth, the student becoming familiar with some of the common minerals and rocks. The different land forms are then taken up in detail with special reference to their origin, and in this work the surface features of North America receive particular attention. Recitations, lectures, laboratory work and field excursions.


Meteorological observations were made at UND and records furnished to the United States Weather Bureau beginning 1889. August 1, 1911 the United States Weather Bureau Grand Forks Station was awarded the status of Special Meteorological Station, later also an Airways Station, with the official in charge designated a Special Meteorological Observer. As this is written, 1983, the Department of Geography continues to maintain the Weather Site east of the Princeton Trailer Court with observations made at 7:00 a.m., noon, and 7:00 p.m. seven days each week and every day of the year, a considerable chore. Interested parties receive free telephone transcriptions of weather reports by dialing 777-4303 and the service is popular. Complaints are received if the duty is not properly performed as scheduled. News media such as radio and television stations and the Grand Forks Herald use information from the Weather Site including monthly summaries. Faculty colleagues sometimes feign resentment because geographers "sell" weather reports. Occasionally insurance companies or attorneys, for instance, need weather records for certain dates and in return donate small amounts which are used to maintain the station, repair or replace instruments. No funds are received from the United States Weather Bureau although originally the instruments were furnished.
At the Weather Site geographers also observe and record evaporation rates, snow cover (for flood forecasting), and solar insolation received. In 1972 the Weather Site was designated Air Sampling Site Number 35048002 by the United States Environmental Protection Agency and the North Dakota Department of Health. One of three High Volume Air Pollution Surveillance Monitors in North Dakota, the sampler instruments were operated by student weather observers.

In 1915 Professor Simpson reorganized Physiography of the United States into a two semester sequence of meteorology and landform study. Curiously, that organization persisted for over fifty years with resulting friction between faculty members of the departments of aviation, geography, and geology. Apparently Summer Session and Extension geography programs begun 1908 were continued until 1915 but omitted for several Summer Sessions beginning with 1916. According to the 1917 University Catalog Simpson added another two Semester course:

Physical and Economic Geography: A regional course in which the general principles of physiography are applied to the United States and more briefly to adjacent political divisions of North America. The natural features of each physiographic province are studied. Includes the economic and historical development of each region.

Organized by Simpson 1918, a Geography Club operated for twenty years but went out of existence in 1938 when he died. On leave 1919, Simpson was replaced by Eula D. McEwan, Ph.D. Indiana, as Acting Associate Professor of Physiography, also referred to as Geographic Geology. Returning 1920 Simpson instituted a two Semester Economic Geography course which included physical geography and was required for Commerce Students (later the College of Business Administration). And Ms. Julia Bertine Rue, M.A., wrote the first master's thesis in geography at UND, The Economic Geography of the Lignite Coal of North Dakota, 1920.

All geography courses (listed under Physiography) were offered by Simpson 1923 including a Minor, as follows:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>Meteorology</td>
<td>4</td>
</tr>
<tr>
<td>4b</td>
<td>Physiography</td>
<td>4</td>
</tr>
<tr>
<td>13a</td>
<td>Geographic Influences</td>
<td>4</td>
</tr>
<tr>
<td>14b</td>
<td>Geography of North America</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional geography courses also were offered, as noted above. Another master's thesis was completed, The Prediction of Minimum Temperatures for the Red River Valley by Mr. Albert William Cook, M.S. 1924.

Miss Vernice Margaret Aldrich M.A., completed a master's degree in Physiography, 1924. There is no record to indicate that she wrote a thesis. Ms. Aldrich later was to occupy a unique position in the department. In 1925 the term Geography replaced Physiography and a Geography Major was offered. On leave 1926, Simpson was replaced by Mr. Ewald Pietsch M.S. Chicago, who later was appointed as a regular faculty member.

By 1926 an annual Departmental Honors Prize in Geography was being awarded. Two additional courses, also required for an undergraduate Geography Major, were listed in the catalog as follows:
Human Geography: A study of human activity, the relations of the physiographic environment to man's activities. This course is based chiefly upon the work of Huntington and Semple.

Advanced Economic Geography: The course aims to interpret the earth in terms of its usefulness to humanity. It deals with the human activities as affected by the earth. The arrangement of the work is by industries. Includes the commerce of the world as treated with special reference to ports, trade routes and laws of trade.

1927 - 28 First Semester Pietsch was responsible for three sections of Economic Geography for twelve credits and an enrollment of 91 students. Second Semester Pietsch again had twelve credits of geography for which 96 students were enrolled and Assistant Professor Berry, S. M. Chicago, offered seventeen credits of geography with 91 students enrolled.

1928 - 29 First Semester Simpson and Pietsch offered Economic Geography, Meteorology, and Geographic Influences, with an enrollment of 211. Second Semester the Geography of North America was added plus the courses offered First Semester, Climatology, and Seminar in North Dakota Geography also were offered but with zero enrollment. During the following year, 1929 - 30 however, almost 300 students enrolled in Economic Geography, Human Geography, and Seminar in North Dakota Geography.

Physiography, and Methods in High School Geography were offered by Dr. Switzer, Visiting Professor of Geography in the Summer of 1929 and Human Geography was added to the Summer Session program. A general reorganization, 1929, of UND course offerings, including renumbering of courses, resulted in the following curriculum in geography:

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Junior Division (Freshman-Sophomore)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>155-156</td>
<td>Economic Geography</td>
<td>8</td>
</tr>
<tr>
<td>251</td>
<td>Physiography</td>
<td>4</td>
</tr>
<tr>
<td>252</td>
<td>Meteorology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Senior Division (Junior-Senior)</strong></td>
<td></td>
</tr>
<tr>
<td>358</td>
<td>Climatology</td>
<td>4</td>
</tr>
<tr>
<td>453</td>
<td>Human Geography</td>
<td>4</td>
</tr>
<tr>
<td>454</td>
<td>Geography of North America</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Graduate Division</strong></td>
<td></td>
</tr>
<tr>
<td>559-560</td>
<td>Seminar in North Dakota Geography</td>
<td>TBA</td>
</tr>
</tbody>
</table>

(this involved special topics related to the geography of North Dakota and included Climatology)

"General Geography: The major choosing this program will receive special emphasis in cultural geography."

"Meteorology: The major choosing this program will receive special emphasis in physical geography with related work in math and physics."
A Department of Geology and Geography appeared 1932 with Professor Leonard as Head. Following Leonard's death 1933 Professor Simpson assumed the position as Head or Chair; by this time Climatology was attracting a few students each Semester but most important to the geography program was the appointment of A. Russell Oliver as Instructor in Geography at UND. With bachelor's and master's degrees from Nebraska and considerable experience at various levels of instruction including Assistant in Geography at Nebraska and Assistant Professor of Geography at the State Teachers College, Maryville, Missouri, Oliver soon completed a Ph.D. at Clark University. Max Demorest, Ph.D. Princeton, was appointed Assistant Professor of Geology.

Professor Oliver served at a crucial time and his importance to the geography program at UND cannot be overemphasized. Ph.D. degree holders in geography were very few in number prior to WWII. Professor Howard E. Simpson, Chairman of the Department of Geology and Geography when Oliver was appointed, had carried forward the geography program virtually single handed but realized he was not immortal and that to continue the program would require the talents of one with Oliver's background and educational preparation.

Arthur Carl Selke, Ph.D., wrote the first and only geography Ph.D. thesis at UND, The Transportation System of Germany with some Application to North Dakota Conditions, 1935. In the Introduction Selke wrote that his thesis was a study of transportation from a geographic point of view. Oliver was chairman of the thesis committee and the thesis also was signed by John C. West, President.

Selke performed field studies in Germany for ten months for a thesis that seems most appropriate in a state where the capital was named for the great German leader Bismarck and where at UND commencements instead of the Star Spangled Banner, the strains of Deutschland Uber Alles are heard (adapted by Professor John Macnie as the Alma Mater).

Arthur Selke became Professor of Geography at the State Teachers College, Dickinson, N.D. and was responsible for the North Dakota Edition of Our Home State and Continent by Albert Perry Brigham, Ph.D. and Charles T. McFarlane, Ph.D. in the "Our World and Ourselves" series, American Book Company, New York, 1936. 1938 - 39 First Semester Oliver added a Geography of Europe, enrollment five; and Second Semester added the Geography of South America and enrolled one student. 1938 was a year of a great significance for Professor Simpson died and the Geography Club he organized twenty years earlier also expired.

Oliver was promoted to Assistant Professor and emphasizing the regional approach, the following year offered the entire geography program (with the exception of Meteorology and Climatology for which Mr. Demorest was responsible) as indicated in the 1939 University Catalog as follows:
# Geography Program

<table>
<thead>
<tr>
<th>Junior Division</th>
<th>Credits</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>155-156</td>
<td>8 (Lab. Sci.)</td>
<td>College Geography</td>
</tr>
<tr>
<td>157-158</td>
<td>6</td>
<td>Economic Geography</td>
</tr>
<tr>
<td>253</td>
<td>4</td>
<td>Meteorology</td>
</tr>
<tr>
<td>254</td>
<td>4</td>
<td>Climatology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior Division</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>351</td>
<td>Human Geography</td>
</tr>
<tr>
<td>454</td>
<td>Geography of North America</td>
</tr>
<tr>
<td>461-462</td>
<td>Geography of Europe</td>
</tr>
<tr>
<td>463-464</td>
<td>Geography of South America</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graduate Division</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>559-560</td>
<td>Arranged</td>
</tr>
<tr>
<td>561-562</td>
<td>Advanced Economic Geography</td>
</tr>
<tr>
<td>563-564</td>
<td>Regional Geography</td>
</tr>
<tr>
<td>565-566</td>
<td>Advanced Climatology</td>
</tr>
</tbody>
</table>

Last of the geography master's theses from the combined department; Human Ecology of the Pelican Rapids, Minnesota, Quadrangle, was completed by William H. Stevenson, M.A., 1940.

Professor Oliver became Acting Head of the Department of Geology and Geography last year of the combined department, 1942, and added Regional Geography with an enrollment of one student. In 1942 Oliver added Political Geography and left for military service never to return to UND, a severe loss to the Department of Geography. Married to a lady from the Grand Forks area whose family had local commercial interests including the popular Golden Hour Restaurant in beautiful downtown Grand Forks, N.D., Dr. Oliver managed those activities as a successful business executive until his death, 1974.

Out of chronological order and in the 'isn't it a small world' tradition is an incident related to Professor Oliver's death. Brown, chairman of the Department of Geography at that time, assumed the obligation to prepare obituaries for geographic journals. Clark University was contacted to obtain the date of Oliver's Ph.D. (1937). Professor Saul Cohen was Director of the Graduate School of Geography at Clark when the inquiry was made.

Immediately following VE Day, U.S. military forces in Europe implemented a pre-planned 'University' program. Somewhere in England, no longer flying missions over Germany, Ralph Brown taught radio communications to aviation engineers and Saul Cohen took his first geography course, the Geography of Asia from A. Russell Oliver. Prior to his WWII military service Cohen had considered himself a political scientist and wrote that his experience in that course with Oliver caused him to become a geographer. However, until the inquiry about Oliver's Ph.D., Cohen was not aware that Oliver had received his doctorate from Clark. Cohen later served as President of the Association of American Geographers and President of Queens College, City University of New York.
Following a familiar WWII pattern in departments of geography, in 1942 Miss Vernice Margaret Aldrich, M.A. UND returned to replace Oliver. Born 1901 at Northwood, N.D. where her father was a farmer, she died in 1958 at Grand Forks. Her UND work included an undergraduate major in English with minors in Physiography, and Psychology and Education. Phi Beta Kappa, 1923, she was a member of Sigma XI, the Scientific Research Society of North America and the most prestigious and scholarly campus organization. Editor of the North Dakota Wheat Grower, 1925 - 31; she was Registrar of Wesley College, Grand Forks 1931 - 40.

Appointed Assistant Professor of Geography and Acting Head of the Department of Geography, 1942, Professor Aldrich then was the first faculty member to serve as Head of the Department of Geography at the University of North Dakota although Professor Louis G. Geiger in his University of the Northern Plains states:

Although established as a separate department in 1942, geography received its full independence only with the appointment of Bernt L. Wills as head in 1946 . . . By 1957 the department had a three-man faculty and offered a full program up to the master's degree.

Few, if any, changes in curricular offerings occurred during WWII. Military oriented geography courses such as Army Service Training Program (ASTP) and Army Air Force Geography (AAF Geography) were offered for the benefit of service personnel on campus with map reading and weather observation courses becoming popular or required. An addition to the regular program, Political Geography, begun by Oliver the previous year, attracted six students. Very conspicuous however were the ASTP and AAF Geography programs.

First Semester 1943 - 44 Associate Professor Laird (Geology) offered four sections of ASTP Geography and the following faculty members were responsible for sections of AAF Geography: Aldrich (Geography - one); A. M. Rovelstad (Classical languages - one); Erich Selke (Education - two); Harry Spangler (Music - one); and C. W. Telford (Psychology - one). Second Semester professors Aldrich, Laird, Erich Selke, Lulu Selke, and Spangler had a combined enrollment of 475 ASTP Geography and AAF Geography students. Lulu Selke apparently held a position in the Department of Geography until 1945 or 1946 but her name does not appear in the University Catalog.

Two facts are evident, geography courses were much in demand, and there was a shortage of faculty members in geography; trends that continued after the end of WWII. UND faculty quality had declined drastically during the Great Depression and Dirty Thirties because of attrition. Senior professors who retired or died often were replaced by ambitious and qualified junior faculty members who left for more rewarding positions after gaining a year or two of experience. Short term 'quick fixes' occurred as it became customary to promote Graduate Teaching Assistants, often local people, to the faculty. Provincialism and 'inbreeding' of the faculty became a problem that persisted at UND for fifty years, see Geiger (pp. 392-398). For a department such as geography, newly formed during WWII, it was to be an especially difficult problem. Except for Wills, and Kazeck who was at UND for ten years and a former GTA, there was to be a parade of short time faculty members and teaching assistants for approximately thirty years.
1943 was an important year because Bernt L. Wills, Ph.D. Northwestern, was appointed Instructor in Geography. With a bachelor's degree from Valley City State College and a master's in education from Montana State University, Wills came to UND after twelve years of teaching and administration in the Public Schools and one year in a Ph.D. program at Clark University. Professor Wills has the longest tenure of any faculty member in geography at UND, serving as faculty member (chairman 1946-65) of the department for forty years. Retired, 1976, Wills was still serving in 1983 as Professor Emeritus of Geography.

In his turn, 1944, Wills left UND for military service. On his return, 1946, Vernice Aldrich left and Mr. Melvin E. Kazeck, Ed.D. Columbia, served as a Graduate Teaching Assistant. A U.S. Army trained meteorologist, Kazeck developed an intensive program in Meteorology and Climatology.

First notice of a Summer Session program appears in the 1945 Registrar's Records when Aldrich offered three courses and enrolled twenty students. Fifty one students enrolled in geography courses in the Summer of 1946. Conservation of North Dakota Resources appeared, 1945-46, as a new course with seven students enrolled. By the First Semester 1946 - 47 Graduate Assistant Kazeck had five students in Meteorology; Lulu Selke was offering Economic Geography to 265 students, and Wills had 126 students in College Geography, Political Geography, and Seminar in Geography.

In 1947 the first master's thesis in the Department of Geography at UND, Audio-Visual Aids for The Modern High School, was completed by Kazeck who was appointed Instructor in Geography at UND that year. Joseph G. Bradac, Ph.D. Michigan, was awarded the first M.Ed. in Geography and in 1951 was appointed Assistant Professor of Geography at the University of Buffalo where Ralph Brown was a student assistant. Completing his Ph.D. program Dr. Bradac retired after years of service in the Department of Geography at Central Michigan University.

1948 was a banner year; the second master's thesis Influence of Geographic Factors on the Red River Valley Potato Industry was completed by Eino R. Aho, M.A. Professor Wills organized Psi Chapter of Gamma Theta Upsilon (GTU) the national professional scholarly organization for geography students and faculty, sponsoring field trips, lectures, picnics, banquets, and publishing national and local newsletters. Wills was a charter member of the Association of North Dakota Geographers (ANDG) organized by Professor Ina Cullum Robertson at Valley City State College. ANDG is alleged to be the second oldest state geographical society in the U.S., a non-profit organization recognized as tax exempt (Internal Revenue Service identification number 45-035-40662 and State of North Dakota exemption pursuant to subsection eight of section 57-38-09 and 57-39-09.01 of the North Dakota Century Code). A methodology and content course, Geography for Teachers primarily designed for Education Majors was offered. In the Summer Session Wills offered four geography courses.

Cartography was instituted, 1949, and geography enrollments continued to increase because of the return of GI's who were curious about where they had been; as well there was a general increased interest in geography due to the rapid development of transportation and communication technology that had occurred. Courses added during the early fifties included Geography of Middle America, Geography of Southeast Asia, and Regional Geography of Africa, continuing Professor Oliver's regional emphasis.
During the early fifties the faculty undertook a 'bootstrap' type self-improvement program. In 1950 Wills left for a Ph.D. program at Northwestern and was awarded the Ph.D., 1953. Kazeck held the fort with Mr. Dooley who had Bachelor's and Master's degrees from Northwestern. When Wills returned Kazeck left for a doctoral program at Columbia, replaced by Mr. Donald L. Poole who had a master's degree in geography from Northwestern.

By 1954 the situation had stabilized a bit; Poole left for a Ph.D. program at Georgia. Wills was Professor of Geography and Chairman and Richard V. Smith, Ph.D. Northwestern, was appointed Instructor of Geography replacing Poole. Kazeck returned as Assistant Professor of Geography and Synoptic Meteorology was added. Wills was elected First Vice President of Gamma Theta Upsilon (a national officer, the following year he was President) and President of the Association of North Dakota Geographers. Wills and Kazeck published papers and Kazeck produced North Dakota: A Human and Economic Geography, N.D. Institute for Regional Studies, N.D. Agricultural College, Fargo, 1956.

Enrollment in geography courses increased, a happy event except that faculty members carried heavy class loads. Time and effort for research therefore was limited; however Kazeck and Wills continued to publish and Wills served as Director of the Williston Research Project. Smith completed a Ph.D. and was appointed to the faculty of the Department of Geography, Miami University, Oxford, Ohio. Smith was replaced, 1957, by Mr. R. Kenton Wibking, Ph.D. Nebraska, Instructor of Geography. Wibking left for a Ph.D. program at Nebraska and a faculty appointment at Emporia College, Kansas, 1958. Most recently he was Professor and Chairman of the Department of Geography, Austin Peay State University, Tennessee. Wibking was replaced by Mr. Robert G. Hansen, DAG Michigan State, Ph.B. UND and a master's from Southern Illionois.

Kazeck also left in 1958 after ten years at UND to become Chairman of the department at Southern Illinois University-Edwardsville from which post he retired during the late 1970's. Kazeck was not replaced that year and Wills and Hansen shouldered the increased student enrollment. A record enrollment of over 700 students in 1959 forced the appointment of a third faculty member and Wladyslaw M. Lotkowski Ph.D. Colombia, was appointed Assistant Professor of Geography.

Professors Wills, Lotkowski, and Hansen immediately were confronted with a required reorganization of curricular offerings to mesh with the formation of Institutes resulting from the landmark 1958 National Defense Education Act. Wills' successful applications to the National Science Foundation resulted in the award of three Summer Science Institutes and two Academic Year In-Service Institutes. Through the Institutes, COSIP, and AYI programs, federal funding supported faculty members, graduate teaching assistantships, attracted additional graduate students, and enhanced the program of the department in many ways.

Miller considered that the 1959 curriculum of the then three position department had changed significantly enough to include the entire course listings in his History of the Department of Geography, p. 11 (cited above) and referred to a new era in geography at UND. With the exception of courses instituted during the 1970's such as Air Photo Interpretation and Graphics, Remote Sensing, Computer Graphics, and Map Reading and Interpretation, that 1959 list of
courses is very similar to 1983 offerings. However, Physical Geography with the highest enrollment of geography courses (1983) does not appear. Apparently College Geography, an eight credit, two Semester course satisfied laboratory science requirements. City and regional Geography was replaced by Urban Geography, 1960.

Professor Lotkowski, with a new Ph.D. from Columbia University departed to become an Assistant Professor at Antioch College, 1960. His temporary replacement was Dr. Helen McCammon, wife of a Geology Professor. Mr. Duane L. Younggren, later to become a chairman of the department, was appointed Graduate Teaching Assistant that year. Miller also cites the "Saturday Program of Study," later the University Extension College; the Williston Campus; and an extension program offered at the newly completed Grand Forks Air Force Base. Geography offerings, primarily by Wills, were prominent in those programs. It is ironic to note, in 1983, how the Air Base opportunity has been lost.

Completing his master's degree at UND, 1961, Mr. Younggren was appointed to the faculty replacing Dr. Helen McCammon, and enrollment continued to increase. In an attempt to fill the void in the Meteorology and Climatology program created when Kazeck left, Mr. Joseph R. Schwendeman Jr., was appointed Assistant Professor of Geography. At that time Schwendeman was on active duty with the U.S. Navy and was required to serve another year therefore he did not arrive at UND until 1962. His father, Professor Joseph R. Schwendeman, Sr., is well known for his editing of the Directory of Geography, less known however, is the fact that the elder Schwendeman earlier had made field research studies in the Valley of the Red River of the North.

Hansen left for a doctoral program at Michigan State and Wills, Younggren, and Schwendeman comprised the faculty, 1962. As expected, Schwendeman strengthened the Meteorology and Climatology program and added a popular Aviation Meteorology course. Mr. Harold McConnell, in a doctoral program at the University of Iowa, served as a part time Lecturer beginning a trend that continued for many years. Younggren handled Correspondence and Extension programs while Wills devoted much of his time and effort to completion of his text, North Dakota: The Northern Prairie State, 1963.

Hansen accepted a position as Assistant Professor of Geography at Oregon State and Mr. Robert Jahnke, in a doctoral program at Michigan State taught Summer Session courses with Younggren, 1963. Schwendeman left for a doctoral program at Indiana University. Graduate Teaching Assistants became responsible for the large sections of introductory geography courses, beginning another trend. Professor Carl J. Swisher, Ph.D. Northwestern University, arrived for the Second Semester but stayed at UND for only one Semester.

Dwight Conner, M.S., a UND graduate and faculty member at Valley City State College was appointed temporary Guest Lecturer, 1964, and assisted Younggren with the Summer Session program. Wills was occupied with the Institutes. Schwendeman returned but high enrollments again required the use of Graduate Teaching Assistants including Terrence Miller, M.A. (cited above), Richard Willard, M.A., and Maynard Samuelson, M.A., later a faculty member at South Dakota State University.

Geography classes were scheduled in virtually every building on campus, a situation similar to that prevailing during 1983. Offices of the department had
been in somewhat adjoining space in Merrifield Hall. While scouring the archives Mr. Ross Keys was delighted to discover the little-known fact that in 1912 Old Main had been designated Merrifield Hall. That changed in 1964 when part of the department was moved to Babcock Hall, named for one of the first faculty members to offer geography at UND. Unfortunately, dissecting faculty office and working space combined with the lack of dedicated classrooms left faculty and students with a disembodied or homeless feeling.

Miller, who was an on-the-scene observer, believed the new quarters in Babcock Hall to be attractive, perhaps proving accounts concerning 'under the stairs' type of space allocated the department in Merrifield. There also are stories about Professor Wills and College of Arts and Sciences Dean Robert Bonner Witmer, who did not always see eye to eye, carrying on conversations while each was seated at his own desk, and not using the telephone. Merrifield Hall did not have space for the Army Map Service (TOPCOM) map collection which had become sizeable.

Three courses were added during 1964; Senior Thesis, Quantitative Applications in Geography, and a graduate level Micro-Area Analysis. Enrollment continued to increase and departmental goals included a fourth faculty position for 1965-66 and a fifth position for 1966-67 with continued enrollment increases. In 1965 Younggren began a doctoral program at Indiana University, Schwendeman became Acting Chairman to enable Wills to continue with institute programs, revise his text, write his second book North Dakota Geography and Early History, 1967, meet classes and additional professional responsibilities.

Survival became the key word during the next difficult five years, 1966-71, as the Golden Years of the early sixties came to an end. There is no attempt here to assess values or to attribute blame, therefore the following is not in any specific order; no cause and effect relationships are intended.

Schwendeman left for Kentucky, 1968, replaced as Acting Chairman by Hudson. Attempts to appoint faculty became more difficult; many were interviewed, offers made, but few accepted. Salaries were low and conditions undesirable. William Stanley Ph.D. Pittsburgh, arrived, 1965, stayed for only one Semester and left for South Carolina. Wills went on leave for a year in Australia and New Zealand. Wills also experienced a decline in health from which he never completely recovered although he carried heavy teaching loads through the 1970's as his courses were popular.

Attempts to replace Schwendeman were not successful. In addition to Wills and Younggren, a series of Graduate Teaching Assistants and recent master's degree recipients were responsible for courses. Gary Johnson, Ph.D. Indiana State, was one of this group; Instructor 66-68, Research Fellow 69-71, he later became department chairman. The faculty list for this period seems endless and it is certain that some names have been omitted. An account of the comings and goings of faculty members reads like the plot of a French Farce.

1966 - John Hudson, Ph.D. Iowa, Assistant Professor 66-69, Acting chairman 67-69; left for Northwestern, replaced as chairman by Younggren. Robert Seidel, Assistant Professor 66-68, Research Fellow 68-70, on leave 70 and did not return; a Ph.D. Candidate in Geology at UND, 1983.
1967 - R. Jerome Eidem, Ph.D. Kansas, part time Instructor 67-68; during the 1970's served as faculty member at UND including replacing Wills who became ill during mid-Semester. J. Ronald Eyton, Ph.D., Illinois, Instructor 67-69, Research Fellow 69-71, went on leave 1970 and did not return; later on faculty at Illinois and Penn. State. Brian R. Goodey, M.A. Indiana, Assistant Professor 67-69; returned to the United Kingdom where he is a Birmingham University faculty member. 1968 - Michihiro Miyagi, Assistant Professor 68-70, M.A. Hawaii. 1969 - Jerry D. Kendall, Assistant Professor 69-71, Ed.D. Indiana.

1970 - Gregory Lee, M.S., Instructor Spring Semester 71 while completing master's degree at UND; left for Ph.D. program at MIT. William C. Mahaney, Ph.D. Colorado, Assistant Professor 70-71 replacing Eyton; left to become faculty member at York University, Ontario, Canada. Known for his work as editor of Quaternary Paleoclimates, (Norwich, U.K.: GeoAbstracts). Clarence Knuth, Ph.D. Michigan, appointed Visiting Associate Professor, 1970, in 73 departed to become chairman at IU, PU, ISU, Indianapolis. And one Joseph Crawford apparently held a record serving as Assistant Instructor for only the month of December 1970. Also several Graduate Assistant positions were lost for reasons that never were satisfactorily explained; a severe handicap to the department.

On the plus side, during this period, an Astronomy Observatory with a sixteen inch Cassegrainian telescope was constructed just east of the weather site; Eyton and Younggren primarily were responsible for this addition. On the minus side, in 1970 the catastrophe occurred. Of the five position faculty, three, including the chairman, left on leave the same year. Two never returned and the chairman was away for a total of two summers and three academic semesters consecutively, in a doctoral program at Nebraska. This unhappy event occurred one year after five people had left, 1969.

With no chairman on campus for 70-71 the department was guided by Associate Professor of Geology John Reid, Ph.D. Michigan, who then served as Associate Dean of the College of Arts and Sciences and Administrator of the Department of Geography. Back at the ranch, holding the fort, were Wills, in poor health; Knuth, Mahaney and Ms. Judith R. Duncan, M.A. Missouri, Instructor, in their first year at UND, and Gregory K. Lee, M.S. UND, Instructor for Spring Semester. Ms. Duncan, who was inexperienced, was responsible for an extremely heavy teaching load. Graduate and undergraduate students also served as teaching assistants of course.

As indicated above, there is no attempt here to invoke a conspiracy theory but it is apparent that a blueprint for the demise of a department could not have produced more disastrous results. Morale was low, graduate and undergraduate students left, transferred, or did not enter the geography program. An inevitable result was suspension of the graduate program, 1973.

Annual Reports of the Department of Geography have been used to compile the record from 1971 to 1983, a rather pedestrian exercise compared to the type of effort required for earlier years for which such reports are not available. Much material from the Annual Reports is not included here such as enrollments by course, student graduates by name, by Semester and Summer Session, publications, articles, reports, chapters, reviews, lectures, funded and non-funded research; too numerous to cite lest this report become encyclopedic. Copies of the Annual Reports are available from the Department of Geography.
Ralph C. Brown, Ph.D. Syracuse, was appointed Professor of Geography and became Chairman of the department effective 15 August 1971. Democracy came to the department as faculty meetings were held weekly and faculty members participated in the decision making process. In spite of this innovation Brown was considered autocratic -- democracy takes longer. A revised geography program was approved by the College of Education Teacher Education Policies Committee and an Aviation-Weather oriented course was organized as a cooperative service to R.O.T.C. and Aviation departments.

One master's and eight bachelor's degrees were awarded, 71-72. Wills revised his North Dakota: The Northern Prairie State and addressed the national meeting of GTU as former National President of that organization. Faculty members published papers and faculty and students attended professional meetings. Brown received a Hill Foundation Summer Research Professor Award and Lewis Ph.D. Minnesota, won the UND Faculty Club Chess Tournament. Younggren prepared a Manual of Operations for the Weather Site and the weather observer position was included in the department budget, a first. Mr. Loren Jensen continued to serve as student weather observer and Marcia Perkerewicz was department secretary.

Visiting lecturers included professors Warren Kress, North Dakota State; E. Cotton Mather, Minnesota; Ward J. Barrett, Chairman Minnesota; Con Dietz, Computer Science UND; Mr. Frank Orthmeyer, Grand Forks City Engineer. Lectures by Department of Geography faculty members or students are not listed in this report. There was a memorable GTU field trip to the U.S. Air Force Missile Control Site at Hatton, N.D. Dennis Tollefson was awarded the National Council for Geographic Education (NCGE) Outstanding Senior Award and membership in the Association of American Geographers. No students had ever enrolled for the two year terminal (A.A.) degree in Geography, and Geography (Meteorology) and that program was terminated.

In 1972 - 73 one master's and eight bachelor's degrees were awarded. A General Seminar was organized to meet weekly, Friday at noon, and be required for graduate students. Faculty members continued to publish and faculty and students attended professional meetings. UND geography students won first and second place in the College Bowl Awards contest at the South Dakota State Geography Convention. Lewis became editor of the ANDG Bulletin. Professor Loendorf, Anthropology-Archeology UND was a visiting lecturer.

Brown and Professor John Odegard, Aviation UND presented a proposal "Technical Training for Weather Modification Pilots," which was funded by the National Science Foundation and later by the Bureau of Reclamation. Loren Jensen was replaced as student weather observer by Dennis Duffy in the Summer of 73. James Moseley served as student astronomy observer-lecturer. Junior members of the faculty had complained that twenty eight formal meetings of the department, 71-72 were too many. Accordingly only twelve meetings were held during the 72-73 Academic Year. In 73-74 the faculty voted to again meet weekly.

Statements that "Merely maintaining a holding position will be most difficult" made in the 71-72 and 72-73 Annual Reports proved to be prophetic as suspension of the graduate program was recommended by the Graduate Committee.
1973 - 74 was to be another difficult year. Graduate students continued to complete their degrees but the graduate program was suspended. Dean Paige T. Mulhollan, Dean of the College of Arts and Science at The University of Oklahoma, visiting UND with an evaluation team, had recommended strengthening of the Department of Geography. Strengthening of the Department of Geography also was an essential element in the recommendation to suspend the graduate program but resources were not allocated to provide added strength. To the contrary, the department was deprived of one faculty position, all Graduate Teaching Assistant positions, and could not offer graduate work. September 30, 1973 Brown notified President Clifford of his request to be relieved of the administrative duty as department chairman at the completion of his normal three year term, June 1974.

Four master's and eight bachelor's degrees were awarded. GTU sponsored a field trip to the Garrison Diversion Project and the McClusky Canal. UND geography students won first and third place awards at the South Dakota State Geography Convention. Professor Robert Stewart, NDSU and the Little Missouri Grasslands Study Project was a departmental lecturer. Johnson and Lewis received a U.S. Corps of Engineers contract to study land use in the vicinity of Homme Reservoir and Lake Ashtabula. Lewis again won the UND Faculty Club Chess Tournament.

From an old file cabinet in the bowels of Twamley Hall, Social Science Project funds from years earlier were discovered and expended to purchase a color television set and furniture for the Geography Reading Room (Club Geographic) in an effort to make the third floor of Babcock Hall more attractive to students, faculty, and staff. Dennis Duffy was student weather observer. During the Summer of 73 the astronomy program was operated but became inactive during the 73 - 74 Academic Year because of lack of funds.

From some anonymous admirer, no doubt, came a proposal to remove Laboratory Science credit from Physical Geography, the bread and butter course. Brown learned of this in time and made a presentation to the University Curriculum Committee. That attempt backfired when the committee not only retained the Laboratory Science credit for Physical Geography but extended it to Meteorology and Climatology as well. However for a few years following that incident College of Arts and Science students were still required to use the one Semester of Physical Geography and one Semester of Physical Geology combination, (shades of Professor Simpson).

It had not been a good year. Eighteen formal meetings of the department were held during the 73 - 74 Academic Year. Assistant Professor Gary Johnson presided at one additional special meeting with Dean Reid present and for which no minutes were recorded. Gary Johnson was appointed Acting Chairman following Brown. Emerson M.A. U.C.L.A., left for Northeastern Louisiana University and Lewis left for Eastern Oregon University. Looking for light at the end of the tunnel it appeared that for the first time the department faculty would consist entirely of individuals who had completed their terminal degrees. Stability in terms of faculty tenure was desperately needed.

During 1974 - 75 one master's and seven bachelor's degrees were awarded including a B.S. to one of our all time outstanding students, Ms. Julie Winkler from Oriska, N.D., one of the very few students who come to a university and immediately declare their intention to major in geography. Julie earned the
department's Outstanding Student Award, the national GTU Guy Buzzard Award of $500.00, and in 1982 earned a Ph.D. in Geography and Climatology at Minnesota. She also was on the first place team at the South Dakota State Geography Convention where UND students served on the second place team as well that year. Psi Chapter GTU sponsored the first annual Rites of Spring Ceremony which was followed by two weeks of snow. Deborah Salzwedal and Howard Sage served as student weather observers, Debbie also was a long-time student secretary in the department. There was no astronomy program.

The former men's toilet on the second floor of Babcock Hall was converted to a Title Nine and used by both sexes. Women no longer were required to ascend or descend as much as four floors (no elevator) to use the dungeon-motif basement facilities. However, an attempt to obtain Twamley Hall - quality toilet paper for Babcock Hall was unsuccessful. Request for reinstatement of the graduate program was considered premature by the Graduate Committee which again cited the department's need for suitable facilities and equipment, none of which the department could provide for itself. Reinstatement of the lost sixth faculty position also was denied and there were no Graduate Teaching Assistant positions. Under such circumstances the department was expected to improve its general situation.

Faculty members published research papers and several research proposals were funded or approved. Visiting Assistant Professor Eidem became editor of the ANDG Bulletin. Eidem and Professor Lowell R. Goodman, M.S. UND, Ph.D. Illinois, Professor-University of Northern Iowa, published A Study of North Dakota: Bicentennial Edition. Johnson published ERTS-1 Image Mosaic of North Dakota, a satellite map with political boundaries and geographic coordinates.

Visiting lecturers included Mr. Gary Leppart of the N.D. Bureau of Outdoor Recreation; Mr. Tom Jacobsen, Grand Forks City Planner; Mr. James McCord of the East Grand Forks Parks and Recreation Department; Mr. John Little of the U.S.G.S. Water Resource Division; and Mr. Gary Puppe of the N.D. Soil Conservation Committee. An Associate of Arts two year degree oriented to Air Base personnel was approved by the department, the College of Arts and Sciences, and University College, effective Fall 1975.

Three courses in Remote Sensing were added in cooperation with the College of Engineering. Younggren, who had been on leave, resigned and Dando was appointed Associate Professor of Geography Fall 75. Johnson was promoted to Associate Professor Fall 75, received tenure and was elected chairman. Twenty five departmental faculty meetings were held during the 74-75 Academic Year. It was anticipated that, 75-76, for the first time since a separate department was established, the faculty would consist entirely of those who had completed the Ph.D.

In 1975 - 76 one master's and six bachelor's degrees were awarded. Howard Sage and Keith Rosemore served as student weather observers. No astronomy program was offered. Ms. Kari Joraanstad (Norway) and Ms. Julie Winkler (France) received Arneberg Scholarships for foreign study. Ms. Winkler, Ph.D. Minnesota - Assistant Professor-Nebraska received Fellowship offers from more than ten universities and entered Minnesota holding their most prestigious graduate fellowship.
Visiting lecturers included professors Mike Turner, KFJM; Wynona Wilkins, History UND; Mohan Wali, Project Reclamation and Biology UND; Mary Jane Schneider, Anthropology and Archeology UND; Patrick Brady, Aviation UND; and representatives of NASA presented a Remote Sensing Seminar. A Center for Unusual Phenomena (CUP) was established, primarily by GTU students, to investigate strange occurrences such as cattle mutilations and UFO sightings in the region. There were field trips to Winnipeg, the Crystal Sugar Beet Plant at Drayton, and UND students again placed very well at the South Dakota Geography Convention. Presentation of the classic "Alligator" film during GTU functions had become a tradition.

Effective October 75 a University of North Dakota Institute for Remote Sensing (UNDIRS) was established with Mower as Director, without appropriated funds, and housed administratively and physically in the department of Geography. Originally proposed as the North Dakota Remote Sensing Institute the name was revised following NDSU objections to the Board of Higher Education. Faculty members continued to publish and receive research grants and contracts at an all time high for a total of $160,000.00. Dando became editor of the ANDG Bulletin and received the "Illustrious Californian" award from the Alumni Association of California State College. Dando and Johnson published Innovation in Land Use Management, UND Press, 1976. N.D. Governor Arthur Link visited the department and UNDIRS 7 April 76. Wills published the third edition of North Dakota: The Northern Prairie State, 1975, and received the Alumni Association B. C. Gamble Award for distinguished service to UND.

A graduate course was offered by special permission in conjunction with the Innovations in Land Use Management Symposium, June 76. The Graduate Program was reinstated effective Fall 76, a full year earlier than had been recommended by the previous Graduate Committee but without the sixth faculty position lost when the Graduate Program was suspended. Several traditionally basic courses such as Urban Geography and Climatology were not offered because of lack of faculty. Class enrollments increased eleven percent for Fall, almost twenty percent for spring, and fifty percent for summer. Credit hour production per full time equivalent faculty member exceeded the College and University average by more than 200 credits per FTE. Remote Sensing courses were added at the undergraduate and graduate levels.

Gary Johnson was granted developmental leave to serve with the Natural Resources Council, Governor's Office, as State Coordinator of a joint state-federal Regional Environmental Statement for seven counties in western North Dakota. He did not return to UND. Johnson was replaced as Chairman by Dando, and Kang-tsung Chang was appointed Associate Professor effective Fall 76.

Stability in terms of faculty tenure finally had been achieved. Wills, a former chairman, continued to serve until his retirement and then part time through the late 70's. Brown, also a former chairman, the second senior faculty member ever to serve in the department (Wills was first), Mower, Dando, Chairman 76-81, and Chang who became Chairman in 81, all were still at UND as this was written, 1983. Thirty department faculty meetings were held during Academic Year 75 - 76.

In 1976 - 77 six bachelor's degrees were awarded. This was the only year following suspension in which no graduate degrees were awarded. Faculty Full Time Equivalent (FTE) production continued to be very high. Undergraduate
majors doubled in number, to a total of fifty six. Student enrollment increases were forty one percent for the Summer, fifteen percent for Fall and three percent for Spring. The low Spring increase was attributed to Wills surgery and associated staffing problems. Wills became ill early in the Fall Semester when Johnson was on leave. Michael Heinrich, M.S. UND was appointed Instructor for three months and Jerry Eidem Ph.D. Kansas, Visiting Assistant Professor for three months. Heinrich and Eidem stayed for the spring Semester and the department was grateful for their assistance during that critical period.

A Forum for Contemporary Issues was initiated, a noon brown bag discussion type activity that has become popular. Visiting lecturers included Professors Robert Lewis English-UND, J. M. Ramirez Climatic Data Laboratory-NDSU, Jack Krueger Electrical Engineering-UND, Dr. Gary Johnson ND-REIS, and Ms. Candy Walker Librarian-UND. GTU field trips were highlighted by a visit to the annual national meeting of the Association of American Geographers at Salt Lake City. Copyrights to Landsat Image Mosaic maps for the states of Utah and Louisiana were assigned to Psi Chapter by Mower and graduate students Heinrich and Baker. "A Student's Atlas of Grand Forks," project was begun. Ms. Kari Joraanstad was Student Director of an NSF Student Originated Program and received a scholarship from the Norwegian Government to study in Norway for a year. Geography programs at UND and at other universities apparently are not as attractive to female students as we would like, however of those who are attracted the quality level is high.


Student interest in the reinstated Graduate Program was more than satisfactory and it was anticipated that the Fall 77 graduate enrollment would move from zero to seventeen, with two graduate students enrolled as undergraduates completing undergraduate requirements. There was an immediate need for reinstatement of the sixth faculty position. Each Semester we searched for qualified temporary faculty to offer courses in which students were already enrolled. Basic courses and seminars were not offered on a regular schedule for lack of faculty.

During 1977 - 78 one master's and ten bachelor's degrees were awarded. Glenn Linkhart was student weather observer and Rod Liebeg was able to utilize the refurbished telescope to offer an astronomy program during the Summer. Student enrollment increased. Sixteen graduate students enrolled for the first year of the reinstated Graduate Program and twenty one graduate students were expected to enroll Fall 78.
Research activities by the faculty were at an increasing level. Mower Directed the still not funded UNDIRS Program. Chang became editor of the ANDG Bulletin and was awarded a University Summer Session Professorship. Faculty meetings were held weekly.

GTU members again did well in the College Bowl Awards at the South Dakota State Geography Convention although UND faculty members were unable to successfully compete in athletic events. Field trips included Superior-Duluth, Silver Bay and North Shore of Lake Superior, and the Iron Range; the annual national meeting of the Association of American Geographers at New Orleans and an International Geographical Union Conference at the University of Nebraska, Lincoln. Visiting lecturers included Professors Meldrum Industrial Engineering-UND, William Helseth, Charles Cargille Medical School-UND, Ramses Toma Home Economics and Nutrition-UND.

Bein was appointed Temporary Assistant Professor to replace Johnson on leave. Johnson later resigned. Eidem was visiting Assistant Professor Fall 77 and Munski was appointed Temporary Assistant Professor Spring 78. Dependence on a series of temporary replacement faculty members was a handicap but the sixth position had not been granted and the department made the best of a bad situation. Faculty stability again was a concern. Two temporary faculty positions comprised a considerable part of the five position faculty, and courses were offered by faculty members from other departments. Marcia Perkerevicz who had served as Secretary since Spring 71 left for a more rewarding position as Secretary IV in the Medical School, in November as she left, the department secretary position was upgraded to Secretary II and was filled by Lori Lewis.

In 1978 - 79 student enrollment continued to increase from approximately 750 in 1968 to over 1700 in 1978 but growth potential was limited by lack of classroom and laboratory space. One master's and fifteen bachelor's degrees were awarded and twenty six graduate students were expected to enroll Fall 79. Glenn Linkhart and Allen Kessel served as student weather observers and James Mantos had a CETA position in the observatory.

The sixth faculty position was returned to the department and Munski assumed that effective August 79 after a national search had been conducted. Wyckoff was appointed Assistant Professor effective August 79. Langren served as Assistant Professor 78 - 79 but resigned Spring 79. Dando had completed the normal three year term but was asked by the department to extend his term as chairman for an additional year.

GTU student activities included field trips to the Soviet Union, led by Dando; and the West Lakes Division of the Association of American Geographers at Mankato, Minnesota. Only Brown attended the South Dakota State Geography Convention as a blizzard kept the others at Grand Forks. Later students assisted in various ways during the great spring 79 flood in the Valley of the Red River of the North. Visiting lecturers included Professors Robert Lewis English UND, Rick Kauffman Economics-UND, Frederick Bonne Geography-Sherbrooke University, and Sister Marijon Binder Denoyer-Geppert. Students and faculty celebrated the thirtieth anniversary of ANDG with a dinner meeting at Valley City. Courses added included Map Reading and Interpretation and Location of Economic Activity. Chang again served as editor of ANDG Bulletin. Faculty research activities and publications reached new levels. Mower received a Fulbright-Hays Scholarship. Lori Lewis left and was replaced as secretary by Marcie Leavy.
1979-80 undergraduate and graduate enrollment increased almost ten percent to a total of 1963. Three master's and sixteen bachelor's degrees were awarded. Jim Bzoch (July - August) and Randy Werre were student weather observers. GTU members coordinated activities for the annual meeting of the Great Plains Rocky Mountain Division of the Association of American Geographers held in October at Grand Forks. Field trips included a ski outing to Bemidji and the annual South Dakota Geography Convention. Visiting lecturers included Professors Thoms Law-UND, Conny Nelson Vice President for Academic Affairs-UND, Lt. Col. Lawrence Wollmering Army ROTC-UND, and Ken Dawes Social Work-UND.

All faculty members listed for 79 - 80 were still at UND in 83. Chang was on leave at Minnesota Spring Semester, replaced by Hickok who later served as Staff Cartographer and Technical Director of the N.D. Election Reapportionment Project. Dando was asked to remain as chairman for another year. Mower continued to direct UNDIRS with no appropriated funds. Faculty research and publication activity were at a high level. Mower received a NASA - ASEE Summer Faculty Fellowship to Stanford University. Dando published the Geography of Famine, Wiley, and Edward Arnold, Ltd., 1980.

A new course was added, the Geography of Canada. Marcie Leavy was replaced in September as department secretary by Linda Rowe. Linda married Jack Hammem, M.S. UND who in 1983 was a Ph.D. Candidate at Indiana State. Department of Geography faculty FTE loads were highest of any at UND.

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<th>Geography total</th>
<th>643</th>
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<tr>
<td>Arts and Sciences College Average</td>
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<tr>
<td>Six College Average (without Nursing &amp; Law)</td>
<td>276</td>
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<td>(source: Institutional Research, UND, 1 April 1981)</td>
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Printed on the cover of the 1980 - 81 Annual Report is a reproduction of a Sixteenth Century Chart of the Caribbean with Ralph's Reef prominently indicated in recognition of the fact that Brown won First Grand Prize in an international competition "Treasure of the Brass Pelican." That was a navigation skills contest and the prize was an all expense paid trip for two for seven days at Grand Cayman, British West Indies, plus a check for $500.00.

Three master's and thirteen bachelor's degrees were awarded. Graduate student enrollment expected for Fall 81 was twenty two. Student enrollment reached a total of 2013 although eleven percent of student requests for Fall Semester courses were refused because of lack of faculty or facilities and that caused Spring enrollments also to be lower than anticipated. Six full time and two visiting Assistant Professors comprised the faculty. Mower was on leave in Colombia, replaced by Alsop. Chang was elected to a three year term as chairman. Dando was to be on leave in Hong Kong next year. Faculty meetings usually were held weekly. Linda Rowe (July - October) was replaced by Charlotte Minier who was still serving as department secretary in 1983.

GTU members recycled aluminum cans and raffled a complete set of cross country ski equipment as fund raising activities for the treasury of Psi Chapter. Visiting lecturers included Ms. Lisa Redlin student-UND, Ms. Sandra Tabor Psychology-UND, Dr. Gary Johnson N.D. Natural Resources Council and Mr. Hal Gershman "Happy Harry's" former Peace Corps Volunteer. Alsop was recommended by students for "Excellence in Teaching" award. Wycoff was
Acting Director of UNDIRS in Mower's absence, still no appropriated funds but research funds in excess of $59,000.00 were received from NSF, U.S. Army Corps of Engineers, and the UND Faculty Research Committee.

Scholarly faculty contributions included twenty grants or contracts and twenty-five publications. A North Dakota "U.S. Census Users Center for Mapping and Analysis" was established. Mower received an AAG-NSF Grant to participate in a Geography Remote Sensing Course at UC-Santa Barbara and a second year ASEE Summer Faculty Fellowship at Stanford. Chang was selected to participate in the Tenth International Conference of the International Cartographer Association at Tokyo, Japan.

1981-82 three master's and sixteen bachelor's degrees were awarded including nine undergraduate degrees in the Geography - Aeronautical Studies Program administered through the College of Arts and Sciences. Student enrollment reached a new peak with a total of 2,040. Graduate level enrollment which had peaked at 59 in 80-81 declined to 38 with fifteen graduate students in the department. Geography majors increased in number and another recently approved program, Meteorology - offered jointly by the departments of Geography and Aviation, attracted a few students. A minor in Meteorology was approved effective 82-83. GTA positions increased to six but eight were needed. Physical Geography and Meteorology had decreased enrollments because of the inability to secure large classrooms.

A $1200.00 student recruitment grant was received from the UND Graduate School. That supported student visits at UND from four universities in Minnesota and Manitoba and faculty visits at seven universities in Minnesota, Colorado, South Dakota, and Wisconsin. As a result the graduate program was strengthened particularly in obtaining graduate teaching assistants for 82-83. Mower directed UNDIRS with no appropriated funds but three grants were funded for a total of $51,000.00.

Alsop remained for another year replacing Dando on leave in Hong Kong. Hickok also remained as Visiting Assistant Professor. Mr. Wei Huang from the Wuhan College of Geodesy, Photogrammetry, and Cartography, People's Republic of China, completed the first of his two year appointment as Visiting Cartographer at UND.

GTU members carried on their usual stimulating program with field trips to Manitoba, Saskatchewan, and Colorado. Visiting lecturers included Professor George Frein Religious Studies - UND, Mr. Andy Moraghan, Father William Sherman - Professor NDSU, Dr. Richard North, Jo Anne Burghard, Dr. Gary Johnson Natural Resources Council, Mr. David Torkelson N.D. Economic Development Bureau, Mr. Leo Reinbold M.A. UND, Public Service Commissioner and former chairman, Department of Geography, Valley City State College, and Leon Osborne - Aviation-UND.

Faculty members carried on their efforts in research and publications. Dando participated in the annual meeting of the Guangdong Geographical Association, People's Republic of China. Hickok worked on the North Dakota Reapportionment Contract for the N.D. Legislature and the UND Bureau of Governmental Affairs for which he was awarded a Concurrent Resolution of Commendation from the Forty-seventh Legislative Assembly of the State of North Dakota. Munski became editor of the ANDG Bulletin. New courses added included the
Geography of Manitoba and Applied Geography - Careers in Geography.

Chang served as chairman and was promoted to Professor.

1982 - 83 five master's and seven bachelor's degrees were awarded and the enrollment in geography reached another new high of 2323. There were no faculty changes except Alsop left for Indiana State as Dando returned from leave. Chang served his second year as chairman and faculty meetings were held weekly. Munski was International First Vice President of GTU, editor for the ANDG Bulletin, and nominated for an Outstanding Teaching Award. Dando received the Sigma XI Individual Excellence in Scientific Research Award at the UND Founder's Day Dinner, and the "World Hunger Media Award."

This was an auspicious year for UNDIRS, Mower as Director. Funding finally was received from President Clifford; the modest sum of $50,000.00 for a Measuronics System. Grants, contracts, and service agreements were made with six organizations and proposals made to an additional eight agencies. Publications included Remote Sensing in Colombia (Mower, M. Ardilla M.S. UND, and Dando) Grand Forks: Copy Cat Press, 1983, 210 pp. Developing Wind Energy for North Dakota (M. Dietz M.A. UND, Dando, Mower, Alsop) Grand Forks: University of North Dakota Press, 1983, 147 pp. Aerial Photo Censusing of Sandhill Cranes: Distributional Effects of Interstate 80 (J. Ericson, M. S. UND, Mower, Wyckoff) Grand Forks: University of North Dakota Press, 1983 (in press).

GTU members had another busy year with initiations, banquets, picnics, faculty roastings and awards, and field trips to the South Dakota State Geography Convention; AAG national meeting at Denver; AAG Great Plains-Rocky Mountain Division meeting, Laramie, Wyoming; Manitoba; and the Soviet Union (with Dando). Visiting lecturers included Dr. Mohamed Carami of the Saudi Embassy; professors Richard Hampsten, English UND; and Philip Porter, Geography-Minnesota.

Epilogue

Geographers are experienced in the art of scratching for survival in arenas where priority for faculty positions and other resources routinely has been given to established departments. While the philosophy of allocating limited resources to already strong areas is not unusual it inhibits development of emerging disciplines.

Astronomy has been lost, the meteorology program is at risk, regional geography is neglected, there may be over emphasis on the presently popular 'tools' of the trade; Map Design, Air Photograph Interpretation, Map Reading and Interpretation, Computer Graphics, and Remote Sensing courses. Faculty members may make decisions not in the best interests of the department; or they may leave for greener pastures.

In 1983 the geography faculty is professional, productive, successful, and has an international reputation for scholarship. A strong undergraduate and graduate program exists and with the expectation of reasonable resource allocations, prospects for the future are bright. Optimism is cautiously accepted however; eternal vigilance is the watchword.
The Department of Geography at The University of North Dakota exists because of the determined interest and professional commitment of a small group of dedicated individuals who made great personal sacrifices. This history is dedicated to them.

Summer 1983
DEPARTMENT OF GEOGRAPHY FACULTY 1971-1983

Ted Alsop, Visiting Assistant Professor 80-82, Ph.D. Oregon State.

Frederick L. Bein, Assistant Professor 76-78, Ph.D. Florida.

Ralph C. Brown, Professor 71-, Chairman 71-74, Ph.D. Syracuse.

Kang-tsung Chang, Associate Professor 76-80, Professor 81-, Chairman 81-, Ph.D. Clark.

William A. Dando, Associate Professor 75-80, Professor 80-, Chairman 76-81, Ph.D. Minnesota.

Judith Duncan, Instructor 70-71, M.A. Missouri.

R. Jerome Eidem, part time Instructor 67-8, Instructor Summer 71, Visiting Assistant Professor 74-77, Ph.D. Kansas.

Gladys Emerson, Assistant Professor 73-74, Ph.D. Kansas.


Michael L. Heinrich, Instructor, Fall Semester 76, M.S. UND.

Floyd Hickok, Visiting Assistant Professor 80-, Ph.D. Candidate UC-Davis.

Gary Johnson, Instructor 66-68, Research Fellow 69-70, Assistant Professor 71-75, Associate Professor 75-79, Acting Chairman 74-75, Chairman 75-76, Ph.D. Indiana State.

Jerry D. Kendall, Assistant Professor 69-71, Ed.D. Indiana.

Clarence Knuth, Visiting Associate Professor 69-70, Associate Professor 70-73, Ph.D. Michigan.

Kenneth Langran, Assistant Professor 78-79, Ph.D. Wisconsin.

Ralph E. Lewis, Instructor 71-72, Assistant Professor 72-74, Ph.D. Minnesota.

William Malkin, Professor Summer 71 (Science Institute) M.S. New York University.

William C. Mahaney, Assistant Professor 70-71, Ph.D. Colorado.

Roland D. Mower, appointed Associate Professor effective Fall Semester 73 but resigned 18 May 73 due to inability to secure release from U.S. Air Force commitment; Associate Professor 74 - 83, Professor 83 -, Director, University of North Dakota Institute for Remote Sensing 76 -, Ph.D. Kansas.

Douglas C. Munski, Temporary Assistant Professor 78 - 79, Assistant Professor 79 -, Ph.D. Illinois.
B. Seshagiri Rao, Professor Summer 71 (Science Institute) Ph.D. Pennsylvania State.

Bernt Lloyd Wills, Instructor 43-46, Assistant Professor 46-53, Professor 54-77, Professor Emeritus 77 -, Chairman 46 - 65, Ph.D. Northwestern.

John Wycoff, Assistant Professor 79 -, Ph.D. Utah.

Duane Younggren, Assistant Professor 61 - 75, Chairman 70 - 71, M.S. UND.

Secretaries - Full Time

Trudy Bergh 67 - 68.
Edythe Kulack 70 - 71.
Marcie Leavy 78 - 80.
Lori Lewis 78 - 79.
Charlotte Minier 80 - .
Marcia Perkerewicz 70 - 78.
Linda Rowe 79 - 80.
DEPARTMENT OF GEOGRAPHY DEGREES CONFERRED: M.A., M.S., M.Ed.

1920

*Rue, Julia Bertine, The Economic Geography of the Lignite Coal of North Dakota, M.A.

1924

*Cook, Albert William, The Prediction of Minimum Temperatures for the Red River Valley, M.S.

1935

*Selke, Arthur Carl, The Transportation System of Germany with Some Applications to North Dakota Conditions, Ph.D.

1940

*Stevenson, William H., Human Ecology of the Pelican Rapids, Minnesota, Quadrangle, M.A.

1947

Kazek, Melvin E., Audio-Visual Aids for the Modern High School, M.S.

1948

Aho, Eino R., Influence of Geographic Factors on the Red River Valley Potato Industry, M.A.

Bradac, Joseph G., M.Ed.

1950

Kennedy, George M. Jr., Geographic Foundations for the Cattle Industry in Southwestern North Dakota, M.A.

Knox, Leslie John, Farming in the Three Physiographic Regions of Polk County, Minnesota, M.A.

1951

Leno, Gottlieb, A Comparative Study of Land Uses in North Dakota, M.A.

1952

Anderson, Bruce M., A Survey of the Geography Taught in the North Dakota High Schools, M.A.

*Awarded prior to establishment of separate department of geography at the University of North Dakota.
Kopp, Herman Joseph, An Analysis of the Relationships Existing Among Selected Factors Affecting Small Grain Production in North Dakota, M.A.

1953


1954

Schuldheisz, Erwin, M.Ed.

1955

Muhs, Robert K., M.Ed.

Mieer, Esther H., Irrigation In West Fresno County, California, M.A.

1956

Engelhorn, Leeland T., The Economic Geography of Cass Lake, Minnesota and Its Surrounding Area, M.A.

1957

Cougill, John C., The Sugar Beet Industry in the Red River Valley, M.A.

Fuller, Marvin D., A Critical Analysis of the Army ROTC Subcourse, "The Role of The United States in World Affairs and the Present World Situation," M.A.

1958

Mohn, Willard O., A Land Use Survey of Coos County, Oregon, M.A.

Reinbold, John A., The Brick Industry of North Dakota, M.S.

Haraldson, Kenneth C., The Delta of the Sand Hill River, M.A.

Wheeler, Robert A., Rural Land Use of Traill County, M.A.

1959

Grove, Clayton J., Land Utilization in Grand Forks County, North Dakota, M.A.

1960

Kleingartner, Elmer F., The Soybean Industry in the Red River Valley, M.A.

McMurrin, Neil B., The Geography of the Antelope Valley Area California, M.S.
1961

Glatt, Leo B., The Impact of Geographic Factors on the Feasibility of a County High School Griggs County, North Dakota, M.S.

Hayward, Barton M., The Durum Triangle of North Dakota, M.S.

Younggren, Duane L., A Land Use Survey of Kittson County, Minnesota, M.A.

1962

Lee, Richard A., M.Ed.

Reinbold, Leo M., Safflower - With An Emphasis on Safflower Production in North Dakota and Montana, M.S.

1963

Brooks, Alice M., Geographic Impacts on Rural Telephone in North Dakota, M.A.


1964

Jensen, Kenneth D., A Land Utilization Survey of the Turtle Mountain Indian Reservation Belcourt, North Dakota, M.A.

Kuz, Tony J., A Land Use Survey of the Outlying Indian Land in Rolette County, North Dakota, M.S.

Torkelson, David R., Impact of Geography Upon North Dakota's Outdoor Recreation Industry, M.S.

Wangberg, Louis M., The Historical Geography of Selected Farms in the Larimore, North Dakota Area, M.S.

1965

Miller, Terrence G., North Dakota Climatology: A Method of Statistical Approach and Analysis to Determine Climatic Boundaries Within the State, M.A.

Samuelson, Maynard L., Marketing Areas of the Red River Valley Potato Industry, Based on Consumer Demands and Transportation Costs, M.A.

Willard, Richard D., A Survey of the Status of Geography in the Fully Accredited High Schools of North Dakota, M.A.

1966

Goodman, Lowell R., Land Utilization of Burke County, North Dakota, M.S.
Johnson, Gary E., A Geographical Survey of Grant County, North Dakota, M.S.

Johnson, Roger A., M.Ed.

Monsebroten, Dale R., A Method for the Presentation of Mid-Latitude Climates, M.S.

Thorfinson, Margaret S., M.Ed.

1967

Lang, Stanley J., A Study and Comparison of the Effects Created by the Varied Applications of Instructional Media Materials in Three Groups of Secondary Earth Science Students, M.S.

Anderson, Ellen F., Selection of Least Cost Paths From a Potential Value Surface, M.S.

Olson, Jon Lawrence, An Analysis of Market Area Boundaries in Griggs and Steele Counties North Dakota, M.S.

Weis, Billy Dean, A Historical Geography of Rail and Highway Transport at Bemidji, Minnesota, M.S.

Hagmaier, Jonathan Ladd, Surface Morphology of a Small Drainage Basin in the North Dakota Badlands, M.S.

1968

Eidem, R. Jerome, Innovation Diffusion Through the Urban Structure in North Dakota, M.S.

Ward, Dennis M., Svalbard: A Political Geography, M.S.


Eyton, John Ronald, A Unitary Comfort - Climate Classification, M.S.

Sandness, Roger Keith, A Model for Predicting Soil Water Loss, M.S.

1969

Miller, Michael V., A Tone Signature Analysis of Multi-Spectral Photography, M.S.

1970

Murphy, Walter Charles, Computer Analysis of Snowfall in North Dakota, M.S.

Holden, Ralph Leroy, An Evaluation of the Opportunities for Economic Development on the Pequis Indian Reserve, M.A.
Huo, Song Young, Farm Size in North Dakota, M.A.

Hanley, James D., M.Ed.

1971

Lee, Gregory K., A Preliminary Investigation of Contrast Enhancement Using Kodak High Contrast Copy Film 5069, M.A.

Jenkins, Roger L., The Application of the Fox Diamond Consumption Model to a Milk Production Landscape in West Central Minnesota, M.A.

Kulack, Robert J., M.Ed.

1972

Vild, Yolanda Joan, M.Ed.

1973

Efteland, Jon N., The Development of Mechanized Wild Rice Production in Minnesota, M.A.

Dohn, Darlene, M.S. (Social Science)

Rubin, David, M.Ed.

1974

Rogstad, Ronald L., Delimiting Residential Growth: A Theoretical and Empirical Study of Spatial Spread, M.S.

Duffy, Dennis L., Locational Factors Influencing the Decline of Safflower Production in Western North Dakota - 1962-1972, M.A.

1975

Heinrich, Michael L., The Classification and Identification of Ecosystems in Bowman County, North Dakota, M.S.

1977


1979

Faflak, Richard E., Snowmelt Hydrometeorology in the Souris River Drainage, M.A.

Dopson, Eileen, Nineteenth Century Images of the Northern Plains: Impacts on Settlement Patterns, M.A.

1980

Jobbins, Susan L., The Geography of Racquetball in Canada, M.A.

DeMers, Michael N., Ecological Factors Affecting the Location and Spatial Patterns of the Western Harvester Ant (Pogonomyrmex occidentalis) in North Dakota, M.S.

Rott, Gerald M., Reclamation Potential of Sand and Gravel Pits in Dickey and Lamoure Counties, North Dakota, M.S.

Hammen, John L. III, Flooding of the Red River of the North: An Analysis of Land Use and Climatic Parameters, M.S.

1981

Narlock, Randal Lee, Sunflower in North Dakota: A Spatial Diffusion Analysis, M.S.

Tveter, Marlo R., M. Ed.

1982


Holler, Bill, Recreation Planning: A User Oriented Study in Grand Forks, North Dakota, M.S.

Donnelly, Patrick, Stream Sediment Load as a Factor in Estimating Denudation of the Riding Mountain Escarpment, Manitoba, M.S.

Wilson, Jane M., Changing Land Use in the Rural-Urban Fringe: A Case Study of Southwest Grand Forks, M.S.


Deitz, Michael, Developing Wind Energy for North Dakota, M.S.

Mullis, Charles, An Eye Movement Analysis of the Effect of Map Design, M.S.

1983

Ardilla, Myriam, Analysis of Remote Sensing Techniques for Ecodevelopment Inventory: Rio Magdalena Estuarine Region of Colombia, M.S.

Ericson, James, The Effects of Interstate 80 on the Use of Staging Areas by Sandhill Cranes, M.S.

Department of Geography Majors Elected to Phi Beta Kappa 1957 - 1983*

<table>
<thead>
<tr>
<th>Graduated</th>
<th>Name</th>
<th>Degree</th>
<th>Date Elected</th>
<th>Date Initiated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>Ruthmary Arnason Unruh, B.A.</td>
<td></td>
<td>1 November 1965</td>
<td>6 December 1965</td>
</tr>
<tr>
<td>1978</td>
<td>Kari Joan Joraanstad, B.S.</td>
<td></td>
<td>17 February 1977</td>
<td>22 March 1977</td>
</tr>
<tr>
<td>1980</td>
<td>Matthew Louis Sorenson, B.A.</td>
<td></td>
<td>21 March 1979</td>
<td>1 May 1979</td>
</tr>
</tbody>
</table>

High School

- Central, Grand Forks, N.D.
- Central, Grand Forks, N.D.
- David Farragut, Rota, Spain
- Oriska, N.D.
- Souris, N.D.
- Red River, Grand Forks, ND
- Red River, Grand Forks, N.D.
- Valley City, N.D.

*Phi Beta Kappa files do not include identification of Departmental Majors prior to 1957