

NORTH DAKOTA BADLANDS

This was

ELMER HALVORSON

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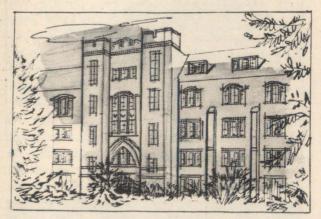
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Cover Illustration:

ELMER HALVORSON, a native of Wheelock, North Dakota, here presents an atypical North Dakota scene, laid in the far southwestern corner of the State. Mr. Halvorson, who studied art at Minot State Teachers College and at Concordia College, has exhibited widely in the State and region. This painting, earlier reproduced in *North Dakota Artists*, is among his best known works.

The Future of the University

GEORGE W. STARCHER



Administration Building

It is never easy to look ahead and predict things to come. Yet it is essential that all of us at the University be continously engaged in planning for the future. An educational institution, by its very nature, cannot stand still. Knowledge is ever growing, and ways of thinking change, too. Since we cannot know what new ideas the future may bring, we do not expect a perfect blueprint for the University, accurate in every detail. But we can look ahead and see what the pattern will be like. If we are to meet the challenge that lies ahead, every step taken now must fit the larger pattern. Too often large complex institutions build only to meet a clearly evident present need.

We must always keep in mind our past history and the place of the University in the entire system of higher education in the state. The University was established by the territorial legislature in 1883 as the first institution of higher education in North Dakota. With the coming of statehood people felt the need for colleges distributed over the state providing specialized training. The Agricultural College, the School of Science, the School of Forestry and the five State Teachers Colleges all have special functions which we recognize as we plan for the future of the University. The founders of this University were interested in a "good education", and from the beginning the people have insisted that emphasis be upon quality

of education rather than upon size of enrollments or numbers of athletic contests won. The people who support a program of higher education of such variety and extent believe in the importance of all higher education to the state. The University will work with the other institutions in the state in seeking public support to strengthen and improve our total program, for what we all do is so interrelated that we can no longer afford competition for funds for one institution at the expense of another. Nowhere is it more important than in education to recognize that "the rising tide lifts all the boats," for what helps one strengthens all. I believe the people will continue to support the Governor and the Legislature in any steps to continue the development of their University and Colleges along sound lines.

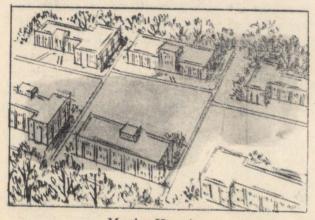
Good teachers and the excellence of their teaching are far more important than fine buildings in developing a great university. With this in mind, I believe that in the future higher salaries will enable us to meet the growing competition for distinguished professors who stand out as peaks of excellence in any university. The University will go farther toward relieving the faculty of concern for the future by securing added retirement benefits, insurance, and some form of protection against calamity.

The faculty will be spending even more time studying their courses and teaching methods. They will continue to search for better ways to do a better job and to keep the unit costs of instruction at the lowest possible level consistent with an adequate program and effective teaching. Curricula will change — they need to if they are to be realistic and appropriate for tomorrow's world. Better and more up-to-date equipment and teaching devices will be available. We shall probably teach fewer courses, always trying to improve the quality of our teaching rather than to multiply courses in a race to keep up with expanding knowledge. There will be more self-education by students. Throughout the whole range of curricular and extra-curricular activities there will be more attention to character and responsibility as fundamental to the success, happiness, and usefulness of future University graduates.

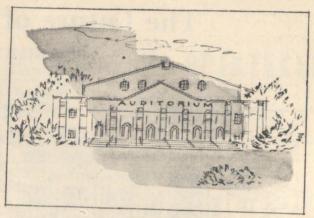
Future Enrollments

It is always risky to venture a prediction of enrollments because so many factors, known and unknown, determine how young people will decide about their future. However, there are certain clear facts and signals we cannot ignore. We know that we shall have approximately 50 per cent more collegeage youth in North Dakota by 1970. The increase in enrollment in all institutions of higher education in North Dakota in the fall of 1955 was nearly 20 per cent, while for the nation it was less than 9 per cent. If this means that a higher percentage of North Dakota youth of college age going to college, and/or that more of them are remaining in the state for their higher education, we can expect the trend to continue. If it does, we could have over 5,000 students at the University by 1970. This would be possible only if we have the housing and the facilities on campus to give them the education they will want and need. We are still a long way from realizing the aim of our founders - to make education possible for every boy or girl who has the ability and is willing to work. If we can see our student financial aids develop to the point where no worthy applicant is denied, then a prediction of 5,000 by 1970 is perhaps too low.

Student financial aids will grow. Many



Men's Housing



University Auditorium

of our most outstanding schools have more than one-third of their students receiving scholarship aid, while state schools often exceed one in four. The people, who are concerned about realizing an equal educational opportunity for all, will see to it that there are more scholarships to be awarded on the basis of need to those able to profit from attending the University.

The physical plant will change. Fortunately, for more than thirty years a careful plan for campus development has been followed. There will be more attention to landscaping and many visitors will acclaim the campus one of the most beautiful in the country. We shall be dreaming of beauty achieved by appropriate placement of buildings and suitable landscape effects rather than by expensive architecture and elaborate horticultural displays not possible in the area.

A completed quadrangle unit of six dormitories can house one thousand men in the Hancock Hall area. A third dormitory for women west of Johnstone and Fulton Halls, with a dining unit, would give accommodations for a total of about five hundred women. Building in that section of the campus would force removal of the temporary service building. By that time we may be able to bring together all maintenance services in one unit.

A new administration building will add more than accommodations for widely scattered offices. It will permit better organization of administrative routines and provide facilities for procedures in accord with the best practices in university administration.

The future University may have a full day radio schedule and television outlet for educational programs produced on the campus. It is possible that North Dakota may undertake the support of a television network covering the state and carrying to schools and adults a systematic program of educational television. This would make it possible for every citizen to have access to the store of knowledge and cultural benefits from each of the state's institutions of higher education as they share program time on the network.



Future Theater

An essential adjunct to the modern university is a program of convocations and performances that brings to the student body the constant stimulus of musical, dramatic, lecture, and other cultural experiences that require a large auditorium and a theatre.

Student Life

The future will see closer faculty-student relationships, better faculty counseling with students, and more student participation in committees. Custom will build traditions of greater student-faculty cooperation on committees concerned with fraternity and sorority affairs, athletics, social functions, radio and television. Students will participate in planning for their own welfare; and thus, they will know what is going on and have a part in it. They will seek advice of their elders more than in the past and appreciate and respect even more fully than previously the kind of responsibilty that

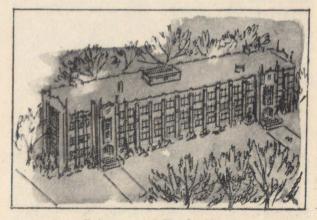
rests with the faculty and administration.

The social life of students will be even better organized, with more emphasis on housing places as social units. Students will control themselves and be the means of achieving the basic aims of the University through their own concern for the intellectual and cultural life of the University, as well as for activities which develop social skills and cultivate habits based on sound character and a true sense of responsibility.

Academic Life

The future will see increasing emphasis on education for responsibility as a citizen. The development of personality and personal assets will be stressed both in extra-curricular activities and in the formal curriculum. Students will increasingly demonstrate that they want to prepare themselves to do worthwhile things rather than to pursue purely selfish and economic ends alone. They will want to include courses that emphasize character development and human relations skills.

The faculty will be continously studying and revising their courses. Accelerating change will mean that lectures will have to be revised more often and be kept up-to-date. We shall get used to the fact that a course



Science and Technology

with a given title may be quite different from year to year. With a trend toward fewer and better courses, changing with knowledge, there will be modifications of basic degree requirements. Minimum requirements may be reduced in number, but there will be increased emphasis upon faculty advisement, as well as greater student interest in fundamental courses and in planning programs to give the best academic preparation for service in the world of tomorrow.

The University College will stress basic general education and preparation for specialization, but it will find two types of student not satisfied with present curricula. One is the student who is unable to meet the academic standards required for a degree. The other is the student who cannot or who does not wish to plan a four-year program, yet wants something that will permit two years' preparation for some vocation. A two-year general and vocational education program in the University College is inevitable if we are to continue to meet the challenge of educational opportunity for all, on an equal basis, and at the same time maintain high standards for our four-year degree programs. Moreover, a two-year program for some will help solve enrollment problems of the future by enabling certain students to complete their work in two years.

There will be new curricula and new emphasis in some of these we now have. Some programs will be curtailed. There will be a greater use of audio-visual aids and television in teaching. Discussion classes will be more common — perhaps combined with larger lecture groups. The case method of teaching, which was first adopted by the law schools, then taken up by the medical schools, and now by the business schools, will find its way more and more into the undergraduate classroom as an effective way to teach certain courses. It will require a generation to develop the cases, to obtain the staff, and to secure general enough acceptance of the values derived from such teaching for us to have many of these courses. Curricula in areas now untouched will appear; for example, the appropriate program for the teaching of atomic physics and related phenomena will find an adequate place in our program.

Graduate work will develop. The state will see to it that we more nearly meet the demand for masters and doctors in North Dakota. Even if we are slow to fully recognize that this need is as important as others, we shall see that a program, comparable to

what we do in the medical and law schools, for supplying these graduates is supported.

Summary

By the year 1970 the University will not be so large as to have lost any of its present advantages, but rather there will be more systematic attention to counseling and developing close faculty-student relationships both inside and outside the classroom. The physical plant — laboratories, shops, classrooms and lecture halls — will have to expand, with more attention being given to special-purpose classrooms. Funds appropriated for building in 1957 will not produce buildings ready for use before 1960. The first bulge from the increased birth rate, babics born in 1940, will be ready to go to college in 1958. If only half of an additional 1500 students need university housing, we shall have to add three large dormitories to what we have already scheduled.

Since the quality of what we do depends first upon the faculty, we must secure top people fully prepared for their tasks, with adequate personal and academic qualifications, from a market more highly competitive than anything we have ever faced. In addition to normal replacements we might have to add one hundred new staff members by 1970. The cost will represent an investment in the discovery and development of the most important natural resource the state possesses — its youth.

The road ahead must widen as the University grows in usefulness to the citizens of the state through curricula that will reach even more people and through increased research both pure and applied. The University has had a healthy growth; and it can now look to the future fortified in the strength of a sound administrative organization, a Board of Higher Education with vision and imagination dedicated to the ultimate good of the state, a well-prepared faculty, a vitally concerned student body, and loyal alumni. With the continued friendly interest and support of citizens, the respect of its institutional neighbors and the good will of the state's elected officials the University will do its part to achieve the goal of a good education for more and more students.

Lewis & Clark—the North Dakota Phase

ELWYN B. ROBINSON

For centuries after the discovery of the New World adventurous men continued to unveil the new continents. Meriwether Lewis and William Clark were at the forefront of the explorers; they came up the Missouri to North Dakota in 1804* Their expedition, incidental to its main purpose, was the first American effort to explore and to extend sovereignty over North Dakota. In this the Americans were late comers. The French led by Pierre Gaultier De Varennes, Sieur de la Vérendrye, had come in 1738. In the 1790's the British developed a trade between their posts on the Assiniboine River and the Knife River villages and hoisted the British flag over North Dakota soil. They were soon ineffectually challenged by the Spanish, who came to the Knife River villages in the person of John Evans in 1796. This Welshman ran up the Spanish flag and asserted Spanish sovereignty, but he could not stop the British trade.

Spain retroceded Louisiana to France in 1800, and France, without taking possession of the territory, sold it to the United States by a treaty signed May 2, 1803. These events

show how the vast territory (the larger part of North Dakota included) was but the pawn of European sovereigns, its possession determined by the European balance of power. Even as wilderness North Dakota, however real its isolation, was not untouched by the currents of world politics. Its partial exploration by Lewis and Clark again demonstrated the way in which decisions made in a distant capital by persons who never saw it influenced its life.

In North Dakota the experiences of the expedition showed how white men could adapt themselves to the hard conditions of rugged winter on the Upper Missouri as neighbors of agricultural Indians. The very presence of the white men inevitably increased the growing dependence of the Indians on white technology. In North Dakota, as elsewhere, Lewis and Clark told the red children about their new Great Father (the President of the United States) and observed the opportunities for trade to enrich distant commercial centers. They encouraged peace between the tribes. But more significantly their scientific observations, inspired by the curiosity of Thomas Jefferson, made their journals the first extensive account of the Indian life and the flora and fauna of a region that was long to be an object of interest to people of the Atlantic civilization. This scientific data was the permanent contribution of the expedition. In a limited way, of course, Lewis and Clark actually opened North Dakota to the Americans. Yet for many years the grip of the United States was weak. For a decade after the war of 1812 the same isolating factors — sixteen hundred miles of river travel and the hostility of the Sioux — that had frustrated Spain in the 1790's still prevented any effective American control. Remoteness and isolation, adaptation to hard conditions, dependence on the products of outside technology, a role as the plaything of decisions made in distant political and economic capitals, resources to be exploited by outsiders, an object of curi-

*The occasion for this essay is the Lewis and Clark Sesquicentennial. Governor Norman Brunsdale of North Dakota and the governors of five other northwestern states proclaimed 1955 the Lewis and Clark Sesquicentennial and appointed committees to plan its celebration. Tours by motor caravans, the dedication of historic sites, cal maps and pamphlets, newspaper and magazine articles, a phony Hollywood film, and Bernard A. De Voto's edition of the Journals of Lewis and Clark (Houghton Mifflin, 1953) for the general reader, have called attention to the expedition. In North Dakota a committee under the chairmanship of Superintendent Russell Reid of the State Historical Society (members: Mrs. W. K. Williams, Roy P. Johnson, Robert Cory, E. C. Blackorby, Elwyn B. Robinson, and George F. Will Will) planned recognition of the event. The North Dakota Teacher featured Lewis and Clark articles; the State Historical Society published a map by Mr. Ralph M. Shane; the Minot Daily News and the Dickinson Press published excerpts from the Lewis and Clark Journals; Stanton gave a pag-eant; the Theodore Roosevelt Nature and History Association and the State Historical Society held a commemorative meeting in Bismarck. Such activities are present-day expressions of the interest North Dakotans have long felt in the great expedition. Since 1910 a statue of Sakakawea has stood on the capitol grounds in Bismarck, a reminder of a heroic past.

osity to the western world — these are persistent themes in the history of North Dakota. They were all revealed in prophetic fashion by the Lewis and Clark expedition.

President Thomas Jefferson created the expedition. He had long dreamed of western exploration; finally, on January 18, 1803, he sent a secret message to the Congress in which he simply proposed that a party of ten or twelve soldiers under an officer be Jsent to obtain information on the tribes of the Upper Missouri and to secure the ad-√mission of American traders to their country.** Once embarked, they might "explore the whole line, even to the Western Ocean." Jefferson emphasized the limited commercial objective in his brief message: he casually presented the crossing of the continent — a Northwest Passage at last — and the advancement of scientific knowledge as merely "an additional gratification."

Yet these were the real reasons for the expedition. Jefferson was hiding them behind a cloak of commercial advantage to avoid opposition from practical Americans. But with the Spanish in possession at St.

**The main source on the expedition is the monumental Original Journals of the Lewis and Clark Expedition, 1804-1806 (7 vols., Dodd, Mead, 1904-1905), edited by Reuben Gold Thwaites. All quotations, unless otherwise noted, are from this edition; since the letters and journals are arranged in chronological order, specific references omitted. Data on the tribes is in Volume VI. There are scholarly articles on Meriwether Lewis, William Clark, and Sakakawea (there spelled Sacajawea) in the Dictionary of American Biography (21 vols., Scribners, 1828-44). Helen Crawford, "Sakakawea, the Bird Woman," in Lewis F. Crawford, History of North Dakota (3 vols., Chicago: American Historical Society, 1931), I, 100-113, is valuable. Russell Reid has edited the journals for the North Dakota portion of the journey, printing both the original and Biddle text in North Dakota History, XIV-XV (1947-48). The journals of British traders who visited the Knife River villages are found in Louis F. R. Masson, ed., Les Bourgeois de la Compagnie du Nord-Ouest (2 vols., Quebec: Impr. generale A. Cote et cie., 1889-1890). For Spanish activity see Abraham P. Nasatir, ed., Before Lewis and Clark, Documents Illutrating the History of the Missouri, 1785-1804 (2 vols., St. Louis: St. Louis Historical Documents Foundation, 1952). The story of John Evans has been told by David Williams: "John Evan's Strange Journey: Part I. The Welsh Indians, Part II. Following the Trail," American Historical Reviews LIV 277 205 (John 1940) 508 502 (Apr. 1940) view, LIV, 277-295 (Jan., 1949), 508-529 (Apr., 1949). A very readable biography by John E. Bakeless, Lewis and Clark, Partners in Discovery (W. Morrow, 1947), and the Bernard A. De Voto edition of the journals (Houghton Mifflin, 1953) De Voto are the best accounts for the general reader.

Louis and the French still sovereign over the region, it would have been impossible for Americans to trade on the Upper Missouri. Moreover, the United States was not even seeking to buy Louisana: James Monroe's instructions of March 2, were for New Orleans and the Floridas. Because neither exploration nor trade were really practical objectives in a foreign territory, Jefferson minimized the expense, estimating it at only \$2500, and asked that Congress keep the matter secret by appropriating the money "for the purpose of extending the external commerce of the United States." Jefferson kept it secret from the American people, but he soon informed the Spanish, French, and British ministers in Washington, and secured passports for Lewis from the French and British.

The unexpected purchase of Louisiana on May 2, 1803, changed Jefferson's subterfuge to an honest objective, made exploration itself of less purely scientific interest, and added the assertion of American sovereignty to the purposes of the expedition. Jefferson acknowledged the changed aspect by amending his original instructions. He wrote to Lewis on January 22, 1804, that the United States "being now become sovereigns of the country," Lewis should tell the Indians that "their late fathers, the Spaniards," had surrendered the country to the United States, and that "henceforward we become their fathers and friends." Lewis was to arrange times and places for the exchange of white goods for the Indians' peltries. Now that the expedition had become a practical matter, secrecy was dropped; only the Federalists, Jefferson wrote, still treated it "as a philosophism and would rejoice in it's failure."

But months earlier Jefferson had taken a long step toward insuring its success; he had appointed Meriwether Lewis as its leader. Young Lewis, then twenty-nine, was one of the Virginia artistocracy. He had managed his mother's plantation and then spent six years in the army on the frontier before he became Jefferson's private secretary in 1801 with quarters in the White House. Jefferson thought him "brave, prudent, habituated to the woods, and familiar with Indian

manners and character, but not regularly educated." In June 1803 Lewis invited an old army friend William Clark to share the leadership with him. Clark was the younger brother of George Rogers Clark, the Revolutionary hero. William had grown up on his father's plantation (first in Virginia and later in Kentucky), served as an army officer, and fought Indians. He was over six feet tall, almost thirty-three, red-headed, and "as brave as Caesar." Aristocratic birth, plantation management, army service on the frontier — these equipped Lewis and Clark to be effective leaders in utilizing the American experience with the wilderness in the crossing of the continent.

The preparations for the expedition show its scientific character. Jefferson sent Lewis to Philadelphia and Lancaster to study with leading American scientists the use of astronomical instruments in taking latitude and longitude. Lewis placed first on his list of things wanted for the expedition the scientific items: a chronometer, sextants, plotting instruments, a surveyor's compass, thermometers, a microscope, a natural manual of mineralogy, and many others. There was on the list, of course, a great variety of camp equipment, medicines, and arms, as well as presents for the Indians (such things as scissors, awls, brass kettles, needles, and fishhooks). It is significant that although the list eventually included about 175 different kinds of articles (evidence of much foresight), the single most expensive piece was the chronometer at \$250.75. It cost more than the gunpowder.

Jefferson, with the advice of the scientists, drafted his formal instructions to Lewis on June 20, 1803. The grand object, wrote Jefferson, was to explore the Missouri River and its connections with such rivers flowing into the Pacific as "may offer the most direct and practicable water communication across this continent, for the purposes of commerce." He directed Lewis (Clark was not yet a member of the party) to take the latitude and longitude of all remarkable points on the route "with pains and accuracy." He was to gather all the information possible on the Indians (the names and terri-

tories of the tribes, their traditions, ordinary occupations, food, clothing, and the white goods that they needed), and also to observe "the soil and face of the country, its growth and vegetable productions."

To accomplish these ends Lewis wanted men whose qualifications would "perfectly fit them for the service," not any "young gentlemen," but "some good hunters, stout, healthy, unmarried young men, accustomed to the woods, and capable of bearing bodily fatigue in a pretty considerable degree." Some of the men were chosen from the army; others were enlisted for the expedition. Lewis held the rank of captain in the infantry, but Clark (to his chagrin and in violation of Jefferson and Lewis' promise) was commissioned a second lieutenant in the artillery. Lewis, however, treated Clark as the co-leader of the expedition, and both were believed to be captains by men — Clark was addressed as "captain" and signed himself "Captain of a Corps of Discovery." The captains made four men sergeants, the rest privates. When recruitment was completed, the party for the Pacific was made up of thirty-three persons. But the captains, to add strength against the Sioux, took along as far as the Mandans an additional force of nine French voyageurs and seven soldiers.

Up The Missouri

Through the summer of 1804 the expedition moved up the river in a fifty-five-foot keelboat and two large pirogues. Hunters brought in deer and bear. Sometimes the men found wild fruits or caught fish for the larder. Lewis was often on shore gathering curious plants and shrubs. On Augusut 3 the Captains held a council with the Ottoes and Missouris under a mainsail used as an awning. They gave the chiefs medals and flags, and told them the wishes of the Great Father in Washington: they must surrender their French and Spanish flags and medals; the Great American Father would allow only the boats of his own traders to come up the river; these traders would soon bring them all the white goods that they needed.2 It was plain to the red children that they must open their ears to what Lewis and Clark were saying. If they displeased the Great American Father, he could cut off their supply of trade goods. By such councils, held with all the tribes, the captains were taking possession of the Missouri Valley for the United States.

Lewis and Clark were kindly received antil they reached the Teton Sioux near the mouth of the Bad River in South Dakota. The Tetons, the main barrier to the navigation of the Upper Missouri, generally plundered traders trying to go up the river. Out of curiosity the "ill looking" and poorly armed people flocked to the river bank to see the White men. Lewis and Clark expected some treachery; the Tetons would probably try to stop the expedition and rob it. During the five days at the mouth of the Bad, the captains took every precaution against surprise — anchoring the keelboat in midstream at night and losing much sleep in their vigilance.

The day after their arrival, September 25, they raised a flagstaff and an awning on a sandbar in the mouth of the Bad River and held a council with the chiefs and principal men. Lewis made a speech about the wishes of the Great Father and then gave a medal and an American flag to Black Buffalo, the grand chief who was friendly to the Americans. After the ceremony the captains showed a small party over the keelboat and treated them with whiskey. But after returning to shore Partizan, the second chief, became very insulting to Clark, pretended drunkenness and staggered against him and said that he had not received enough presents. Three young braves grabbed the cable of the pirogue to detain it; others surrounded Clark with their bows and arrows ready. In the crisis Clark grew angry, pulled out his sword, and spoke in "very positive terms." When Black Buffalo ordered the menacing warriors away and twelve well-armed men came to Clark's assistance from the keelboat, the crisis passed; but the chiefs refused Clark's hand before he returned to the keelboat offshore.

The next day, however, the chiefs were conciliatory and entertained the captains. They were carried to a large council lodge on elegantly painted buffalo robes, ate dog and pemmican, and watched the women per-

form a scalp dance. Clark did not sleep much that night or the next. The second night of anxiety Partizan spent on board the keelboat. That night the boat, because of the accidental loss of the anchor, was tied to the bank and so exposed to attack. A strong guard was kept all night. The next day when the captains prepared to set out up the river, some warriors seized the cable of the keelboat. Partizan demanded a flag and tobacco, but Lewis replied that they would not "be forced into anything." With a fight threatening Clark threw some tobacco to Black Buffalo, who jerked the cable from the warriors; and the expedition pushed off.

It had been saved by the courage of the captains and the men, and by the unexplained friendly disposition of Black Buffalo. With hostility in their hearts the Teton Sioux had hesitated and then backed down. That night the expedition camped on a small sandbar in the middle of the river. Clark wrote in the journal: "I am very unwell for want of sleep, Deturmined to Sleep to night if possible." The next spring Clark told an Arikara chief that the Great Father would not let the Tetons "have any more good guns etc.," but would protect from them his dutiful red children ("all those who would open their ears to his good advice"), such as the Arikaras. These were the instruments of sovereignty on the Upper Missouri — threatened deprivation of white goods and a promise of protection by the Great Father. Distance made both threat and promise empty, but perhaps neither the Indians nor the American captains realized their emptiness.

Lewis and Clark learned much about the Arikaras from the French traders living with them. The Arikara traded their corn, beans, squash, and tobacco with the Cheyenne of the Black Hills for horses and mules. These the Cheyenne stole from settlements in the Southwest. The Arikara then traded horses and corn with the Tetons for guns, ammunition, kettles, axes, and other trade goods that the Tetons bought (through the Yankton and Sisseton Sioux as middlemen) from British traders on the Minnesota River. In addition some traders from St. Louis (such as Lewis and Clark's informants) eluded the Teton and brought goods to the

Arikaras. Thus the Arikaras were a part of a complex of intertribal and interracial trade that reached from St. Louis and Santa Fe to the Minnesota River and Montreal, and ultimately to the eastern United States and England. As with other tribes on the Missouri and through the American wilderness. international exchanges helped the Arikaras secure some of the necessities and comforts of life. From their experiences at Bad River, Lewis and Clark naturally concluded that if Americans were to enjoy the trade advantages offered by the Missouri, the United States must coerce the Tetons. (Seventytwo years later George Armstrong Custer was still trying to coerce the Tetons.) American sovereignty as a reality would aid American trade; then the Upper Missouri would become a colony of the fur trading houses of St. Louis with the Indians paying tribute in peltries.

A Winter in North Dakota

On October 13, 1804, the Lewis and Clark expedition entered North Dakota. Eight days later their keelboat and pirogues passed the ruins of nine Mandan villages scattered along the Missouri for twenty miles near the mouth of the Heart River. On October 27 they came to the five Mandan and Hidatsa earthlodge villages clustered on the Missouri and Knife rivers near present Stanton. The lower Mandan village was on the west bank of the Missouri about four or five miles below the mouth of the Knife. Above it and three miles diagonally across the Missouri on the east or north bank was the second Mandan village. The Ahnahaways, a distinct group but closely related to the Hidatsa, lived at the mouth of the Knife River on its south bank. Half a mile up the Knife on its south bank was one Hidatsa village; a mile above it on the north bank of the Knife was the Big Hidatsa village — the home of Le Borgne, the principal man of the five villages. It was only six or seven miles from the lower Mandan village to the Big Hidatsa village; these allied tribes were living in sight of each other for security.3

Later Lewis and Clark made a conservative estimate that 3950 persons lived in the five villages: 1250 Mandans, 200 Ahnahaways, and 2500 Hidatsas. If the estimates

they put in their table of the tribes east of the Rocky Mountains are relatively correct, the Knife River villages were the largest concentration of native population on the whole length of the Missouri River, and except for the five thousand Grand Osage living on the Osage River, the largest concentration of native population in the Missouri Basin. The history of the Mandans and Hidatsa confirms the population estimates. The Missouri Valley from the Heart to the Knife was a good place to live for Indians such as Mandans and Hidatsa, who had a mixed economy, dependent both on their river-bottom gardens and the buffalo of the prairies. But at the Knife River they were at the northern limit of Indian agriculture. Although there were 3950 Mandans and Hidatsa, the several tribes of the Sioux outnumbered them, having a combined total of 8410 persons by the Lewis and Clark estimates. It should be remembered, however, that the Sioux and many other Plains tribes were largely nomadic, wandering about in a good many bands; the population of the Mandans and Hidatsa was concentrated in a small area.

On October 27- when the expedition's boats came to the Knife River villages, the Indians flocked down to the river banks to give the white men a friendly welcome. The captains later decided that the Mandans were "the most friendly, well disposed Indians inhabiting the Missouri." Two days later at a council Lewis and Clark made their usual long speech about the Louisiana Purchase and the United States, and then put medals on the chiefs they wished to "make" or recognize. "Making chiefs." as the phrase ran, always meant recognition of men already chiefs, but it clearly implied that after the ceremony they held their rank from the United States government. As Lewis and Clark on this and other occasions gave medals, certificates of sincerity and good conduct, coats, hats, and flags, they were asserting American sovereignty: the American President was replacing the Spanish king as the Great Father.

What gave their assertion any reality was the dependence of the Indians upon a supply of white trade goods which the Great Father might cut off or facilitate. Trade

goods might make them subjects. But the assertion would also be strengthened by whatever impression of American power Lewis and Clark could give with their keelboat, air gun, cannon, forty-five armed men, and their own courage and character. These were always on display. However real the compulsions springing from Indian dependence on white technology and however real the friendly disposition of the Mandans, the council of October 29 was not fully successful, for Le Borgne, the grand chief of the Hidatsa, and some of the other Hidatsa chiefs stayed away. Lewis and Clark could only send them presents. (Although modern anthropologists call these people "Hidatsa," Lewis and Clark used the terms of the traders: "Minitaree," "Grosventres," or "Bigbellies" — meaning not people with potbellies but grasping, selfish spongers.)

The captains began immediately to use their influence to make peace between the Arikaras and the people of the Knife River villages. Black Cat, the grand chief of the Mandans, thought that his people would like peace, saying that with peace "they now could hunt without fear, and their women could work in the fields without looking every moment for the enemy, and put off their mockersons at night." The captains always told the Indians that they displeased their Great Father by making war on each other. The tribes that made war, Lewis and Clark would threaten, would not have the protection of the Great Father. Then the Indians would promise "to open their ears," but Lewis and Clark were, of course, doubtful about the Sioux. No matter what their idealistic motive, they knew that war was a great obstacle to white trade with the tribes. Soon after they reached the Knife River the captains were able to bring about the restoration of the traps that some Mandans had stolen from two Frenchman.

The winter camp that the captains began to build on November 3 four miles below the lower Mandan village and on the east side of the Missouri was both a symbol of American power and a means of security. Fort Mandan, as they named it, was triangular in form, with huts of four rooms each forming the sides of the triangle and a stock-

ade of high pickets the base. At the angle of the huts were two store rooms. The outer wall of the fort was eighteen feet high; a sentinel watched all night from the top of this fortification. A visiting North West Company trader wrote in his journal: "The fort is made so strong as to be almost cannon ball proof."

The fort was well supplied with meat, for some of the men went out almost every day to hunt. Sometimes they suffered frostbite; December was very cold with the thermometer below zero every day from the tenth to the nineteenth and forty-three below on the seventeenth. Deer, elk, and buffalo were hung in smoke houses. The men began the celebration of Christmas by firing their guns. Clark treated them with rum and allowed a salute from the cannon at the raising the flag. Sergeant Patrick Gass wrote in his journal: "Flour, dried apples, pepper, and other articles were distributed in the different messes to enable them to celebrate Christmas in a proper and social manner." When flour and dried apples have become holiday treats, surely the wilderness has forced life into a primitive pattern.

Hardly a day passed but some Mandans came to visit the fort, and the chiefs liked to spend the night there. At the end of November the Sioux attacked a Mandan hunting party of five, killed one, wounded two, and stole nine horses. On hearing of the misfortune Clark rushed with twenty-three armed men to the lower Mandan village to offer help in punishing the Sioux. He was extending the protection of the United States. The Mandans were surprised and thankful at such prompt help ("the village had been crying all night and day"), but even they were a little alarmed at the formidable appearance of Clark's men. They said, however, that it was cold and the snow deep; they would go in the spring.

Yet the offer of help increased the loyalty of the Mandans to the United States. A more powerful influence in winning their loyalty was the work of the expedition's blacksmiths, who made battleaxes for the Indians and mended their axes, hoes, guns, and iron tools. The squaws gratefully brought corn in payment. The Indians were

"extravegantly fond" of sheet iron for arrow points and for scraping buffalo robes. So the blacksmiths sold them pieces of a burned-out sheet iron stove — a piece four inches square for seven or eight gallons of corn. As a supply of such points became available, the ancient flint quarries on the upper Knife fell into disuse. It was for these sources of their cutting tools that the Indians had named the river, and "Knife" was the English equivalent of the Indian name. The Indians were becoming dependent upon the superior technology of the whites; this dependency would undermine their old way of life.

White technology even won the respect of the rather arrogant Bigbellies who were much less friendly than the Mandans and much less frequent visitors at Fort Mandan. The Bigbelly chief, Le Borgne, told North West trader Charles MacKenzie that "there are only two sensible men among them, the worker of iron and the mender of guns." Le Borgne a cool-headed, cruel, one-eyed giant, boasted that his horsemen could destroy the expedition on the open plains.

Yet the captains made headway against this hostility. They paid particular attention to four important Bigbellies who visited the fort on January 15 and stayed over night. When the Bigbellies left, they called some visiting Mandans "liars" for having told them that the white men would kill them if they came to the fort. (It was an old Indian trick to keep even friendly tribes away from the white men. Then one could act as middleman.)

Lewis and Clark triumphed when Le Borgne himself at last visited the fort on March 9, 1805. Lewis fired two guns in his honor and presented him with a medal, a gorget, armbands, a flag, and a shirt. Le Borgne was much pleased; and his pleasure lasted, for in July 1806 Alexander Henry saw Le Borgne wrap himself in his American flag for peace ceremonies with the Cheyennes. That same July Big White, a Mandan chief, tried to get Henry and his fellow British traders to salute the American flag flying from the roof of his earthlodge, but the Britishers pretended not to understand what was wanted. At Knife River Lewis and

Clark had clearly given some standing to this symbol of American sovereignty.

British Traders from the Assiniboine

In 1804 British traders of the North West Company, the Hudson's Bay Company, and the X.Y. Company, as well as free traders and the Assiniboine and Cree Indians were active in trade between posts on the Assiniboine River and the Knife River Villages. The British had entered the trade in the 1790's, but the Assiniboine had acted as middlemen between the British on Hudson Bay and the Indians on the Missouri since late in the seventeenth or early in the eighteenth century. The whites in the trade faced many dangers: a journey of one hundred and fifty miles across the prairies in winter, marauding Sioux, and jealous Assiniboine who wanted the trade for themselves.

The details of one trading party, recorded in the journals of its leader Francois Antoine Larocque and his clerk Charles Mac-Kenzie, bring the trade to life. A party of seven men left the North West Company's Fort Assiniboine near the junction of the Souris and Assiniboine rivers on November 11, 1804. They had nine horses, five of them loaded with trade goods. On the way they met eight Assiniboine who had been to the Knife trading for corn and horses. Larocque feared they would steal his horses; however, they did not, and he reached the Knife after thirteen days. He found four servants of the Hudson's Bay Company ahead of him. Larocque divided his goods and sent a man or two with trading equipment to each village, where they lived in the earthlodge of an Indian, giving presents for the hospitality.

The goods most desired by the Indians were "strouds, capotries, iron works, etc." On December 20 Larocque sent some of his men back to Fort Assiniboine with the returns of his five-weeks trade: 545 kitts (a small prairie fox), 57 wolves, 4 foxes, 7 beaver, and 5 bags of corn. In early February Larocque himself and William Morrison made a quick trip, only five days, back to the fort for more trade goods.

Under such conditions no great quantity of goods could reach the Knife. Lewis and Clark estimated that the villages used annually only about \$3300 worth of trade goods at St. Louis prices, or about eighty-four cents per person. For these they paid skins and other articles worth about \$10,500 at St. Louis prices. At that time all the goods came from the Assiniboine, and the returns of the trade were sent there.

Lewis and Clark placed no restrictions on the British trade. They wrote to Charles Chaboillez, in charge at Fort Assiniboine, that they would give their protection to all well-disposed traders and would allow all citizens of friendly nations to come and go freely. They soon learned, however, that Larocque's interpreter, Baptiste Lafrance, was speaking unfavorably about them to the Indians. The captains told Larocque to stop such talk and not to give any medals or flags to the Indians or to "make" any chiefs.

In January there was a report that a clerk of the Hudson's Bay Company was saying unfavorable things about the Americans to the Bigbellies. Yet, as we have seen, the captains in the end won over Le Borgne, and they stayed on friendly terms with the British traders. The British were frequent visitors at Fort Mandan; Clark had Larocque's horses cared for at the fort, and Lewis spent a whole day repairing his compass. Did the isolation of the wilderness soften national rivalries and antipathies? Certainly Lewis and Clark were no Anglophiles. Clark's brother and Lewis's father had fought the British in the Revolution, and Lewis's father died soon after his service ended.

However significant the assertion of sovereignty, the great objective was the Pacific. To ease its attainment the captains added the Bird Woman, a Shoshone or Snake girl of seventeen, to their party. A bloody incident of Indian warfare had brought her from her home in the Rocky Mountains and placed her where, as a wife of the Canadian Toussaint Charbonneau, she could help Lewis and Clark cross the continent. She had been born about 1787 near Lemhi, Idaho. In 1800 a Bigbelly war party captured her and several others near the Three Forks of the Missouri and brought them back to the Knife River village. She was sold to Charbonneau, who was living with the Bigbellies. They gave her the name "Bird Woman";

the Anglicized spelling of the Bigbelly name is "Sakakawea." Writers often incorrectly call her "Sacajawea," but this is Shoshone for "Boat Launcher" and has nothing to do with the Bird Woman.

Lewis and Clark hired Charbonneau as an interpreter to get the help of his squaw. It was a master stroke; perhaps no other single act contributed so much to their success. The reason was, as Lewis explained later when anxious about her health, that she was their "only dependence for a friendly negociation with the Snake Indians on whom we depend for horses to assist us in cur portage from the Missouri to the columbia river." Charbonneau and Sakakawea moved to Fort Mandan, and there on February 11 she gave birth to a fine boy, her first child. She was to carry the baby to the Pacific and back.

The expedition resumed its course westward on April 7, 1805. On its departure from the Knife River villages thirty-three persons including Sakakawea and her baby were in the two pirogues and six canoes of the party. The men were in excellent health and spirits, wrote Lewis, "zealously attached to the enterprise, and anxious to proceed; not a whisper or murmur of discontent to be heard among them." A year and a half after the organization of the expedition the spirit of adventure was still strong; the men believed in their leaders. Lewis himself was elated, for they "were now about to penetrate a country at least two thousand miles in width, on which the foot of civilized man had never trod."

The girl of seventeen soon proved her worth. Lewis admired her "fortitude and resolution." Clark grew fond of her, calling her "Janey," and the baby "my little dancing boy Baptiest." The Bird Woman returned his esteem, giving him a Christmas gift of two dozen weasel tails. When earlier on August 17 she saw her own people again, she danced for joy. Her brother Cameahwait was chief of the Shoshone. This kinship helped the captains buy the horses with which they crossed the Rockies by a three-hundred-mile mountain trail to a tributary of the Columbia. It was Sakakawea's greatest service. She was, of course, useful as an

interpreter to the Shoshone; and her presence always reconciled the Indians to the expedition, because, as Clark put it, "a woman with a party of men is a token of peace." On November 7, 1805, after floating down the Columbia in canoes, they at last saw the Pacific. They spent the winter at the mouth of the Columbia and began their return eastward on March 23, 1806. The party divided, and Clark's division sought the Yellowstone River. Now Clark wrote that Sakakawea was "of great service to me as a pilot"; she pointed out Bozeman Pass, later chosen by the Northern Pacific Railway.

The reunited expedition reached the Knife River on August 14. The captains invited the Mandan and Bigbelly chiefs to accompany them and visit the Great Father in Washington, where the chiefs would receive gifts and see the government that could protect them from all their enemies. Moreover, the trip would hasten the sending of merchandise to them. All the chiefs but Big White, a Mandan, refused the invitation for fear of being killed by the Sioux. (Big White made the trip and was returned home with great difficulty on September 24, 1809.)

At the Knife River villages Charbonneau was discharged and paid \$500.33 for his services. Sakakawea received nothing, an unavoidable injustice later remarked on by Clark. On parting Clark offered to raise her child. Accordingly, in 1810, Sakakawea and Charbonneau took Baptiste, then five, to St. Louis to be educated by Clark. Henry M. Breckenridge, who saw Sakakawea in 1811, described her as "a good creature, of a mild and gentle disposition, greatly attached to the whites, whose manners and dress she tries to imitate." After her death in 1812 Clark adopted her baby girl Lissette and also Tousant, Charbonneau's son by another wife.

By providence Sakakawea's hard fortune (capture and enslavement) has led to enduring fame. A sentimental American public — captivated by her youth and the uniqueness of her adventure — has dedicated more memorials to her than to any other woman: a river, a peak, a mountain pass, statues in bronze at St. Louis, Portland, and

Bismarck, a bronze tablet at Three Forks, a monument at Armstead, Montana, a public fountain at Lewiston, and a cement shaft on the Shoshone reservation in Wyoming. Her role has been magnified beyond its true worth. For all her merit, she was a passive instrument in the hands of the captains; she did not guide Lewis and Clark to the Pacific.

For many reasons the expedition is to be considered the "great success" of official United States exploration of the continent. It was born of Jefferson's curiosity and presidential authority. Napoleon facilitated it by selling Louisiana. Lewis and Clark utilized American frontier experience to make Jefferson's dream a reality. The fortitude of their men conquered the endless weary miles, and a young squaw played an important role. Not least, bales of presents insured a welcome among Indians hungry for the products of a superior technology.

Yet all the practical objectives — the opening of trade, a commercial highway to the Pacific, sovereignty over the tribes proved elusive. The enduring result was the "impractical" objective — the expansion of knowledge. Jefferson himself had thought of the expedition primarily as a scientific undertaking; and the information brought back by Lewis and Clark, eventually published in seven volumes, confirmed his view. This was the success. But for the captains and their men, as for many Americans today, the expedition was the Great Adventure.

1. Kellog, Louise Phelps, "William Clark," Dictionary of American Biography, vol. IV, p. 142.

Bakeless, John E., Lewis and Clark, Partners in Discovery, New York, 1947, p. 122.

For the location of the villages see Coues, El-

liot, ed., New Light on the Early History of the Greater Northwest, the Manuscript Journals of Alexander Henry . . . and of David Thompson . . . 1799-1814, New York, 1897, vol. I, p. 323. Also Mattison, Ray H., Report on Historical Aspects of the Garrison Reservoir Area, Missouri River, (p. 31-38. Omaha, National Park Service,

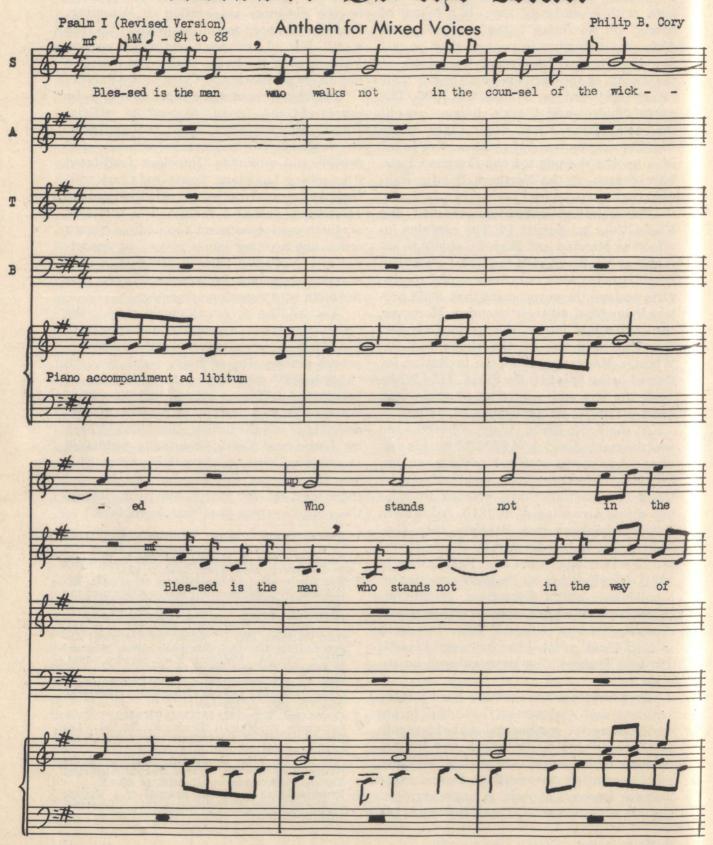
Will, George, "Resume of North Dakota Archaeolgy", North Dakota Historical Quarterly, vol. VII, 1933, p. 159-160.

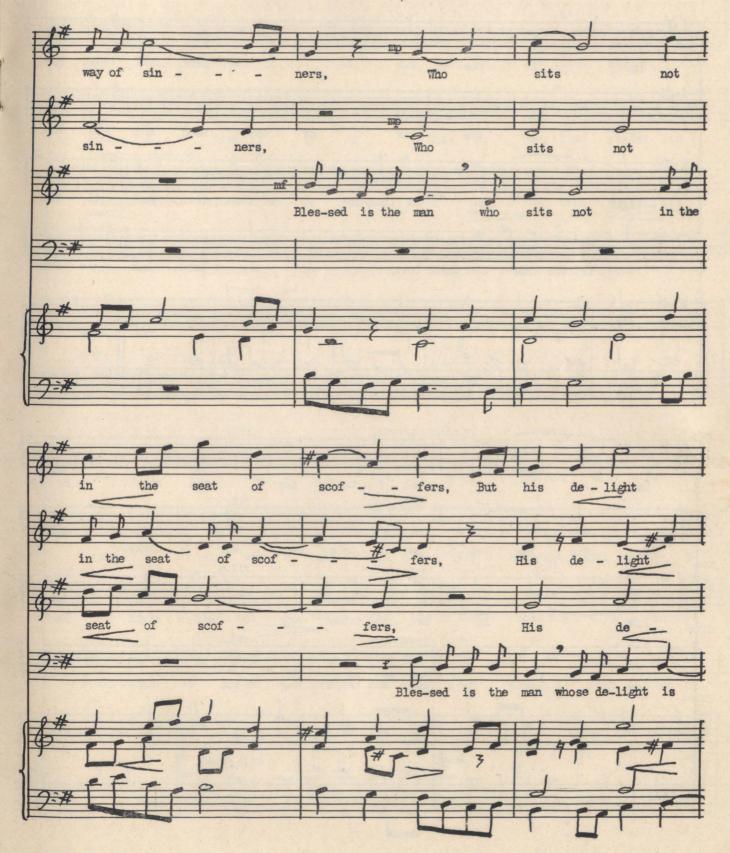
Coues, vol. I, p. 329, 331-332, 376, 389. Larocque in Masson, Louis, F. R., ed., du Nord-Ouest, Bourgeois de la Compagnie

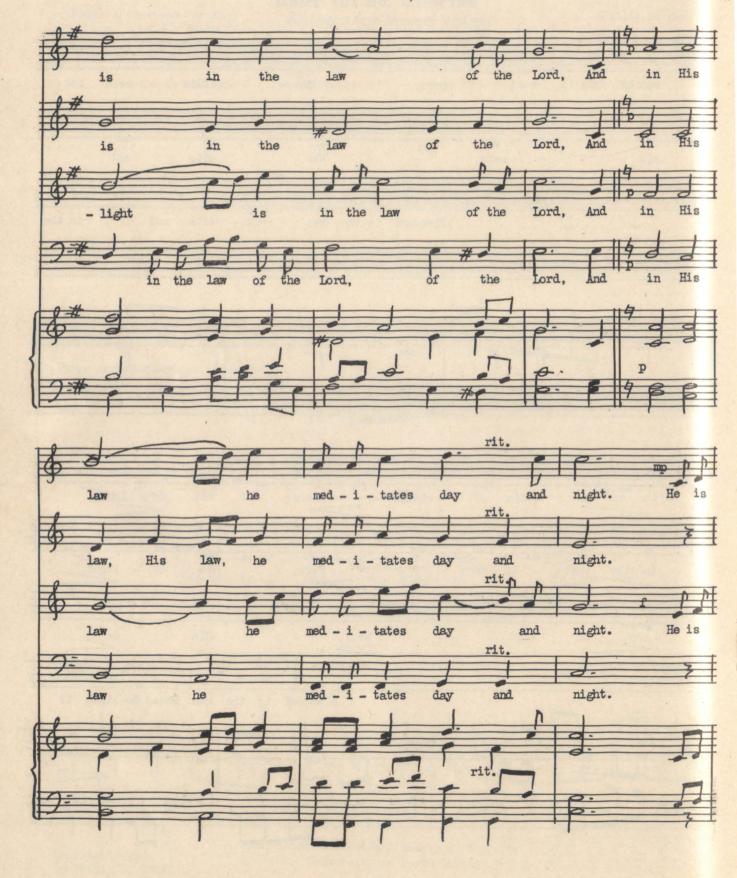
Quebec, 1889-1890, vol. I, p. 309. Hall, C. L., "The Grosventre Spelling of the Name, Bird Woman," North Dakota Historical

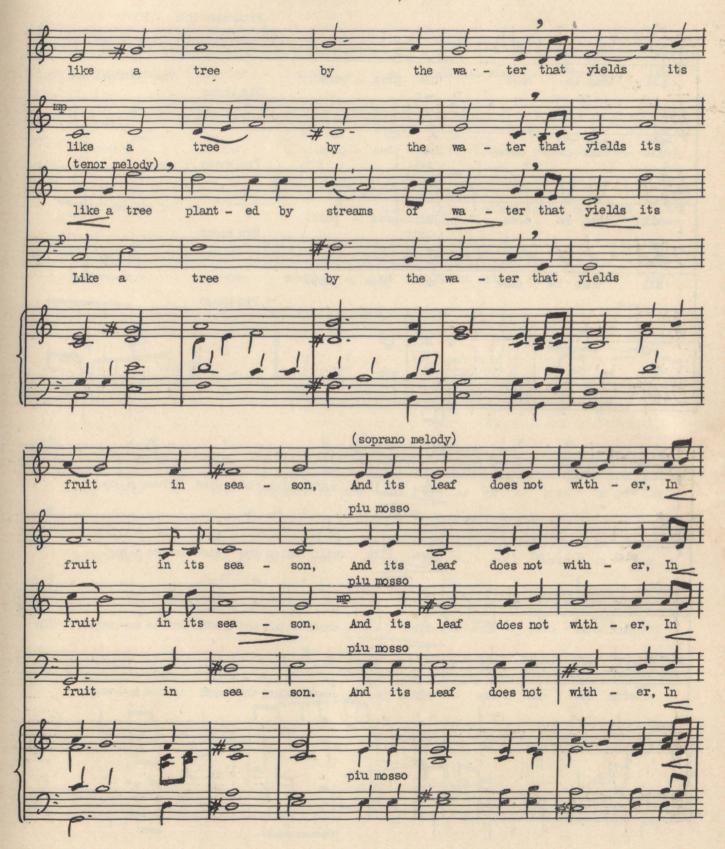
Society Collections, vol. I, 1906, p. 69-72.

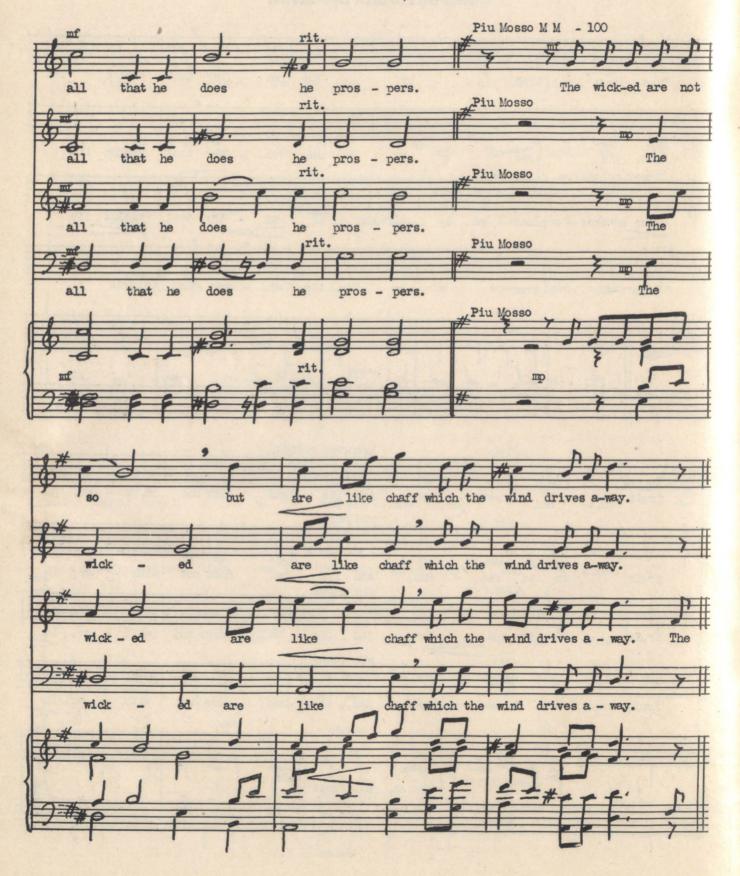
8. Breckenridge, Henry M., Journal of a Voyage up the Missouri, Performed in 1811, Cleveland, 1904, p. 32-33.

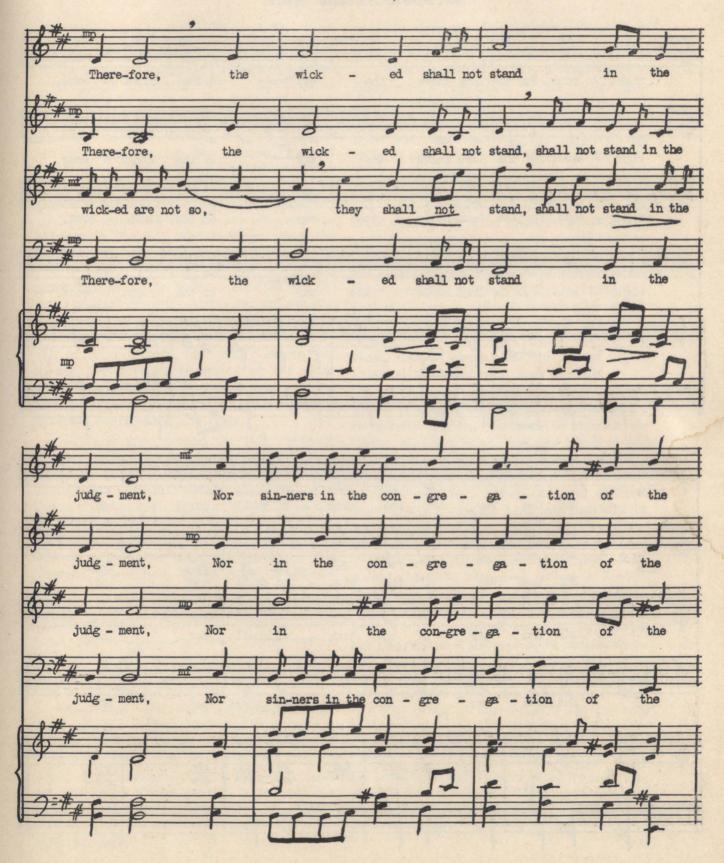














The Cold—and Physiological Fact

H. E. EDERSTROM

Chilly outside this morning? The thermometer at your window can tell you, and to the tenth of a degree if you have a sensi. tive enough apparatus. But no combination of gadgets is equal to the human body in reporting the complete weather picture. For example, anyone outdoors can tell that the air is muggy, or that the wind is raw and penetrating. These are physiologic weather factors that cannot be measured in grams or degrees, but only in terms of the frequency of nerve impulses that are set off from receptors in the skin and impinge upon the interpretive areas of the brain. Collectively, the impulses reflect the total impact of the environment on the body — not only the degree of heat or cold — but also the relative humidity, the solar radiation, and the evaporative and convective effects of the wind. All of these factors, plus many others, activate the nervous receptors of the skin, which in turn report to the central nervous system the sum total of environmental stresses confronting the body.

There is good reason for this vigilance on the part of the body with regard to the weather, and it is not always related to the momentary comfort of the individual. Because of its complexity, the human organism is forced to live out its life span in an internal environment of almost absolute constancy — humidity 100%, temperature 98.6 degrees Fahrenheit. When these conditions change even slightly for any length of time, serious derangements of mental and bodily functions occur. Above this optimum, delicate enzyme systems exhaust themselves in a frenzy of activity; below it they grind to a sluggish stop as their molecular processes are interrupted by the cold.

The many protective responses of the body against temperature stresses are not simply acquired at birth, even in such a complex organism as man, but must have years for development to the highest level of efficiency. Consequently, it is not surprising to find high fevers common in child-

ren, but they are unusual and indicative of serious disease in adults.

Research work on the development of temperature regulation in the Department of Physiology and Pharmacology at the University of North Dakota indicates that newborn animals are essentially poikilotherms at birth and for the first week or two after: That is, their body temperature tends to follow that of the environment; in a cold room the body is cooled, and in a hot room the body gains heat. This research showed that a newborn rat or dog cools at about the same rate as a glass of water equal in weight to the animal. But with the development of the more complex reflexes of the nervous system, the animal gradually becomes independent of its thermal surroundings and maintains the internal temperature highly constant, despite sharp ups and downs of the external environmental temperature.

All of the mechanisms and chemical processes that enable an animal such as a dog to survive and be comfortable at such extremes as forty below and one hundred and ten above zero have not been described. The first line of defense against cold in domestic animals such as the dog, cat, and cattle is the insulation against heat loss provided by a heavy coat of fur. This alone would be relatively ineffective against extreme cold if it were not for the heat generated by internal chemical processes. When a homeothermic or warm-blooded animal is suddenly subjected to cold stress it must increase its heat production almost immediately, or risk the dangers of a drop in body temperature. One method utilized is shivering, a kind of exercise or involuntary muscle movement that generates great amounts of heat until the cold threat is overcome. When the cold persists, more complex chemical factors are called upon to keep the homeothermic fires burning. Through unknown means many endocrine glands are stimulated by cold. The thyroid in particular is enlarged, and by liberating increased amounts of its hormone thyroxine into the blood stream, stimulates all cells of the body to burn larger quantities of glucose, thus providing more heat.

Mechanisms for conserving heat are also brought into play by cold stimuli received from the skin. One way that this can be accomplished is by shunting blood away from the external areas and retaining it within the deeper and warmer regions. This is the function of the vasomotor nerves which, when stimulated, cause constriction of surface blood vessels and produce the pale and bloodless appearance of skin that is suddenly exposed to cold. In animals, additional protection against heat loss is afforded by increased growth of fur induced by exposure to cold.

Arctic animals, such as the polar bear, Eskimo dog, and arctic fox, are among the best examples of cold adaptation known to science. These and other dwellers of the polar zone have been studied by armed forces scientists in an attempt to find secrets of resistance to cold that might prove useful to man. Most conspicuously, these animals have a thick coat of fur providing a high degree of insulation against cold by trapping warm air next to the skin, and thus conserving the internal heat supply. Under the skin is a thick layer of fat, also a good insulator, with about the same low heat conducting qualities as the cork-filled walls of a refrigerator. But in addition to these, there are many heat conserving and producing mechanisms that are as yet unexplained. The Eskimo dog, for instance, faced with a blizzard and 50 below weather, curls up like a ball, buries his tender nose in his tail, and sleeps comfortably in a snow bank. Clad in a fur garment of the same dog's hide, a man would freeze to death in a few hours under these conditions. The arctic fox, with centuries of cold-adapting relatives behind it in the family tree, tolerates even more extreme cold than the dog. In one experiment U. S. Navy scientists found that the fox was completely unimpressed by being confined. to a pen outside Alaskan laboratories where nighttime temperatures were 50 below. In an attempt to elicit the full cold-resisting powers of this animal, the scientists shipped one by air to Bethesda, Maryland, where

cold chambers set at 112° F. below zero for testing operation of airplane engines were situated. Dropped into this super deepfreeze, the arctic fox fluffed its fur and disdainfully curled up and went to sleep!

Civilized man obviously has much lower resistance to cold than the furbearing animals of the arctic, but in primitive races cold immunity is quite well developed. The natives of Tierra del Fuego, on the raw and inhospitable tip of South America, are among the hardiest of the cold-adapted human beings. Charles Darwin, in his epochmaking book The Voyage of the Beagle, relates how the almost naked Fuegians paddled out of the harbor into the teeth of a snowstorm to meet the vessel. Among the greeters was a woman with a nursing child, both of them unclothed, but completely undisturbed by the snow that fell and melted on their skins. The Australian bushmen, who belong to one of the most primitive groups found today, are likewise immune to extremes of weather that would chill civilized man into frappé. British scientists studying the habits of the tribes were astounded to learn that natives wore little or no clothing despite a drop in nighttime temperatures to the freezing point or below. Typically the night was spent sleeping alongside a small fire with no covering or other shelter. Metabolism studies of these natives disclosed no significant differences in heat production from those found in members of the scientific expedition, so that this could not account for the differences in cold resistance. The only plausible explanation was that the natives were relatively immune to, or could ignore, the cold stimuli that made the Englishmen shiver and toss sleeplessly through the frost nights of the Australian desert.

The Eskimo is considerably better equipped to combat cold than other primitive races in that he has furnished himself with excellent fur garments, heated housing, and other cold gear that makes life possible in the Arctic. In addition the Eskimo has physiological cold adaptations surpassing those of temperate zone man, and thus finds less discomfort under conditions of cold stress. These adjustments to cold have been studied

in a variety of Arctic dwellers, including man as well as animals.

The most defenseless parts of the body with regard to cold stress are the thin and poorly insulated appendages such as the fingers, toes, ears, and tail. Their loss or temporary immobilization may not be immediately incompatible with life, but frequently they are essential to any prolonged existence in cold climates. In man, but more especially in arctic animals, these areas are protected from freezing by special adaptive mechanisms. Watch a duck plunge into an ice-caked coulee and you will find that it can swim for hours with its uncovered feet and legs immersed in the icy water that would paralyze a human foot. Or walk your dog on a below-zero night and it will be obvious that trotting over the snow with uncovered footpads is not at all the hazard for a dog that it would be for man in a similar state of exposure.

These unprotected areas have been found to possess special mechanisms for keeping warm. Since the appendages have relatively small amounts of muscle, local heat generation from movement is small, and they must rely on heat drawn from reserves in the deeper regions of the body. The central heat supply is distributed to the periphery by means of the blood vessels, which carry warm blood from the internal reservoirs out to the exposed areas of the body. Under mild cold stress this is not a problem, but in subzero weather the extremities may demand considerably more than their share of the available heat. If large amounts of blood are cooled in the skin, the deep body temperature drops, and essential organs such as the heart, liver, kidneys, and central nervous system must slow their functions, and the entire organism may be endangered.

Body warmth is also conserved in arctic animals by means of a "heat-exchanger" arrangement of blood vessels. In the legs of water birds, for example, arteries and veins are closely interwined, thus permitting heat from outgoing arterial blood to be transferred to the returning venous blood. The large flippers of the whale have an even more elaborate system, in that arteries are

completely surrounded by veins that return heat before it can be lost. These mechanisms make it possible for an adequate supply of oxygen to be brought to active parts, but since this is contained in relatively cool blood, little body heat is lost in the process.

When animals are exposed to gradually increasing cold, such as occurs in natural environments at the onset of winter, adaptive mechanisms come into play that not only protect the extremities from frostbite, but conserve internal heat as well. This is accomplished through the action of skin receptors located in the exposed extremities that act very much like thermostats. As the tissues approach the freezing point the receptors trigger vasomotor reflexes that permit a surge of warm blood to flow into the endangered part, sufficient in volume to ward off frostbite, but not enough to rob internal organs of significant amounts of heat. These cycles of warming and cooling of the extremities can be shown by attaching thermocouples to the feet or ears of a winterized rabbit, or can be demonstrated on the fingertips of a human subject in a cold room, or on a toe that is immersed in ice water.

This periodicity in blood flow is best developed in animals that are acclimatized by long exposure to cold weather, and poorly shown in household pets and laboratory animals. Experiments have demonstrated that the laboratory rat or rabbit gets frostbitten ears and paws if suddenly subjected to 20 below temperatures. But when animals are exposed gradually to cold, their extremities develop the cycling blood flow mechanism, and the danger of frostbite disappears. The same cold conditioning is possible in man, as has been demonstrated by experiments conducted by the armed forces research scientists. An Eskimo, for example, when sitting in a tub of cold water, was found to have about twice as much blood flow per minute in his fingers as a medical student from the temperate zone under the same cold stress.

The primary source of fuel for the body furnace is, of course, the food eaten. When exposed to cold, animals as well as man must have more calories in the diet, or heat production cannot keep pace with heat loss. Studies by nutritionists have disclosed that army personnel on manuevers in Alaska ate about twice as much food as troops performing the same type of exercises in Florida. Herdsmen have known for centuries that animals kept in the open for long periods have no trouble with below zero weather as long as food is available in sufficient quantities. As for the type of food most protective against cold, there seem to be differences of opinion among nutrition experts. Eskimos supposedly are connoisseurs of meat and blubber, possibly because this is the most readily obtainable foodstuff in the form of fish and arctic animals, rather than because of any special heating effects. Protein, however, has an advantage over carbohydrates aside from its calorie value, in that it liberates heat by forcing the body to burn stored glucose to aid in the diaminization and elimination of the amino acids produced in its digestion. Recent studies indicate that certain food constituents, such as some amino acids and particularly vitamin C, are required for developing maximal cold resistance in experimental animals. Extensive studies of nutritional requirements of man in cold climates are currently under way at the Army Nutritional Laboratory in Denver, but at the present time results are not available.

Does the average North Dakotan become fully cold acclimatized during the winter? Probably not, according to experimental findings, unless he is an outdoor worker who is exposed to the elements for 16 to 18 hours per day for a minimum of two weeks. This interval is required to induce a variety of subtle changes in man's physiology, including such diversified effects as increases in metabolic rate, a decrease in shivering, and quickening of the blood flow through the hands and feet. Less easily measurable alterations seem to occur in the central nervous system to coordinate cardiovascular and endocrine functions that serve to lessen discomfort and frostbite when the temperature drops.

While man and the common domestic animals can ward off winter without drastically changing their mode of living, this is not true of the majority of species in the temper-

ate zone. The poikilothermal forms — frogs. snakes, insects, and others — are completely dependent upon the environment for heat. As cold weather comes these forms disappear into subterranean burrows and other shelters where they remain in a state of suspended animation until warm weather reappears. Most interesting of this passive resistance group are the true hibernators. such as the ground squirrel or "flickertail" that abounds in North Dakota. During reasonably warm weather this little rodent has a carefully regulated body temperature very close to that of man. But when subjected to prolonged cold, either in the laboratory or out of doors, this animal undergoes drastic changes in its metabolic functions. Heart and respiratory rates, as well as all other bodily activities, decline to the minimum compatible with life. Should you dig one out of its burrow on a winter day, you would find its heart beating once or twice a minute, or just often enough to pump a trickle of blood through essential organs. Respiration and oxygen consumption would likewise be at a low ebb since only minute amounts of energy are required to maintain the hibernating animal through the winter.

The secret of hibernation in forms such as the gopher and woodchuck has not yet been uncovered. Many investigations of the changes in blood sugar, glandular secretions, and other factors have failed to find how and why bodily functions can change abruptly under the influence of cold in some animals, but not in others. A few differences have been discovered. The heart of the true hibernator, for example, continues to beat, although at a progressively slower rate, until it freezes solid. In non-hibernating forms such as the rat, a close relative of the gopher, the heart stops beating in an irreversible state when it reaches about 60 degrees.

The results of studies of responses of the human body to cold have been used not only for perfecting luxury items such as heating and clothing, but have also been responsible for extending the scope of medicine and surgery. As observations of hibernating animals have shown, cold decreases the need for oxygen in all body tissues. This provides the means whereby respiratory and circulatory functions can be slowed while repairs are made to critical areas of the human body. Hypothermia, or artifical hibernation, has been used most dramatically in operations that involve surgical procedures on the heart and large blood vessels. The human body can be cooled readily if shivering and other heat producing mechanisms are depressed by anesthetics and muscle-relaxing drugs. Body temperature is then easily lowered 10 to 20 degrees below normal. Since temporary hibernation reduces the need for oxygen, even the sensitive brain and spinal cord cells can then be deprived of blood for many minutes. Time is thus gained for surgical procedures on the heart and on the large vessels supplying blood to the critical nervous tissues.

The hibernation techniques have been

most successful on infants and young children, since at an early age even human beings retain some of the characteristics of the poikilothermal forms from which they have sprung. In the future, there is the possibility that some new drug or hormone may be found that will temporarily induce complete hibernation in adults, and thus make possible relatively long oxygen deprivation and give time for treatment of the heart, brain, and other supersensitive areas of the body.

However, with hibernation available only for surgical emergency, and with adaptations lost in evolutionary advancement, the North Dakotan has but these expedients: to conserve his warm-bloodedness within the microclimate of house and clothing, to heat his peripheral blood by the fire, and to await the thermoneutrality of spring.

Cartoon History of English Literature

DONALD MURRAY



CHAUCER'S PRIORESS AND MILLER

"She leet no morsel from hir lippes falle, Ne wette hir fyngres in hir sauce depe."

"Upon the cop right of his nose he hade Awerte, and theron stood a toft of herys, Reed as the brustles of a sowes erys."

Rolvaag, Interpreter of Immigrant Life

RICHARD BECK

O. E. Rölvaag's untimely death in 1931 at the age of fifty-five, brought to a close a career unusually rich in fruitful achievement and in far-reaching influence. Thousands of readers in many lands — for his works had been translated into a number of languages — lamented the death of a writer whose literary artistry was certain to please and whose honest and penetrating treatment of fundamental problems never failed to stimulate thought.

Rölvaag has been rightly characterized as "perhaps the greatest interpreter of immigrant life that this country has known." (Hanna Astrup Larsen).¹ His pre-eminence in that realm of letters was rooted deep in his personal experience, which enabled him to understand fully the life of the pioneer immigrant in all its phases. He himself was an immigrant who had lived among his Norwegian countrymen in their pioneer American settlement and had not only studied them, but in a no small degree shared their struggle, their defeats and victories.

Ole Edvart Rölvaag was born on April 22, 1876, in the district of Helgeland in far northern Norway, on the rim of the Arctic Circle. That part of Norway is rugged and inhospitable, bleak and barren, compelling the inhabitants to wrest their precarious livelihood from the sea. At the same time the region is one of scenic grandeur and of great contrasts, of unbroken night in winter, but in summer the enchanted land of the Midnight Sun.

Such an environment is bound to leave a deep imprint upon the character of the people and its outlook upon life, not to forget the spell which the restless sea casts upon the imagination. All of this remained firmly imbedded in Rölvaag's soul, for he was deeply attached to his native soil. One need only read his poetic and charming novel The Boat of Longing to realize how lasting an impact his native Nordland, with its scenic beauty and its wealth of folklore, had left upon him and his literary work. Further

evidence of the strong influence which his native haunts exerted upon him can be seen in the last book which came from his pen, *Their Father's God*, where "he speaks of the *hildr*, the mystic glamour of Norway which the prairies could not give." (Hanna Astrup Larsen).

Equally potent was the attraction which the sea held for Rölvaag to the end of his days, and readily understandable to anyone who, like the writer, at and early age learned to know its sweep and majesty, and has it in his blood. Professor Einar I. Haugen does not exaggerate, when in his article "Rölvaag: Norwegian-American" he says of his old teacher:

"Rölvaag knew the sea and never forgot it. It was this love that taught him to see the beauty of the prairie, which resembled the sea in so many ways, and to know its power over men. On the very first page of Giants in the Earth he compares the track of the caravan across the prairies to the wake of a boat. Even Beret is forced to admit the similarity . . . The prairie is one of the chief actors in Rölvaag's production. Though it seems dead to Beret, it comes to life under Rölvaag's hand."

With this statement I heartily agree, for it has long been my firm conviction that had it not been for Rölvaag's intimate knowledge of the sea in all its moods, which he saw strikingly reflected in the vastness of the prairie, he would never have succeeded as masterfully as he does in portraying the latter. On the other hand, it was the cruelty of the sea which drove him from Norway to America, for the sea, which frequently gives abundantly, demands in turn great sacrifices of those who seek their livelihood from the deep.

Rölvaag, who was the son of poor fisherfolk and whose forbears had been fishermen for generations, had already been a Lofoten fisherman for several years, when in the winter of 1893 a terrible storm, not an uncommon occurrence in those northern waters, took a heavy toll among his friends and other fellow fishermen. This tragic experience led to his decision to leave Norway, and with the aid of an uncle in South Dakota, he arrived there in the late summer of 1896.

His next three years on the farm in a Norwegian-American pioneer community were a valuable prelude to his later literary career, because he now gained first-hand knowledge of the struggle facing the immigrant pioneer in a new country. He soon realized, however, that farm life was no more to his liking than the fisherman's life. He therefore decided to seek further schooling, and in the fall of 1899 entered Augustana College, at that time a preparatory school in Canton, South Dakota. Upon gradating from Augustana in the spring of 1901, he worked his way through St. Olaf College, graduating with honors in 1905, at the age of twenty-nine. After a year of graduate study at the University of Oslo in Norway, he joined the faculty of his Alma Mater as a Professor of Norwegian Language and Literature, and from 1916-1931 was head of that department. His students agree that he was an inspiring and stimulating teacher. Says one of them in a letter to the writer: "In the class-room he was ever concerned with the meaning of things. He was happy, if he could arouse in a student the eager impulse to know and understand." (Einar Haugen).

Although most of the time burdened with heavy class work and other teaching duties, and although he lived the last years of his life under the shadow of death — for he suffered from a severe heart ailment - Rölvaag was a productive writer. He published no fewer than six novels, besides several textbooks in the Norwegian field, as well as a volume of essays and numerous miscellaneous contributions to Norwegian papers and periodicals. He wrote all his works in the Norwegian language. They, therefore, have had to be translated into English for the general American public and other English-speaking readers. It need hardly be pointed out that something of the literary artistry of the original is usually lost in the process of its translation, although it should

at the same time be emphasized that Rölvaag was particularily fortunate in his translators, not least in the case of his masterpiece *Giants in the Earth*, the translation of which was a remarkable example of collaboration in that field.

Rölvaag's literary career was indeed a most unusual one, for he had travelled a long, hard road to success and international fame, this highly gifted son of Norwegian fisherfolk. His friend and fellow Norwegian-American writer of note, N. N. Rönning, hit the mark effectively when he concluded a memorial article on Rölvaag with the following words:

"But the story of the poor fisher boy who wanted to become a poet, who with great native ability and indomitable courage reached such heights, and who still remained modest and unspoiled, and who in many ways was so lovable, was greater than any story which he ever wrote."

The "Pioneer" Trilogy

While Rölvaag's other novels are significant in various respects and *The Boat of Longing* in particular as an expression of his lyrical and poetic powers, his greatest literary achievement is the trilogy on pioneer immigrant life, *Giants in the Earth*, *Peder Victorious*, and *Their Father's God*.

The first part of Giants in the Earth was published in Norway in 1924; the second part a year later. Norwegian readers found these books very much to their liking, for they were naturally interested in learning about the life of their kinsmen in the Western World. Literary critics also readily recognized that in this work of epic dimensions a new note was struck in Norwegian literature. Since their initial appearance in Norway these books have there run through several editions, and Rölvaag has received his deserved place in the history of Norwegian letters.

When Giants in the Earth appeared in English in 1927, the author, as has been correctly said, "literally awoke and found himself famous" (Hanna Astrup Larsen), such was the immediate success of this remarkable book in its English garb. One need only read the enthusiastic reviews by leading American critics to sense the impact which

the book made upon them, and on the reading public as well. It has had a tremendous sale; it was selected as a Book-of-the-Month, and what is of still greater significance, it has been used widely as university and college reading, our own University of North Dakota included. In short, it has become a classic. As already indicated, it has found its way into many languages, and gripped readers everywhere with its narrative and descriptive power and its penerating psychological insight.

The circumstances which led Rölvaag to write *Giants in the Earth* are worth noting, for they cast a bright light on his thinking and on his attitude toward Norwegian-American immigrant life and its interpretation. Lincoln Colcord, himself a writer of distinction, describes those circumstances as follows:

"But in the spring of 1923, an item appeared in the Norwegian press to the effect that the great novelist Johan Bojer was about to visit the United States for the purpose of collecting material on the Norwegian-American immigration. He proposed to write an epic novel on the movement. This news excited Rölvaag tremendously; he felt that the inner truth of the Norwegian-American immigration could be written only by one who had experienced the transplanting of life, who shared the psychology of the settlers. His artistic ambition was up in arms; this was his own field.

"He immediately obtained a year's leave of absence from St. Olaf College and set to work. The first few sections of Giants in the Earth were written in a cabin in the north woods of Minnesota. Then he felt the need of visiting South Dakota again, to gather fresh material. In midwinter of that year he went abroad, locating temporarily in a cheap immigrant hotel in London, where he worked on the novel steadily. With the spring of 1924, he went to Norway. There he met Bojer, visiting him at his country home. Bojer was delighted to learn that Rölvaag, of whom he heard a great deal, was also working on a novel of the Norwegian-American settlement; the two men exchanged ideas generously. 'How do you see the problem?' Rölvaag asked. The answer

showed him that Bojer saw it from the viewpoint of Norway, not of America; to him it was mainly a problem of emigration. This greatly relieved Rölvaag's mind, for there was no real conflict; he set to work with renewed energy, and soon finished the first book of *Giants in the Earth*."

Let it be added that this part of Rölvaag's famed novel appeared in Norway late in 1924, a month in advance of Bojer's *The Emigrants*, as it is known in the English translation. The basic distinction between the two books is clearly revealed in the previous reference to the difference in approach to the central problem by the two authors. While *The Emigrants* does not possess the epic quality or the penetration of *Giants in the Earth*, it is, nevertheless, a well written, vivid and a thoroughly sympathetic account of pioneer life, cheerful and hopeful in tone, constituting a significant contribution to the literature of the Middle West.

Giants in the Earth not only won Rölvaag international fame, but still stands as his crowning accomplishment in the realm of letters. Miss Hanna Astrup Larsen, herself the daughter of Norwegian-American pioneers, has summed up effectively the fundamental conflict between the principal characters in Rölvaag's masterpiece in the following passage:

"In this book he had the inspired idea of picturing in his two main characters the duality of the immigrant's nature: Per Hansa, bold, restless, self-reliant, pushing into the unknown; Beret, his wife, gentle, sensitive, clinging to tradition, resting on authority, longing for the accustomed background, and suffering in the bareness and nakedness of pioneer environment. Every pioneer and child of pioneers who has taken the trouble to look into his own heart will find within himself either one or the other of these two natures, and most of us will find both. It is this duality that makes the everlasting conflict in the life of pioneers, and it was Rölvaag's supreme understanding of this problem which made his books something more than just epics of the soil or stories of conquering the wilderness."

Assuredly, this is a very important aspect of *Giants in the Earth*; but this great

novel differed from other pioneer stories in another respect, and in a very fundamental manner. Writers dealing with pioneer life had been too much inclined to emphasize the color and romance of pioneering in a new land, forgetting the sacrifices which it demanded.

"The cost of it all in human happiness — the loneliness, the disappointments, the renunciations, the severing of old ties and quitting of familiar places, the appalling lack of those intangible cushions for the nerves that could not be transported on horseback or in prairie schooners: these imponderables," declares Professor Vernon L. Parrington in his excellent introduction to the text edition of Giants in the Earth in Harper's Modern Classics, "too often have been left out of the reckoning in our traditional romantic interpretation." And he adds significantly: "It is because Giants in the Earth, for the first time in our fiction, evaluates adequately the settlement in terms of motion, because it penetrates to the secret inner life of men and women who undertook the heavy work of subduing the wilderness, that it is — quite apart from all artistic value — a great historical document."

Rölvaag, at his best, is a story teller of the first magnitude, but a psychologist, in the accepted literary sense, in a still greater degree, for, as has been correctly emphasized, he is primarily interested in the unfolding of character. Per Hansa and Beret are indeed creatures of flesh and blood, and so are the other characters in *Giants in the Earth*; but in the portrayal of Beret in the hours of her terrible suffering the author has achieved a rare artistic triumph. Throughout the story he pictures his people with penetration and with sympathetic understanding, born of his intimate knowledge of them and their inner life.

Giants in the Earth is both a powerful and a beautiful book, rich in magnificent descriptive passages. It breathes the atmosphere of the plains; the sweep of the prairie is there in all its grandeur and enchantment. In short, this stirring saga of the pioneers bears in all respects the stamp of reality; it vibrates with life; hence, it is destined to live. Nevertheless, in Giants in the Earth

Rölvaag had only told the story of the first generation, of the pioneers themselves, their land-taking and their founding of a new community. When asked to give the reasons for his writing a sequel to it, he wrote the following statement, which appeared in *The Manitou Messenger*, the St. Olaf College paper:

"I did not get much said in Giants in the Earth — only a small, fractional part, so it seems to me. Man, especially the Nordic, cannot tear himself loose from the soil he has been rooted in for centuries and move to a new land where even the very air chills by its strangeness, without paying a great price. There is intimate kinship between the soil and the soul. To build a fatherland is a long process. When even the Ney Englander, with whom pioneering had become a habit, at times found the virgin prairies of the West hard to endure, what must they not have been to the non-English-speaking foreigners? Home-founding in a wilderness has never been a Sunday school picnic."

In *Peder Victorious*, published in 1929, Rölvaag continues his story of the immigrants. Here we have largely, however an account of the second generation of Norwegians in the Middle West. Peder, the hero, is the son of Per Hansa and Beret. The central problem of the novel is the clash between the first and second generation as represented, respectively, by Beret and Peder. Truthfully and effectively the author interprets the conflict between the generations, for he could fully understand and appreciate the gulf established between them.

Again Rölvaag excels in characterization. Beret, in particular, is a splendid creation, and the book is even more her story than Peder's, though he plays a prominent part. Peder Victorious, on the other hand, lacks the epic sweep of Giants in the Earth. To quote a prominent reviewer of the book: "We are faced with the fact that the second generation, which built our Western towns, is far less interesting than the first, which drove its rickety covered wagons through the pathless grass of the prairies."

In Their Father's God, which appeared in 1931 and unfortunately became his last

book, Rölvaag continues the story of Peder. The central problem is that of a mixed marriage. Peder fell in love with and in due course married Susie Doheny, the daughter of an Irish neighbor. The marriage is pleasing to none concerned, save the participants. At first Peder resents greatly being frowned upon by his Norwegian friends and stoutly defends his course. Before long he realizes, however, that he and his wife differ not only in racial background and religion, but in their whole attitude toward life. The clash is inevitable; it comes when Peder grinds under his heel the material symbols of his wife's cherished faith. And naturally enough she leaves him. On this disturbing note the story ends.

"It would be interesting to know", commented Dr. Henry Goddard Leach in a sympathetic review of the book, "whether Rölvaag meant to leave the problem there as insoluble, or whether he meant to let Peder and Susie work out their lives together, or to lead Peder back to his own people. We shall never know. But one thing at least we may know. Rölvaag had no cheap and easy solution at hand; his penetration into the difficulties of pioneer adjustment was to keen, his understanding of the problem too profound for that."

Anyone who knew Rölvaag, as well as any serious student of his works, will agree with that statement; and whatever else may be said about his treatment of the conflict in question, Their Father's God is a penetrating book, human and sincere, and at the same time a powerful and challenging social document. The characters are graphically portrayed. Beret, once more, is a vital and admirable creature. Susie and Peder also live and breathe; they are real, but some readers will say that they are not typical of the racial groups which they represent. In that connection one may well call to mind Rölvaag's own statement: "I portray persons, not types." And that is also the answer to those who criticize Rölvaag for picturing only certain Norwegians, the ones who were to him the most interesting because they represented in a forceful manner the phases of immigrant life which he wished to interpret.

He was himself genuinely and thoroughly Norwegian. The preservation of Norwegian culture in America was to him a matter of great concern. In that cause he labored zealously. At the same time there is in his books on Norwegian immigrant life a breadth of view, a universality which makes them appeal to thinking people of all races, in particular to any immigrant group or descendants of immigrants. This is especially true of Giants in the Earth and, along with the high literary artistry of the book, accounts for its popularity among readers in many lands; such readers felt that they were, in reality, reading the dramatic story of the pioneer struggle of their own kinsmen on American soil.

- 1. "Ole Edvart Rölvaag", The American-Scandinavian Review, Vol. XX, January, 1932, p. 7. 2. Ibid. p. 8.
- 3. Studies and Records (Norwegian-American Historical Association), Vol. VII, 1932. p. 65.
- 4. Ibid., p. 70.
- The Friend (Minneapolis), Vol. VII, No. 10, December, 1931, p. 15. For fuller information on Rölvaag's life and literary career, see especially: Jorgenson, T. and N. D. Solum, Ole Edvart Rölvaag, New York, 1939; Einar I. Haugen, "Ole Edvart Rölvaag", Dictionary of American Biography, Vol. XVI, 1935, p. 124-125; and Lincoln Colcord's introduction to Giants in the Earth, New York and London, 1927, also included in later editions. 1927, also included in later editions.
- 6. Colcord's introduction, p. XIX-XX.
- 7. Op.cit., p. 7.
- 8. Parsons, A. B., Nation, March 13, 1929.
- The American-Scandinavian Review, Vol. XX, January 1932, p. 56.



The plan for an inter-faith chapel on the campus plays a part in President Starcher's article on the future of the University. Here Mrs. Donald Murray has symbolized that idea in a rose window.

Book Reviews

Political Prairie Fire: The Nonpartisan League, 1915-1922. By Robert L. Morlan. (University of Minnesota Press, 1955. 408 pp. Illustrated. \$5.75)

If one incident more than any other in the political and economic life of North Dakota were to be singled out as unique and of far-reaching significance, surely the formation of the Nonpartisan League in 1915 by A. C. Townley would be that event.

An allusion to the speed with which this movement swept North Dakota politics is seen in the title, Political Prairie Fire, by Robert Morlan, which the publishers offer as "the first detailed, unbiased history" of the League. Written as a Ph. D. dissertation at the University of Minnesota by a scholar who is now professor of political science at the University of Redlands, California, it is indeed larger and more detailed than earlier works by such participants in the League movement as Herbert E. Gaston or Charles E. Russell, and by opponents such as Andrew A. Bruce. It is broader in scope than the earlier scholarly studies of Eugene Burgess or Paul R. Fossum. But notwithstanding the fact that certain primary and secondary materials not available to pioneer students of the movement make possible a fuller account, this is not the book its publishers suggest, nor the one that students of the history of North Dakota and of the League have long awaited.

A book free of the anti-League bias of certain earlier writers is indeed desirable, but Professor Morlan shares too flagrantly the League's sympathies, at times incorporating its phraseology in his text and making its betes noires his own. Thus he refers to J. D. Bacon, editor of the Grand Forks Herald, in the League fashion, as "Jerry Bacon." The editor of the Fargo Courier-News is "the Reverend Mr. Guild" to Professor Morlan as he was to the Leaguers. In one instance he seems to accept the League's lumping of the Progressives and "old gang" Republicans, but protests conservative linking of the League to Socialism, the IWW and "free lovers."

More serious flaws are accounted for by the author's decision as to source materials. It is stated in the preface that "principal though by no means sole reliance has perforce been placed upon representative newspapers, the Nonpartisan Leader, . . . the Grand Forks Herald, acknowledged chief journalistic spokesman of the anti-League forces . . . and the Minneapolis Journal, one of the leading dailies of the Twin Cities . . . " In practice he has relied unduly on the Grand Forks Herald and the Nonpartisan Leader. Other than the daily edition of the Herald and the weekly Leader, only seventeen other newspapers are cited. Of these, eight are cited only once; three dailies are cited only twice each; the Minneapolis Tribune only three times and the New York Times but four. North Dakota newspapers of such importance in the League story as the Bismarck Tribune, Fargo Forum and Fargo Courier-News are referred to only forty times altogether.

What are the consequences of this policy? For one, it means that the attitude and arguments of the anti-League forces are presented from the *Leader* (too frequently the citation for an anti-League blast is "Quoted in *Leader*"), or from the *Grand Forks Herald* which was often immoderate in its arguments. In a word, the worst possible face is put on the League's opponents.

The reader is not given details of the activities and position of the League on foreign policy prior to the outbreak of World War I in April, 1917. Use of the Bismarck Tribune, Fargo Courier-News, the Williston Herald, as well as the Congressional Record would have supplied information on resistance by Townley, Governor Frazier and NPL legislators to the national agitation for intervention in Europe's affairs.

In a number of ways a certain immaturity characterizes this work. The author tends to whitewash the League in somewhat the fashion of its defenders three decades ago. He appears to be sensitive to the charge of Socialist influence in the League and to the accusations that the League was undemocratic. Dealing with these charges in the course of his narrative he returns to them in his concluding chapter. He might better

have been satisfied to state that the League was a movement organized for farmers rather than one organized by farmers. The League needs no defense by academicians: its innovations in government procedures, its taxation reform, grain-grading legislation, its state-owned and operated bank, mill and elevator and hail-insurance department still serve the state thirty years later.

Furthermore, despite the book's 400 pages and its limited seven-year scope, the reader is given only "surface history." He is told in some detail "what" happened, but not the "how" or the "why" of it. He looks in vain for explanation of Lynn J. Frazier's selection as the League's 1916 gubernatorial candidate. As to reasons for the selection of this particular dirt farmer from Hoople, North Dakota, the reader is as much in the dark as that Mandan editor who on hearing the news asked: "Who in hell is Frazier and where in hell is Hoople?" There is no attempt to elucidate the circumstances of William Lemke's entrance into the League. Indeed, there is not so much as a sketch of the prior career and sympathies of Lemke, who is viewed by many to this day as the "czar" of the farmers' movement. He catapults into the story as "William Lemke, a League attorney and one of the inner circle of League leaders." There is one further reference to Lemke's growing influence in League circles. Such summary treatment of a man with whom Professor Morlan had corresponded about episodes in the League's story is difficult to understand. Another omission is Morlan's failure to examine the texture of the North Dakota electorate. In his opening chapter, "Pattern for Conflict," which deals with the farmers' economic grievance, he fails to consider the significance for the fortunes of the League of the large foreignborn element in the state.

More exacting editorial scrutiny would have eliminated erratic documentation which cites authority for the obvious and easily ascertainable while leaving unsupported statements as to attitudes of persons and groups. Also noticed would have been the author's practice of giving Townley's opinion or motivation without indicating in the text that they are an old man's responses to

an interviewer's questioning about events which happened several decades earlier.

And finally, it is regrettable that in preparing his study, completed in 1949, for publication in 1955 Professor Morlan did not, at least by the inclusion of them in his bibliography, bring to the attention of scholars certain valuable materials bearing on the League now in the Library of the University of North Dakota. First of these and absolutely indispensable to an understanding of the inner working of the League are the correspondence and other papers of the late William Lemke. Studies made at the University on Governor John Burke, United States Senator A. J. Gronna and the election of 1912 would also contribute to a better understanding of the North Dakota political scene and the relationship of the Progressive reformers and the Nonpartisan League. At some later date a study of the League utilizing these and the riches of the Lemke papers will do for the League what Professor Morlan's work has not.

Robert P. Wilkins

Post-War Banking Trends in North Dakota. By William E. Koenker. (Grand Forks, Bureau of Business and Economic Research, University of North Dakota, 1955. 62 pp. Tables, charts. Available upon request)

Mr. Keenker, Professor of Economics in the University of North Dakota, provides in this carefully documented study a detailed picture of banking structure and practice in the State from 1946 to the present. Among the trends identified and analyzed are the shifts to newer methods of bank lending, the continue decrease in deposits incurred by independent rural banks, the relative increase in size of group banks, and the marked differences in profitability among various institutions in relation to their size, location and affiliations. It is to be deplored that this important study has been crowded into some sixty pages of extremely small type; it merits better treatment. Thanks to excellent typography, however, it is readable, the charts and tables being especially well handled.

J.R.A.

From the Editorial Board

The North Dakota Quarterly with this issue resumes publication after a lapse of twenty-three years. To signalize this re-birth, the editorial board has adopted a new format, designed to appeal to the general reader as well as to the scholar. In the matter of editorial policy we have, perforce, retained much of the old: the emphasis in the present issue is on articles of State and regional interest written by members of the University staff, creative work being represented by Mr. Cory's anthem and Mr. Murray's literary cartoon. Perhaps our policy should continue to be that of presenting only the research and creative products of the University faculty. However, with the example of other Universities such as Colorado before us, we may discover that a general literary magazine, notably missing in this

region, is of greater significance and appeal in the area as well as throughout the university world. On the other hand, we may be called upon to fill another lack in our State and area, that of a general magazine of popular appeal concerned with our special interests, historical, sociological and recreational, with its pages open to all contributors. The readers of this first issue will find that the tone of the articles tends to be that of a magazine of the second type: the editorial board will welcome comments and suggestions as to what sort of magazine our citizens, alumni and readers would like to have the North Dakota Quarterly become.

Note to our exchange list: There is available a limited number of broken runs of the earlier Quarterly Journal.

Our Contributors

George W. Starcher, formerly Dean of Arts and Sciences at Ohio University, became President of the University of North Dakota in July 1954. Like several of his predecessors who published regularly in the Quarterly Journal, President Starcher has not allowed administrative duties to crowd out his scholarly interests. We expect in an early issue to present some of his work in the field of mathematics.

Richard Beck is Professor of Scandinavian Languages and Literatures and Head of the Department of Modern and Classical Languages in the University. Mr. Beck is a prolific scholar and writer in the field of Scandinavian studies.

Philip B. Cory is Assistant Professor of Music in the University. His musical setting of Psalm I was composed for the inauguration of President Starcher in the Spring of 1955.

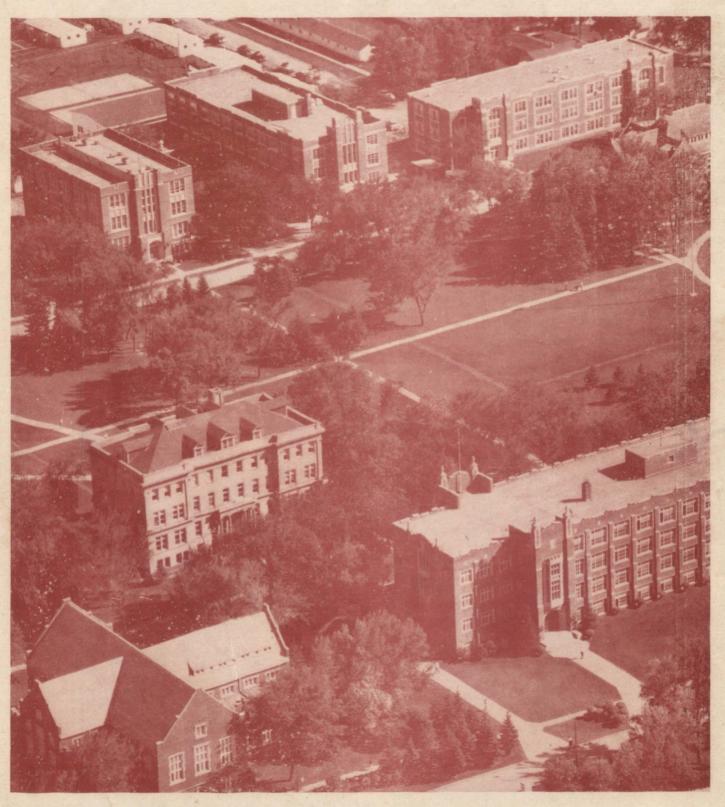
Elwyn B. Robinson is Professor of History in the University and a member of the Board of Directors of the State Historical Society. He is engaged in writing a history of the State.

II. E. Ederstrom, Professor of Physiology in the University, is doing extensive research on the effects of cold weather upon the body. His present article for the general reader is based on some of the results of that research.

Donald Murray, Assistant Professor of English, has published cartoons in Saturday Review and the Army and Navy News. We expect to continue this series in future issues.

The drawings for Mr. Starcher's article were prepared by Mrs. Donald Murray.

Robert P. Wilkins, who reviews *Political Prairie Fire*, is Assistant Professor of History in the University.



Aerial View of University of North Dakota Campus