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Article Summary: Nebraskans searched desperately for significant coal deposits until World War I. Experts tried to discourage these efforts and to refocus attention on developing the agricultural potential of the prairies.

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Photographs / Images: stock certificate for a Nebraska coal mine; Honey Creek Coal Mine, tunnel No. 2, four miles southeast of Peru

WEALTH BENEATH THE PRAIRIE: THE SEARCH FOR COAL IN NEBRASKA

BY ROBERT N. MANLEY

EARLY in the summer of 1858, Lieutenant John H. Dickerson, United States Army, led a party out along the Platte Valley with orders to improve the Omaha-Fort Kearny wagon road. The excursion gave Dickerson an opportunity to observe the country at first-hand—and he was not impressed with what he saw. Although he noticed many “squatters” taking up claims along the Valley, he concluded nonetheless that “the scarcity of timber, stone and coal, and the remoteness of the country from a market other than home consumption will operate against its ever becoming thickly settled.”¹

The fact that within a decade considerable numbers of settlers began to move into Nebraska does not impugn Dickerson as a reliable and honest observer. Other men before him, such as Zebulon Pike and Stephen H. Long,

¹ Quoted in W. Turrentine Jackson, *Wagon Roads West* (Los Angeles, 1952), pp. 133-34.

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regarded the trans-Missouri West as a great desert region incapable of supporting an agricultural society.² What Dickerson and his predecessors could not perceive was that technological advances would in a remarkably short time remove several of the principal barriers to the occupation of the prairies; and none could foresee the extensive promotional campaign which would accompany the opening of the plains after the Civil War. The ubiquitous frontier "boomer," whose propaganda minimized the problems of settlement, played a major role in breaking down public antipathy toward the region. As a result, few of the settlers who moved into Nebraska "acted as though they were moving into a desert."³

Those who "boomed" Nebraska Territory, however, did not have an easy task. But the shrewd propagandist, who realized that one of the principal lures of a new land was prospective mineral wealth, played hard upon the theme that great, untapped riches lay beneath the thick sod. Thomas Jefferson Sutherland, one of the first Nebraska "boomers," argued that mineral deposits existed in the West and urged enterprising men to seize the opportunity for wealth.⁴ Sutherland was particularly interested in finding silver and gold deposits, but he realized that the discovery of coal would also lure settlers and promoters of towns. Sutherland's interest in coal was justified, for those people who contemplated coming to Nebraska recalled that Dickerson and earlier explorers of the plains had repeatedly commented upon the absence of timber and coal. So unconvinced Easterners would ask the obvious question: if we come to Nebraska what do we use for fuel? The "boomers" replied without hesitation—the settler had but to tap the enormous beds of coal which lay beneath the prairie

² Ralph G. Morris, "The Notion of a Great American Desert East of the Rockies," *Mississippi Valley Historical Review*, XIII (September, 1926), pp. 190-200.

³ Donald F. Danker, "Some Social Beginnings in Territorial Nebraska," (unpublished Ph.D. dissertation, Department of History, University of Nebraska, 1955), p. 142.

⁴ James C. Malin, "Thomas Jefferson Sutherland, Nebraska Boomer," *Nebraska History*, XXXIV (September, 1953), pp. 181-82.

sod. As if to substantiate the promoters' appeal, the first settlers who ventured into Nebraska asserted that they had, indeed, found abundant evidence of coal. The speculators' arguments, confirmed by the observations of those on the ground—who unfortunately did not realize that dark-colored rocks, coal-like strata and beds of slate did not in any way prove conclusively the existence of workable beds of coal—produced a situation in which it became almost instinctive for the pioneer Nebraskan “to dream and to dig for coal.”⁵

Political leaders of Nebraska Territory, among whom were many ardent “boomers,” evinced a deep and continuing interest in Nebraska's alleged coal deposits. A report adopted by the upper house of the Territorial Legislature in its first session urged settlers to give their attention to the resources which lay under their feet. “Enough has been ascertained already by the observation and researches of the squatter citizen to satisfy the incredulous, that we have coal enough for empires and to spare,” declared the report.⁶

While it proved easy to whip up intense public interest in coal, it was far more difficult to find the capital necessary to finance exploration and development of the hoped-for coal fields. Since the Territorial treasury suffered from chronic depletion, the legislators of Nebraska repeatedly urged Congress to appropriate funds for a geological survey of their territory. “The time has now arrived,” announced one House memorial, “when a correct knowledge of the agricultural, mechanical and commercial elements of this Territory is of great importance, not only to our own citizens, but to thousands in other parts of this Union and throughout the world who desire homes for themselves

⁵ George L. Miller, “Early Dreams of Coal in Nebraska,” *Proceedings and Collections of the Nebraska State Historical Society*, X (1907), p. 189. For a discussion of some peculiar problems that faced the prairie pioneer see Edward Dale, “Wood and Water: Twin Problems of the Prairie Plains,” *Nebraska History*, XXIX (June, 1948), pp. 87-104.

⁶ *Journal of the Council*, first session (1855), pp. 59-60.

and their children.”⁷ In his message to the second Territorial Legislature, Governor Mark Izard repeated the plea: “Nothing would add more to our permanent prosperity than a complete geological survey of our Territory.” The settlers saw about them unmistakable signs of minerals, Izard said, but the precise nature and extent of these untapped resources could not be ascertained without a comprehensive survey.⁸ In 1858 Governor William A. Richardson summarized the argument with an eloquent plea. “The wealth of the soil,” he declared, “sinks into comparative insignificance when contrasted with that wealth which is hidden beneath it—those vast stores of minerals and coal which underlie the greater portion of the Territory.”⁹

As politicians discussed, reported and memorialized, the coal fever rose precipitously throughout the Territory. In January, 1855, the secretary of the Nebraska Winter Quarters Company, then actively engaged in promoting the development of Florence, announced that coal could be “picked up by the bucketfuls” in the fields near the aspiring town. “Slate, coal blossoms, soil water and everything indicate the existence of that invaluable article,” he said.¹⁰ C. W. Giddings, leader of the Nebraska Settlement Company which founded Table Rock in 1857, made a similar claim for his community. Concerning southeastern Nebraska, where Table Rock had been established, Giddings wrote, “Immense coal fields will soon furnish a profitable investment for capitalists, labor for thousands of people and fuel for millions who are fast filling up the great valley of the West.”¹¹ By 1856 articles about coal “discoveries” appeared regularly in the columns of the *Brownville Advertiser*.¹² In remarkably short order, then, the trumpet-

⁷ *Journal of the House*, first session (1855), pp. 141-42.

⁸ *Messages and Proclamations of the Governors of Nebraska* (Lincoln, 1941), I, 38.

⁹ *Ibid.*, p. 87. See also *Laws . . . of the Legislative Assembly*, sixth session (1860), pp. 220-21.

¹⁰ Danker, *op. cit.*, pp. 74, 79.

¹¹ Donald F. Danker, “C. W. Giddings and the Founding of Table Rock,” *Nebraska History*, XXXIX (March, 1953), p. 39.

¹² *Brownville Advertiser*, August 9, 16, 1856.

ing of "coal prospects" became a standard appeal of the Nebraska "boomer."

The controversy which accompanied Nebraska's admittance to the Union in 1867 momentarily curbed the coal enthusiasm, but with statehood achieved the interest raged again. David Butler, Nebraska's first governor, insisted that one of the immediate tasks of the state government, in conjunction with Federal authorities, must be a thorough geological survey of the State. Since 1854 settlers had been finding evidence of coal. "Present indications are," he concluded, "that coal exists in inexhaustible quantities in Nebraska." And the Governor insisted that every effort must be made to discover workable deposits of coal, for the discovery of workable beds of this superb fuel would obviate "one of the most serious problems encountered by the settlers."¹³ In 1867 Congress responded to Nebraska's plea. Since Nebraska had entered the Union before its share of the annual territorial appropriation had been exhausted, Congress authorized the \$5,000 which remained in Nebraska's account to be expended for a geological survey.¹⁴ Federal officials commissioned Dr. Ferdinand H. Hayden, former medical doctor and army surgeon then teaching geology at the University of Pennsylvania, to conduct the survey. Hayden was instructed to make a "practical survey" whose aim would be to provide answers for the settlers' questions: what kinds of soil existed in the region? what were the possibilities for arboriculture? and, most important, was there coal in the region?¹⁵

Nebraskans received Dr. Hayden with open arms and many groups clamored for his assistance.¹⁶ Citizens of Pawnee City, who had recently formed a coal mining com-

¹³ *House Journal of the State Legislature of Nebraska*, first session (1866), p. 15, and fifth session (1869), p. 16.

¹⁴ Richard A. Bartlett, *Great Surveys of the American West* (Oklahoma City, 1962), pp. 3-10.

¹⁵ *Ibid.*, pp. 10-11. Bartlett implicitly raises the question as to why Westerners reacted so violently to Hayden's labors. Succeeding paragraphs of this article will help provide an answer.

¹⁶ *Nebraska Herald* (Plattsmouth), May 15, June 19, 1867.

pany in anticipation of the coal boom, asked him to locate the best location for their shaft. Hayden, however, refused to be rushed by the "boomers," and he declined to make any "positive statement in favor of the existence of coal at all in their region, or any workable bed in the State." Instead, he suggested that an eight hundred foot exploratory boring be sunk. This would answer the coal question positively.¹⁷ A similar scene transpired in Nebraska City where anxious men, including J. Sterling Morton, awaited his word to start digging. Again Hayden tried to restrain the entrepreneurs from premature activity and unsupported optimism, actions which reportedly infuriated Morton and transformed this influential Nebraskan into an implacable foe of Professor Hayden.¹⁸

Hayden's refusal to commit himself bitterly disappointed the "boomers," who wanted someone who would point out the location of the coal beds, not counsel them against precipitant action. Yet wherever Hayden went he encountered the same unreasoning enthusiasm for coal, and his warnings, such as his statement to leaders of Beatrice that coal would never be found in their locality, went unheeded.¹⁹ These unhappy circumstances led Hayden to remark:

Much time and money have already been spent prospecting and digging for coal in this region, and the almost entire absence of timber would render the presence of coal here a matter of vital importance. I would be glad to find a workable bed of coal for the good people, but it cannot be. The farmers must plant trees, and in a few years the demand for fuel will be supplied.²⁰

Despite the mounting criticism of his work, Hayden understood that the prairie settlers faced a real problem. Since he concluded that coal did not exist in commercial quanti-

¹⁷ *Report of the Commissioner of the General Land Office* (Washington, 1867), p. 23.

¹⁸ Miller, *op. cit.*, p. 190.

¹⁹ Hugh J. Dobbs, *History of Gage County, Nebraska* (Chicago, 1918), p. 132.

²⁰ *Report of the Commissioner of the General Land Office* (Washington, 1867), pp. 118-30; and *Nebraska Herald* (Plattsmouth), May 15, 1867.

ties anywhere on the Great Plains, he urged the Federal government to authorize extensive explorations of the Rocky Mountains in order to locate there, if possible, the coal so urgently required by the settlers. Every effort should be made to relieve their fuel problems.²¹

George Miller, editor of the *Omaha Herald*, studied Hayden's report closely and found that although Hayden had pronounced negatively upon the matter of coal in Nebraska, the scientist had waxed long and eloquent upon the agricultural possibilities of the State. According to Hayden, the possibilities for successful and profitable farming in Nebraska seemed unlimited. From this point Editor Miller, sustained by Hayden's arguments, embarked upon a continuous—if unappreciated—campaign to defend Hayden and to convince Nebraskans of the futility of the search for coal. "Nebraska is an agricultural state, or it is nothing," Miller repeatedly declared.²²

Other State newspapers were not as charitable as the *Herald*. The *Nebraska City News*, for example, rejected Hayden's conclusions and insisted that coal was "abundant and excellent in the state," despite the Professor's views to the contrary.²³ Following the lead of the *News*, Nebraska "boomers" loosed a scathing attack upon Hayden, citing innumerable "irrefutable authorities" who said coal did exist in the State. One self-styled authority announced that new coal discoveries in southeastern Nebraska, made since Hayden's brief sojourn there, had rekindled the optimism of the people. "In Richardson, Johnson, Nemaha, Gage, Otoe, Cass, Sarpy, Saunders and Dodge [counties], the developments so far are that coal in paying quantities does exist," he proclaimed. Particularly promising was a mine

²¹ Ferdinand V. Hayden, "Remarks on the Possibility of a Workable Bed of Coal in Nebraska," *American Journal of Science*, XXXV (1868), pp. 326-30.

²² *Omaha Herald*, August 21, 1867; and Miller, *op. cit.*, p. 190.

²³ *Nebraska City News*, January 11, 1869.

near Pawnee City, whose coal had been pronounced by local blacksmiths as "superior to any they have ever used."²⁴

There was no shortage of optimistic statements. The *Tecumseh Gazette* announced that a mine had been opened in the Nemaha Valley which promised "more and better coal than the most sanguine could have expected."²⁵ Near Plattsmouth, where Julius Silversmith, reportedly a leading Eastern mining engineer, directed operations, another vein of coal was being tapped. While the Plattsmouth *Nebraska Herald* deprecated the wild claims being made about the extent of the strike, Colonel Tichenor, a highly-respected Lincoln businessman and one of the financial backers of the Plattsmouth enterprise, exuded confidence. He told reporters that he was certain he had not been misled by Silversmith and that coal in paying quantities would be found.²⁶

Obviously Hayden's first visit to Nebraska had done little to curtail the activities of the coal enthusiasts. The Professor received a second opportunity in 1870, when Congress authorized him to make a thorough geological survey of Nebraska and the adjacent territories. The Professor had not been forgotten—or forgiven—in Nebraska, as this comment from the *State Journal* would indicate:

The Omaha papers are celebrating the return of Prof. Hayden, the chronic Geological Surveyor of the northwest, from a recent trip westward. We suppose that ponderous reports will be issued at the expense of the government soon in folios, and another useless addition be made to the heavy literature of the nation. Prof. Hayden once surveyed Nebraska, and we never knew a man yet who traveled half as far and knew half as little of the structure and mineral resources of the State as did he. Almost every guess he made as to what existed below the sod of Nebraska has proved an egregious failure.

²⁴ A. F. Harvey, "The State of Nebraska," *Second Annual Report of the State Board of Agriculture* (Lincoln, 1869), p. 60. See also Lewis S. Edwards, *History of Richardson County, Nebraska* (Indianapolis, 1917), p. 207.

²⁵ Quoted in *Daily State Journal* (Lincoln), May 29, 1869.

²⁶ Quoted in *ibid.*, August 21, 1869.

Fortunately, declared the editor, not all scientists were as incapable as Hayden, and his work in Nebraska in no way militated against "the science of geology and minerology." The *State Journal* insisted that the search for coal must continue, but first the Legislature must be persuaded to secure the services of a "competent man who hails from some responsible and reputable seat of learning" to conduct a survey of Nebraska.²⁷

In his second report on the geology of Nebraska, published in 1872, Hayden attempted to portray the coal situation fairly. He acknowledged that settlers near Otoe City had located one thin vein which they were working successfully. Brownville and Aspinwall in Nemaha County also boasted operating mines. At Aspinwall, according to Hayden, the most favorable conditions for commercial operations existed, and here English miners were in the process of sinking a shaft. Another mine had been put into operation near Rulo. While these discoveries had encouraged the settlers to scour every inch of southeastern Nebraska for coal, Hayden remained convinced that their efforts were futile. Borings, put down in this part of the State, revealed only thin veins of inferior coal, leading Hayden to conclude that Nebraska must lay at the extreme edge of "the great coal basin of the West."

Hayden sympathized with the settlers. With fuel so scarce in the country, and as a result almost prohibitive in cost, even a thin vein of poor coal commanded a ready market. Nevertheless, he insisted that Nebraska's coal deposits would never be of major commercial importance. He urged the people to cease their constant search for coal and turn their efforts toward developing the agricultural potential of the land. Coal, if it existed in Nebraska, necessitated deep, shaft mining, an undertaking to be assumed only by well-financed companies directed by expert mining engineers. Nothing but injury to the larger prospects of Nebraska would result from the irrational concern for coal,

²⁷ *Ibid.*, November 16, 1870.

Hayden insisted; and despite criticism and ridicule, he refused to modify his stand. He wrote in this report:

I am obliged to speak the truth as I read it in the great book of nature, whether it is in accordance with the preconceived notions of the inhabitants of a district or not, and I cannot depart from this inexorable law for fear or favor. It is my earnest wish at all times to report that which will be most pleasing to the people of the West, providing there is any foundation for it in nature. When I cannot do so, I shall wait for time to place me right in their estimation.

And Hayden knew that neither facts nor scientific arguments would deter the "boomers," many of whom insisted that the Creator operated under a "law of compensation." Having failed to provide trees for the use of the prairie settlers, these perpetual optimists believed that God must have provided some other fuel supply, in this instance coal. It was a happy theory, but Hayden declared that such a "law" did not exist in Nature, and if it did, "this western country would be a remarkable exception."²⁸

After reading Hayden's latest report, the enraged editor of the *State Journal*, denounced him as a "monument of stolid ignorance or of cold-blooded malice." This editor placed Hayden in the latter category, for he said that Hayden, a few years earlier, had sought the post of state geologist for Nebraska. Having failed to convince the Nebraska Legislature of the need for his services, he had set out to discredit the state through "misrepresentations of the soil and mineral resources." Whatever his motives, Hayden, said the editor, stood revealed as "a first-class charlatan and humbug," whose study of Nebraska was conducted from "livery buggies" which carried him only a few miles from the "comforts of Omaha" and the office of the *Omaha Herald*. The discoveries of extensive coal deposits in southeastern Nebraska, concluded the *State Journal*, shattered completely the "flimsy substance" of Hayden's malevolent

²⁸ Ferdinand V. Hayden, *Final Report of the United States Geological Survey of Nebraska and Portions of the Adjacent Territories* (Washington, 1872), pp. 5-9; and Ferdinand V. Hayden, *Preliminary Report of the U.S. Geological Survey of Wyoming and Portions of Contiguous Territories* (Washington, 1871), pp. 7-8, 100-101.

reports.²⁹ Moreover, there were other "experts" who said that coal existed in Nebraska. "When doctors disagree, the patient had better apply his own remedies," advised this Lincoln writer.³⁰

Many Nebraskans accepted the advice with alacrity and pressed the search. Foremost among those who encouraged the prospectors was Robert W. Furnas, who in 1871 as president of the State Board of Agriculture, issued a cheery report confirming the existence of coal in Nebraska. He based his conclusions upon the observations of the settlers. Coal did exist in Nebraska, he asserted, and the deposits must be found and developed. Otherwise the industrial growth of the State would be retarded.³¹ Furnas touched a responsive chord with this reference to the potential industrial growth of Nebraska, and the *State Journal* immediately echoed Furnas' sentiments:

Successful coal mining in Nebraska will revolutionize the commercial and manufacturing status of every important town within her limits. We shall build our own agricultural implements, put up our own wagons and carriages, construct our own machinery, make our own paper and reduce by a large per cent. the living expenses of every man, woman and child in the community.

Will we let the grass grow under our feet, while we wait for shrewd easterners and capitalists to come forward and reap the cream of the profits from this new and glorious enterprise?

Let us betake ourselves to coal mining at once!³²

This concern for industrial development substantially enlarged the stakes of the game. Farmers, of course, desperately needed cheap fuel; but, in addition, the future of every town in Nebraska depended upon the discovery of coal. As the editor of the *State Journal* pointed out, with steam power assured, Lincoln would become "the best dis-

²⁹ *Daily State Journal* (Lincoln), April 9, 15, 1873.

³⁰ *Ibid.*, November 26, 1873.

³¹ *Third Annual Report of the State Board of Agriculture* (Lincoln, 1871), pp. 21-24. Furnas' report later was reprinted as part of *Nebraska: A Sketch of its History, Resources and Advantages it offers to Settlers* (Nebraska City, 1870), a pamphlet distributed by the State Board of Immigration.

³² *Daily State Journal* (Lincoln), October 23, 1872.

tributing point for agricultural implements, wagons and machinery that can be found in the State.”³³

Having resolved to continue the quest for coal in spite of Hayden’s findings, the leaders of the movement had to face up to the nagging problem of finances. Governor Butler offered one solution, urging the 1871 Legislature to authorize counties to issue “coal bonds” to finance development of mines.³⁴ Two Omaha newspapers, the *Bee* and the *Republican*, thought that State funds should be used for the task. Both insisted, however, that State funds should be used to finance explorations in all parts of the State. No one region should benefit from the expenditure of public funds. Only if the State proved reluctant to assume this responsibility, said the *Bee*, should city and county governments issue bonds.³⁵ Hard-pressed Legislators, however, could find no funds for the purpose. The best they could do was a law, enacted in 1873, which permitted counties to issue bonds to the extent of \$20,000 for the purpose of finding coal.³⁶ But the law was not adequate to the needs of the “boomers.” The experience of Lincoln coal-seekers illustrated the shortcomings of the county bond law. Late in 1872, after a coal “find” had been confirmed near the city, Lincoln businessmen hurriedly formed the Lincoln Coal Mining Company and asked Lancaster County to advance them a loan of \$110,000. The Company offered to give a lien upon its assets to cover the loan, and participants in the venture expected to put up \$100,000 of their own.³⁷ Such ambitious schemes made the State coal bond law appear almost totally inadequate for the problem at hand.

Still the feverish activity continued. Residents of Dunbar found a “fine vein” of coal and in Johnson County

³³ *Ibid.*, April 11, 1873.

³⁴ *Messages and Proclamations*, I, 314.

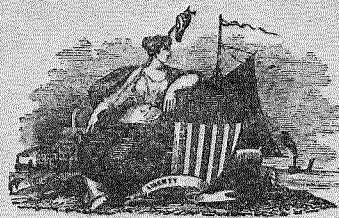
³⁵ *Omaha Bee*, December 19, 1873; *Omaha Republican*, February 5, 1873.

³⁶ *Cobbey's Consolidated Statutes of Nebraska*, Chapter 33, p. 495. The bill became law on March 3, 1873.

³⁷ *Daily State Journal* (Lincoln), October 23, November 14, December 13, 17, 21, 1872.

No 23

HOME COAL MINING
OF
COMPANY, Shares.



NEBRASKA CITY, NEBRASKA.

CAPITAL



\$50,000.

This Certifies, That *J. F. Storker* is
the proprietor of *Five* Shares
of the Capital Stock of the HOME COAL MINING
COMPANY, Transferable only on the Books of said
Company, by the holder hereof, in person or by Attorney,
on the surrender of this Certificate.

Nebraska City, Feb 8 1867

John J. Weston Sec.



J. A. Ware Pres't.

SHARES \$10 EACH

Stock certificate for a Nebraska coal mine.



Honey Creek Coal Mine, tunnel No. 2, four miles southeast of Peru,

residents were asked to vote \$20,000 in bonds to finance a recently-discovered deposit.³⁸ As if to underscore the mighty issues involved, some Seward County promoters announced that they had found a fine vein of coal and a wonderful deposit of limestone in close proximity. Already plans were under way to erect a town, to be named Pittsburgh, and within the next few months stores, churches, schools, and, of course, mills and factories were expected to blossom on the prairie.³⁹

At this point the "boomers" received an invaluable ally. Samuel Aughey, professor of natural science in the University of Nebraska and the State's leading scientific authority, gave his active support to the coal seekers. Speaking before the Legislature in January, 1873, Aughey painted Nebraska's coal prospects in optimistic hues. He was convinced that the Iowa coal veins, recently tapped near Des Moines, extended westward to the Rockies. He concluded that the veins undoubtedly became thicker as they moved west.⁴⁰ Aughey had long suspected that coal existed in Nebraska, for since 1871, when the University opened, he had been deluged with requests to make analyses of "carbonaceous matter" found by settlers in various parts of the State.⁴¹ Many of the samples proved to be high-grade coal. Excited by his laboratory findings, Aughey conducted an on-the-spot examination of southeastern Nebraska where coal was said to exist. After examining a number of outcroppings, Aughey concluded that extensive deposits of coal did exist in that region. He told reporters

³⁸ *Ibid.*, November 26, 1872; April 12, 1873.

³⁹ *Ibid.*, December 17, 1872.

⁴⁰ Samuel Aughey, *The Geology of Nebraska: A Lecture Delivered in the Representative Hall at Lincoln, on Thursday evening, January 30th 1873, before the Senate and House of Representatives by the Unanimous Request of the Legislature* (undated pamphlet), pp. 3-9. The Burlington and Missouri River Railroad financed the printing and publication of Aughey's speech in pamphlet form.

⁴¹ University of Nebraska, *Chancellors Report* (Lincoln, 1874), pp. 29-31. Aughey complained that so much of his time was taken up with these analyses he could not adequately teach his classes. The Chancellor of the University recommended that another man be appointed in the natural sciences to relieve Aughey of some of his classroom duties.

that he had "never been so agreeably surprised by anything in my life." One newspaperman suggested to Aughey that perhaps he had been deceived by local speculators, but the Professor offered to "stake his reputation upon the unvarnished truth of his report." Aughey sought to show the people of Nebraska "that the sources of immense wealth are lying under their feet, at least in some sections of the state."⁴² Charles Gere, the influential editor of the *Lincoln State Journal*, accompanied Aughey on this tour and returned totally convinced "that these coal beds are of the utmost importance to the state." The deposits "can and will be worked at great profit," he said, "and it behooves Lincoln to secure at once a controlling voice in the matter."⁴³

To this point most of the coal excitement had been limited to southeastern Nebraska, but in 1874 northeastern Nebraska also got into the act. In the summer of that year, miners uncovered a vein of coal two and one-half feet thick near Ponca and began to dig. The coal was expected to meet the needs of residents in both Nebraska and South Dakota. The *Yankton Herald* sounded the familiar refrain:

Considering the disadvantages which come from the scarcity of timber upon our prairies [this coal discovery] will be a boon to our economy, both to the people of this city and the farmers upon the prairies. The principal drawback to this country now is the scarcity of fuel, but when it is known that an excellent quality of coal can be brought here at the trifling cost of \$5 per ton, this disadvantage will be regarded as of little consequence. . . .⁴⁴

Announcements of other discoveries in the area followed in quick succession, one very fine site reportedly having been found south of Dacotah City, Nebraska.⁴⁵ But nothing came of this "boom," for, as a matter of fact, the Dixon County prospectors had merely rediscovered a vein of lignite which had first been found in 1857. The lignite could be mined, but it was not a satisfactory fuel since it gave

⁴² *Daily State Journal* (Lincoln), April 8, 17, 1873.

⁴³ *Ibid.*, May 15, 30, 1873.

⁴⁴ Quoted in *ibid.*, July 28, 1874.

⁴⁵ *Omaha Republican*, August 15, 22, December 10, 1874.

off suffocating sulfur fumes when ignited. Disregarding Hayden's statement that the Dixon County coal was not worth bothering with, the settlers in the 1870's started operations again in the lignite vein under the supervision of a "mining expert" from Iowa. This "expert," whose previous experience was limited to wielding a pick in a small Iowa mine, persuaded the people to sink a shaft and start digging. But the efforts were to no avail.⁴⁶

Despite the extravagant claims of the promoters, the disparity between the "boomers'" dreams and actual results was becoming evident to some Nebraskans. Optimistic announcements could not conceal the fact that down to 1875 little actual mining was being done. Only a few small pits were being worked by men with picks and shovels. Before the coal crusade could become something more than a hope, the familiar problems of financial support and an adequate survey had to be solved.

To help locate the elusive coal, State leaders reiterated their well-worn demand for a geological survey of the State. Some newspapers suggested that the State appoint a state geologist and give him responsibility for conducting the exploration and survey.⁴⁷ Addressing the Legislature in January, 1875, newly-elected Governor Silas Garber did not let his desire for economy in government infringe upon his insistent plea that funds be appropriated for a state geologist and a geological survey.⁴⁸ The Legislature did what it could, but grasshopper incursions and drought brought a serious drain upon the State treasury. Nothing could be spared to finance the search for coal, but the legislators did approve a coal bounty law which offered \$4,000 to the person finding a twenty-six inch vein of good quality coal within "paying distance" of the surface.⁴⁹

⁴⁶ William Huse, *The History of Dixon County, Nebraska* (Norfolk, 1896), p. 90.

⁴⁷ *Omaha Republican*, April 12, 1873. The *Omaha Bee*, January 15, 1875, endorsed the idea, so long as a "practical man" rather than an "academic theoretician" was appointed to the post.

⁴⁸ *Messages and Proclamations*, I, 451.

⁴⁹ *Laws of Nebraska* (1875), pp. 156-57.

The inability to secure financial support left its mark upon the coal boom, and it began to diminish noticeably. In 1877 Governor Garber did his best to resuscitate the movement, arguing that "since Professor Hayden's survey . . . there has been a marked advance in geological knowledge." The possibility of finding coal in quantities sufficient to supply the State with cheap fuel, declared Garber, "is alone a consideration that would justify a geological survey."⁵⁰ The *Omaha Republican* seconded Garber's request. Permanent prosperity would never be achieved in Nebraska until cheap fuel had been secured. Every other state in the West had found paying coal deposits. Why not Nebraska?⁵¹

On the other hand, George Miller refused to endorse Garber's proposal. Enough money had already been wasted in this foolish search for coal, declared the editor of the *Omaha Herald*.⁵² Other Nebraskans apparently found their patience wearing thin, and in 1877 a legislator facetiously introduced a bill which limited the number of counties allowed to discover "coal of superior quality" during each calendar year.⁵³ Even the *State Journal*, long an ardent supporter of the coal movement, began to have some second thoughts. In 1878 this newspaper reported the discovery of a mine near Nebraska City and commented, "This makes the 8,649th coal mine that has been found in Otoe County during the past twenty years. Coal will be cheap down there if they discover many more mines."⁵⁴ Then, in 1880, Professor Aughey announced that he had changed his mind about the prospects of coal in Nebraska. Aughey's recantation included this comment:

Thus far no thick workable beds of coal have been found in our carboniferous measures. The question arises whether there is any probability of any valuable beds being found

⁵⁰ *Messages and Proclamations*, I, 468.

⁵¹ *Omaha Republican*, February 11, 1875.

⁵² *Omaha Herald*, January 12, 1877.

⁵³ *Daily State Journal* (Lincoln), February 4, 1877.

⁵⁴ *Ibid.*, August 1, 1878.

anywhere in the state. Truth compels the admission that such a result is uncertain and even doubtful.⁵⁵

Deserted by Professor Aughey, forsaken by the major State newspapers, and neglected by economy-minded legislators, the supporters of the coal boom sustained the optimism of the early 1870's only with difficulty. Interest in coal did not disappear. In the early summer of 1886 a resident of Cedar County asserted that he had found a vein of coal which met the stipulations of the state bounty law and applied for the reward. Governor James Dawes sent Professor L. E. Hicks of the University's Department of Geology to examine the claim. Here unfolds the most interesting aspect of the search for coal, for Hicks, after a visit to the shaft, said that the discovery did not meet the requirements of the law. However, Hicks noted that the applicant's test shaft had tapped an immense flow of water. Perhaps, said Hicks, the discovery of an excellent supply of water would prove more valuable in the long run than a vein of coal.⁵⁶

Hicks continued to investigate shafts and borings in this part of Nebraska, finding in most instances that the diggings tapped an extensive underground water system. In time a hypothesis formed in his mind—he believed that Nebraska lay atop a “vast synclinal trough or basin” down which an immense supply of accumulated water from the Sand Hills, the “great reservoirs of moisture,” moved slowly eastward. One branch of the underground flow appeared to follow the Platte Valley. If this was so, Hicks reasoned, then “this invisible Platte is greater than the visible, and its waters are purer because they have passed through a natural filter composed of miles of sand and gravel.” The implications of the discovery were clear to Hicks, who announced that Nebraska possessed a nearly-inexhaustible supply of underground water.⁵⁷

⁵⁵ Samuel Aughey, *Sketches of the Physical Geography and Geology of Nebraska* (Lincoln, 1880), pp. 165-67. See also *Omaha Herald*, August 20, 1881.

⁵⁶ *Daily State Journal* (Lincoln), June 16, 1886.

⁵⁷ *Ibid.*, August 26, 1886; January 30, 1887; June 29, 1890.

Few appreciated Hick's theory, however, and most Nebraskans continued to lament the fact that their State was widely known as "the state without a mine." To illustrate the disrepute into which the coal search had fallen, in the 1895 session of the Legislature the Republican majority, which refused to appoint Populists to any important committee, did award J. W. Edgerton, a leading Populist, with the post of chairman of the committee on mines and minerals. With no mines and no minerals in the State, Republican wags observed, this "howling Pop" would cause very little trouble.⁵⁸

An air of anti-climax hung over coal activities in the early years of the twentieth century, although in a few communities hope continued to spring eternal. In 1901 Saunders County residents formed a coal mining company, discovered a "rich mine," and applied for the state bounty. The *State Journal* wearily observed, "For the 'steenth' time application has been made for the state reward. . . . So many persons have discovered coal and applied for the state reward that little attention is paid when another discovery is announced." But residents of Saunders County went wild with joy and a momentary rise in land values followed.⁵⁹ In 1906 a Falls City group announced the discovery of coal⁶⁰ And in the same year several men opened the Honey Creek coal mine near Peru. At long last, Nebraska had a mine, since the Honey Creek site contained approximately 200,000 tons of medium grade bituminous coal. It was the single significant strike made during the long, checkered career of the hunt for coal, and the mine's operators collected the only coal bounty paid out by the State.⁶¹

⁵⁸ *The Wealthmakers*, January 4, 1895.

⁵⁹ *Daily State Journal* (Lincoln), October 10, 1901.

⁶⁰ *Ibid.*, January 25, February 17, 1906.

⁶¹ Roy V. Pepperberg, "Coal in Nebraska," *Nebraska Geological Survey*, III, part 10 (1911), pp. 277-307; Erwin H. Barbour, "Report on the Honey Creek Coal Mine," *Nebraska Geological Survey*, II, part 7, (1907), pp. 353-64; and *Daily State Journal* (Lincoln), March 31, 1907; February 19, 1911.

Nevertheless, the end of the "boom" was in sight. Major credit for bringing Nebraskans to their senses must be given to scientists from the University of Nebraska who in the early 1900's began to conduct systematic studies of Nebraska's geology and geography. Professor Erwin H. Barbour, in the first report of the State Geological Survey, described the situation in Nebraska which necessitated the Survey:

Men are daily prospecting for coal in Nebraska in regions where numerous deep wells show positively that coal can not be found, yet they dig away cheerfully. It is just as much the duty of the geologist to inform people how to avoid squandering their money . . . as it is to make valuable resources known. . . . Many a farm has been sacrificed in ambitious attempts to find impossible things in impossible places.

Yet Barbour realized that a negative report concerning coal prospects invariably brought forth the charge that the investigator was the "tool" of the railroads and the coal corporations. The years of incessant propaganda had left their mark, for many Nebraskans accepted as a matter of faith the argument of coal in Nebraska. Consequently, the search continued. Barbour estimated that during the years 1901 and 1902 more than \$100,000 had been spent prospecting for coal in the State. This waste of Nebraska's time and money would continue until people were convinced that coal, in commercial quantities, did not exist.⁶² The Nebraska Geological Survey was gradually able to eradicate the groundless belief in coal, and by the time of the first World War the dreams of coal had vanished.

George Miller had been close to the truth when he declared in 1867 that "Nebraska is an agricultural state, or it is nothing." But for settlers ostensibly oppressed by greedy corporations and grinding monopolies, the fact of Nebraska's limited resources could be accepted only with difficulty. Like all people, in all circumstances, Nebraskans attempted to dream away their environmental limitations.

⁶² Erwin H. Barbour, *First Geological Survey of the State of Nebraska* (Lincoln, 1903), pp. 31-33.

Hence, the continuous, desperate search for coal by men motivated alike by concern for Nebraska's future and their own pocketbooks. Yet this abortive crusade for coal is not without permanent significance. Even though unrecognized at the time, Hick's conclusions concerning Nebraska's subterranean water supply represents one of the most significant developments in the history of Nebraska. By a curious twist of fate pioneer Nebraskans, who set out to find coal, ended up instead with water. Future generations may recognize the value of the discovery, for water may well become one of our nation's most cherished resources, as important to the future inhabitant of Nebraska as was an adequate fuel supply for the pioneer. If Nebraska's underground water does prove of immense value, then the price paid by the frontiersmen for their diligent and unsuccessful hunt for coal will appear cheap indeed.