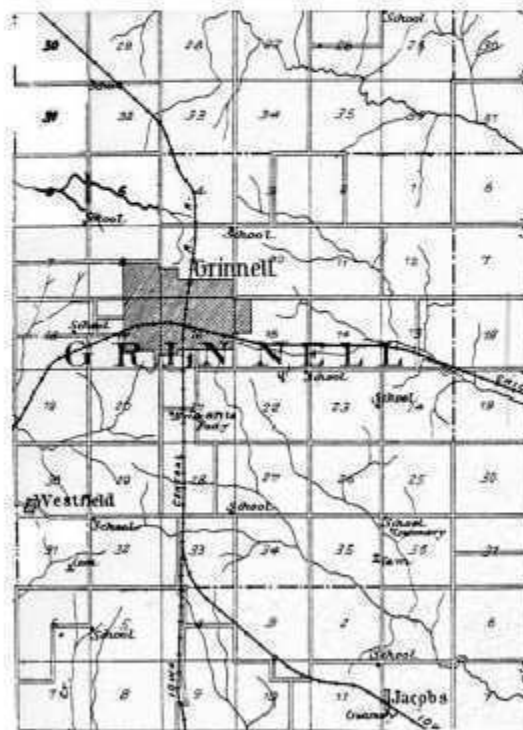


Center for Prairie Studies

Beginner's Field Guide to Grinnell and Its Environs

Revised Edition (2006)



Grinnell College



Center for Prairie Studies

This guide is a publication of the Center for Prairie Studies at Grinnell College, in cooperation with the Admission Office and Office of Community Enhancement. The original information was compiled by Hilary McRtaugh, a 2001 graduate of Grinnell College. Many thanks to the individuals who proofread and contributed to the original and revised editions: Professor Tim Chasson, Tom Lacina, Professor Don Smith, Jackie Hartling Stoltze, and Professor Waldo Walker.

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PREFACE

When I first visited Grinnell as a prospective student I was not impressed with Iowa. My mother and I drove all the way from our home near Washington, D.C. to tour a few liberal arts colleges in the Midwest. I felt exposed driving through vast open spaces and treeless agricultural landscapes. The three-mile approach to town from the interstate paraded past fast food franchises and agricultural implement stores. After looping around the two square blocks of downtown I turned to my mother and asked, "Is this it?"

I couldn't imagine what it would be like to live in such a small town after having grown up in the bustle and congestion of the D.C. metropolitan area. Despite the alienation and remoteness I felt being in such an unfamiliar context, I was won over by my impressions of Grinnell College. The next fall I found myself once again on Interstate 80 heading west as a new student.

Knowing that the town of Grinnell would be my home for the next four years, I hoped that my second impression would be more favorable, that I would somehow feel an intimate connection with this place as soon as I drove into town. But it didn't happen. Initially, everything continued to feel alien and uncomfortable. My love for Iowa and Grinnell was not just there, waiting for me with my dorm room key and course catalogue when I registered as a first year student. However, it grew over the years as I slowly ingested the character of the place.

Through the process of learning about Grinnell and the surrounding area, I developed a deep appreciation for those aspects of the community and landscape that had initially seemed so foreign. After hearing from a few farmers about their jobs working the land and learning where all that grain goes and how it is used, I no longer felt isolated by the vast expanses of corn and soybeans that reach to the horizon. In fact, I started to feel at home in that setting.

Now, after four years of living in Grinnell it is difficult to leave this place to which I have become so attached. The grain elevators, combines, and hay bales that once reminded me how far I was from home now seem familiar and comforting. I wrote this field guide as an attempt to share my appreciation for the land, the people, and the history of Grinnell and the surrounding area. The information provided here is only a very basic introduction to the topics covered. It is my hope that others will use it to begin their own explorations, leading to their own discoveries and insights and achieving a richer and more diverse sense of place. Use it to help you begin your own explorations.

THE STORY OF GRINNELL

A FEW ANECDOTES ABOUT THE TOWN'S FOUNDING AND EARLY DEVELOPMENT

GO WEST, YOUNG MAN, GO WEST!

Grinnell's history begins with the story of an energetic Congregationalist preacher from Vermont and his vision of a hard-working community in the American West based on strong moral convictions. Josiah Bushnell Grinnell had been giving sermons in New York City when he began to lose his voice and had to stop preaching. It was then, Grinnell often recounted, that his friend, the editor of the New York Tribune, Horace Greeley, offered Grinnell the famous advice, "Go West, young man, go West. There is health in the country and room away from our crowds of idlers and imbeciles." This makes an engaging story and has been widely repeated, but unfortunately it is not true. As Joseph F. Wall noted in his history of Grinnell College in the 19th century, Greeley emphatically denied ever making this statement to J.B. Grinnell. In any event, Grinnell began to envision a life in the country, surrounded by a strong community of people sharing the same moral standards as himself. In search of fellow pioneers with whom to establish such a community, J.B. placed advertisements in several New York papers: "How then, should [such] people go West? . . . In companies, with persons of congenial, moral and religious sentiments, embracing mechanics, and pecuniary ability to make the school and the church paramount and attractive institutions from the outset." (Grinnell, 88-89).

ON THE LOCATION OF GRINNELL

Grinnell originally thought he would follow Greeley's advice by moving to Missouri, where his family already owned land. However, after a visit to that region, he found the slave atmosphere to be unsavory and began to search for a new destination. A chance encounter led Grinnell to focus his attention on Iowa. While traveling by train in the South, J.B. ran into a bunch of rowdy men who were cursing the North and its stance against slavery. When the group questioned Grinnell as to his sentiments, he declared his abolitionist philosophies, prompting threats and drawn pistols from the aggressive southerners. At this point

the train conductor called on another passenger, Mr. Henry Farnam, the builder of the Rock Island Railroad line, to calm the situation. Thus began a warm and lasting friendship between the founder of the town of Grinnell and the railroad industrialist. It was Farnam who told Grinnell of his plans to extend the Rock Island through Iowa and suggested that J.B. move there. He introduced Grinnell to an engineer named Beacon who counseled Grinnell on the most appropriate location for his new settlement. Beacon advised that the western part of the state was too rolling, and that the best lands in the eastern section were already purchased. Instead, he suggested Grinnell settle along the forthcoming Rock Island Line at a point where the topography would make possible an intersecting north-south rail line.

With advance knowledge as to the junction of two future railroads, Grinnell advertised for associates in his planned enterprise. Three men responded: Henry M. Hamilton (a young graduate of Case Western Reserve), Doctor Thomas Holyoke (of Searsport, Maine), and Reverend Homer Hamlin (of Wellington, Ohio). In March of 1854 they traveled together by rail, carriage, and foot to Latimer's Grove (later called Westfield, near the present site of the Jacob Krumm Nature Preserve), four miles from the present railroad junction in Grinnell. The late winter season afforded little comfort to the four men who had crossed a great distance to settle the prairie. Grinnell wrote, "the black burnt grass and chill March wind, with not a stone or shrub near, were devoid of attraction" (Grinnell, 93). Grinnell's companions were also less than enthusiastic about this site as the location of their future colony. Both Hamlin and Holyoke argued that it would be difficult to construct homes and buildings on such timber-scarce land. Indeed, Grinnell later recalled his initial view of the sweeping prairie on which their town would be built: "I just discerned the tops of trees north four miles, which the engineer [Beacon] said was only brush" (Grinnell, 93). Hamlin and Holyoke also believed it would be better to settle along a river or at some other spot that might promise to house a future county seat. Alternatively, they urged, a site closer to Des Moines could prove more profitable should that city become the state capital.

However, Grinnell's stubborn and assertive personality saw to it that they maintained their original plan to settle near the future railroad intersection. Thirty years later, one historian wrote glowingly of

Grinnell's foresight, as "the custom had been for settlers to locate in or near the timber which skirts the streams and often covers the breaks and rough land. But the wisdom of Mr. Grinnell is evinced in the fact that he chose the fertile prairie, which for all farming purposes is far superior to any other land" (History of Poweshiek County, 525).

EARLY DEVELOPMENTS

Soon after the land was surveyed, J.B. Grinnell traveled to Iowa City to purchase several hundred acres where the town of Grinnell now stands. Though he was the original titleholder, Grinnell was generous with his property. He set aside one square block for a park (now Central Park, just southwest of downtown Grinnell), and after taking a block on the east side of the park for himself and one on the west side for his friend, Loyal Phelps, he designated lots for a church and a school. Grinnell sold lots to the other early settlers at cost, asking them, however, to make a donation to the "Literary Treasury," which five years later was used toward the securing of Iowa College. The first building erected in Grinnell, known as "the Long Home", stood near what is today Broad Street between Fifth and Sixth Avenues. It was a long low structure with warped green wood that leaked during rains, but nonetheless served as a shelter, dining hall, assembly hall, land office, hospital, and council room for rainy days and Sunday meetings. For a short time, the Long Home was the only habitation of any kind within three miles, housing settlers before they could build homes of their own. One by one the early residents vacated this shoddy structure as they erected lodging of their own, until only a blacksmith shop at one end and stables at the other remained. Though a rather miserable abode, J.B. Grinnell developed affection for it, his first hand-built edifice in this new settlement, recalling, "the vacating of the building was like a departure from an old home" (Grinnell, 100). The second structure erected was Mr. Anor Scott's store, Grinnell's first business, followed soon by a hotel. Next came a primitive building that housed both school and church in a space only 16 feet wide by 24 feet long. By the time the town was incorporated on July 21, 1865 there were not any trees left on the whole town site and settlers had begun purchasing lumber and shipping it in by horse cart, and later by train, in order to build their homes.

JOHN BROWN'S VISIT

On March 29, 1859, J.B. Grinnell answered a knock at his door. There stood a stranger who introduced himself as Mr. Brown, friend of Grinnell's father-in-law.

After meeting over tea with J.B.'s wife and daughter, the man motioned for Grinnell to join him in the hall, and in hushed tones he revealed his identity: "I am not here for a social visit-I am the 'awful Brown' of whom you have heard-Captain John Brown of [the Battle of Pottowotamie,] Kansas" (Grinnell, 210). Brown was leading a group of slaves that he had freed to Canada where they would find freedom from persecution. Brown had heard that Grinnell was in the 'wool business' (a term for abolitionism, as slaves were smuggled by concealment under large shipments of wool) and sought refuge in town. Though a large reward had been posted for their capture and their party of 16 persons and their animals was conspicuous in the open prairie, Grinnell immediately invited the group to stay in his home. He opened his parlor door and declared "this is at your service, and you can occupy the stalls at the barn. Our hotel will be as safe as any place" (quoted in Grinnell, 210). So Brown's party moved in, storing their arms in Grinnell's parlor and their animals in his barn.

Soon news had spread through town of Brown's arrival, and curious neighbors organized an evening reception for their guests in the large town meeting hall that in those early days was also used as a church. That night people gathered from town and surrounding area to meet the famous John Brown and his party freed from slavery. To satisfy the crowd's curiosity and calm their fears about him, Brown related how two of his sons had been killed during their abolitionist struggles and defended his murderous actions in the Battle of Pottowotamie as self defense. When questioned about the story of his current company he explained, "I delivered the poor that cried, and there was none to help . . . My company were to be sold; we saw them in jeopardy, not charged with a crime, to be sent south as cotton hands, or to the cane fields. They called to me and I rescued them" (Grinnell, 212).

There was a final gathering the next evening. Brown spoke with passion against slavery: "Slavery is a crime, and a real lover of his race

and country will put a wall around it” (Grinnell 215). Many prayers were recited for the company from Kansas, and a collection of food and money was taken to support the group on their dangerous travels. Despite the fear among many that Brown’s presence could bring a violent raid upon the town, everyone left the meeting shaking hands and offering blessings. Soon after the meeting broke up, Grinnell received an ominous message by courier from the U.S. Marshal in Iowa City, warning that ““You can see that it will give your town a bad name to have a fight there, and all who aid [Brown and his company] are liable, and there will be an arrest or blood. Get the old Devil [Brown] away to save trouble, for he will be taken, dead or alive”” (Grinnell, 215). Grinnell immediately shared this news with Brown, who refused to leave town out of fear and without a good night’s rest, defiantly replying, “Tell him we are ready to be taken. We will wait one day more for as he promised and when no army of the U.S. Marshall arrived to capture his men, Brown loaded them up and headed off to their next stop, a Quaker settlement in Cedar County. Impressed by Brown’s bravery and passion, Grinnell again risked his own safety to help the group by commissioning a freight car to transport them in secret from West Liberty to Chicago. From there, Brown’s party went on to Virginia and the fateful raid on the federal arsenal at Harper’s Ferry, after which Brown was captured, convicted of treason, and hung. The nation’s reaction to this bloody incident, and the symbol of Brown as a martyr, further polarized the South and the North in their stances on slavery.

A TEETOTALER’S REPUTATION

J.B. Grinnell was a teetotaler. Wishing to hold his community to the same standards of decency as himself, he embedded a temperance provision in the sale of property in town. Every deed contained a stipulation that if liquor were sold on the premises the property would revert to Grinnell. On a couple of occasions this came to pass, and in retrospect Grinnell felt, “it was the knowledge of a young city without a saloon which attracted eminently a class who are the best elements of society” (Grinnell, 97). Indeed, the reputation of J.B.’s new colony as a dry community was one of the factors that drew the trustees of Iowa College to move the school to Grinnell from its original home in Davenport.

THE MOVEMENT OF IOWA COLLEGE TO GRINNELL

Iowa College was opened in 1848 as a preparatory school. By the mid-1850s the strong anti-slavery sentiments of its trustees and its anti-saloon efforts had aggravated both drinkers and pro-slavery Democrats alike in Davenport. Already there was talk of moving the college farther west, to a prairie town that would welcome the school's position on these issues.

After the city of Davenport cut a street through campus on two occasions, the trustees decided to move the college to Grinnell. Several reasons for this move are expressed by one trustee: "The determination manifested by the city authorities to extend Main Street through the college grounds, thereby destroying their integrity, breaking up our cherished plans, and rendering said grounds in our opinion totally unfit for the purposes for which they were designated.... It may also be proper to state that some of the Trustees are in doubt whether a more retired situation await from the noise and confusion and temptations incident to a city would be more favorable to the objects of an Institution of Learning" (quoted in Jones, 12). A professor at the college noted another: "Added to this commercial furor [the building of Main Street through the center of campus to accommodate business in the city] there arose against the college a strong local antipathy for our anti-slavery views and also for our hostility to the traffic in intoxicating liquors" (quoted in Jones, 13).

After the announcement of Iowa College's plan to move, a reporter for the *Davenport Morning News* expressed a very cynical response: "We can't say that we regret their departure from Davenport We are of the opinion that, after [pursuing education in the city's public schools] further progress in the arts and sciences will easily be made by those who really desire knowledge, without undergoing a four years' process in humbugging at a one-horse College, for the sake of getting a disregarded commission in the army of letters, written in a tongue [Greek or Latin] which nine-tenths of the holders cannot read in three weeks after they get them" (Jones, 13).

J.B. Grinnell's colony on the prairie was much more welcoming than Davenport, offering \$40,000 worth of financial assistance and a large plot of land to help the college establish itself in its new home.

During the earliest years the town's settlement, J. B. Grinnell had set aside 160 acres of town lots to be used by a college, and in 1855 he initiated the creation of a literary fund made up of profits from land sales to go towards the creation of a future college. Grinnell proudly believed that this dedication to education helped shape the values and reputation of the community: "the gift of town property to education at Grinnell attracted a class of settlers of intelligence, having families in waiting for the formation of college classes" (Grinnell 327). In the fall of 1861 the community's faithful preparations paid off: Iowa College opened in Grinnell under the new name Grinnell University.

THE COMING OF THE RAILROAD

Though the settlement of the town began with J.B. Grinnell's first purchase of land in 1854, construction of the promised westward extension of the Rock Island Railroad, at that time called the Mississippi and Missouri Railroad, did not reach the town until June of 1863. The north-south extension of the Central Railroad of Iowa finally reached Grinnell in 1869, after much persuasion on the part of J.B. Grinnell. Grinnell himself constructed a third line to connect his city with the Poweshiek County seat in Montezuma.

The arrival of the railroad inaugurated a period of rapid industrial and commercial development in Grinnell. The iron rail brought raw materials necessary for manufacturing and shipped the finished products across the country. By 1880 Grinnell's business district consisted of "2 banks, 3 railroads, 3 hotels, 1 general store, 12 groceries, 2 hardware stores, 4 drug stores, 9 dry goods stores, 6 blacksmith shops, 3 wagon shops, 4 carpenter shops, 2 livery stables, 1 brick yard, 2 book stores, 2 boot and shoe stores, 3 lumber yards, 4 elevators, 3 clothiers, 1 news stand, 2 cabinet stores, 3 jewelry stores, 3 restaurants, 2 bakeries, 3 meat markets, 2 photograph galleries, 2 dentists, 1 cigar store, 3 tailors, 3 telegraph offices, 1 music store, 4 dress-makers, 2 barber shops, 1 semi-weekly paper 1 weekly paper and 1 monthly college paper, 2 barbed wire factories, 1 pork-packing establishment, 1 soda-water factory, 3 millinery stores, 4 sewing machine agencies, 1 creamery, 2 coal dealers, 1 butter and egg packing establishment, 1 glove factory, [and] 4 harness shops" (History of Poweshiek County, 529-530).

Trains also brought passengers, accelerating the settlement of

the Midwest. J.B. Grinnell felt that the railroads promoted positive social development: “the iron rail has . . . invited refined society where before pastoral life was only congenial to a people with nomadic habits. It has . . . promoted the social unity of the people, who have found easy and swift ways of travel” (Grinnell, 297-8).

Twenty-five years after its founding, Grinnell had grown into an attractive and prosperous community. The progress of the town’s development was detailed in a boosterish county history published in 1880: “the large and beautiful homes, the tall and branching shade trees, the substantial business blocks, the churches of stone and wood, the Iowa College, the excellent public schools, the great railroad corporations, the beautiful park, the streets and walks, the business enterprises and wealth, the intelligence and culture of the citizens and the character the town sustains in general, all springing up from the treeless, trackless prairie within the short space of a quarter of a century, have now become the pride and joy, not only of those who reside within its immediate bounds, but of the State at large” (History of Poweshiek County, 523).

THE CYCLONE OF 1882

Just two years after this account of Grinnell’s progress, when the community was enjoying the optimism and enthusiasm afforded by such successful development, a devastating cyclone tore through the town, demolishing everything in its path. On June 17, 1882, the tornado arrived around eight in the evening, entering town from the west and cutting a semi-circular route before exiting in the east and moving on through Malcolm (figure 1). The college’s orator and the Baccalaureate speaker at commencement ceremonies, Reverend David O. Mears, left the following account of the experience:

“The 17th of June 1882, in Grinnell, was a day of terror and of death. All through the sunshine the sky seemed a curtain, above which the intolerable heat could not find a vent. Not a breath of air moved even the topmost leaves of the highest trees . . . The cattle sought the shade of the trees, but panted for breath, as if between them and the sun there was no foliage. They sniffed the air in fear of what men did not see. The birds winged a hurried flight before the storm clouds for safety . . . At eight o’clock, after the sunset, the huge clouds put on their

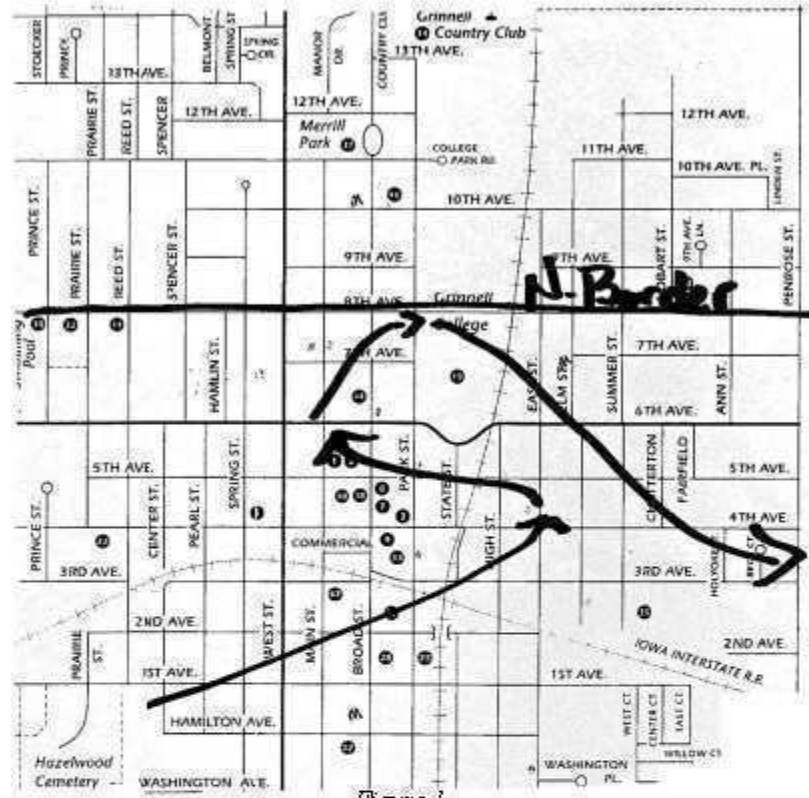


Figure 1

deepest black, as of mourning for what was to come. Following a fierce thunder-gust of rain and a brief, deathly calm, at a quarter past eight the black funnel-shaped cloud was seen making its awful course. Within its sable folds the caged lightnings were at their horrid play. Almost in a moment of time there was the fearful terror of blackness and the deadly roar—and all was still as if the shrill whistling train of death were passed.

“There was only death and ruin left in its track, save where people had hidden in cellars, some of whom were yet prisoners beneath the debris, buildings had been tossed like egg shells from their foundations. Freight trains with many cars had been seized by the fiery hands and tossed off the track. The ponderous locomotive had been lifted

from its standing place as children toss their toys. Trees within its track were twisted from their roots, some one way, and some another, by the electric forces in their havoc and play. The spokes of wheels were twisted from their hubs by a process no man has discovered. Carriages were lifted from the street and lodged in the tops of trees. Human beings were seized by the terrible blast and carried away hundreds of feet, and left among the ruins that had covered from sight the streets and gardens. Huge timbers were driven deep into the earth as no ponderous hammers could drive them. The college building of stone and brick were crumbled under the crunching hand of destruction. For the width of a quarter of a mile, the prostrated ruins were a monument of death. Thirty-two dead bodies were left as its evidences, while nearly a hundred persons more were seriously wounded. Soldiers, who had seen the field after the battle, declared the tornado an avenger even above war itself" (Grinnell, 351-2).

In its wake the cyclone left splintered remains of buildings and the carnage of uprooted trees (figure 2). In the face of this destruction, Grinnell's residents gathered together to rebuild their city. As news of the calamity spread, donations poured in from across the country, totaling over \$150,000 in cash and countless material contributions. New construction began almost immediately on the college campus. The first was



Figure 2

Alumni Hall (completed within six months of the cyclone), followed by Chicago, Blair, and Goodnow Halls. In the residential part of town, private homes were quickly rebuilt, and were said to be of better quality than their predecessors. Every account of this experience reports the strength and spirit with which the community mended itself and residents rallied in support of each other, declaring that "out of what appeared a disaster emerged a better town" (Century of Progress, 17).

THE FIRE OF 1889

Seven years after the cyclone, Grinnell suffered another disaster. On June 12, 1889 a raging fire burned down much of the town's thriving business district. The fire began under the noonday sun in the F.G. Treat & Co. elevator on the Rock Island tracks between Main and Broad Streets, ignited by a spark from the train. Driven by a fierce southwest wind, the fire swept east along Commercial Street. In less than three hours a solid block of the business district—between Broad, Main, Commercial Street, and Fourth Ave—had been leveled. Every building located in this quadrant was completely destroyed, the estimated loss valued at \$130,000. With the steadfast work of fire fighters, the blaze was contained within this block. Had it not been for their efforts, the blaze could easily have jumped Fourth Avenue, quickly consuming the entire business district.

Some Broad Street merchants were able to move portions of their merchandise to the park across the street. After a desperate three hours, the wind changed its course and, coming directly from the west, swept the flames over the unoccupied block of the city park, providing fire fighters with the opportunity to gain control of the blaze. As with the cyclone of seven years earlier, the town's reaction to this loss was immediate, again illustrating the spirit and will of the Grinnell community. Shop owners persevered in the face of ruin, erecting temporary structures in which to sell their salvaged goods until permanent stores were rebuilt. The reconstruction of the business district moved at an astonishingly fast pace, and within six months most of the block between 4th Avenue and Commercial Street had been rebuilt. This immediate reconstruction earned the name "the Phoenix Block" for those buildings on Broad Street between 4th Ave and



Figure 3

Commercial Street, as they had seemingly risen out of the fire's ashes. Much of the business district in downtown Grinnell today dates back to

this time, and looks very similar to how it did in the 1890s. Facades may have been renovated, but most of the original structures remain, and several proudly display their dates of construction.

FURTHER READING

To learn more about Grinnell's early history, consult these sources or visit the Iowa Room in the basement of Burling Library for archives, maps, memoirs, photographs, and diaries.

Grinnell, Josiah Bushnell. Men and Events of Forty Years: Autobiographical Reminiscences of an Active Career from 1850 to 1890. Boston: D. Lothrop Co., 1891.

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AGRICULTURAL BUILDINGS AND EQUIPMENT IN THE IOWA LANDSCAPE

A BASIC INTRODUCTION TO THE PURPOSE AND FUNCTIONING OF MANY OF THE AGRICULTURAL BUILDINGS AND MACHINERY IN THE COUNTRYSIDE NEAR GRINNELL

BARNs OF POWESHIEK AND JASPER COUNTIES

Most people have an idea of what a barn should look like and understand its basic purpose. However, barn styles vary dramatically in different regions of the country and have evolved over time to meet the changing needs of agriculture. What follows is a brief introduction to the kinds of barns one sees in the Grinnell area today.

The wooden barn used to be the economic heart of the midwestern farm. Before the widespread mechanization of agriculture, barns served the needs of the family farm on which a variety of livestock and crops were raised. Barns provided shelter for animals, storage sites for feed and equipment, and efficient processing centers. Such productive activities as farrowing (birthing a litter of pigs), milking cows, and laying eggs took place in one or another barn.

In the second half of the 20th century, however, mechanization, technological innovation, farm policy, and economic forces have driven most farmers to pursue increasingly specialized production. The highly integrated small-scale family farm has given way to larger, single function operations: grain production (corn and soybeans), dairy farms, hog production, and beef production. New structures have been developed to meet the particular needs of each operation. Evolving agricultural demands have made traditional post and beam or plank frame barns—those built to house hay, feed, and livestock—almost obsolete. As farmers specialize their operations, the demands placed on agricultural structures have become increasingly specific. Most of the old wooden barns you see today have either been modified to meet current needs or have fallen into disuse and decay.

TRADITIONAL BARN—PRE WORLD WAR II

The settlement of the prairie states led to the development of several new barn designs and features. Pioneers in the Midwest found the European barn styles, popular in eastern states, unsuited to their needs and, given the relative scarcity of timber on the prairie, impractical. Barn designs in eastern states were brought over by European settlers and were not constructed in response to the particular needs of farmers in that region. Thus the barns erected in Iowa and the other prairie states were among the first domestic innovations in barn architecture.

The first style to gain widespread popularity in the Midwest was the **feeder barn**, or cattle barn, intended to house both hay and cattle. Its distinct size, much larger than barns found in eastern states, developed to accommodate the needs of an innovative farm implement, the hay carrier. The **hay carrier**, invented in 1867 by Iowan William Loudon, revolutionized barn architecture. This device allowed farmers to create much higher mounds of loose hay than they could previously pitch by hand, which in turn freed floor space and encouraged farmers to think of creating interior open spaces to accommodate higher hay mounds and the free movement of the hay carrier.

Designed to store loose hay along the center of the floor, the feeder barn was an economic solution in an environment with relatively few trees as it eliminated the need for heavy timber frames to support a second story hay loft. Cattle were housed along the sides of the hay mounds, and there was often a granary (or structure for storing threshed grain) at one end. Below the peak of the gable roof was often a hay door to facilitate the collection of hay from outside (made possible by Loudon's hay carrier) (figure 4).



Figure 4

The second major innovation of barn architecture in the Midwest was the development of the truss to support a **gambrel roof**. This new roof structure dramatically increased the storage capacity under the roof and allowed for unobstructed movement of the hay carrier. Its architectural design could support a heavily laden hayloft with only lightweight plank lumber. Plank framing replaced the heavy



Figure 5

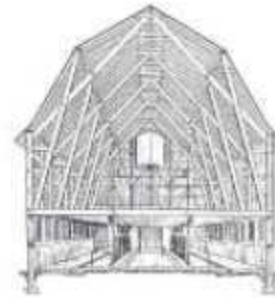


Figure 6

square timbers popular in older barns with lighter and less costly plank lumber. Though truss structures were often modified and experimented with, the gambrel design lasted for several decades due to the appeal of its large storage capacity and structural strength (figures 5 and 6).

During the second decade of the twentieth century a new roof structure gained popularity. The **curved gothic roof**, formed of bent laminated lumber, maximized loft storage capacity by eliminating trusses and making use of curved spaces (figure 7). Though more expensive than previous barns, the parts for a pre-formed arched roof were conveniently available through mail order catalogues. This barn style is less common in Poweshiek and Jasper Counties and was only used by wealthier farmers.



Figure 7

NEW STRUCTURES FOR NEW FUNCTIONS

Agricultural structures constantly change to meet the growing and evolving needs of farming. The barns described above are vestiges of the era of loose hay and integrated agriculture. Today, mechanical hay balers have rendered hay lofts unnecessary because bales can be covered and stored in the field or stored in low flat structures over winter to protect against spoilage. Economic conditions and legislation have led farmers to specialize and consolidate their operations. Fewer and fewer grain farmers own livestock today, and hog, beef, and chicken producers require more efficient structures to accommodate

their ever larger scale of production. In the livestock industry, consolidation has intensified competition, and only the larger producers can sustain themselves because marginal revenue is so low. Thus, hog confinements, which house hundreds of swine under one roof, have



Figure 8

been developed in response to economic forces (figure 8).

Beginning in the 1960's, the increased use of larger farm implements made it difficult to utilize the old barns for machinery storage. The **pole barn**

and the **machine storage** shed were introduced in the 1960s to provide shelter for livestock, and storage for hay and machinery (figure 9). Both utilized the same long low structure and steel siding. Born purely of economic motives, the arrival of the pole barn structure announced a new era in farmstead architecture, one in which aesthetic concerns were put aside and financial considerations became the guiding principle.

Another threat to old barns is the tax code. Farmers are required to pay taxes on all farm buildings, even those buildings that are no longer of any utilitarian value.

Although the kinds of traditional barns described above are still found on many farmsteads in the Grinnell area, many have been razed and most of those that remain have been allowed to deteriorate.



Figure 9

STORAGE FACILITIES

CORN CRIBS

Before the popularization of the combine (a harvester thresher, described in more detail later in this chapter) in the 1950s, corn was harvested by the ear before it had completely dried, necessitating a storage facility that could double as a natural dryer. Any structure with the purpose of storing and drying ear corn is called a corn crib, though such structures take many forms. The most common form in this area is the double corn crib (figure 10). The slatted wooden planks along

the sidewalls and the central alley between the two cribs allowed air to pass through and dry the ears naturally. Once the corn had dried, it was taken out of the cribs to feed to livestock or to shell.



Figure 10

The adaptation of the belt and bucket elevator (the structure and function of which is described later) from mill equipment during the mid-19th century facilitated the storage of threshed grain below the roof of the double corn crib. Overhead granaries such as this allowed for easy emptying of the storage bins by gravity into wagons in the alley below. The presence of a cupola on the roof of a double corn crib sometimes indicates that there is a belt and bucket elevator within. The cupola provides access to the corn cribs and granary from outside with the use of a portable elevator.

Another form of corn crib is the roofed wire-mesh crib formed in the shape of a cylinder (figure 11). These were quite popular during the second quarter of the twentieth century and can still be seen on farms in this area today.



Figure 11

A third corn crib structure, the rounded end concrete tile crib was introduced in the 1940s and '50s (see figure 12). Advantages that concrete



Figure 12

structures had to offer over wooden structures were increased strength, resistance to fire, and fewer problems with rodents. Though the corn cribs of an earlier era remain on nearby farms today, most stand empty, as the picking of eared corn was phased out with the advent of the combine, which shucks and shells corn as it is harvested from the fields.

SILOS

A silo is a tall cylindrical structure in which chopped hay, corn, or oats is stored. Silos have been used to store feed for livestock since 1875 and became especially popular in the 1960's. Silo usage has declined in recent years since many farmers today only raise grain on

their farms, and the crops harvested to be stored in a silo are used for animal feed. A silo that is 20 foot in diameter and 70 feet tall holds about 350 tons of feed.

Crops that are chopped to be stored in a silo utilize the entire plant and are harvested at an earlier stage of maturity than other forms of harvesting. After the silage is put into the silo, a fermentation process takes place for about two weeks. Nitrogen dioxide, a poisonous byproduct of fermentation, collects and remains in any depression or enclosed space. A blower is run in the silo to help circulate air but does not eliminate the danger.

ELEVATORS

The term elevator has several meanings. It can refer to the portable elevator, introduced in the 1890s, which was used to fill on-farm corn cribs or storage bins. This device is a long trough with a continuous moving belt or chain with attached paddles, which stood at an angle and could be raised or lowered to meet the opening into which the grain was dumped. In the 1960's these implements, which can still be seen leaning against abandoned crib structures on old farmsteads (figure 13), were replaced by the augur, which fulfills the same purpose of lifting and transporting grain between containers. Instead of the bucket elevator system, augurs use a large extended rotating screw that floats on a cushion of grain. The term elevator can also refer to similar, but larger, conveyor devices used to transport grain from trucks into much bigger off-farm storage facilities.

These facilities themselves are referred to as grain elevators. Grain elevators have been a feature of the Iowa landscape since the arrival of railroads in the 1860s, and they were nearly always located along railroad lines. Farmers from the surrounding area brought their grain to the local elevator to sell, or for the elevator to store for future use or sale when prices went up. The first elevators were made of wood, which not only sometimes could not support the load of full bins (bursts were not uncommon, and swollen walls often called for emergency reinforcing), but



Figure 13

also were fire hazards, as the flammable wood exterior and dry grain contents were fuel for dramatic fires ignited by sparks from trains. The great blaze of July 1889, which leveled much of Grinnell's business district, began when an elevator along the train tracks caught fire.

The development of concrete grain elevators in the early 20th century marked the beginning of a new era in grain storage. Concrete elevators could hold larger quantities of grain more safely and securely (figure 14). Further increases in crop production in the 20th century, resulting from increasing mechanization of farming, the introduction of the soybean, the development of hybrid corn varieties, and increasing use of chemical fertilizers and pesticides, demanded larger and more numerous storage structures.

In the 1960s, circular steel bins equipped with electric dryers became increasingly popular for off-farm storage. Easy to construct and sturdy, they were a less expensive alternative to the massive concrete elevators, and their curved corrugated steel walls could withstand the pressure of thousands of bushels of grain. The larger steel bins at the Sully Cooperative Exchange elevator in Grinnell (located behind Hy-Vee) have capacities of up to 350,000 bushels (figure 15).



Figure 14



Figure 15

Today, small on-farm bins are often equipped with their own drying equipment, allowing the farmer the option of selling grain dried to the level desired by the elevator. Larger-scale farms are increasingly selling directly to the processing plant, cutting out the middle step of selling grain to the elevator. This trend could lead to the eventual obsolescence of the community grain elevator and, like the old barns, their gradual disappearance from the landscape.

FARM MACHINERY AND IMPLEMENTS

Most of us have been stuck behind a slow-moving piece of farm equipment while driving down the highway, yet few people take the time to examine these machines close up and learn about their various functions. What follows is a basic introduction to the most common implements used by Iowa farmers today.

CULTIVATION IMPLEMENTS

PRIMARY CULTIVATION IMPLEMENTS

Primary cultivation tools are used in conventional tillage (not used in no-till or minimum-till farming) to prepare ground for row crop cultivation, especially after the field has been used for something other than row crops, such as hay. This can be done either in the fall or the spring. Plows send chisels deep into the ground to break up and overturn earth in large chunks. The chisels are followed by a harrow which breaks up and levels off large chunks of earth.

Disks are often used after plowing to further break up clumps of overturned earth, level off the large chunks, and kill weed vegetation not disturbed by the plow (figure 6).



Figure 16

SEEDBED TILLAGE IMPLEMENTS

A wealth of implements are available to assist farmers with the preparation of the seedbed in order to achieve the optimum conditions for sowing and successful germination. The following machines are used to slice and mix surface residue (stalks and other plant debris left behind after the previous season's harvest), root out early weeds, till and level the earth, and incorporate chemical fertilizers and herbicides into the soil. However, some farmers follow a no-till production plan that ignores seedbed preparation in order to save time and reduce topsoil erosion. No-till planting is usually done at a later date than conventional planting as soil warms more slowly when it is not turned.

· **Field Cultivator:** Today farmers can choose from a myriad of options when constructing the most appropriate field cultivator to meet

the demands of their particular production plans. These devices use a combination of hitches with attached sweeps and shovels, disks, and harrows to prepare the seedbed as desired (figure 17).



Figure 17

ROW-CROP CULTIVATION IMPLEMENTS

Cultivation implements are used while crops are growing to break up and aerate hardened soil (thus enhancing moisture absorption), uproot weeds, and incorporate chemicals and nutrients. It was necessary for all farmers to cultivate or hoe their crops before chemicals for weed control were introduced soon after World War II. It became rare for the large-scale farmer to use cultivating implements, since chemical fertilizers and herbicides provided protection against weeds. The use of these implements is much more common among farmers who pursue minimum chemical application or organic methods and try to minimize or avoid the use of chemicals on their crops.

· **Row Crop Cultivator:** Somewhat similar in design to the field cultivator, the row crop cultivator also makes use of hitches, and S-tines of C-shanks with attached sweeps and shovels to break up soil and weed roots. Unlike field cultivators, row crop cultivators often use either shielding or bar-off disks to protect the young plants from damage (figure 18).



Figure 18

· **Rotary Hoe:** This tool looks like a toothed disk and serves to break up crusty soil after a hard rain and prevent young plants from getting clogged under packed earth. The hoe is effective on recently-sprouted weeds and can be used before the row crop cultivator while crops are very young.

PLANTING AND SEEDING IMPLEMENTS

Planters and drills make use of discs to create a shallow trench in the seedbed where the seed is deposited and soil is pressed back

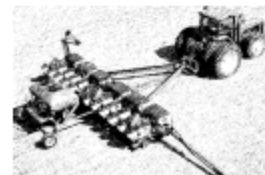


Figure 19

into place over the seed. Some are equipped with sprayers to combine sowing operations with liquid fertilizer, pesticide, and/or herbicide application (figure 19).

HARVESTING IMPLEMENTS

COMBINE

The combine (corn'-bine) is an implement what combines the actions of harvesting and threshing into a single operation. Primitive combines existed even before the turn of the 20th century, but the technology advanced in the 1920s and '30s, and by the late 1950s combines had become virtually essential to profitable grain agriculture due to the tremendous saving in time and energy they afforded.

The combine is perhaps the most daunting machine on the farm today simply due to its sheer size and the speed with which it cuts through fields, consuming stems of mature soybeans or stalks of corn and leaving their shredded remains in its path. The head, positioned out front, cuts fully mature soybean plants near their base and feeds them into the system of internal processing chambers. Only the ear of corn, after being separated from the stalk is fed into this system of chambers. The first of these chambers houses a threshing and separating unit where corn is shelled from the cob, soybean pods removed from the stem, and oats separated from the hull. The grain is then channeled into a cleaning unit while the remainder of the plant is chopped and deposited back onto the field. After the isolated grain is cleaned, it is transferred to a holding tank that can store two or three hundred bushels. When the tank is full, an auger can transfer grain from the combine tank to a grain wagon alongside the combine (figure 20).



Figure 20

MOWERS, CONDITIONERS, HAY RAKES, AND BALERS

Most farmers who own cattle grow alfalfa (or clover on acid soils) to use as hay feed for their animals. During hay cutting season, which occurs two or three times a year (depending on growing condi-

tions), mowers, hay rakes and balers are a common sight in fields and parked near barns. Mowers cut the crop near the base of its stalk and conditioners (often combined into a single mower-conditioner unit) crush the stalk to allow moisture to escape and speed the drying process. The conditioned stalks are then deposited in long swaths approximately 3' -5' wide and left to dry. Hay rakes, with their distinctive tined disks, comb the long piles of hay into manageable windrows.

The hay should be baled as soon as it is dry enough. Loose hay can spoil after it is rained on. In the past, the most popular way to bale hay was in small rectangular bales weighing 50 to 75 pounds. In 1971, Iowa-native Gary Vermeer invented the big round hay baler. Once the hay has dried in the field, which usually takes only a few days, round balers are driven over windrows, combing up hay and feeding it into an internal chamber of moving belts that wind it into a tight round bale within the machine (figure 21). An internal sensor determines when a



Figure 21

bale is complete and automatically opens the compartment, depositing the bale on the field. If you see a field with staggered round bales, they were probably made quite recently, as most farmers move bales to a central storage location like a pole barn or wrap them in a plastic covering to shed rain and prevent spoilage. Both round and rectangular bales are still made, though big round bales, 1,000 to 1,800 pounds, are the more common way of harvesting and storing hay. A more recent development is the large square bale weighing 1,500 to 2,000 pounds. Newer baling machines can create a full bale in a matter of minutes. This efficient process is a vast improvement from the early days when farmers devoted a large portion of time and energy into managing hay manually. Compact hay bales, easy to transport and store, are much

more manageable than loose hay.

* Iowa Farmers have relied on various kinds of machinery since the 1850's, but it was the technological changes of the 20th century, such as the invention and adoption of gas powered tractors and combines, that catalyzed the most dramatic, rapid, and widespread transformation in the kinds of operations pursued and the scale at which farming took place.

ARCHITECTURAL HIGHLIGHTS OF GRINNELL TOWN AND CAMPUS

A BRIEF SURVEY OF 19TH AND 20TH CENTURY ARCHITECTURAL STYLES IN GRINNELL

One can find everything from Victorian and Queen Anne styles popular during the last quarter of the 19th century, to Prairie School and bungalow style domestic architecture from the 1910s and '20s, to modernist buildings of more recent vintage. There are also examples of modified or hybrid architectural styles which combine features of two forms in a single structure. Most buildings from the turn of the 20th century have also been renovated at least once, often including the addition of features not typical of the original style or the removal of features that had become dated and unfashionable. What follows is a list of the principal architectural styles found in Grinnell and the addresses of some buildings in the community illustrative of these styles.

GOTHIC STYLES

GOTHIC REVIVAL

The **Charles H. Spencer House** (figure 22), at 611 Sixth Avenue, was constructed in the late 1860s in the Gothic Revival style popular during that time. Originally located on the corner of Main Street and Sixth Avenue the structure has been moved twice and is now home to the Christian Science Society. With its front gabled roof, steeply-pitched at the top and decorated with elaborate verge boards, and central-arched window beneath the front gable, this building displays many features characteristic of the style in which it was built. Having been well maintained (despite its relocations!), the Spencer House is listed on the National Register of Historic Places.



Figure 22

PERPENDICULAR GOTHIC

Dedicated on May 17, 1907, **Herrick Chapel** (figure 23), located on the east side of Park Street at the intersection with Seventh Avenue, is a fine example of the Perpendicular Gothic style of architecture. Herrick Chapel's design represents a revival with modifications of the style of the medieval gothic cathedral. This style became popular in the United States at the turn of the 20th century and is distinguished by its delicate angular features. Herrick Chapel has several features typical of Perpendicular Gothic design: the large elegant stained glass windows set into the walls, clerestory windows along the side to admit light and contribute to the airy atmosphere within, and the west facing entrance. Herrick Chapel is used for a variety of religious and secular activities by both the college and community.



Figure 23

VICTORIAN STYLES

The Victorian Period in American architecture lasted from 1860 to 1900, and much of Grinnell's rich architectural heritage was built in various styles grouped under the label Victorian.

The last two decades of the 19th century, in particular, was a prosperous time for many Grinnell industrialists and merchants who often built elegant homes in styles derived from the latest European, especially English, architectural fashions.

QUEEN ANNE

Between Main and East Streets there can be found numerous homes built in the Queen Anne style of Victorian architecture, which was popular during the last two decades of the 19th century. The Queen Anne style is inappropriately named. It had little to do with architectural styles during the reign of England's Queen Anne (1702-14). Perhaps the purest, most elegant and best-preserved example is **Marsh House**, at 833 East Street (figure 24). The home is now a bed and breakfast – Marsh House. Built in 1892 by town jeweler E.

A. Marsh, the basic structure and exterior detailing of Marsh House are characteristic of the Queen Anne style. Its steeply pitched hipped roof with lower asymmetrically placed cross gables are typical roof features of this style. The use of classical columns as porch supports, raised to the level of the railing and clustered in groups of two or three, identify Marsh House as belonging to the Free Classical subtype of Queen Anne design. The pediment on the porch roof over the front entry is another typical variation of this style. Among the most distinctive Queen Anne characteristics displayed here are the various devices used to avoid a flat-walled surface: bracketing under second story overhangs, integral recessed porches (a second story porch over the entry and a third story porch under the side gable), shingled wall surfaces, and a polygonal tower embraced between the cross gables.



Figure 24

A modification of the typical Queen Anne style is the **Carney Home**, 1133 Broad Street, (figure 25) which now houses the Carriage House Bed & Breakfast. The Carney Home was built in 1895 by wealthy lumber and coal merchant Bernard J. Carney. Purchased by the college during the 1930s, it served as a men's dormitory for several years. Considered one of the more elegant Victorian mansions in town, it has six bedrooms and a sleeping porch. The third floor was originally the servants' quarters. Its architectural style is a hybrid of Queen Anne and Richardsonian Romanesque, which was popular in the Midwest between 1890 and 1900. This style developed as a reaction to the Gothic and Italianate forms popular in previous decades. The two influencing styles share a preference for towers with conical roofs,



Figure 25

sharply pitched irregular rooflines, and large chimneys. However, pure Richardsonian style is known for its use of heavy rough stone whereas the Queen Anne *form* always used wood. The principal Richardsonian contribution is the use of horizontal lines, which give the building a heavy solid look in

contrast to the tall delicate appearance of most Queen Annes.

Other Queen Anne structures include 1131 Park Street, (Harry Hopkins House, owned by the college and named for a famous Grinnellian, but not his home) 1125 Broad Street, 1313 Main Street, and 1222 Broad Street.

RICHARDSONIAN ROMANESQUE



Figure 26

After the great cyclone of 1882 leveled much of the college campus, **Goodnow Hall** (figure 26) was among four buildings completed during the reconstruction effort. Its three contemporaries—Blair, Chicago, and Alumni Halls—were torn down during the late 1950s & early '60s, leaving Goodnow, dating to 1885, as the oldest existing building on campus. The construction of this massive stone building was funded by a single generous donor, Edward A. Goodnow, a philanthropist from Worcester, Massachusetts. Mr. Goodnow was touched by accounts of the cyclone's destruction relayed to him by the Reverend David O. Mears, his pastor and the baccalaureate speaker at the college's 1882 commencement. During the Rev. Mears's stay in Iowa, he met and fell in love with Mary Grinnell, daughter of Josiah Bushnell Grinnell, after whom the town and college are named. When Mears and Grinnell married later that year, Goodnow donated money for Goodnow Hall which originally housed a library and astronomical observatory (and today the Anthropology Department), and for a women's dormitory—Mary Grinnell Mears Cottage.

Goodnow Hall was designed by Stephen E. Earle, a student of Henry Hobson Richardson, who pioneered a popular Romanesque revival style of architecture called Richardsonian Romanesque. The influences of Earle's instructor are evident in his design of Goodnow Hall. Its distinctive features are all characteristic of the Richardsonian Romanesque style: rough-faced square stone walls (in this case of Sioux quartzite), with wide round topped arches above windows and the entrance porch, and an asymmetrical façade with a tower on one side.

With its characteristic wide arches, polygonal tower, and

asymmetrical façade, **Stewart Library** (figure 27) is another fine example of Richardsonian Romanesque architecture. Built in 1901 of Omaha pressed gray brick with sandstone trim, the original building boasted a slate roof and circular staircase. The frosted glass floor of the mezzanine level is a feature inspired by the Bibliotheque Nationale de France in Paris. When Stewart Library underwent renovations between 1978 and 1980, great care was taken to maintain and restore the original style of the building.



Figure 27

An interesting modification of the pure Richardsonian Romanesque style is the **R.C. Ross Home** (figure 28) at 1114



Figure 28

Broad Street. Built in 1905, the architect borrowed features from Richardsonian Romanesque and American Foursquare styles. Although the exterior is a striking rough red stone-looking material (which is actually tinted concrete!) and has the wide arches and rounded tower characteristic of the Richardsonian Romanesque style, its symmetrical façade with an attractive central entryway are typical features of the American Foursquare style.

Broad Street. Built in 1905, the architect borrowed features from Richardsonian Romanesque and American Foursquare styles. Although the exterior is a striking rough red stone-looking material (which is actually tinted concrete!) and has the wide arches and rounded tower

SHINGLE

The **H. L. Beyer House** (figure 29) at 1414 Broad Street exemplifies the shingle style of Victorian architecture. Built in 1910, it was a late rendition of a style that was most popular on the



Figure 29

northeast coast of the United States during the last two decades of the 19th century. The features of this shingle-style building include an asymmetrical shape with a steeply pitched roof and walls finished with continuous shingles uninterrupted by corner boards. Unlike the other Victorian architectural designs that were popular at the time—Queen Anne and Richardsonian Romanesque—Shingle style avoids decorative detailing and instead seeks to emphasize continuity over an irregularly-shaped surface.

NEOCLASSICAL

Nollen House (figure 30) located at 1121 Park Street, was built in 1903 for David Sutherland Morrison, an heir to one of early Grinnell's most prominent industries, the tanning and glove factory. The house was designed by architect Eugene H. Taylor, a Grinnell College graduate from the class of 1876. Though the style of Nollen House resembles Greek revival, it is far too young to be classified under this style,



Figure 30

which lost popularity by the 1860s. Instead, it dates from the Neoclassical age of architecture, which enjoyed prominence during the first half of the 20th century. Nollen House's full-height entry porch with pediment above and solid ionic columns as supports, boxed eave with square dentils beneath a moderate overhang, and symmetrically balanced doors and windows are all features characteristic of Neoclassical architecture. The college purchased Nollen House in 1937, and the building now houses the offices of the president and academic deans.

PRAIRIE STYLE

The so-called "Prairie School" of architecture, which had its most vigorous proponents and development in Chicago, was born of the philosophy that buildings should reflect the landscape and culture of their surroundings. Architects of this school felt that the European-derived architectural styles popular in the United States during the early decades of the 20th century were inappropriate, especially in a Mid-

western setting, and argued that America should develop its own domestic architecture. The architects associated with this movement designed houses that resonated with their setting. As architectural historian Dixie Legler has written, “With its refreshingly open interiors and strong horizontal lines, the Prairie house clearly evoked the freedom of the limitless Midwestern landscape.”¹

Grinnell is home to several structures that exhibit features characteristic of prairie style architecture. **The Merchants National Bank** building (figure 31) at Fourth Avenue and Broad Street, known as the “Jewel Box,” was designed in 1914 by Louis H. Sullivan, founder of what came to be known as the “Chicago School” of architecture and mentor of several renowned architects, including Frank Lloyd Wright. The building is listed as a National Historic Landmark by the U.S. Department of the Interior and now houses the Grinnell Chamber of Commerce, Imagine Grinnell, and Poweshiek Area Development. Sullivan’s reputation as a leader among Chicago architects was based mainly on his distinctive style of elaborate ornamentation inspired by shapes of plants and natural forms of the Midwest prairie states. By 1910, Sullivan’s work was losing favor in the big cities and he began accepting commissions in small Midwestern towns, including Grinnell. Ironically, this work contributed to his fame after his death in 1924.



Figure 31

Another “Prairie School” building in Grinnell is **B.J. Ricker House**, (figure 32) at 1510 Broad Street. Ricker House was designed in 1911 by Walter Burley Griffin and Marion Mahony Griffin, a husband and wife who were disciples of Sullivan and for a time had been associates of Frank Lloyd Wright. The home was built for the family of B.J. Ricker, a partner in a lucrative glove manufacturing business and a director of the Merchants National Bank. Since its construction in 1911 the house has been exceptionally well maintained and preserved in the tradition of the Prairie School’s designs. Grinnell College



Figure 32

purchased the house in 2000 and uses it for receptions and to house visiting faculty.

Grinnell is thought to be the only site in which buildings by Sullivan and Griffin stand in close proximity to each other.

OTHER BUILDINGS OF ARCHITECTURAL INTEREST/SIGNIFICANCE

The **Spencer Building** (figure 33) located on the northeast corner of Main Street and Fourth Avenue, was constructed in 1884 by the Des Moines architectural firm of Foster and Liebbe. The endeavor was commissioned by H. C. Spencer, cashier at the First National Bank of Grinnell and son of the bank's founder. The original occupants included a clothing store on the ground floor called "Daylight Storeroom," offices on the second floor, and a barbershop and public bath in the basement. Several architectural features reflect a combination of Italianate and Chateausque styles popular in the 1880s, when this building was designed.



Figure 33

The decorative bracketed cornices and tall narrow windows with elaborate crowns above are characteristic of the Italianate form found through the 1880s. The five pinnacles set along the top of the building and triangular gable extension above the second story window on the entrance side are elaborations reminiscent of the Chateausque style which was just gaining popularity in the 1880s.

The **H.W. Spaulding House** (figure 34), at the northwest corner of Main St. and Sixth Avenue, was one of four homes built by the Spaulding family on that block during the last quarter of the 19th



Figure 34

century. H.W. Spaulding arrived in Grinnell in 1876 and opened a blacksmith shop on Main Street between Fourth and Fifth Avenues. Later he built a brick building at the site that is still standing at 914 and 912 Main Street (where Rags to Riches and

Phase II now are). Spaulding became one of Grinnell's most illustrious industrialists as the owner of a carriage manufacturing company that sold vehicles throughout the United States. (See examples at the Grinnell Historical Museum.) In addition to bolstering the community's economy through his manufacturing plant, Spaulding was a trustee of Grinnell College, mayor of Grinnell, president of Citizens National Bank, and senator in the Iowa legislature. He had the home built in 1905. It is still a private residence.



Figure 35

The **Masonic Temple** (figure 35) on Main Street, completed in 1918, represents an eclectic style. The pillared front façade is reminiscent of temple architecture of the Greek revival style, yet the ceramic tiles adorning the pilasters and the sculpted lilies and pomegranates located atop the pilasters seem to anticipate the Art Deco style that became popular several years later. The spheres above the two central pilasters represent the celestial (left) and terrestrial (right) realms, which hold special significance for the Freemasons. The identifying Masonic seal is embedded in the upper wall of the front of the building.

The Chicago firm of Skidmore, Owings, and Merrill (SOM), and more especially Walter Netsch, a partner of the firm, were responsible for three important buildings on the Central Campus of Grinnell College. The College President, Howard Bowen, and Walter Netsch, working with other designers from SOM and with members of the College faculty, began planning **Burling Library** (figure 36) late in 1956. The original plan called for a "three-level Pavilion with single-pane darkened glass on all four sides and an undulating pyramidal roof" (Walker). The plan was subsequently modified to include glass only on the north and south elevations (thus to reduce potential heat



Figure 36

loss during cold weather) and a flat roof.

The building was completed, dedicated, and opened in 1959. By 1975 it had become apparent that the Library was running out of space more rapidly than had been anticipated. In 1980 President George Drake commissioned Ben Weese, of the Chicago firm of Weese, Hickey, and Weese, to implement a plan to renovate and expand the Library. Soon after planning began, it was determined that expanding the Library by going underground would be impracticable because of the height of the underlying water table. Weese then proposed, and the College accepted, building a two-level "penthouse" above the existing upper level of the Library. Weese's recommendation to clad the penthouse in two shades of light gray followed from his study of weather patterns in the Iowa sky during the academic year; in this way he hoped to minimize the disturbance that the penthouse caused to the lines of Netsch's original building. The renovation and expansion were completed late in 1982.

The second SOM building on central campus is the original fine arts building, constructed in 1961 (see below). The third and, to many, the finest of Walter Netsch's designs, is the **Forum** (figure 37). According to Netsch, President Bowen stated that he wanted the College to have, not a traditional student union, but a building in which one "doesn't hang one's intellectual hat at the door upon going in." As was the case with Netsch's earlier buildings on Central Campus, the planning was carried out in close collaboration with members of the faculty. The Forum received its name at the suggestion of Merritt Ludwig, Vice-President of the College and a member of the Planning Committee. It was opened late in 1964.

The Forum well displays the characteristics of Netsch's strongly geometric "field theory." The building utilizes variations in elevation, furnishing, illumination and outlook over the campus in all four directions to create spaces which can support a variety of activities. It is worth noting that, frus-



Figure 37

tiated in his wish have four elevations all in glass in Burling Library. Netsch secured them for the Forum. The building consists of large concrete piers showing the grain of the hemlock forms into which they were cast. In the three big rooms of the upper level the use of wooden ceilings and wooden piers, the latter an eleventh-hour substitution for concrete, generates a sense of warmth not always associated with the customary austerity of Netsch's style. Robert Peters, project architect for the Forum, took a particular interest not only in the design itself, but in the furnishings on the upper level. Except for the tasteful addition of ramps to facilitate access to the building by the disabled, the Forum has remained essentially unchanged from its opening to the present time, enduring evidence of Netsch and Peters's success in developing "an expressive regional architectural style" and in "exploring interior space, fittings, and furnishings in an original and fruitful way" (INTERIORS, December 1968)

Grinnell College's **Bucksbaum Center for the Arts**, (figure 38) located on the north side of Sixth Avenue between Park and East Streets, opened in 1999. Incorporating an earlier fine arts building designed in 1961 by Walter Netsch of Skidmore, Owings, & Merrill in Chicago, the new portion of the building was designed by internationally-acclaimed architect Cesar Pelli. Intended to bring together the town and campus by reaching in both directions, the building serves both the college and community by housing instructional and studio facilities for music, art, and theatre students, as well as performance and exhibition spaces (Sebring-Lewis Recital Hall and the Faulconer Gallery) open to the public. The Bucksbaum Center is among an extensive list of buildings designed by Pelli, including a new terminal at Ronald Reagan Washington National Airport, the Petronas Towers in Kuala Lumpur, the World Financial Center in New York City, and additions to the Museum of Modern Art in New York City.



Figure 38

The **Environmental Education Center (EEC)** (figure 39) is located at Grinnell College's Conard Environmental Research Area ten miles west of Grinnell in Jasper County. The 7500 square foot facility

contains classroom, laboratory, research, greenhouse and support space for classes in field biology, environmental sciences, and non-biology courses. It was designed by Holabird and Root and opened in 2005. The U.S. Green Building Council (USGBC) awarded the EEC a gold rating under the LEED (Leadership in Energy and Environmental Design) Green Building Rating System in recognition of its exceptional level of green design. The building is the first in Iowa to receive the designation.



Figure 39

Built in 2005, Grinnell College's **Athletic and Fitness Center** (figure 40) is located at 1201 10th Avenue. The architectural firms of Cesar Pelli and Associates and Sasaki Associates collaborated on the facility's design. One of the focal points of the Athletic and Fitness Center is the new performance basketball/volleyball gymnasium, carrying forward a storied past that began in the original Darby Gym on Eighth Avenue. Portions of the old gym have been preserved and used in the new athletic center, including the iconic Darby torches, now on interior walls.



Figure 40

Set perpendicular to 10th Avenue to maximize the depth of the site, the building shows two principal faces, each with a cantilevered roof and each dominated by glazed curtain walls that frame the two main access patterns, first for the gym, then for the larger complex behind it. The windows on the ground level of the street face, through which we see one of the walls of the gym, are set in three horizontal

strips stretching the length of ten bays that are articulated on the interior by painted steel columns adjacent to the glass. The primary façade leads north away from the street and is defined by curved glass running about half the length of the building's western flank. The glass in this tall single-story section is twice as high as that on the street, extending from the entrance portal along six bays of broad dimensions, again marked by interior columns.

The facility also includes an auxiliary gym and the 8,000-square-foot Fitness Center, equipped with strength-training and cardio equipment. This northernmost section of the complex is expressed on the exterior of the building's far western block, parallel to the football field, by three stories of glass and two shades of brick, repeating the type of solid wall cladding used to supplement the glass on the 10th Avenue side.

This is Phase I of a multi-phase project. Future phases are expected to include a fieldhouse situated north of the performance gym, and a pool to the west. The entire complex will encompass about 165,000 square feet in a reversed L-shaped configuration, along the east and south sides of the football field between the railroad track and 10th Avenue.

The **Joe Rosenfield '25 Center** (figure 41), completed in 2006, overlooks Central Campus from its location on Eighth Avenue between Park Street and East Street. The architectural firm of Cesar Pelli and Associates designed this modern and expansive facility. The center is named to honor one of Grinnell College's most illustrious alumni, Joseph Rosenfield '25, a businessman and trustee whose abilities as an investor helped secure the College's future.

The 110,000-square-foot Rosenfield Center covers a footprint area of about 46,400 square feet, comprising three above ground stories and a service basement, with a maximum height of 46 feet. Conceived of as the "living room"



Figure 41

for the campus, it is a busy hub of activity for students, faculty, staff, and visitors. This inviting complex provides centralized student dining, a grill open to the public, a fireplace lounge, offices for student activities and staff, and spaces for other social, cultural, educational, and recreational activities.

The exterior elevations are set off by the use especially of Vermont green slate, Mankato Koseta cream stone, various brick blends and glass treatments, and painted steel columns. The courtyard is remarkable for its wave wall, glazed curtain wall, and columns. Of interest is the application to each side of the building of a very different face. The principal view, with entrances on 8th Avenue, consists of multiple sections signaled by a variety of shapes and materials. If one approaches from the west with the prevailing traffic pattern along 8th Avenue, the initial impression of the long southern façade ahead is enhanced by the use of different geometries, massing and materials for the western side of the complex, in turn suggesting its variety of interior spaces and functions.

The view from the Harris Center side, and the north generally, across a broad expanse of open grass shows multiple sections in staggered heights and different materials. At the same time, its length is emphasized by the predominant horizontal of its main rear section clad in brick and highlighted by a central window grouping. Finally, the east façade leads north away from the street and is defined by curved glass running about half the length of the building's western flank. The glass in this tall single-story section is twice as high as that on the street, extending from the entrance portal along six bays of broad dimensions, again marked by interior columns.

Fourteen buildings in Grinnell are listed on the National Park Service's National Register of Historic Places (www.cr.nps.gov/nr/research): Stewart Library, 926 Broad Street, registered in 1976; Merchants National Bank, Fourth Avenue and Broad Street, registered in 1976; Chicago/Rock Island/Pacific Railroad Depot, Third Avenue and State Street, registered in 1976; Spaulding Manufacturing Company, Fourth Avenue and Spring Street, registered in 1979; B.J. Ricker House, 1510 Broad Street, registered in 1978; Goodnow Hall, Grinnell College, registered in 1979; Mears Cottage, Grinnell College, registered in 1979; Levi P. Grinnell House, Grinnell College, 1002 Park

Street, registered in 1979; Charles H. Spencer House (Christian Science Society), 611 Sixth Avenue, registered in 1980; Interior Telephone Company building, 815 Fifth Avenue, registered in 1990; Bowers/McDonald Office building, 816 Commercial Street, registered in 1990; Grinnell Herald Building, 813 Fifth Avenue, registered in 1991; Grinnell Historic Commercial District, Main/Broad/Commercial/Fifth, registered in 1991, and E.A. and Rebecca (Johnson) Marsh House, 833 East Street, registered in 1999.

¹ Dixie Legler, Prairie Style: Houses and Gardens by Frank Lloyd Wright and the Prairie School. New York: Stewart, Tabori, and Chang. 1999.

THAT LONESOME WHISTLE BLOWING: GRINNELL'S RAILROADS

A BRIEF DISCOURSE ON THE IMPACT OF RAIL TRANSPORTATION ON THE MIDWEST, IOWA AND GRINNELL

THE COMING OF THE RAILROAD TO IOWA

Railroads represent the spirit of excitement and optimistic ambition that fueled the settlement and development of the American Midwest and West. A symbol of industrialization, pioneering, communication, transport, and commerce, the arrival of the iron rail allowed people, products, and information to circulate more widely and at a faster pace than ever before. Trains expanded the manageable territory of human civilizations, enabling people to inhabit and build upon previously undeveloped lands. Industrialization west of the Mississippi River was made possible by the railroad, which supplied necessary materials and provided an avenue by which to ship products to market. The large-scale settlement of the Midwest and West was also aided by the arrival of railroads, which not only provided a form of transport, but also actively promoted westward migration.

In the 19th century, railroad companies published guides to the West in order to promote train travel and the development of western lands, as this would increase their passenger customer base and demand for freight services. These guides were filled with nothing but praise for the beauty, fertility, and promise afforded by western lands. One such guide, entitled "How to Go West," provided this flattering image of Iowa:

Blessed by nature with a healthy climate, a very fertile soil, an inexhaustible supply of water and coal, and an abundance of stone and timber for every possible future want, with most of its vast prairie lands already prepared for the plow, while the Mississippi river and railroad connections bring its supplies of lumber to the very door, it has in past years required only railroad connection to

make it one of the most desirable countries in the world. Railroads it now possesses abundantly, and a vast immigration now in pouring is causing the prairie to bloom like a garden (How to Go West, 1872: 22).

Given the source of information, a railroad company based in Chicago, it is not surprising that there is no mention here of the relative shortage of timber, the harsh winters, the impassable mud roads in spring, or any of the other potential burdens a settler in Iowa might face. It was also common practice for railroad companies to buy up large tracts of land in a relatively undeveloped condition in order to resell at a profit to pioneering families. Such enterprises were likewise promoted through guidebooks and other forms of propaganda filled with glowing descriptions of the land, climate, and resources, as well as promises of prosperity. One railroad publication on The State of Iowa made the following boast:

The lands offered for sale by the Iowa Railroad Land Company are located in the best agricultural state in the Union . . . The soil is generally a rich, black loam and vegetable mold, with a subsoil of clay, and is but little affected by either long drought, or continued wet weather. . . The climate is healthful and bracing. . . As a fruiting state, Iowa is destined to take the very front rank. . . Iowa is eminently adapted to [the stock raising] department of agriculture. Cattle, mules, horses, sheep, and hogs thrive remarkably well, and seem to be nearly exempt from all contagious and epidemic diseases. . . Probably no state in the union is in as good a condition, financially, as Iowa. . . No state can offer a better prospect for low taxes in the years to come than Iowa. (The State of Iowa, 1870: 1-13).

The American Midwest was built up around railroads. Some communities were established along already existing railroad lines. Others, including Grinnell, were planned and settled in anticipation of the arrival of a railroad and the prosperity it could bring. Either way,

settlement patterns in the Midwest, and Iowa in particular, were sculpted by the construction of railroads.

During the railroad's peak in Iowa in the 1910s, over 10,000 miles of track criss-crossed the state. With the advent of the automobile era in the early 20th century that number began to fall. The construction of the interstate highway system in the 1950s contributed to a further decline. Today, just over 4,000 miles of track remain in use. In many places, former track bed has been converted into bicycle or multiuse trails.

THE RISE AND DECLINE OF THE RAILROAD IN GRINNELL

For several decades there were three passenger and freight lines that stopped in Grinnell, making the Union Depot at Park Street and Third Avenue a bustling center of activity (figure 42). The Chicago, Rock Island, and Pacific Railroad, operating on the east-west tracks, provided direct service from Chicago to Council Bluffs, with two express trains in each direction daily and over 20 regular passenger and freight trains passing the station every day. The great Rock Island Railroad ran this line for over a decade before going bankrupt in the early 1980s. With the departure of the Rock Island passenger and freight line, Grinnell lost its passenger service, and town activity slowly moved away from the railroad

junction. The Union Depot and adjacent Monroe Hotel (which housed guests and businessmen arriving by rail) had once occupied the heart of town communications, commerce, industry, and society. When passenger service to Grinnell was terminated, the



Figure 42

Depot was abandoned and stood vacant for several years before being renovated for use as the Depot Crossing Restaurant. The Monroe Hotel went out of business and eventually was torn down. The C. R. I. & P.'s section of rail between Chicago and Council Bluffs was

purchased by the Heartland Rail Corporation and is now operated by the Iowa Interstate Railroad.

The Central Railroad of Iowa, which operated on the north-south tracks through town and campus, haul freight and passengers to Oskaloosa, Ottumwa, and points further south, or Marshalltown to the north. Several express and regular passenger trains passed through town daily. The Central Railroad of Iowa later became the Chicago Northwestern Railroad and in 1995 was bought out by Union Pacific, which currently operates the north-south line. At the turn of the twentieth century there also existed a Grinnell-Montezuma railroad for easy access to the county seat, with service twice daily. It was built under personal contract by J.B. Grinnell, who was also the president of the railroad.

THE STATE OF THE RAILROADS IN GRINNELL TODAY

Today the Union Pacific Railroad operates the north-south line through Grinnell, and the Iowa Interstate Railroad runs the east-west line. The Union Pacific Railroad Company is the largest railroad in the United States, operating nearly 34,000 miles of track in 24 states in the western two-thirds of the United States and Mexico. The Union Pacific is also the largest operator in Iowa, servicing 1,752 miles in this state alone, which accounts for only 5.2% of its total mileage.

The Union Pacific line that runs through Grinnell carries mostly farm products—corn kernels heading south to the Cargill processing plant in Eddyville, the southern limit of this section of line, and processed corn products traveling back to a larger UP section yard in Marshalltown (the northern limit of this section), where cars are redirected to their final destination. The other products carried by UP are fertilizer deliveries to the Farm Service company in Grinnell and shipments of plastic resins to the Certain Teed vinyl siding manufacturers in the industrial park.

The Iowa Interstate Railroad (IAIS RR) is also a freight line, hauling farm products, food products, transportation equipment, waste, and scrap products, including scrap metals. A much smaller line than the Union Pacific, the IAIS RR operates only 643 miles, 67% of which is in Iowa. Freight headed east, including the cars of scrap metal

collected at the Berman & Sons scrap metal yard east of town, is destined either for a large junction yard in Iowa City or Davenport (which could then travel as far as Chicago) or a barge port along the Mississippi.

It has become more cost-effective for most farmers to ship their grain to processing plants or elevators by tractor-trailer than by rail (figure 38). This is especially the case for farmers in the Grinnell area, where there are five processing plants for farm products within a roughly 70-mile radius. Grains are only shipped by freight train today when they



Figure 43

need to travel distances of several hundred or thousand miles. Otherwise it is cheaper, faster, and easier to have a truck pick up grain at the farm and deliver directly to the elevator or processing plant. Due to trends in farm consolidation and specialization, it is increasingly common among large-scale farmers to own their own semi-trailer to facilitate grain transport after harvest, which further contributes to the diminishing popularity of rail transport among agricultural producers. Though the railroad will continue to meet a demand for long distance shipping of bulk, heavy goods, their days as the nation's network for commerce, communications, and transportation have passed.

ECONOMIC FOUNDATIONS OF GRINNELL

A BRIEF INTRODUCTION TO THE TWO ECONOMIC SECTORS THAT HAVE BEEN AT THE HEART OF GRINNELL'S DEVELOPMENT—AGRICULTURE AND INDUSTRY

AGRICULTURE

A combination of economic, political, and technological factors have catalyzed sweeping transformations in Iowa's agriculture over the past half-century. The family farm, as it was once known, characterized by diverse, small-scale production for mainly local consumption, has all but given way to larger scale highly specialized and productive operations for major national and international markets. However, despite the pressures imposed by farm policy and markets, some farmers have rejected conventional agriculture in favor of some form of alternative production for a niche market. What follows are profiles of three local farmers who pursue very different forms of agriculture. Eugene Lang's story describes the success of a large-scale grain farmer whose family has been among the first to promote developments in the agricultural industry. Tom Lacina's on-farm soy products business illustrates the benefits of value-added production for a niche health food market. Barney Bahrenfuse demonstrates the possibility of farming successfully while rejecting specialization, reliance on chemicals, and advanced agricultural technology. Each of these farmers has found a way to live and work the land according to his values while maintaining the economic viability of his operation.

EUGENE R. LANG FARMS

Eugene Lang raises corn and soybeans on 1,300 acres just east of Grinnell on Highway 6. Using the latest machinery and technology, Lang exemplifies the successful large-scale farmer. Having lived in a farm family all his life, Lang witnessed and participated in the sweeping changes that have transformed agriculture since 1924. Standing atop his John Deere tractor with attached 24-row planter, Lang recalls the days when sowing operations consisted of a two-row planter pulled by

draft power (figure 44). Since their establishment of a dairy business here, the Lang family has always been among the first to welcome agricultural innovations. Eugene's story, and that of his family, is one of change and progress.



Figure 44

Eugene's great grandfather left his home in Scotland in 1843 to farm in Iowa's rich soil, settling down in the town of Eldridge outside of Davenport. Every generation of the Lang family since then has been involved in agriculture. When Eugene's parents moved to Grinnell from Brooklyn, Iowa in 1933, they opened *Langs Dairy*, which provided milk to central Iowa until 1970. As a child, Eugene learned the benefits of innovation and self-development from his father, a pioneer in the dairy business. In fact, Lang's father introduced the first cardboard milk carton west of the Mississippi River. "That was a major change," Lang said. "My father was good at those".

After serving in the Navy, Eugene took over the family business. In 1977 he began his own family corporation, called *Eugene R Lang Farms*. Soon he re-shaped the farm, dropping the dairy operation and focusing strictly on corn and soybean production. In addition to running the farm, Eugene worked as a sales representative in Pioneer's hybrid seed business for 20 years, served on the Iowa Soybean Promotion board for seven years—during two of which he was president—was a member of the Iowa Corn Growers Association for six years, served four years with the U.S. Meat Export Federation, and ran a John Deere implement business—the *Lang Brothers Equipment Company*—in town from 1990-1998. In all of these endeavors, Eugene promoted the scientific and technological development of agriculture and the expansion of markets for Iowa's major agricultural products. Given his experiences, it is no wonder Lang refers to himself as an "agri-businessman". He thinks the term "farmer" all too often evokes notions of 19th century agriculture of the sort depicted in Grant Wood's *American Gothic*.

Instead of seeing the economic forces that have led farmers to increase farm size, consolidate holdings, and specialize operations as a threat to traditional agriculture, Lang views these changes as signs of

progress. Thanks to improvements in technology, perfection of seed varieties, and the development of pesticides, herbicides, and fertilizers we can produce more bushels per acre than have ever been possible. The introduction of GPS monitoring systems into farm machinery has allowed farmers to achieve a level of precision in planting, fertilizer application, and harvesting that is not possible by the human hand. Lang's enthusiasm for the changes that have taken place in agriculture permeates the whole family. One son works in sales for the John Deere Company, specializing in the South American and European markets. Another son has become a partner in Eugene's farm business. Lang's nephews own and operate two of the largest family owned processing facilities in town—Chief Alfa, Inc. (processing livestock feed from dehydrated alfalfa since 1952) and Natural Products, Inc. (since 1995, a processing facility that manufactures soy flour for sale worldwide).

PULMUONE WILDWOOD

Wanting to establish a family business that produced earth-friendly food products, Tom Lacina and his family started Midwest Harvest in 1998 on the Lacina family farm just north of Grinnell on Highway 146. Together they decided that producing tofu was an obvious way to initiate this endeavor, since soybeans had been raised on the Lacina family farm for years. In the first year of operation the family constructed a tofu manufacturing facility on the farm and began the three-year transition to becoming certified organic. Since that time, the development of the company has been guided by its mission “to nourish human health and well-being through the promotion of dietary and agricultural change.” This mission has taken the company down a road of connections with other like-minded companies—first in 2001 with Wildwood Natural Foods, a California company that had produced organic vegetarian and vegan food products for over 20 years in the San Francisco Bay area—and again in 2004 with Pulmuone, an international natural food company whose founder received an award from the United Nations for his work with organic agriculture in Korea. Tom remains committed to the company as the Executive Vice Presi-

dent of Sales and Marketing and flies around the U.S. and internationally selling healthy products in fulfillment of the mission that began for him on his Grinnell farm. The company owns a new factory south of Grinnell on Highway 146 dedicated to producing cultured soy yogurt and soy yogurt smoothies, and the original tofu factory on the farm has taken on a new life as the “Art Factory” where Tom’s spouse, Alesia Lacina, assists with art programming in connection with Grinnell College and the Grinnell Area Arts Council.

An Example of Value-Added Agriculture

1. Organically grown soybeans are harvested and transferred to steel bins where they can be dried and stored until needed.
2. Beans are soaked overnight. Once softened and enlarged they are mixed with water and put through a machine that separates soymilk (which contains the fat and protein) from the pulp. The pulp can be used as a fertilizer, sold as livestock feed, or made into Bratos.
3. Calcium sulfate, a thickening agent, is added to the milk to catalyze the coagulation process.
4. Once curds of tofu have formed, they are pressed through cheesecloth and put in a pressure chamber to dispose of excess liquid and condense the tofu into solid blocks.
5. The larger tofu blocks are cut into one-pound cakes and immediately placed in a fresh water tank where they soak until ready to be packaged.
6. Once packaged, stacks of tofu are pasteurized to kill bacteria.
7. Orders are assembled, packed, and sent to the cooler where they await delivery.

BARNEY BAHRENFUSE

Barney Bahrenfuse produces naturally raised beef, pork, lamb, and chickens for local consumption. He is one of a dwindling breed of farmers that prefers to keep his operations as straightforward and self-sufficient as possible. Therefore, instead of spending money on industrially processed chemical fertilizers and herbicides, Barney maintains soil nutrients through a rotation of hay, oats, and corn (and occasionally soybeans), and defends against weeds by using cultivation tools like rotary hoes and row crop cultivators. With his practical, do-it-yourself approach to farming, each day poses new and unexpected challenges for Barney: “I love this job because I never know what’s next. I wouldn’t want to be a grain farmer [because of their predictable routine]. If I didn’t have livestock I wouldn’t bother farming.” Barney does not find it necessary to buy the expensive automated machinery available today. Instead, he goes to farm sales and searches the classified ads for old machines and parts. With a little common sense and mechanical know-how, Barney is able to farm with older machinery because many of his methods are conservative and what some would call “old-fashioned.” For example he still picks corn by the ear and shells it after it has dried in cribs, a practice that has nearly disappeared with the advent of the combination harvester-thresher in the late 1950s. Barney also creates many of his own pieces of equipment that are perfectly suited to his production needs. One such device is a travelling feeder house for chickens nearing maturity. A bottomless structure with low walls on four sides and a wire mesh roof, this invention allows chickens to feed on pasture land while remaining in a manageable structure—a way to raise free range chickens and keep the grass short at the same time.

Barney’s farming is as low-tech as possible without being unreasonable or inconvenient. He tries to do as many steps of production himself as he can, and what he is unable to do on farm he contracts out locally. Barney grows most of the grain that he feeds to his livestock; his policy is to try to avoid selling grain if possible, finding ways to consume it on his own farm. He also minimizes livestock purchases by breeding and farrowing his hogs. Barney processes eight-week-old broilers, which he raises on his farm—approximately 120 in each batch

– several times a year. He takes all his livestock destined for human consumption to a locker in the nearby town of Malcom for processing. Barney raises his livestock and crops using the fewest chemicals as practical without getting burdened by the lengthy and demanding process of becoming certified organic. Because most of his customers know Barney personally, they know how he raises his animals and there is no need to bother with certification. However, he is not dogmatic about his adherence to natural growing techniques. Instead, he minimizes the use of chemicals and antibiotics without risking crop or livestock productivity. In line with his practical-natural philosophies, all of Barney’s livestock are free range.

By growing for a niche market of loyal, local consumers willing to pay a little more for high quality naturally-produced meat, Barney has managed to support himself without yielding to the economic forces that dictate all aspects of agricultural production for conventional farmers. According to Barney, conventional markets in agriculture are not true markets any more as they accommodate only the largest scale producers and concentrate power in the hands of the few. Barney’s emphasis on maintaining production and consumption at the local level and on a small scale is in direct opposition to the massive scale consolidation that is currently taking place in the agriculture industry. “I try to stay as far away from large companies as possible,” he says.

The stories of Eugene Lang, the Lacinas, and Barney Bahrenfuse illustrate just three kinds of agriculture practiced by farmers in the Grinnell area. Their approaches are by no means the only kinds of farming techniques. Agriculture is a widely disputed field in which there are countless opinions of which are “the right ways” to farm. The difference in these men’s approaches to farming demonstrates the diversity of perspectives in the field of agriculture today and proves that there are many ways to relate to the land and to agricultural production.

INDUSTRY

It may appear from the vast expanses of cultivated land stretching to the horizon that agriculture is the overwhelming productive force and source of livelihood in the Grinnell area. However, the town owes much of its growth and development to the manufacturing industries that have provided employment, income, and prestige to the community.

A BRIEF OVERVIEW OF THE EARLIEST INDUSTRIES IN GRINNELL

Located at the junction of two railroads, Grinnell was a logical place to set up a new industry in the days when railroads were still the most popular and efficient mode of transport. What follows is a basic description of the most influential manufacturers in Grinnell's early days.

CRAVER, STEELE, & AUSTIN HEADER WORKS

Located on the grounds of the old Spaulding plant (though its existence at that site predated Spaulding's), a large two story wood building housed the manufacturing center for the Randolf Header, an agricultural machine that reaped the heads of grain and passed them into a receptacle. The plant moved to Illinois in the 1890s, creating a brief saturation in the labor market that was quickly absorbed by the expansion of the Spaulding Company later that decade.

GRINNELL BARBED WIRE FACTORY

Managed by Mr. E.J. Rhodes, the Grinnell Barbed Wire Factory was a prosperous industry at its height before being undermined by a Massachusetts trust that patented all existing barbed wire designs and consequently put the plant out of business.

SPAULDING MANUFACTURING COMPANY

This enterprise was born with H. W. Spaulding's arrival in Grinnell in 1876. While running a modest blacksmith and horse-shoeing business on Main St., Spaulding innovated the design of open spring wagons. He began manufacturing buggies and wagons in his blacksmith shop. By 1889, he could not keep up with the work of both manufacturing and selling, so he contracted with the Craver, Steele, and Austin Company to manufacture the vehicles while Spaulding took charge of marketing and sales. He invented a successful marketing technique whereby he would string several buggies together and drive them through the country, offering them for sale to rural customers. This technique became known as the *trailing system*.

When the Carver plant relocated to Illinois in the early 1890s Spaulding bought their facilities and moved his headquarters there.

Shortly thereafter, much of the plant was destroyed by a fire, leading to the construction of an even larger plant with several buildings along the tracks of the Rock Island Railroad (figure 45). The company enjoyed its most profitable period just after the



Figure 45

turn of the century. Between 1903 and 1904 it manufactured over 16,000 buggies. However the automobile age swept in at that time, encouraging Spaulding to manufacture its own assembled automobiles.



Figure 46

However, competition was stiff from larger manufacturers like Ford, which could produce cars at lower costs, and the Spaulding Company went out of business in 1929. The Eggleston Bus Company purchased the physical plant and operated a factory for a short time. Subsequently the buildings were used by a variety of businesses. Today only a few of the original buildings still stand. The smokestack bearing the Spaulding name suffered damage at some point and now reads "aulding" (figure 46). Currently the buildings are being considered for renovation as the

home of an "Iowa Transportation Museum."

MORRISON & RICKER MANUFACTURING COMPANY (ALSO KNOWN AS THE MORRISON & RICKER GLOVE FACTORY)

Upon moving here from New Hampshire in 1855, F.W. Morrison brought to Grinnell his expertise in tanning. By the time of his death in 1876, Morrison was a well-known tanner and manufacturer of harnesses, collars, shoes, and gloves. His son, D.S. Morrison took over the family business, and by 1888 sales reached \$50,000. At the peak of its operation as a leather goods and glove manufacturer, the Morrison Company was struck by the great fire of 1889. The blaze consumed one-third of the company's capital stock, from which it never fully recovered. In 1895 B.J. Ricker became a partner, creating the

Morrison-Ricker Manufacturing Company (figure 47). The company survived for nearly a century before going out of business in 1974. The building stood empty for several years before being renovated by the college in 1999-2000. Today the Old Glove Factory houses the offices of Accounting, Alumni Relations, Human Resources, and the Treasurer.



Figure 47

GRINNELL WASHING MACHINE COMPANY

In 1908 the Thompson brothers moved to Grinnell from Newton, bringing their washing machine business with them. Their choice of Grinnell as an appropriate site for relocation was largely due to efforts of Spaulding and a man named Lyon to raise \$30,000 for investment in the company. The business reached its peak during the 1920s when their best selling Laundry Queen boasted of sales worldwide. In 1937 the company went bankrupt, forcing it to sell off all its capital stock to local businesses and travelling scavenger-buyers.



Figure 48

INDUSTRY TODAY

Manufacturing remains one of Grinnell's strongest economic assets. Today Grinnell is home to 23 manufacturing plants, which

employ a total of 2,333 workers from the Grinnell vicinity. Beyond the benefit of providing employment and income to the town's residents, these factories maintain a high property value, provide the local government with valuable revenue from tax collection, and maintain Grinnell's reputation as a suitable location to house industry. In the late 1970s the Grinnell Chamber of Commerce helped to develop an industrial park south of town along the north-south railroad line (at that time the Missouri and St. Louis, currently the Union Pacific) and Highway 146.

The following industries are currently listed in the Poweshiek County Industrial Manufacturing Directory,* with the date of their establishment in Grinnell.

Ahrens Agricultural Industries Co. (dba Miraco) (1982)
Manufacturer of livestock and pet waterers, and feed bunks

American Cleaning Systems, Inc. (1992)
Manufacturer of truck-mounted steam carpet cleaning systems and cleaning solutions

Ashing Machine & Tool Co. (1986)
Manufactures industrial tools and dies

ASI-Modulex (1985)
Manufacturer and distributor of interior and exterior architectural signage and directories.

Chief Alfa, Inc. (1952)
Manufacturer of feed ingredients for general farming

Delong Sportswear (1956)
Sportswear manufacturer

Donaldson Co., Inc. (1952)
Manufacturer of heavy duty exhaust mufflers

Engineered Plastics Components (EPC) (1994)
Manufacturer of Thermoplastic injection molding

ETC Enterprises, Inc. (1994)
Designing of embroidery

H.W. Brand Equipment (1994)
Manufacturer of tubular steel agricultural equipment

JELD-WEN (1969)
Manufacturer of windows, flush and molded residential door slabs

McGill Air Flow Corporation (1985)
Manufacturer of sheet metal HVAC work

Monsanto (1938)
Seed corn company

Natural Products, Inc. (1995)
Producer of soy flour sold internationally for use in a wide variety of products

Plumone Wildwood (1998)
Producer of soyfoods

RC Industry (1993)
Out sourcing of general labor and just-in-time warehousing

Rock Creek Athletics (1996)
Manufacturer of private label sportswear

Sho-Me Container (1992)
Manufacturer of plastic bottles and caps

** For a copy of this directory, contact Poweshiek Iowa Development at 641-236-1626.*

THINGS TO DO AND SEE

AN INTRODUCTION TO PARKS, CONSERVATION AREAS, MUSEUMS, AND ART GALLERIES IN POWESHIEK AND JASPER COUNTIES

OUTDOOR RECREATIONAL OPPORTUNITIES

Driving through the vast expanses of farmland in the countryside surrounding Grinnell, travelers might imagine that every square inch of land is harnessed for cultivation. However, there are several beautiful parks and conservation areas tucked away in the rolling hills and gravel roads of Poweshiek and neighboring Jasper counties. Listed here are some of our favorite public areas that you might be interested in visiting. For a complete listing of all conservation areas and county public lands, call the Poweshiek County Conservation Board at 641-623-3191 or the Jasper County Conservation Board at 641-792-9780. The brochure, "A Guide to Prairie Sites Near Grinnell, Iowa," published by the Center for Prairie Studies, also contains an extensive list of natural areas with directions to them.

There are many other recreational opportunities at local golf courses, swimming pools, and many other places. For more information on these, please visit these websites: <http://www.padiowa.org/tourism.html> or www.visitNewton.com/recreation.html.

POWESHIEK COUNTY

· *Barclay Timber* is a 40-acre wildlife area which offers hunting. It is located north of the Brooklyn area on V18.

· *Cecil Rivers Timber* is a 44-acre county conservation area on which you can fish from the stream and hunt in the forest. Located on a gravel road four miles south and four miles east of Grinnell, it is easily accessible by car or bicycle. *Take Highway 146 south four miles from its intersection with Highway 6 in Grinnell. Turn left (east) on a gravel road, Cecil Rivers Timber will be on your right, four miles from 146.*

- ***Deep River Timber*** contains 144 acres of forested land through which there is a network of hiking and equestrian trails. It is located north of Deep River on Hwy 21.

- ***Diamond Lake***, on Hwy 63 west of Montezuma is a 546-acre park with camping, restrooms, and picnicking facilities. Canoe on the 98-acre lake or explore the extensive hiking and equestrian trails that wind around the lake. *Take Hwy 146 south to F5. Go east (left) on F57 for approximately six miles. Diamond Lake is on the north side of F57.*

- ***Fleming Woods*** is an upland woodland plant community dominated by oak and hickory with basswood and maple in lower areas. It has an abundance of wildflowers. Facilities for this preserve include a hiking trail. For more information contact the Poweshiek County Conservation Board, Box 666, Montezuma, IA 50171, 515/623-3191. *Take Hwy 6 east to Hwy 63. Go south of 63 to Montezuma. Take F57 west 3 miles. Turn south on gravel for about 0.75 miles. Turn east 0.75 miles to preserve on north side of road.*

- ***Fox Forest Area***, on Hwy 63 west of Montezuma, boasts 501 acres of preserved land on which you can hike over a network of trails. *Take Hwy 146 south to F57. Go east (left) on F57 for approximately six miles. Fox Forest is on the south side of F57.*

- ***Grinnell City Parks***
 - ****Ahrens Park and Facilities***; Penrose and 10th Avenue
 - ****Arbor Lake*** at the end of Washington Ave. in southwest Grinnell has a network of paths that leads around a scenic pond and through a wooded area. Fitness stations are found at intervals along the main path. A great place to bring your bike or take a walk. *Take Highway 146 south from Highway 6, turn right on Washington Avenue (you will see a brown sign indicating where to turn), which will take you to the north entrance of the park.*
 - ****Baily Park***; Eighth & Prince
 - ****Central Park***; Fourth & Broad
 - ****Jaycee Park***; Third & Summer

- * *Jim Miller Park*; East Street
- * *Lake Nyanza Park*; South East Street
- * *Lions Park*; Sunset and Eighth Avenue
- * *Merrill Park*; Eleventh Avenue & Hwy 146

· *Lincoln Wildlife Area* is a 36-acre timber area with 15 acres of planted prairie managed by the Poweshiek CCB. Take Hwy 146 south to I-80. Travel east for 14 miles to Hwy 21. Turn south (right) on Hwy 21 for 4 miles to F46. It is on the NW corner of this intersection.

· *Millgrove Access* offers 245 acres for hunting, fishing, and relaxing. This recreation area is tucked away on a gravel road seven and a half miles southeast of Searsboro. Take Hwy 146 south through Searsboro, continuing east and then south. Millgrove is located off Hwy 146 and River Street, and is well marked with signs.

· *Robertson's Access* is an 8-acre acre area that offers stream fishing and hunting. It adjoins 35 acres managed by the Mashasa County Conservation Board.

· *The Grinnell Area Recreation Trail (GART)* beginning north of Grinnell High School at the west end of 4th Ave. and two miles west to the county line and, by Fall 2003 will connect Grinnell with Rock Creek State Park, a total distance of nearly 13 miles.

JASPER COUNTY

· *Ashton Wildwood Park* features a .5-mile self-interpretive nature trail. The trail, covered with wood chips, can be used for hiking, environmental education and nature observation. (641) 792-9780. The park is located 7 miles west of Baxter on F17.

· *Agnes Patterson Park* offers a hike and bike trail which is 1.25 miles in length with eight-foot wide concrete paths. It encompasses the entire park and features both hills and flat terrain. www.newtongov.org. It is located at 3000 N. 4th Ave. E. Newton, Iowa 50208

· ***Chichaqua Valley Recreation Trail*** is an abandoned railroad right-of-way that has been converted to a 21-mile paved recreation trail from Baxter through Ira, Mingo, and Valeria, terminating near Bondurant in Polk County. Picnic shelters, rest stops, parking facilities, and trail access points are located in each town through which the trail passes (except for Valeria). *Take I-80 west to exit 159. Go east (right) on F48 for less than 1 mile, then north (left) on S52 about 4 miles until the paved road ends at a T intersection. Take 223 east (right) to Baxter (about 1 mile) and look for signs for the trail.*

· ***Conard Environmental Research Area (CERA)***, owned by Grinnell College and used as a biology field research station, is a 365-acre reserve that maintains a varied ecosystem, including prairie, woodlands, and a pond. *Take I-80 west from Grinnell to Exit 173. Go north on Hwy 224 and take the first gravel road (S 12 Ave E) on the right. Follow east about 1.5 miles to the main entrance.*

· ***Jacob Krumm Nature Preserve*** is a 450-acre county park and nature preserve with a 25-acre lake, four ponds, a stream, wetlands, and an extensive network of trails for hiking, biking and cross-country skiing. The park offers restrooms, picnicking facilities, and a drinking water supply. Located 5 miles southwest of Grinnell on, Krumm is the perfect destination for an afternoon bike ride. *Take Hwy 146 south from Hwy 6. Just before the entrance to the Super 8 Motel, turn right (west) on a gravel road (410th Ave). Follow approximately 3 miles, the first entrance will be on your right.*

· ***Mariposa Conservation Park*** is located 6 miles north of Newton. Mariposa is a wonderful place to fish, camp, picnic, and enjoy wildlife. Mariposa has buffalo, ducks and geese for visitors to enjoy. No electrical hookups. 7286 N. 67th Ave. E. Kellogg, IA (641) 526-3172

· ***Neal Smith National Wildlife Refuge*** is the largest tallgrass prairie reconstruction project in the United States. The Wildlife Refuge came into being in 1990 after Congress authorized the purchase of 8,654 acres of land (the site nearly became a nuclear energy plant!) to

be devoted to increasing biodiversity and reconstructing tallgrass prairie and savanna habitats. To date, approximately 5,000 acres have been purchased. The five miles of walking and hiking trails and auto-tours afford views of grazing bison herds, elk, pheasants, badgers, white-tailed deer, and over 200 types of native prairie flowers and grasses. The refuge also has an excellent visitor's center which contains a wealth of information about the tallgrass prairie. For more information, contact the Neal Smith National Wildlife Refuge by calling (515) 994-3400 or e-mailing buffalo@tallgrass.org. *Go west on I-80 past Newton to Colfax exit. Go south (left) on Hwy 117 to Prairie City. On the Southwest Corner of Prairie is a paved entry road at the Hwy 163 Interchange. Follow signs to the Prairie Learning Center.*

· ***Rock Creek State Park***, located seven miles west of Grinnell, boasts 1,213 acres of parkland with an extensive network of trails for hiking, biking, horseback riding, and winter sports. The 602-acre lake is ideal for canoeing, kayaking, sailing, fishing, and other water sports. The park also provides picnic, camping, and boat access facilities, as well as restrooms and drinking water. In the winter, the parks trails and lake become an appropriate setting for ice fishing, snowmobiling, cross-country skiing, and ice-skating. *Take Hwy 146 north, turn left (west) on Eleventh Avenue, which becomes County Road F27 (you will pass Grinnell High School on your left) follow this road out of Grinnell until you reach a blacktop intersection. Go north (right) on T38 a very short way, take your first left (west) on F27, follow approximately 3 miles until you reach the park. An entrance will be on your left before you cross the lake.*

· ***Reichelt Unit of Stephen's State Forest*** was donated to the state by Sherman Reichelt in 1986. The grounds of his old farmstead have been re-forested or turned over to prairie reconstruction projects. Despite its location one mile east of Kellogg on heavily trafficked Highway 6, this natural area does not receive many visitors because of its lack of trails or facilities. It is an ideal destination for anyone desiring peace and solitude in a natural setting. *From the intersection of Hwy 6 and Hwy 146, go west on Hwy 6 for 9.5 miles to a driveway on the south (left) side. A small sign is posted at this entrance point.*

CULTURAL OPPORTUNITIES

· **Falconer Gallery in the Bucksbaum Center for the Arts**, on the Grinnell College campus, presents temporary exhibitions of Midwestern, national and international art. The Gallery is open year-round, and exhibitions change every few months. The Gallery is open during the school year Sunday through Wednesday 12 -5, and Thursday through Saturday 10 to 8. Hours vary during the summer and over college breaks. For more information on exhibitions, programs and hours call 641-269-4660 or visit www.grinnell.edu/falconergallery.

· **Grinnell Community Art Gallery**, located on the second floor of the Community Center at 927 Fourth Avenue, has exhibitions of work by local artists. Gallery hours are Monday – Friday afternoons from 3:00-5:30 pm. from September to May. Phone: 641-236-2620. Website: <http://www.grinnellarts.org/gallery>.

· **Grinnell Historical Museum**. This collection is housed in the stately Victorian era McMurray House at 1125 Broad Street (figure 49). Superbly maintained, this 1895 building is an appropriate context in which to display the artifacts of old Grinnell. The informative displays that fill the house remain true to the original style and function of each room. In addition to the material displays, the museum preserves many forms of historical and genealogical information about former residents of this and nearby communities. From scrapbooks to plat records to cemetery listings, the archive room of the museum is packed with fascinating information about the lives of Grinnell's inhabitants. Summer hours: Tuesday-Sunday afternoons. Academic year: Saturday afternoons or by appointment.



Figure 49

· ***Jasper County Historical Museum***, Newton, located just off of Interstate 80 at exit 164 contains an agricultural exhibit, Indian diorama, theater, quilt area, sewing exhibit, Victorian home interior display, a special Maytag exhibit to commemorate the industry that has contributed centrally to Newton's economy since the turn of the century, and models of a used furniture store, 1930s home interior, school, church, general store, barbershop, post office, and blacksmith shop. Open daily from 1 to 4:30 pm between May 1 and October 1. There is a small admission fee.

· ***Kellogg Historical Society Museum*** on High Street in Kellogg contains a delightful collection of artifacts and historical documents. Tour the seven buildings to get a flavor of town and farm life in this area a century ago. The main brick building, with its colorful mural of historic Kellogg, was built in 1909 as a hotel to accommodate travelers arriving by rail. The main level of this building is composed of a library and several rooms featuring displays of the old post office, doctor's office, barber and beauty shops, and military memorabilia. Upstairs, there are seven rooms depicting a kitchen, laundry, sewing room, dining room-living room, and bedroom of past eras. The agricultural building houses agricultural tools and implements of an earlier era. The Bethel Country Church building, built in 1877, has all its original furniture and fixtures and can be used for weddings. The Midwest-One Minute Factories and Kellogg Savings Bank Museum commemorates the washing machine industry that sustained Kellogg families for years. The Rock Creek Country School houses everything you might have seen in a country school. The Open Faced Machine Shed and Blacksmith Shop display farm implements and blacksmith tools. Hours are weekdays 9:00 am - 4:00 pm. Open Sundays 1:30 pm - 5:00 pm. For more information, call (641)-526-3430 or visit our website:

<http://www.usgennet.org/usa/ia/county/jasper1/museums/kellogg/>

· ***Living History Farms***, Urbandale, (west suburban Des Moines) demonstrates how past generations lived and farmed in Iowa. Five historical sites on over 600 acres provide a contextual tour of the dramatic changes that have taken place in lifestyles and farming opera-

tions over the past three centuries. The 1700 Ioway Indian Village demonstrates how Iowa's first farmers lived. The 1850 pioneer farm shows how Iowa's earliest settlers of European descent farmed with oxen and lived out of a small log cabin. The 1875 town of Walnut Creek recreates the activity and excitement of a frontier community full of promise, with craftsmen and merchants in 6 shops along the town's main street. Inhabitants of the 1900 Farm live in a white frame farmhouse and work the land with horsepower. The Henry A Wallace Crop Center tells the story of 20th century agricultural advancements in a new multimedia theater. For more information or directions to Living History Farms, call 515-278-5286, or visit their web site at <http://www.lhf.org/>

· ***Poweshiek County Genealogical Society*** at 206 North Mill Street in Montezuma is home to an extensive set (often complete) of superbly organized records of all kinds, including marriage, birth, death, land, war, probates, naturalization, anniversaries, obituaries, census, funeral home, scrap books, family histories, cemetery indexes, school, church, and DAR records. Open Monday, Thursday, and Saturday from 9:00 am-4:00 pm. 641-623-3322; <http://showcase.netins.net/web/powshk/>

· ***Wagaman Mill***, Lynnville, (figure 50) is one of the few remaining mills in Iowa that can still operate with waterpower. The mill was built along the North Skunk River in 1845-46 by John Sparks and was purchased by the Wagaman family in 1898.

The Wagamans operated the mill for three generations producing flour for the local community. Today the building houses the Lynnville historical society and its exhibits of old mill and agricultural equipment.



Figure 50

Other Cultural Sites Within An Hour of Grinnell College

- Amana Heritage Museum
4310 220th Trail; Amana, IA 52203
319-622-3567; <http://www.amanaheritage.org/>

- Brucemore Mansion
2160 Linden Drive SE; Cedar Rapids, Iowa 52403
319-362-1004 or 1-800-729-4781; <http://www.brucemore.org/>

- Brunnier Art Museum
290 Scheman Building; Iowa State University
Ames, IA 50011-1110
515-294-3342
<http://www.museums.iastate.edu/Tests/BrunnierTEST.htm>

- Cedar Rapids Museum of Art
Cedar Rapids, IA
319-366-7503; <http://www.crma.org>

- Des Moines Art Center
4700 Grand Avenue; Des Moines, Iowa 50312-2399
515- 277-4405; <http://www.desmoinesartcenter.org/>

- Des Moines Botanical Center
909 East River Drive; Des Moines, IA
515-323-6290; <http://www.desmoinesbotanicalcenter.com/>

- Matthew Edel Blacksmith's Shop
Haverhill, Marshall County, Iowa
515-752-6664
http://www.iowahistory.org/sites/edel_blacksmith/edel_blacksmith.html

- Meskwaki Tribal Offices, Sac and Fox Settlement,
West of Tama on Hwy 30
641-484-4678

- Pella Historical Village
507 Franklin Street; Pella, IA 50219
641-628-4311, <http://www.pellatulptime.com/historical-village/>
- State Historical Society
State of Iowa Historical Building
600 East Locust; Des Moines, IA 50319-0290
515-281-5111; <http://www.iowahistory.org/>
- Terrace Hill Governor's Mansion
2300 Grand Avenue; Des Moines, IA 50319
515-281-3604; <http://www.terracehill.org/>
- The National Czech & Slovak Museum & Library
30 – 16th Avenue SW; Cedar Rapids, IA 52404-5904
319-362-8500; <http://www.ncsml.org/>

University of Iowa Museums

- Museum of Natural History
10 Macbride Hall
Iowa City, IA 52242
(319) 335-0480; <http://www.uiowa.edu/~nathist/>
- The University of Iowa Museum of Art
150 North Riverside Drive
100 Museum of Art
Iowa City, Iowa 52242-1789
(319) 335-1727; <http://www.uiowa.edu/uima/>
- University of Iowa Health Care Medical Museum
<http://www.uihealthcare.com/depts/medmuseum/hours.html>

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Hilary Mertaugh graduated from Grinnell College in 2001 with a degree in Anthropology and Global Development Studies. Her interests in economic justice and community development led her to work with Save the Children in Bolivia, UNICEF in Turkey, the Self-Employed Women's Association in India, and a rural community action agency in Vermont. Though she grew up in northern Virginia and has worked in various contexts, Iowa is the only place Hilary ever truly felt at home.



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