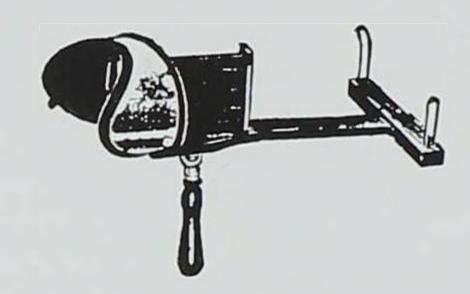
Stereographs and Lantern Slides Along the Lincoln Highway



Classroom Views of Iowa in the 1930s and 1940s

by Paul C. Juhl

owa had been flirting with fall for several weeks when, on a warm October day in 1935, B. Lloyd Singley crossed the Mississippi River to enter Clinton, Iowa. Singley, a photographer, his face tanned and tired, had nearly com-



PHOTO COURTESY OF STUDIO 3D

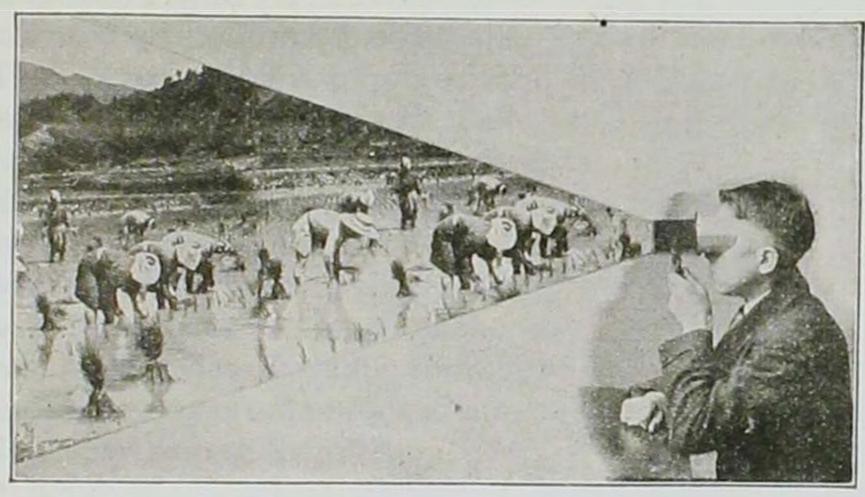
pleted the halfway point of a journey from the Atlantic to the Pacific. Weeks on the road had taken their toll. The journey that had started in New York City would end over 3,300 miles away in San Francisco. Singley was following and photographing what was then officially U.S. Highway 30 as it wound through the state of Iowa. Many Iowans still referred to the highway by its previous name, the famous "Lincoln Highway," the first transcontinental highway across America.

At age 71, Singley (left) was

a successful man but not a young man; his death was just a few years away. He was president of the Keystone View Company located in Meadville, Pennsylvania. Founded by Singley in 1892, Keystone had risen to be the largest stereograph company in the United States. Singley was also one of several photographers for his company. This trip across America was to be his last major trip as a photographer. As his career was winding down, so was the age of stereoscopes and stereographs, replaced by radio and talking movies. But Singley had lived in the shadow of this famous highway for most of his life and he believed there was still a market for stereograph views that took the viewer across a continent. He would title the finished series of 100 views "The Lincoln Highway."

At the end of the 19th century, nearly every middle- and upper-class American home had a collection of stereographs. These cardboard rectangles with two nearly identical photographs were inserted into a stereoscope, an unusual-looking device with two lenses and a hood to keep out light. The twin photos and dual lenses added depth to the image. Looking through the stereoscope, viewers were

"Pictures Speak a Universal Language"



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The child learns through experience.

To provide adequate experiences for the child during his school life is the problem of the modern educator.

Keystone Stereographs and Lantern Slides, fully indexed to meet school needs, provide these necessary experiences.

There is a Keystone Representative in your district who is a trained and experienced educator. He will be glad to demonstrate Keystone material.

Write Today.

KEYSTONE VIEW COMPANY, Inc.

MEADVILLE, PENNA.

Keystone has purchased the Stereoscopic and Lantern Slide Department of Underwood & Underwood

A March 1924 advertisement in Midland Schools, a magazine of the Iowa State Teachers Association, touts the advantages of using stereographs and lantern slides in the classroom.

amazed at the way the three-dimensional image seemed to "jump" out at them. The views were much more lifelike than a regular flat photograph.

Stereographs or, as some called them, stereo views were a part of American life for decades. Most of the earliest stereo cards had been created by local photographers of local scenes. In Iowa more than 400 men and women photographers made and sold stereos during the 1870s and 1880s. Iowans sought, from their local photographer, views of their homes and farms, their new downtown business buildings and rural nature scenes. Iowa families spent countless evenings at home looking at the views and enjoying their stereograph collections.

With the advent of the Kodak camera in the 1890s, people became less interested in local views made in the stereoscopic format. Now local images—"snapshots"—could be made by anyone who purchased the relatively inexpensive cameras. But there was still a need to see national and international places and events,

to which the stereographic format added depth and drama. Three large national stereograph companies (B. W. Kilburn, Underwood and Underwood, and H. C. White) soon dominated the market. Their photographers searched the world for views that were out of the reach for most Kodak-toting Americans. Without ever leaving their homes, viewers could "travel" through the stereoscope to exotic places like India, Africa, and the South Seas and witness thrilling scenes that most would never see in person.

In 1892, Singley's new company, Keystone View Company, entered the market. In less than a decade it surpassed the "big three" and became the largest manufacturer of stereo views. The company sent photographers all over the world in search of stereographs for the American consumer. By 1923, Keystone had bought out all of its competitors and in the 1920s and '30s was the only U.S. company producing the views.

Keystone's market, however, had shifted from the

KEYSTONE GEOGRAPHY UNITS

Stereographs and Lantern Slides

UNIT SEVENTEEN

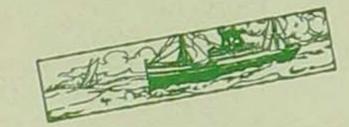
FROM OMAHA EAST

ON THE

LINCOLN HIGHWAY

by

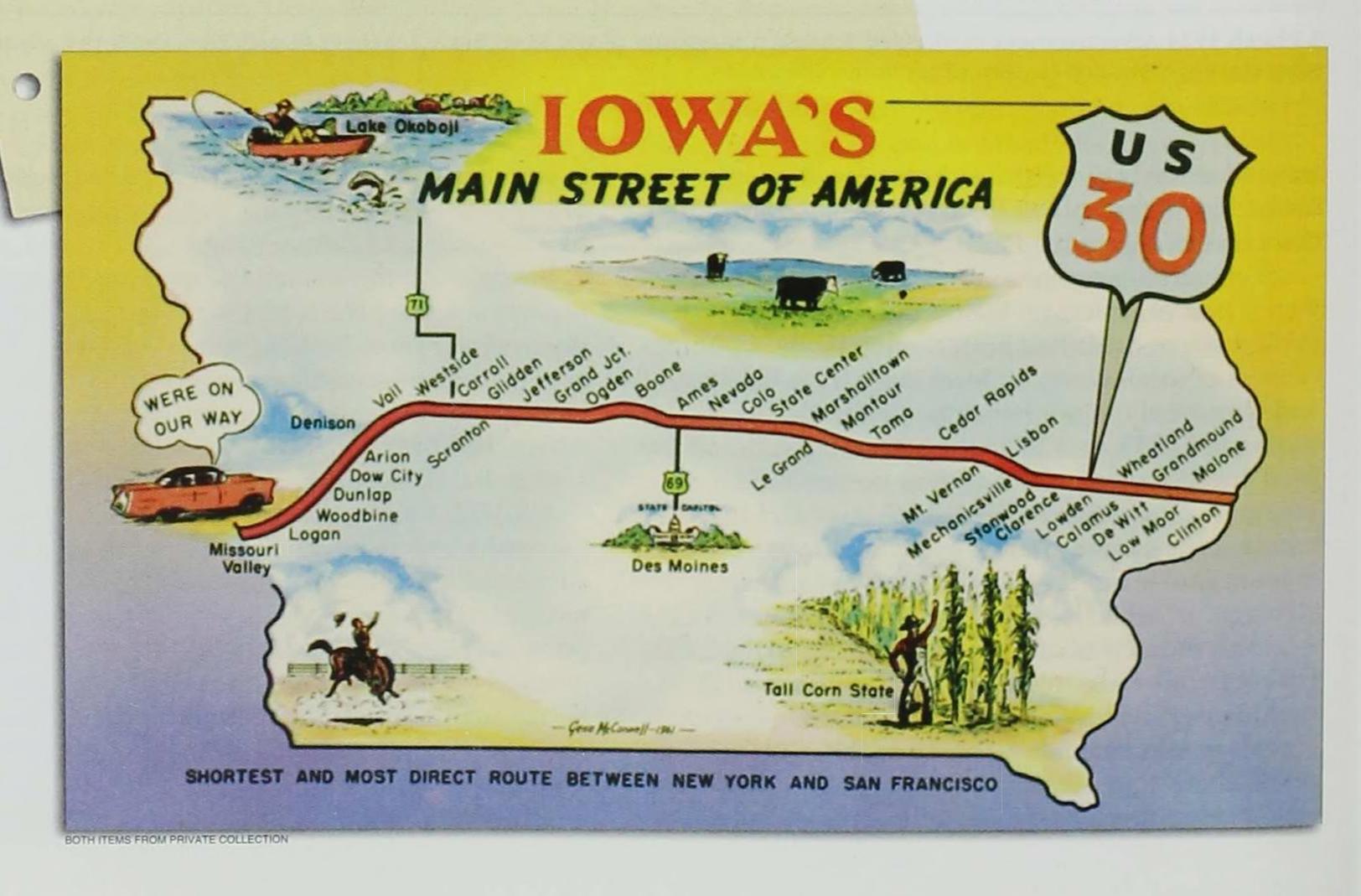
Zoe A. Thralls



Keystone View Company Meadville, Penna. American household to schools and libraries. Series of stereographs in boxed sets of 100 featured tours of regions or industries, national sites, or even a "Tour of the World." Keystone advertisements claimed that every school district in cities of 50,000 or more had Keystone stereographs and slides available for their schools. In 1926, the company advertised through Midland Schools magazine, published in Des Moines, for "Three Teachers. Men under thirty-five who can be away from home to sell visual education to individuals. Excellent opportunity for summer or permanent connection. Write Keystone View Co.[in] Meadville, Pa."

Stereo images complemented other audio-visual aids that were making their first appearances in

A 1942 Keystone teacher's guide conveys the Lincoln Highway through social studies concepts. The postcard distills the highway to towns and tourism. Note the 1950s car on the left.



American schools, such as 16-millimeter motion pictures, filmstrips, photographs, prints, and records. Social studies and geography classrooms came alive, Singley believed, with the added third dimension of stereoscope viewing. Teachers concurred. Two educators from Iowa State Teachers College in Cedar Falls wrote in *Methods of Teaching in Town and Rural Schools* (1942) that the stereograph "gives pupils the feeling of reality as they look through the stereoscope at the three-dimensional views. The stereoscope is not expensive and the views are plentiful. Often only one picture is needed to make clear the size of the redwood trees or the height of the Rockies. The 'blinders' on the frame make it easy to imagine that one is on the location looking directly at the objects in the picture."

Keystone also produced glass lantern slides of the same images (though they lacked the three-dimensional depth of a stereograph). One of the twin photos was reproduced on a glass side; some were then color tinted by hand, making the image especially vivid. The slide was inserted into a slide projector as a light source and projected onto a screen or wall so that several students could view it at the same time.

Lesson plans and worksheets accompanied the series of stereographs or lantern slides. Zoe A. Thralls, a noted educator and writer, created two teacher's guides (one for the western United States and one for the eastern). In the Keystone Geography Units manual, Thralls spelled out goals and objectives for the classroom teacher as she began to teach the unit (elementary teacher's guides at the time usually used the feminine pronoun). Emphasizing regional differences, the unit provided a beginning understanding of the size of the nation, its "variety of surfaces and scenery . . . and human activities [and their relation] to the natural conditions." The objective was to stimulate students to learn more.

For fourth graders and beginning fifth graders, the series would be introductory, an "imaginary" and "scenic trip" across the nation, requiring five or six days and using pictures, maps, and class discussion. At the end of fifth grade, the series served as a "summary and review of a fifth-grade study of the United States. . . . The pictures along the Highway should be used as a point of departure for discussion of the geography of each section."

The teacher's manual also explained why the Lincoln Highway series portrayed the sweep of the United States, quoting someone who had said, "Aside from being a delightful method of travel from coast to coast, a trip over this great road furnishes a true picture of America. It traverses the great industrial

centers of the East, the richest producing areas of the Middle West, and the scenic wonders and playgrounds of the West. It gives the traveler a glimpse of practically every phase of American Life."

he hometown of Keystone, in Meadville, was just a hundred or so miles north of the Lincoln Highway as it wound through western Pennsylvania. Since 1913, Americans had been hearing about this first coast-to-coast route in the nation. Some called it "America's Main Street." In Iowa, several communities along the route changed street names (such as Lincoln Way in Ames) to honor the highway and to lure highway travelers to their communities' auto repair shops, tourist camps, hotels, and restaurants. In the earliest years, the Lincoln Highway was actually an east-west network of existing roads. Over time, road improvements were made on the local level, including grading and paving. Trips prior to 1920 across its route of often muddy gravel and dirt roads took the traveler 60 to 90 days, but Singley, on the improved road conditions of the 1930s, would make the trip in just a few weeks.

As both Keystone president and photographer, Singley certainly knew what he was doing. His pack was full of film as he crossed the bridge into Iowa, his eighth state. He had already shot photos of the New York City skyline, a New Jersey truck garden, a Pennsylvania coal mine, an Ohio pottery manufacturer, and an Illinois canning factory. Now here was Iowa to consider. What views would tell its tale? How could Iowa best be interpreted to a nation of young learners? He used three standpoints: scenic, geographical, and historical. Earlier stereo series by Keystone and others had included Iowa views such as the Little Brown Church in Nashua, the Agricultural Experimental Station at Ames, and the large generators at the Keokuk Dam. By Singley's criteria, however, this new series must follow the Lincoln Highway through the central part of the state and must tell what Iowa was all about, as well as add to the concept of regional differences in America.

Singley wanted to give an essence of the road, a feeling of travel, so several of his views would include a small portion of the highway or highway markers. He avoided showing people in his images; clothing styles of 1935 might look outdated to viewers in the 1940s. He probably also sought out a focal point for each photo—a tree branch or post in the foreground to

enhance the stereograph's three-dimensional aspect.

Once he captured on film the importance and significance of the states, he and the Keystone staff, aided by social studies educators, would make the final choices, eventually selecting 100 views from nearly 400 finalists. Keystone employed historians and authors such as Carl Sandburg and Ernest Thompson Seton as consultants and advisors.

Singley and his staff deliberated at length over what photos to use. Fewer than ten views for each state had to convey the regional diversity of the nation. Iowa was obviously a farming state, and in 1935 farming was the livelihood for many Americans. Agriculture in Iowa needed to be shown, of course, and a major agricultural college in Ames was along the route. But Iowa had cities as well as fields of grain. Fortunately, one of these, Cedar Rapids, was along the Lincoln Highway. Geographically, Iowa was unique because it was bordered by two major rivers that students needed to know about.

In the end, Iowa was represented by six views (only Nevada had more with seven). Students sitting in an Iowa classroom during the late 1930s would have seen their state, among the eleven others on the Lincoln Highway, represented in the boxed set as presented on the following pages.

fter his week in Iowa, Singley left Council Bluffs. He continued west to San Francisco and then returned to Pennsylvania. He became ill in the following year and died three years later. With declining sales and the death of the president, Keystone ceased regular production of stereographs in 1939.

At one time, Keystone View Company marketed more than 40,000 stereograph titles. This was a small portion of the company's 350,000 glass negatives and prints, representing Keystone views and in addition negatives from competitors bought out by Keystone. For a while in the 1940s and 1950s, Keystone concentrated on making only the 4x5 lantern slide sets rather than the stereographs. In 1963, Gifford Mast of Davenport, Iowa, bought the company. Mast was in the business of instrument manufacturing in Davenport and used a small portion of the Keystone stereograph negatives with eye-training instruments that were popular with optometrists. In March 1977 the Mast family donated the thousands of negatives and prints to the California Museum of Photography at the University of California, Riverside, the third-largest U.S. photography museum, partly because of the extensive Keystone-Mast Collection.

In the following decades, U.S. Highway 30, still sometimes known as the Lincoln Highway, gave way to yet another highway, Interstate 80, which follows roughly the same transcontinental route. Nevertheless, a whole generation of Iowans, as well as U.S. students, probably learned much about American geography—and Iowa's place in that geography through the Keystone series. Zoe Thralls's teacher's guides provided a rigorous and thorough program that should have produced some good results. Many schools later gave their stereographs, including the Lincoln Highway Series, to local libraries.

In today's elementary classrooms with videos and computers, stereographs and lantern slides would look quite antiquated. But for the students of the 1930s and '40s, many of whom had not traveled beyond their own counties, the images were some of the first visual education in the classroom, bringing something far more exciting than the words in their textbooks.

Paul C. Juhl is co-author with Mary Bennett of Iowa Stereographs: Three-Dimensional Views of the Past. His articles about photographer J. P. Doremus on the Mississippi and merchants' photographic advertising cards appeared in previous issues.

NOTE ON SOURCES

Special appreciation certainly goes to Steve Thomas, Curator of Collections at the University of California at Riverside/California Museum of Photography, who was instrumental in helping to complete this project. The museum has nearly 34,000 images from the Keystone-Mast Collection on its Web site: www.cmp.ucr.edu. Click on "Collections." The librarians at the State Historical Society, Iowa City, especially Linda Brown, gave valuable assistance. Ron Labbe at Studio 3D provided information concerning the Singley family. Lyell Henry of Iowa City gave information on the Lincoln Highway, and county historians in Clinton, Linn, Boone, and Marshall counties detailed the highway in their counties. Professor R. Douglas Hurt explained farming and livestock information of the 1930s. As always, a special thank you to Ginalie Swaim, the editor of lowa Heritage Illustrated, for her constant encouragement of my interests and her editing skills on this article.

Secondary sources include Drake Hokanson, The Lincoln Highway: Main Street Across America (Iowa City: University of Iowa Press, 1988); The Lincoln Highway: Iowa Map Pack (1994?); Gregory M. Franzwa, The Lincoln Highway in Iowa (Tucson: Patrice Press, 1995); Zoe A. Thralls, Keystone Geography Units Stereographs and Lantern Slides, Unit Seventeen, From Omaha East on the Lincoln Highway (Meadville, Penn.: Keystone View Company, 1942); and E. L. Ritter and L. A. Shepherd, Methods of Teaching in Town and Rural Schools (New York: Dryden Press, 1942). Additional sources include various articles on the Lincoln Highway from the Cedar Rapids Gazette, including September 27, 1998, by Dave Rasdal and Liz Mathis; and Drake Hokanson, "Cross-country, Home and Away Magazine (July/August 2000).

For more information, see the Lincoln Highway Association's Web site, www.LincolnHighwayAssoc.org.

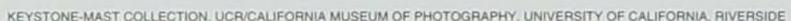


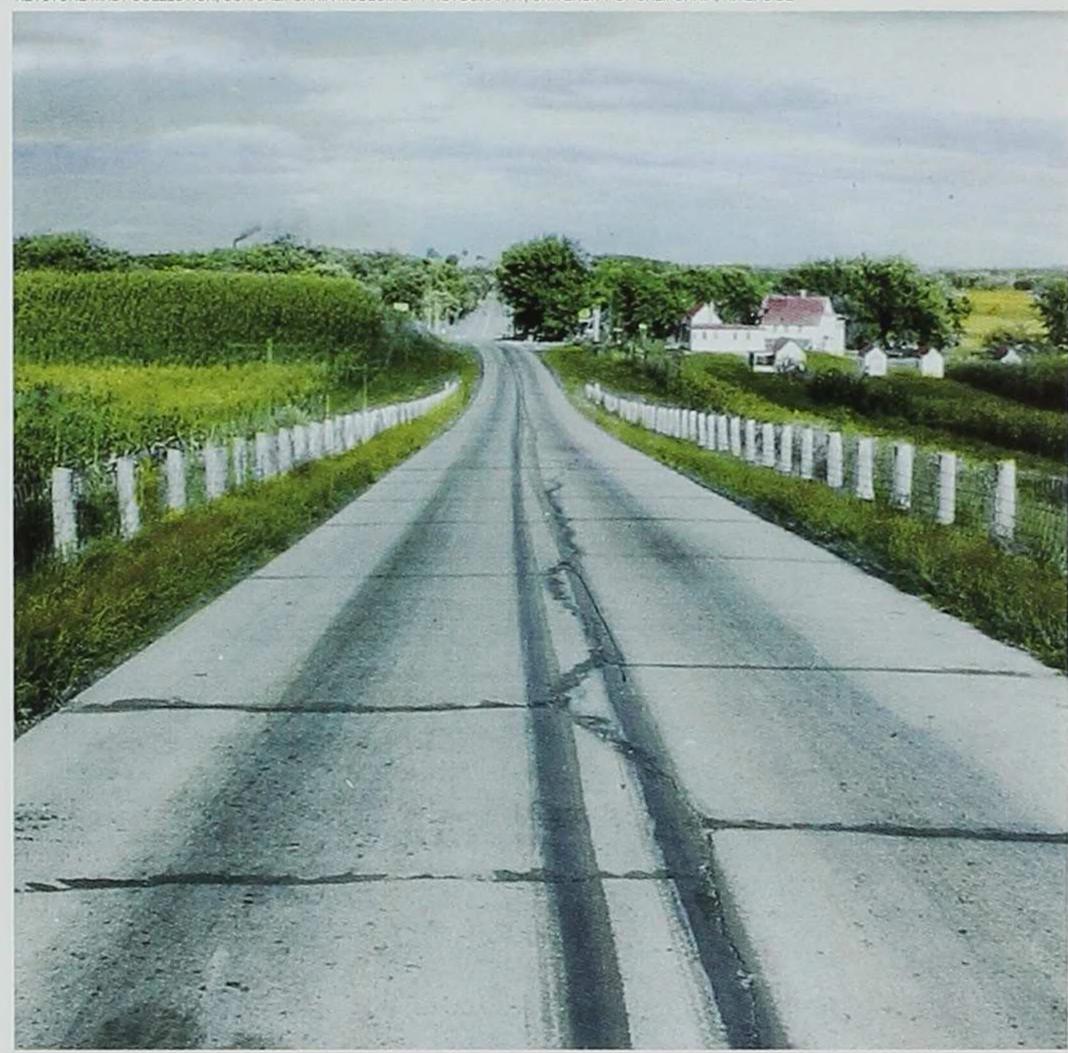
"Mississippi River From the Heights, Clinton, Iowa"

B. Lloyd Singley probably photographed this view from what is today Eagle Point Park, near Lock 13. On the far left, you can see a portion of a Civil War cannon, later melted down for military use during World War II. This is one of Keystone's hand-colored glass lantern slides intended for projection on a classroom screen or wall. Explanatory text on the reverse of each stereograph card and in the teacher's guides posed questions to involve the students and encourage them to look carefully (see below). The text allows today's readers to gauge change and glimpse how social studies educators portrayed lowa in the mid-1930s.

"At Fulton, Illinois, the Lincoln Highway crosses the Mississippi River into Iowa. On the Iowa side of the river is Clinton. This is a view of the Mississippi from the bluffs on that side. The Mississippi has its source in Minnesota, and flows southward into the Gulf of Mexico. On your map you can perhaps find where it rises in Minnesota. There it is a very tiny stream. In that state it winds from one small lake to another, through swamps and forests, and has many waterfalls. By the time it reaches Iowa it is a slowly moving body of water, hundreds of feet in width, winding back and forth across its flood plain. This flat plain is bounded by steep bluffs—two and three hundred feet high. It is from the bluffs that we are looking down the river. From here on, because of the great width of the river, there are few bridges. Between Fulton and Clinton there are two steel highway bridges.

"Notice how the fields reach clear to the edge of the bluffs. What crop or crops do you recognize? Down on the flood plain of the river, you can see houses and some fields. The soil is very rich there, but floods frequently destroy the crops and homes."





"Along the Lincoln Highway, Twenty Miles West of Clinton, Iowa"

The route to the hamlet of Syracuse, near the Wapsipinicon River, was lined with white tenth-mile markers so motorists could check their odometers and speedometers. The photo compressed the depth of field; in a stereoscope the actual distance between markers was more apparent. Down the highway is a wayside tourist motel. Often with just enough room for a bed and a basin and no running water, roadside stops were still better than sleeping on the ground in a tent. Look closely in the lower left corner for Singley's shadow, with hat and camera.

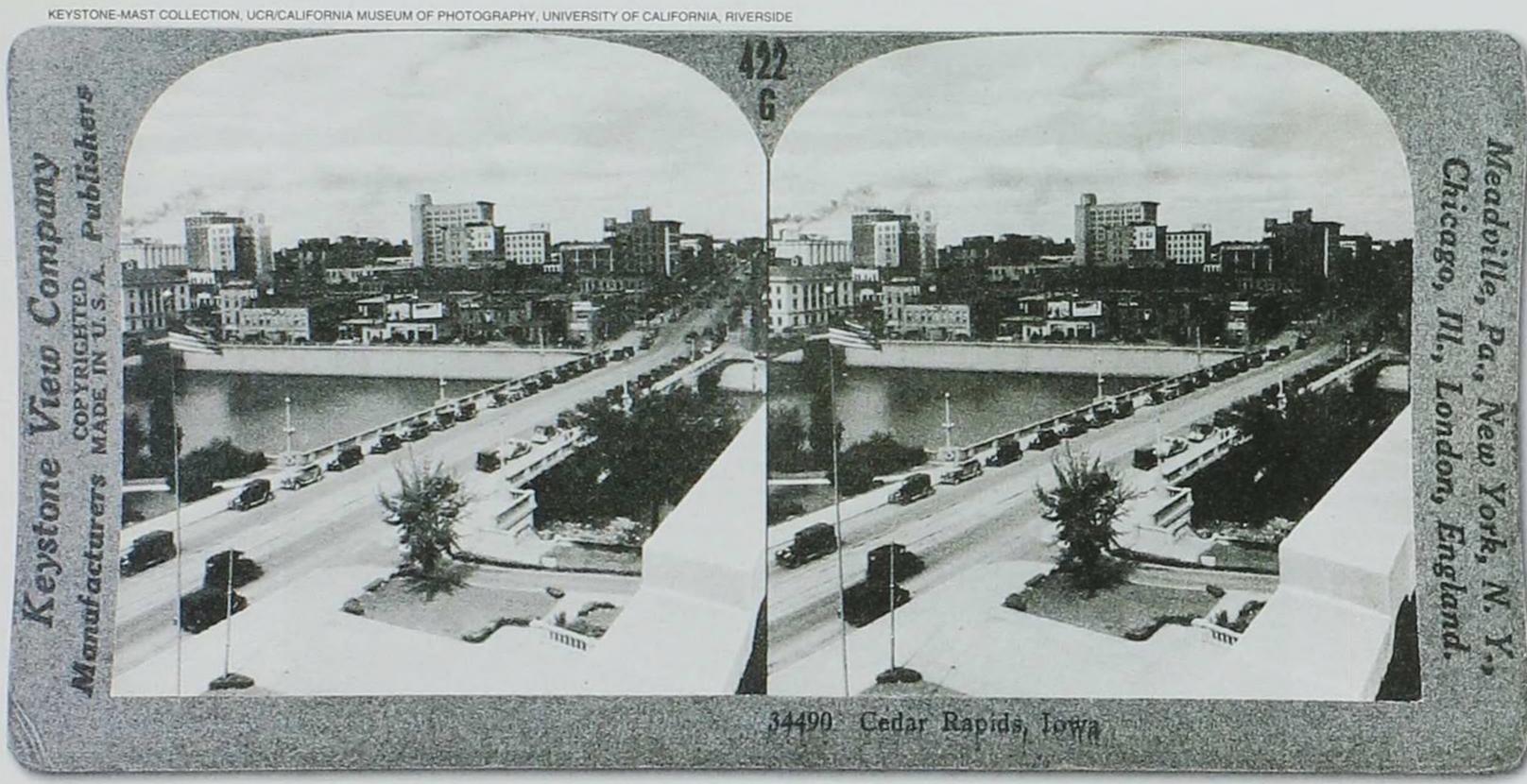
"We are now in Iowa, and the Highway goes almost due west across the state. Notice the difference between the surface of the land here and of that in Illinois. Although we are still on the great Central Plains of North America, in Iowa the plains begin to gradually rise. The Western half of Iowa is between 1,000 and 2,000 feet above sea level. There are still very flat areas, but the surface, on the whole, is rolling.

"What seems to be the chief kind of work here? What crop is growing in the fields? How can you judge the height of the corn?

"Notice where the trees are planted. All through the Corn Belt, the farm buildings are surrounded by trees. Suggest a reason for this.

"What other activity besides farming is indicated? What are the signs? How can you find the main part of the city?

"About what time of the year is this? How do you know? For many unbroken miles, we shall now see cornfield after cornfield stretching away in the distance, on both sides of the Highway. Occasionally there will be a field of wheat or oats, or pastures with cattle, horses and sheep grazing there."

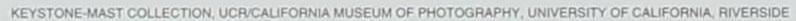


"Cedar Rapids, Iowa"

Although stereographs of the 1860s–1890s were flat, turn-of-the century stereograph producers, including Keystone, discovered that concave cards, like this one, created a "warped" effect that increased the three-dimensional aspect. For this shot, Singley climbed on the north roof of the Linn County Courthouse on May's Island in the Cedar River. At the extreme left, the industrial buildings are part of the Quaker Oats Company. On the same day Singley took several variations of this view of downtown Cedar Rapids; two showed the Veterans Memorial Coliseum (completed in 1927) on May's Island. Including the urban center of Cedar Rapids and its industrial base in the stereograph series balanced students' view of Iowa as a solely agricultural state.

"We are now approaching the largest city that we have seen since leaving South Bend, Indiana. Find Cedar Rapids, Iowa, on your map. According to the map symbol, how large is it? What type of city does this view suggest? It is rather surprising to most travelers to find such a large, busy manufacturing city here, because most people think of Iowa as only an agricultural state. There are nearly two hundred manufacturing establishments in Cedar Rapids. All of them either make things needed by the farmers, such as farm implements, or use farm crops to make various food products. The Quaker Oats Company has one of its largest mills here. If you look carefully you can see a part of the plant, with its elevators at the extreme left. Other plants are cornstarch factories, rail repair shops, and pump and furniture factories.

"Cedar Rapids is a collecting and distributing center for a large and rich agricultural area. This part of lowa is very flat and crossed by numerous small rivers. At this point on the Cedar River there are rapids. The river has been dammed, and a power plant, which supplies electricity for the city and the factories, has been built."





"A Corn Field, Iowa"

In 1935, corn harvesting took place at a much later date than today, often in November or even early December; without modern drying techniques, corn needed to dry in the field. Although some farmers in 1935 were using single- or double-row corn pickers pulled by teams of workhorses or tractors, much corn picking was still done by hand.

"If possible we see more corn in lowa than we did in Illinois. We almost begin to think that Iowa is one big cornfield. How high does this corn seem to you? The corn of Iowa is noted for its height. The deep, rich glacial and alluvial soil and the long, hot summers, with their frequent thunderstorms and much sunshine, seem to suit the corn plant. The farmer insists that on a hot, sultry night you can hear the corn grow.

"A poet has described lowa as follows:

Flat as a pancake, fertile as can be,

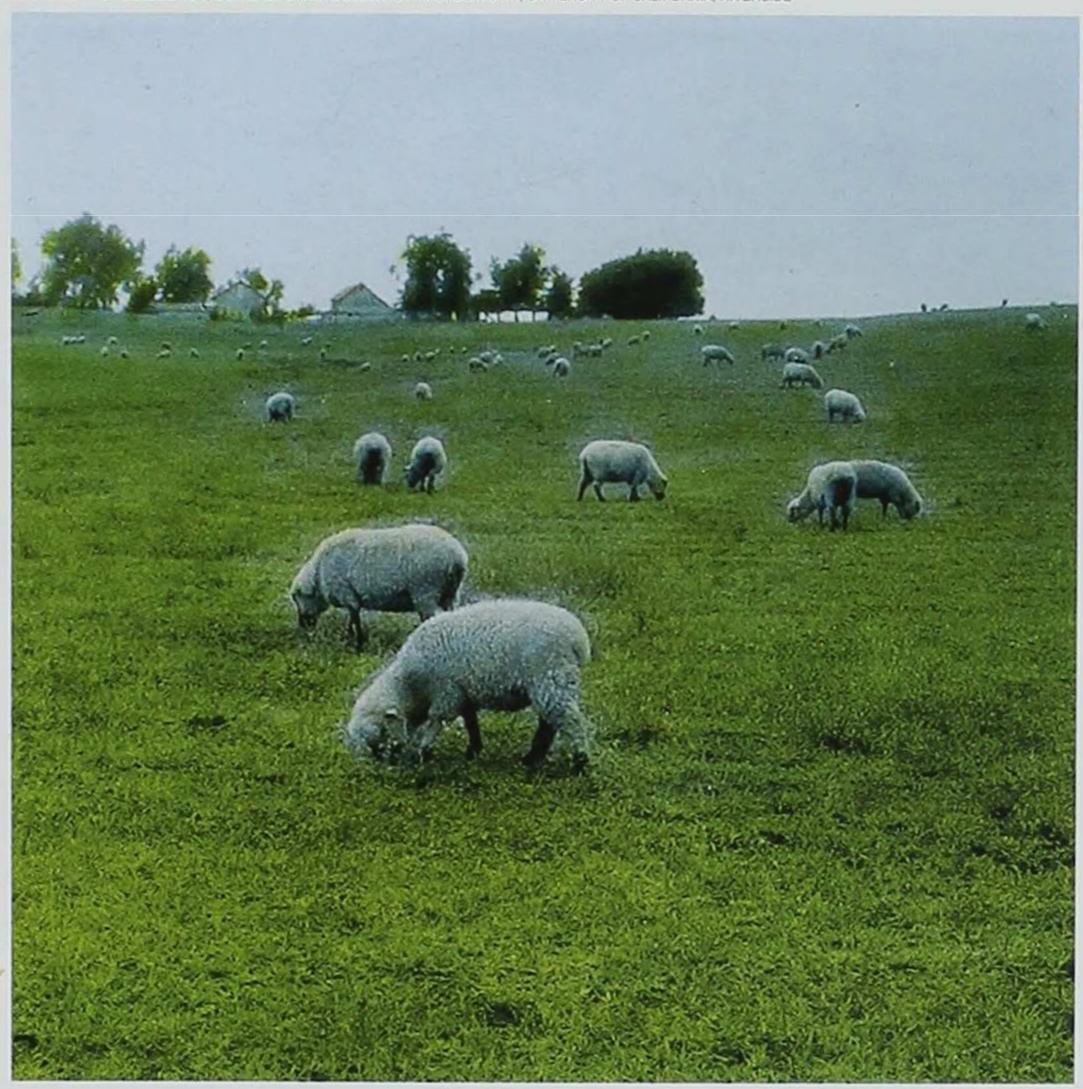
All the way from Keokuk to Calliope;

Corn that kisses cloudlets when its tassels wave,

Land that laughs a harvest when the reapers slave.

"How does this scene check with the poet's words? In what respect was he wrong? Which lines would our view illustrate?

"(Poem from Maurice Morris, 'lowa' in New York Tribune, 1922)"



"Sheep on a Farm, Iowa"

Singley probably took this view east of Marshalltown. The bucolic nature of the scene might have been too much for Singley to resist, although it certainly did not represent the livestock industry in Iowa at that time. Hogs and cattle in Iowa dominated Iowa livestock raising, with sheep a distant third.

"However, not all of the land in Iowa is devoted to corn. What animals do we see here? With what type of region do we usually associate sheep raising? It may surprise you to find some sheep on most Iowa farms. In fact, though, the region known as the Corn Belt has more animals than any other section of the United States. But not all of the animals are born here. In October and November the farmers buy young animals, those from a few months to a year old, to feed until they are old enough and fat enough for slaughtering. Why does this pay?

"Representatives of the cooperative farm organizations in the villages buy 'feeder cattle' in the western part of the Great Plains, where the climate is drier than in the Corn Belt. These cattle are sold to the farmers through the cooperatives. Then later, usually in the late spring, when the animals are ready for the market, the cooperatives sell them for the farmers to the big meatpacking companies. Some farmers do their own buying and marketing, but it is easier and pays better to handle the animals through the cooperative organizations."

KEYSTONE-MAST COLLECTION, UCR/CALIFORNIA MUSEUM OF PHOTOGRAPHY, UNIVERSITY OF CALIFORNIA, RIVERSIDE



"The Lincoln Monument, Council Bluffs, Iowa"

This monument was erected by the Council Bluffs Chapter of the Daughters of the American Revolution on October 1911. It still overlooks the Missouri River valley. The panorama has changed significantly, however, since it was viewed by Abraham Lincoln during an 1859 visit to Council Bluffs. Instead of an undeveloped river plain, one now sees the sprawling city of Council Bluffs and, in the far distance, its sister city of Omaha, Nebraska. An additional inscription on the monument describes Abraham Lincoln as "A King of Men/ Whose Crown was Love/Whose Throne was Gentleness." Lincoln was often lauded in the first decades of the 20th century. At a time of much industrial and cultural change, Americans looked back for reasssurance to earlier times and heroes in the nation's history. This image at the state's western border ended the lowa portion of Keystone's Lincoln Highway series of classroom stereographs and lantern slides.

"lowa is bounded on both the east and the west by rivers. The Missouri River is its western boundary—and here we are on its banks. On the lowa side is the city of Council Bluffs. Many rather interesting historical events have taken place here, such as the following: At this site the Indian tribes once held their powwows and, twenty miles to the north, Lewis and Clark held a council with the Indians in 1804; in 1819 the first steamboat on the Missouri ascended as far as Council Bluffs; in 1846 the Mormons established a temporary settlement here; at the time of the gold rush, in 1849, this was an outfitting post with a ferry to permit crossing the river. The inscription on the monument tells us something about the city: 'This monument is to commemorate the visit of Abraham Lincoln to Council Bluffs, August 19, 1859. From this point he viewed the extensive panorama of the valley of the Missouri River and in compliance with the Law of Congress on November 17, 1863, he selected this city as the eastern terminus of the Union Pacific Railroad.' The Union Pacific was the first railroad from the Pacific Coast eastward."

More Views of Jowa Along the Lincoln Highway

During his 1935 trip on the Lincoln Highway, Singley photographed many views in each state he visited, including more than 50 in Iowa. Some may have been used in other series or for other purposes, but most survive only as blackand-white copy negatives in the vast Keystone-Mast Collection. This is probably the first time the following five photos by Singley have been published.



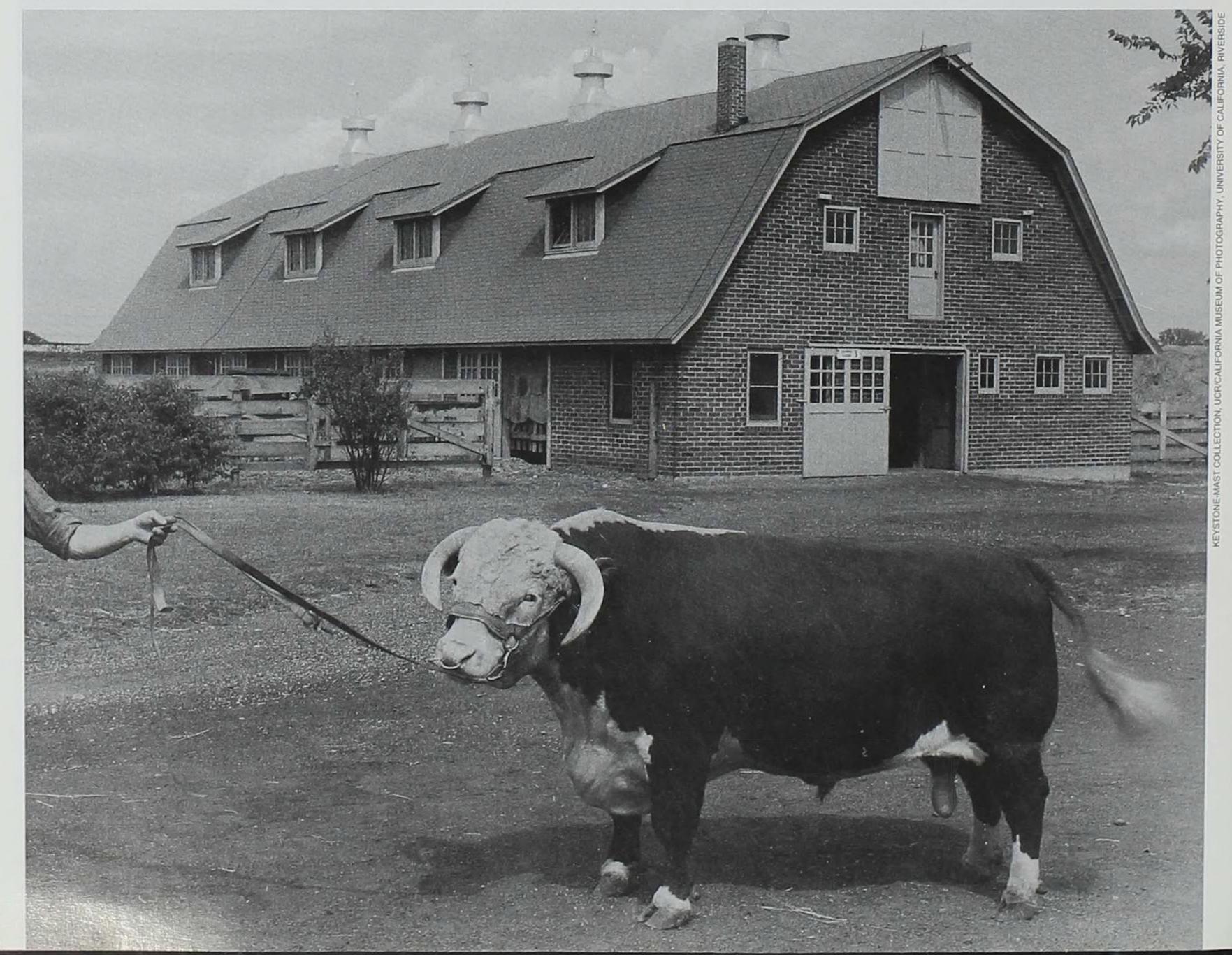
TAMA COUNTY. Titled in pencil on the reverse side as "Lincoln Highway; Indian Reservation, Tama Iowa," this is, of course, a photograph of a "summer shade" at the Meskwaki Settlement near Tama. The shelter provided shade on this October afternoon. The Meskwaki still live on their land. It is not a reservation, as Singley labeled it. The tribe began purchasing land beginning in the mid-1850s. Since then, the settlement has grown from 80 acres to more than 7,000. In another photo, Singley included a sign posted for the August 1935 powwow. The powwow is still held every summer at the settlement.

MARSHALLTOWN: A garden and an automobile with New Jersey license plates are the background for these Mexican firebush topiaries shaped as living room furniture—certainly a scene that would have caught the eye of any photographer. The four-foot plant is also called scarlet bush or firecracker shrub. Perhaps the small bouquet on the table is also part of the topiary. These topiaries probably lasted for only one season because the plant is tropical. It is prized by native people in Veracruz and the Yucatan, where its scarlet flowers bloom near the Mayan pyramids.

AMES: Named Bruce Domino 18th, this 2,000-pound bull was the head of the Iowa State College Hereford herd. Bulls were usually replaced after four or five years and taken to slaughter. Now part of the horse science programs, the barn still stands on the campus. Surprisingly, Keystone chose no photos of the agricultural college for its series.



EYSTONE-MAST COLLECTION, UCR/CALIFORNIA MUSEUM OF PHOTOGRAPHY, UNIVERSITY OF CALIFORNIA, RIVERSIDE





COUNCIL BLUFFS: Part of the original Lincoln Highway, Broadway was the major street in Council Bluffs. Despite urban renewal and relocation of the highway, Broadway remains a central, downtown street.

COUNCIL BLUFFS: In a park near the Lincoln Monument, this log house was constructed of 100 oak and hickory logs in July of 1935, just weeks before Singley photographed it. The builders were two men who had been born in log houses themselves, and the structure served as the Pottawattamie County Historical Society's log cabin museum. At its dedication, Superintendent William Petersen of the State Historical Society of Iowa said, "I sincerely believe that every community in Iowa, large or small, should erect a cabin in which may be stored such pioneer relics as spinning wheels, candle moulds, yokes, and the like which otherwise might be thrown away." The log cabin was, for many years, in a dilapidated state and was finally torn down. *

