

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Cotter Bridge
other names/site number R.M. Ruthven Bridge
HAER No. AR-15

2. Location

street & number U.S. Highway 62, spanning the White River not for publication N/A
city, town Cotter vicinity N/A
state Arkansas code 05 county Baxter code 005 zip code 72626

3. Classification

| | | | |
|--|---|-------------------------------------|------------------|
| Ownership of Property | Category of Property | Number of Resources within Property | |
| <input type="checkbox"/> private | <input type="checkbox"/> building(s) | Contributing | Noncontributing |
| <input type="checkbox"/> public-local | <input type="checkbox"/> district | _____ | _____ buildings |
| <input checked="" type="checkbox"/> public-State | <input type="checkbox"/> site | _____ | _____ sites |
| <input type="checkbox"/> public-Federal | <input checked="" type="checkbox"/> structure | <u>1</u> | _____ structures |
| | <input type="checkbox"/> object | _____ | _____ objects |
| | | <u>1</u> | _____ Total |

Name of related multiple property listing:
Historic Bridges of Arkansas Number of contributing resources previously listed in the National Register N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official _____ Date _____
Arkansas Historic Preservation Program
State or Federal agency and bureau _____

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official _____ Date _____
State or Federal agency and bureau _____

5. National Park Service Certification

I, hereby, certify that this property is
 entered in the National Register. _____
 See continuation sheet. _____
 determined eligible for the National Register. See continuation sheet. _____
 determined not eligible for the National Register. _____
 removed from the National Register _____
 other, (explain:) _____

Signature of the Keeper

Date of Action

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SUMMARY

Located in the Ozark Mountains of north-central Arkansas, the Cotter Bridge crosses the White River in the White River Valley immediately west of Cotter on U.S. Highway 62. This structure has been identified as a Marsh Rainbow Arch bridge and is constructed of steel and reinforced-concrete. Its main spans and approach spans are unaltered and in good condition.

ELABORATION

The Cotter Bridge is a five-span, 1,850-foot Marsh rainbow arch bridge, comprised of five 216-foot concrete arches, an arch viaduct of 132 feet, and 638 feet of deck girder approaches, with a 24-foot-wide roadway. The viaduct is 26 feet from the east abutment and is separated from the five main arches by 141 feet of approach spans. Following the Marsh arch design, concrete was applied over the steel frame, maintaining the basic outline of the structural elements.

Each arch, four angles laced with angles, increases in depth from the crown toward the spring line. Eighteen panels are formed in each arch by hangers and spandrel columns, which are made from four angles with double lacing, resembling an I in cross-section. The hangers, as the name implies, hang from the arch down to the road deck, and the spandrel columns rise from the arch up to the deck. The roadway crosses the arch at the third panel point from either end. Pairs of hangers suspend, and pairs of columns support, the floor girders, which are made from angles and reinforced with steel bars. A two-foot-tall concrete balustrade spans the distance between the hangers.

The two lines of arches are braced laterally above and below the deck. Three lateral struts cross the road at the crown. The struts, four angles joined by double lacing, rise at a five-degree angle from the two arch lines, to meet over the center of the road. Underneath the road, a beam connects the two arch lines near the springline and angles with lacing cross just above the beam.

The concrete formwork was laid horizontally for most of the bridge. The exception was the placement of the forms along the curve of the arch. Along the arch, the concrete was poured in a sequence to induce the least amount of stress in the steel from the added dead load of the concrete. First the concrete was poured at the haunches and on either side of the crown. The crown and mid-height of the arch were next, and lastly the rest of the arch was covered. Two-inch-thick lumber was used to create a panel along the outer face of each arch. The girders were poured monolithically with the arch. The floor deck was poured before the hangers were covered so that the hangers were carrying the full dead load. Having the steel component of the hangers almost fully extended reduced the amount of cracking of the concrete cover when tension forces from live load were applied.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Transportation
Engineering

Period of Significance

1930-1939

Significant Dates

1930

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Architect: Marsh, James B., Marsh Engineering Co

Builder: Hunt, Hal, Bateman Construction Co.

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

See continuation sheet

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SUMMARY

The Cotter Bridge was constructed during the Arkansas Highway and Transportation Department Era: 1923-1939 historic context, and is an outstanding and unique Arkansas example of a reinforced-concrete Rainbow Arch bridge type. Completed in 1930, the Cotter Bridge is significant as the only bridge in Arkansas known to be designed and engineered by the Marsh Engineering Company of Des Moines, Iowa. The Marsh Company is well known for its Rainbow Arch bridge, a design patented in 1912 by James Barney Marsh, the company's founder. The bridge is an excellent example of the Marsh Rainbow Arch construction technique, where the steel arches were assembled on the ground and then lifted into place on the piers. These steel arches supported their own formwork while the concrete was cast around them, thus eliminating the need for building costly and time-consuming falsework beneath the structure. The Cotter Bridge was uniquely constructed in that a cableway, suspended across the river, was used to transport all the necessary materials and tools out to the various parts of the bridge. Due to its strategic location on the only east-west route in northern Arkansas, the Cotter Bridge was instrumental in opening up a new region of the Ozarks, which was to become a major resort and recreation area in the United States. The Cotter Bridge became Arkansas' first National Civil Engineering Landmark in 1986. As such, the Cotter Bridge is eligible under Criteria A and C with national significance.

ELABORATION

EARLY HISTORY OF COTTER, ARKANSAS

Located on the southwestern slope of a hill overlooking the White River, the town of Cotter, Arkansas has been known for over half a century as "The Trout Capital of the World." Today, heavy traffic passes through the town on U.S. Highway 62, but the streets have a ghost-town-like appearance, belying the pace of life that existed during Cotter's heyday. Perhaps the one thing a traveler passing through Cotter will remember about the town is the magnificent bridge spanning the river. The toll booth and toll-keepers houses are gone now, and the bridge is no longer lit at night², but there is still something very special about the structure--perhaps the same aura of romance that evoked this description of the bridge from a writer in 1930:

Probably no type bridge adapts itself to the natural scenery as this one does. The graceful arches of the structure seem to fit in with the natural green contours of the surrounding mountains. Standing high on one of the nearby hills and looking down toward the bridge it looks as if it grew there, and was not put there by the hands of man.³

Before the town of Cotter was there, the horseshoe bend in the river was known as Lake's Ferry, which, for many years was a resort and picnic area for families from the nearby communities of Mountain Home and Yellville.⁴ During the nineteenth century, freight--ore and timber, in particular--was moved up and down the river on steamboats, and McBee Landing, about a mile and a half up the river, was an important stop. These steamboats were put out of business with the advent of the White River Division of the Missouri Pacific Railroad in 1903.⁵ In that year, the Cotter town site was owned by the Red Bud Realty Company. The company laid out streets and railroad yards, and in November 1905 sold fourteen hundred lots.⁶ Railroad employees comprised a large percentage of population, and much of the town's early history surrounded the building of the railroad. The railroad bridge across White River at Cotter was built in 1905, and incorporation papers were filed for the town of 600 people that same year.⁷

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EARLY CROSSINGS ON THE WHITE RIVER

For many years, ferries were the only means of crossing the White River, but soon after the turn-of-the-century, with the advent of the automobile and the consequential increase in traffic, it became apparent that a more efficient means of transporting vehicles and pedestrians across the river was necessary. The White River was known to rise rapidly, sometimes as much as "a foot per hour for 50 continuous hours,"⁸ and often the only way across the river at its high stage would be to go 100 miles north to the bridge at Branson, Missouri, and cross there. "It was nothing uncommon to find 100 cars waiting for the river to fall to safe ferrying stage."

The first efforts to secure a bridge across White River at Cotter were made in 1912 by a Dr. J. Morrow, who, together with the Hon. J.C. Floyd introduced and secured the passage of an act "authorizing the construction of a bridge across White River at or near Cotter, Arkansas."¹⁰ Apparently, however, funds were not available for such a bridge, because it wasn't until 1926 that any further steps were taken to secure one.¹¹

Newspaper accounts indicate that by the 1920's ferries were becoming increasingly inconvenient because of flooding on the river and the consequential grounding of the ferry boats. In April of 1927, for instance, it rained almost continuously for five days, and the water reached 40'7" at Cotter.¹² Newspaper reports of this and other floods indicated the need for a bridge over the White River at Cotter:

White River went on a rampage again this week and for the fourth time this year put all ferries out of service, tied up traffic, and emphasizes the necessity of a highway bridge at Cotter as soon as it can be built. . . . With a bridge over the river at Cotter, and one crossing North Fork, will come an end to rains tying up traffic a good part of each year.¹³

Once more, and as usual every few months, rains on the upper reaches of White River brought the stream up to more than 15 feet above normal at Cotter. . . . All ferries were put out of service for several days and traffic east and west was entirely suspended.¹⁴

DEVELOPMENT OF U.S. HIGHWAY 62

The other issue at this time, which had bearing on the construction of the Cotter Bridge, was the development of the highway system--both federal and state--and more specifically, the development of U.S. Highway 62, which ran through Cotter.

In the late 1920's, representatives from Arkansas and Oklahoma formed the Arkoma Highway Association, whose goal was to have a series of connected highways--including Highway 12, which ran through Cotter--classified as a federal highway. Such a designation would allow for the development of a new section of the Ozarks, which was rapidly becoming an important recreational area in the United States. An article in The Baxter Bulletin in May 1928 spoke of this regional development:

The Ozark Mountains in North Arkansas and South Missouri, are developing into one of the largest recreational centers in the Middle West or South. These beautiful green clad hills, with their sparkling, clear water streams and picturesque scenery, have caught the fancy of city people. The horde that comes to play every summer is increasing every year, and many new resorts are being developed.¹⁵

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U.S. Highway 62 seemed "destined not only to be a commercial thoroughfare, but the most direct and popular route through the playground section of the Ozarks."¹⁶ Officially designated in June 1930, U.S. Highway 62 ran from Mayesville, Kentucky to El Paso, Texas, and would eventually extend from Canada to Mexico.¹⁷

As events unfolded, it became apparent that the construction of a bridge at Cotter would be one of the key elements in the establishment of this route as a federal highway.

POLITICS AND THE COTTER BRIDGE

In November of 1926, The Baxter Bulletin reported that County Judge M.E. Curlee had received a proposition from "a concern who wanted to build two toll bridges in Baxter County... one across North Fork and one across White River."¹⁸ However, since the Judge's term of office ended the following month, he did not take any action in the matter. Curlee's successor, Bob Hudson, granted franchises for three privately owned toll bridges in January of 1927, two to the Henderson Bridge Company, and one to the Denton Bridge Company. The Baxter Bulletin noted:

All three bridges will be on state highways, and will replace ferry boats. . . The bridge companies have purchased the Smith Ferry at Henderson, . . . the Denton Ferry from Hurst & Woods and the Hutcheson Ferry from S.C. Hutcheson. The franchises did not cover the Maynard Ferry on the North Fork above Henderson or the Cotter Ferry at Cotter. These boats will run as usual after the bridges are built.¹⁹

There was, however, considerable opposition to the construction of privately owned toll bridges, not only in Baxter County, but throughout the state. On February 11, 1927, the following article appeared in The Cotter Record:

No truer statement was ever made than that "Eternal Vigilance is the Price of Liberty," and its truth is brought home forcibly to the people of Baxter and Marion counties by the attempted grab of toll bridge franchises at Denton ferry on White river and the ferries on North Fork. The construction of such bridges by private individuals, companies or corporations would in effect erect a wall about Baxter and Marion counties to the serious injury of North Arkansas, the state as a whole and to the country at large.

A toll bridge at best is not desirable, and under such a sweeping unlimited franchise. . . is a positive menace, a crime. . . Black river is cursed with such a bridge and efforts are being made to do away with the nuisance.²⁰

The opinions expressed in this article were indicative of a much more widespread problem in Arkansas, and perhaps other sections of the country as well. Until this time, the construction of roads and bridges had been left to the jurisdiction of the county courts, and later to road improvement districts. This led to haphazard and disorganized road building and financing which failed to recognize broader interests. (See HAER report AR-27.) The State Highway Commission had been created by Act 302 of the General Assembly of Arkansas in 1913, but their position was mainly an advisory one to assist the county courts.

Finally, in 1921, the Federal Highway Act introduced highway planning at the State level, and called for a planned system of connected highways to be supervised by state highway departments. Under this legislation, Arkansas passed the Harrelson Road Law in October 1923. This law established the administrative structure of the State Highway Department to oversee the improvement of the State Highway System. In 1927,

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the Arkansas legislature passed the Martineau Road Law, proposed by Governor Martineau, which appropriated \$52,000,000 over the following four years to develop the state highway system.²¹ This act began the first era of systematic highway building and improvement in Arkansas. In discussing this new highway deal, proposed under Highway Commissioner Dwight Blackwood, The Cotter Record stated: "there is reason to believe Arkansas will have a systematic road building program in place of the hodge podge methods pursued heretofore in building 'roads that go somewhere.'"²²

Around this same time, Congress also passed a bill, an amendment to the Federal Highway Act, which eliminated federal aid on highways leading to privately owned toll bridges.²³ The passage of these bills ended in a lawsuit between the Highway Commission and the bridge companies whose franchises were being annihilated. In January of 1928, the Supreme Court upheld the contention of the Highway Department that it, and not the county court, had jurisdiction over state highways and bridges and that the Highway Commission had the authority to build toll bridges, provided they became free bridges once the debt on the bridge had been paid off.²⁴

All this debate over responsibility, and the ensuing lawsuits from the bridge companies, resulted in a three-year stalemate over the construction of the Cotter Bridge. By the time the political aspects were resolved, the citizens of Baxter County had made it desperately clear that there was still nothing they wanted more than a bridge at Cotter:

Marion and Baxter counties need this bridge. And not these counties only, but all North Arkansas demands it. For a distance of more than 200 miles on White river above Batesville there is no bridge. There can be no reason whatever for continuing this condition. Traffic demands and justifies the bridge. It should be, and the public expects it to be, taken up and pushed to completion now, not at some distant or indefinite time in the future, but now. This county hasn't a bridge except the little flimsy wooden structures on No. 12, while other ranking counties are getting splendid concrete bridges. We rejoice with them and only ask and insist that our county be given a square deal.²⁵

Thus, when in 1927 the Highway Department obtained approval from the federal government to build nine toll bridges throughout the state, County Judge R.M. Ruthven pushed for Cotter to be put on the list of proposed sites.²⁶ The media also promoted Cotter as the ideal location for such a bridge:

No bridge project in the state is so favorably located as is that over White river at Cotter. Sand, gravel and rock in unlimited quantity at hand, railway tracks to the site, and ideal approaches. No bridge in the state, either built or contemplated has these advantages. In fact not a state bridge erected so far has any one of them.²⁷

The only thing that Cotter didn't have in its favor was a traffic count sufficient enough to warrant the construction of such a bridge. Before each site could be approved, a feasibility study, including traffic count, needed to be done. This study was carried out in June 1928, and the newspaper reported:

A check will be made at both the ferry here and at Denton's ferry, to determine the number of vehicles and footmen ferried at these two points. It is necessary to have these figures to be able to estimate the probable revenue that will be produced by the bridge when it is completed.²⁸

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Rumor has it that the feasibility study on Cotter concluded that the bridge should not be built, but that Judge Ruthven was determined to get the Highway Commission to approve its construction anyway. Judge Ruthven was present when the Highway Department met to review the reports on the various sites. Apparently, during the meeting, the report on Cotter disappeared, but the commission assumed it was an oversight and approved it along with the others.

How this came about remained a well-kept secret for 20 years following the completion of the bridge. Judge Ruthven saw the survey report before the commission met, and he realized what it meant to the people of his county. When he returned to his home that afternoon, the Cotter report went with him, where it remained for two decades. At that time the judge mailed it to the commission.²⁹

Although there is no existing documentation for this story, several independent sources—including one of Ruthven's sons and Rex Bayless, a former mayor of Cotter—confirmed the details of it. Additionally, the absence of a Cotter Bridge feasibility study in Highway Department records would lead one to believe that the story is probably true. In any case, the State Highway Department eventually approved the construction of a bridge at Cotter on February 17, 1928. The Baxter Bulletin reported:

The state Highway Department has adopted the policy of building all bridges that cost less than \$250,000 as free bridges. With the road revenues as they are now, the commission finds it impossible to undertake the construction of the larger bridges except as toll bridges. There are nine such toll bridges now planned, the average cost of which will be more than \$500,000. They are at Fulton and Garland City on the Red river; at Calion and between El Dorado and Hamburg on the Ouachita river; at Newport, Augusta, Clarendon and Cotter on the White, and Ozark on the Arkansas river.³⁰

In March 1928, "without a dissenting vote," the U.S. Senate passed a bill granting the State Highway Commission the right to issue bonds and construct, operate and maintain a toll bridge over White River at Cotter.³¹ The measure was approved and signed by President Coolidge on May 2, 1928.³² The only further approval needed was that of the War Department, as the Cotter Bridge would cross a navigable river, and in 1906 Congress had passed a bill stating:

That, when, hereafter, authority is granted by Congress to any persons to construct and maintain a bridge across or over any of the navigable waters of the United States, such bridge shall not be built or commenced until plans and specifications for its construction . . . have been submitted to the Secretary of War and Chief of Engineers for their approval.³³

The Highway Department needed to obtain plans and specifications for the proposed bridge and then submit them to the War Department.

LETTING OF BRIDGE CONTRACT

On May 10, 1929, The Cotter Record announced that Frank E. Marsh, of the Marsh Engineering Company in Des Moines, Iowa, had been in Cotter to take measurements and look over the site. The newspaper reported that, "Mr. Marsh was greatly pleased with the site selected for the bridge and will recommend a concrete arch structure and an overhead crossing."³⁴

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At the end of May, a crew of surveyors under the supervision of Field Engineer A.R. Hickman made a topographic survey of both sides of the river for a mile above and below the bridge site in order "to secure additional data to be submitted to the War Department to determine the type of structure and whether a drawspan will be required."³⁵

On July 18, the State Highway Commission approved the Marsh Engineering Company's plans and specifications for the bridge.³⁶ A newspaper reporter described it as follows:

The design for the bridge . . . is called the Marsh Rainbow Arch Bridge. There will be five arches, two of them spanning the river. . . . If built according to the Marsh design the bridge will be the most beautiful structure of its kind in the state.³⁷

Apparently there was no difficulty in obtaining approval of the plans from the War Department, because on July 26, 1929, the newspaper stated that, "There is nothing now standing in the way of the construction of the bridge across White River, Judge Ruthven states that all differences have been ironed out."³⁸

The State Highway Commission began advertising for bids on the construction of the Cotter bridge in August of 1929. Bids were accepted from seven contractors on August 15, the lowest bidder being a Kansas City firm, whose bid was \$366,773.80.³⁹ A few days later, however, all the bids were rejected due to a modification in the plans. The Missouri Pacific Railroad Company had filed a request for a slight change in the viaduct over the railway, asking that it be enlarged to allow room for four tracks instead of two.⁴⁰ The plans were revised and once again approved by the War Department. The Highway Department readvertised for bids and a new contract was let on September 18, 1929, to the Bateman Contracting Company of Nashville, Tennessee, whose bid was \$390,729.82.⁴¹ Contracts were also let to Westinghouse Electric Supply Company in St. Louis for lighting fixtures; to Kansas City Structural Steel Company for steel; and to Williamsport Wire Rope Company in Chatanooga for cables.⁴²

CONSTRUCTION OF THE COTTER BRIDGE⁴³

Early in October, the newspaper reported that C.F. Bateman was on the job site and that his company "would have at least 100 men on the job as soon as the material and machinery can be put on the ground, probably during the present month."⁴⁴ Within two weeks, Bateman announced that the executives and foreman would be arriving in a few days, and the newspaper stated:

Something like 100 workmen will be employed as soon as the job is fairly launched in an effort to get the five river piers in during low water and good weather. Cofferdams, forms and much false work must be built, and this will take a small army of carpenters and other workmen, so that within a very few days the bridge will be such a scene of activity as has not been witnessed in Cotter since the erection of the Mo. Pac. railway bridge 25 years ago. And thus will come to pass the realization of the cherished dream of a highway bridge over White River at Cotter.⁴⁵

The company expected to employ as much local labor as possible; as soon as the office was built, the company began taking applications.⁴⁶ On November 1, the newspaper reported that the materials and machinery were arriving at the bridge site:

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Among the heavy machinery now on the ground is the tram engine, a huge clamshell, concrete mixer, hoisters, a large crane, cable and motors. High platforms are being erected for the mixers from which the concrete will be carried on overhead cables, or tramways . . .

The office building was completed last week and is now occupied by Mr. Bateman and staff. A cement house is being built north of the office, on the railway track and some six or eight feet above the ground on pillars.

Work of laying a railway track from the spur at the ice plant north about 400 feet is now underway . . . At the present time some 40 to 50 men are employed on the job and more will be put to work as soon as needed. The wages being paid are about the same as prevail in this section, from \$2.50 a day and up."

Newspaper accounts indicate that construction on the bridge began in early December with the piers being set in place first. Construction continued simultaneously on both sides of the river, where high wooden towers were being constructed for an overhead cableway." Since the river was subject to rapid rises, the contractors decided to use this cableway rather than build falsework in the river (See HAER photos AR-15-10 to AR-15-19). This method had the added advantage of being more economical in terms of labor, time, and money. The cableway was designed to carry twenty-five tons, about three tons more than the weight of each steel arch. The cable was 2-3/4 inches in diameter, and 2000 feet long, spanning 1320 feet between wooden towers on either side of the river. The cable was strung between these two towers and anchored to the ground below. A 54-inch double-drum Lidgerwood 125 horse-power steam hoist powered the cableway. A tram or carriage on the main cable was moved by an endless line on one drum. The other drum operated the lifting cable which raised and lowered the materials to the workers.

The bridge piers were constructed on limestone. A double-walled cofferdam was set in place where each required pier would be. Once the outer chamber was filled with concrete, and the cofferdam was pumped out, the footings were blasted a few feet below the level of the riverbed. Pier forms were fabricated on the ground and then carried out by cableway and set on the prepared footings. After the concrete for each pier was cast the forms were moved on to the next pier. Once the piers were in place the haunch steel for the arches was set on the piers and fastened in place with concrete.

One-half of each steel arch, measuring 125 feet around the curve and weighing about 11 tons, was assembled and hot riveted on the river bank. An auxiliary supporting "mast" was carried out by cableway and set on the central pier as each steel arch was set in place. The top of this mast was attached to the main cable. The mast could be "drifted" to either side to align the arches at about a thirty-foot spread. The first half of each arch was picked up with hand winches fastened to small carriages on the main cable. Mast and cable were "drifted" by winches to alignment with the permanent position of the arch. The half arch was carried to position, and while the top was temporarily attached to the cable the lower end was fastened to the haunch section on the pier. The other half of the arch was then picked up and attached in the same manner. Then the two sides of the arch were connected. The mast was then "drifted" to the opposite side of the pier, the companion arch erected, and the cross beams and hangers for the floor system put in place.

Once the steel arches were in place, formwork for casting the concrete was hung from the steel. As the concrete was cast on each part of the arch the forms would be removed and positioned in the same place on the next arch. Forms for the floor were supported by a wooden truss with a steel tension rod placed under the floor beams. All the concrete for this was produced on site, using sand and gravel from under the bridge. Once mixed, the concrete was carried out by cableway to the point of placement. The concrete was finished by using electric rubbing machines, supplemented carborundum rubbing by hand. The thirteen 50-foot long approach

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spans and some shorter connecting units were built using conventional formwork on timber supports.

In order to forestall any long delays in construction the contractors worked around the clock. "With electric lights strung all over the rising structure . . . the site took on the appearance of a busy city after the shades of night had fallen."⁴⁹ In April, the newspaper reported that the piers and approaches were complete.⁵⁰ About seven weeks later, work was begun on the arches:

A gigantic boom was placed last week with which to handle the reinforcing steel which goes into the arches. This boom is about 100 feet long and the men working on top of it look like dolls from the river bank.⁵¹

Three of the arches were completed by July 18 and it was thought that the bridge would probably be completed sooner than expected.⁵² On September 5, The Baxter Bulletin reported that the new toll bridge at Cotter would be completed by the first of November, six months ahead of schedule.⁵³ Much to everyone's surprise, the work had not been hindered by bad weather or floods. Rapid construction was further facilitated by the contractors' round-the-clock schedule. The local newspaper reported:

It was hardly expected that the bridge would be completed before next summer, but by working night and day with perfect working conditions, the Bateman Construction Co. . . . will complete it six months ahead of their program. Actual construction work started on the structure on November 17, 1929, and there has been no interruption in work from that time until this. There have been no high rises; White River has been in a pleasant and friendly mood for the last ten months. A river condition that the people of this section will probably not see again in half century, and the contractor has taken advantage of every minute of it.⁵⁴

In October the contractors were said to be "putting the finishing touches on the new highway bridge."⁵⁵ Before the last span could be completed, the head tower for the cableway had to be removed. This was accomplished by pulling it over with the hoist. The newspaper reported: "The town and country around lost one of its identification marks the other day when the great cable was released and the eastern tower fell its full length about 100 feet out in the park."⁵⁶ The other tower was later dismantled from the top down.

There was no doubt that the construction of the Cotter Bridge was truly a magnificent engineering feat, but even more evident was the fact that the immense structure was aesthetically pleasing as well. Newspaper reporters delighted in writing about the it, pronouncing the bridge "a triumph of architectural design and beauty,"⁵⁷ and "one of the most beautiful bridges if not the most beautiful ever constructed in the state."⁵⁸

It is 1850 feet long and 78 feet above the surface of White River at the middle span. Of its length 1060 ft. are in five immense rainbow arches 216 feet from base to base. There are 450 feet of deck girder viaduct on the west side, 210 feet on the east side, then a small rainbow arch over the Missouri Pacific tracks. The bridge seems to fit naturally and snugly into the landscape, its beautiful arches blending in perfect harmony with the contours of the surrounding hills.⁵⁹

COTTER BRIDGE CELEBRATION

The Cotter Bridge was completed on November 1, 1930, and officially dedicated on November 11. Reflecting the general aura of excitement in town, the local newspapers devoted front page columns and editorials

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to discussion of the upcoming bridge celebration for several weeks beforehand. One such editorial stated:

The interest being taken in the coming bridge celebration and dedication of the magnificent state bridge across the White River at Cotter, is very gratifying. It marks the largest and finest achievement of the Arkansas State Highway Department in Northern Arkansas, and it is fitting that it should be properly dedicated. It marks the passing of the old era in roads and bridges in this section of the state, and the beginning of a new and modern era for our people. It has more than a local significance, because it links together all of the counties on both sides of the river, and it goes further than this, for it furnishes a safe and sure crossing in all kinds of weather to people who are traveling who live in all parts of the United States.⁶⁰

The bridge celebration promised to be "one of the largest affairs of its kind ever held in North Arkansas."⁶¹ Two days, November 11 and 12, were set aside for the festivities. It was estimated that between 3,000 and 4,000 people attended the ceremonies, including representatives from seven of the states traversed by U.S. Highway 62.⁶² "A parade, in which one thousand cars took part, trailing behind numerous floats was one of the features of the day."⁶³ The other highlight was the christening of the bridge, which the newspaper described as follows:

A plane appeared out of cloudy skies, hovered over the new bridge . . . for an instant, and a stream of poppies cascaded from the cockpit. As the first of the descending flowers touched the magnificent structure Miss Betty Ruthven, Queen of the bridge celebration said, "I christen this bridge Progress and dedicate it to Service," and the bridge was formally opened.⁶⁴

The festivities were subdued only by a written tribute to Cliff Williams and John Harley, two workers who were killed in separate accidents during the bridge's construction.⁶⁵ In honor of the bridge celebration, The Baxter Bulletin and The Cotter Record jointly published a souvenir edition, as a supplement to the November 14 issue of the newspapers. The 30-page booklet featured a poem, entitled "The Cotter Bridge," written by Herbert Messick (see appendix). The poem, dedicated "to those who built the Cotter Bridge," concluded with the following verse:

My friends, in your celebration,
Drop a tear for the lives that were lost.
And remember the money that built the bridge
Was the very least of the cost;
On it were spent two precious lives
For which no one can repay;
Remember them, and the workman's toil
On your Celebration Day.⁶⁶

THE COTTER BRIDGE VS. THE COTTER FERRY

Apparently, the exuberant townspeople were less than exuberant when it came to actually using the bridge. To them, the bridge was a symbol of progress, but an expensive one, and a great number of people chose to continue using the Cotter ferry to cross the river. Baxter County had refused to renew the operator's ferry licence, but Marion County granted one, so the ferry continued to run, and it would take more than a little persuasion to get people to use the new bridge. On July 3, 1931, the newspaper reported that the State Highway Engineer had issued the following announcement:

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The new \$400,000 bridge at Cotter is not paying, because people are using other means of crossing the river. If Baxter County people want new improvements on their highways they will have to patronize those already made... The local people convinced the highway department that it was necessary that a bridge be constructed between Marion and Baxter Counties, and the bridge was built... Our investigation shows that they now prefer to use ferries. A check of the traffic at the junction of numbers 12 and 62 verify this.⁶⁷

This statement was made shortly after Marion County Judge R.L. Berry, and the Arkansas State Highway Commission reached an agreement with Joe McCracken, the owner of the Cotter Ferry. The agreement stated that for the sum of \$250:

Joe McCracken hereby agrees to and does definitely discontinue the operation of his certain ferry across White River, . . . near the Cotter Bridge. He . . . agrees to destroy . . . and entirely put out of business the said ferry and not to hereafter directly nor indirectly resume such business at or near the place of the above described ferry.⁶⁸

Putting the offending ferry completely out of business apparently solved the problem almost immediately, for on August 7, the newspaper noted:

Business over the highway bridge at Cotter shows a decided gain. July was the best month since the bridge was opened to traffic, and averaged \$40.20 per day. The best day since the bridge was built was last Saturday when the tolls reached \$63.00. The increase is not so much because of heavier traffic but because the traveling public is learning of the bridge.⁶⁹

RECENT HISTORY OF THE COTTER BRIDGE

Although most people still refer to it by its original name, the bridge was renamed in honor of Judge Ruthven in December 1976. Commemorative plaques, mounted next to the original plaques, read as follows:

R.M. RUTHVEN BRIDGE
DEDICATED DECEMBER 31, 1976
TO HIS MEMORY AND RECOGNITION
FOR HIS YEARS OF DISTINGUISHED
SERVICE TO THE PEOPLE OF
BAXTER COUNTY

The historic and architectural significance of the bridge have not gone unnoticed either. On October 18, 1986, the bridge was dedicated as a National Historic Civil Engineering Landmark by the American Society of Civil Engineers.⁷⁰ It is the first National Historic Civil Engineering Landmark in Arkansas, and one of only a small number (less than 50) bridges in the United States to be distinguished with this award.

Work has now begun on a new \$7.6 million highway bridge over White River at Cotter, just north of the Cotter Bridge. The Arkansas Highway and Transportation Department originally planned to dismantle the old bridge, but local citizens protested, and there are now plans to restore the structure and maintain it as a functioning highway bridge. The Cotter Bridge is currently in good and stable condition and continues to supply access across the White River for local vehicular traffic.

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R.M. RUTHVEN, COUNTY JUDGE

Roderick McKenzie Ruthven was born in Jefferson City, Missouri, on January 22, 1885. His father, John W. Ruthven, was superintendent of construction for the state of Missouri for fifty-three years. R.M. Ruthven received his formal education in the public schools in Jefferson City. After graduating from high school in 1903, he worked on his father's farm for four years. In 1907 he entered the employ of the G.C. Ramsey Tie Company. His position as field representative took him to Cotter, Arkansas, where he made his home for the rest of his life. After six years with the company, he purchased it, and for the next sixteen years he was the manager and owner of the Ruthven Timber Company, a highly successful enterprise. Ruthven held the office of County Judge for six terms during the 1930's and early 1940's. He also served several terms as mayor of Cotter. At one time he was president of the Arkansas County Judges Association. He worked closely with the administration of President Franklin D. Roosevelt in planning the federal Works Projects Administration program. He is credited with securing many improvements for Baxter County, including three major highway bridges, at Cotter, Norfork and Henderson. Several major county highways were constructed during his administration, and his county road-building program was regarded as one of the outstanding in the nation during the 1930's. He mobilized Baxter County citizens to build county roads with donated labor and little machinery during the depression years, and the effort was commended by officials in Washington as an example for the rest of the nation.

A biography of R.M. Ruthven, stated that he had "probably made more substantial contributions to the civic betterment of his community than any other individual in the immediate vicinity."²¹ When Ruthven died in 1962, at the age of 77, his obituaries mentioned the Cotter Bridge as one of the crowning achievements of his life.

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ENDNOTES

1. The two toll-keepers houses were bought as private homes and have been moved to residential streets nearby.
2. The original globes on the lampposts were destroyed by vandals. The globes were replaced in the 1970's and for a few years the bridge was kept lit. In the early 1980's, it was determined that the electrical conduits were rusting and it would be very expensive to replace them, so the lights were removed.
3. The Baxter Bulletin, September 5, 1930 (Mountain Home, Arkansas), p. 1.
4. "Souvenir Edition Celebrating Dedication of Cotter Bridge," supplement to The Cotter Record, November 14, 1930, p. 9.
5. Frances H. Shiras, History of Baxter County (J.W. Daniel and Shiras Bros. Print Shop, n.l., n.d.) p. 48.
6. *ibid*, p. 51.
7. *ibid*.
8. Hal W. Hunt, "Structural Steel in Concrete Arch Bridge Rings Provided for Cableway Erection Over White River," unpublished manuscript, 1985, p. 1.
9. Baxter Bulletin, September 27, 1929, p. 1.
10. The Cotter Record, January 11, 1912 and February 29, 1912 (Cotter, Arkansas).
11. "Souvenir Edition," p. 5.
12. The Cotter Record, April 22, 1927, p. 1.
13. The Cotter Record, December 16, 1927, p. 1.
14. The Cotter Record, February 1, 1929, p. 1.
15. The Baxter Bulletin, May 4, 1928, p. 1.
16. "Souvenir Edition," p. 30.
17. The Baxter Bulletin, June 6, 1930, p. 1.
18. The Baxter Bulletin, November 12, 1926, p. 1.
19. The Baxter Bulletin, January 21, 1927, p. 1.
20. The Cotter Record, February 11, 1927, p. 1.

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21. Arkansas State Highway Commission, Ninth Biennial Report of the Arkansas State Highway Commission, 1929-1930, (Russellville, Arkansas: Russellville Printing Co., 1930), p. 17.
 22. The Cotter Record, February 18, 1927, p. 1.
 23. The Cotter Record, February 11, 1927, p. 1.
 24. "Act 104," Acts of Arkansas, 1927, pp. 282-289.
 25. The Cotter Record, February 3, 1928, p. 1.
 26. The Baxter Bulletin, September 27, 1929, p. 1.
 27. The Cotter Record, August 30, 1929, p. 1.
 28. The Baxter Bulletin, June 1, 1928, p. 1.
 29. Clifton Hull, "The Story Behind the Cotter Bridge," Arkansas Gazette, August 27, 1972.
 30. The Baxter Bulletin, February 17, 1927, p. 1.
 31. The Cotter Record, March 23, 1928, p. 1.
 32. The Cotter Record, May 4, 1928, p. 1.
 33. J.A.L. Waddell, Bridge Engineering (New York: John Wiley & Sons, Inc., 1916) pp. 1138-1139.
 34. The Cotter Record, May 10, 1929, p. 1.
 35. The Cotter Record, June 7, 1929, p. 1.
 36. The Cotter Record, July 19, 1929, p. 1.
 37. The Cotter Record, August 9, 1929, p. 1.
 38. The Baxter Bulletin, July 26, 1929, p. 1.
 39. The Cotter Record, August 16, 1929, p. 1.
 40. The Cotter Record, August 23, 1929, p. 1.; The Baxter Bulletin, August 23, 1929, p. 1.
 41. The Cotter Record, September 20, 1929, p. 1.
 42. "Job #939, White River Bridge, Cotter, Arkansas," Arkansas Highway and Transportation Department Files (Little Rock, Arkansas).
 43. Harold W. Hunt, "Constructing the Cotter Bridge Over White River," The University of Iowa Transit, January 1931, pp. 86-87, 95. Hunt, "Cableway Erection Over White River," 1985.

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44. The Cotter Record, October 4, 1929, p. 1.
45. The Cotter Record, October 18, 1929, p. 1.
46. Rex Bayless (former Mayor of Cotter), interview with Lola Bennett, project historian, July 6, 1988 (Cotter, Arkansas).
47. The Cotter Record, November 1, 1929, p. 1.
48. The Cotter Record, November 8, 1929, p. 1.
49. The Baxter Bulletin, September 5, 1930, p. 1.
50. The Baxter Bulletin, April 4, 1930, p. 1.
51. The Baxter Bulletin, May 23, 1930, p. 1.
52. The Baxter Bulletin, July 18, 1930, p. 1.
53. The Baxter Bulletin, September 5, 1930, p. 1.
54. *ibid.*
55. The Baxter Bulletin, October 24, 1930, p. 1.
56. The Baxter Bulletin, October 17, 1930, p. 1.
57. "Souvenir Edition," p. 2.
58. The Baxter Bulletin, October 10, 1930, p. 1.
59. The Baxter Bulletin, November 7, 1930, p. 1.
60. The Baxter Bulletin, October 31, 1931, p. 1.
61. The Baxter Bulletin, October 10, 1930, p. 1.
62. The Baxter Bulletin, November 14, 1930, p. 1.
63. *ibid.*
64. *ibid.*
65. The Baxter Bulletin, July 18, 1930, p. 1.; August 22, 1930, p. 1.
66. Herbert Messick, "The Cotter Bridge," poem, Souvenir Edition, p. 1.
67. The Baxter Bulletin, July 3, 1931, p. 1.

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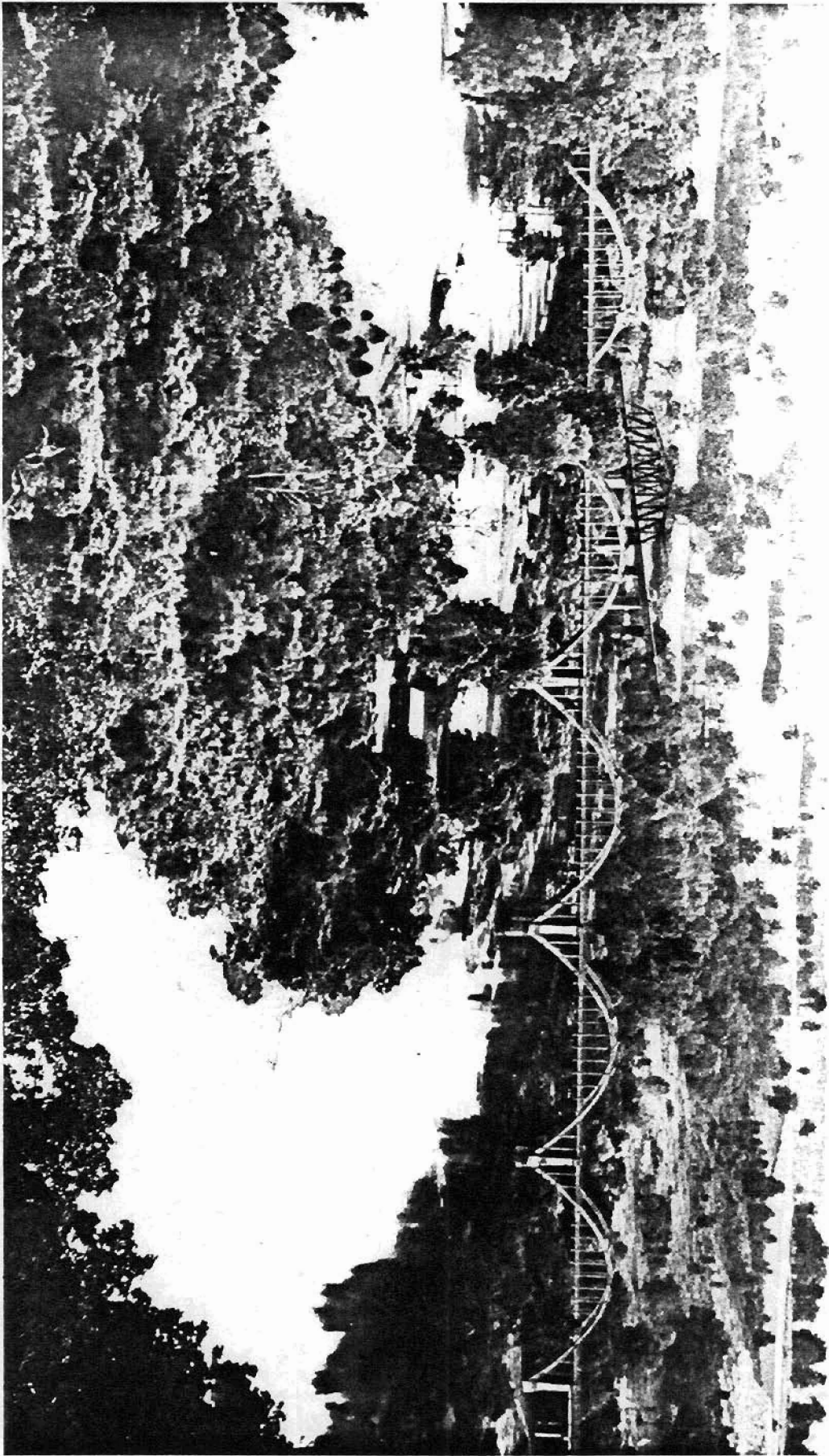
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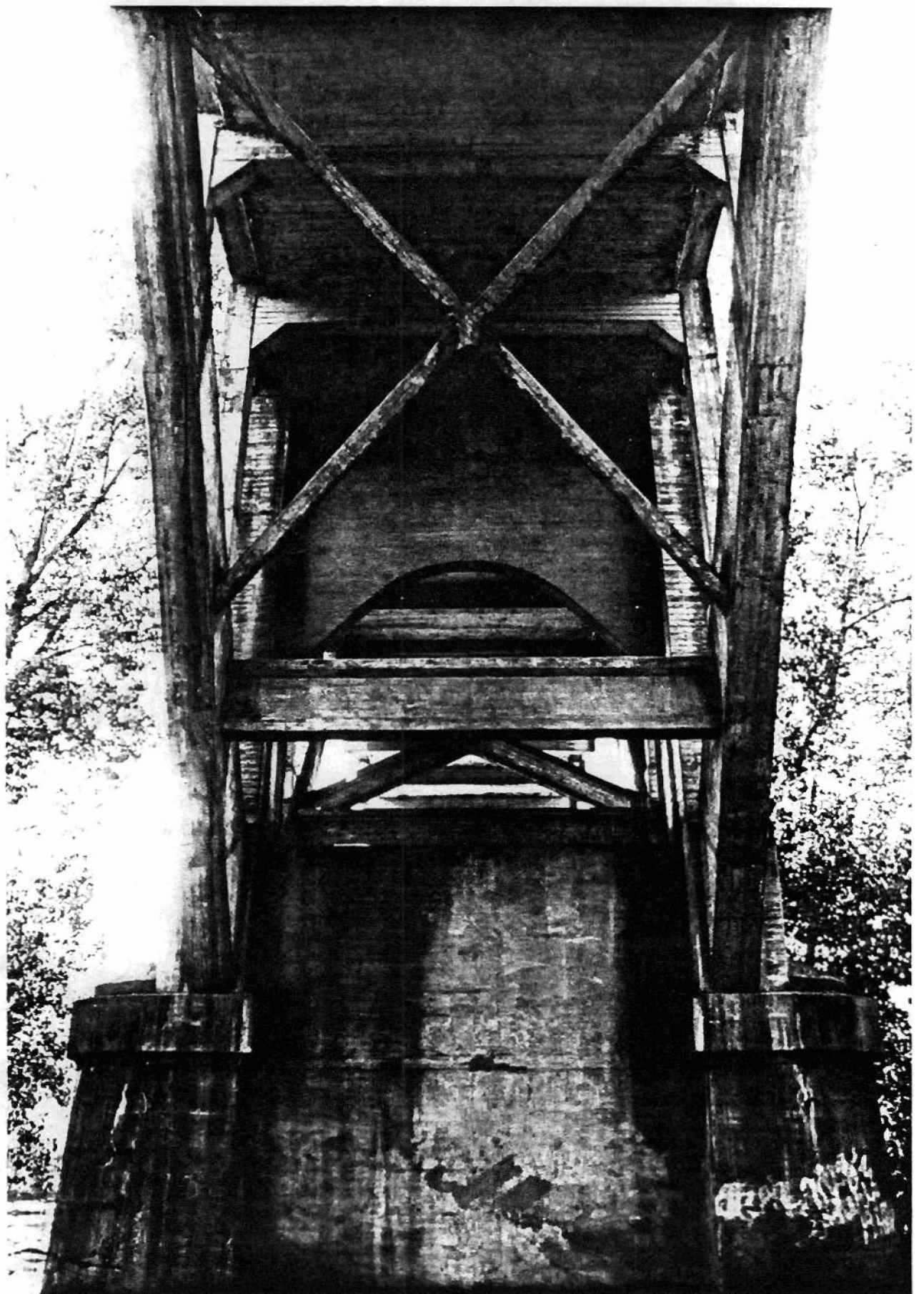
68. "Bridge No. 702: Memorandum of Agreement," Arkansas Highway and Transportation Department Files (Little Rock, Arkansas).

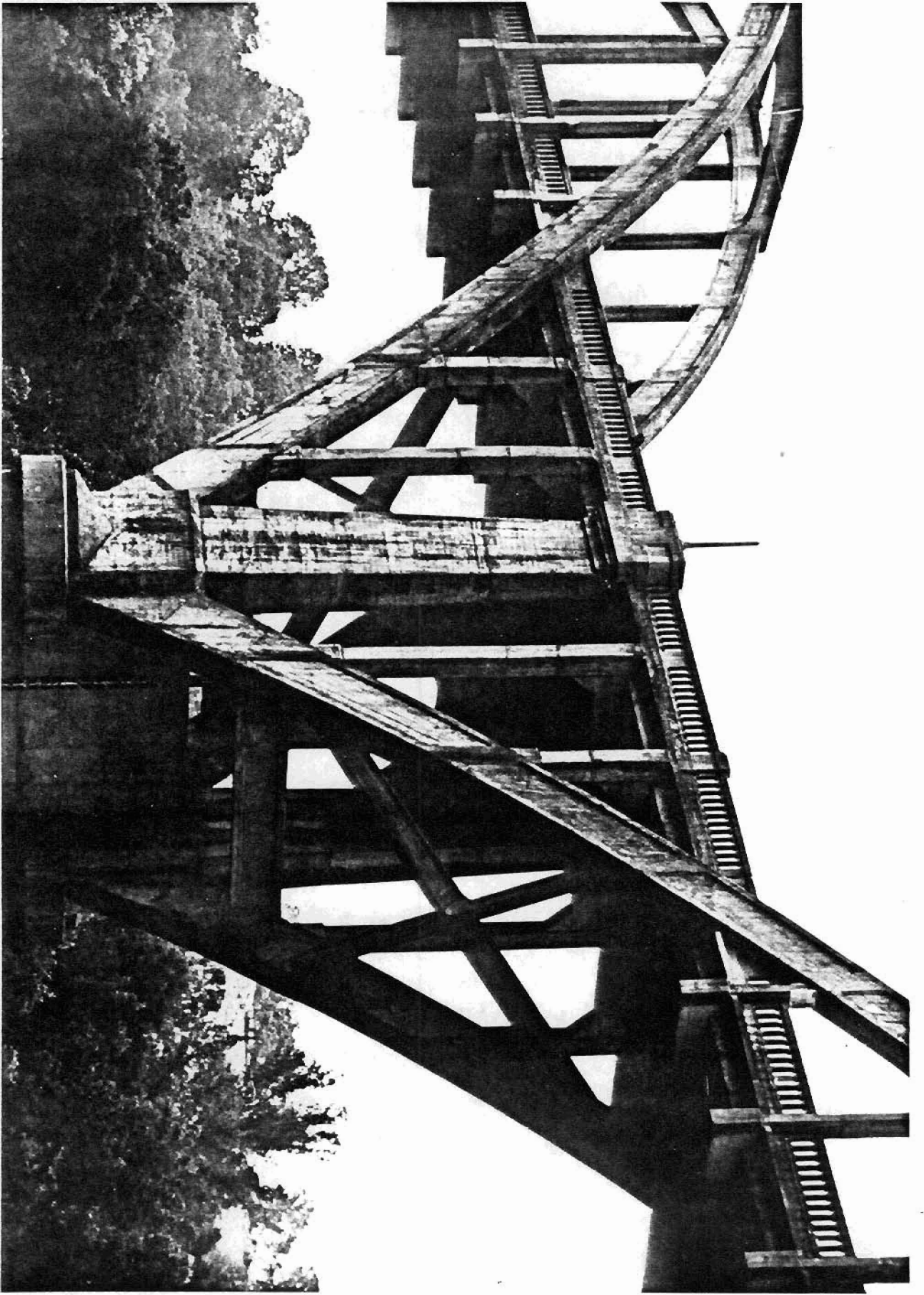
69. The Cotter Record, August 7, 1931, p. 1.

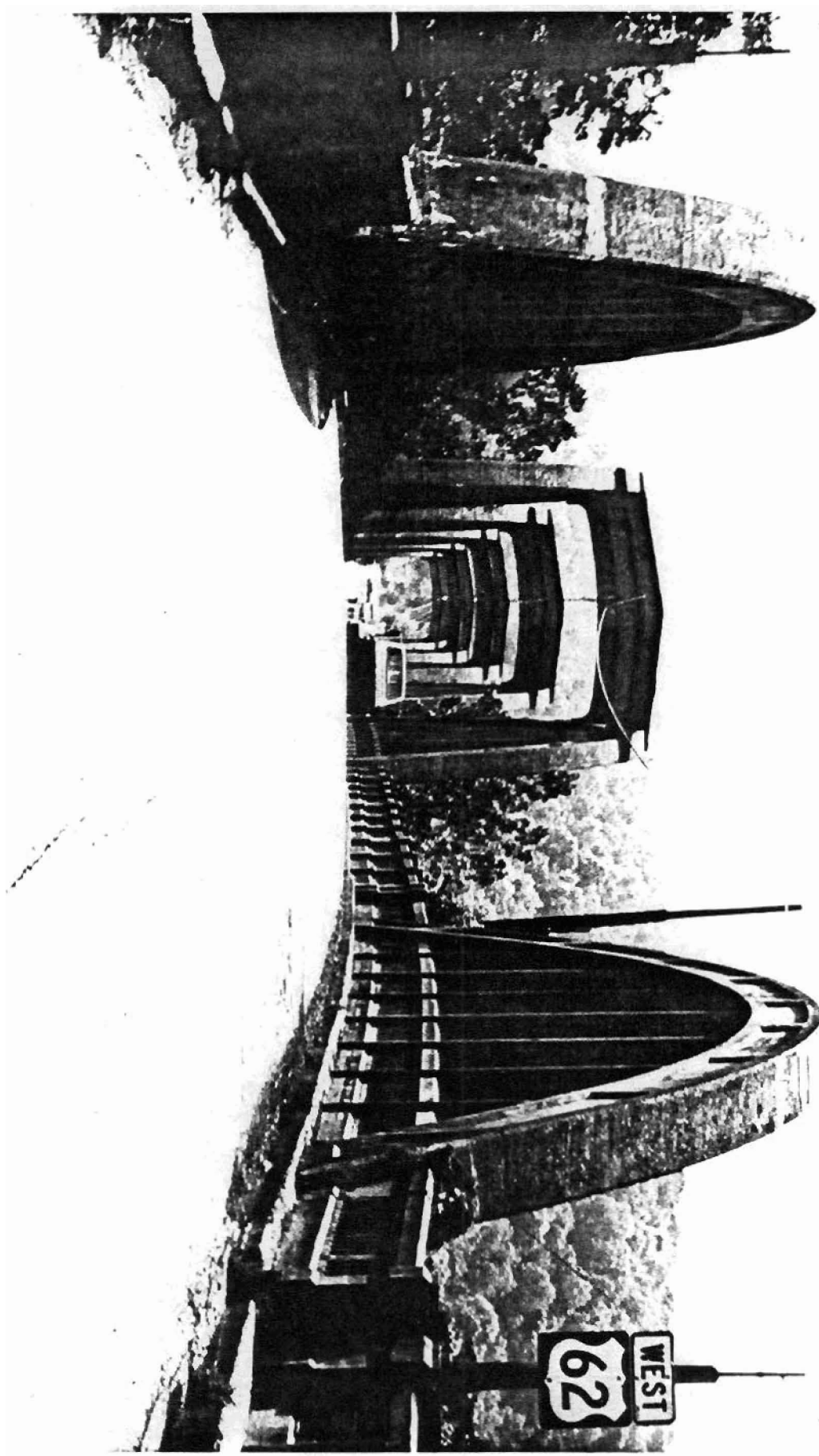
70. "Cotter Bridge Designated as National Landmark," Arkansas Highways, Winter 1986, p. 16.

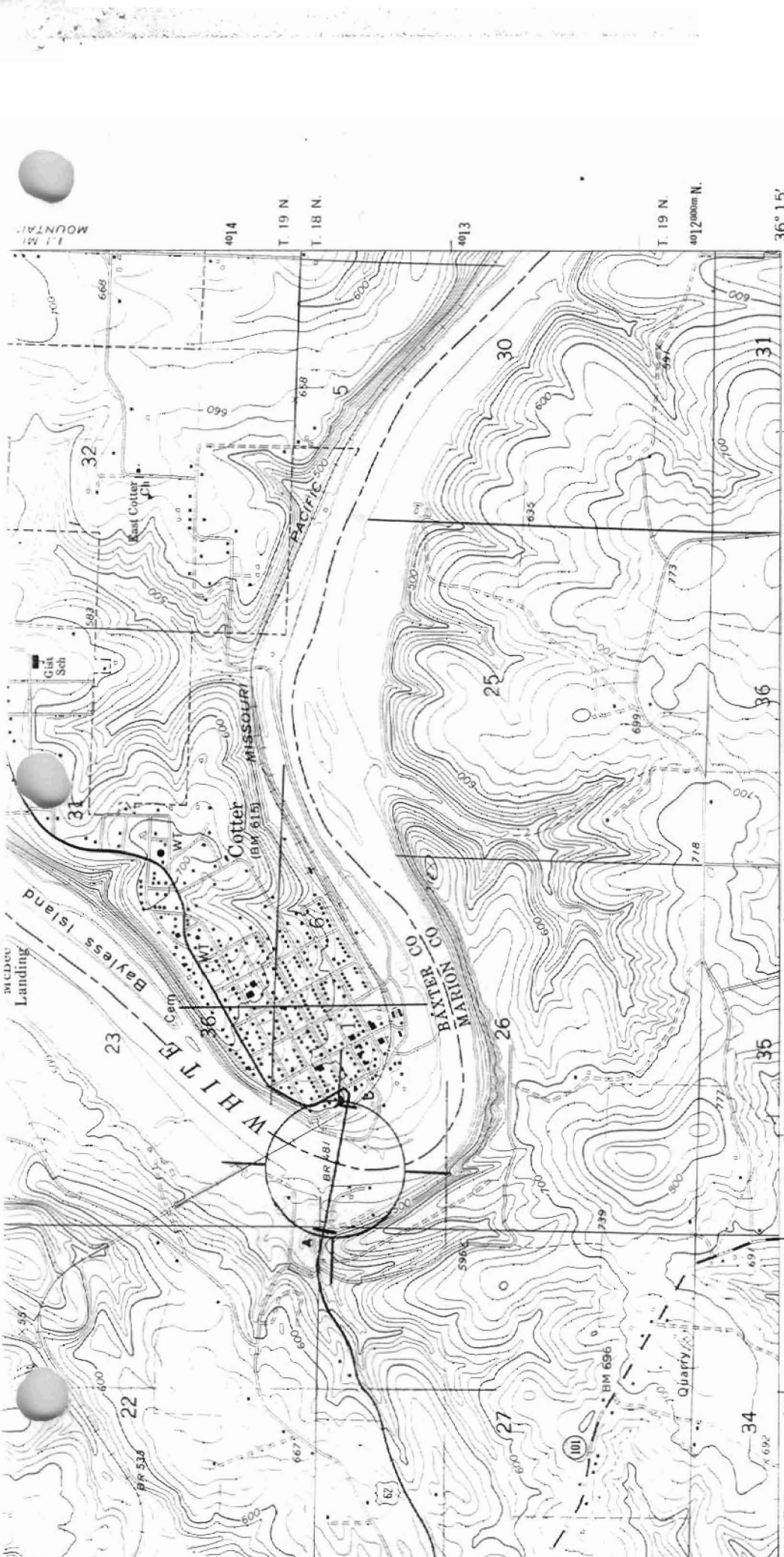
71. "Roderick McKenzie Ruthven," Annals of Arkansas (Little Rock, Arkansas: The Historical Record Association, 1947), p. 1727.











(BUFFALO CITY)
7556 Ill NW

ROAD CLASSIFICATION

Primary highway, hard surface
Light-duty road, hard or improved surface
State Route



VERTICAL SCALE 1" = 20 FEET
CAN SCALE 1" = 1 MILE

Cotter Bridge
Cotter, Arkansas
Baxter County
A) 15/540680/4013525
B) 15/541220/4013425
Cotter Quadrangle
1:24,000



NATIONAL MAP ACCURACY STANDARDS
GEOGRAPHIC INFORMATION SYSTEMS
R. COLORADO 80225, OR WASHINGTON, D. C. 20242
COMMISSION LITTLE ROCK, ARKANSAS 72201
DETAILS AND SYMBOLS IS AVAILABLE ON REQUEST

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

ia Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Transportation
Engineering

Period of Significance

1937-1939

Significant Dates

1937

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Architect: Arkansas Highway & Transportation
Builder: Vincennes Bridge Company

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

See continuation sheet