

United States Department of the Interior
National Park Service
National Register of Historic Places
Multiple Property Documentation Form

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in *How to Complete the Multiple Documentation Form (National Register Bulletin 16B.)* Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a).

New Submission Amended Submission

A. Name of Multiple Property Listing

Historic and Architectural Resources of Springfield, Missouri

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Ozark Rock Masonry in Springfield, ca. 1910-1955

C. Form Prepared by

name/title Debbie Sheals (for The City of Springfield)
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city or town Columbia state Missouri zip code 65201

D. Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this documentation form meets the standards and sets forth the requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. ([] See continuation sheet for additional comments.)

Mark A. Miles
Signature of certifying official/Title Mark A. Miles/Deputy SHPO

10/04/05
Date

Missouri Department of Natural Resources
State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper

Date of Action

United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

Historic and Architectural Resources of Springfield, Missouri (Amendment)

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INTRODUCTION

This is an amendment to the 1999 Multiple Property Submission titled "Historic and Architectural Resources of Springfield, Missouri." That cover document was accompanied by district nominations for the "South Avenue Commercial Historic District" and the "Springfield Warehouse and Commercial Historic District," both of which were listed in the National Register on June 25, 1999. Three subsequent amendments included contexts and property types for hotels, apartment buildings, and industrial development. Twelve additional nominations have been approved under the MPS cover document. Those nominations include districts as well as individual buildings.

This fourth amendment adds the "Ozark Rock Masonry" property type, as well as related description, significance and registration requirements. Additional context relating to the development and history of Ozark rock masonry in Springfield has also been added to Section E. This amendment differs from earlier works in that it focuses on construction methods and materials, rather than building types or patterns of use. The resources discussed here are all examples of vernacular construction and all are made of local rock. An architectural and historical survey of Ozark rock masonry in Springfield which was conducted in late 2004/early 2005 identified over 360 examples of Ozark Rock, and involved close study of nearly 120 of those properties. This amendment has been based upon that survey project.¹

Ozark Rock Masonry in Springfield, ca. 1910-1955

Ozark rock masonry is arguably the most distinctive genre of 20th century vernacular architecture found in Missouri. In its use of local materials and simple forms, Ozark rock architecture compares to log construction of frontier times; the simple rock houses that dot the neighborhoods and countryside of the Ozarks can be seen as the "log cabins" of the 20th century.

The use of the term *rock*, as opposed to *stone*, in reference to this property type, is deliberate—Ozark rock masonry is characterized by the use of fieldstone, or rocks, rather than quarried and refined blocks of stone. The term *stone* is more often used in connection with rock that has been processed in some way or another, and often refers to rock that is the product of a quarry. *Dimension stone*, for example, is quarried stone that has been cut to specific dimensions.²

In many cases, the rocks used for these buildings and structures came right out of the ground of the building site, or from a streambed or hillside nearby. And, just as the rocks generally received no formal treatment or finish, neither did the design of the buildings and structures. Ozark rock architecture is almost exclusively the work of untrained designers, and in some cases, even untrained masons. This combination of local materials and local handcraft has

¹ See Section H of this amendment for further discussion of the survey project.

² E. M. Winkler, *Stone in Architecture: Properties, Durability*, (Berlin, Heidelberg, New York, London, Paris, Tokyo, Hong Kong, Barcelona, Budapest: Springer-Verlag, 1994) p. 301.

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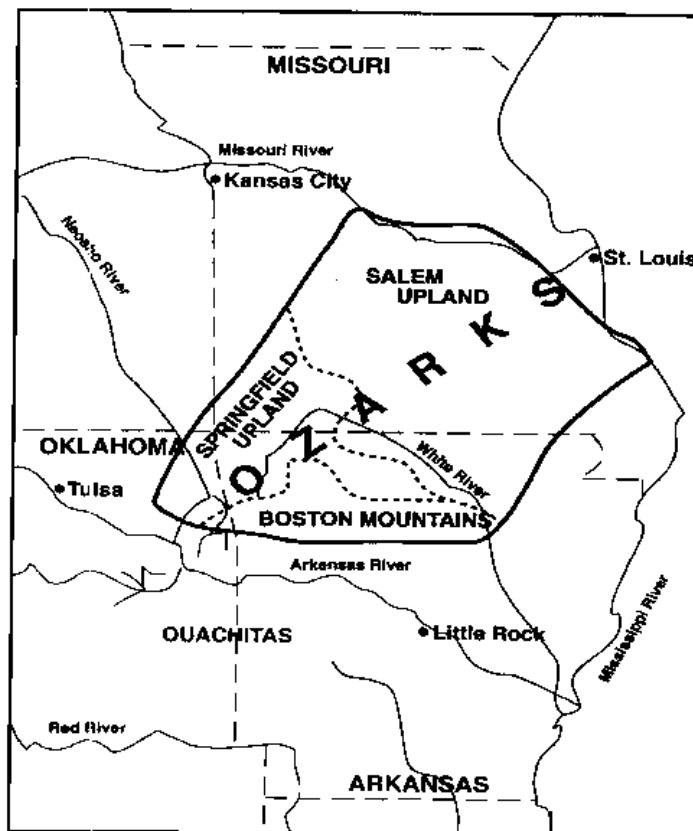
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created a rich stockpile of buildings and structures that are unique to Springfield and the Ozarks.

As the largest metropolitan area and long-reigning "Queen City of the Ozarks," Springfield hosts a significant concentration of Ozark rock masonry.³ The recent survey of Ozark rock masonry in Springfield documented hundreds of examples of this distinctive historic resource, and comparison of the Springfield survey data with that collected in other studies indicates that the Ozark rock masonry of Springfield is in many ways representative of Ozark rock masonry in general.⁴

Figure One. Map of the Ozarks.

From Ozark Vernacular Houses. (Fayetteville: The University of Arkansas Press, 1994) p. 8.



³ The moniker "Queen City of the Ozarks" crops up in reference to Springfield in numerous historical sources, including Crossroads at the Spring, (Shanna Boyle and Julie March, eds., Virginia Beach, VA: Donning Co. Publishers, 1997) p. 25. The authors noted that Springfield had the title by the 1880s.

⁴ See, for example, Linda Becker and Cydney Millstein, "Ozark Native Rock Masonry Survey," 1992, and Bonnie Stepenoff, "Ozark Rock Masonry Architecture Survey: Phase Two," 1993. (Both typescripts are on file with the State Historic Preservation Office, Jefferson City, MO.)

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The name *Ozarks* is based upon an abbreviation of the French words *aux-Arcs*, meaning “to Arkansas.”⁵ Although geographers differ on exact boundaries, most agree that the Ozarks region of the United States covers parts of four states: Missouri, Arkansas, Oklahoma and Kansas.⁶ (See Figure One.) Unifying physiographic features include hilly topography, older surface rocks than surrounding areas and the presence of chert, an abundance of karst features (springs, caves, sinkholes) produced by groundwater action on bedrock, numerous streams, and relatively poor, rocky soils. Those rocky soils have been the bane of Ozarks farmers for generations. A 1914 soil survey of the Ozarks cited “the presence of steep slopes, the susceptibility to erosion, and the frequent outcropping of surface rocks as detriments to large-scale agriculture.”⁷

It is, in fact, difficult to find a description of the Ozarks that does not include the word *rock*; rocks are a character-defining feature of the Ozarks. Rocks in the Ozarks are plentiful, and usually found close to the surface. As one Ozark resident wrote “The Ozarks, as everyone probably knows, are really full of rocks. They are not only the bones underneath, but an excess of them often lies on top.”⁸ A look at the underlying geology of the region helps explain how that “excess” came to populate the Ozark soil.

The bedrock beneath much of the Ozarks, and almost all of Greene County, consists of sedimentary rocks—sandstone, limestone, and dolomite.⁹ In Greene County, limestone and dolomite are the most common, and in many places they occur in relatively pure deposits that have yielded large amounts of high-quality dimension stone over the years. Burlington limestone, which is the most common, has been quarried in many parts of Missouri, including Greene County. One of the more prominent early limestone quarries in Green County is the Phenix [sic] Quarry, which opened in the late 19th century, and supplied sawn and sometimes polished limestone for large construction projects in many parts of the United States.¹⁰

Although the sawn blocks and slabs of stone produced by quarries were common components of formal, high style architecture, they are not usually found in Ozark rock masonry. Ozark rock masonry tends instead to utilize rocks that were found much closer to the surface, either loose in the soil, or as part of an exposed outcropping. Those rocks are often weathered, and typically have irregular shapes and rough surfaces.

Even the dirt in most parts of the Ozarks comes from rocks. Soil surveys of Greene County and other parts of the Ozarks note that most of the soils in the region developed from

5 Milton Rafferty, *Historical Atlas of Missouri*, (Norman: University of Oklahoma Press, 1981) p. 10.

6 Jean Sizemore, *Ozark Vernacular Houses*, (Fayetteville: The University of Arkansas Press, 1994) p. 8

7 Cited in Sizemore, p. 8.

8 David M. May, “Blessings in Disguise: Ozarks Rocks.” *The Ozarks Mountaineer*, 33 (June, 1985) p. 61.

9 A notable exception within the Missouri Ozarks is the St. Francois Mountains area, which features much older metamorphic bedrock.

10 Jonathan Fairbanks and Clyde Edwin Tuck, *Past and Present of Greene County, Missouri*, (Indianapolis: A. W. Bowen and Company, 1915) p. 91, and Laura Wilson, “Phenix: A Town That is No More,” (Typescript on file with the Springfield Public Library, July 30, 1979.)

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decomposed sedimentary rocks such as limestone and dolomites. A map of surface materials in Missouri shows that almost all of the Missouri Ozarks are covered with residuum from cherty limestone, dolomite and sandstone.¹¹ Chert is a very hard rock which is commonly found in nodules and thin layers between the beds of limestone and dolomite.¹² Chert is much more resistant to weathering than the other stones, and tends to remain intact after the softer rocks break down. As one description of Ozark geology explained, "in areas where the limestone and dolomite have been dissolved and removed by weathering, the residual chert remains scattered over the surface."¹³ That residual chert is the loose rock that has irritated Ozarks farmers for generations. One source observed that "it may well be true that the Missouri portion of the Ozarks contains more chert than any other comparable area in the United States."¹⁴

In a typical "if you can't beat 'em, join 'em" attitude, Ozark residents have for years put the same rocks that made life difficult for would-be Ozark farmers to use as a building material. In the 19th century, it was common for farmers to create fences from the hard chert and other surface rocks that clogged their fields. One description of Ozark Rocks noted "In the early days when building materials and money were in short supply, the resourceful Ozarkians turned to the readily available native rocks. Utilizing the rocks in the construction of fences served two functions. First, it rid the soil of the cumbersome rocks that made plowing a most difficult chore. Second, it set boundaries, and fenced in the livestock."¹⁵

Local rock was also used for Ozark buildings during the 19th century, although it was generally restricted to such things as foundations and chimneys, which were usually built of quarried stone that was at least roughly shaped into blocks. Fieldstone was rarely used for buildings, as the physical nature of those rocks made them hard to use. The most plentiful fieldstone in the region, chert, were also the hardest to utilize for traditional coursed masonry construction, which depends upon load-bearing qualities of the stone used. The rough cherty rocks found loose in the Ozark soil were too tough to dress into even the roughest of blocks, and generally too round to use for coursed rubble construction.

It was not until the early years of the 20th century that fieldstone came into its own as a vernacular building material in the Ozarks. That change can be attributed at least in part to the increased availability of portland cement, a hard, fast-curing cement that became a common ingredient in structural concrete and masonry mortar around the turn of the 20th century.

11 A. G. Unklesbay and Jerry D. Vineyard, *Missouri Geology*, (Columbia, MO: University of Missouri Press, 1992)p. 22.

12 William D. Thornbury, *Regional Geomorphology of the United States*, (New York, London, Sydney: John Wiley and Sons, Inc., 1965) pp. 268-269.

13 Unklesbay and Vineyard, p. 29.

14. Thornbury, p. 263.

15 May, p. 61.

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Portland cement, which was patented in Great Britain in 1824, was first manufactured in the United States in 1872, and it quickly became a major ingredient in masonry mortar.¹⁶ Prior to the development of portland cement, masons used lime-based mortars, which cure more slowly and yield a softer end product. Portland mortars are up to twice as hard as lime-based mortars, and portland cement soon became a common ingredient in masonry mortars and structural concrete mixes. Sales of portland cement in the United States skyrocketed between 1890 and 1920, and by the early 1930s, pre-mixed, bagged masonry mortar was widely available.¹⁷ The pre-mixed mortar, which featured a combination of portland and ground limestone, was inexpensive and easy to use, features which made it an invaluable component of vernacular masonry construction.

The use of concrete in a structural capacity increased greatly once portland cement came into widespread use. It became common practice to use poured concrete foundations for all types of architecture, and it was even possible to simply pour concrete walls, which would cure to become load-bearing components. That change in building technology, which made it easy for local builders to use native rock in an ornamental manner, without worrying about the structural qualities of a wall of round rocks or thin slabs of sandstone, can be seen as a major turning point in the development of Ozark rock masonry. Once builders were free of structural worries, rock became a relatively user-friendly surface treatment which was much more accessible to the layman builder.

Field study of Ozark rock masonry in Springfield shows that poured concrete was an essential component in the construction of Ozark rock resources there, especially in those built before 1940. At least 100 of the 119 properties which form the study group for the recent survey utilize poured concrete in one form or another. The use of poured concrete in the group ranges from the simple application of pre-formed elements such as window sills and wall caps, to more extensive structural use, in which poured concrete walls are faced with native rock. (See Figure Two.)

The Springfield survey also showed that the Ozark rock resources in the city utilize two main types of native rock; fieldstone and split slab. As the names imply, fieldstone construction uses rocks more or less as they came out of the ground, while split slab construction features relatively large slabs of sandstone that were split along bedding planes to form smooth, even sheets of stone. In general, fieldstone buildings are older than split slab buildings; fieldstone became popular as a wall facing in the first decade of the 20th century, while split slabs were not widely used until the 1930s.¹⁸

16 John P. Speweik, The History of Masonry Mortar in America: 1720-1995, (Arlington, VA: National Lime Association, 1995.)

17 Speweik, p. 6, and Robert C. Mack, and John P. Speweik, "Preservation Brief #2: Repointing Mortar Joints in Historic Masonry Buildings." (National Park Service, Washington, D. C., 1998) p. 2.

18 See Section F of this amendment for a more complete discussion of the different types of Ozark rock masonry in

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One of the earliest and most distinctive variations of Ozark fieldstone masonry, which was most often referred to as cobblestone construction at the time, utilizes cherty, spherical, fist- to head-sized rocks as facing on the outer surface of walls.¹⁹ The oldest examples of Ozark rock masonry in Springfield feature this type of fieldstone construction, which was not often referred to as "rubble" during the recent survey. (See Section F of this amendment for more discussion of construction types.) Dates for those properties range from ca. 1914 to around 1940. Rubble walls are characterized by highly textured surfaces and relatively small rocks. Joints are usually recessed. And, while it is not always possible to determine the structural system of a building via casual observation, the walls of most rubble buildings appear to have a poured concrete structural system.

Figure Two. Drawings of typical "cobblestone" walls. From Wooley, J. C. *Farm Buildings*. Columbia, Missouri: Co-Operative Store, 1936.

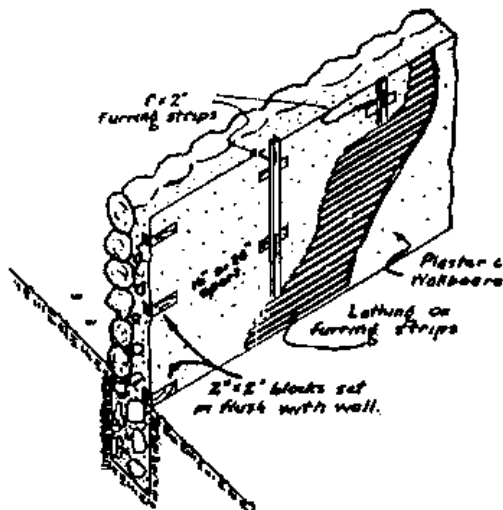


Fig. 78. Blocks for Fastening Furring Strips.

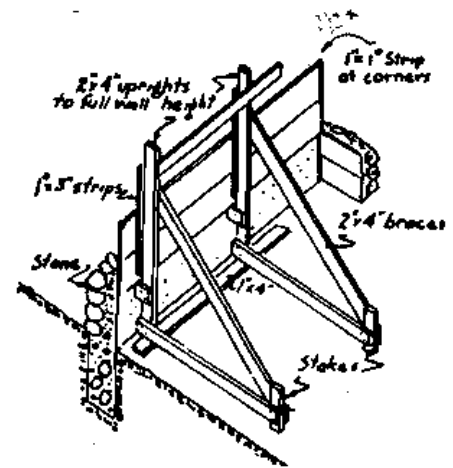


Fig. 77. Forms for Cobblestone Work.

Although Ozark rock masonry construction is firmly rooted in vernacular building traditions, it was also influenced by formal movements in architecture. Fieldstone construction in particular was often associated with the Craftsman movement in architecture, and some of the oldest houses in the study group reflect this architectural influence. The rustic quality and obvious connection to nature offered by native stone made it a natural choice for Craftsman builders. As

Springfield.

¹⁹ Although many local sources of the day used the term "cobblestone" to describe this type of construction, the modern, and more widely accepted, definition of "cobblestone" refers to much smoother, water-rounded stones.

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one of the leaders of that movement, Gustav Stickley, explained, the ideals of the Craftsman movement were: "simplicity, durability, fitness for the life that was to be lived in the house, and harmony with its natural surroundings."²⁰ Stickley's book, *Craftsman Homes*, featured numerous plans and descriptions of modest houses. Stickley and other proponents of the Craftsman movement provided a good bridge between high style and vernacular architecture. His goal of supplying builders of even modest houses with well thought-out plans helped bring good design to everyday architecture, and the influence of the Craftsman movement in Springfield is quite evident in the properties of the survey group. Many of the oldest Ozark rock houses in Springfield are modest bungalows that appear to have been built from ready-made plans such as those published by Stickley; almost half of the study group, forty-six properties, were categorized as bungalows, the most common form of modest Craftsman house.

There are also Missouri precedents for the use of fieldstone for professionally designed buildings. At least one Missouri architect, Louis Miller, is known to have used fieldstone construction very early in the century.²¹ Louis Miller, an Ozark native from the Arcadia valley, was a prolific architect and builder who worked throughout southern Missouri from the 1870s in to the 1920s.²² Accounts of Miller's work show that he was experimenting with fieldstone construction as early as 1903. A rhyme that was published with a photo of a Miller-designed bungalow built in St. Louis in 1903 indicates that the rocks on his building were surface-applied, like plums on a pudding:

From the stone of Sheperd Mountain
Cobblestones that down it thunder
Louis Miller hopes to build him
Something that shall make men wonder
Like a pudding with the plumbs stuck
Everyone upon the skin side
So the cobblestones will cover
All of Miller's dwellings outside.²³

Miller designed several buildings and structures of native stone, throughout the first decades of the new century, and his work surely had a hand in popularizing the use of fieldstone for modest residential construction. One description of Miller's work noted that a bungalow resort

20 Gustav Stickley, *Craftsman Homes*. (New York: Craftsman Publishing Company, 1909, Reprint by Dover Publications, 1979.) p. 9.

21 Stickley, pp. 102-108, and Lynn Morrow, "Louis Miller: Master Craftsman and Folk Artisan of Southeast Missouri." *Gateway Heritage*, summer 1983, pp. 26-37.

22 Lawrence O. Christensen., et al., *Dictionary of Missouri Biography*, (Columbia and London: University of Missouri Press, 1999) pp. 547-548.

23 *St. Louis Post-Dispatch*, May 28, 1903, cited in Morrow, p. 37.

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he designed in 1913 featured "little three-room bungalows" built of "porphyry cobblestone of an iron color, with brick corners and a concrete belt course at the floor line," and also noted that he liked to use rock urns to ornament the porches of his dwellings.²⁴ The Springfield study group includes one rock urn, and several of the houses there have concrete string courses and/or brick edging. Miller's choice of fieldstone construction for even modest construction projects helped set the stage for the popularization of native rock construction in the Missouri Ozarks. It was, after all, a natural fit; the rustic charm of native rock combined nicely with the fact that rock was readily available, and in most cases, free for the picking and easy to work with.

By the time of the Great Depression, fieldstone construction had become firmly rooted in the Ozark vernacular building tradition, and one could find native rock on everything from urban park buildings to rural milk-houses. Ozark rock construction was well-established in Springfield by then as well: just over a third of the buildings in the core Springfield survey group appear to have been built before 1930. Ozark rock resources in Springfield can be divided into five basic categories: Residential, Civic/Public, Structures, Commercial, and Religious.

Residential resources are by far the most common, and most of those are relatively small houses. Of the 119 properties in the survey group, 100 are residential, and all except three of those are single family houses.²⁵ The older houses in the group often exhibit some Craftsman styling, and many appear to have been built from the type of general plans published by Gustav Stickley and others. Many house lots also have other rock structures or buildings, such as retaining walls and garages. The Mercer House, which was built at 1449 E. Blaine Street in 1919, provides a good example of an early fieldstone bungalow with a matching boundary wall along the front of the lot. (See Figure Three.)

Ozark rock was also popular for civic and public building projects, most notably in Springfield city parks. Seven different park properties, each containing multiple resources, are included in the survey group; construction dates range from the 1910s into the late 1930s. The rustic nature and inherent durability of native rock construction made it a popular choice for park construction. The largest building in the study group is located in a Springfield city park. Fasnigh Park, on South Campbell Avenue, contains a large fieldstone bathhouse that was built in 1927 and remains in use today. The parks in the survey group also feature numerous rock structures, such as retaining walls, bridges and barbeque grills. Other structures identified during the survey include a number of rock boundary walls and gateposts in residential neighborhoods. The largest set of gateposts in the survey area is located at Grand and Kickapoo Streets; they are topped with dressed stone accents and contain smooth stone name plates for "Sanford Place." Other structures of note include boundary fences and gateposts that run along several adjacent properties.

²⁴ Morrow, p. 35.

²⁵ All 244 of the properties in the survey area that were identified but not recorded in detail were also residential.

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Figure Three. Merl and Inez Mercer House, Springfield, ca. 1919.



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Rock was also used for commercial and religious architecture in Springfield, although less often than for residential work. Rock commercial properties in Springfield include relatively modest one- and two-story tall retail buildings. The two-story commercial buildings all contain residential or office space on the second floors. Ozark rock was also popular for roadside architecture, and several properties along the historic paths of Route 66 in the city contain Ozark rock buildings. Rock was especially popular for tourist courts and hotels along the highway. The Rock Fountain Court Historic District, on College Avenue, which was listed in the National Register 4/2/03, for example, contains nine separate rock tourist cabins, each of which feature a slightly different type of rock masonry.

There are also a few highly intact rock churches in the city. The survey group includes four relatively large churches of rock, with construction dates that range from 1932 into the 1950s. One study of Ozark rock in another part of the Ozarks noted that rock was favored for church construction because it was generally inexpensive and could in many cases be built by members of the congregation. A rock church built in Mountain Grove in the 1950s, for example, was faced with rock that church members took turns prying out of the ground with crowbars.²⁶ Local farmers were happy to get the stones off their land, and the church was provided with a durable, low-cost construction material.

That ready availability of rock as a building material played a major role in its continued popularity. One article published in *Missouri Magazine* in 1934 noted that "no other building material can be secured simply for the taking, picking it up and hauling it in from the field or the woods."²⁷ The builders of many of the Ozark rock buildings in Springfield apparently did just that. Many of the fieldstone houses in the survey group appear to be constructed of rocks taken directly from their site, and at least one is known to have been built from rocks cleared out of a nearby field. The Wills Grocery Store, which was built at what is now 840 S. Kentwood, for example, is said to have been constructed of rock taken from the fields of the nearby Calhoun farm.²⁸ Again, the farmer was surely glad to have help clearing his field, and Mr. Mills was surely happy to get free building material.

Another feature of Ozark rock construction that ensured it became part of the local building tradition was that it was easy to learn how to do it. As one article noted in 1932, "laying of the rock is not a highly skilled operation and can be done by anyone with very little experience."²⁹ Several houses in the survey group were built by novices for their own use, and at least two are still occupied by the original families. Mr. Clyde Skidmore built a sandstone slab house for himself and his bride on High Street in 1941, and Mrs. Skidmore still lives there today. Skidmore,

26 Stepenoff, p. 19.

27 C. R. Meeker, "Cobblestone Cottages in Missouri," *Missouri Magazine*, December 1934, p. 13.

28 That highly intact building has been the home of Missouri Rug Cleaning since 1941. A long-time employee of the store passed along the story of the builders harvesting rocks from the nearby farm.

29 Grinstead, L.R. "Glorifying the Lowly Cobblestone." *Missouri*, January, 1932, p. 22.

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an upholsterer by trade, had never built a house or done any masonry before starting the project, and he never built another after that. It may be that his experience with upholstery helped as he pieced together random slabs of sandstone for the walls of his home; the rock work on the house is of a high quality, with tidy beaded joints and smooth, cleanly split slabs. Skidmore split the slabs, which came from a creek bed near Fair Grove, as he went along.³⁰

Mr. George Quinn, who built his house on Willards Road in 1949, learned how to do the masonry from a local minister, James Melton. The thick pieces of sandstone fieldstone he used came from a creek bed close to his property, and Quinn did nearly all of the work on the house himself.³¹ The Quinn house features 8-inch thick masonry walls, backed by oak sheathing and studs. Quinn laid up the walls by setting the rock out from the frame inner walls, and filling the cavity with concrete as he worked. He used the handle of a trowel as a measuring stick to keep the masonry walls an even thickness, and installed metal ties to reinforce the structure as he went along. He added several new rooms to the house in 1965, and also constructed a matching rock garage behind the house, using the same type of rock throughout.

It was also possible to learn the basics of working with rock from written sources or even workshops. The University of Missouri Extension Service held workshops during the 1920s and 1930s to promote what they called cobblestone construction and to show interested parties how to construct fieldstone buildings. From a 1932 article in *Missouri Magazine*: "Next to the low cost of such homes, perhaps the most attractive feature is the ease of construction, says R. W. Oberlin of the Missouri Agricultural Extension service, who has been instrumental in introducing the cobblestone type of construction on Missouri farms."³² That same article mentioned several workshops, and described the construction methods taught at those events.

Instructions for building in the medium were also published in several sources. A long article in *Missouri Magazine* in 1934 laid out detailed instructions on how to create a rock building, including everything from the size of the footings to the proportions of sand and cement that should go into the mortar mix.³³ The same article noted that the magazine would supply an illustrated booklet on the construction process to interested parties upon request. There is also a book on varied building methods that was published in 1936 which included similar instructions, including drawings of wall construction and formulas for estimating the materials that would be needed for a project.³⁴ (See Figure Two.)

Construction professionals also took advantage of the growing popularity of rock construction. As noted in *Missouri Magazine* in the 1930s, "in practically every community experts

30 Mrs. Skidmore, interview with Debbie Sheals, September, 2004.

31 Mr. Quinn, interview with Debbie Sheals, September, 2004.

32 Grinstead, p. 32.

33 Meeker, P. 13.

34 Wooley, pp. 103-106.

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in rock work have been developed who are capable of doing excellent work.”³⁵ In several communities, including Springfield, there were local builders and masons who specialized in rock construction. Although it is often difficult to definitively link masons with specific projects, especially those of the modest scale that typifies Ozark Rock, a few masons were identified in association with Ozark rock in Springfield.

The career of one prolific Springfield “rock man,” John Solomon Owen, was documented in *Springfield* magazine in the late 1990s. A three-part series written by his granddaughter, Marilyn K. Smith, identifies several buildings on which Owen and his sons did the masonry work.³⁶ Smith started researching John Owen’s work after learning from her mother (Owen’s daughter) that he had done the distinctive rock work for the Ben Diemer house on the north edge of Springfield, at 3528 N. National Ave. That house features a combination of darker reddish fieldstone and pale limestone, with the limestone used to accent the edges of windows and other openings. The limestone is also used for ornamental arches and sunbursts within the body of the walls. Smith also identified Owen as the probable mason of several other houses in Springfield, as well as the large L. J. Kent Boiler and Sheet Metal Co. Building (now Tindle Feed and Supply) at 700 East Central Street.

She was not, however, able to establish definitively that he was the mason on most of the buildings she mentioned, and based some of her attributions largely on similarity in technique. The masonry on several of the buildings Smith attributed to Owen features starburst shapes and the same distinctive combination of rough dark fieldstone with pale limestone accents found on the Diemer House. That same combination is also found on a number of other houses recorded during the survey project, with some variation in application details. There is a church just a few blocks from the Kent building, at 934 E. Webster, which has rock work that is very similar to that found on the Kent building. The ornamental details found in the rock of the church and the boiler works are nearly identical, and surely the work of the same mason. What is not clear is if that mason was Owen or not. The style of rockwork on those two buildings differs somewhat from that of the Diemer house, leaving some question as to their connection with Owen.

The differences could represent different stages in the development of Owen’s personal style, or simply be the work of a different mason or masons. A number of houses in the Springfield study group that were constructed in the 1920s and 30s feature a combination of dark fieldstone and pale limestone that is similar to that attributed to Owen, with the major difference being that the limestone is sawn and has a very smooth face, which provides for even more contrast with the rough dark fieldstone walls. The limestone pieces used on those houses often have one or more straight edges, and they appear to be quarry scraps, broken from larger slabs of stone. It is likely they originated at the Phoenix quarry, a quarry northwest of Springfield that

³⁵ Meeker, p. 13.

³⁶ Marilyn K. Smith, “Legacy of a Rock Man: John Solomon Owen, Parts I-III.” *Springfield!*, October-November, 1999.

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supplied polished slabs of sawn limestone for high-style building projects all over the country.³⁷

The largest and most elaborate example of that particular masonry style can be found on a house at 2715 W. High Street. (Figure Four.) That large rock bungalow has the date "1921" carved into a limestone keystone located in the wall above the front steps. Rough-edged slabs of sawn limestone accent porch posts, and door and window edges, and rectangular slabs of sawn limestone form lintels over many of the windows and doors. There are at least five other houses in the survey group that utilize that same masonry technique in one form or another, all of which appear to have been built in the 1920s or 30s.

Figure Four. 2715 W. High Street.



³⁷ Laura Wilson, (no page numbers).

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One of the houses which features the sawn limestone and fieldstone combination is located at 1355 S. Clay, on a lot facing Phelps Grove Park, which also contains many good examples of Ozark rock construction. Rock structures in the park include bridges, rock walls along a stream bed and around a memorial garden, and several barbecue grills. The park also contains a large, nicely crafted rock shelter house. Phelps Grove Park is one of several publicly owned properties that benefited from federal New Deal programs during the Great Depression.

WPA (Works Progress Administration) and NYA (National Youth Association) workers did rock work in several Springfield city parks during the 1930s. One of the rock walls lining a stream at Phelps Gove Park bears the letters "WPA", stamped into the concrete edging, and another section of the same wall has "Apr 25, 1936" scratched by hand into the mortar. In other parks, stone tablets on buildings and even barbecue grills bear the letters "NYA".

Other Springfield parks that contain rock structures of note include Silver Springs Park, which has an amphitheater and numerous retaining walls of rock, and the aforementioned Fassnight Park, which has one of the largest collection of rock bridges and other structures in the survey group. Although most of the Springfield park structures are of simple fieldstone construction, at least one of the bridges in Fassnight Park utilizes the more formal sawn limestone and fieldstone combination found elsewhere in the survey group.

Some of the workers on the New Deal projects learned how to work with native rock as part of their Depression-era employment. An article published in the *Springfield Leader and Press* noted that "Most of Ed Elkins' 43 WPA workmen were made into stone workers and builders right on the job, although some of them were good to begin with—just had hard luck and were out of a job."³⁸ John Solomon Owen and his sons worked for the WPA at Phelps Grove Park, and workers from that program have been credited with building some of the rock houses near Phelps Grove Park after the depression.³⁹ It is likely that several of the rock houses in the survey group, including the house on Clay Street by Phelps Grove Park, were built by one or more former WPA employees.

WPA foreman Ed Elkins no doubt played an important role in the masonry work done by his crew of WPA workers; he was an experienced mason himself. Elkins built one of the oldest rock houses in the survey group; a large bungalow at 1335 E. Meadowmere Street. That house, which differs from most of the survey projects in that it uses only light gray limestone, became a local historic landmark in 1991. A plaque inside the house reads "This Craftsman style bungalow was built by H. Edwin Elkins in 1914 for his bride Velma....Mr. Elkins was an architect and bridge designer for the Frisco railroad. He also helped build other historic sites, including the Public Library, Lincoln High School, Shrine Mosque and the gymnasium at Central High School."⁴⁰ The

³⁸ The newspaper article was quoted without a date in Smith, "Legacy, Part II," p. 26. It was probably published in the mid-1930s; Springfield City Directories show that Elkins was working as a foremen for the WPA in 1937.

³⁹ Smith, "Legacy, Part II," p. 26.

⁴⁰ Text from the plaque was provided by the current property owner, Dixie Simpson.

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current owners have heard that Velma did not like living so far from what was then the center of town, and that Mr. and Mrs. Elkins lived in the house only a short time. Springfield city directories show that they lived in various houses through the 1920s and 30s, and that Ed Elkins worked as a brick mason and a foreman for the WPA during the 1930s.

As the 20th century progressed, local builders began using native rock in a new way. By the late 1930s, builders started using large thin slabs of sandstone instead of the smaller, thicker fieldstone that had been popular. The slabs had much larger surfaces than fieldstone, often measuring more than 18 inches across. Slab construction often featured mortar joints that were accented with beaded profiles and/or painted to provide a stronger contrast to the tawny faces of the newly split-sandstone slabs. The use of random shapes was retained, and even became more prominent, and this particular type of rock work is sometimes called "giraffe rock," after its similarity to the markings on a giraffe's skin. That similarity is most striking when dark brown or black joints are combined with golden or tan slabs or rock.

Split slab construction may have become popular because it was easier to use, or simply as a new twist on an established favorite. It may also have been that, prior to the development of a good highway system, it was harder to acquire the right type of sandstone in Springfield. The type of sandstone used for split slabs occurs less often in the Springfield area than do the weathered chert and other fieldstone that were in use before, and builders probably had to get that rock from elsewhere. At least one quarry in nearby Wright County is known to have shipped native sandstone to Springfield in the 1940s and 1950s.⁴¹ Not all of the split slab rock was brought in from out of the county though; as mentioned above, Mr. Skidmore harvested the rock for his split slab house from the Fair Grove area, which is just a few miles northeast of Springfield.

The slabs, which were formed by splitting large pieces of natural sandstone to form thin plates of rock, were much lighter and thinner than the rough fieldstone that had been in use. That change made it possible to use a lighter structural system, and in many cases, the split slabs were applied as a surface treatment over frame walls. One description of the Wells Motel in Cabool, for example, noted that "Its construction is typical of vernacular Ozarks roadside buildings: inexpensive local limestone and sandstone "glued" with mortar to a backing, usually a light wooden frame."⁴² A review of Sanborn Fire Insurance Company maps of Springfield shows that most of the rock buildings studied in Springfield that were built after the mid-1930s have rock veneer over frame structural systems.⁴³ Load-bearing concrete construction did not disappear, however. Some slab rock buildings have the same type of poured concrete walls used in fieldstone construction, and fieldstone and concrete construction continued to be used on buildings and structures in Springfield well into the 1950s.⁴⁴

41 Stepenoff, p. 52.

42 Robert Flanders, "Stone Craft: Architecture of the Southern Missouri Ozarks," *Ozarks Watch*, Fall 1991, p. 39.

43 Sanborn Fire Insurance Maps of Springfield, 1933, 1948, and 1956.

44 David Quick, and Lynn Morrow documented the use of poured concrete for slab buildings in "The Slab Rock

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The ease with which slab rock could be added to a frame structure also made it popular for remodeling projects. Several of the properties in the survey group are frame buildings which received new coatings of slab rock many years after they were first constructed. The Church of Christ, at 801 S. Broadway Avenue is a good example of that trend. The 1933 Sanborn map shows it as an all-frame building, while the 1956 Sanborn shows that by then, it had received a large rear addition, and its current rock sheathing. A large house at 825 N. Grant Ave. has a similar history. It was built in the early 1900s, and received new rock veneer between 1950 and 1956. City directories show that it was home to the Estes family from 1922 into the 1950s, and that by the time the rock facing was added, Mrs. Estes was living there alone. It is likely that she chose the new rock facing for her house to cut down on maintenance costs.

The Estes house is one of many survey properties with a combination of materials; in addition to slab rock on the body of the walls, the house has red and tan brick accents, along with glass blocks and even rock-faced concrete blocks. Slab construction seemed to invite such combinations; it is much more common to see slab rock combined with other masonry materials than fieldstone, which was generally teamed only with light limestone, or used alone. That could be a function of the veneer construction methods, which would make it easier to add elements such as brick edging, which is the most popular addition. Many of the slab rock buildings in the Springfield study group have brick added to building corners and/or door and window openings. Red and tan bricks are often used together to further enliven compositions.

The masonry work of the Estes house is very similar to that found on the cabins of the Rock Fountain Motor Court (ca. 1947) and the El Rancho Motel (ca. 1948), both of which have been attributed to rock mason Ed Waddell.⁴⁵ Waddell is named as the "rock man" for those projects by Quinta Scott, in *Along Route 66*, a history of roadside architecture associated with that famous highway. She claimed that in "Springfield the use of Ozark sandstone reached a crescendo" and that the development of a distinctive type of rock motel architecture "was due to the talents of rock man Ed Waddell," who worked with developer "Mac" MacCandless during the 1940s.⁴⁶ The Estes house and the motels all feature a combination of slab rock and two-tone brickwork, and the cabins of the El Rancho have the same type of glass blocks used on the Estes house. The similarities in the rock work of the three properties invites speculation that Waddell worked on the Estes house as well.

Another feature of both slab and fieldstone construction that bears mention is the use of special shapes, often with whimsical effect. One of the most notable examples of the trend in Springfield can be found on the house at 2331 N. Kellet Ave, which features a large camel, a near perfect circle, and a large arrowhead, among other shapes. The most common type of figure or

Dwellings of Thayer, Missouri," *P.A.S.T.*, (Volume 13, 1990, 35-43), and the Springfield survey group included buildings with poured concrete construction that dated as late as the 1950s.

⁴⁵ Quinta Scott, *Along Route 66*, (Norman: University of Oklahoma Press, 2000) pp. 90-91.

⁴⁶ Scott, p. 90.

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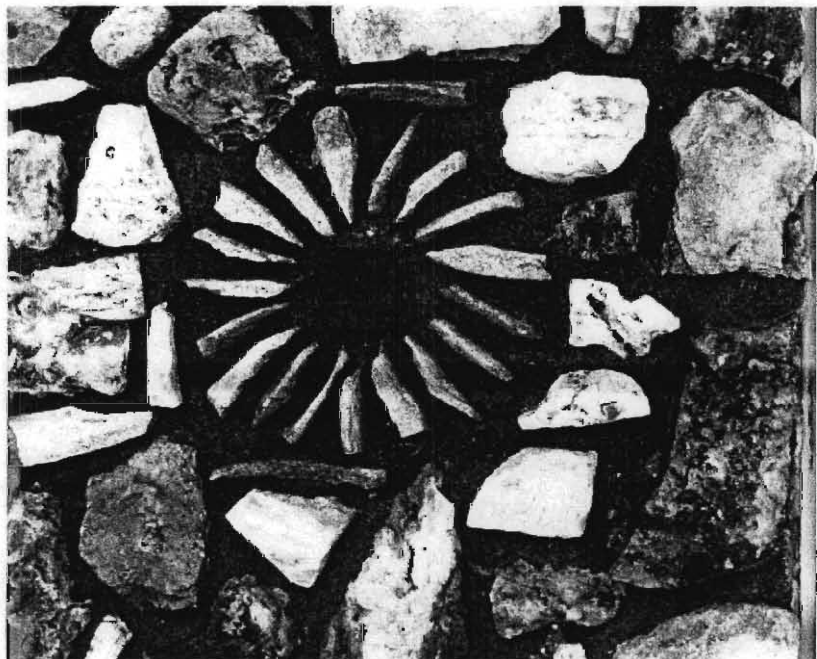
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shape found in Springfield is a starburst or flower shape, with the rays or petals formed by thin chips of rock laid sideways around a rounded rock or even brickbat center. A couple of the survey properties also have plant-like figures that are formed from thin strips of smooth limestone. The use of special shapes was common in many parts of the Ozarks; the 1947 Weymouth house, in Cole Camp, Missouri, for example features stars and a near-lifsize man on its front wall, and flower shapes can be found on rock walls in many Ozark towns.⁴⁷ One family of masons, the Greens, in Thayer, Missouri, even used a flower pattern in a gable end as their "trademark."⁴⁸

Ozark rock continued to be a favored construction method into the 1940s and 1950s. Its popularity during the war years was bolstered by the fact that the rock was readily available, at a time when the war had created a nationwide shortage of building materials. And, although all-rock houses became much less common as the century progressed and labor costs made them more expensive, Ozark rock never completely disappeared from the building scene. There are still houses and businesses being built today that have at least accents of native rock, and the towns and countryside of the Ozarks region are still host to hundreds of sturdy rock buildings constructed in the first half of the 20th century. Those resources are an enduring and significant link to one of the most distinctive genres of vernacular architecture found in Missouri.

Figure Four. Detail of Rockwork from the L. J. Kent Boiler and Sheet Iron Works, 700 E. Central Street, Springfield.



⁴⁷ The Weymouth house was recorded by Debbie Sheals, during an architectural and historical survey of Cole Camp, Missouri, in 1998.

⁴⁸ Becker and Millstein, p. 32.

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Associated Property Types

This amendment has been based upon an architectural and historical survey of Ozark rock masonry in Springfield which took place in late 2004 and early 2005. That survey identified 363 properties containing good examples of Ozark rock masonry, and of those, 119 were singled out for closer study. That group of 119 properties is referred to as the survey group in the following section.¹

Property Type: Ozark Rock Masonry: ca. 1910-1955

Unlike the other property types associated with this cover document, the Ozark Rock Masonry property type is defined by construction methods and materials, rather than the form or historic function of the resource. Ozark rock masonry resources come in a variety of forms, with the common, defining, characteristic being the use of distinctive construction methods which feature native rock. Subtypes, which are based upon the form and function of the resources, are as follows: Residential, Public/Civic, Commercial, Religious, and Structures.

Description:

Ozark rock masonry is a genre of vernacular architecture that was popular in Springfield in the early 20th century. It features the use of native stone, and was in most cases built by local craftsmen, without the influence of formally trained architects. Most of the rocks used for this type of masonry are fieldstone, which differs significantly from the type of cut and dressed stone produced by a commercial quarry. In many cases, the rocks used for these construction projects were taken either directly from the site, or from property nearby.² There are two main types of Ozark rock masonry construction--fieldstone and split slab, both of which feature local rock of irregular shapes, usually laid with their bedding planes perpendicular to the ground. Fieldstone masonry features rocks more or less as they came from the ground, while split slab construction utilizes relatively large slabs of sandstone that are split along bedding planes to form thin sheets of stone. Fieldstone walls are more highly textured than those of split slab.

Ozark rock masonry first came into widespread use just after the turn of the 20th century, and it is still used occasionally for modern construction. It was most popular in Springfield and other parts of the Ozarks from the late 1910s into the late 1940s. Ozark rock masonry resources come in a variety of forms, ranging from large public buildings to

¹ See Section H of this amendment for further discussion of the survey project, and related identification and evaluation methods.

² This was especially true in the first third of the century; by the late 1930s builders were also using sandstone from nearby quarries as well.

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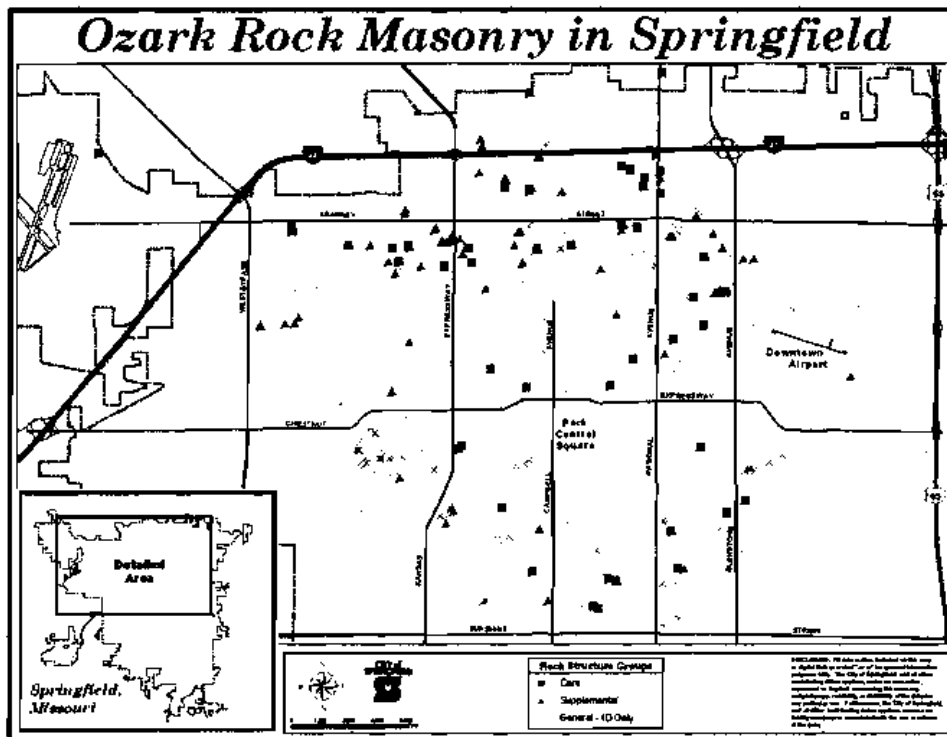
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small retaining walls. Relatively modest houses are by far the most common type of resource to utilize Ozark rock construction in Springfield; of the properties identified in the recent survey, more than 90% were houses, and most of those were fairly small, one-story tall, dwellings.³

Good examples of Ozark rock masonry can be found throughout the northern part of Springfield, both inside and outside of the historic city limits. This construction method was used in both urban and rural settings; many of the properties included in the survey group were outside the city limits when their Ozark rock resources were constructed. Properties with rock resources tend to occur in groups. Properties with rock houses, in particular, tend to be located in clusters, as if the construction of one spurred others in the neighborhood to follow suit. (See Figure One.)

Figure One. General Location Map. Prepared by Nathan Huggins of the City of Springfield.



3 That number is based upon all 363 properties identified during the recent survey of Ozark rock masonry in Springfield; of the 119 selected for more intense study, just over 80% were houses.

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There are also quite a few individual properties that contain cohesive collections of rock resources. Those range from something as simple as a house and retaining wall or garage, to small clusters of buildings and structures. Just over 14% of the 119 properties in the survey group had at least one rock structure, in addition to the main building, and almost 37% have at least two rock buildings on the same property. The most common combination of rock buildings in a single property consists of a house and garage; the study group also includes a few small to mid-sized rock barns and even one entrance for a root cellar. The root cellar was part of a small urban farmstead which was built ca. 1939 at 2849 North National Avenue. That property contains a house, a garage and shop, and the root cellar entrance structure, all with the same type of rockwork.

In addition to residential resources, the survey group also included several city parks, many of which feature extensive collections of rock resources. The largest such collections can be found at Fassnight Park, 1300 South Campbell Avenue, and Phelps Grove Park, at 901 E. Brookside Street. Fassnight Park has 18 rock structures and one large rock building, and Phelps Grove Park has 14 rock structures and 2 rock buildings. Park structures range from modest barbecue grills to long retaining walls and relatively large rock bridges.

Although there is great variety in form, function and even type of rock used, there are also important similarities. All of the resources are constructed of irregularly shaped local rock, left more or less in its natural condition, and nearly all are simple vernacular buildings and structures, constructed with minimal input from professional designers. The only evidence of mainstream architectural trends can be found on relatively small houses, which appear to have been constructed using standard pattern book plans. The most common house type in the group by far is the Craftsman style bungalow, and there are also a very few small houses with simple Tudor Revival styling.

Construction methods are also varied, and differences are often based upon the rock being used. The rock forms used for Ozark rock masonry fit into two general categories—undressed fieldstone and split slab. Variations among fieldstone construction generally reflect differences among the rocks themselves, while split slab resources often gain variety via the addition of different materials, such as brick. Other differences include the way joints are finished, and the type of structural system used. The following sections describe common rock types found on these resources, as well as general categories of construction methods.

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Rock Types Common to Ozark Rock Masonry

Rubble construction, which is one of the oldest types of Ozark rock masonry, generally uses one of the most plentiful rock types, weathered chert. The soils of Greene County are filled with weathered chert, which has a distinctive red and gold coloration from yellow and red iron oxides found in the soil.⁴ One description of area soils noted that one soil common to Springfield, Crawford Gravelly Loam, can have a subsoil of as much as 70% chert, and noted that in some parts of Green County "considerable chert and flinty substances exist, and in other locations, outcrops of sandstone."⁵

Those outcrops of sandstone, along with siltstone and other sedimentary rocks, were also used for Ozark rock construction in Springfield. All of those rock types, along with chert, can be found in fieldstone construction in the city. Although sandstone is less common than limestone or dolomite, especially within the city itself, it is present in several parts of Greene County, especially in the northeast part of the county, around Fair Grove.⁶ Sandstone fragments can be found loose in the soil, and there are also a few relatively large outcroppings near stream beds and other slopes.

One of the most distinctive types of rock used for Ozark rock masonry is called "worm-eaten rock," "worm-rock," or "fossil-rock."⁷ Worm-rock, which is referred to as Hannibal sandstone in several early 20th century publications, is a fine-grained sandstone or siltstone which is filled with tiny, winding, worm-like tunnels.⁸ Worm-rock was quite popular as a building stone, and was used as both dimension stone and fieldstone. A 1915 county atlas noted that it was "easily quarried because of its even bedding" and also noted that "broken and tumbled blocks of this formation are so abundant along the slopes of its outcrops that farmers, who are among its chief users, do not find it necessary to establish quarries for the purpose of obtaining it."⁹

Weathered worm-rock fieldstones were often used for Ozark rock masonry in Springfield.¹⁰ Weathered surfaces of the rock vary in color from buff to dark brown, while cut surfaces are a uniform dark gold. Most Springfield examples of Ozark rock

4 W.D. Keller, Common Rocks and Minerals of Missouri, (Columbia, MO: University of Missouri Office of Publications, June 5, 1961) pp. 34-35.

5 A Survey of the Resources of Greene County, Missouri, (Springfield, Greene County Planning Board, 1935) p. 3., and Soil Survey of Greene County, Missouri, (Washington, D. C.: USGPO, 1915.)

6 Soil Survey of Greene County, p. 20.

7 Fairbanks and Tuck, p. 90, call it "worm-eaten rock;" the other two terms are still used locally.

8 This rock does not appear to be called Hannibal sandstone today, but was described as such in publications of the 1910s. Dr. Neal Loppinot, an area archeologist, recently referred to it as Northview siltstone.

9 Fairbanks and Tuck, pp. 90-91.

10 At least 20% of the 119 properties in the survey group had wormrock walls.

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masonry with this rock retain the weathered surfaces of the fieldstone, although there are a few houses that combine weathered and freshly-cut rocks, which results in a dramatic combination of light and dark surfaces. (See Figure Two.)

Figure Two. Detail of a wall constructed of both cut and weathered "worm-eaten rock."



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Another type of Ozark rock masonry, split slab, uses bigger slabs of sandstone, which have been split along bedding planes to form thin sheets of stone. The stone used for that has a slightly coarser texture than worm-rock, and often features rippled surfaces formed by waves or wind. Many of those appear to be from the Roubidoux formation, which underlays much of southern Missouri.¹¹ Roubidoux appears in a few places in Greene County, and is fairly plentiful in nearby counties to the east.¹² The 1915 county atlas noted that Roubidoux and St. Peter sandstones were often found close to outcroppings of Hannibal sandstone, but that they were at that time considered "too friable and soft for utilization in building."¹³ Those same qualities would lend themselves to split slab applications.

Figure Three. Split slabs of sandstone for this house were collected from a streambed near Fair Grove by Mr. Clyde Skidmore, who built this house for his family in 1941.



¹¹ Howe, pp. 21-22, and Keller, p. 33.

¹² Missouri Geological Survey, Geologic Map of Missouri, (On file with the Geology Library of the University of Missouri, Columbia) 1979.

¹³ Tuck and Fairbanks, p. 91.

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Fieldstone Construction

Dates in use (within the survey group): 1910s-1950s

Common applications: Usually as a wall facing for a building, occasionally for structures such as boundary walls as well. About 40% of the study group used this type of construction.

Joint treatments: Usually flat and often nearly flush with the surface of the rock. The joints are sometimes painted or tinted; brown and black are the most common colors in use in Springfield.

Pictured: The wall of 4630 W. Willards Road, built in 1949, by owner George Quinn. A fieldstone wall constructed of "worm-eaten rock" with flat painted joints.



Although this term can apply to any rock in its natural condition, (as it would literally be found in the field), it is used most often here to describe relatively flat rocks that have not been shaped or cut. The rocks used generally show significant variation in size within a single wall. Most are sandstone, siltstone, or limestone, and they are almost always laid with their bedding plan perpendicular to the ground. The weathered surfaces of these rocks help to define their character. "Worm-rock" or "fossil-rock", for example, is a light buff rock that weathers to a soft dark brown. Fieldstone construction is also the most likely to incorporate special figures into the masonry, such as sunbursts formed from thin chips arranged around a rounded center rock, or plant and animal shapes that take advantage of the natural forms and colors of native rock. The rocks used for fieldstone construction vary greatly in thickness and size, and both frame and masonry structural systems were used.

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Sawn Stone (Usually used with fieldstone.)

Common applications: On houses, most often as an accent to fieldstone construction.

Only two houses in the study group used sawn stone exclusively; six houses and one park bridge also used it in combination with fieldstone.

Joint treatments: Almost always flat and unpainted, and often recessed.

Pictured: The F. Roscoe Hawkins House,

1355 S. Clay Avenue, ca. 1931. This house near Phelps Grove Park features sawn limestone edging combined with rough textured fieldstone.



Extremely smooth stone, often with rougher edges where large slabs have been broken apart. Almost always of fine-grained light gray limestone, possibly scrap pieces from Phenix and other limestone quarries. Although sawn stone is common to high style masonry, in this study group, sawn limestone is generally used only as an accent material, often to edge such things as wall openings, and edge corners and porch posts. It is often paired with rough brown or gold fieldstone or rubble for a distinctive contrast of color and texture.

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Rubble Construction

Dates in use (within the survey group): 1910s to about 1940.

Common applications: Bungalows and other Craftsman style houses, park buildings, retaining walls, planters. It was sometimes teamed with poured concrete trim and wall caps, sometimes with sawn limestone quarry scraps as well. About 16% of the study group used this type of construction.

Common joint treatments: Usually raked back and unpainted.

Pictured: A Craftsman Bungalow built ca. 1930 at 2551 West High Street, with rubble walls, and dark gray mortar. The rock here is laid to create a highly textured surface.



Although this is technically fieldstone construction as well, the term rubble has been used to distinguish masonry which utilizes roughly spherical rocks of uniform size. This type of masonry, which was sometimes called cobblestone in the 1920s and 30s, uses rough ball-shaped rocks in their natural condition. Most of the rocks used are weathered chert, which can be found loose in most types of soil in the Springfield area. The term "rubble" was used on survey forms to describe rocks that average less than 4 or 5 inches in diameter, while "boulder" was used for walls with larger rocks, some of which are nearly a foot in diameter. Some survey properties have walls in which the rocks are laid to emphasize their texture and give an overall nubby wall surface, while others have rocks that have obviously been placed with their flattest side out. This type of rock work often features a poured concrete structural system, with the rocks used as a facing.

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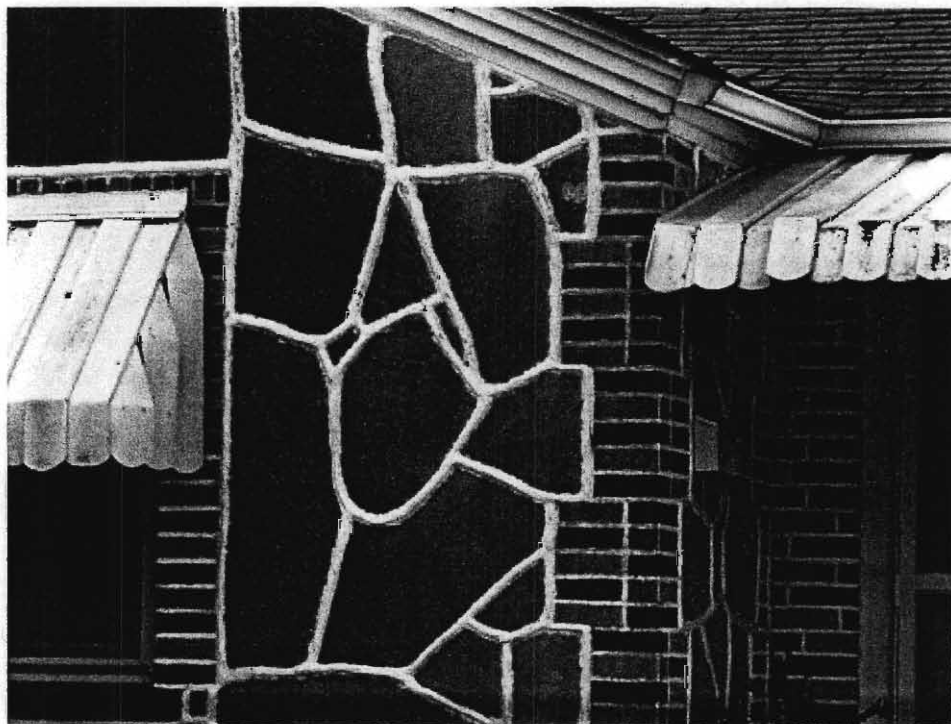
Split Slab Construction

Dates in use (within the survey group): Around 1940-1950s.

Common applications: Wall facing, one house used slabs as a low knee wall on the front porch, and a few commercial properties have used shards of split slabs to top walls or parapets. About 31% of the study group used this type of construction.

Joint treatments: Rarely recessed, and often beaded for extra texture and dimension. Painted joints or tinted mortar are common, usually in black or brown; a very few houses have white-painted joints.

Pictured: 2236 West Atlantic Street, ca. 1940s. This house features two-color brick edging, and white-painted beaded joints.



This masonry type is sometimes called Giraffe Rock, or flagstone. It features thin, very smooth slabs, generally of brown or buff sandstone. The slabs are usually less than three inches thick, but often have a much larger surface than the rocks used in fieldstone construction. It appears that most of the slabs were split specifically for use as a facing material. Some also have a rippled or bubbly surface. Coloration varies; many are a pale buff, and some have a distinctive variegated pink coloration. This type of stone appears to be more likely to discolor upon exposure to the elements than fieldstone; the normally tan or gold rock on several split slab buildings in the study group has faded to be nearly colorless where exposed to the weather. This type of rock is often combined with other

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materials, the most common of which is brick. Two colors of brick are often used together to accent corners and fenestration of split slab buildings. Slabs are more often paired with a wood structural system than other types of rock, although they were also used to face poured concrete walls. Slab rock was also favored for remodeling jobs, in which rock facing was added to an existing frame building.

Slab and Boulder: (A variation of Split Slab)

A distinctive combination of flat split slabs and highly textured boulders or other types of rock. The boulders are generally widely spaced, and contrast greatly in texture and color. Sometimes geodes, lava chunks, and other specialty rocks are used as the boulders. Approximately one third of the split slab houses in the study group fit into this category.

Pictured:

2247 N. Kansas Avenue, built ca. 1950, with beaded joints and very rough accent rocks.



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Ozark Rock Masonry Property Type: Subtypes

As noted, subtypes are based upon the form and/or historic function of the resource, and may be constructed using any of the rock types or construction methods described above.

Subtype A: Residential

The vast majority of the Ozark rock resources identified during field study in Springfield are residential. Of the 119 properties in the survey group, 96 are residential, and the vast majority of those properties categorized as "ID Only" are also residential.¹⁴ Almost all of the residential properties in the survey group are houses, and most of those are relatively modest buildings with minimal styling. Craftsman style Bungalows are by far the most common, and most of those appear to have been built from pattern-book plans. The survey group includes two small duplexes, and the rest of the residential resources are houses. Only 20 of the houses in the group are over one story tall, and most of those are low, one and one-half story tall, houses. Houses in the study group were built between 1910 and the early 1970s, and all of the above construction methods are represented in residential architecture.

Subtype B: Public/Civic

In Springfield, all of the Public and Civic properties with Ozark rock are city parks; other communities sometimes used Ozark rock masonry for public buildings as well.¹⁵ Several city parks in Springfield have intact, significant, collections of Ozark rock resources, which include both buildings and structures. Rock public buildings of note include a large rock bathhouse in Fassnight Park, a skating rink in Doling Park, and a large shelter house in Phelps Grove Park. The parks also contain a good selection of structures, including bridges, retaining walls and barbecue grills. Roughly 7% of the survey properties are public property, and all of those contain multiple resources. Construction dates range from the 1910s to the late 1930s. Fieldstone and rubble construction are the most common for this group.

Subtype C: Commercial

Commercial properties in the study group include relatively small neighborhood commercial buildings, as well as automobile-related architecture, the latter of which is usually located along the historic path of Route 66. The six commercial properties in the study group include two commercial garages on Route 66, three neighborhood commercial buildings, and one former manufacturing facility. The manufacturing

¹⁴ See Section H for more information about the survey data.

¹⁵ The city of Ozark, Missouri, for example, has a community center of rock construction, and the Carter County Courthouse is also of rock.

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building, which housed the L.J. Kent Boiler and Sheet Iron Works in the 1920s, has notably intricate rock work on its façade, which faces a busy street. Commercial properties in the study group were built between the 1910s and 1947, and they utilize all of the construction methods described above; split slabs are most common.

Subtype D: Religious

Although few in number, religious properties of Ozark rock masonry are among the largest and most elaborate buildings in the study group. Dates for the four churches identified during the survey range from 1932 to the 1950s. (One of those was built earlier, and remodeled with new rock sheathing in the early 1950s.) Of those, the 1932 Temmons Temple, at 934 E. Webster Street, features some of the most elaborate Ozark rock work found in the city, with multiple sunbursts and other ornamental patterns. Religious properties in the study group utilize fieldstone, rubble and split slab construction.

Subtype E. Structures

Structures in the study group include boundary walls and gateposts, some of which were used as subdivision markers, retaining walls along stream beds, bridges, barbecue grills, and even one large urn-shaped planter. Many of the structures in the group were found in parks, and could be categorized as Public/Civic as well. The most common structures located on private property are rock boundary walls and gateposts. The five such structures included in the survey group represent only a sampling of the total; only exceptional structures were documented during the survey project. In several residential areas, rock boundary walls run along the front sidewalks of several adjoining properties, and in most cases, they appear to have been added long after the houses were constructed. Construction dates are difficult to pin down for this type of resource, but most appear to have been built in the 1920s or 1930s. All types of construction methods were found on Ozark rock structures in Springfield.

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Significance:

Ozark rock masonry in Springfield represents one of the most distinctive genres of vernacular architecture to have been built in the city in the 20th century. Constructed at a time when popular culture and standardization of building materials was beginning to blur regional differences in architecture, these native rock resources stand out as unique reflections of their time and place. The sturdy, practical rock buildings and structures were most often constructed by local craftsmen, without input from formally trained designers or architects. This is local architecture in the truest sense of the term, and it is part of what makes Springfield unique.

Ozark rock masonry developed in the early years of the 20th century, as advances in construction technology gave local builders a way to use the plentiful fieldstones that fill the Ozark soil. Beginning in the early years of the 20th century, builders started using poured concrete walls, which were faced with fieldstone, much of which was gathered directly from the building site or from a nearby location. Those construction methods were relatively simple, and could be taught to new builders or homeowners in a short time. Ease of execution, combined with readily available materials, made native rock masonry a common choice for everyday architecture. By the 1920s, fieldstone houses and structures could be found in many of the city's neighborhoods, and fieldstone continued to be popular through the 1930s and early 1940s.

Later, as demand for rock increased, and transportation routes grew, builders began to use quarried stone, but eschewed dimension stone in favor of split slabs which had random shapes and natural textures that gave an effect that was closer to fieldstone than coursed masonry. The practice of splitting quarried stone into thin slabs also minimized material costs, and allowed builders to utilize relatively lightweight frame structural systems. Split slab construction became the most popular type of Ozark rock masonry in the early 1940s, and it remained so into the early 1960s.

Ozark rock masonry resources in Springfield are almost always relatively modest buildings or structures, and few, if any, can be classified as high style architecture. The vast majority of the Ozark rock resources in Springfield are houses, and most of those are relatively small dwellings. Ozark rock structures, such as retaining walls and bridges, are most often found in public parks, where the rustic nature of the rock fit nicely with ideals of outdoor recreation.

Although this is everyday architecture, it is not plain, or even terribly simple. While the buildings and structures are often modest, the rockwork itself features myriad variations in technique and use of material, and many resources exhibit notably high levels of craftsmanship. Variations in fieldstone construction most often result from the particular rocks used, and the way they are placed within the wall, while slab construction most often varies in things like joint profiles and the existence of other

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materials, such as brick. Both of those construction methods also included the use of contrasting rock types and textures, and the addition of special shapes to add further interest to the rock work.

The combination of readily available local materials and simple forms found in Ozark rock masonry is typical of vernacular architecture. A definition of vernacular architecture written by architectural historian Howard Marshall, for example, applies nicely to this property type: "those traditional structures built by local people using time-honored methods, learned through apprenticeship and shared experience, and usually without the services of professional, academically trained architects."¹⁶

Ozark rock masonry stands out as one of the few types of vernacular architecture to develop in Missouri during the 20th century. The use of traditional building forms and local materials was often partly a function of the relative isolation that was typical of pre-railroad times. The world had become a much smaller place by the early 20th century, however, and by the time Ozark builders began using fieldstone as an integral part of their buildings, ready-made building materials were widely available, and construction methods were standardized in most parts of the country. The utilization of native rock, much of which was considered a nuisance in earlier times, is a notable reflection of the oft-mentioned Ozark ingenuity and thriftiness. Ozark rock masonry in Springfield is a significant, late, example of a regional form of vernacular architecture, and one that continues to enliven the streetscape of the city today.

Examples of Ozark rock masonry in Springfield may be listed under National Register Criterion C, in the area of Architecture. Intact examples are significant as reflections of one of the most notable types of vernacular architecture to develop in Missouri in the 20th century. Ozark rock masonry was popular in Springfield from the early 1910s into the middle of the 20th century, and the period of significance potentially runs from ca. 1910 to the standard fifty year cut-off point.

¹⁶ Howard Wight Marshall, Vernacular Architecture in Rural and Small Town Missouri: An Introduction, (Columbia: University of Missouri Extension Publications, 1994) p. 7.

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Registration Requirements:

Ozark rock resources are significant as examples of a distinctive type of construction. Representative examples of the Ozark Rock Masonry property type will be eligible for inclusion in the National Register under Criterion C in the area of Architecture, and possibly under Criterion A in an area related to its early function. An eligible building or structure will embody the distinctive characteristics of Ozark rock masonry construction discussed in Section F of this amendment. Eligible resources must also possess integrity of location, design, feeling, workmanship, and materials.

Workmanship and materials are the critical components of the Ozark Rock Masonry property type. Ozark rock masonry is characterized by the use of randomly shaped native rock, which gives it distinctive visual and textural characteristics. Fieldstone construction features weathered, irregularly shaped rocks that are generally used more or less as they were found in the soil. That emphasis on naturally occurring shapes continued to be important as split slab construction developed, and it too, features irregularly shaped rocks.

Buildings which are individually eligible under this property type will feature Ozark rock masonry on three or more elevations, one of which must be the façade. Original or early materials and finishes must predominate, especially on wall surfaces. Field study has shown that rock facing was sometimes added to older buildings; buildings that received such later additions will also be eligible, as long as the rock was added more than fifty years ago, and the building meets other registration requirements.

While painted joints are a common, characteristic, element in this type of construction, the rocks themselves must be unpainted for a building or structure to be eligible.

Eligible examples of Ozark rock masonry will also retain their basic original form, with no major alterations to principal exterior dimensions or rooflines. Although the buildings must be reasonably intact to qualify for listing, alterations and minor changes are practically inevitable, and it is important to gauge the overall effect of any changes when evaluating eligibility. Rear additions and alterations to secondary elevations are acceptable, as long as they are not disproportionately large or overly noticeable from the street. Other additions and alterations which are more than fifty years old may have acquired historic value of their own and should be carefully evaluated.

Because this property type is largely defined by exterior wall surfaces and construction methods, changes to fenestration and interior finishes may be allowable. Exterior porches, doorways, and window openings on highly visible elevations should be little changed, however, and any new windows and doors should be similar to historic units in form and configuration. By the same token, surviving original windows, doors, and other distinctive architectural features represent especially significant historic

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resources, and their existence can outweigh other integrity issues, as long as the building continues to clearly evoke its period of significance and method of construction.

Intact Ozark rock masonry resources may also be eligible if they are part of a cohesive grouping of resources which meets historic district criteria. Such groupings could be exclusively of rock resources, such as a public or residential property that contains rock buildings and structures, or part of a more diverse collection; for example, a residential neighborhood that contains intact historic houses of various materials, as well as rock structures such as entrance gates or boundary walls. Ozark rock resources within a district will be contributing if the rock is unpainted, and there have been no highly visible changes to form and patterns of fenestration.

Although structures that feature Ozark rock masonry can, and should, be considered as contributing resources within districts, a structure would have to be of special value to be individually eligible. Individually eligible structures will possess unusual design elements and detailing, and/or be associated with an important craftsman or building project. An individually eligible structure would be unusually rare or of special artistic value, such as the only known example of a certain type of bridge, or a large, well-executed boundary wall that can be definitely identified as the work of a notable mason.

Intact examples of many of the subtypes for this property type may also be eligible under Criterion A, in relation to their historic function. Examples of the Residential Subtype, for example, may also be eligible under Criterion A, in the area of Community Planning or Development, if they are part of a cohesive historic housing development that includes houses and structures of Ozark rock masonry. Examples of the Commercial Subtype would most often be eligible in the area of Commerce as well. Public/Civic properties may also be eligible in areas such as Entertainment/Recreation, and Landscape Architecture.

Periods of significance will vary according to the conditions of listing. Resources listed individually under Architecture will have a period of significance that is equal to the construction date, or to a range of dates that include significant additions or alterations. A house built of Ozark rock masonry in 1920 which received a sizable rock addition and new retaining wall ca. 1930, for example, would have a period of significance of 1920-ca. 1930. Individual resources listed under Criterion A as well as C will have a period of significance that reflects the time span in which they had a significant association with a notable function or pattern of events. That period would have an end date no later than the standard fifty year cut-off. A building listed today that was occupied by an important business from 1925 to the 1960s, for example, would have a period of significance under Criterion A of ca. 1925 to 1955.

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For an historic district listed only under Architecture, the period of significance will correspond to the construction dates of the contributing buildings found there, or to the standard fifty year cut-off point, whichever is earlier. For example, a district in which the oldest contributing resource (rock or other) dates to 1920, and the newest to ca. 1946, would have a period of significance of 1920-ca. 1946. A district which contains examples of Ozark rock built between 1920 and 1965, by contrast, would have a period of significance that runs from 1920 to the standard fifty year cut-off point. The period of significance for an historic district listed under Criterion A will correspond to the years during which district properties had important associations with the development and use of Ozark Rock masonry construction methods.

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Geographical Data (This Amendment)

This amendment was prepared to include historic properties within and close to the 2005 city limits of Springfield, Missouri. Although the survey upon which this amendment is largely based focused upon the historic core of the city, additional fieldwork and other research indicates that the information presented here applies to Ozark rock masonry in general. This amendment is therefore applicable to all parts of the City of Springfield, as well as those properties in the immediate vicinity of the current municipal boundaries.

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Summary of Identification and Evaluation Methods (This Amendment)

This amendment has been based upon a study of Ozark rock masonry in Springfield which was conducted in late 2004/early 2005, by preservation consultant Debbie Sheals. The survey was funded in part by a Historic Preservation Fund grant, which was administered by the Missouri State Historic Preservation Office. Project management and additional funding was supplied by the City of Springfield. The survey identified more than 360 properties which contain good examples of Ozark Rock. Information on those properties was entered into an electronic database, and locations were platted on large scale maps.

Although the survey group includes a good percentage of the city's rock masonry resources, it is not all-inclusive; the study concentrated on the older parts of Springfield that had not been surveyed in the past, and only recorded the most intact examples. The survey area included land within or close to the current city limits of Springfield, but only included areas north of Sunshine Street, which was the southern city limit in 1926. Fieldwork was guided by aerial-photo maps of the city, which were prepared by City staff. The maps were numbered, and organized by section, township, and range. Fifty different geographical sections were mapped, 12 of which had been surveyed before. Fieldwork for this project included full survey of 30 previously unsurveyed sections, plus spot checks of five other sections. (See list of map sections covered at the end of this section.) Previously surveyed areas were also spot checked, and two of those sections were completely resurveyed. Earlier survey data for those areas was also reviewed, and rock resources identified there were added to the general survey database.

Full survey coverage consisted of driving every street in the section, and mapping all notable examples of rock masonry. Notable examples were defined as being properties in which the main building was fully of native rock construction. Properties for which the main building was only partly of rock or which had only outbuildings or structures of rock were not included in this study. Examples of resources not mapped include a property with a frame house and a rock garage, or a building with rock on only one or two elevations. The most notable exceptions to that rule of thumb were rock boundary walls, several of which spanned more than one property, and exhibited a high level of craftsmanship. That process resulted in the identification of over 360 properties. That study group was then subdivided to allow concentrated study of the most outstanding examples. Three levels of recordation were done: fifty properties became the core study group, and sixty-nine others were chosen for supplemental study. The rest of the properties were categorized as "ID only."

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CORE STUDY GROUP (Fifty Properties)

This group represents fifty of the most significant examples of Ozark rock masonry in the City of Springfield. The core study group contains a representative sampling of structures and building types, and the resources of the group exhibit high levels of integrity and/or architectural interest. Study of these properties included mapping, black and white and color photography, field recording of physical characteristics, and basic historical research to identify approximate construction dates and early owners.

SUPPLEMENTAL STUDY GROUP (Sixty Nine Properties)

The properties of the supplemental study group also exhibit a high level of integrity and architectural interest. Study of these properties included mapping, color photography, and field recording of physical characteristics.

ID ONLY (Two Hundred Forty Four Properties)

The remaining properties were identified during fieldwork for the current study, and through previous survey work. Those properties were mapped, and addresses were included in the general database.

Map sections covered during fieldwork:

1. Unsurveyed parts of the city, north of Sunshine.

Most intensive study. All streets within the city limits driven.

S01T29NR23W	S06T29NR22W	S05T29NR22W
S04T29NR22W		
S03T29NR22W	S02T29NR22W	S01T29NR22W
S06T29NR21W		
S05T29NR21W	S07T29NR22W	S08T29NR22W
S09T29NR22W		
S10T29NR22W	S07T29NR21W	S08T29NR21W
S09T29NR21W		
S10T29NR21W	S17T29NR22W	S16T29NR22W
S15T29NR22W		
S18T29NR21W	S17T29NR21W	S16T29NR21W
S15T29NR21W		
S22T29NR22W	S19T29NR21W	S20T29NR21W
S26T29NR22W		
S30T29NR21W	S29T29NR21W	

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2. Areas with sparse historic development. Spot checked during fieldwork, not all streets covered.

S04T29NR21W	S03T29NR21W	S02T29NR21W
S18T29R22W		
S20T29NR22W		

3. Previously surveyed sections. Spot checked, not all streets driven. Also looked at earlier survey records for these sections, and added any rock properties to the general database.

S11T29NR22W	S12T29NR22W	S18T29NR22W
S14T29NR22W		
S13T29NR22W	S21T29NR22W	S23T29NR22W
S24T29NR22W		
S28T29NR22W	S27T29NR22W	S25T29NR22W

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