In the high desert of California, flesh-colored boulders rise up out of the stark landscape and embrace a small valley where Keys Ranch stands. Strangely shaped trees cast long shadows on the sides of the simple wooden ranch structures. Animal tracks in the sand tell of the previous night's adventures when scorpions, kangaroo rats, snakes, and bobcats battled for survival. This seemingly hostile desert environment was settled much later than other more productive areas of the West. Yet it was here, in 1917, that Bill Keys chose to establish a ranch and raise a family. Keys and other 20th-century homesteaders lived much as earlier pioneers in the West had, working hard to make their marginal land holdings successful. Today, Keys Ranch is preserved as part of Joshua Tree National Park.
Where the lesson fits into the curriculum

Topics: The lesson could be used in U.S. history, social studies, and geography courses in units on western expansion and settlement, or desert environments. It also could be used in an American Literature course in a unit on the writings of Ralph Waldo Emerson, particularly his concept of self-reliance. The lesson will help students understand why desert regions were among the last areas settled under the Homestead Act and how settlers in these places survived in a remote environment. 

Time period: 1910s-1960s.

Objectives for students

• To examine the lifestyle of a family who chose to homestead in the California desert.
• To describe how the Keys family both adapted to and shaped their desert environment.
• To consider Ralph Waldo Emerson’s description of self-reliance and describe how it relates to the life of Bill Keys.
• To discover the history of settlement in their own region and determine how settlers’ experiences may have compared to the experiences of Bill Keys.

Visiting the site

Keys Ranch is located within the boundaries of Joshua Tree National Park. Administered by the National Park Service, Joshua Tree is located 140 miles east of Los Angeles. It can be entered from Interstate 10 or State Highway 62. For more information, contact the Superintendent, Joshua Tree National Park, 74485 National Park Drive, Twentynine Palms, CA 92277, or visit the park’s Web site at www.nps.gov/jotr.

Supplementary resources

Students (or educators) wishing to learn more about Joshua Tree National Park, desert environments, or homesteading may want to read the following: Robert Cates, Joshua Tree National Park: A Visitor’s Guide (Chatsworth, Calif.: Live Oak Press, 1995); Dick Everell, Conquering the Great American Desert (Lincoln, Nebr.: Nebraska State Historical Society, 1975); A. S. Gintzler, Rough and Ready Homesteaders (Santa Fe, N. Mex.: John Muir Publications, 1994); and Conrad R. Stein, The Story of the Homestead Act (Chicago: Children’s Press, 1978).

(continued on inside back cover)
Getting Started

Why might this mural have been created? In what region of the country might it be located?
Photograph Analysis Worksheet

Step 1
Examine the photograph for 10 seconds. How would you describe the photograph?

Step 2
Divide the photograph into quadrants and study each section individually. What details--such as people, objects, activities--do you notice?

Step 3
What other information--such as time period, location, season, reason photograph was taken--can you gather from the photograph?

Step 4
How would you revise your first description of the photograph using the information noted in steps 2 and 3?

Step 5
What questions do you have about the photograph? How might you find answers to these questions?
Desert regions may bring to mind images such as huge expanses of sand, extremely dry weather conditions, intense heat, and sparse animal and plant life. Although all of these conditions are sometimes found in deserts, people have managed to establish homes and even thrive in desert environments. The Mojave Desert, a high desert, is located at an elevation of between 2000 and 6000 feet. The average annual rainfall is less than five inches, making large scale farming impossible. Mountain ranges and sandy soil prevent easy travel from place to place.

Questions for Map 1
1. What are some characteristics of a desert environment that make human habitation difficult?
2. What is the average annual rainfall in your area? How does it compare with the average rainfall in the Mojave Desert?
3. Identify all the deserts shown on Map 1. Name the countries and states covered by these deserts. Which desert is a subsection of another?
4. Locate Joshua Tree National Park, which includes the area where Bill Keys settled. What two deserts surround the park?
Locating the Site

Map 2: Portion of Joshua Tree National Park, California.

The shaded areas of this map represent desert mountains which include the "Wonderland of Rocks," a huge mass of granite rocks piled hundreds of feet high.

Questions for Map 2
1. Locate Desert Queen Ranch (Keys Ranch), the northern boundary of Joshua Tree National Park, and the town of Twentynine Palms.
2. List the three mountains on the map and their elevations above sea level. How much higher than Keys Ranch is each of the mountains? How much higher is each mountain than the town of Twentynine Palms?
3. Trace the route between Keys Ranch and Twentynine Palms. Why is this route indirect?
4. What do you think the icon below Twentynine Palms signifies?
Determining the Facts

Reading 1: Settling in the California Desert

A flurry of mining and cattle ranching activity first brought European Americans to the Mojave Desert in the 1860s. These prospectors and ranchers moved to and from mining districts and range land, gathering for water at natural springs like the Oasis of Mara in the present-day California town of Twentynine Palms. Permanent homesteaders did not arrive in the Twentynine Palms area until the 1920s. Under the Homestead Act, these settlers claimed 160-acre parcels of land just as thousands of families had done in the 19th century.

The arid climate made the land unsuitable for farming, but some people came to the area to improve their health. Many World War I veterans who had been exposed to poison gas during battle developed respiratory ailments that seemed improved by the Mojave's elevation, dryness, and lack of fog. The new settlers chose areas near the Oasis of Mara because of the reliable water source. By the mid 1930s, the area had evolved into the small town of Twentynine Palms. Between the two World Wars, life in the remote desert region near Twentynine Palms was much different than in more settled areas of the United States. In the desert, roads consisted of wagon tracks, mail took at least 10 days to receive, electricity did not exist, and phones were lacking. Survival often depended on adaptation and ingenuity.

In 1938, land officials acknowledged that the Mojave Desert was not suitable for large-scale farming. The Federal Government passed the Small Tract Act granting five-acre or "jackrabbit" homesteads in such dry and unproductive areas. This Act brought more people to Twentynine Palms and transformed the area once again. But even as Twentynine Palms evolved into a bustling community, a handful of homesteaders on larger plots of land maintained a way of life similar to that of the earlier pioneers. Nestled in a rock-enclosed canyon approximately seven miles from Twentynine Palms, but separated from it by impassable rock piles, one of those homesteaders—Bill Keys—carved out his own niche.

Born in Russia on September 27, 1879, Bill Keys and his family moved to Nebraska in the early 1890s. He left home at the age of 15 and began working at mills, mines, and cattle ranches. In 1910, Keys arrived in the Twentynine Palms area where he began working at the Desert Queen Mine as custodian and assayer (one who analyzes ore and judges its worth). After the owner's death, Keys gained possession of the mine as payment for back wages. In 1917, he filed on an 80-acre homestead under the Homestead Act and began to build a ranch. He soon married Frances May Lawton, who left the comforts of the city to move to the Mojave Desert ranch and start a family. The couple had seven children between 1919 and 1931, three of whom died during childhood. Together the Keys family tackled the hardships of isolated desert life. Eventually, the Keys' homestead included a ranch house, store, two school houses, a home for a teacher, outhouses, sheds, a stamp mill, a corral, supply yard, orchard, cement dam and lake, windmill, irrigation systems, rock retaining walls, and a cemetery.

Questions for Reading 1
1. What factors contributed to the establishment and growth of Twentynine Palms?
2. What was everyday life like in the California desert region between the two World Wars? How was this different from many other areas of America?
3. How did Keys acquire the Desert Queen Mine?

Adapting to and Changing an Environment

Bill Keys thrived in the desert because of his resourcefulness and the diversity of tasks he performed. He built a ranch house, work sheds, and guest cabins out of wood, and he quarried rocks to build walls. He raised goats, chickens, and cattle for food, and grew fruits and vegetables. He owned at least 30 mining claims where he mined for gold and gypsum (a soft mineral used for ornamental objects). To make money, he operated a stamp mill (a machine that crushes rock in order to remove gold or other minerals). Area miners brought their ore to Keys who crushed it for a fee. None of these activities alone could have supported his family, but combined, they provided for their needs.

Lack of water was the first and most constant obstacle Keys faced. He dug deep wells by hand, constructed windmills, and dammed up the rocky canyons surrounding the ranch to create a lake. The lake irrigated the orchard and vegetable garden through a sophisticated system of piping and served as an emergency supply of drinking water if the wells dried up. It also provided recreation in the forms of fishing, swimming, and ice skating.

Keys' ability to repair machines and household items often came in handy. Since the ranch site was far from town, the family rarely threw anything away that they might use to fix a broken item. Keys scavenged abandoned ranches and mines for rails, wire, pipes, household items, old cars, and tires left behind by less successful people. He even purchased an entire junk yard and organized it into neat piles on the ranch to use as a supply yard.

The Keys family knew the importance of working as a team. With the nearest doctor more than 50 miles away, the family depended on each other for treatment of minor afflictions. They traded or bartered with local homesteaders and business owners in Twentynine Palms for items they could not produce on the ranch such as salt, coffee, flour, and sugar.

Relations with Ranch Neighbors

Most of the surrounding homesteaders and miners viewed Keys' ranch as the center of their desert network and its owner as a helpful friend. Miners appreciated his knowledge of mines in the area and his milling capabilities. Keys built a one-room school house for his children and others in the area to ensure they received a proper education despite their isolation. He provided the teacher with a cabin on the ranch. The family also hosted many visitors at the ranch including well-known writer Erle Stanley Gardner, and famous botanists Phillip Munz and Edmund Jaeger. Jaeger, while identifying new desert plant species, named a flower "Keysia" (Glyptopleura setulosa) in honor of the kindness the Keys family showed to so many desert travelers.¹

Like the typical self-reliant 19th-century homesteader, Keys adamantly protected the needs and interests of his family. This attitude sometimes caused him to be at odds with people around him. Disagreements over water rights led cowboys working for a nearby cattle company to label Keys a troublemaker. Keys acquired large sections of land surrounding public water sources. Access to the water was cut off once Keys fenced the land, but the cattle company still ran 300-400 head of cattle there causing damage to Keys' fences and putting a heavy
Determining the Facts

Reading 2: Life on Keys Ranch (cont.)

strain on the water supply. The cowboys further retaliated by cutting his fences, shooting his cattle, or driving them to market with the company's herd.

Another problem arose in 1936 when a citizen-led campaign to preserve the unique desert environment of the region resulted in the creation of Joshua Tree National Monument. This new unit of the National Park Service (which became Joshua Tree National Park in 1994) completely surrounded Keys Ranch. Keys had a volatile relationship with Park Service personnel because new regulations limited his cattle grazing, opened his water holes to the public, and restricted his homesteading and mining activities. Keys, who had lived in the area for 25 years, resented the government regulations.

Keys had more serious problems with another neighbor, Worth Bagley. He had built a road leading to one of his mining claims on land Bagley later purchased. Despite repeated warnings by Bagley, Keys believed the road belonged to him and continued to use it. To retaliate, Bagley set up an ambush for Keys one day in 1943. Keys proved to be a better shot, however, and the confrontation ended in Bagley's death. Believing he had acted in self-defense, Keys turned himself in to the authorities. He was convicted of manslaughter and sentenced to five years in San Quentin prison. After his release from jail in 1948, Keys worked to earn a pardon, which finally came eight years later.

The Retirement Years

Bill Keys returned to the ranch at the age of 69 to resume the active life he had left behind. In his 70s, he built two more dams behind the house, enlarged the orchard and garden areas, assessed his mining properties, and temporarily reopened his mill. He even played the role of a prospector in the Disney Company's film The Wild Burro of the West.

When his wife died in 1963, Keys sold the ranch to Henry Tubman who traded the property with the government for federal land elsewhere. Thus, the ranch became the property of the National Park Service. Keys lived on the ranch until his death on June 28, 1969. While the world outside the ranch had changed dramatically, Keys' way of life had remained remarkably constant. In 1994, the town of Twentynine Palms commissioned a mural to commemorate Bill Keys and to illustrate the impact he had on the area. (See Getting Started photo.)

Questions for Reading 2

1. Why was the Keys family successful in the desert? Give some examples.
2. How did Keys modify his environment? How did he adapt to it?
3. How did the creation of Joshua Tree National Monument affect Keys' life?
4. Why did Keys spend five years in prison? How else might Keys and Bagley have resolved their problem?


1Edmund C. Jaeger, Desert Wild Flowers (Stanford, Calif.: Stanford University Press, 1940), 314.
Determining the Facts

Reading 3: Excerpts from Emerson’s Essay “Self-Reliance”

Self-reliance is a trait Americans have long valued. Ralph Waldo Emerson’s 1841 essay “Self-Reliance” was very popular throughout the late 19th and early 20th centuries. Following are excerpts from the essay:

There is a time in every man’s education when he arrives at the conviction that envy is ignorance; that imitation is suicide;...that though the wide universe is full of good, no kernel of nourishing corn can come to him but through his toil bestowed on that plot of ground which is given to him to till. The power which resides in him is new in nature, and none but he knows what that is which he can do, nor does he know until he has tried....

Society everywhere is in conspiracy against the manhood of every one of its members. Society is a joint-stock company, in which the members agree, for the better securing of his bread to each shareholder, to surrender the liberty and culture of the eater. The virtue in most request is conformity. Self-reliance is its aversion....

For nonconformity the world whips you with its displeasure. And therefore a man must know how to estimate a sour face. The by-standers look askance on him in the public street or in the friend’s parlor....

If our young men miscarry in their first enterprises they lose all heart. If the young merchant fails, men say he is ruined. If the finest genius studies at one of our colleges and is not installed in an office within one year afterwards in the cities or suburbs of Boston or New York, it seems to his friends and to himself that he is right in being disheartened and in complaining the rest of his life. A sturdy lad from New Hampshire or Vermont, who in turn tries all the professions, who teams it, farms it, peddles, keeps a school, preaches, edits a newspaper, goes to Congress, buys a township... and always like a cat falls on his feet, is worth a hundred of these city dolls! He walks abreast with his days and feels no shame in not “studying a profession,” for he does not postpone his life, but lives already....

The civilized man has built a coach, but has lost the use of his feet. He is supported on crutches, but lacks so much support of muscle. He has a fine Geneva watch, but he fails of the skill to tell the hour by the sun. A Greenwich nautical almanac he has, and so being sure of the information when he wants it, the man in the street does not know a star in the sky....

Questions for Reading 3

1. What do you think Emerson meant when he said "imitation is suicide"? Do you agree?
2. Summarize Emerson’s view on why self-reliance is society's "aversion." Did Bill Keys experience some of this aversion?
3. Emerson might have characterized Bill Keys as "always like a cat [falling] on his feet."
   Why is this better, in Emerson’s view, than being a "city doll"?
4. What does Emerson think that civilized man has lost? Why? Do you think this applied to Bill Keys?

Reading 3 was excerpted from Ralph Waldo Emerson, Self-Reliance (New York: Penguin Books, 1982), as reprinted from the standard edition prepared by Edward Waldo Emerson, The Complete Works of Ralph Waldo Emerson, 12 vols. (Boston, 1903-04).
Two deserts, the Mojave and the Colorado (a subsection of the Sonoran), come together at Joshua Tree National Park. Few areas more vividly illustrate the contrast between high and low desert. The Colorado, occupying the eastern half of the park, is dominated by the creosote bush. The higher, slightly cooler, and wetter Mojave Desert is home to the Joshua tree.

Photo 1: The Colorado Desert.

Photo 2: The Mojave Desert.

Questions for Photos 1 and 2
1. List three descriptive words that characterize each desert.
2. Would you consider these deserts hostile environments? Why or why not? List at least one positive thing about each desert.
3. In which desert did the Keys family live?
Questions for Drawing 1
1. Use the key to identify each of the numbered items.
2. What are your impressions of the ranch and its surroundings?
3. What might the rock piles provide for the ranch?
Photo 3 was taken from the top of Ryan Mountain in Joshua Tree National Park, looking down on the Wonderland of Rocks. This provides a good view of how these rock piles rise up out of the flat desert plain.

National Park Service (Photo by Penny Knuckles)
Visual Evidence

Photo 4: The ranch house.

Questions for Photos 3 and 4

1. Refer to Map 2 to locate the Wonderland of Rocks.
2. Why might Keys have chosen this "Wonderland" for his ranch site?
3. Do the rocks appear larger in Photo 4 than in Photo 3? If so, why?
4. Does Photo 4 change your impression of the ranch based on Drawing 1 and Readings 1 and 2? If so, how?
**Setting the Stage**

Remind students that by the mid-1840s, the phrase "manifest destiny" had been coined to describe the notion that Americans must expand throughout the North American continent. During that decade, some quarter-million Americans trekked to Oregon and California. The West became a symbol of prosperity, adventure, and independence. In 1862 Congress passed the Homestead Act, which provided western land to people with the ambition to move and build new lives. By 1900, approximately 400,000 families had claimed land under the provisions of the Act.

Desert areas in California, Nevada, Utah, Colorado, and Arizona were among the last places homesteaders settled. Those who chose the marginal lands of these desert areas lived an "old-fashioned" lifestyle while many of the previously settled places were becoming urbanized. Over time, however, hard work and determination turned some small desert farms into large, successful ranches. From 1917 until 1969, homesteader Bill Keys lived on one such ranch in the Mojave Desert near Twentynine Palms, California. Keys and his family are particularly representative of the hard work and ingenuity it took to settle and prosper in the Mojave Desert. The family's home, known as Keys Ranch, today is located within the boundaries of Joshua Tree National Park.

**Putting It All Together**

Through the following activities students will consider the meaning of self-reliance in greater depth as well as determine how important events in their community's history relate to national events and events in the life of Bill Keys.

**Activity 1: Self-Reliance**

Have students use the following questions to guide them in writing a creative essay on their views of self-reliance:

1. How would you define self-reliance? Do you think self-reliance is always a good thing? Why or why not?
2. How might a very self-reliant person be characterized by others? Why?
3. What do you think Emerson meant when he wrote that "civilized man has built a coach, but has lost the use of his feet"? Do you agree or disagree? Why?
4. What skills does Emerson claim we have lost? Do you think these are important? Why or why not? What other skills might we have lost or be in danger of losing since Emerson wrote his essay?

**Activity 2: Local Community History**

Have students work in small groups to research the history of their town or region. Ask each group to create a time line showing the dates of first settlement, important local events, and activities of prominent local citizens of the past hundred years or so. Have them use a different color to add major events in the 20th century such as World Wars I and II, the stock market crash, presidential terms, first sound films, first televisions, etc. They should use a third color to add the major events of Bill Keys' life to the time line.

If possible, have students try to find and photograph buildings or monuments in their community that are associated in some way with any of the events listed on their time line. Examples may include a memorial honoring local war veterans, a historic house museum, or a commercial building that reflects the area's economic livelihood. Students can then illustrate their time lines with photographs of some of the places that help tell the story of their community.

After the time lines are completed, have the class compare activities or events that occurred during the same period. Hold a classroom discussion on what the time line reveals about how events in their community's history relate to those of Bill Keys' life and the rest of the country.
How to Use Teaching with Historic Places Lesson Plans

Teaching with Historic Places lesson plans bring real places where history happened directly into your classroom. By examining carefully selected written and visual documents, students experience the excitement of historical investigation as they learn the stories of these special places. The lesson plan format and content fit comfortably into standard units and curriculum topics in history, social studies, geography, and civics. Most student materials can be removed easily and duplicated. Although the format allows flexibility, it was designed to present the material as described below:

**Getting Started**

Begin the lesson by asking students to discuss possible answers to the question(s) found on the page titled Getting Started. To facilitate a whole class discussion, you may want to use the master copy provided to make an overhead transparency. The purpose of the exercise is to engage students’ interest in the lesson’s topic by raising questions that can be answered as they complete the lesson.

**Setting the Stage**

Present the information in Setting the Stage by reading it aloud, summarizing it, or photocopying it for students to read individually or in small groups. This historical background familiarizes students with the lesson’s topic.

**Locating the Site**

Provide students with photocopies of the maps, captions, and questions in Locating the Site. Students may work together or individually to answer the questions. At least one map familiarizes students with the site’s location within the country, state, and/or region. Extended captions may be included to provide students with information necessary to answer the questions.

**Determining the Facts**

Provide students with photocopies of the readings, charts, and/or other documents included in Determining the Facts. The questions for each selection help ensure that students have gathered the appropriate factual information.

**Visual Evidence**

Provide students with photocopies of the lesson’s visual materials or use the master copies to make overhead transparencies. Students may work together or individually to answer the questions. Some lessons require studying two photos together. Extended captions may be included to provide students with important information.

Rather than serving merely as illustrations for the text, the images are documents that play an integral role in helping students achieve the lesson’s objectives. To assist students in learning how to “read” visual materials, you may want to begin this section by having them complete the Photograph Analysis Worksheet for one or more of the photos. The worksheet is appropriate for analyzing both historical and modern photographs and will help students develop a valuable skill.

**Putting It All Together**

After students have answered the questions that accompany the maps, readings, and visuals, they should complete one or more of the Putting It All Together activities. These activities engage students in a variety of creative exercises, which help them understand the big picture by synthesizing the information they have learned and formulating conclusions. At least one activity leads students to look for places in their community that relate to the topic of the lesson. In this way, students learn to make connections between their community and the broader themes of American history they encounter in their studies.

Teaching with Historic Places (TwHP) is a program of the National Register of Historic Places. The National Register is maintained by the National Park Service, U.S. Department of the Interior, as the nation’s official list of cultural resources significant in American history, architecture, archeology, engineering, and culture. TwHP is sponsored, in part, by the Cultural Resources Training Initiative and Parks as Classrooms programs of the National Park Service. This lesson is one in a series that brings the important stories of historic places into classrooms across the country. For more information, contact Teaching with Historic Places, National Register of Historic Places, 1849 C Street, NW, Suite NC400, Washington, DC 20240, or visit the program’s Web site at www.cr.nps.gov/nr/twhp.