

STRAIGHT AS THE CROW FLIES: HISTORICAL GEOGRAPHY OF THE  
KANSAS CITY SOUTHERN RAILWAY COMPANY

by

Wilma F. Baruth

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A MASTER'S THESIS

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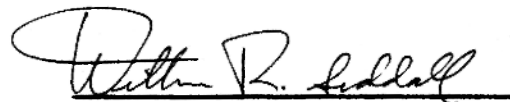
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Approved by:



William R. Siddall

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In particular I wish to commend highly the consideration and helpfulness shown me by the Kansas City Southern. At my request President T. S. Carter promptly and graciously supplied maps, brochures and a brief company history early in my research. In addition Mr. Charles G. Pitcher, Secretary to the Vice President of Operations, courteously interrupted his hectic Saturday-morning schedule to open company files, answer questions, and assemble essential data for me, without which this composition would have been quite impossible.

My greatfulness to the Kansas City Southern, however, is profoundly more

far reaching. In 1915 when my father, Arnot F. Baldwin, was 14 years old, he was sent to Kansas City by his parents to work and help provide support for them and his four sisters after the family home at Montevallo, Missouri was destroyed by fire. The KCS hired him to work as a messenger boy for a salary of about \$10 per week. He continued employment with the railroad 33 years, working many of those years as a freight clerk and finally as assistant cashier. During those 33 years the KCS not only provided financial help for my grandparents in this time of great need, but later this employment allowed my father to provide for his widowed mother as well as his wife and two children through the 1930's depression years. This fact was not lost upon him, for he once spoke to me of his appreciation of the employment he had had with the railroad during a time when so many in our country had no work. Always a voracious reader, he mentioned to me shortly before his death in 1977 that he had recently learned the KCS was very new at the time it had hired him. This statement aroused my interest and eventually led to the subsequent thesis about the railroad that by this time had become to me "more than a railroad" [Malone, 1982, p. 2]. This thesis then is, in part, a small token of my deep gratitude to the Kansas City Southern Railway Company.

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## Chapter 1

### INTRODUCTION

The Kansas City Southern Railway is the realization of entrepreneur Arthur E. Stilwell's dream of building a railroad from Kansas City to the Gulf of Mexico. He built the railroad during the 1890's under the name of the Kansas City, Pittsburg, & Gulf (KCPG). The Stilwell interests (friends and business associates) lost control of the railroad in 1899 when it was forced into receivership, after which time it was reorganized under the name of the Kansas City Southern Railway Company (KCS), the name it has retained up to the present. In 1939 the KCS merged with the Louisiana & Arkansas Railway Company, which now operates within the KCS system under the slightly changed new name of the Louisiana & Arkansas Railroad Company (L&A). The L&A runs from New Orleans northwesterly to Farmersville, Texas, then uses 38 miles of trackage rights over Santa Fe lines to reach Dallas (Figure 1). The KCS and L&A cross at Shreveport, Louisiana where the Deramus freightyard facilities have become the hub of the system.

Today the KCS is a Class I railroad (\$5 million or more of average annual operating revenue) with five major terminals: Kansas City, Shreveport, Port Arthur, New Orleans, and Dallas. Its headquarters are located in downtown Kansas City, Missouri. Originally constructed to reach one point on the Gulf of Mexico, the merger has enabled the railroad to reach five points which are accessible to the Gulf today: Port Arthur, Beaumont, Lake Charles, Baton Rouge, and New Orleans.



Figure 1



# KANSAS CITY SOUTHERN LINES

Kansas City has become an entry point for a flow of western and midwestern agricultural commodities into the American manufacturing belt. A hierarchial pattern of railroad transportation is evident in the United States, in that Kansas City is dominated by the Chicago gateway, which is in turn dominated by New York. Originally funded and controlled by foreign and eastern (not Kansas City) stockholders, today the KCS serves not only the Kansas City gateway, but is an important part of the United States transportation network [Taaffe & Gauthier, 1973].

The KCS system contains approximately 1,600 route-miles. In comparison, the Burlington Northern(22,279 miles) is the United States' longest railroad, while the Detroit & Toledo Railroad (50 miles) is the shortest. The KCS line is divided into two main components. There are 786 miles of track between Kansas City and Port Arthur, Texas, which operate under the name of KCS, and approximately 500 miles of L&A main line operating chiefly within Louisiana under its own name. The remaining trackage consists of branch lines [Cousins & Maximute, 1978].

The KCS operates in six states: Missouri, Kansas, Arkansas, Oklahoma, Texas, and Louisiana. With the exception of Louisiana, where it operates extensive lines, it runs erratically back and forth across the borders of these states and often is scarcely mentioned or overlooked entirely in histories or economic reports. The KCS is, however, of great importance regionally and to the United States transportation network as a whole.

The railroad was originally built to haul passengers, grain, coal, and lumber. With the exception of passenger trains which were discontinued in 1969, the same commodities are important components of the railroad traffic today. Although not grown along the railroad line in any great quantity,



grain is still carried south from the upper Midwest for export. Coal and lumber remain vital elements as well. Coal has recently gained new importance with unitrain shipments to four utility companies along the route, and wood by-products of pulp or paper products are a large part of today's traffic. Of great importance since 1901, and unplanned at the genesis of the railroad, are materials for and products of, the oil refineries and chemical plants surrounding Gulf ports. To transport such commodities, the KCS owns 320 white-painted locomotives and approximately 7,000 freight cars. It operates 30 to 35 trains daily on tracks that have recently undergone major upgrading.

Competitors considered important by the KCS are the Missouri Pacific and the Southern Pacific-Cotton Belt railroads. The KCS soon expects this competition to increase substantially when the Missouri Pacific merges with the Union Pacific. Truck and barge lines offer further competition.

Today the KCS remains as Stilwell built it: the most direct route between Kansas City and the Gulf of Mexico. Because of the 1939 L&A acquisition, it is also the shortest railroad route between Kansas City and New Orleans. The KCS is considered to be among the most profitable railroads in the nation [Kansas City Southern Industries, Inc. (KCSI), 1983; & Gross, 1982].

The original main line of the KCS was built within the drainage areas of the Missouri, Arkansas, and Red rivers for the first 600 miles of its southern route from Kansas City. South of the Red River it crosses over to the Sabine River valley and on into the Calcasieu and Houston River valleys before returning to the Sabine valley and extending due south to the Gulf.

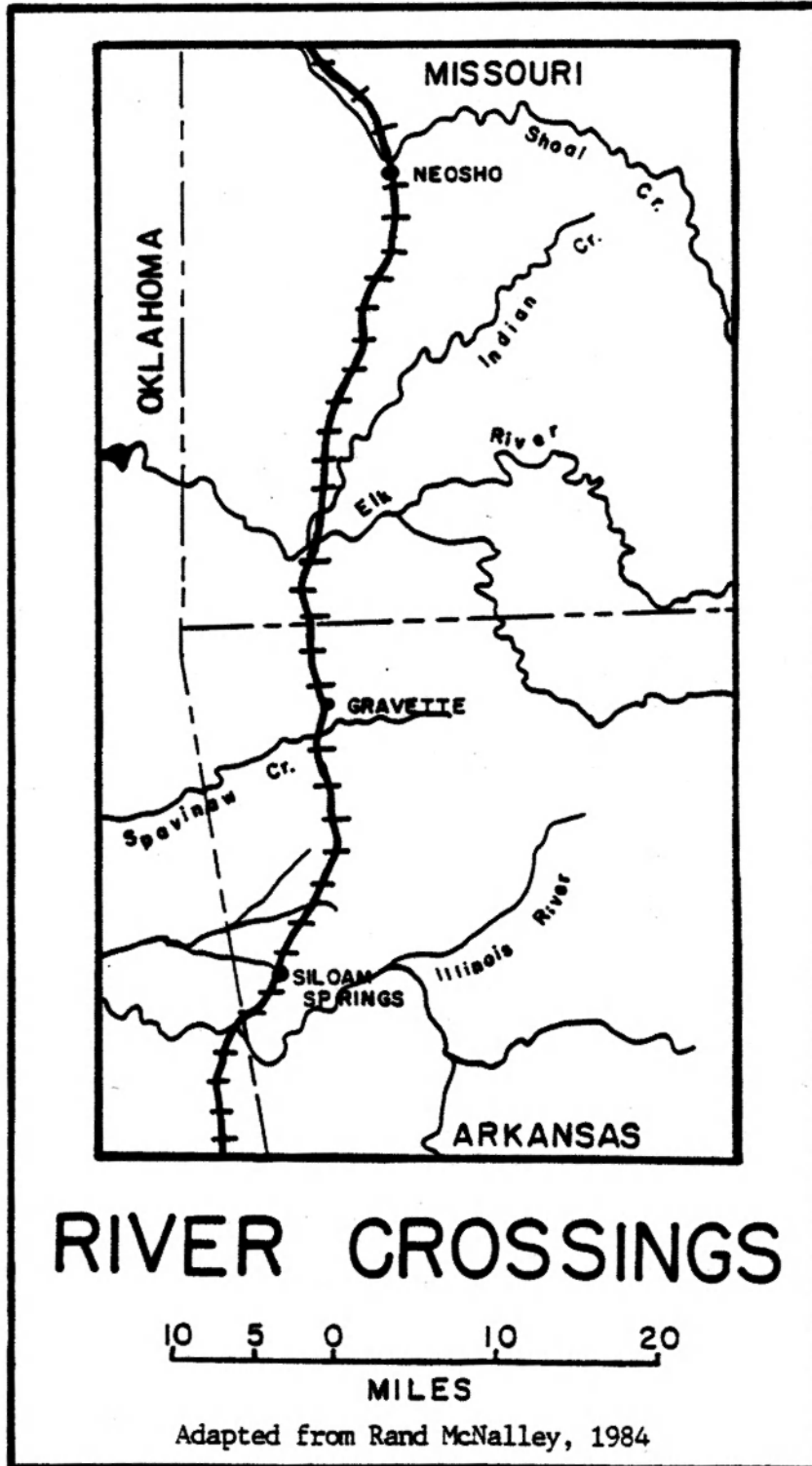
The phrase, "Straight as a crow flies," was used by Stilwell in his writings to describe the route of his railroad. It was a common term, often used by other writers of the day, but Stilwell found it helpful in his sales

pitch to potential investors to convince them that he could build his road for less than competing lines simply because it was the shortest route to the coast [Stilwell & Crowell, December 31, 1927]. It caught on, and was used in railroad logos through the years. The name "Flying Crow" was given to one of the KCS' more prestigious passenger cars in 1928.

Stilwell claimed his railroad had "great geographical strength" in its location [Stilwell, 1912, p. 41]. The railroad's point of beginning, Kansas City, was described in 1886 as the "geographical center of the U. S."; the center of the richest agricultural region, containing inexhaustable deposits of iron ore, coal fields, and forests of virgin timber in neighboring southern states [Howe, 1886, p. 160]. Kansas City's elevation is 750 feet. Although KCS' route must pass through foothills and low mountains on its way to the Gulf, the altitude eventually declines to such elevations as eight feet at Sabine Pass and four feet at Port Arthur.

After leaving Kansas City the railroad passes through some slightly rough hill country until it reaches Neosho, Missouri, 150 miles south of Kansas City where the Ozark foothills begin. Valleys and divides separating the Elk and Illinois rivers must be crossed at right angles, leading to steep gradients and necessitating extensive cuts and fills (Figure 2). This is true of other rivers along the route. In Louisiana the railroad crosses Wallace lake south of Shreveport and runs south between the Sabine and Red rivers (Figure 6). This necessitates crossing the Neches River tributaries and Sabine river drainage. Streams and bayous which run westerly to reach the Sabine River are all crossed at right angles. Wherever possible both the KCS and L&A follow lower, river valley relief. One obvious example is in Louisiana where the L&A closely parallels the Red River across the state

Figure 2



at first on the north side and then on the south, before crossing once more to the north of the river at Baton Rouge.

"Straight as the crow flies" pertains in a generalized sense only. Commuters and railroad workers joked about the old motto, especially as they traversed the route through the Ozarks, which was circuitous enough to slow train schedules [Beebe & Clegg, 1965]. Between Heavener and DeQueen, Arkansas lies the most circuitous portion of the line as well as the steepest gradients, both a result of the mountainous character of the countryside. Accordingly, railroad operation costs are the highest in this area and the heaviest locomotives are required [Haag, 1925]. The earliest trains required helper engines to make the grades. The Ouachita ("good hunting ground") mountains are the only important mountains within a 800 mile stretch between Canada and the Gulf. Consisting of large masses of igneous rock on the southeastern side of the much disturbed and folded area known as the Ouachita uplift, these mountains extend from the central part of Arkansas in an almost due-west direction into Oklahoma, where the name becomes "Kiamichi." This is one of the very few mountain ranges in the United States which run east and west. Forested peaks rise abruptly from fertile valleys, some quite narrow, while others are wide enough to contain farms. The highest peak is 2,500 feet.

In spite of the desirability of following straight and level terrain as much as possible, other construction factors often prevailed and some difficulties with topography were encountered as the railroad was built. Engineer Edwin Walters surveyed the proposed route from Siloam Springs to Fort Smith, Arkansas which offered lucrative and badly needed financial inducements to the railroad if it would build through town. Walters found grades too steep, and costly tunneling would be required to build such a route.

Eventually the railroad was able to reach Fort Smith, but to do so it was necessary to build a branch line from the southwest. Ironically, at Shreveport where low water often had stopped river traffic, the unballasted railroad lines leading southward were susceptible to washouts which interrupted traffic for long periods, and even delayed the opening of the line at its completion [Draper, 1947].

Other than Stilwell's own accounts of these events, little has been written about the history of the KCS and nothing has been written from a geographical perspective. The geography of the KCS describes the spatial pattern the KCS assumed as it became part of the United States railroad network, effects the environment had upon the railroad, and environmental and regional changes that have taken place because of the coming of it. Most efficient service to and profits from the southern U.S. region could not be foreseen at the creation of the KCS, and its ultimate economic geographic pattern changed primarily through merger with the L&A. Building the main line of the railroad in the simple appearing, "straight as the crow flies" areal pattern was actually an extremely complex process the explanation for which, as well as the resulting geographical changes, can only be determined within its historical context.

The fact that the original goal of the railroad promoters was to build a short route to the Gulf is well known. This thesis will attempt to ascertain to what extent the "straight as the crow flies" route was determined by the physical characteristics of the region through which it passed and to what extent economic potential played a role. How great was the impact of the railroad on the landscape, or did the environment affect the railroad? Did

population patterns change because of the railroad? What were the underlying reasons for the 1939 merger with the Louisiana & Arkansas Railway? How does today's KCS compare with the original Kansas City Pittsburg & Gulf, and what does its future hold?

Although this thesis was not intended to contain a detailed study of financial, legal and political factors, or personalities, it was found nearly impossible to omit the last mentioned, for Arthur Stilwell's strong personality and eccentricities explain much of what happened, why it happened, and how and where the railroad was built.

There is a great dearth of available material concerning the role of railroads in the economic change and urbanization of the South-Central United States during the era in which the Kansas City Southern was built. By 1890, the time Arthur Stilwell began to build his railroad to reach the Gulf of Mexico, America had lost her interest in railroads. Additionally, Stilwell's railroad was not the first, not the longest nor the shortest, and may not even have seemed of particular economic importance to most of the states along whose borders it runs.

With only a few exceptions, all articles and commentaries written about Arthur E. Stilwell and the construction of the main line of the railroad that was to become the KCS have been gleaned at least indirectly from a biographical series of Saturday Evening Post articles written in the winter of 1927-1928. Criticized for inaccuracies of some dates or events, the frequency with which these articles are referred to even by the KCS helps lend credibility to them. It is necessary to keep in mind, however, that they are both the self-justification and fond musings of an elderly man

only a few months before his death.

Keith L. Bryant, Jr.'s book, Arthur E. Stilwell, comes closer to proper organization of events than any other work located, including both those written by Stilwell himself and the KCS' own 1925 unpublished history written by H. F. Haag. The "Saga," a condensed and unpublished history from the KCS offices, is taken almost directly from Stilwell's memoirs and thus contains some facts that other company records contradict. It does, however, contain a synopsis of more recent history and a helpful list of KCS presidents and the dates they served in this capacity.

Besides co-authoring his Saturday Evening Post series, Stilwell wrote several books himself, the most helpful of which was his 1912 Cannibals of Finance. He used the newspapers extensively, running advertisements and contributing both short and long articles, several of them illustrated with maps and pictures of railroad stations or hotels he had built along the route, and of course pictures of himself. He wrote poetry and music as well, although none had a lasting quality and few examples remain today.

Archival materials and Stilwell's personal documents are almost nonexistent, and such that do exist are scattered. One often-quoted source, the Rose McMasters thesis, is reported to be lost from the University of Missouri where it was written, although a copy was found in the KCS files [1936]. It was not used in this text. The KCS offices do not contain archives as such, but only a few file folders of miscellaneous and incomplete materials. They contain none of Stilwell's personal papers. One author explained that such a collection is believed to have existed, but was inadvertently destroyed during the 1950's [Bryant, 1971].

Dates and events of happenings often proved to be problematic in that

they seemed to contradict one another. This was because construction of the railroad did not take place in an orderly north-to-south direction (Figure 5). Sometimes building went south-to-north, as it did at Shreveport and Port Arthur. Several times construction took place at more than one location at a time. Work began on the KCPG before Stilwell's Kansas City Suburban Belt Railroad Company was completed. In Indian Territory construction was temporarily suspended when funds dwindled, yet building continued at another location further south. The practice of purchasing existing short lines added to the complexity of the building process and the conclusions reached concerning what took place.

George Alwin Stokes' dissertation on Louisiana lumber and John R. Rochelle's thesis about Port Arthur give helpful insights into not only lumber and the port, but the KCS specifically [1954 & 1969]. Also of help is a scrapbook kept by James A. Anderson, a historian of the Society of Native Sons of Kansas City, in microfilm in the Kansas City Public Library (Missouri).

The Kansas City Board of Trade concluded one of its 1883 meetings with a statement that "the question of transportation determines the supremacy and future of all cities," rather than the geography of a place ["Resolution of," January 25, 1883]. This belief concurred exactly with that of Arthur Stilwell. He proceeded to build his railroad accordingly.



## Chapter 2

### THE EARLY SETTING

The first important era of United States railroad building took place during the first part of the 19th century, but canal and steamboat business made nearly as much progress as the railroads during this time [Moody, 1919]. The "West" was considered to be the Mississippi and its tributaries. No area of the West, either north or south, had roads or hopes for them, and it was necessary to use waterways for shipping goods to market. All waterways eventually drained into the Mississippi, and most Western trade eventually converged upon the port of New Orleans, where it found either a market or an outlet to foreign countries [Cotterill, 1917].

The second period of railroad building in the United States occurred between the end of the Civil War and approximately 1875, when the transcontinental route to the Pacific was taking form. Within this era came a wild enthusiasm for railroads, accompanied by almost feverish building. Entrepreneurial error and dishonesty combined to help end the boom with a resounding economic crash, for which the railroads were blamed. All railroad-connected industries suffered as well, spreading the effects of the depression and giving rise to a wave of sentiment against the railroads which would last at least another ten years, during which time public support for railroad projects declined drastically. America's love affair with railroads would never again be quite the same.

It is commonly held by historians that the railroad network in the

United States was essentially complete by 1890, the same year the Census Bureau declared the American frontier period ended. Nevertheless, Arthur Stilwell incorporated in 1889 the railroad which was one day to become the Kansas City Southern (KCS), built it into virgin territory, established new towns along its route, and dredged a canal from its terminus to the Gulf of Mexico. In doing so, new markets were created, forests exploited, new towns sprang up, and established ones profited or sometimes moved to the railroad. At completion of his railroad, as Stilwell promised, the coast could be reached from Kansas City by traveling only 800 miles, as compared to 1,400 miles before the railroad's construction.

Arthur Stilwell claimed to have been the originator of the idea of building a railroad from the Midwest to the Gulf. Evidence proves otherwise. The earliest Kansas City entrepreneurial energies had been expended upon building a transcontinental route. Construction had extended west only as far as the Mississippi River when stopped by the Civil War. Even before the War, however, various routes south had begun; some with federal aid. The Illinois Central, assisted by a huge land grant in 1850, was actually able to reach the Gulf at Mobile by connecting with another federally-assisted railroad, the Mobile and Ohio. The South realized its own need for transportation, and some early progress was made. During the Civil War, however, Southern railroads lost all but local traffic, and physical properties of the roads were ravaged [Moody, 1919].

It was a generally accepted view that the Kansas City market area would, of necessity, have to find an outlet to the Gulf. In the era prior to the Civil War, Kansas City businessmen expended considerable energy investigating the feasibility of importing goods directly from Europe through Gulf ports.

Shipping costs from the Midwest to the Atlantic were prohibitive. Between 1875 and 1880 the Chamber of Commerce sponsored frequent but always unsuccessful trips to Texas to try to obtain a profitable outlet for midwestern goods and agricultural products [Glaab, 1962].

As early as 1865, two important Kansas City men were working to promote the Gulf outlet cause. They were wealthy land owner Kersey Coates, and Kansas City Enterprise Editor, Robert T. Van Horn. Together they resurrected a pre-war project begun by Osawatomie, Kansas citizens; to built a railroad to Galveston Bay. They named this civic enterprise the Kansas & Neosho Valley Railroad, and enthusiastic Kansas Citians pledged \$200,000 toward the project [Clark, 1958]. This became the first railroad to actually begin construction south out of Kansas City. By the time construction began in 1866, its name had been changed to the Kansas City, Fort Scott & Gulf. Although primed with generous allotments of government funds, progress was slow, due in part to competition from other entrepreneurs. It took four years to reach the Kansas state line. In 1898 this small railroad became part of what is today the Frisco system [Zornow, 1957]. Although through the years it has been a KCS competitor in Kansas, Arkansas, Missouri, and northern Texas, it never reached the Gulf [Totten, 1967].

Behind many of these efforts was inspiration that came from the writings of William Gilpin, an avid follower of geographer Alexander Von Humboldt. Gilpin consistently wrote along geographical deterministic lines, and was said to have carried a copy of Humboldt's Cosmos in his saddlebag. Gilpin expounded at length upon the benefits which could be derived from building a railroad south from Independence, Missouri to the Gulf. Eventually his writings led to the view that such a railroad would enable the Midwest to

escape exploitation from the East [Glaab, 1962].

By the time construction of Stilwell's railroad began, several key factors were already in place which would prove useful to him, and ultimately help lead to the railroad's success. The Civil War had caused a diversion of trade from St. Louis to Chicago. A bridge across the Missouri River which could facilitate access to Chicago was greatly desired by several river towns. Each believed acquisition of such a bridge would assure it of growing into a great regional metropolis. Competition for the bridge was keen between Kansas City and Leavenworth, Kansas, but Kansas City eventually won the battle. The Hannibal and St. Joseph bridge was opened at Kansas City with great fanfare in 1869. This bridge was believed by many to have been the critical factor that assured Kansas City of becoming the transportation hub that it is today. According to Kansas City historian Charles Glaab, it was "political negotiation, corporate intrigue and local maneuvering - not the logic of geography or location" that shaped the city into a critical link with the West [1962, p. 22].

Besides the ability to reach northern markets, many early technical problems associated with building and operating railroads had been ironed out by the time Stilwell began building his railroad south from Kansas City. By the 1890's the nation's time had been standardized by the railroads. Most tracks had been changed to a uniform gauge, and major steps had been taken toward the standardization of all freight cars. Improvements and standardization had been made in air brakes, safety couplings, signal aspects, railroad rules, and accounting procedures [Henry, 1942]. Particularly important to Kansas City was the innovation of refrigerated meat transportation. This was possible by 1875, and had become effective and common by the 1880's

[Clark, 1958].

Extremely important was the fact that Stilwell built his railroad at a time when there was, as yet, little government intervention, and private decision makers were allowed uninhibited free reign to invest in their enterprises, either wisely or unwisely. One writer classified some of Stilwell's entrepreneurial ventures as "errors of enormous magnitude," yet in spite of this, economic change took place, and Stilwell made positive and sizeable contributions to the Midwest's economic well-being by building his railroad and many of the towns along its route [Bryant, 1971, p. viii].

When Stilwell arrived in Kansas City in 1886 he found it booming. The process which led to such prosperity had been evolving for a number of years. Historians routinely mention two factors important in the rise of an American city: strategic location, and the ingenuity of early city leaders. Kansas City's strategic location or natural advantage, so often spoken of by these writers, is real. Kansas City is located at the junction of the Kansas and Missouri rivers. At this junction the Missouri takes a northwesterly course while the Kansas flows through a large alluvial area, separating Kansas City, Missouri from Kansas City, Kansas. South and east are the high bluffs along the Kansas River which Kansas City, Missouri had to conquer in order to build.

The Santa Fe and Oregon trails helped begin the development of Kansas City into a market and shipping center. Its river location rendered it important as a steamboat landing. Kansas City became a point of departure for the Gold Rush when a shift in the course of the Missouri River destroyed rival Independence, Missouri's steamboat landing [Garwood, 1948].

Just as important as the advantageous terrain, however, was the fact that such advantage could attract outside investors. The "doctrine of

natural advantage" was effectively preached to aid Chicago, St. Louis, and New Orleans [Glaab, 1962]. Kansas City may have begun because of its river location, but it grew and prospered because Kansas City entrepreneurs looked towards opportunities to diversify transportation modes and other economic activities. When construction of the Hannibal Bridge across the Missouri River allowed access to Chicago markets, seven railroads soon began to use the new bridge. Shops and warehouses were quickly erected along these lines where development was easy in the flat, river bottom topography.

Because of the grasshopper plague of 1874 it became necessary to ship corn to Kansas, and Kansas City began to gain prominence as a grain marketing center. By 1875 westward movement of corn had ceased, but the eastward movement of wheat had begun. This trade was stabilized by construction of a grain exchange building in 1877, after which elevator and milling activity began. As Kansas City grew in importance in grain marketing, so did new awareness of the need for a route south, to enable Kansas City to capture a large portion of Missouri River export traffic. The city was also hoping to draw business away from its only competitor, the Illinois Central Railroad, which extended east across Iowa and Illinois to Chicago, thence south to reach New Orleans-bound steamboats at Cairo, Illinois, at the point where the Mississippi became ice-free all year. By 1900 Illinois Central construction had been completed to the Gulf, facilitating the export of goods.

When Texas cattle could no longer be driven through Missouri, annual drives were made to Kansas towns along new railroad lines. Kansas City cultivated this trade, while less enterprising neighbors, such as Leavenworth, did not. As a result, Kansas City became a major cattle and hay market. About 1870 the first adequate stockyards were built in Kansas City and,

shortly thereafter, packing houses came into existence. The first cattle received were from Texas, but by 1890 Kansas and Missouri were the largest suppliers [Federal Writers' Program, 1941].

The year Stilwell arrived in Kansas City (1886), S. F. Howe wrote a book discussing the status of Kansas City's commerce. He noted that Kansas City was situated in the middle of the "greatest corn raising center of the country." At this time, it was believed that the most profitable way to market this corn was on the hoof. Fresh beef had "recently assumed... remarkable proportions, increasing 25 percent from 1884 to 1885," and Kansas City showed healthy signs of gaining some of Chicago's hog market business as well. There were enough packing houses and sufficient demand to purchase all hogs put on the Kansas City market. Competition was so "brisk" that shippers could always get current market price. Often it was a better price than offered at Chicago or eastern markets. Eastern markets required freight on live animals, then additional freight on the manufactured product to reach the same market area Kansas City could now serve [1886, p. 160].

Outside the Kansas City area the transportation picture appeared more bleak, and Stilwell intended to capitalize on the situation. He hoped to expand Kansas City trade and open natural resources along a route to the Gulf (Figure 3). Besides potential for agriculture, Indian Territory and Arkansas contained hardwood forests, and Stilwell believed Louisiana lumber would benefit the Midwestern plains at cheaper cost than sources presently available could offer. Prior to the advent of the railroad, logging operations in Louisiana's great pine forests remained confined to areas near a few large streams. Southwest Louisiana, through which Stilwell would build, contained no transportation and remained largely unopened. Early

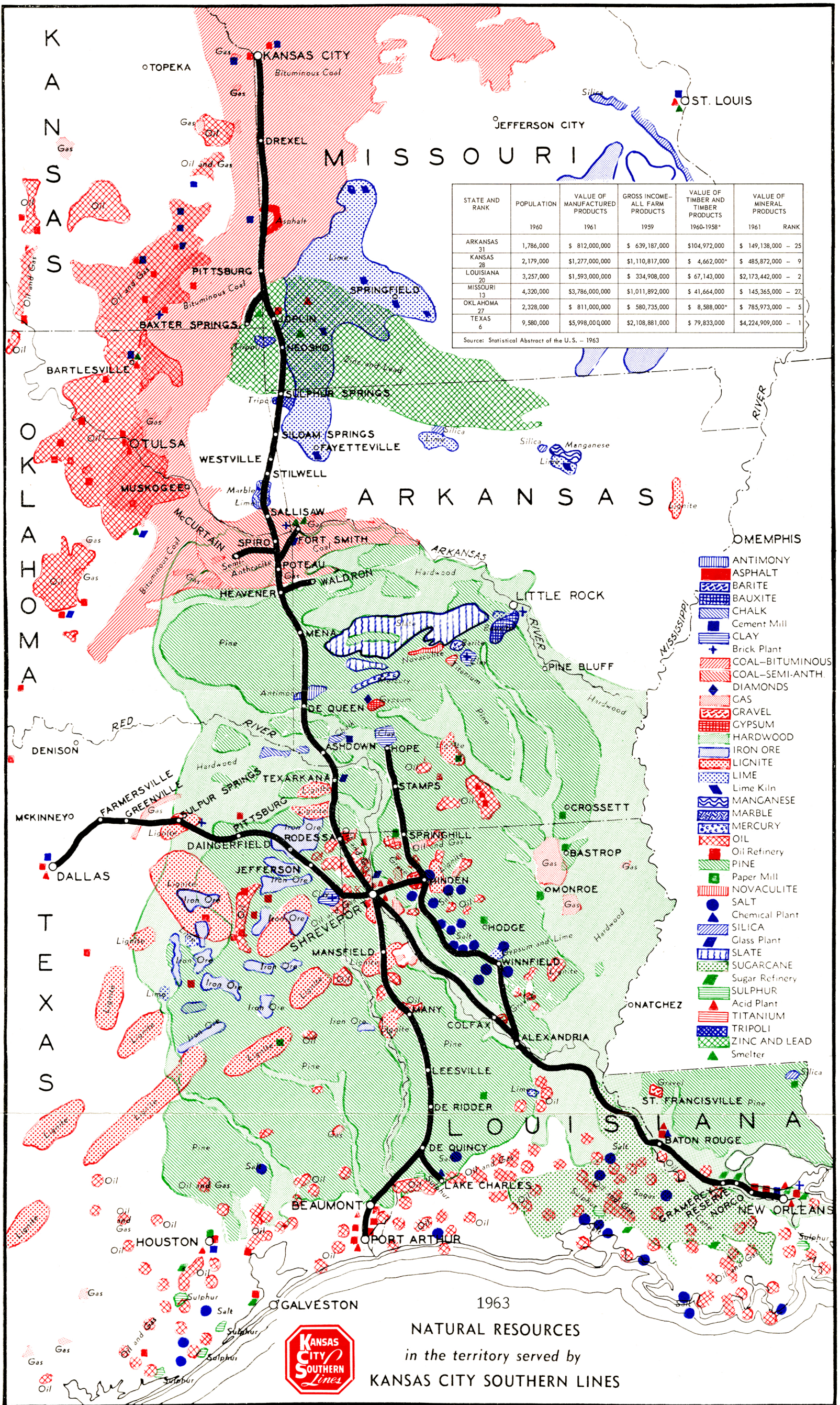


Figure 3



1963  
 NATURAL RESOURCES  
 in the territory served by  
 KANSAS CITY SOUTHERN LINES



roads within Arkansas were little more than Indian paths or blazed trails through woods used for carrying mail. Before railroad and highways there was little incentive to grow surplus crops, except in areas near water transportation [Herndon, 1922].

Stilwell was particularly interested in coal mining activities which were developing south of Kansas City in Missouri, Kansas, and Indian Territory in what today is known as the Tri-State area. Other railroads had already reached these mining areas, but Joplin, Missouri and Pittsburg, Kansas mines were proving so profitable that Stilwell believed they could provide traffic for another railroad.

In southeastern Kansas where he built his line, ore from area mines at one time had to be hauled to Spring River to be flatboated to New Orleans or St. Louis via the Osage River. Lead from southwestern Missouri could profitably be hauled long distances in wagons to market or river points because its high value offset the five or six cents per pound shipping costs. Some was shipped as far north as Booneville, Missouri on the Missouri River, or Linn Creek on the Osage River in Missouri. Some ore was shipped to Fort Smith, Arkansas on the Arkansas River en route to New Orleans, or St. Louis. Early railroad construction had been halted when Kansas-Missouri border disputes, accompanying bushwhacker (Confederate guerrillas from Missouri) activities and heavy fighting during the Civil War caused population to be dispersed. Some mines were abandoned, while others were worked by either Confederate or Federal forces.

Farmers in these areas had found the high cost of transportation, combined with low grain prices, made it economically impossible to raise grain commercially. Livestock was commercial agriculture's only profitable

commodity. Cattle could be driven to river routes where they could be shipped on steamboat or barge via the Missouri or Mississippi, often in the form of tallow, lard, salt pork or beef, or cured hides [Sauer, 1968].

Before the railroad era, nearby states had used the Mississippi River for transportation to reach the port city of New Orleans. Missouri, Arkansas, and Louisiana were fortunate, for the river bounded their eastern borders. Those with goods to ship who were away from this great natural highway reached it by any means available to them. Louisiana became important early in the United States transportation network, and the port city of New Orleans was one of the larger, flourishing cities in the country, serving both passengers and freight. Imports of slaves and European merchandise through the port added to New Orleans' prestige.

Most western produce reached New Orleans after the first of June considerably damaged by heat and dampness of steamboat holds. Pork quality declined, while tobacco sweated and grain swelled and softened. There were no warehouses on the wharf, and goods suffered further while awaiting shipment from docks or costly transport to city warehouses [Federal Writers' Project, 1943]. Clearly, trade came to New Orleans only because there were no existing routes that were more satisfactory.

Louisiana farmers used this port for their own exports as well, helping New Orleans to rank first in the United States as an exporter in the 1840 bumper crop year. Leaders in New Orleans placed much confidence in the belief that Mississippi River trade would sustain this importance indefinitely. New York was by now, however, only slightly behind Louisiana, for completion of the Erie Canal 15 years earlier led to New Orleans' demise and the end of the Louisiana River monopoly. The year 1849 showed substantial decreases in

steamboat and barge traffic to New Orleans and export shipments as a whole. Trade patterns were changing and eastern canals increasingly threatened. Total tonnage through the port was down. Once staunchly against railroads, by the time of the 1852 Southwestern Railroad Convention leaders in New Orleans were more favorably disposed towards them [Reed, 1966].

Stilwell apparently viewed Texas with interest too, for later he was to write that "Texas leads every state in our Union as to value of agricultural products. It needs railroads" [Stilwell, 1910, p. 91]. The railroad's 1893 map (Figure 6) indicates Stilwell may have intended to build extensively in the state. Texas, although boasting 400 miles of seacoast, could claim no seaport so satisfactory or so prosperous as New Orleans. Coastal storms could sometimes be a problem as well. Galveston Bay (for a time considered by Stilwell for the terminus of his railroad) had a long record of damaging storms. Information about storms began to be collected in 1766 when a Galveston storm destroyed a mission. A storm in 1818 demolished all but four buildings there, and boats in the harbor were destroyed. Pirate Jean Lafitte's vessel was salvageable only to the extent that it could be used as a hospital. Another violent storm occurred in 1867, leaving behind \$1 million in damage [Dallas Morning News, 1973].

Early Texas population grew only near southern and eastern waterways. The first Anglo-American colonists entered Texas at Gaines Ferry on the Sabine River on the Texas - Louisiana border near the coast, and reached the interior of Texas by means of North America's oldest road, the El Camino Real, an old Spanish road blazed in 1691 for military and commercial purposes, which ran in a general east - west direction. As Texas' population increased so did transportation needs, compounded by the size of the state's vast

interior. By 1860, Texas had 31 stage lines. None were very long, and the traveler had to switch lines often, increasing distance traveled, as well as travel time [Connor, 1971]. Early freight transportation was extremely slow and dangerous, requiring caravan travel for protection. Costs were necessarily prohibitive for freight, with the result that large fertile areas were left, for the most part, unsettled [Reed, 1966]. Dallas, a KCS terminus after 1939, is an example. Located within the Blacklands area, the most fertile area in the state, it grew from village size to 35,000 in only seven years after arrival of the first railroad [Federal Writers' Project, 1940].

Most pre-Civil War railroad building in Texas consisted largely of efforts to reach Lake Sabine, which was used for a port even though it was treacherously shallow. Rivers in Texas suffer from irregular flow and heavy silt deposits. Log jams or rafts sometimes 10 to 15 miles in length blocked many rivers, and sand bar deposits made navigation treacherous. Although specially-made crafts could navigate in some areas during high-water seasons, such movement proved as unsatisfactory as overland traffic. Texas never developed an important river trade [Connor, 1971].

The utter frustration and desperate need for transportation improvements in Texas is perhaps best exemplified by the shipment of camels which Secretary of War Jefferson Davis ordered sent to Camp Verde for transporting army supplies in 1856. Later the reconstruction period saw cattle drives on the Chisholm, the Goodnight-Loving, and the Dodge City or Western trails. The need for transportation of other goods, however, remained an unsolved problem. So great was this need perceived to be that over 38,000 square miles of Texas lands were granted to 41 railroad companies to encourage

construction, resulting in later conflicts and tangled administration. Galveston eventually became the state's best port, but only small vessels could enter it until 1896 improvements took place [Reed, 1966].

Although Stilwell did little railroad building in Texas, he attempted to alleviate the Texas port problem. He built his own port and named it after himself: Port Arthur. This accomplished a dual purpose, for he and his railroad were able to reap profits from the development of the port's accompanying new town, as well as the port itself.

As Stilwell constructed his railroad south from Kansas City, he often built new towns along the route to draw population and industry to provide essential traffic for the railroad and profit for his investors. An 1897 newspaper advertisement quoted Stilwell's belief that "All other large centers of commerce have been located and are past their youth already" [Kansas City, Pittsburg & Gulf (KCPG), February 10, 1897]. If building a new railroad at the end of the railroad-building era was advantageous in technical respects, however, it usually proved less so in establishing new railroad towns. Stilwell was apparently oblivious to several basic city-building principles.

Among those principles is that once an initial advantage is gained by a city it is likely to be retained. Stilwell's new towns were built too late. Many American settlements located near some primary activity, such as mining, could gain an initial advantage over rival towns by becoming an industrial site or distribution point. Such primary activity often served to furnish initial impetus to geographical differentiation. As workers were

attracted to employment, the possibility arose for the settlement to grow into a city which could gain competitive advantage, at first simply because of the size of its own local market [Lloyd & Dicken, 1977]. In America, as historically true elsewhere, transportation was a critical factor in allowing the sale of surplus goods outside the community, serving to reinforce the initial advantage of the city. Two obvious examples of this process are Kansas City and New Orleans, both of which started as early transportation nodes because of their strategic locations on large rivers. Much lower in hierarchial order, but also excellent examples, are Joplin, Missouri, and Pittsburg, Kansas, both of which existed prior to Stilwell's railroad and both of which had early mining activities.

Additionally, Joplin and Pittsburg had already been successful in attracting early railroad facilities. It was important for an emerging community to obtain a railroad, and getting the first railroad enhanced the advantage still further. Other midwestern settlements, however, often contained no competitive advantage or unique feature to set them apart and had to contrive one. Because of this, an existing city's ultimate goal often became a drive to attract a group of several railroads in order to allow development into a distribution or trading center [Clark, 1958]. It was not unusual for citizens to attract railroads to their community by offering generous concessions, thus imposing heavy taxes upon themselves. Pittsburg citizens did this in 1893, a serious depression year, even though the city was already well served by railroads [Stroup, 1946c].

Joplin had been named for Reverend Harris Joplin, who chose to settle in the area in 1839. Ten years later a slave boy discovered lead while digging fishing worms. Between 1870, when there were still no houses in

Joplin, and 1874, population grew to 3,000, by which time there were 1,000 miners and 13 furnaces. New innovations in treating zinc blende resulted in Joplin's ability to begin shipments of zinc ore [Sauer, 1968]. A part of the Tri-State mining district, all mining camps (81 originally) came to be subsidiary to Joplin, depending upon it for merchandising, mining equipment, smelting, ore marketing, and transportation facilities. It housed most mining offices and research facilities, as well as a large portion of the area's labor force. Inter-urban trolleys to new camps strengthened Joplin's position [Gibson, 1981]. Other railroad lines had already reached Joplin before the arrival of the KCPG.

Pittsburg was originally named New Pittsburg because Kansas already contained another town so designated. Named after Pittsburg, Pennsylvania, the town, like its namesake, was located near coal deposits. Coal and the perceived likelihood of Pittsburg becoming a manufacturing center was the reason Colonel E. H. Brown laid out the town in lots in 1876, after constructing the town's first building. By 1882, zinc smelting had become important. Zinc was shipped from Missouri to Pittsburg coal supplies to save costs, and was responsible for most employment in the area. Stilwell's rival, the Kansas City, Fort Scott & Gulf Railroad serviced the town initially [Andreas, 1882].

Another small town along the railroad's route was Hume, Missouri. Hume was originally named Howard by the Post Office. The name change is believed to have occurred upon the happy occasion at some later date of the delivery of a keg of Hume bourbon whiskey to the town [Anderson, (n.d.)b]. Hume was the original goal of Stilwell's first southern extension of his railroad, which was intended to reach new coal mining operations there [Stilwell & Crowell, December 17, 1927].

Stilwell considered Fort Smith, Arkansas an important railroad destination as well, not only to reach high-quality coal, but also because of concessions offered the railroad by the town. Topography created an obstacle, but it was overcome by the construction of a short branch line. Fort Smith came about largely as a result of Osage and Cherokee Indian conflicts. A fort was established in 1817 at the junction of the Arkansas and Poteau rivers, and strengthened in 1838. It was named for the commanding officer. In 1848, the Gold Rush made Fort Smith the jumping-off place for the trail's southern route. Both prosperity and notoriety came with the emigrants.

No major battles occurred near the fort during the war between the states, although both sides held the fort at different times during the conflict. After war's end it governed the Indian Territory west of the fort. "Hanging Judge" Isaac C. Parker hung 151 outlaws who chose a haven within Indian Territory. Belle Starr frequently visited Fort Smith.

Siloam Springs, Arkansas, also along the railroad route, was founded before Stilwell's railroad in 1880. Springs in the area soon were known for "curative properties." Visitors to the area who came to use the springs were said to have increased in number after the railroad was constructed through the area [Lyon, 1947]. It is believed that Arkansas probably contains more mineral springs than any other state. The waters were analyzed for the state's 1891 Arkansas Geological Survey, and it was concluded the waters were nature's remedy [Herndon, 1922]. Stilwell apparently considered the mineral waters a potential for making profit, for thereafter along the Arkansas portion of the route he promoted construction of resorts near the mineral springs on the line.



Acquisition of the Louisiana & Arkansas Railroad Company (L&A) in 1939, many years after Stilwell was out of the company, brought the addition of several important existing cities to those the railroad was to serve, as well as providing the additional benefit of new port facilities at New Orleans. The city of New Orleans was a century old before it became part of the United States. Built on a peninsula, it was bounded by the Mississippi River, Lake Pontchartrain, and reedy marshland south to the Gulf [Federal Writers' Project, 1943]. The early growth of New Orleans took place because of its location at the mouth of the Mississippi River. This allowed it to become a major exporting center and resulted in New Orleans becoming the leading city of the South, doubling in population every ten years. By 1843, it already contained a population of 100,000 [Cotterill, 1917].

The railroad (by now the Kansas City Southern) also gained access to Baton Rouge in 1939. About 1808 a small village had begun to develop on the site of the present city. This city has lived under seven governments: French, English, Spanish, West Floridian, Louisiana, Confederate, and American. Located on the Mississippi River, important pre-Civil War transportation was furnished by the steamboat, and Baton Rouge proved to be an excellent distributing center for both rail and water. Today it is a deep-water port, with a 35-foot channel to the Gulf.

Shreveport, Louisiana is the junction for the KCS and the L&A lines today. Located at the gateway to the northeast Texas and the Upper Trinity River, Shreveport culturally resembles a Midwestern city such as Denver more than a typical Southern city. Founded in 1835, it already had several railroads before the arrival of Stilwell's line [Federal Writers' Project, 1943]. Built on the route of the old military road, Shreveport was named

for the steamboat builder and trader Henry Miller Shreve, who worked five years at the site to open the Red River to transportation, clearing it of an almost unpenetratable accumulation of driftwood. Low water, however, was a perpetual hindrance to Shreveport, and before the railroad era the town was isolated for many months of every year [Davis, 1975].

Although Arthur Stilwell was not the first to conclude Kansas City needed to complete its railroad network with a route south to the Gulf, he was aware of the potential benefit of doing so. He determined he would go to Kansas City, raise the necessary funds, and build his railroad.

## Chapter 3

### PLANS AND FINANCE

Although Arthur E. Stilwell's business and promotion methods could be looked upon today as slightly less than legal, they were not only permissible in his day, but such activities were actually encouraged. Stilwell was a railroad promoter and speculator. A promoter is one who begins, secures financial backing for, and helps organize a project or business. A speculator is one who buys, sells (sound or risky) stocks, commodities, land, etc., hoping to take advantage of an expected rise or fall in price.

One discussion concerning railroad speculation defined the term "speculator" as one who perceives that economic advantage can be gained from some endeavour and who is able to use funds from others to back his project. He must by very nature be an enthusiast to succeed. Speculation can be defined as a legal form of gambling, a method which relies upon chance for return. This contrasts with sound investment, which carefully weighs each possible outcome. Unfortunately, the discussion continued, the very talents which equip the promoter to succeed may very likely render him unfit for management of capital or long-term control of an enterprise. [Cleveland & Powell, 1909]. These definitions quite aptly describe Stilwell.

Arthur Stilwell's photos show him to be a confident, smartly groomed man. He was proud enough of his sidewhiskers to write about them on more than one occasion. He made it a practice to associate with the elite, and instructed his wife to emulate him in this practice [Stilwell & Crowell, December 17, 1927].

His genial, optimistic disposition permeates his writings, and although he had strong enemies by the close of his career, he appears to have been well liked by many and a favorite of the press. He was described as a witty and eloquent public speaker [Distinguished Biographers, 1967]. Stilwell described himself as self-confident, yet not conceited. The fine line between the two, however, is often difficult to detect throughout his narrations. That he was a man of great and unusual intelligence cannot be disputed. One writer commented that "Mr. Stilwell had ingenuity that amounted almost to a fortune in itself" [Railway Age Gazette, December 27, 1912].

Of English lineage, Stilwell's ancestors had moved first to the Netherlands before coming to America. Born at Rochester, New York, he was very devoted to his grandfather, Hamblin Stilwell, who was a noted financier and promoter, one of the builders of the Erie Canal, and influential in organizing and constructing the Western Union Telegraph system and the New York Central Railroad. Too ill as a youth to attend school regularly, he was often taken by his Grandfather Stilwell to business conferences with railroad mogul Commodore Vanderbilt, President of the New York Central Railroad, to whom young Stilwell once confided he would someday "go West and build a railroad" [Stilwell & Crowell, December 3, 1927, p. 4].

Stilwell acquired and succeeded in his own printing business while still in his teens. A born salesman, he later combined his printing business experience with the selling of advertisements and the printing of railroad timetables. Later he became associated with the Traveler's Insurance Company of Hartford, Connecticut, where he achieved success not only as a salesman, but in the design of two new types of insurance policies. Promoted to state agent for Traveler's in Rhode Island and Connecticut, Stilwell had an assured

future by his mid-20's. While selling insurance he had been reading of the financial plight of farmers in the Midwest, in particular that of Kansas and Nebraska, where farm mortgage foreclosures were rampant and prices for grain were so low that corn was being burned for fuel. He analyzed all available data and concluded that much of the problem was because of unjust transportation charges. Stilwell later quipped that seats on the grain exchange in Kansas City were selling at only fifty dollars, and members were sorry they had paid that much. At that time Kansas City, heart of the grain district, contained no more than two grain elevators.

Stilwell arrived in Kansas City, Missouri in 1886 with \$25,000 in personal savings but with no job and almost no acquaintances. Real estate speculation was booming, with the city expanding to the east and to the south. His intent was to found a new trust company as an initial step towards financing his railroad. Being careful not to divulge his railroad plans at first, acquiring the necessary business connections and founding a trust company in Kansas City took Stilwell only about six weeks, even though Kansas City was already well supplied with trust companies.

Stilwell named his new firm the Real Estate Trust Company. After a later name change, it was to become the Guardian Trust. This concern was unique in that it used a Stilwell innovation: insured housing loans. Not only was this firm to become important to the immediate Kansas City area where it was used to build and insure homes, it was to become important regionally as well. A sizeable amount of funds was later loaned by the company to help finance various projects which would be built along the railroad route [Stilwell & Crowell, December 17, 1927]. Unencumbered by banking laws or government restrictions, trust companies could pay higher interest than

banks, deal in stocks, bonds, and real estate, and speculate as desired. Tremendous profit could be made [Bryant, 1971].

By the 1890's the railroad-building mania was slowing in the United States and a general feeling of public opposition towards railroads had become common because of abuses of the moguls and railroad pooling, yet Stilwell was successful in launching his railroad career at this time. It was not the long-dreamed-of route south, however, but a belt line connection around Kansas City. When its success seemed assured, Stilwell at last found himself in a position to carry out his plan to build a railroad south [Stilwell & Crowell, December 17, 1927]. The Kansas City, Pittsburg & Gulf (KCPG) extended south from Kansas City via the Joplin lead and zinc mines, Pittsburg coal mines, through Arkansas, Louisiana, and east Texas timberlands towards the Gulf of Mexico. Fourteen miles from his goal he ended railroad construction, where he promoted and built a town. At the end of the track he dredged a canal to reach the Gulf at Lake Sabine, where he built a port. To finance these and other projects to benefit the railroad he raised enormous sums of money. William R. Draper, who worked for Stilwell, wrote that Stilwell singlehandedly raised \$22 million in bonds for the KCPG and its affiliates, as well as several additional millions for land and townsite projects along the railroad route [Draper, 1947]. The Kansas City Journal Post declared that a \$50 million estimate of funds raised by Stilwell alone for these projects would be low [Anderson, (n.d.)c].

Stilwell's friend and business associate E. L. Martin served as the railroad's first president. Although Stilwell raised funds and directed construction, he did not actually assume presidency until 1897, and served only until about 1900. At the time he assumed that office he was widely

acclaimed by the press as the youngest railroad president in the United States. He was 32 years of age [Poor & Poor, 1893].

First financial backing for the trust company, which was in turn to finance the KCPG, came from old clients and business acquaintances in St. Louis, and Mr. Martin in Kansas City. Stilwell interested others in Kansas City through newspaper publicity. He managed to sell \$180,000 of debentures (interest-bearing bonds issued against the general credit of a corporation, often with no specific pledged assets) in St. Louis. He sold an additional \$300,000 to Philadelphia men he claimed never to have heard of before. Other lesser amounts were subscribed to in New Haven, Connecticut and Kansas City. Selling the issues for sixty-six cents on the dollar, he raised an actual working capital of \$666,000, using good will alone as his asset. The group of investors he so successfully solicited was made up of lawyers, politicians, railroad presidents, bankers, and prominent businessmen. This was an example of the style of salesmanship he would continue to use to accumulate capital for his trust company, which furnished the largest portion of financial backing for the railroad.

Using "low finance charges" as a part of his sales pitch, Stilwell sold the stock himself rather than hiring a stock broker, whose commissions were 20 percent. Stilwell claimed he received no sales commission, and wrote that when at one time he was persuaded to accept a commission he found he had no luck with sales and refused them thereafter.

In building the KCPG, as in construction of all other railroads, great sums of monies had to be expended in surveys and other preliminary expenses. In contrast to many earlier United States' railroads, there were no land grants involved in building the KCPG. It was necessary to raise funds for

these purposes long before there was any property which could be used for collateral in bond raising. Promoters could lose all monies expended at any time during this initial stage of the building process. Additionally, building a railroad into virgin areas, as Stilwell did, was essentially speculative in nature. Such funding customarily and necessarily was procured from eastern United States or European sources. Profit from this type of investment was entirely dependent upon the success of the railroad. While hope of large returns was an enticement, losses could be immense [Ripley, 1915]. European countries with citizens who invested in the KCPG included France, Germany, England, and most importantly, the Netherlands [KCPG, March 9, 1897].

Several financial circumstances combined to affect the physical quality of the railroad. As in the case of other railroads which built into virgin territory, quality of construction had to be secondary to speed and low cost of construction. This was particularly true in the times of depression during which the KCPG was built. Often forced to use light-weight metal or wood for bridge construction, the result was light-weight edifices soon in need of replacement; a sharp contrast to British bridges, many of which still stand [O'Dell & Richards, 1971]. Low gradients, proper ballasting, and quality bridging would have necessitated greatly increased building costs. For this reason it was expedient to defer such building practices until the railroad was operational and furnishing income [Haag, 1925].

The light rail of 56 to 60 pounds per yard soon became badly bent because of the earthen ballast. Terminal facilities, sidings, and yards were of poor quality. Shreveport and Texarkans were among those large stations in need of a considerable influx of funds not only to properly equip them to handle traffic, but to serve to help secure a fair share of competitive



traffic [Kennan, 1922]. Even before completion of a through line to the Gulf was realized, effects of such construction were being felt. On Christmas day in 1894 a morning passenger train turned on its side at Neosho, Missouri. The reason was attributed to unballasted track and light iron laid without benefit of tie plates [Abdill, 1960].

Stilwell had another reason to spend as little as possible on construction. He was using cost construction comparisons in his sales pitch for raising financial backing. It was essential that he prove the Stilwell line was being constructed and financed for less than other Western lines. It was necessary to pay for rights of way, grading, rails, and ties, in addition to necessary locomotives, and passenger and freight cars. Labor and materials were costly, even though Stilwell wrote of low prices paid for ties and cheap labor. During one period of construction the larger part of the railroad was built in small sections as a cost-cutting attempt. Often workers were laying track at more than one location at a time. In May of 1896 alone it was reported that 2,000 men were at work on the line, struggling to close two gaps totaling 287 miles to complete the railroad. A "good deal of bridging" still remained to be done at that time ["A new north," 1896].

To hurry construction, reduce possible competition, and save money, existing lines were purchased whenever possible. These had originally been built for local purposes, such as logging, and as such they were hurriedly constructed. Permanency or efficiency of operation was never a consideration in their construction.

Additionally, locomotives were too light, averaging only 51 tons of weight on drivers. Used passenger cars were often pressed into service, and freight cars were both too few in number and too small in size [Haag, 1925].

The problem of insufficient rolling stock occurred because of closed mortgage terms which allowed the railroad to issue no more than \$25,000 a mile for bonds. These had been issued to the various construction companies who had built the line. They in turn allowed the railroad only \$1,500 a mile to purchase equipment. Stilwell explained that it had never occurred to him that business could become as large as it had grown to be [Stilwell & Crowell, January 28, 1928]. The one exception to the inexpensive rolling stock was Stilwell's own palatial personal Car No. 100, which he often used to give tours of the new railroad as he entertained and enticed prospective investors [Haag, 1925].

In addition to the physical quality of the railroad was the consideration of grade, a factor which bears a strong relationship to economy of operation. A ruling grade of one percent equals an increase in altitude of one foot every 100 feet of distance. A four percent grade is difficult for a train to ascend without use of a cog, although grades of some mining operations may reach as high as six percent. Two percent is generally the highest grade used by most mainlines [Halsey & Freedman, 1983]. Because the cost of railroad operation is governed primarily by the gradient, constructing a line with a high ruling gradient (steepest grade on the line) guarantees high operation expense. However, because the shortest route to the coast was the primary, overriding goal of the railroad, the existing possibility of building a longer line with lower gradients was never considered. Low construction cost was imperative, and the operation cost factor was completely ignored during railroad construction. This was done even though it was known that hauling coal and lumber would furnish a large portion of the railroad's traffic in early years of operation. Such bulk commodities require low

transportation charges to be profitable to shippers. The line as completed was never less than one percent on any division; in the mountains the percentage grew to 1.8. A road with easier grades could have been built, but to do so would have meant building a line of substantially greater length or far greater expense to make heavier cuts or fills, build tunnels and longer and higher bridges [Haag, 1925].

As late as 1947, the railroad was still suffering from the effects of its initial construction deficiencies. The line through Arkansas was still considered a route of many curves as it ran through the 302-mile mountain division. By 1947 it was in good enough condition to handle trains traveling 75 m.p.h., but only because nearly \$2 million had been spent during the two previous years to improve the line sufficiently to accommodate such speeds [Draper, 1947].

Philadelphia backing was to become so important in the trust company operations, that in 1892 financial control of both railroad construction and the railroad itself passed out of the hands of Kansas City investors into the hands of Philadelphians. Stilwell and Martin directed the project, but financing was controlled from Philadelphia after this time through the A. J. Drexel Company located in that city. Later Dutch backing was to become critical to the organization [Stilwell & Crowell, December 31, 1927].

During the panic year 1893, railroad building in the United States slowed substantially. Railroad securities were not being sold for more than 20 cents on the dollar, and the Wabash and the Union Pacific were among those railroads which went into the hands of receivers. Even Stilwell had to admit that raising money to build railroads in the United States was out of the question. He dramatically announced that one of his famous hunches had come

to him; he would go to the Netherlands to raise funds. This time Stilwell met with slightly more resistance than usual to his selling scheme; it took three months to raise the needed \$3 million. Stilwell claimed that with these funds the KCPG was able to build one-third of all the United States' 1893 railroad mileage (3,024 miles), yet company records indicate this to be far from true (Figure 5) [Stilwell & Crowell, December 31, 1927, & U. S. Bureau of the Census, 1957].

In 1893 Stilwell's railroad expenditures were \$200,000 per month, which though a small sum for railroad expenditures, amounted to virtually all the money circulating in the Kansas City economy that year ["The story," 1939]. Stilwell quoted current financial reports which reported his Dutch ventures to be instrumental in turning "the gold shipments back towards these shores" [Stilwell & Crowell, December 31, 1927, p. 78]. The depression dragged on into 1894, further slowing construction, but improvement was seen the following year.

The year 1896 brought another United States panic, along with the Bryan-McKinley presidential campaign. This year the banks refused to give more than \$10 a day in currency to any one depositor [Stilwell & Crowell, December 31, 1927]. The KCPG, having already signed \$2 million in contracts for new equipment, narrowly escaped receivership when Dutch investors refused to buy additional bonds until after the election. Additionally, if Bryan and the free silver issue one, Dutch investors promised they would buy no bonds at all [Haag, 1925]. Stilwell was able to borrow \$750,000 from eastern friends for a six-month period to tide the railroad over until after the election. From such cities as St. Louis, Connecticut and New York, these men included Mr. Euritis Blood, Dr. Converse, and Mr. George Pullman, all of whom had much to lose if the KCPG failed. Mr. Blood, head of the Manchester Locomotive Works, considered the problem sufficiently important to sell off other stocks for cash to meet the

need. Stilwell's order the previous year for 32 locomotives had been that company's only contract. Dr. Converse, head of the Baldwin Locomotive Works, generously contributed also. Stilwell's railroad had recently purchased 28 locomotives (also the firm's only 1895 order) from Baldwin. Mr. Pullman's Palace Car Company faced the same problem, and he too obligingly contributed [Stilwell & Crowell, January 14, 1928]. Without this loan that Stilwell so ingeniously raised, the railroad would have gone into receivership and may never have been completed.

During this particular time Stilwell was intent upon construction in Mena, Arkansas and Shreveport, Louisiana. After the election of McKinley, Dutch investors insisted on a survey of the line thus far completed before a further infusion of funds. After the Dutch committee inspected the route, the entire amount needed to finish the work was subscribed at once [Stroup, 1946c].

Here it bears keeping in mind that according to Stilwell's own account, at least 61 locomotives had been ordered at a cost of between \$10,000 to \$12,000 each within the preceeding year, an immense strain on finances. While construction was proceeding as fast as possible, railroad completion was still more than a year away. At completion, it would be found that the need for an adequate supply of freight cars had been overlooked, even though contracts for business had been secured. This error resulted in the additional, unneeded expense of lawsuits.

Besides the sale of bonds and loans from friends, another source of funding was available to railroads. Stilwell found the source important enough to occasionally veer slightly from his "straight as the crow flies" routing to procure such funds. It is apparent that negotiations with existing

towns between Kansas City and the Gulf which were favorable to the railroad often determined the exact route the line would follow.

A one-time employee, William R. Draper, contends Stilwell originally had no intention of building through Kansas, no doubt cognizant of the fact that Pittsburg was already well served by other lines [1947]. If this is true, one might question why Stilwell had previously made personal investments in Pittsburg, and why the new Hotel Stilwell there had been financed through Stilwell's trust company. It is possible, however, that Draper's statement is true, for Stilwell at times made investments in areas his railroads never reached, as he did when he purchased the Liberty Mining Company of Colorado [Stilwell, 1912]. At an early stage in the railroad's construction and at a time when the railroad was in dire need of additional funds, Mr. Franklin Playter was sent to Kansas City to represent Pittsburg, whose leaders were interested in being part of the new north-south line. Playter himself hoped to build smelters which could use Pittsburg coal to refine zinc shipped by the railroad from Joplin, 25 miles to the south. Pittsburg made the railroad an offer of a \$40,000 cash bonus and land to construct shops in exchange for the railroad extending its line into Kansas to reach Pittsburg. The offer was accepted by the KCPG, and citizens voted four to one in favor of a bond to raise the money in a depression year. Playter's plan faded into extinction when a natural gas discovery was made at Iola, Kansas, after which coal was no longer used in the area for refining zinc [Stroup, 1946c].

Construction of the first shops in Pittsburg was begun immediately, enlarged later in 1907 and 1908, and several times over the years since. Pittsburg remained the main repair shop many years for the entire railroad,

until Shreveport's yard was greatly enlarged to accommodate repairs for both the Kansas City Southern (KCS) and the Louisiana & Arkansas (L&A). The \$40,000 investment repaid the city many times over in wages and benefits. In the words of Louis Stroup, editor of the Pittsburg newspaper, "It would seem that Pittsburg got a bargain..." [1947b].

In May of 1895, the city of Shreveport, Louisiana, proposed to donate \$250,000 from the parish and an additional \$75,000 from Shreveport itself, to be raised from taxation. This would be in return for the railroad's promise to establish division headquarters and machine shops, as well as building a "handsome" passenger station there. Like Pittsburg's \$40,000, these funds proved to be a wise investment in years to come.

In February of 1896 the company made a similar agreement to build through Beaumont, Texas, en route from Shreveport to Port Arthur if the city would grant a \$35,000 cash bonus, right-of-way into the city, depot grounds, and terminal facilities. This proposition was accepted, and today the railroad still runs through Beaumont ["Beaumont," 1896].

Interestingly, the fact that Dutch capital played such an important role in initial railroad construction still can be seen on the landscape today. To honor his Dutch friends and investors, and probably to help encourage continuance of the influx of such funds, it became a Stilwell practice to name new railroad towns established along the route for towns in the Netherlands, those individual Dutch citizens who had invested in the railroad, or even their wives and relatives. Streets and parks within such towns were likewise so named. Even before records can be found to indicate financial backing was coming from the Netherlands, towns through which the railroad runs attest to the fact by their names. The first was Amoret, Missouri, soon followed by

Amsterdam. By the time the railroad had reached Arkansas, Stilwell had hired a professional town promoter, and the practice of promoting new towns and naming them in this manner began in earnest. Vandervoort was named after an investor. One town was named DeQueen, which was the American pronunciation of de Goeijen, after Jan de Goeijen, Stilwell's friend and original Dutch contact, who was placed in charge of the entire European railroad office. Louisiana came to boast towns with such names as Zwolle, Hornbeck, DeRidder, and DeQuincy. All were named after men who were railroad investors: DeQuincy was a baron as well. In Texas, Nederland and Bloomburg were built and named in the same manner [Anderson, (n.d.)b].

Stilwell described himself as a man who built cities, railroads, and harbors, and who reclaimed deserts and drained swamps. This extravagant claim was no overstatement, for Stilwell named at least 41 companies he had organized himself [Stilwell, 1912]. In addition, the Kansas City Journal Post wrote of Stilwell presiding over as many as 50 to 100 businesses at one time [Anderson, (n.d.)c]. These firms were financed through the trust company, which used elaborate, interconnecting systems of borrowing against each other to finance projects which would furnish future railroad traffic. One writer suggests there is some evidence that Stilwell may have set up all these companies in order to play one off against another and keep control for himself [Ripley, 1915].

If Stilwell had shown unusual genius in securing financial backing for the railroad, his managerial practices evidenced far less skill. Perhaps he is not solely responsible, for he assured his readers that his board of directors always backed his decisions [Stilwell & Crowell, December 31, 1927].

Largely self-educated, he was aware of at least some of his own shortcomings. At times he was criticized for the unusually large boards of



directors he appointed (24 to 36) but he explained why in his memoirs. There he confided that he lacked knowledge concerning his projects, and depended upon other "strong minds" to supply this needed quality [Stilwell & Crowell, December 17, 1927, p. 95].

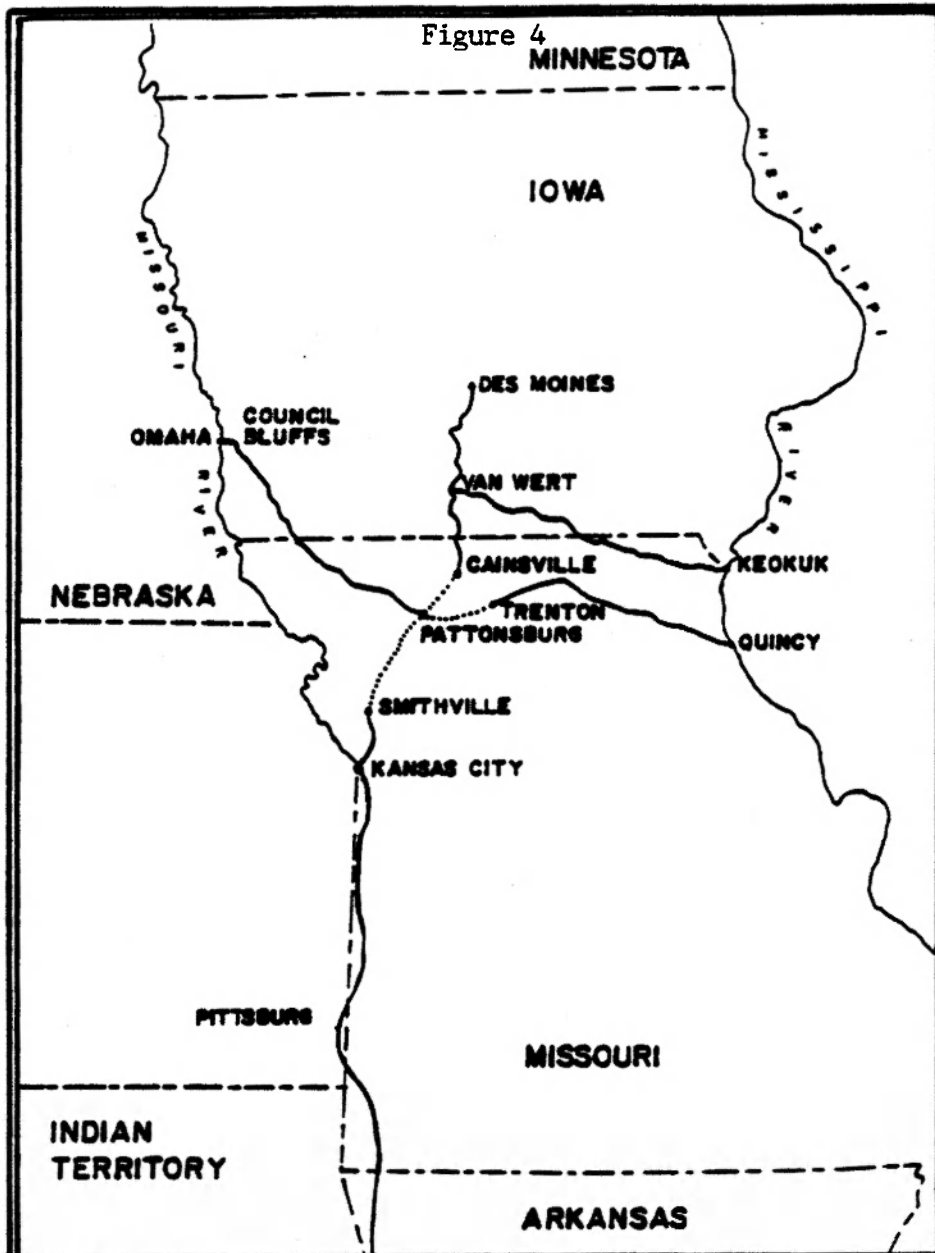
During the financial panic of 1896 as the railroad neared the Gulf, Stilwell was asked to estimate the earnings of the railroad after completion. Compiling a report, Stilwell stated it would earn \$10,000 per day, or \$5,000 per mile per year. After a short interval, earnings would increase to \$7,400 per mile gross, surpassing earnings of competitors because of being all main line. One of the competitors was sufficiently concerned to proclaim Stilwell's figures as "the dream of an unsound mind." Nevertheless, Stilwell was later able to prove that as he had projected, the railroad he had built did earn as much as its competitors, the Missouri Pacific, Chicago & Alton, and Illinois Central. The only error in his calculations was that the KCS earnings were about \$5,000 more a mile per year than the Missouri Pacific. Stilwell's dream had come true [Stilwell, 1912, p. 48].

Arthur Stilwell was careful to explain to the followers of his prolific writings and newspaper accounts that his motive was never profit for himself, but all railroad activities were to promote railroad traffic for the KCPG. There is reason to believe Stilwell did not receive returns from the railroad itself so much as he did from the railroad promotions, such as land sales or real estate. From the small evidence available it can be assumed he received only negligible income from the railroad, and actual personal income came largely from other sources based on the building of the line. Doubtless, Stilwell intended to make money from his railroad construction companies which he set up through his trust company, but he also intended to remain on

as railroad president to operate it. He was actively engaged in plans to reach northern markets at the time of receivership.

Even in the face of grave financial problems, Stilwell had begun promoting extension of his railroad north from Kansas City to link Omaha, Nebraska, and Quincy, Illinois, for the purpose of developing northern markets. It is possible that he hoped to eventually expand as far as Canada. This was never to become a reality, yet future railroad officials would someday decry the Stilwell error of not building northward from Kansas City, apparently not realizing he had, at least, tried (Figure 4). Steps to realize this northern extension began in 1895, but in spite of Stilwell's best efforts, the Kansas City & Northern Connecting Company was never completed and integrated into the rest of the line ["A new north," 1896]. Control of the northern routes was lost at receivership and the uncompleted line was purchased from the receivers by the Wabash Railroad [Haag, 1925].

Desperately seeking funds for his financially troubled but ever-increasing plans, Stilwell had allowed men such as E. H. Harriman and John W. "Bet-a-Million" Gates into his organization. These men were more interested in gaining control of the railroad than continuing under Stilwell's leadership [Bryant, 1971]. Gates was an important personage of the American Wire and Steel Company. Earlier his company had accepted a substantial amount of railroad bonds in lieu of payment in exchange for steel rail. Harriman, who was to become a vociferous enemy of Stilwell, claimed he had been called to assist the KCPG with its financial problems, then suddenly "left in the lurch," when Stilwell and his associates sold their own personal holdings in the railroad to Gates without notifying Harriman. By this purchase Gates not only gained control of the railroad, but hoped to protect his own interests in it. Mr. Harriman



## KANSAS CITY & NORTHERN CONNECTING RAILWAY COMPANY

### KANSAS CITY PITTSBURG & GULF SYSTEM

	Miles
Keokuk & Western - Keokuk to Van Wert.....	148
Des Moines & Kansas City - Des Moines to Cainsville.....	112
Quincy Omaha & Kansas City - Quincy to Trenton.....	136
Omaha & St. Louis Ry. - Pattonsburg to Council Bluffs.....	144
Kansas City & Northern Connecting - Kansas City to Cainsville, 109; Pattonsburg to Trenton, 28.....	137
Kansas City Pittsburg & Gulf - Kansas City to Sabine Pass...	769
	1,446

Adapted from The Railway Age & Northwestern Railroader, May 16, 1896

was later, however, made a director of the Gates faction [Kennan, 1922, p. 220].

The railroad plummeted towards receivership as delays in construction resulted in interest on bonds falling due before the road could become fully operational. Target date for completion was 18 months earlier than actually achieved. Even though the general economy was poor, the road did manage to pay interest up to July 1, 1898. The financial condition continued to worsen, and on April 1, 1899, the KCPG was forced into receivership based upon the fact that it was unable to pay \$575,000 interest due on that date, as well as other indebtedness of \$400,000. Likewise, at the time of the railroad's receivership, the multifarious group of Stilwell's railroad-connected enterprises began to fail as well [Haag, 1925]. By the end of 1899, Stilwell had lost all control over the KCPG.

Stilwell's own account of events leading up to the receivership differs from company records. He claims to have placed a \$3 million order for new equipment based on the verbal promise of backing by George Pullman. Pullman's untimely death prevented obtaining the necessary signature on the contracts [Stilwell, 1912].

In times of bankruptcy and reorganization, control of a company was customarily vested in a temporarily-appointed group of managers denoted the "voting trust," whose job it was to conservatively handle affairs of the company until it was out of financial danger. When the KCPG was forced into the hands of the courts by creditors in 1899, it was placed in the hands of five voting trustees until June 1, 1905. This voting trust was about equally divided between Harriman and Gates interests, with Harriman at the helm. Harriman claimed that during the receivership, because of poor original construction it was necessary to spend \$5½ million on improvements, additions, and new equipment. Not impressed by the "Straight as the crow flies" route,

he criticized that the line contained many unnecessary curves. He complained that embankments were often barely large enough to permit passage of cars, and drainage and ditching were totally lacking. Gullies and ravines were spanned with lightly constructed wooden bridges or trestles where substantial earthen fills were required. Some passenger stations were totally lacking, while others were poorly and hastily constructed. Shop facilities and water supplies were inadequate, and tools, new section houses, and water stations were badly needed. He believed the condition of crossings and sidings shameful for a railroad considered to be a major trunk line [Kenman, 1922].

The State of Missouri, in its 1899 Annual Report, was not so scathing in its criticism of the railroad as constructed within its borders, and offers further insight. An inspection of bridges and trestles on the KCPG on June 9 and 10, 1898 found that "trestles are numerous and receive good attention." It was determined, however, that three spans of combination truss bridges were not up to Missouri requirements. They had been adequately built at the railroad's inception, but increased traffic and the necessity of using double-header engines to haul 33-ton capacity coal cars rendered these combination trusses dangerous. Great improvements in track had been made since one year earlier, with 50 percent of KCPG's Missouri track ballasted with gravel or cinders, and additional ballasting work in progress. Ditching work was also being done, and was reported as "excellent." The percentage of unserviceable ties was considered too great, however, but the track was "kept in very good line and surface." The state felt that if work was continued as then underway the KCPG would soon rank with first-class railroads [p. 8].

Physical properties were itemized at the time of receivership. It was

found the road contained 870 timber trestles totaling 132,000 linear feet, and 135 steel bridges totaling 10,000 feet. Bridges were built to a Cooper E-31 loading, which was considered very light.

Immediately after receivership, bridges across the Red, Elk, and Houston rivers were replaced with heavy steel bridges. The most important of these was the Red River bridge, of which Stilwell had been exceedingly proud. The replacement cost of \$275,500 was due, in part, to the necessity of alignment of existing track to coincide with the new bridge [Haag, 1925]. This bridge had been part of the old Texas & Fort Smith Railroad line, originally built by a man named Whittaker. Extending north from Texarkana for approximately 40 miles, it had a charter to extend to Fort Worth. Stilwell had described the span as a "pretty fair steel bridge"; it was the only part of the line which he considered worthwhile, as its only other physical properties consisted of "poor rails and no-good ties." Surprisingly, purchase of this run-down road was considered quite a coup on the part of Stilwell, for the George Gould interests were attempting to keep Stilwell operations out of Shreveport where Gould owned two lines. Its purchase effectively blocked Gould's attempt to thwart Stilwell competition. Quality of this portion of the railroad's physical properties had been of very little importance to Stilwell compared to other considerations [Stilwell & Crowell, December 12, 1927, p. 26].

Ironically, the group of receivership trustees, so vocal in its criticism of Stilwell, was described years later as "men not particularly skilled in finance" [Haag, 1925, p. 115]. On March 19, 1900, the KCS was incorporated to take over the KCPG, its subsidiaries, the terminal lines at Kansas City, and the Port Arthur facilities [Bryant, 1971]. Upon

expiration of the receivership in 1905, Dutch interests gained control of the KCS. Likewise, they loudly complained about the poor condition of the railroad. The Harriman interests defensively claimed this was because of faulty original construction, not poor maintenance during receivership [Kennan, 1922].

Ripley, expert on railroad financial matters, while quoting a 1905 financial summary of the railroad's Fifth Annual Report, said that "Deception amounting practically to fraud upon stockholders, and seemingly not unconnected with 'inside' speculation, has recurred several times in recent years." He wrote that at the time the railroad receivership ended and stockholders came into possession of their property, it was found to be "almost gutted" [Ripley, 1915, p. 213].

Immediately after receivership had taken the KCPG from him, Stilwell apparently undaunted, began work on his second railroad, the Kansas City, Mexico & Orient, likewise later to be doomed by receivership, yet many years later to become the source of the huge Kemper fortune in Kansas City [Glaab, 1962]. In his lifetime he built approximately 2,300 miles of railroad lines south from Kansas City, and he had succeeded in building the only major railroad constructed in the United States during the 1890's.

Several years after the fall of the KCPG, the Guardian Trust was also forced into receivership. Attempts to untangle its financial affairs lasted into the 1920's before they were judged to be hopelessly entangled [Pletcher, 1958]. Yet, as Stilwell had claimed, results seemed to indicate that investors did not lose [Stilwell, 1912].

Stilwell died September 26, 1928 at the age of 69. Childless, his wife of many years took her own life less than two weeks after her husband's death.

During years of invalidism caused by an elevator accident that ended his active business life, Stilwell had turned his abundant energies to writing, producing numerous pamphlets, books, and even plays, music, and poetry. In his 1912 book Cannibals of Finance, Stilwell listed three full pages of accomplishments. Besides the railroads he built, of the companies he had founded he reported that 90 percent were still prospering. Always deeply religious and of the Christian Scientist persuasion, Stilwell had, after the onset of his invalidism, begun to be more descriptive about how he made some of his business decisions, attributing them to hunches, dreams, or towards the very end, "brownies" [Anderson, (n.d.)a]. It is unfortunate that his obituary deems this aspect of his life to be more important than his actual accomplishments for both Kansas City and the southwestern part of the United States. Subsequent writers, almost without exception, have followed suit.



## Chapter 4

### STILWELL'S "CONSTRUCTIVE WORK"

Arthur Stilwell's railroad career began with construction of a belt line railroad around Kansas City which serviced most railroads within the Kansas City area, including the Kansas City, Pittsburg & Gulf (KCPG). In 1900, this line was purchased by and made part of the Kansas City Southern (KCS) [Haag, 1925].

Early in the history of Kansas City it became a city divided. Although Kansas City, Kansas was likely the overflow of Kansas City, Missouri, it hoped to become a rival to its neighbor; yet the Missouri side maintained control of wheat marketing and financial institutions while the Kansas side retained meat packing operations. The two cities developed and remained distinct identities in different states.

Many early Kansas City industries were related to meat packing or grain industries. The Kansas City, Kansas flood plain and the narrow alluvial strip between Kansas City, Missouri and the Kansas River served as ideal construction sites for meat packing and related industries [Laird, 1975]. Packing firms were located in an area between the Kansas and the Missouri rivers which became known as the West Bottoms, or along the Kansas River on the Kansas side of the city. Not only was topography favorable for building purposes here, but the industry could easily be kept out of sight and smell of the Missouri side of the city by the great bluffs. Wastes could be dumped into the river, and only the poorer segment of society living nearby need be adversely affected. The 1870 construction of the Armour Plankinton & Company meat packing plant may have been the single, most important step in the growth of the Kansas City,

Kansas meat packing industry [Glaab, 1962]. This company was quick to take advantage of the Gulf access Stilwell's KCPG was to make available to the Kansas City area.

Besides cattle marketing and butchering, rendering, soap, and glue-making establishments sprang up. Flour milling was begun. Added to these industries were agricultural implement dealers, manufacturing, and oil refining on the Kansas side. Wholesale general merchandise trade became important to Kansas City early in its history as well, and was greatly assisted by the city's numerous railroads. Most of these businesses began during the 1880-1890 era, and a natural outgrowth of this on both sides of the river was a real estate boom [Laird, 1975, & Haskel & Fowler, 1950].

After arrival of the first railroad in 1865 and construction of the Hannibal Bridge in 1869 other new lines quickly followed, taking advantage of the flat topography while servicing the new enterprises springing up there. The city's first union station (a single station serving several rail lines) was built in 1869, the second such edifice to be constructed in the United States (after St. Louis). Constructed of brick, it was replaced on the same site six years later after damage by fire, by a huge, graceful wooden structure considered to be the finest of its kind in the world.

Kansas City was growing, however, and access to the union station, located in the West Bottoms at the foot of the bluffs, had to be gained by an unsatisfactory horsecar line. In an attempt to solve the problem a cable car line replaced it, but it transported passengers down the bluffs by using a frightening and dangerous 800-foot cattle-chute approach. Suitable access was never achieved. Additionally, after 1890 it could not adequately provide service to all the city's railroads. Distributing rail cars and freight became

increasingly difficult. Congestion reigned in all rail yards, yet additional lines were still being constructed ["Background on," (n.d.)].

These were the conditions facing Stilwell when he arrived in Kansas City in 1886, hoping to capitalize upon the ongoing real estate boom by forming a trust company, and later building a great railroad by means of this trust. Soon after his arrival Stilwell called on his old insurance clients. One of these was a man who was to become one of his closest business acquaintances and financial backers, E. L. Martin. In 1886, the year before Stilwell arrived, Martin was governor of Kansas City, and had issued the proclamation which consolidated five towns (Wyandotte, Kansas City, Armourdale, Riverview, and Armstrong) into one first-class city under the name of Kansas City. This was an unpopular proclamation with all cities involved, as well as the Union Pacific Railroad, which feared a property tax rise [Harrington, 1935]. Nevertheless, Martin was acclaimed as having "rescued the city's affairs from ring rule and fraud management" during his term of office [Whitney, 1908, Vol. 2, p. 313]. Not only was his reputation honest, but he was a good businessman, with excellent business contacts. He became a long-time friend of Stilwell's and introduced Stilwell into his circle of wealthy friends [Stilwell & Crowell, December 17, 1927]. Martin was the door through which Stilwell would enter the world of railroad enterprise and begin the "constructive work" on his long-dreamed of railroad from Kansas City to the Gulf [Stilwell, 1912, p. 39].

As railyard congestion continued to grow, a solution was sought. Several charters were granted to various groups of investors to construct a belt line around the city to connect the rail lines [Bryant, 1971]. Among these was a group of Kansas City businessmen, including Martin, which on January 8, 1887 was authorized to build a line from the Kansas City Union Depot in the West Bottoms five miles east to the Blue River. There it was to turn south and

extend approximately six miles along the Blue River to Brush Creek, where it was again to turn in a northwesterly direction and return to the depot [Haag, 1925]. Lacking the funds to build the line, the project remained in limbo. According to Stilwell's flamboyantly written memoirs, the deadline on the charter was only a week away when Martin, by now a director of Stilwell's trust company, informed Stilwell of the charter's existence and asked for assistance. Stilwell almost singlehandedly and overnight was able to raise unsecured bonds for the entire amount believed necessary to build the belt line [Stilwell & Crowell, December 17, 1927].

Construction work began the fall of 1887 [Draper, 1947]. Stilwell's first formal business association with the Kansas City Suburban Belt Railroad Company (Belt Line) was an award to his trust company of a contract to organize the Kansas City Terminal Construction Company to build and equip the first five miles of the road. Although Martin was President, by December of 1889 Stilwell had been made First Vice President of the Belt Line [Haag, 1925]. Almost immediately after incorporation the construction company purchased 160 acres of land in the East Bottoms, north of the city on the Missouri River plain just below the bluffs. At that time the \$1,000 per acre price set a record high. Later the price was considered a bargain. Value of the land had not yet been realized, and no factories of any type existed in the area. It developed into an industrial area, eventually showing large profits for the Belt Line as steel mills and auto plants moved into and blanketed the area [Draper, 1947].

In the line's original form the first six miles were double tracked, two miles of which ran immediately adjacent to the Missouri River. Along this section retaining the embankment during high water periods proved to be difficult, and wicker mats were used as a deterrent to washing [Stilwell & Crowell, December 17, 1927]. This type of work consisted of weaving willow

mattresses 60 to 100 feet wide, and interlacing them with wire strands. These mattresses were loaded with riprap, then sunk along the edge of the riverbank. This type of bank protection was still being used by railroads in the Kansas City area along the Missouri River as late as 1912, where several years after placement mat work was reported to still be doing a good job of resisting current action ["Bank protection," 1912].

The line was originally constructed to enter Kansas City at Second Street, necessitating a grade of approximately 3.5 percent. Difficulties associated with such a steep grade were of less importance to Stilwell than cost-saving construction and anticipated traffic.

At the foot of Wyandotte Street, near the liquor company owned by Martin, Stilwell constructed a \$65,000 wooden depot. Proud of his first edifice in connection with the railroad, he eloquently named it "Grand Central Station." By the time of its construction in 1891 the old Kansas City Union Station was too crowded to accommodate additional railroads. With little or no traffic of its own, the Belt Line allowed three other Kansas City lines to use the station ["Background on development," (n.d.)].

In spite of the fact that there were virtually no passengers to use the new station at that time, the Belt Line built a cable car extension from the Kansas City business district, and an opening celebration was held with residents, visitors, and dignitaries present to hear speakers extoll the virtues of Kansas City and its railroads [Bryant, 1971].

Although the need for a belt line in Kansas City was evident, the prospect of such a line becoming a reality was viewed by the City's existing railroads as a threat to business. Crossing these 17 lines or connecting to them was met with resistance often resulting in injunctions requiring legal

fees and costly delays to overcome. It took three years for the line to become nominally operational, and Belt Line completion was not attained until 1895. By that time actual cost had risen from the anticipated \$1 million to an actual \$4 million. Claiming to be only about 30 years old at the time, Stilwell credited himself for having supervised every facet of the Belt Line construction, including the letting of all construction and equipment contracts through his trust company. These funds had been raised entirely by himself from his Philadelphia contacts [Stilwell & Crowell, December 17, 1927].

Working closely with Martin, Stilwell convinced him of the importance of extending the Belt Line. To overcome charter limitations, three additional short lines were formed by these men in 1891. The Consolidated Terminal Railway Company of Kansas City was formed to build approximately two miles west to reach the Missouri River. Another, the Union Terminal Railroad Company, was formed to comply with Kansas requirements. It was built from the Kansas-Missouri state line and ran along the south bank of the Missouri River into Argentine, Kansas. Building from Kansas City to the West Bottoms, only a few hundred yards away, required overcoming the 100-foot drop from the Missouri Belt Line tracks. Accomplishing this feat was beset with engineering problems and strenuous railroad opposition, which delayed completion of the entire project until 1895. Both lines were later absorbed into the Belt Line [Haag, 1925].

At completion the Belt Line could connect with all Kansas City railroads and reach established businesses, including meat-packing houses in Argentine, Kansas, and the Union Stockyards. The line was 24 miles in length, with yard and side tracks bringing total trackage to 60 miles [Stilwell & Crowell, December 17, 1927]. An extension (The Independence Air Line) was built to

reach six miles east to Independence, Missouri. It later became part of the Belt Line.

On the west side of Kansas City the final linking of the Union Terminal to the Belt Line allowed commuter service for packing-house employees. Through trains could now be operated from Argentine, Kansas to Independence, Missouri. Because other rail lines controlled access to grain elevators, on January 15, 1892 Stilwell formed the Missouri Elevator & Terminal Company which purchased three grain elevators (the Star, the Eclypse, and the Diamond), and allowed the Belt Line storage for incoming grain shipments. In addition, in 1892 a contract was made with Second Street Improvement Company to build two new elevators (the Exchange and the Sun) on the railroad line. Also, the Missouri Elevator was acquired by a stock exchange agreement. These negotiations allowed the Belt Line to control a large portion of Kansas City grain trade [Haag, 1925].

New enterprises began to spring up along the Belt Line. The area's first reinforced concrete building and one of the first concrete warehouses in America was constructed by John S. Prescott. Built at Broadway and the Belt Line tracks, the Terminal Warehouse was constructed and managed by Mr. Prescott. It was unique in that it was designed for protection against possible fire, and for this reason contained no woodwork [Whitney, Vol. 2, 1908]. During 1895 a foundry and rice mill were among other new facilities located on the Belt Line [Bryant, 1971]. The building of the Belt Line to and beyond Grand Avenue opened the southern portion of Kansas City to railroad facilities, and was said to have at once resulted in the construction of mills, elevators, and other commercial projects in that area as well [Howe, 1886].

Begun in 1887 and completed in 1895, the Belt Line began its first limited

operations in 1890. Although the Belt Line as constructed formed no part of the original KCPG that Stilwell built south to reach the Gulf of Mexico, it provided access to Kansas City for the KCPG even as it did for other railroads. In 1900, at the same time other Stilwell operations went into receivership, the Belt Line (including the Independence Air Line) along with the KCPG, was purchased by the KCS and became part of it.

Stilwell wrote that it was his proven success with the Belt Line that enabled him to start the route south out of Kansas City, but if so, any success realized must have come from stock manipulation; the Belt Line was not yet operational when construction began on Stilwell's long-anticipated route to the Gulf, nor was it completed until 1895. The Belt Line, at least, introduced Stilwell into the railroad business, and even while the Belt Line's first few miles were still in the construction process, Stilwell and Martin began plans for a route south out of Kansas City. In 1889, about the time the southern route incorporation was begun by these two men, they purchased coal fields around Hume and lead and zinc mines in the Joplin area.

To begin the southern railroad, in November of 1889 Martin, Stilwell, and a group of businessmen formed the Kansas City, Nevada & Fort Smith Railroad Company. The stated intent of its charter was to build south in the general direction of Fort Smith, Arkansas. In January of 1890, the year the Belt Line's first three miles became operational, the new line contracted with Stilwell's Missouri Coal and Coke Company to construct and equip the railroad. Actual construction began at Grandview, Missouri several miles south of Kansas City. Entrance would be gained to Kansas City through



contracts with an outside railroad (Osceola & Southern Railway Company) to reach the Belt Line, which would distribute freight within Kansas City. In 1890 franchises and contracts of another small, partially surveyed but completely unbuilt railroad were purchased. It was chartered to reach Rich Hill, Missouri, approximately 11 miles due east of Hume.

Apparently it was Martin who suggested lines be diverted from the Rich Hill destination to reach new coal discoveries in Hume. Stilwell quickly concurred, but convinced Martin and the other directors it would be more advantageous to reach proven coal fields already in operation in Pittsburg, Kansas (Figure 3).

The first leg of the construction was 46 miles long, and reached coal mines at Amoret, Missouri before continuing on the additional 12 miles to reach Hume. Construction from Grandview to Hume took only six months, and was completed in September, 1890. This portion of the line was originally constructed with 12 bridges between Grandview and Hume. So hastily had it been built, it was necessary to replace all bridges by 1897, and add 18 more [State of Missouri, 1899]. After reaching Hume, building proceeded at a slower pace (Figure 5).

The \$40,000 enticement Pittsburg offered to attract the railroad provided the final impetus for Stilwell to build into Kansas. In 1892 two additional new railroads with combined trackage of only 18½ miles were chartered by Stilwell and his directors. These two lines would, when combined, extend in a southerly direction from the Missouri-Kansas border through Pittsburg, then back into Missouri. Construction was completed through Pittsburg in 1893. The shops and yards the railroad promised the city were slower to become a

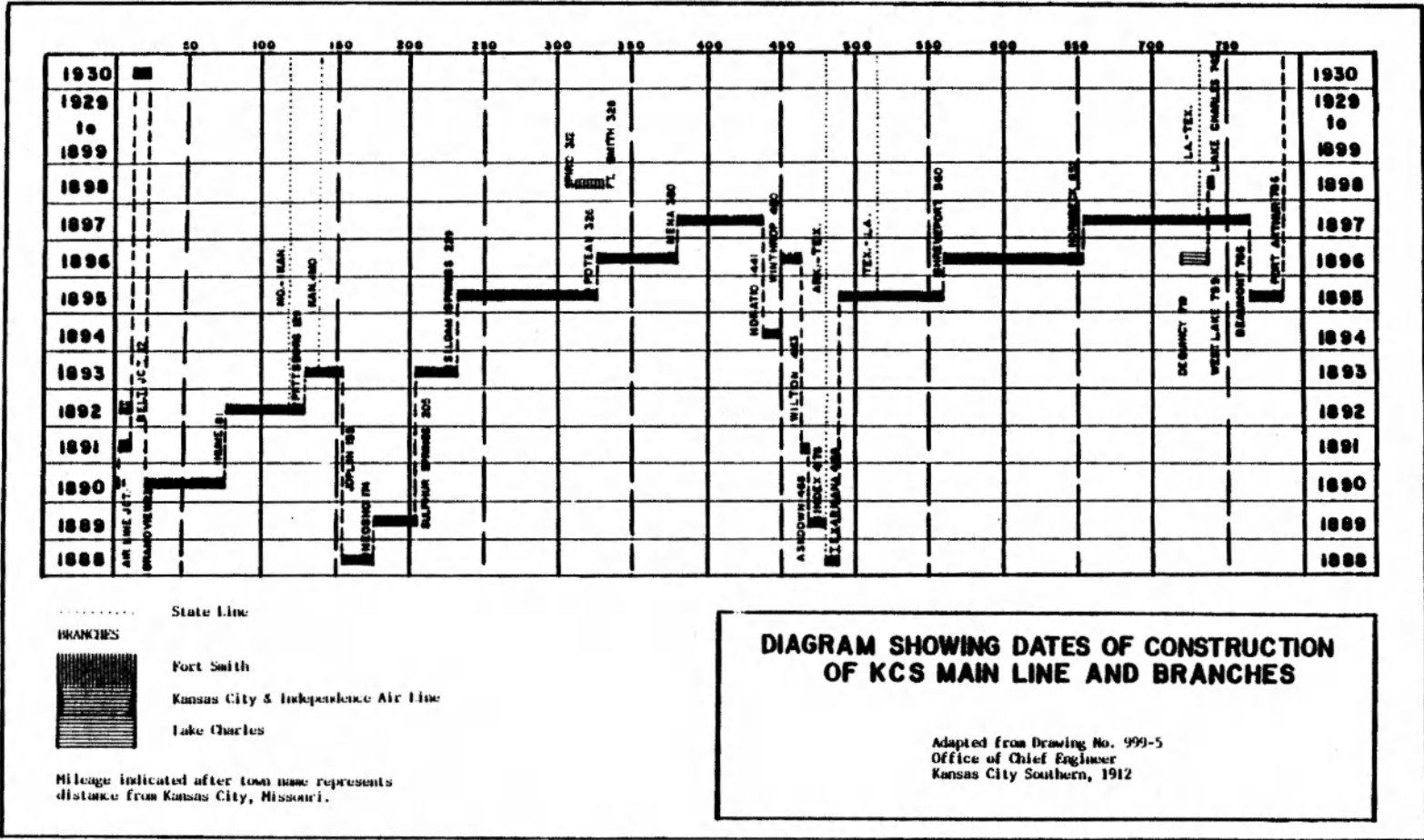


Figure 5

reality, however, because of extensive building taking place elsewhere on the line and the depression now in progress. Though delayed, the promise was kept, and by 1895 Pittsburg was boasting brick railroad shops, roundhouses, extensive yards, and a brick and stone passenger station [Anderson, (n.d.)d].

It was during the time negotiations were underway for lines into Pittsburg that news began to be heard about building to the Gulf. A July 11, 1892 Kansas City Star article which reported the news of the contract being let between Hume and Pittsburg was entitled "Will push to the Gulf." It stated that the railroad "would not end this side of salt water." At a meeting on December 3, 1892 directors voted to route the railroad through Pittsburg, Joplin, Fort Smith, Texarkana, and Shreveport, en route to a final destination on the Gulf at the city of Sabine Pass, Texas [Bryant, 1971].

On January 26, 1893, the name of Stilwell's multiplicity of small railroads (excluding the Belt Line and its extensions) was consolidated and changed to the Kansas City, Pittsburg & Gulf Railroad Company. The railroad was to be completed and remain under this name until receivership. The KCPG's new charter allowed it to extend by construction, purchase, or lease through Missouri, Kansas, Arkansas, Texas, Louisiana, and the territory of Oklahoma [Haag, 1925].

Coal at Amoret and Hume, Missouri, as anticipated by Stilwell, had proven to be of inferior quality. At this time, traffic generated was all northbound to Kansas City, and consisted of coal, livestock, and wheat. Business, however, was slow. In part, this was because the depression had closed lead and zinc mines in Joplin, where townspeople were exchanging wheelbarrows filled with cubed lead for groceries, and the town government was accepting lead in payment of taxes [Federal Writers' Project, 1941].

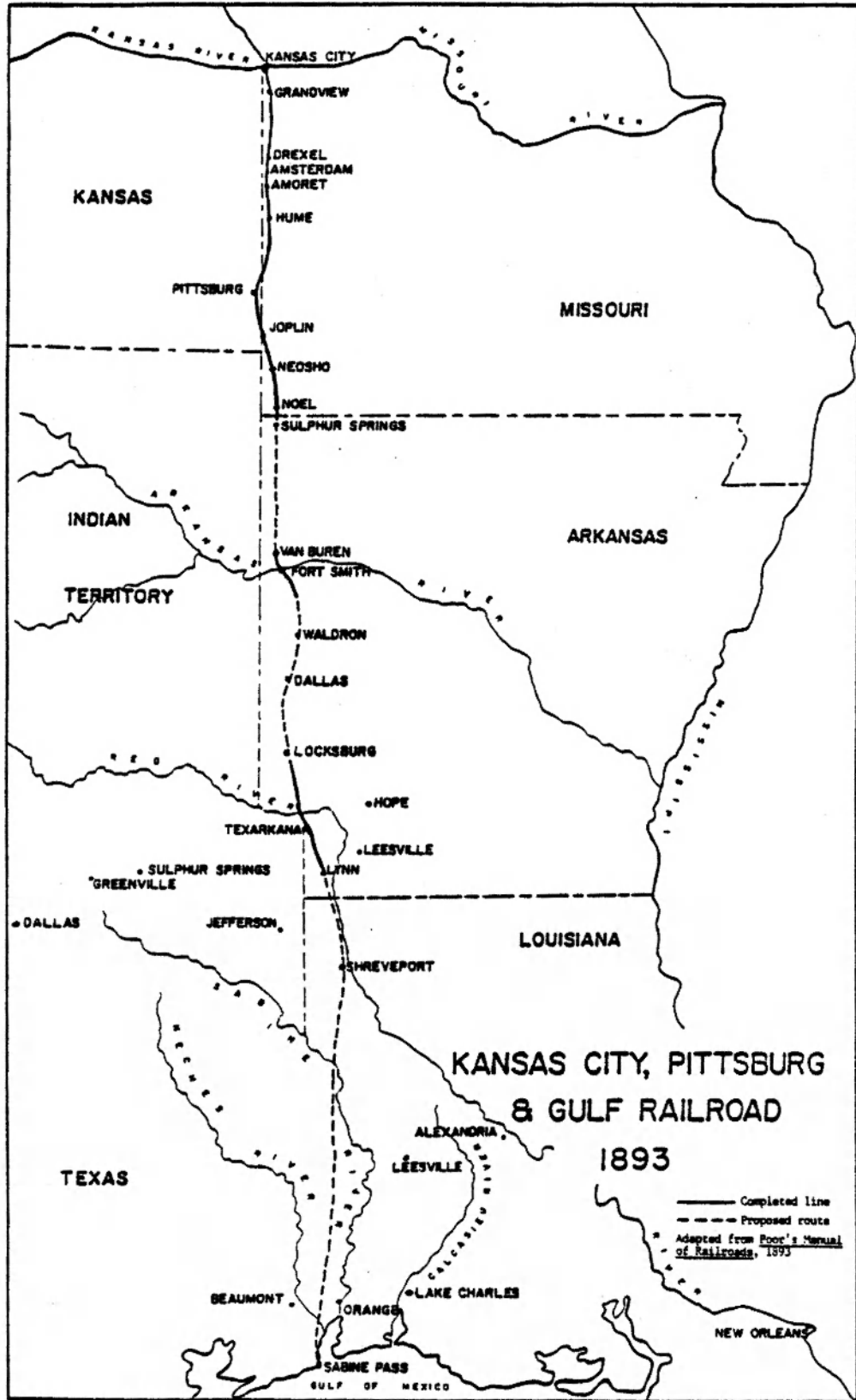
Mines closed because of the depression contributed to the fact that by the time the railroad reached Joplin (August, 1893) Pittsburg was producing the only coal being hauled by the railroad (Figure 3). Stilwell was unsatisfied with railroad profits.

About 1893 (Figure 6) Stilwell was able to purchase the Texarkana & Fort Smith Railroad, incorporated and built by W. L. Whitaker for use in supplying timber and ties to railroads building in the area. When it became necessary to extend the line to reach other areas of timber, Whitaker was unable to raise the necessary financial backing and put his railroad on the market. It contained approximately 20 miles of track and a steel bridge across the Red River. This was the purchase Stilwell made to block Gould, who was attempting to keep Stilwell's new railroad out of Shreveport.

After acquisition of Whitaker's Texarkana & Fort Smith, Stilwell's interests turned to the approximately 200-mile area between Joplin and Sulphur Springs, immediately below the Missouri border in Arkansas. This may have been at least in part because he had already purchased and laid out town sites in the area [Stilwell & Crowell, December 31, 1927]. Timberland had been purchased by Stilwell for a distance of approximately 30 miles south of Sulphur Springs, Arkansas along railroad right-of-way. The profits from resale of this land later helped build the railway through the Ozark mountains [Draper, 1947].

To help connect these two areas, another small isolated railroad further north was purchased. Incorporated in 1887, construction was to take place between Joplin and Splitlog, in McDonald County, Missouri. Its builder, Matthias Splitlog, was one of the Wyandotte Indians relocated by the federal government from Ohio tribal lands to an area west of the Kansas River. Splitlog was only slightly less colorful than Mr. Stilwell himself. When the tribe's

Figure 6



newly-acquired lands were sold for use in building Kansas City, Kansas, Splitlog became one of the wealthiest members of his tribe. Educated and mechanically inclined, among other accomplishments he built a flour mill, a saw mill, and two towns: Splitlog City, Missouri, and Cayuga City, Oklahoma, both of which remain only as ghost towns today. He hoped to eventually build his railroad through Indian Territory and on to the Gulf. One portion of his railroad had been built to haul gold ore from some newly-purchased gold mines. Splitlog had been told a gold vein existed which extended half-way across McDonald County. The mines, however, had been salted with small amounts of real gold. Although they eventually yielded small amounts of silver and lead, Splitlog lost a huge amount in both purchase of the gold mines and expenditures on the railroad. Bankrupt and disgruntled, he sold to eastern interests. By the time Arthur Stilwell purchased the line, the railroad had been ingloriously reduced to hauling hardwood lumber. Purchase price was \$50,000, a sum which may have been, at most, one-half of the original construction cost [Draper, 1947, Ruth, 1941, & Haag, 1925].

The Splitlog road had begun construction from Joplin in 1887 under the official name of the Kansas City, Fort Smith and Southern. It had been built to Neosho, Missouri for a \$40,000 grant from that city. When Stilwell purchased the line in 1893, some portions of it had been abandoned or torn out, as had the spur to Splitlog City. The purchased section consisted of 51 miles of light steel rails (56 lbs. per yard per rail) which ran through the Missouri towns of Goodman, Anderson, and Noel, to Sulphur Springs, Arkansas [Stroup, 1949c & State of Missouri, 1898].

Purchase of the Texarkana & Fort Smith and Kansas City, Fort Smith & Southern afforded Stilwell not only small amounts of existing trackage, but

charters and rights-of-way from Kansas City to Texarkana [Draper, 1947]. Although these new railroad acquisitions facilitated expansion of the route south, still unbuilt was a portion between Sulphur Springs and Little River, Arkansas and the area between Texarkana and the Gulf ["Saga," (n.d.)].

From Sulphur Springs, Stilwell extended the road south along and within the western border of Arkansas. In the northern portion of this extension the Missouri, Kansas & Texas Railroad's occupation of the Grand River Valley created rivalry which forced the line well up into the western side of the Ouachita mountains where roads were few and travel difficult, into heavily timbered areas, and where there were more difficult river crossings. The Arkansas River in this location was one of the most expensive to bridge in the entire line [Haag, 1925].

Immediately west, across the Arkansas border, was Indian Territory. Indian leaders were largely opposed to white encroachment onto their land. Their loyal followers were not ambitious to obtain wealth, desired a simple life, and were suspicious of the white man. Their subsistence lifestyle was supplemented only by exchanges at trading posts, which did not provide good market potential for the railroads. The discovery of coal within Indian Territory was one factor that served to increase pressure to open such lands to white settlement. Kansas and Texas population increases at about this same time were adding to the pressure. Railroads enthusiastically sought opening of Indian lands to white settlement. Border town merchants of Kansas, Texas, and Arkansas were active boosters for opening Oklahoma Indian lands. All groups had strong, persistent representation in Washington, and there was pressure from farmers desiring land. So successful were these groups that

before Oklahoma became a state, nine railroads (of which the KCPG was one) had built lines through the Indian nations in what is today eastern Oklahoma [McReynolds, 1954].

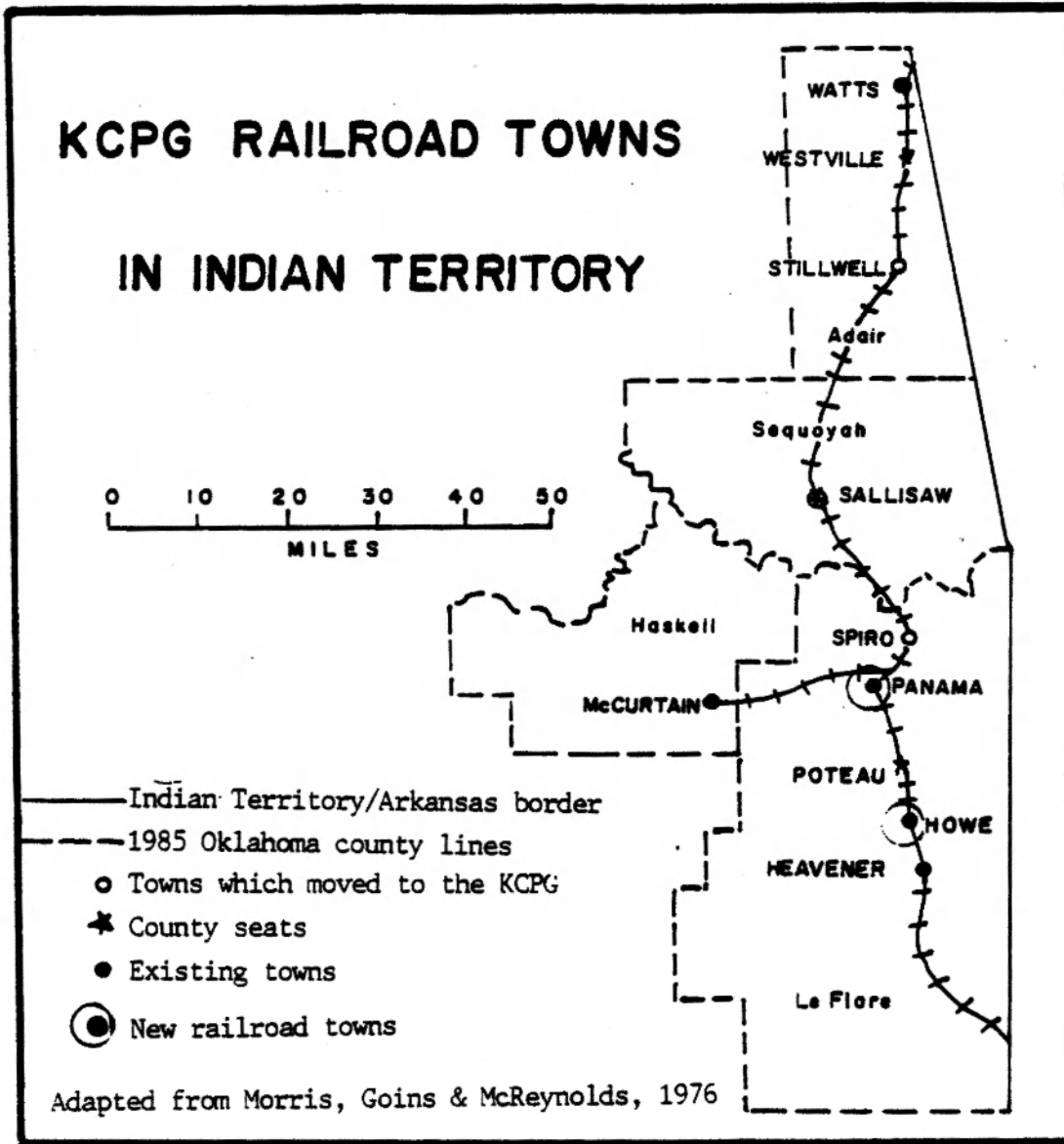
Indians opposed the railroad primarily because they feared forfeiture of their lands. The 1886 treaty provisions allowed for land to be given up for railroad right-of-way. If for any reason the Indians relinquished their lands, railroads could claim millions of acres of Indian Territory. Additionally, Indians opposed use of timber and coal for railroad use, and hated the well-known criminal element which followed railroad construction crews into Indian Territory [Self, 1971]. With each new line came gangs of laborers and workers for related industries, such as tiemaking, lumbering, and various railroad suppliers. Curious sight-seers flocked into such areas too, some of which took up residence [McReynolds, 1954].

The total portion of the KCPG which was built through Indian Territory was approximately 128 miles long (Figure 7). Part of this distance included the existing Splitlog line. With the exception of charters already owned by that line, in order for Stilwell to build into Indian Territory permission had to be obtained from the federal government. This permission was granted, and the railroad entered the Cherokee Nation near the community of Watts, about seven miles south of Siloam Springs, Arkansas, and passed through the Creek and Choctaw nations before leaving Indian Territory below Sallisaw at the Arkansas River [Self, 1971].

The first link in Indian Territory was to build to Westville. Westville is located in the fertile prairie land of the Ozark Plateau in what is today Adair County. Here construction was to come to a temporary standstill for lack of funds to build further. Residents of the area were almost entirely



Figure 7



members of a secret clan, Kee-too-wah, whose purpose was to prevent white men from entering the Territory. An early-day KCPG railroad agent at Westville recalled that the railroad depot and stacks of railroad ties were frequently set on fire by young Indians, who also were guilty of tearing out tracks and drinking up the depot's supply of red ink. However one Indian, Cherokee Chief Bushyhead, favored the railroad. It was believed only his assistance and protection allowed the line's completion to Westville. The depot and trains were, however, protected from robbery by the universal attitude among Cherokee outlaws such as Henry Starr, who was once heard to remark that the railroad didn't have enough money to bother robbing. It was probably true; on occasion railroad employees were not paid on time for lack of railroad funds to do so [Draper, 1947]. The town post office was established November 18, 1895, and Westville served as Adair County Seat from statehood until 1910, when this honor was bestowed upon Stilwell [Gould, 1933].

When Congress amended the franchise it had granted to the KCPG so that the railroad could build in the states of Arkansas, Texas, and Louisiana en route to Shreveport before building through Indian Territory, Stilwell was reported to be "happy" [Anderson, (n.d.)e]. Recent experiences at Westville may have temporarily dampened his enthusiasm for the project. Also the Ouachita mountains, which lay below this area and through which the railroad had to be built, form the most rugged topography in Oklahoma, making transportation development in the area extremely difficult. The portion of the line between Siloam Springs and the Arkansas River was not completed until 1895, at a time when work was simultaneously underway towards Shreveport. It consisted of a total mileage of 77: three in Arkansas and 74 in Indian Territory [Railway Age, January 10, 1896].

On January 18, 1894 the Kansas City Star reported that the soon-to-be opened extension between Sulphur Springs and Siloam Springs would bring all building plans to completion. No point below Siloam Springs had as yet been chosen, and "arrangements would have to be made if construction were to continue on to the Gulf." Whether the time was opportune to continue building further would be considered at the next annual board meeting.

This must have been an anxious period for Stilwell. The road through Indian Territory was only partially completed and the Whitaker and Splitlog roads were as yet unconnected. Nevertheless, the reporter for the article (probably Stilwell) optimistically concluded by saying that since the railroad had been so successful, it was probable that extension toward the Gulf would continue ["A railway into," 1894]. Apparently, Stilwell's eternal optimism won the board members over. Construction did, indeed, continue. In September of 1894, before reaching the city from the north, the KCPG contracted to build south from Shreveport under the name of the Kansas City, Shreveport & Gulf Railroad Company. In May of 1895 the Kansas City Star reported that over 1,000 men were working south of Siloam Springs, Arkansas, grading, laying track, and building bridges. Work was expected to be completed soon to Shreveport. Neither money nor labor was being spared, and the railroad reported it had "plenty of capital" ["Pushing on," 1895].

Stilwell's chief engineer, Robert Gillham, had been called the Father of the Kansas City street railway system. As engineer for the KCPG he became known for fast building through difficult territory. North of Siloam Springs connections were later made to close the 35 miles between Hatton Gap and Siloam Springs. Mountainous terrain required use of 15,000 kegs of powder and two carloads of dynamite. Thereafter the 35 miles of track required

only 12 days to lay. This entire job was completed in three months while contracts had allowed eight months for the project [KCPG, March 9, 1897].

In 1895 the Arkansas Construction Company, owned by the railroad, was working under a contract to build and equip the line from Shreveport north to the Louisiana-Arkansas state line. It completed the project (42 miles) during 1895 [Haag, 1925]. Shreveport, already 20,000 in population, needed railroads extending south to reach pine forests and the Gulf. It voted bonds of \$325,000 to locate railroad shops for the KCPG. In return, the railroad agreed to build a union station and locate division headquarters there [Bryant, 1971].

At about this same time Fort Smith, Arkansas, made the railroad offers of gratuities if its main line would be constructed through that town. The Frisco had recently found it necessary to build costly tunnels through the Ouachita Mountains in northwestern Arkansas, and the KCPG had neither the desire nor the funds to emulate that railroad. Engineers in the field surveying for the railroad discovered rich coal and marble west of the state line, and deemed it more desirable to build through Indian Territory to reach these areas than through a mountainous portion of Arkansas to reach Fort Smith.

The KCPG spent the entire summer of 1895 negotiating with Fort Smith for concessions to build a 15-mile spur from the old Splitlog line into that city in lieu of the main line the city demanded. In June the city was offering six terminals valued at \$75,000 to secure the main line, but promised it would give nothing unless the main line was built through the city. Negotiations dragged on and construction crews were laid off. No record was located to indicate who won, but the spur not the main line was constructed that fall. It is possible that the railroad built without concessions because mines near

Fort Smith contained much sought-after "smokeless" coal [Stilwell & Crowell, January 28, 1928]. Thus the railroad avoided costly tunneling through the Ouachita Mountains to reach Fort Smith from the north. It also had found and reached promising natural resources further west in Indian Territory.

In September, with work once again underway in Indian Territory, it was announced that the first of October freight and passenger service between Kansas City and the town of Stilwell in Indian Territory would be established ["On to the Gulf," 1895]. Flint citizens had moved their town three miles north to be on the new railroad in 1896, and the KCPG renamed it "Stilwell" [Gould, 1933]. The town was made a division point on the railroad. It was largely populated with Cherokee Indians, in whose nation the town was situated. Railroad facilities at Stilwell were sizeable, even though population remained small. Completion of the line to Stilwell opened territory previously served only by wagon trains dispatched from Fort Smith.

Elsewhere along the KCPG line in Indian Territory, Sallisaw had been established sometime prior to 1831 as an Indian Record Town fifteen miles north of its present site. The post office moved from the old town the same year the KCPG railroad arrived to the area, and was followed by the townspeople [Ruth, 1941]. In the southern portion of Indian Territory, residents from the old Choctaw village of Scullyville were attracted to the railroad at Spiro [Clark, 1958]. Panama was established about 1895 where coal was considered of importance. Poteau, where there was coal also, was 30 miles south of Fort Smith and situated in a valley between two mountains. Here the railroad would connect with the old Splitlog line that had served Poteau since 1888 [Gibson, 1981]. Prior to the arrival of the KCPG, the Frisco Railroad served the town.

The KCPG slashed rates upon reaching Poteau even though it was aware a freight war might ensue, and even though it had made traffic arrangements with the Frisco to handle some of its own freight ["Freight rates," 1896]. Further south the town of Klondike changed its name to Howe with the arrival of the railroad. Dr. Herbert M. Howe of Philadelphia was a KCPG director [Gould, 1933].

Near the gulf at this same time, Lake Charles and Orange, Louisiana were both offering "liberal concessions" in tax and cash donations to attract the railroad, and citizens of Beaumont, Texas had been asked to name the inducement they could offer to secure the new railroad [Railway Age, September 13, 1895].

During the years of 1895 and 1896, construction was underway in four separate locations. While labor costs were cheap and building costs were always kept to a minimum, a large number of employees were required for track gangs, and construction of three major bridges and many smaller ones took place under the direction of Gillham during this time. In 1896 the KCPG built approximately one-ninth of the nation's total of 1,692 miles of railroad constructed that year (Figure 5) [U.S. Bureau of the Census, 1957]. During this time the line was not yet in complete operation, and revenues from traffic were low.

In these same two years, engineer Gillham and his crews surveyed and laid out the new town of Port Arthur. It had two principal streets: Proctor Street (after Colonel William Proctor, Stilwell's friend and an investor), and Stilwell Boulevard. Proctor Street was a graded dirt lane with furrows at its edges for drainage. In 1896 cattle grazed within the town, and people had to retreat behind thick netting to protect themselves from swarms of mosquitoes. A lavish Sabine Hotel and Spanish-style railroad station were erected. In 1897 a pleasure pier was built which extended 2,000 feet into the water. It had provisions for an open-air restaurant, dancing, and other entertainment. The town of Port Arthur remained separate from the Port itself,

and never exercised any control over it [Rochelle, 1969]. A result of this duality was that neither was to act in the other's best interest, and relationships often were strained.

Work was begun laying track south of Shreveport towards Sabine Pass before the KCPG had reached the city from the north. It had progressed 17 miles south to Wallace Lake, where it was determined that one mile of trestle work was required ["Work on," 1896]. During 1896 the Kansas City Terminal Construction Company built approximately 94 miles of railroad south of Shreveport, and reached Hornbeck, Louisiana. The spring of the following year, 87 miles of track was laid to reach the Louisiana-Texas state line at Sabine River.

A small existing line was purchased near the Gulf (the Calcasieu, Vernon & Shreveport Railway Company). This line had been incorporated in 1890, and contained a 15-mile narrow gauge lumber tram between Lockport and Edgewood, Louisiana, used by the Edgewood Land & Logging Company. After purchase, it was converted to standard gauge and became part of the branch line to Lake Charles. This purchase gave the railroad the second Gulf terminus. The logging company retained the right to operate its logging trains over the route [Haag, 1925].

With work progressing well at Texarkana and several other locations, Stilwell began to focus on Shreveport where he formed the Kansas City, Shreveport & Gulf Railway Company to build tracks, shops and the union station. When the last spike was driven in the line at Shreveport the line was open to through traffic from Kansas City, and a great week-long celebration was prepared. The news was to be wired to Kansas City at once, where packing houses and factory whistles were to announce the event by loud continuous blasts. In Shreveport bells were to be rung, bands were to play, and a

holiday declared. On March 2, 1897 the Kansas City Star announced that the last spike had been driven at 3:45 p.m. at Shreveport. In addition to 38 factory and packing house whistles which announced the feat, a searchlight was flashed from the top of a Kansas City building that night. The Third Regiment Band marched through Kansas City streets and played at a special railroad meeting held at the Commercial Club that evening ["Great cities," & "In Shreveport," 1897].

Stilwell offered low-rate excursions to citizens at every point along the route for travel to Kansas City, where the City was urged to roll out the red carpet. The KCPG erected a lighted triumphal arch across the street in front of the general passenger offices and another similar arch in front of the railroad's general offices ["P & G Jubilee," 1897]. The next day the newspaper announced that the triumphal arch erected opposite the general passenger offices was apparently not anchored sufficiently to withstand high winds which blew in the pre-dawn hours. The arch collapsed. Although badly damaged, it was set up again that day ["Could not withstand," 1897].

The first full train of freight over the new line to Shreveport was made up of 25 cars of flour from Kelly and Lisle Milling Company of Leavenworth. It was elaborately decorated and exhibited in Kansas City the day before departure from the Second Street Depot. John Kelly, one of the railroad's original stockholders, had promised such a train when the line to Shreveport was completed. A shipment of corn was scheduled the following week, and 500 carloads were awaiting shipment ["Twenty-five," 1897].

Because passenger facilities were inadequate at Shreveport and other railroads were to share use of the depot and tracks, arrangements were made with yet another railroad-owned construction company (The Kansas City,



Shreveport & Gulf Terminal Company) to construct and maintain a depot and tracks there [Haag, 1925]. The depot was built and in readiness for the Jubilee Celebration. The railroad publicized that Shreveport contained a fine modern brick depot, a 20-stall roundhouse and a large repair shop. Such publicity mentioned that all KCPG depots were designed with much attention having been paid to artistic and attractive features [KCPG, March 9, 1897].

With opening of the line to Shreveport came many benefits. It was anticipated by the railroad that vast new markets were now opened to merchants of Kansas City which could be reached by means of connections with other railroads. Freight could reach Shreveport from Kansas City in 40 hours when earlier it had required five to seven days. Access to New Orleans, Houston, and Galveston was now available by connections with existing railroads at Shreveport. Even better connections were promised, for rate arrangements were being made with points in Europe, South America, and Mexico. Shreveport benefited too because the new railroad brought new employment opportunity to area residents.

By now the railroad construction taking place in Louisiana south of Shreveport had reached Many; Port Arthur was only 100 miles away ["In Shreveport," 1897]. At this unlikely time, with considerable work already completed below Shreveport, Stilwell made a decision to stop building and lease lines on to the Gulf. During negotiations to do so he also considered the \$3 million dollar purchase of the Houston, East & West Texas Railroad which would have reached the Gulf at Galveston.

KCPG directors had considered several possible points on the Gulf for the railroad's terminus. Most often mentioned were Galveston and Lake Sabine, but New Orleans was also considered. During 1895 and 1896, serious opposition

came from competitive railroads in New Orleans and Galveston, which were against the KCPG reaching the Gulf at all. Stilwell was vocal in his retaliation, promising his new railroad would operate "in the field as freelance," setting whatever freight rates deemed necessary to secure business ["Invest in," 1896]. Not surprisingly, opposition continued and intensified. As suddenly as they had commenced, investigations into lease or purchase of lines to the Gulf were dropped, and Stilwell once again resumed plans to complete his line; this time to the town of Sabine.

In ensuing years Stilwell was never to mention competition as a factor, but was to insist his "hunch" was the reason plans for a port were changed from Galveston. There was one other factor which may actually have had the most bearing on the final decision. When reaching the Gulf at last seemed to be a reality, Stilwell, Hornbeck, and his railroad directors were deeply involved in town promotion business. Far more profit could be realized from such a venture than from building a railroad alone. Stilwell had little difficulty convincing his directors of the benefits of building the railroad terminus at a new town on the Gulf.

To choose a site, Stilwell and his wife took a party of friends on a tour of the Gulf area. Included in the group were engineer Robert Gillham and another town-site man, Frank Henderson. On the tour they discovered no storm had ever touched an area near Sabine Lake's north shore; storm waters lost their power over the lake before reaching the area [Stilwell, 1912]. Stilwell gave orders to purchase 40,000 acres of pasture land where he would build his town.

Engineer Robert Gillham was placed in charge of all Port Arthur improvements, including designing the dock and canal. This same year Gillham

was engaged in the construction of three drawbridges in Louisiana: one over the Natches River, and others over the Sabine and Calcasieu rivers [KCPG, March 9, 1897].

The railroad had been "laying iron" north from the new town of Port Arthur. For this reason, when the KCPG officially opened to through traffic from Kansas City on September 11, 1897, it was not at the Gulf, but at a point 12 miles north of Beaumont where the final connection was made and a golden spike driven to solemnize the event ["Saga," (n.d.)]. Gala celebrations were held in Kansas City's Fairmont Park, points along the line, and Port Arthur, while bands played the "Port Arthur March." Excursion trains brought people to the Port Arthur celebration, where business was reported brisk Saturday at local restaurants and saloons. The town and pier were jammed with tourists, and festivities included parades and speeches. Early the next morning a tropical storm hit the town. Many townspeople were still tent dwellers in the hastily built metropolis, and scurried to the unfinished KCPG roundhouse for protection. The structure collapsed in the storm, and four people died. The pleasure pier received extensive damages. Residences were blown away, and five feet of water covered Proctor Street. Monday, after the storm abated, it was discovered the storm's toll had taken a total of 13 lives and left many injured. There was \$150,000 in property damage. Stilwell sent a relief train, \$15,000 in aid, and directed that repair work commence immediately [Rochelle, 1969, and Dallas Morning News, 1973].

At the same time the hurricane occurred, a yellow fever quarantine closed the line between Shreveport and the Gulf. This was one of two such quarantines which occurred within 18 months. The quarantines had a devastating effect upon railroad traffic in the coastal area.

Added to Stilwell's troubles was the fact that lines out of Shreveport could, at best, be kept in temporary repair. Unballasted and often poorly drained, lines became impassable in rainy seasons. In May of 1898 rains washed away the approach to the bridge at Shreveport, requiring payment to other roads for track rental [KCPG, 1898]. Also, a shortage of cars to haul freight was beginning to be felt. Although the railroad was now officially opened, it was to be two more years before freight could reach the coast without transshipment. The canal that was to connect the end of the tracks at Port Arthur with deep water could not be completed because of lawsuits from competitors trying to block Stilwell.

Earlier, in June of 1896, Stilwell had organized the Port Arthur Channel and Dock Company for the purpose of building a canal and necessary turning basins, warehouses, and wharfs [Rochelle, 1969]. The canal was to be built from Lake Sabine to the town through an area he described as undeveloped swampland. However, he neglected to purchase the property through which the canal was to pass at the time the town property was purchased. The entire KCPG railroad was faced with the possibility of failing to reach the Gulf because Stilwell had overlooked the purchase of the last few miles of property between the Port Arthur town site and the Gulf.

The first actual construction of the canal was begun through the shallow water of Lake Sabine. After considerable work had been completed it had to be abandoned and another site chosen because of competitor opposition [Haag, 1925].

Most of the land around the Sabine Pass area was owned by Luther and Herman Kountze, who had their own plans to promote a new town. Their land would be nearly worthless if Stilwell's Port Arthur became a reality. Dropping Port Arthur plans to build to Kountze property as the Kountze brothers urged him to do would have added 14 miles to the length of the railroad. Contesting the

Kountze brothers was to add \$500,000 to the cost of completing Stilwell's railroad.

To continue shipping while litigation prevented Stilwell from completing the canal, an export pier was built so that lighters could transfer cargoes to oceangoing vessels waiting in the Gulf. Nevertheless, while legal battles raged, ship traffic to several Mexican Gulf points, England, and the Netherlands was begun and even expanded with the use of the temporary dock facilities (Figure 8).

After lengthy legal delays with hearings reaching to the Supreme Court, the canal was completed in 1898. While the canal was under construction, the railroad built a  $3\frac{1}{2}$ -mile line from Port Arthur to the mouth of Taylor's Bayou, the northerly end of the canal, where wharfs and warehouses, a 500,000-bushel grain elevator, a 3,300-foot export pier, and a turning basin were constructed. The pier was large enough to berth six large grain ships. Cost for the pier and basin alone was in excess of \$1 million.

Stilwell planned to use the Suez Canal pattern to build his canal. This was to be 188 feet wide at the top and narrowing to 74 feet at its bottom, having a depth of 28 feet. Such grandiose building plans proved impossible to carry out, however, because of cost constraints. When the canal actually was built, Stilwell had to settle for 18 feet of depth and an 83-foot-wide waterway. Excavated materials were piled between the canal and the lake to make a berm. Waters were turned from Taylor's Bayou which, with a four m.p.h. current, served to keep the canal scoured. When litigation ended and the final cut of the canal could be made, Port Arthur, now a city of 1,900, entertained 5,000 guests for a huge celebration [Rochelle, 1969].

The day the canal was completed (March 20, 1899) Galveston suffered damage from a tidal wave. The seven ships which were able to reach the Port

Arthur Canal were undamaged [Stilwell & Crowell, January 28, 1928]. Although through railroad traffic had begun in late 1897 and the railroad was officially open to traffic, it was actually far from completion and road work continued [Haag, 1925]. Like the railroad line, work on the canal continued after it opened as well; to dredge it to a greater depth of 25 feet for use by larger vessels. By August of 1899 deep-draft ocean vessels could enter the canal, the first of which was the British ship "St. Oswald," drawing 17 feet of water, and docking at the elevator [Federal Writers' Project, 1940].

Although Arthur Stilwell may have been quietly laughed at when the storm hit Port Arthur in 1897, his choice of terminus proved infinitely superior to that of Galveston, at least in respect to safety. In 1900 the worst natural disaster recorded in the history of the United States took place at Galveston. The storm brought the city, its people, and even its government to absolute ruin. Estimates of lives lost were from 6,000 to 7,000, and some reports say as high as 10,000. Most deaths were because of drowning which took place when the island became completely inundated. Streets were piled with bodies and debris while street railroads, electric lighting, and water works were in utter ruin. Communication with the mainland was entirely cut off, except by boat. Tides reached 15 feet and over, and wind speeds were estimated at 120 m.p.h. All structures in the city were damaged or destroyed. Damages were estimated as high as \$40 million. Necessity required city businessmen to assume responsibility for the government [Benedict & Lomax, & Dallas Morning News, 1973].

By the time the KCPG and the port were both open, Stilwell claimed the railroad was earning \$5,000 per mile a year and the railroad builders were enjoying prosperity, as was the entire region through which the railroad passed.

The lumber industry was greatly stimulated, and agriculture was doing so well it was making an "abnormal demand" on the railroad. He stated that his personal profit from the railroad had amounted to \$40,000. Stilwell wrote, "I looked at the work of my hands and found it good," but in April of 1899 Stilwell was voted out of the management of the railroad [Stilwell, 1912, p. 56]. The reorganization of the company resulted in its name being changed to the Kansas City Southern Railroad.

As the KCPG had been constructed through an area, not only did grading, tracks, bridges and new towns modify the landscape, the railroad provided the means for population growth. In parts of Arkansas, distinct patterns and relationships with railroad companies could be determined from study of the Twelfth U. S. Census. Three counties which had a railroad for the first time because of the new KCPG added 20,000 new people, a 70 percent increase. Outside of large cities, Oklahoma remained sparsely populated because of its aridity. Only western counties with new railroads increased slightly in population [Clark, 1958]. Two railroads, the KCPG and the Southern Pacific Railroad, helped open western and southern portions of the state of Louisiana to population settlement. These areas of Louisiana showed strong growth in comparison with the rest of the state. Usually newcomers to such areas were from nearby states [Shanabruch, 1977 & U. S. Census Office, Vol. 2, 1900]. Although the railroad was lost to Stilwell by 1900, its effects on the region through which it passed have lasted to the present.

## Chapter 5

### CREATING TRAFFIC

Building into virgin territory did not assure immediate profits. Towns along the route were few in number and usually small in size. Traffic originating from them was almost non-existent at the genesis of the railroad, and Missouri and Kansas were the only states along the route where resource development had taken place to any extent. Discoveries of coal were still being made. Although at times industries were attracted to the line, in other cases the traffic which was needed to make the railroad self-supporting had to be built by the railroad itself.

From the beginning of his railroad-building career Stilwell cultivated passenger service and intended it to be part of the railroad's traffic. In anticipation of such usage, Stilwell built Grand Central Station in Kansas City before there were any passengers who could use it. Passenger service never furnished a major source of income; at times it was viewed by some as a luxury the railroad could ill afford, but it was continued by the railroad after other United States railroads had dropped such service.

During construction of the Kansas City Suburban Belt Railroad (Belt Line) Stilwell convinced his directors that it would be profitable to build to Independence, which was only six miles from the point the Belt Line left the Missouri River. An extension was constructed and named the Kansas City & Independence Air Line (Air Line), but profits were lower than anticipated.



While contemplating how to build a business on the new Air line to cover his error, Stilwell decided to create something midway between Kansas City and Independence which would serve as a "magnet to traffic," hopefully attracting passengers from both cities who would use the Air Line. This magnet was to be a recreational area, which he later admitted in his memoirs was more important for the "salvation of a railroad" than meeting the public's need for a recreational center. At this time there were only two parks in the Kansas City area: the Troost and the Kansas City parks. Stilwell's new Fairmont Park was located seven miles east of Kansas City on approximately 50 acres where a small creek was dammed to form a large lake [Stilwell & Crowell, December 17, 1927, p. 101]. A large dining hall was erected which had wide porches overlooking the lake. Also, 35 small bungalows were built for rental purposes for use by those who wished to linger, and tenting was encouraged ["Fairmont Chautauqua," 1897]. Various entertainments such as a roller coaster and windtunnel were added, as was an elaborate fountain which was lighted. The fountain was designed by Stilwell himself. A meeting hall with seating capacity of 2,000 persons was constructed, and entertainment included popular Chautauqua speakers, among whom was William Jennings Bryan [Draper, 1947]. The Kansas City Journal Post advertised that the park could be reached from Kansas City by riding a steam train which ran every 30 minutes [Anderson, (n.d.)c]. Although Stilwell claimed the park's popularity increased the Belt Line's earnings satisfactorily, company records show the venture was never profitable. The project operated at a loss until it was abandoned in 1904 [Haag, 1925].

Passengers were carried on the Kansas City, Pittsburg & Gulf (KCPG) from its earliest years as well, although cars were often second-hand. But soon

luxurious passenger accommodations began to be used and advertised to help create interest in the railroad. In October of 1895, when work was resumed in Indian Territory, both freight and passenger service between Kansas City and Stilwell were established, opening an area served prior to this time only by wagon trains dispatched from Fort Smith ["On to the," 1895]. At this time work was being pushed to reach Poteau to connect with the Splitlog line which had served that town since 1888 [Gibson, 1972]. When this was, in fact, accomplished, a new luxury passenger train called the "Arkansas Traveler" was advertised. The train was vestibuled and featured new Pintsch gas lights, and steam heat from lines extended to passenger cars from the locomotive. On June 1, 1896, the first Arkansas Traveler left the railroad's Grand Central Station in Kansas City at 10:00 p.m. It contained baggage and chair cars, as well as an express car, smoking car, and Pullman [KCPG, 1895]. When KCPG rails could at last reach Shreveport, the Arkansas Traveler made stops at Mena and Shreveport where passengers disembarked for meals. Passengers could reach Shreveport a full day sooner riding on the KCPG rather than other railroads, and at completion of the KCPG they could arrive "hours" earlier at Galveston or other southern cities. Service was tantalizingly described as "splendid." Not only were passengers promised the train would make fast time, but that the fine track was a "marvel of smoothness" [KCPG, March 9, 1897].

An important part of the KCPG was the Pullman Palace Car No. 100, which was the private Stilwell car, described as a mansion on rails. Constructed of mahogany and lighted with Pintsch gas fixtures, it contained a dining area with silver fittings, a master stateroom, and private bath. It had a pump organ in the living area, around which Stilwell is said to have gathered

employees or guests for brief church services and singing on Sunday evenings. This car was used personally by Stilwell, but he justified its expense on the grounds that it was quite often used for promotional purposes as well [Stroup, 1946d.].

The first portion of the railroad immediately below Kansas City traversed through an agricultural area in Missouri important for production of grains, beef cattle, hogs, horses, and mules. Helping the plight of the Midwestern farmer and stabilizing grain prices were the reasons Stilwell gave for building the railroad. On March 7, 1890, a Kansas City Star article reported a wheat surplus that year in Kansas. Shipping costs were high and prices low. Although demands were increasing for a route south from Kansas City, only a through line to the Gulf could serve this cause, and of necessity such relief had to be temporarily set aside until the railroad was completed. Emphasis shifted to procuring revenue that could be more quickly earned from coal and timber. First construction reached the great bituminous coal fields in southern Missouri and southeastern Kansas (Figure 3).

In 1893, Stilwell wrote that the coal industry was suffering, and some coal companies were making no profit other than that realized from company stores. He formed the Missouri Coal and Coke Company for the purposes of buying up struggling coal properties in an attempt to help stabilize coal prices. Several coal fields were purchased in the Fort Smith area. At this same time the old Whitaker sawmill in Texarkana was purchased and an agent hired to sell coal in the winter and ties in the summer, assuring year-round traffic for the railroad [Stilwell & Crowell, January 14, 1928]. By 1901, the railroad considered Fort Smith to be the center of the Arkansas and Indian Territory coal districts. In Indian Territory Stilwell had built

his line to reach coal at Sallisaw and Heavener, both situated on an 80-mile-long bituminous and semi-anthracite coal belt. It proved to be a wise decision, for in 1925 annual production of this field was about 3 million tons. Today this coal is being shipped by the railroad for use by electric power plants along the line. Besides coal, other minerals which have furnished traffic are found in this area as well. Near Stilwell are chalk deposits suitable for making cement. Near Page is a large deposit of asphalt [Haag, 1925].

Indian Territory was also to prove to be important in fruit production and shipping. The area between Neosho, Missouri and Watts, Oklahoma is known as the Ozark Fruit Belt, and extends about 75 miles eastward from the railroad. Besides a mild climate, drainage down the Ozark mountains allows air to flow freely, lessening the likelihood of frost damage to fruit. Although mixed farming is important, large fruit canneries, vinegar factories, fruit evaporators, and distilleries were located here to process the apples, peaches, and berries growing abundantly in the area. Poultry, eggs, and truck farming have all been of economic importance here and have furnished railroad traffic.

In 1899, blackberries near Siloam Springs, Arkansas yielded 353 crates per acre. The town was also noted for strawberries and extensive growing of fine fruits. The railroad considered this type of traffic important enough to encourage it further by providing free educational services to those along its route in the Ozark Fruit Belt. Instruction on growing strawberries was provided to Fort Smith residents by the railroad, which hoped to ship the berries to Chicago markets. Within three years, strawberry traffic was reportedly being "whisked" north by the KCPG [Stilwell & Crowell, January 14, 1928, p. 78].

Stilwell further promoted such traffic for his new railroad by planting orchards along the route of the railroad in Arkansas. In one unnamed location he told of planting a 12-mile apple orchard along both sides of the track. In addition, "someone" (most likely Stilwell) planted peach orchards around DeQueen, a KCPG railroad town. The area became famous for its orchards, which did well for a time before attracting both disease and pests. They did, however, succeed in creating an interest in fruit growing in the area [Lyon, 1947, p. 43]. At Amoret, Missouri, an experimental farm was run by the railroad under the direction of Frank M. Hammon [Stilwell, 1912]. He had probably directed planting the fruit trees along the tracks in Arkansas as well. The KCPG advertised that it had land for sale in Arkansas near the railroad and suggested it could be used for fruit growing. Gentry, Arkansas, became important for its huge apple and peach orchards [KCS, 1901a].

Along with coal, timber was mentioned by Stilwell as part of the railroad's very first traffic in Kansas and Missouri. It grew in economic importance to the railroad as rails were laid south, particularly when it reached the huge pine forests in Louisiana. Fortunately for the railroad, before the forests were depleted oil had been discovered in the Gulf area and soon overshadowed lumber traffic in importance [Stilwell & Crowell, January 14, 1928].

Before the KCPG opened western Arkansas most existing markets for lumber were in other areas of the state near transportation. Few farms existed because it was necessary to clear the land of trees before farming [Clark, 1958]. Arkansas forests consist of dense hardwood: oak, hickory, ash, and patches of cedar and shortleaf pine [Fletcher, 1947].

In Oklahoma the railroad passed through the state's most densely forested area: the Ouachita mountains. Here only grazing or forestry are feasible

because of rugged terrain. Pine dominates the higher elevations while oaks grow lower, although mixing occurs everywhere [Morris, Goins, & McReynolds, 1976].

Pine is the most commercially important tree in the entire southern United States. The most important forests along the route of the railroad and those which the KCPG had been anxious to reach were within the state of Louisiana. The railroad's terminus at Port Arthur, Texas, is within this same area as well. The original forest in Louisiana was 22 million acres. The price of standing timber was low. Stumpage prices of longleaf went from 10 cents a thousand board feet in 1880 to \$10 for the same amount in 1923. Landowners, eager to make a profit on heretofore unproductive lumber, were willing to sell [Stokes, 1954].

The longleaf pine (*pinus palustris*) or yellow pine, is named for its clusters of long needles. The tree is slow growing, taking 250 to 300 years to mature to a 30-inch diameter trunk size. The trees in the Louisiana area averaged 20-inch trunk diameter, and 100 feet in height. In older trees one-half to two-thirds of the trunk is free from limbs, and often can rise 40 to 60 feet before spreading to a dense canopy. This, in addition to beauty and durability, makes the tree useful for many purposes. Original stands of these trees were usually 80 percent pure with little undergrowth. Forests often covered entire townships. Other species grow near waterways in a strip approximately one mile in width. The clean stands are because of the unusual fire-resistant quality of the trees, even seedlings. A forest of these pines has little undergrowth [Emerson, 1919].

Climate in the state has a mean annual temperature of 64.9° F. in the north and 70.5° F. in the south. The state's subtropical latitude and

proximity to the Gulf gives Louisiana a warm, humid climate. It is warm in the summer and cool in the winter, with more abundant precipitation the year around than the nation as a whole. Heavy summer rains offset evaporation from sandy soils and transpiration. These same factors serve to inhibit growth of other species. The mild winters and low-rolling hills were advantageous to the logging industry and the demise of the forests.

The timber area in Louisiana which was reached by the KCPG extended south from Many in Sabine Parish to Lake Charles on the Gulf. Eastern and western boundaries are set by the bottom lands of the Sabine and Calcasieu rivers. Although demand for southern pine did not reach its peak until northern forests neared exhaustion, lumbering in this area peaked about 1920. Lake Charles had been established as a major milling center years before lumbering began in other parts of the area. Lumbering business pushed north from Lake Charles to meet the railroad, and south from Shreveport into areas thinly populated until the advent of lumbering, an industry which was almost wholly dependent upon railroad transportation. The KCPG was essentially complete before intense logging began, and was to become part of an intricate network of transport for lumbering business by 1920 [Stokes, 1954].

In central Louisiana the KCPG crossed Sabine Parish from north to south, running directly through the parish's vast virgin timber stands. Investors rushed to purchase thousands of acres and erect company-owned sawmill towns. Some natives from the area insist mills were established as close as  $2\frac{1}{2}$  miles together along Louisiana's western border, and while this may be an exaggeration, it is certainly true that many were as close as five miles together.

An old Vernon Parish map revealed that four railroads had joined what was by now the Kansas City Southern by 1914. Many cross lines intersected

KCS lines. These were owned by lumber companies which used them to carry lumber to the main track. Freight rates were based on the point of origin, and a decided advantage could be gained by such a line, no matter how short its length. Usually such lines were temporary in nature.

It was found that mills lost money unless they were kept in continual use. Only railways could supply lumber fast enough over rather long distances to keep mills operating. With arrival of railroads to Louisiana, the lumbering business shifted to high gear as railroads moved logs to mills and away in the form of finished lumber. Some big mills could process an entire section of land in two weeks. By 1919, five to ten million acres per year were falling to the axeman in Louisiana alone.

Workers, recruited largely from the local area, were farmers who badly needed the \$1.00 to \$1.50 for each 11-hour day. Skilled and supervisory workers came with the mills. A few Mexicans worked at times. Blacks did most of the forest work, and whites performed the common labor [Stokes, 1954]. Pay was likely to be tendered in company script. If electricity was available to homes, a charge of 25 cents a "drop" was usually made. This was a light which hung from the ceiling by a cord. Medical help was available at some mill towns, but payment was deducted from wages. There was no worker's compensation, and widows and children of men killed on the job were expected to vacate immediately. A completely disabled worker might receive as much as three months' pay. Nevertheless, steady pay was unknown prior to the arrival of the mills. Livings had been made from subsistence farming, and the social advantages of new towns were considered better than the isolated farms the workers had come from.



Often as mills came into the area to take advantage of the new railroad they built their own towns. Some that built on the KCPG are still in existence today, but many are gone or were moved. Wooden houses were built for the workers by mill owners; sometimes constructed in such a manner that they could easily be moved to new sites, along with the mill itself.

Fisher, in Sabine Parish, Louisiana, was built by the Louisiana Longleaf Lumber Company in 1899. Lumbering continued in this area because natural forest revegetation could take place. Timber here was not destroyed by a skidder, commonly used, which cut everything in its path, killing all new tree growth. Timber in this area had to be selected, for not all was large enough to be considered salable. Fisher is still on the map today.

Bon Ami, located in Beauregard Parish, was built and owned by the Long Bell Lumber Company. Mill operations began in 1898, but ceased by 1925. Bon Ami contained 1,500 people in its prime, and was served by another railroad in addition to the KCS. Each had its own depot. Blacks lived near the mill and were surrounded by railroad tracks, while whites lived on the other side of the KCS line. Ludington was built in the same parish on the railroad line by the Ludington, Wells & Van Schack Lumber Company. It founded its settlement in 1901, sold to another firm in 1913, and closed in 1926. At its prime it had a capacity of 150,000 board feet per day.

Hawthorne was established in 1898 on the new KCPG line, and was among the very first sawmills built in Vernon Parish. It was sold and moved to another location in 1905. The Hawthorne site was abandoned. As usual, blacks had been located across the tracks from the whites. Hawthorne was one of the less luxurious mill towns, and never completed its mill pond.

At all mill locations, a pond was necessary and became a part of the

permanent landscape. Wells could furnish water if needed, but water supply for mill ponds was seldom a problem, for streams were numerous. These ponds were used for storage of logs for days when mud hampered cutting. It also cleansed logs from dirt or gravel, thus saving damage to saws.

KCS lumber towns that survived forest decimation in Louisiana are Zwolle, Many, Fisher, and Florien. Old maps show the towns of Noble, Loring, Ayers, and Christie which do not exist today. Further south in Vernon Parish, Barham, Everett, Hymer, and Hawthorn likewise disappeared from the landscape. Fisher, a short distance south of Many, Louisiana, lasted longer than most sawmill towns along the railroad simply because the town company offered more modern conveniences than most. Some original buildings remain in the area, and give a good representation of what company towns were like [Sabine Parish Tourist Commission, 1985a].

Lumber from these forests was shipped to the Midwest or to the Gulf by the railroad, but railroads themselves always furnished an important market for lumber produced along their routes, and the KCPG was no exception. Until other fuels came into use, railroads contracted for fuelwood for their locomotives. It was stacked by the rails, usually by men who lived on nearby farms [Stokes, 1954].

Before preservatives were developed, red cypress proved most durable for ties, but was available in limited quantity. Other native woods proved inferior, but red cedar or pine were used when red cypress lumber was unavailable [Reed, 1966]. The need for ties was endless, particularly before development of treated ties. In 1896, a contract for 60,000 ties to extend the line between Shreveport to Port Arthur was let to the Reliance, Texas Tram Company and the Beaumont, Texas Lumber Company.

The production of sugar boxes was important to Louisiana. Boxes or boards and planks cut to a specified size were shipped to Havana where they were bartered for sugar. Tar was a lumber byproduct, and myrtle wax was made from the Louisiana bayberry tree. Cypress was used by shipbuilders to make masts. Oak was important in shipbuilding, as well as in the manufacture of shingles, cabinets, and fence posts [Holmes, 1969].

Other uses were sometimes made of the forests through which the railroad passed which were less helpful. The KCS passenger train No. 4 was held up on the night of October 4, 1912 by four masked men who, after ransacking the mail, blew open the express car safe and escaped into the woods with \$10,000 and some registered letters. Fortunately the passengers were unmolested [Railway Age Gazette, October 11, 1912].

On at least one occasion Stilwell personally made use of the products from within the lumber region along his railroad as well. Active in Kansas City business and civic affairs, he took leadership in two unfruitful attempts to raise money to build a convention center. Finally in 1899, a \$225,000 center was opened to which Stilwell had personally donated \$15,000 [Bryant, 1971]. Situated on Stilwell-owned property in downtown Kansas City, Missouri, the building was festooned inside and out with American flags when John Phillip Sousa appeared at its opening to conduct the "Stars and Stripes Forever." At later events the British Guards Band and the Grand Opera attracted enthusiastic crowds. Just one year after its opening on March 4, 1900, fire swept through the edifice completely destroying it. Whether arson or a careless workman instigated the blaze was never resolved, but the completeness of its devastation was attributed to the fact that its interior had been constructed entirely with pine [Doohan, 1983]. Perhaps Stilwell's benevolence

had, in fact, been at least in part to create business for his mills and railroad. Nevertheless, he did offer his service to raise money for the replacement building, which was constructed in three months, just in time to house the Democratic National Convention that was to nominate William Jennings Bryan for President.

A far more common practice employed by Stilwell and the railroad was to promote new towns along the railroad route. If new towns could be constructed and population, business, and industry attracted to them, the end result would be traffic of both passengers and products for the railroad.

Land speculation along all new railroads was common and often quite profitable. A promoter could decide upon the location of the town and either purchase the entire town site or, at least, the most desirable tracts. From the sale of such property to the railroad company for terminals or the general public for town sites ample returns could be realized. Profits could be turned over to the railroad or kept by the promoter. In spite of great opportunities for unscrupulousness, without such profits much early railroad construction would have been greatly delayed [Ripley, 1915].

Stilwell insisted he never accepted more than \$5,000 salary from the railroad and refused commissions on his sales of railroad bonds. According to town promoter William R. Draper who worked for Stilwell, Stilwell and his associates, not the railroad, were purchasing lands in areas of future railroad building and making large personal profit. Draper believed Stilwell earned his real profits from mineral holdings, timber or rice lands, or property purchased to be sold for town lots. As the railroad built towards these land parcels, values would often increase as much as four times the original cost [Draper, 1947].

One critic accused Stilwell of carrying this one step further.

E. H. Harriman believed Stilwell did not build with an eye towards traffic and economy of the operation so much as towards land speculation itself, building to the outskirts of towns (sometimes at a considerable distance) hoping to reap large profits through sales of his land company's real estate [Kennan, 1922]. Although it is impossible to know Stilwell's motives, several towns' history seem to suggest this may sometimes have happened. Many residents of old Scullyville moved to Spiro, Indian Territory, and DeQueen may have been a similar situation. In addition, two nearby towns failed because of competition from the highly advertised and promoted railroad town of Mena, Arkansas.

Stilwell's first town promotions took place in 1890. These were the towns of Amoret and Stuart City, Missouri. Stuart City cannot be found on the map today, although Amoret remains as a rural trading center in spite of being helped along with construction of the "Stratford Inn," built and owned by a Stilwell enterprise, the Missouri Coal and Construction Company. Other new towns promoted by Stilwell in Missouri about this time were Drexel, Stotesbury, Merwin, and Amsterdam ["Two new," 1890].

At approximately the time the railroad entered Arkansas, real estate man Fred A. Hornbeck was hired and placed in charge of all land and town site projects. Town promotion profits grew substantially thereafter. On at least one occasion, Hornbeck himself visited Amsterdam to raise funds to back town promotion projects, and Stilwell and his friends or members of the railroad organization were able to purchase land before the public was aware of the opportunity [Draper, 1947].

Stilwell customarily had the route surveyed before railroad construction

began in order to locate natural resources and best possible town sites. As construction of the line progressed, excursions were provided for prospective land purchasers. Hornbeck's agents were placed in the Midwest and East to advertise special low-priced "Home-seeker tickets" [KCPG, 1895]. Circulars and newspaper accounts indicate Stilwell kept the railroad and his own profile in the public eye as much as possible.

Gentry, Arkansas, the first town Hornbeck promoted for Stilwell, was not his best success. The town was named for the railroad's chief engineer, who also happened to be an investor in the project. The town itself was built by the Arkansas Townsite Company, set up by Stilwell for such projects within the state. Hornbeck hired an agent, George M. Craig, to help him promote the town which they promised would be a division point for the railroad. This promise was never kept by the KCPG, for when the town did not prosper as anticipated, the honor was bestowed upon the more promising new town of Stilwell. This was the first town to be named after Arthur Stilwell. It was located in Indian Territory on land owned by Stilwell. Although Stilwell began to appear on maps by 1895, growth was slow. Because Stilwell was made a railroad division point, it contained a brick roundhouse with eight stalls, a 65-foot turntable, a coal chute with a trestle approach, a water tank, depot, and a five-track yard. This seemed to guarantee future employment and town growth, and Stilwell believed it would be one of his leading cities [Stilwell, 1912].

Mena, Arkansas, located in the Ouachita Mountains, was one of the most profitable of Stilwell's railroad town promotions. Arkansas historian Marguerite Lyon indicated in her writings that how Mena obtained its name is considered an Arkansas myth. Nevertheless, the myth is true, for Mena, one

of Stilwell's largest and most successful town promotions, was given the Dutch Queen Wilhelmina's pet name [1947, & Stilwell & Crowell, December 31, 1927]. Fred Hornbeck eventually confided that Mena was one of several schemes which profited Stilwell and his associates \$150,000 with a 6-month period. A more usual profit from such a venture would have been about \$5,000.

Stilwell's geologist and civil engineer Edwin Walters surveyed the possibilities of the route through the Choctaw Indian Nation from Siloam Springs, Arkansas, to Watts ferry on the Arkansas River. He viewed Rich Mountain rising above what would one day be the town of Mena, and noted its possibilities. He wrote in particular of the many cold springs, including one medicinal spring, and believed the mountain to be a good spot for a resort [Anderson, (n.d.)f].

When Stilwell received Walters' report, he wrote that the mountain would be "Kansas City's Manitou" ["Mt. Mena," 1897]. He promptly announced that the name of Rich Mountain would be changed to "Mount Mena," and an inn built at its summit, where access could be gained by a stagecoach road built from the KCPG railroad station located at the foot of the mountain. As the town promotion picked up steam, Mount Mena seemed to grow in height. A half-page advertisement in the Kansas City Star declared it was 3,000 feet high. Its summit was described as being 80 miles long and several miles wide, and located in "the heart of as wild and weird scenery as any in the Catskill Mountains." [KCPG, July 11, 1897]. Local citizens eventually overruled Stilwell's name change, and today the mountain is once again known as "Rich Mountain." The map shows its actual height to be 2,460 feet [U. S. Geological Survey, 1979].

Rich Mountain is the highest point along the entire railroad line and one of the highest points between the Rockies and the Appalachians. It is believed

to have received its name because of the fertility of its soil. Geologists believe the top of the ridge was once lowland, which was pushed up as the earth cooled, creating a fold and forming the mountain. Plant life on the mountain is considered unusual in that it contains varieties usually found at lower elevations. Some are sub-tropical.

Within the Ouachitas near a high point in Eagle Gap a small plateau valley was located which contained a single log cabin by a creek. In this picturesque location Stilwell planned and promoted a new town, naming it Mena. He hoped to bring in all new population for it. He wrote that hookworm infected many residents of the area, and he believed "energetic up-and-going" northern newcomers would cause the area and the railroad to thrive far more than could lethargic local people [Stilwell & Crowell, December 31, 1927, p. 78]. Apparently he succeeded, because the Kansas City Star reported in March of 1897 that the town itself was populated by northerners ["Healthy growth"]. Farmers new to the area, however, were more likely to be Germans who were buying up small fruit or poultry farming tracts.

The older town of Bethesda Springs was three miles south of Mena. This town, along with nearby Dallas, later was to fail as a result of competition with the new railroad town even though Dallas had been the Polk County Seat for 52 years. As Stilwell hoped and planned, this honor was to be bestowed upon Mena [Mena/Polk County, 1985].

Hornbeck's agreement with Stilwell was to sell the entire town site with 40 days [Draper, 1947]. Hornbeck was instructed to stir up interest in Minnesota, Iowa, Wisconsin, and Nebraska. Stilwell wrote that "hundreds" of Hornbeck's agents advertised Mena in the West and Northwest [Stilwell, 1912]. An example of such advertising was in the Kansas City Star on July 2, 1896.



It was three columns wide and included a map. It announced "the chance in a lifetime" to invest in Mena, the natural center of "17,500 miles of tributary territory" with no other railroads nearby. The area was described as fertile, well watered, where crops never failed, and possessing a climate equal to southern California. Forests contained black walnut, oak, and pine. In the advertisement Stilwell capitalized, as he often did in town promotions, on the availability of government lands for homesteading. Near Mena were 943,000 acres of this land. Investors were urged to rush, for promoters projected that Mena would have a population of 61,000 people by 1900 (actual 1900 population was 3,423), doubtless offering opportunities for sales of huge quantities of agricultural implements and household goods for those enterprising enough to move to Mena to set up such businesses.

By the time the town was laid out construction of the railroad had progressed to a point 40 miles to the north of Mena. It occurred to Stilwell that final sales impetus might be gained by advertising that 40 miles would be built in 40 days. Years later he acknowledged this rate could easily have been speeded up, but "a-mile-a-day" afforded good advertising copy. Stilwell advised newspapers daily of progress which they dutifully reported.

According to Stilwell people began to rush to the town site, traveling as far as the rails happened to reach and the remainder of the distance by wagons made available for that purpose. Purchase of a town lot entitled one to a free excursion ticket on the railroad, and interest grew so keen that one week's sales at times amounted to \$5,000. At the town site lunch wagons and sleeping tents were made available for a nominal charge, and there were 1,000 people camped over the town site and along the railroad approach as the last mile into Mena was completed on August 18, 1896 [Stilwell, 1912,

& Stilwell & Crowell, December 31, 1927].

Six months later Mena contained 2,500 people. Five hundred residence and business houses were up, with more under construction. There were three hotels, four newspapers, and a three-story warehouse near the depot. To town promoters it seemed certain the county seat would be changed from nearby Dallas to Mena. So sure were they that this would occur that they platted for the new court house to be in readiness for the change. Mena by now had its own board of trade. Presbyterians and Methodists were holding regular services, and the Catholics had a hospital, church, and convent. A three-story brick building would house the bank, and its owner, Mr. Hudgins, was also constructing a sawmill and a 50-barrel flour mill. One other sawmill already existed, and a furniture factory, a planing mill, and a box factory would soon follow. Employment of 100 men was anticipated. Investors from Germany had bought property upon which to construct a two-story brick business block. Investors from Eureka Springs, Arkansas, had another similar project in Mena nearly completed. Railroad facilities consisted of a pressed brick depot, ice house, roundhouse, separate freight depot, stock pens for feeding stock, and artesian wells to water the animals.

Because Mena was approximately half-way to the Gulf, the town was chosen by Stilwell to be the KCPG's principal town site and railroad division point where meat and fruit would be iced, cattle unloaded, fed and watered. Passengers would disembark for meals here, and quick to perceive another promotion angle, Stilwell announced this fact alone was bound to increase Mena's population. Mena would have great commercial potential, Stilwell believed, for there was no rival railroad for 80 miles on either side of the line.

All real estate had been sold with the provision that a 2½ percent profit from sales (over \$6,000) should be set aside for school, street, and park funds. Stilwell proudly announced that because nearly all real estate sales had come from town founders, the new school had been constructed and donated to the town by the railroad's Mena Townsite Company. Real estate sales were still progressing at a brisk rate at the time of this announcement, with sales amounting to \$17,000 in the previous two weeks alone ["Healthy growth," 1897].

To attract wealthy visitors to linger, the Wilhelmina Inn was built on the summit of nearby Rich Mountain, an area described by the Kansas City Star as a broad plateau covered with wildflowers and forest, providing a magnificent view and cool temperatures ["Mt. Mena," 1897]. Constructed of wood and stone, the Inn was designed along Dutch architectural lines. The corner suite on the second floor was built especially for occupancy of the Netherland's Queen Wilhelmina. Her bedroom featured a fireplace, rare to non-existent in Arkansas, because of the difficulty of carrying wood to the second floor. The Inn contained 35 rooms, long hallways, a 90-foot dining hall, and luxurious appointments [Stroup, 1946c]. In addition to the Inn itself, 20 cottages were constructed nearby. After completion of the Inn, and when the town of Mena was one year old, Queen Wilhelmina was invited to visit to view the railroad to which so many of her loyal subjects had invested so generously. She was never to grace the town with her presence, doubtless to the disappointment and embarrassment of its promoters.

Along with the passing of the Gay Nineties went the popularity of such resorts. The Inn closed after only three years and crumbled into ruins. Remoteness, inaccessibility, and complaints about the management contributed

to its early demise. During the 1930's it was rebuilt for use as a music school, later to again be abandoned. The property was acquired in 1958 by the Arkansas Publicity and Parks Commission, which again reconstructed the Inn in 1962. It burned in 1973. This time it was rebuilt under modern construction and safety techniques, and it is situated today within the Queen Wilhelmina State Park [Mena/Polk County, 1985]. Today there is a Wilhelmina Lake in this State Park as well.

The KCPG originally brought Inn customers to its own Rich Mountain Railroad Station where they disembarked to ride donkeys (instead of the promised stagecoach) to the mountain-top Inn. Today the trip may be made by driving 14 miles along the Talimena Scenic Drive, which is a continuation of Mena's Main Street. This improvement in mountain-top access was made at the sacrifice of cutting many ancient trees, one of which was judged to have been flourishing at the time of Christ [Lyon, 1947].

The log cabin found at the townsite was left within an open space in the center of the town, and the area was named Janssen Park. The cabin was hand-hewn in 1851 by a crippled veteran of the Mexican War. It had been situated on the "Old Line Trail," which was a military road connecting Fort Smith and Fort Towson, Indian Territory. At first it was used by travelers. Later uses included that of a hospital, museum, and city hall. William Jennings Bryan spoke there at his last campaign for President, and Carrie Nation once preached against open saloons from its porch. In 1906, the cabin and the four acres surrounding it was donated to Mena by Arthur Stilwell. The cabin remains in the park today [Mena/Polk County, 1985].

The KCPG did not end its promotion of the town when rails reached Mena. In March of 1897 an article in the Kansas City Star reported that the KCPG

had reached Shreveport. The article's purpose, however, was obviously to jog the memory of potential investors and to advise them that Mena property was still available ["In Shreveport today"].

South of successfully-promoted Mena by just 22 miles, a new area named Janssen (today Vandervoort) was promoted. A February 3, 1897 Kansas City Star article entitled "New Towns on the P & G" reported that \$4,000 in lot sales had already been made. These sales were expected to grow in number because a "large number of persons have been waiting for the announcement of the next new town on the Pittsburg & Gulf, and are ready to go down at a moment's notice." It was announced that contracts had been let to build a hotel, depot, and other buildings. Streets were being graded, and sidewalks installed. A lumber mill was being shipped to the area to take advantage of abundant lumber in the area, promising employment and traffic for the railroad. An advertisement appeared in the paper the next day in which Janssen was described as being located near the largest mineral deposits of Arkansas (silver, lead, and manganese). The advertisement continued, however, that because the area was completely undeveloped, actual quantities were unknown. Prospectors were "descending upon" the site, and others already were working in the area at that time. Medicinal springs were nearby, and sufficient in number to supply a health resort. Easily accessible from all directions by wagon roads, fertile Indian lands were only 5½ miles away. The article continued that it was certain that Indian trade alone would sustain a city of 2,000. Apparently Stilwell and Hornbeck were unaware of the Indian custom of subsistence living. Even though it was promised that the KCPG would push Janssen with "tireless energy," promotional efforts largely failed and only a few settlers came [KCPG, February 4, 1897].

Another of the new towns Stilwell considered to be among his most promising promotions was DeQueen, Arkansas, about 50 miles south of Mena. The opening was set for Monday, April 26, 1897. The newspaper that announced it pointed out that the new town site was chosen by residents of surrounding towns who planned to move to DeQueen. Located on the site of an existing wagon road, DeQueen was sure to become the Sevier County Seat. The area contained the most available government land for homesteading in the state. Oak and pine were reportedly in abundant supply. The usual names were given streets in DeQueen: Vandervoort, DeQuincy Avenue, Port Arthur Street, and Stilwell Avenue ["DeQueen," 1897]. The 1898 Annual Report of the KCPG noted that geologists had located blue trap rock near DeQueen. Soon after this the Park Board of Kansas City, Missouri, began using the rock. Other towns followed suit. A fire destroyed all but three buildings in DeQueen in 1899, but nearby sawmills and a few establishments survived, stayed on, and the town continued. By 1900 the population had reached 1,200 [DeQueen Chamber of Commerce, 1985].

By the time the KCPG reached Louisiana railroad promotion of towns was integrated into an even larger promotion; opening long-leaf pine forests. Arthur Stilwell was not about to let outside interests get all the new mill town profits. When the railroad reached the pine forests the railroad construction companies building it purchased hundreds of acres of forest lands, planning to establish mills along the line. Work was underway at Port Arthur by this time, and the railroad intended to establish mills there also [Railway Age, December 20, 1895]. Between Shreveport and Lake Charles, Stilwell and Hornbeck promoted the town of Zwolle after the town where Stilwell's friend de Goeijen was born in Holland. A lumber town named after Hornbeck was

promoted in Vernon Parish, and newspaper accounts promised that growth potential was certain to be similar to that of Mena, Arkansas. A grand excursion was planned for prospective town lot purchasers. Hornbeck remained small in spite of Stilwell and Fred Hornbeck's enthusiasm [KCPG, June 7, 1897]. DeRidder, named for some of de Goeijen's relatives, however, was destined to become Beauregard Parish's seat of government as Stilwell had promised in his town promotion. Stilwell had organized a company in Kansas City which built a large sawmill to handle large timber holdings in the DeRidder area [Draper, 1947]. Further south, DeQuincy was named after a Holland investor, but remained small.

Besides Mena, Stilwell's most successful town promotion took place at the Gulf itself. The points where a railroad reached a port served to help determine the later location of industries. As services (such as warehouses) to the railroad grew, population came to fill new jobs. This, in turn, helped the momentum to increase, and more industries would be attracted to the area [Clark, 1958].

Stilwell purchased 40,000 acres in the area where he planned to promote the town of Port Arthur, and surveying began the winter of 1895-1896. Stilwell named the two principal thoroughfares for himself (Stilwell Boulevard) and a railroad director and personal friend, William Proctor (Proctor Avenue) of Kansas City's Proctor and Gamble. As usual, other streets and parks were named for associates and investors.

When the first town sale commenced only two months after Stilwell first viewed the property, a tent dining room was in readiness, as were tent sleeping accommodations. Graders "by the hundred" had the area in "pretty presentable condition" by the time prospective settlers from Kansas, Nebraska, Iowa, and

Minnesota began to arrive. By this time the railroad had not yet made connections with Shreveport, so other railroads were used where necessary to get people to Port Arthur. Stilwell reported that land sold so fast he had earned \$135,000 before his first payment on the property was due [Stilwell & Crowell, January 14, 1928, p. 78]. Supplies for the town of Port Arthur were brought in with difficulty in wagons through marsh areas from Beaumont, as workmen struggled to get the building of the town underway in early 1896. Proctor Street, the business section, soon boasted a saloon and bakery, although workmen lived in tents and fought mosquitoes. A 70-room columned Hotel Sabine was built, with a natatorium supplied by artesian water nearby. Stilwell promoted the town as a winter resort, and built a 2,000-foot pleasure pier which offered food, recreation, and dancing [Bryant, 1971]. The pier stretched across the Neches-Sabine Canal on the north shore of Lake Sabine. This was to prove sufficiently important to the city to eventually justify acquiring the property from the railroad in 1915 and spending \$300,000 on reconstruction, and again making additional improvements on it in 1940 [Federal Writers' Project, 1940].

In spite of an advertisement in a January 19, 1897 Kansas City Star which claimed that Port Arthur would soon show greater activity than any point in the United States, during its first winter the town grew slowly even though additional hotels were built. Business picked up the next summer, and the latter part of 1897 found 860 people in residence, 16 established businesses, and 60 homes. By 1898 the town had made enough progress to become incorporated.

The railroad itself had been "laying iron" between Beaumont and Port Arthur, where it built a railroad station conveniently close to the hotel.



Luxury Pullman promotion trains embarked from Kansas City to Port Arthur, upon which prospective purchasers and important personages could dine sumptuously upon the Gulf Coast fare, with the implied promise that they could always eat in such a manner in Port Arthur. Once arriving in the Port, they continued getting similar treatment while staying at the Sabine Hotel. Sales of lots and farms were reported brisk, and important Kansas City men gave endorsements to the new town and good investment possibilities available there ["Port Arthur is," 1897].

After land was purchased and the town laid out Stilwell found he retained an excess of 36,000 acres he described as barren. In toying with the dilemma of how best to make a profit from this acreage it occurred to him to have the soil tested. Employing a soil taster (sic), he determined the land would be excellent for growing rice [Stilwell & Crowell, January 14, 1928]. Rice had been grown in the region before, but never in any large quantity [Department of the Interior, 1897]. An experimental farm was created for the rice project. It contained a large house, barns, fine herds of cattle, and used the most advanced agricultural methods of the time. The farm helped determine that after rice was cut a second cutting could be made for hay, or cattle could graze on the land. The test farm's success proved Stilwell's point and created interest in growing rice. Fruit trees, including 80 acres of pear trees and vegetables were planted on the farm to encourage truck farming as well ["Port Arthur on," 1897]. Rice, however, created the biggest interest, and upon this fact Stilwell launched still another endeavor.

Indicating he owed a debt of gratitude to Holland and now had a chance to repay it, he formed a town, named it Nederland, and established the Port

Arthur Rice Farm between Port Arthur and Beaumont, digging ditches from the Neches River approximately seven miles away to bring water for rice propagation. Persuading his Dutch friends to send a colony from their land to raise rice, he erected a large new hotel to house the incoming immigrants until they could purchase their own property at \$40 per acre. The first year proved so profitable that settlers were able to pay back the original purchase price of the land. Two rice mills were erected at Port Arthur to hold the crop which was transported to them by the railroad [Stilwell & Crowell, January 14, 1928]. Stilwell maintained that creating railroad traffic was his goal in the Nederland rice venture. It was to become, however, another one of the railroad's most profitable ventures. Capitalized at \$300,000, the rice company paid \$2 million in dividends only a few years later [Draper, 1947]. Stilwell remained as trustee with the organization until 1909, when it was taken over by John Gates interests. The original Dutch investors controlled it with their own manager Jan Van Tyen, and kept a majority position until the firm was liquidated in 1912 [Bryant, 1971].

As railroad mileage grew KCPG's competition became increasingly cognizant of the threat the new railroad posed to them, particularly in light of the fact that Stilwell continued to promise lower rates on his railroad. By 1897 comments could be found in newspapers about the cheaper freight rates. On February 3 of that year the Kansas City Star wrote that C. E. Finney spoke at a meeting in that city on the subject of Gulf ports. He talked of new outlets to the Gulf which were cheapening transportation and saving millions of dollars for western farmers. Not only would this help agricultural industries, but Finney believed such trade would stimulate growth of manufacturing enterprises as well ["Gulf ports and," 1897].

Throughout the years that the railroad was under construction Stilwell continued to assure midwestern farmers and lumbermen that he would soon provide relief in the form of closer, more direct, and cheaper transportation to the Gulf. When a through rate to the Gulf at last became a reality, Stilwell had the opportunity to keep his promise to farmers of more equitable freight rates.

Stilwell wrote that when the railroad opened, new prosperity came to farmers and farm land value rose \$10 per acre. Agriculture began to come out of the depression, and Kansas City bank clearings increased [Stilwell, 1912]. As usual, Stilwell took all the credit for himself and the KCPG he had built. He ignored all other changes taking place during the first early years after the railroad had been completed. Much of the land in the Midwest was just beginning to be settled. In 1900 there were still over two million acres of unsettled land in Kansas alone. In addition, the time between the turn of the century and World War I was the beginning of new scientific agriculture. Soil testing and fertilizer use began. Improved dryland farming methods were developed, and gas powered engines could replace windmills to pump water for irrigation. Mechanization in new steam or gasoline tractors began to replace horses and increase agricultural output [Richmond, 1974]. It was true, however, that at the time this agricultural revolution began to take place the new KCPG was complete and in readiness to serve the increased traffic.

Besides increased production in grains, better strains of cattle were being developed as well, and the European taste for American-grown beef was increasing. Stilwell wrote that existing packing houses built additions, and others opened branches and located them on the Belt Line in Kansas City

as prospects of a time-saving route to the Gulf became a reality [Stilwell & Crowell, January 28, 1928]. Fortunately for Stilwell, at the time the market demand was increasing his railroad was operational.

In July of 1897 Swift & Company sent 14 carloads of beef to foreign markets from Kansas City. Because this was two months before the through line was officially open to Port Arthur, such shipments probably were sent part way by the KCPG and diverted over leased lines to New Orleans or Galveston. Stilwell commented that such shipments caused these ports to "come to life" [Stilwell, 1912, p. 54]. Swift confided it would soon begin shipping all its export from Kansas City on the "new Gulf line." After slaughter the meat was cooled 48 hours before transferring it to refrigerator cars, where it was kept at an approximate 38° with salt and ice. Cars were iced in transit every 24 hours at icing stations provided along the railroad route for that purpose. Transit to the seaboard generally took five days, where it was transferred (if possible) during a cool part of the day to one of Swift & Company's refrigerator systems built into at least 25 ocean steamers. These compartments were large enough to hold approximately 500 carcasses of beef, and they were chilled by means of refrigerating machines. Destination was usually Liverpool ["Shipping beef," 1897]. Swift & Company was not the only Kansas City meat company shipping on the new KCPG. Stilwell wrote that the first month the railroad was open and shipments were made from Port Arthur freight from the Armour packing house alone made up the equivalent of one trainload of meat-products bound for Amsterdam. After that time each ship that sailed from Port Arthur contained one trainload of packing house products [Stilwell, 1912].

To keep his promise to farmers and encourage more traffic, Stilwell

ordered the export freight rate on grain cut and equalized the lumber freight rate between Chicago, Kansas City, and the timber belt along the route [Draper, 1947]. In 1898 the KCPG was absorbing elevator costs, and traffic began to shift to the new line while competition's elevators began to close [Bryant, 1971].

KCPG customers were pleased; competition was not. The approximately 20 lines the KCPG crossed refused to handle any KCPG cars. All freight needing to be routed over the other lines had to be unloaded and reloaded onto the competition's cars. Expenses rose sharply, and directors who had always backed Stilwell began to question the wisdom of such measures. Stilwell retorted that the railroad had been built for two reasons: to make money for its builders, and to correct the inequitable rates. He would continue to stand firm on his decision to keep the new rates in force. Criticized that these rates would ruin western railroads, Stilwell believed that they would instead bring prosperity by increasing buying power and expanding markets, more than making up the railroad's loss from low freight rates. He rationalized that if it was equitable to haul goods 1,400 miles to the coast for 26 cents a hundredweight it was equitable to haul it 800 miles for 16 cents a hundredweight. Stilwell gave a speech to explain his motives behind the rates at the Railroad Commission in Chicago. The boycott was lifted soon after this, and Stilwell claimed it was his speech that finally ended it.

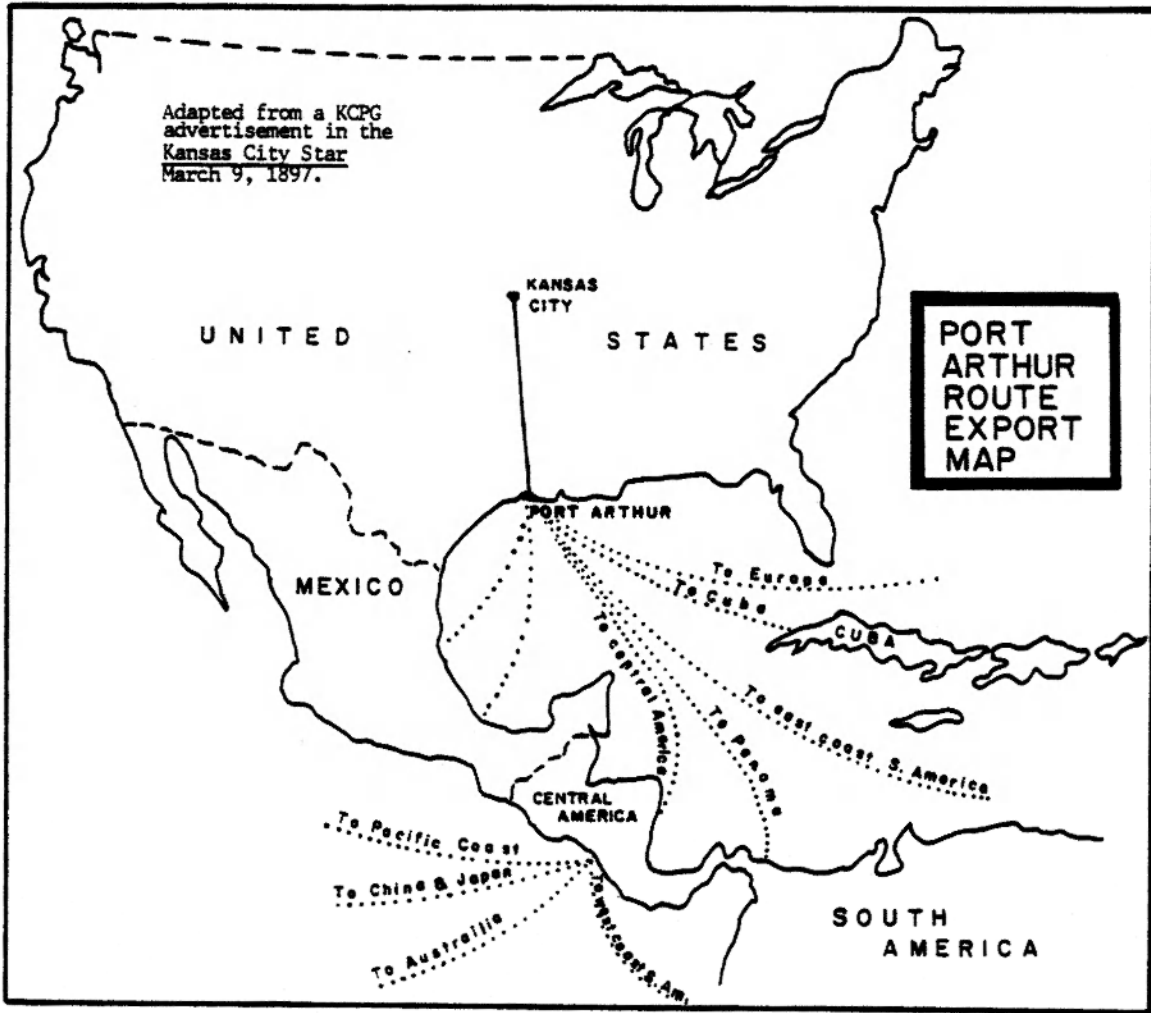
Railroad profits, according to Stilwell, now accelerated. Traffic did increase, even to the point that the railroad could not handle it. Grain backed up while waiting to be shipped because of lack of cars. Stilwell increased profits somewhat by contracting with a Chicago-based firm for two

shiploads of sisal per month, which he used as backhaul [Stilwell, 1912]. The 1898 KCPG Annual Report showed that the railroad moved 260,000 tons of grain and 33,000 tons of flour from points originating along its line. In addition, it had hauled another 16,000 tons originating on other railroads that the KCPG served. Lumber created another 400,000 tons of traffic, and promised to at least double by 1899, having already reached 700,000 tons by the end of June of that year. Hay, tobacco, cotton, fruit, vegetables, rice, livestock and meats, and 30,000 tons of various kinds of merchandise were all listed. Products from mines were hauled as well, and the railroad carried 249,966 passengers in 1898.

This same year all rock used in construction of the Port Arthur Canal was brought from quarries developed along the road. This required moving 450,000 tons of rock to Port Arthur over a distance of 130 miles. It also required the use of 25 cars daily for 18 months. Traffic from lumber was excellent and increasing. There were 120 sawmills on the route in 1898 which were demanding more cars than the railroad could furnish. In spite of the car shortage, five trains were said to be arriving daily with goods for export. A line of steamers to and from Mexican ports serviced Port Arthur every two weeks, and this was soon expected to double. A contract was made with a London shipping concern to carry KCPG freight from Port Arthur to Europe (Figure 8) [KCPG, 1898].

One railroad innovation which failed and which must have been particularly unpleasant was the Port Arthur Fish & Oyster Company's attempt to ship live oysters from the Gulf to Kansas City in specially built tank cars. The oysters could not be kept alive because of the heat and rough road. Subsequent attempts to make later shipments likewise failed, and the venture was dropped [Rochelle, 1969]. This was one railroad venture which elicited no comment from Stilwell.

Figure 8



## Chapter 6

### AFTER STILWELL

By 1908 Kansas City had become the second largest railroad center in America. Railroad companies serving the city had an aggregate mileage of 50,000 miles, or approximately one-quarter of the United States' total trackage. These railroads traversed 31 states and territories, touching 10,146 cities or towns. Over 200 passenger trains used the union depot daily. Many who rode on the trains were new emigrants. They were kept segregated from the rest of the passengers. Three hundred freight trains, or an average of 11,000 cars, arrived and departed from Kansas City daily. While there was competition elsewhere, exclusive trade with the southwestern portion of the United States was claimed by Kansas City [Whitney, Vol. 1, 1908]. This was achieved with the new Kansas City Southern Railroad (KCS).

To enhance its standing and importance within Kansas City and to improve passenger facilities, the KCS joined with 11 railroads entering Kansas City in 1906 and formed the Kansas City Terminal Railway Company. This was to be a joint effort to supply a new line around the north periphery of the city, and to locate the passenger station at a new site. The new line diverted a large part of freight away from the main passenger lines. A large portion of the now outgrown Kansas City Suburban Belt Railroad (Belt Line) was converted to passenger service only for use by the Terminal Railway [Thompson, 1914]. A new union station was a necessity because of damage done by the 1903 flood, the growing need to accommodate passengers, and the fact that the West Bottoms was no longer the center of commerce.



This new Kansas City Union Station was built at 2400 Main Street in the Escole des Beaux Arts style, designed by Jarvis Hunt of Chicago. It was built according to the ideals of the City Beautiful movement. The depot took Hunt three years to design. It was dedicated in 1914, and 100,000 people came for the ceremony. The building's 230-foot lobby runs parallel to the tracks. It is 100 feet wide, and has a 94-foot ceiling. The waiting room is at a right angle to the lobby, and extends over more than a dozen tracks. The Kansas City Union Station, built to serve a city of two million people, became the third largest passenger terminal in the world. Although the original cost was intended to be \$2 million, actual cost mushroomed to over \$50 million. The vast terminal plan, which included the station, added rails and new viaducts across the city and made a major change in the entire Kansas City rail pattern ["Background on," (n.d.), & Kansas City Chamber of Commerce, 1938]. Today, at the end of the passenger train era, the fate of this building remains uncertain.

The Belt Line's Grand Central Station continued in service until the year the new Kansas City Union Station opened. It was torn down in the 1930's ["Saga," (n.d.)]. Over the years the Belt Line effectively served to enhance Kansas City's position as a railroad junction point. Advantageously situated, it operated closely to both metropolitan areas, and extended through all three of the river flood plains in which Kansas City's industrial areas were originally located. One hundred thirty-four of the city's 169 industries located on the tracks in 1947 were exclusively served by the railroad. By that time switching movements, as well as length of trackage, had been appreciably expanded [Draper, 1947].

Furnishing passenger service was costly to the railroad. In 1905

approximately one-third of the railroad's engines (46 out of 149) were for passenger trains. July through October of 1906 brought an epidemic of yellow fever in the Gulf area which caused losses of \$130,000 in revenue from passenger trains, while operating expenses remained the same [Haag, 1925]. The next year passenger service was furnishing only 18.44 percent of the railroad's earnings [U. S. Interstate Commerce Commission (ICC), 1909]. Nevertheless passenger service continued, and in 1928 the "Flying Crow," a luxury passenger train running between Kansas City and New Orleans, began operation ["Saga," (n.d.)]. After the KCS merger with the Louisiana & Arkansas (L&A), the "Hustler" was routed up the line to make connections with a fast KCS train en route from Shreveport to Kansas City. In 1941 two daytime coach trains supplemented the streamliners and provided a New Orleans connection for the KCS "Flying Crow" [Brown, 1981].

On April 3, 1949 after a highly publicized campaign, the "Southern Belle" began fast luxury passenger service between Kansas City and New Orleans. Connections at Shreveport allowed service to Port Arthur, Beaumont, and Lake Charles ["Saga," (n.d.) ]. Besides chair cars, Pullman sleepers, a diner, and a tavern-lounge-observation car, the crew included a secretary to assist busy executives with correspondence [Hubbard, 1975]. An important part of profits from this enterprise were derived from the mail also carried by the train. In 1965 and 1966 proceeds from this operation were approximately \$7,000,000 per year.

In the early 1960's \$5 million was spent on new or refurbished passenger cars while at the same time "Thrifttrip" fares were offered to be competitive with other lines. By 1965 losses were \$2.7 million. They were \$2.9 million the next year, and still rising significantly. At this same time the government

began to remove some of its mail from the route, and lowered the rates the government would pay to move second-, third-, and fourth-class mail. The KCS believed this no longer justified the fast but costly service of the "Belle." In addition, the public was beginning to prefer use of highways and airlines over rail transportation. The KCS announced that in the interest of stockholders, shippers, and employees it was not feasible to continue a service which was no longer in favor with the public and abandoned by the post office. [Deramus, III, (n.d.)]. At the time the service was discontinued, these luxurious diners, sleepers, and observation cars were running twice daily through a still sparsely populated route. Nevertheless, the service was continued much longer than neighboring routes offering comparable service [Frailey, August, 1979].

An unplanned grand finale occurred in Shreveport the Wednesday following the demise of the KCS passenger train service: Shreveport's union station was gutted by fire [Morgan, 1970]. This station had cost \$100,000 when it was built about 1896 [Railway Age, January 17, 1896].

Meanwhile, at the southern terminus of the railroad in the years immediately following the turn of the century, shipping through the port declined dramatically while the railroad was in receivership. However, in the early years following completion of the railroad itself, the KCS served as a magnet that drew population. Between the years of 1900 and 1920, the census showed that population increased in counties served by the KCS by 64.64 percent. Non-railroad counties nearby actually decreased in population by 5.11 percent. Farm property value increased in counties where the KCS ran its tracks by 335.76 percent [Haag, 1925].

Lumber continued to be an important commodity for the railroad. The KCS published a long list of important lumber-shipping points along its route in

its Current Events, and reported that furniture was being manufactured at Kansas City, Fort Smith, and Texarkana in large quantities. Hardwood timbers, posts, ties, cooperage, telegraph poles, and cord and furniture woods were being produced at points along the line [1907a].

By now coal was again being shipped from Amoret, Missouri, and shipments continued from Pittsburg. Pittsburg had become one of the leading coal towns in the state, and by 1900 was producing one-half of Kansas' coal [Zornow, 1957]. Joplin was shipping zinc. The area south of Joplin was shipping apples and strawberries. Mena was producing peaches, and areas nearby were being cleared for farms.

In January of 1901 a discovery took place which was to dwarf all other commodities in importance for some time. It was completely unforeseen. Drilling into a salt dome formation at Spindletop (15 miles north of Port Arthur near Beaumont, Texas) an oil well was discovered which was so large that it produced a gusher requiring nine days to cap. So important was this discovery that a large complex of refineries and petrochemical plants sprang up in the area nearby which was still furnishing 37 percent of the KCS' operating revenue nearly 80 years later [Frailey, August, 1979].

Shortly after this discovery, arrangements were made to begin use of crude oil from the Beaumont area instead of coal to fuel locomotives on the portion of the road south of Shreveport. Locomotives were converted from coal, and necessary facilities along the route were completed by mid-year in 1902 [Haag, 1925].

The 1902-1903 winter was severe. Next there came a devastating flood in June which blockaded traffic nearly the entire month. A car shortage resulted which lasted the rest of the year. There was great congestion at Kansas City.

Along the south bank of the Missouri River five miles of double track and freight yards were nearly destroyed, as were the freight yards in the West Bottoms. The line extending west across the Kansas River and through Kansas City, Kansas, was almost entirely washed out and two steel bridges were destroyed. One was a three-span steel truss over the Kansas River which was only completed late in the previous year.

The night of May 29, 1903 KCS workers frantically toiled all night pulling logs and snags away from the bridge into Argentine. Both the Kansas and Missouri rivers were over their banks, still rising into residential areas and threatening the packing houses. Train service was entirely cut off to the area ["Flood in Kaw," 1903]. In spite of efforts to prevent it, the bridge washed away along with the tracks, and it was never replaced. The tracks beyond were abandoned. Approximately five miles of this line in the eastern portion of the city had been newly renovated since receivership, and just completed.

Repair work after the flood included reduction of grades, widening banks, and ballasting tracks. Prior to this time all grades had been above the 1881 flood line, which had been considered adequate protection from all floods. Property value destruction was fixed at about \$280,000, and lost cars added an additional \$25,000 to that amount. Net loss to earnings in June was \$100,000 while losses continued for several months thereafter [Haag, 1925].

Depression began the latter part of 1907. By now the KCS had developed heavy traffic in petroleum products, southern pine, hardwood, and agricultural products. In addition, the new state of Oklahoma was beginning to supply an "appreciable volume of business" [Anderson, (n.d.)b].

To comply with a 1908 government regulation known as the 16-hour law, it

became necessary to revise operation districts to avoid overtime payment to employees. These districts divided the work runs of crews who all worked within the same district [Stroup, 1946d].

Three engine terminals were abandoned and four new ones built. Length of the average "engine district" was reduced from 131 miles to 112.3 miles. New layouts for terminal yards now included roundhouses 100-feet deep and turntables 100-feet long. Also this year a new coaling plant at Amsterdam, Missouri, cost the railroad \$10,000 while a freighthouse and tracks at Fort Smith were constructed on new land purchased for \$135,000. The general office building at Texarkana, Texas, had burned and was replaced. The following year, improvements were made at both Kansas City, Missouri, and Port Arthur. River protection work was done at the Red River and Fort Smith branch on the Arkansas River.

The year of 1910 found additional tracks being laid to reach new coal mines at Pittsburg, and in 1912 an "imposing and adequate" new depot and necessary tracks were built at Fort Smith, Arkansas [Haag, 1925, p. 106].

Flooding problems occurred again in 1915 along the line. The Arkansas River on the Fort Smith branch near Brandon, Arkansas, gave serious trouble. The river bank in the area had been receding over a number of years, even though the KCS had spent \$100,000 in remedial repairs. When the bank receded to within 25 feet of the tracks in 1915, the track was abandoned in that area and new line constructed. At the Red River debris caused problems and expensive bridge maintenance. In August a storm struck Port Arthur. A 15-inch rain accompanied by 85 m.p.h. winds flooded Port Arthur. Service between Port Arthur and Beaumont was disrupted for a week because of flooded tracks.

By the end of the following year many new depots had been constructed along the line to be in compliance with state commission orders and to accommodate additional business. The most costly was an \$80,000 structure at Beaumont. Three others were built in Oklahoma. Business was still increasing, and a 700,000-bushel elevator was constructed in Kansas City. The railroad now had grain storage capacity in Kansas City of 1,300,000 bushels. In 1922 another 420,000-bushels' capacity was added in the form of storage bins. During the 1920's railroad profits were down because of the loss of foreign grain markets and oil pipeline competition. Highway competition was now beginning to be felt as well [Haag, 1925].

Management error, ironically, played a large part in keeping the KCS solvent through the depression years. L. F. Loree, Chairman of the Executive Committee between the years of 1906 and 1936 and KCS President from 1918 to 1920, attempted to merge the railroad with two other lines. He instructed KCS representatives to purchase stock of the other companies without attempting to gain the necessary Interstate Commerce Commission (ICC) approval. When he was forced to sell the stock later a \$14-million profit resulted which was able to tide the railway through the depression years [Frailey, August 1979].

In 1929 under railroad President C. E. Johnston, who served in that capacity between the years of 1928 to 1938, the gap where leased trackage had been used to reach Grandview from Leeds, Missouri, was completed. Leased tracks had been used in this area to reach Kansas City. The project cost was \$3 million. Additionally, this extension not only reduced the ruling grades in the area to .5 percent, but freed the line from interruptions caused by high water [Anderson, (n.d.)b].

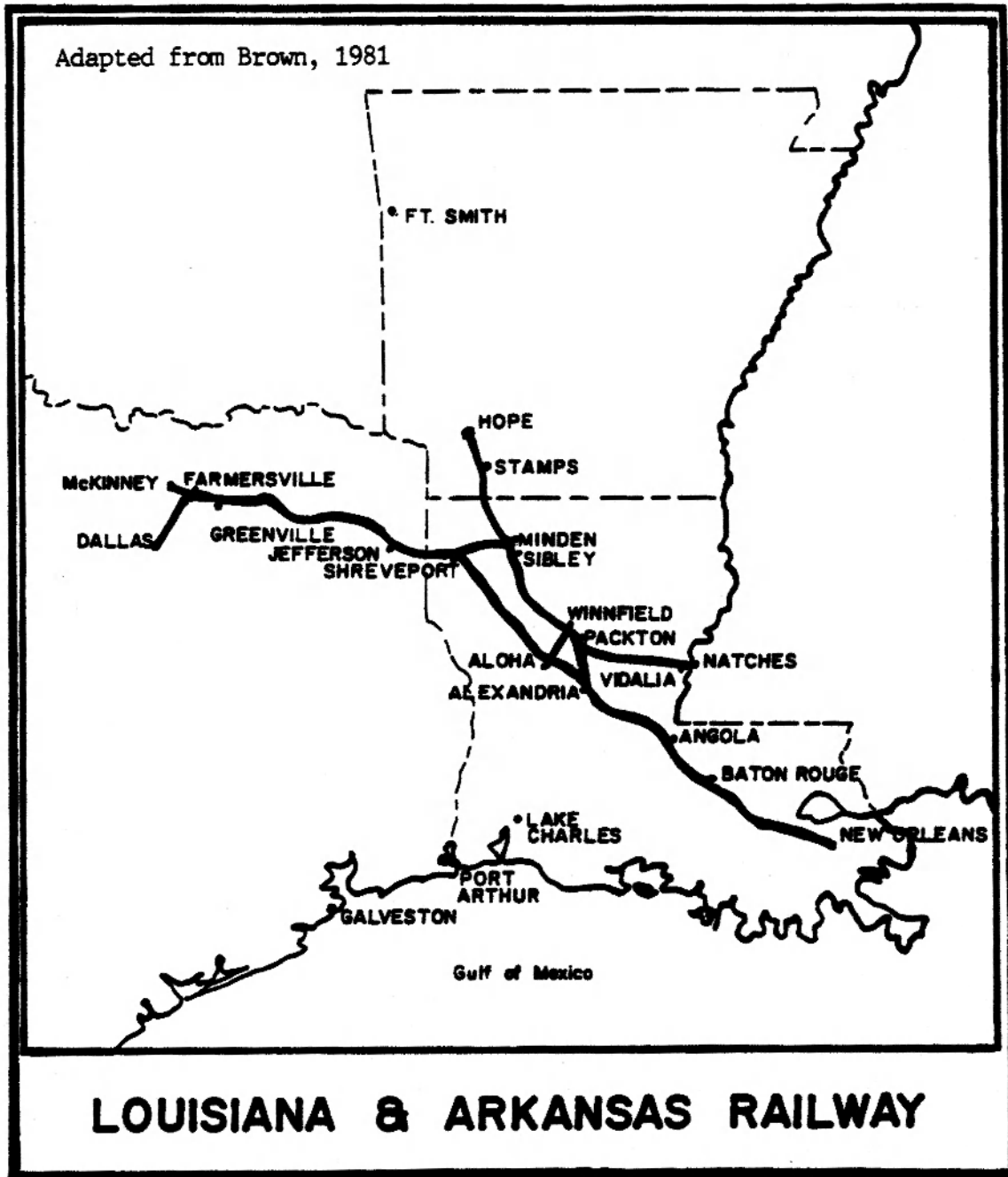
A later KCS president was more successful with merger than President

Loree had been. Under the leadership of Harvey C. Couch, on May 23, 1939, the Kansas City Southern acquired the Louisiana & Arkansas Railway Company (L&A). This added two more major port cities: New Orleans and Baton Rouge, Louisiana, as well as giving access to Dallas on the L&A's "Texas Line" (Figure 9) ["Saga," (n.d.)].

Like the KCS, the L&A was among the last major railroads to be formed in the United States. The L&A had been built in two sections. These were made up of the Louisiana & Arkansas Railroad and the Louisiana Railway & Navigation Company (LR&N). The original portion of the L&A was chartered two years before Stilwell's Kansas City, Pittsburg & Gulf (KCPG). It was built for logging and connecting-line purposes, and eventually serviced both passengers and freight [Draper, 1947]. In 1896 lumbermen brothers James, Robert, and William Buchanan started a logging line near Stamps, Arkansas. With William serving as President, the railroad was to be used to transport cut logs to sawmills belonging to their Bodcaw Lumber Company operation. As lumber production was completed in an area and new timber tracts purchased, the railroad continued to grow in length to accommodate the operation. It expanded north to reach Hope, Arkansas, where it could make connections with the Missouri Pacific and the Frisco railroads, and south into Louisiana through Minden, continuing on to Winnfield. By 1906 the line had reached Alexandria, where links could be made with several other roads, one of which included the LR&N [Brown, 1981]. To this Buchanan added an additional 76.7-mile branch line between Packton and Vidalia, Louisiana on the Mississippi River for a total mileage of 306. Here the "Natchez Route" was established. It linked the L&A and the Mississippi Central by means of carferry service over the Mississippi River. This final extension of the line was eventually



Figure 9



sold by the KCS in 1945 [Frailey, August, 1979].

Meanwhile another line (the Shreveport & Red River Valley Railroad) was begun in 1896, and built in its entirety by William Edenborn out of the personal fortune acquired by him in the steel business through barbed wire and nail patents. Prussian born, Edenborn had visited Louisiana and was impressed by possible development potential in New Orleans and Shreveport, the state's two largest cities. He was particularly intrigued with the lumbering business in the state. His object in building this railroad was to construct the shortest possible line between Shreveport and New Orleans.

In 1903 Edenborn joined this small railroad with his newly incorporated LR&N. Its charter permitted building to New Orleans. Construction reached Baton Rouge in 1903, and New Orleans in 1907. Concurrently track was laid over a 30-mile length from Aloha on the Red River to Winnfield, a lumber and mineral center.

Although Edenborn's original charter allowed the operation of steamships out of New Orleans, this never became a reality. The company was, however, required to ferry trains, freight, and passengers across an eight-mile stretch of the Mississippi River between Angola and Naples, Louisiana upon the ferryboats "Sarah Edenborn" and "William Edenborn." This process added two hours to travel time, already extremely slow because of the necessity of using light locomotives which were only capable of pulling freight 25 m.p.h. or passengers 45 m.p.h. on the unballasted track. Train No. 1, scheduled to leave Shreveport at 6:40 a.m., arrived in New Orleans at 7:20 p.m., a distance of only 350 miles. Not only did the railroad acquire a reputation of being slow, but the pseudonym "Loose Rails & No Connections." The unballasted roadbed which required the use of these light and "unusual looking" locomotives probably was a cost-cutting

attempt, for not only was Edenborn personally paying for the railroad line, but all railroad facilities, locomotives, freight cars and ferryboats as well.

In 1927 extensive repairs and realignment were necessitated by flooding, and the tedious ferryboat trip was shortened by 30 minutes [Brown, 1981, p. 54]. Surprisingly, the operational handicap of the ferry remained until a railroad bridge was opened over the Mississippi at Baton Rouge in 1940. Nevertheless, Edenborn's goal of building the shortest route between Shreveport and New Orleans had been accomplished, for his route was 13 miles shorter than his closest competitor, the Texas & Pacific.

In addition to building the LR&N, Edenborn paid \$700,000 cash in 1923 for a run-down, narrow-gauge branch line which extended 180 miles between the Texas-Louisiana border and McKinney, Texas. Edenborn leased lines from the Illinois Central to connect this new railroad to his LR&N at Shreveport [Frailey, August, 1979]. The name of this railroad was the East Line & Red River Railroad, but its intended destination was not reached until it had passed from the hands of the original Jefferson owners. By the time Edenborn purchased it the line had already changed hands several times. The instigators of this project had been Jefferson, Texas businessmen who realized too late that they needed a railroad and tried unsuccessfully to remedy the situation.

Jefferson had once been one of Texas' largest cities. Situated on Lake Caddo, it was located where connections could be made for the Red and Mississippi River traffic. By 1870 it ranked second to Galveston in Texas for commerce volume. Jefferson refused to give the requested aid to the Texas & Pacific, so the railroad built to Marshall instead. Both trade and population were quickly lost forever to Jefferson. Its 1980 population stood at only 2,643, a stark contrast to Dallas, which had anxiously vied for railroads and

watched population and commerce mushroom with their coming [Connor, 1971, & Marion County Chamber of Commerce, 1984].

Edenborn was not so particular about the prestige or the comfort of his passengers as other KCS railroad builders. Additionally, when he purchased his Texas line in 1923 it was already built to his customary standards: no ballast, light locomotives, and extremely slow speeds. Starting with gusto, he ran two freights and two passenger trains daily, as well as a few locals. Necessity required that he eliminate one freight and all locals the next year. By 1927, only one passenger train remained in operation. Soon such passenger coaches as were needed were attached (along with the mail car) to freight trains in lieu of the cabooses. Business continued to decrease, and shortly thereafter the caboose itself was large enough to accommodate all passengers. Mixed trains terminated completely in 1938.

During these years and prior to their association with the KCS, Arkansas businessmen Harvey C. Couch and his brother C. P. Couch had earned fortunes in the public utility business. These men purchased both the L&A and the LR&N in 1928, merging them under the name of the Louisiana & Arkansas Railway Company, leasing trackage rights the remaining distance to Dallas from the KATY railroad. Harvey Couch, also a director of President Franklin D. Roosevelt's Reconstruction Finance Corporation, assumed leadership of the L&A [Frailey, August, 1979]. Eleven years after gaining control of the L&A the Couch brothers were successful in gaining control over the KCS as well, through the purchase of railroad stock. Harvey C. Couch became President of the KCS in 1939, but served only one year prior to his death when his brother succeeded him in that capacity. Nevertheless, during his short term and only five months after assuming office, Harvey Couch had succeeded in merging the KCS with the L&A.

Several factors precipitated the merger. Since acquisition of the L&A Harvey Couch had succeeded in running a prosperous railroad, but even so the L&A needed to be enlarged for better access into larger market areas. The benefit of the merger to the L&A would be a northern outlet. At this same time the KCS was also in need of an affiliate. Recently turned down by the ICC in its effort to procure control of the KATY and Cotton Belt Railroads yet needing to expand, merging with the L&A would afford the KCS a market into Dallas as well as adding new port facilities at Baton Rouge and New Orleans. The ICC was more favorable to this merger, and in 1939 gave its permission for the two roads to unite their interests [Clark, 1958]. The two merged railroads still operate on their original lines under separate names, with the L&A existing as a corporate shell [Frailey, August, 1979].

As in any railroad, the smooth operation of the KCS depended to a great extent on shop facilities. Pittsburg was made the headquarters of the motive power department, where all heavy repairs for the entire railroad would be made. Through the early part of 1900, the KCS made heavy investments in the Pittsburg shops. In 1904, 33 acres of land were bought for shop extensions. A few years later a freight depot was constructed and new tracks installed to serve it. At the same time, \$35,000 was spent on a new yard north of the shops. By 1908 the original Pittsburg terminals had been replaced by new facilities [Haag, 1925].

Minden, located on the L&A line and important for plants allied with lumber and pulpwood business, was the location of principal L&A shops before its merger with the KCS. Afterwards Pittsburg, which was by now headquarters for the entire northern division of the KCS, was made responsible for supervision of the new line as well. During the early 1940's a large part of the Pittsburg

shops area and the storeroom were destroyed by fire. They were replaced with new one-story buildings. In 1949, \$300,000 was spent to build a shop to repair and service the new diesel engines the railroad was acquiring at this time.

Not only repairs, but construction of new rolling stock were done at Pittsburg. In 1946, 25 newly-designed pulpwood cars were built there. These were to be used to haul pulpwood logs from southern Arkansas and northern Louisiana to paper mills in the area, and would facilitate unloading the four-foot logs at the mill. At this time paper mills along the route were shipping approximately 25 cars of paper a day on the KCS. The mills required about 100 cars of pulpwood daily to allow such production [Stroup, 1946e].

Although nine motels have replaced the old Stilwell Hotel and three other railroads service the city of 18,291 population, the KCS shops still are prominent on the Pittsburg map. Situated in the northeast portion of town, Stilwell Street runs in a north-to-south direction through them. Deramus Park at 15th and Michigan is one of two parks in the city. W. N. Deramus was considered one of the more important KCS presidents, serving from 1941 to 1961. He started working for the railroad at Pittsburg, and further honored the town by marrying a local girl [Stroup, 1946b].

Pittsburg, as well as other mining areas, was profoundly affected by the 1968 and 1971 Mining Lands Reclamation Acts in which open or strip pit mines are no longer allowed to be abandoned when mining activity ceases in an area. Restoration is required, and newly-mined lands must be graded to a gently-rolling surface and revegetated, with acid-forming minerals buried. Topsoil is often voluntarily reserved and respread over the spoil banks after mining is completed [Morris, Goins & McReynolds, 1976]. Such legislation was long overdue. In an attempt to make amends for earlier neglect, outside the city

strip pits from old abandoned mines are now used for fishing and other recreational purposes in the Mined Land Wildlife Area. Pittsburg industries still include mining, as well as the manufacturing of mining machinery, clay products, and of course railroads [Pittsburg Area Chamber of Commerce, 1985].

Joplin, also part of the Tri-State area, was producing two-thirds of the United States' 1924 production of zinc. Peak production was reached in 1926, but thereafter the trend started downward. Nevertheless, the Tri-State Area continued as the nation's leading zinc source until 1943. Lead, associated with the production of zinc, has likewise declined sharply since the 1920's [Neff & Williams, 1954]. The once-wealthy mineral deposits were considered exhausted by 1970 when the mines closed. Between 1850 and 1950 mineral production exceeded \$1 billion, and until 1945 the area was rated one of the world's leaders in production of zinc and lead. Other minerals in the area are still being mined, however. Among these are clays and shales used for manufacturing fire clay, bricks, and stoneware. Byproducts of the lead and zinc mining, the chat piles which appear as small-sized unsightly mountains around the old mines, are widely used for concrete and railroad ballast. Shipments of such mill gravel between 1942 and 1950 averaged well over four million tons annually [Gibson, 1972].

Joplin's population grew from 26,023 in 1900 to 38,893 in 1980. It had lost only 260 persons since mining operations ceased in 1970. Today the KCS still serves two of Joplin's four industrial parks. Two other railroads service the town [Joplin Chamber of Commerce, 1985].

Besides the Kansas City area, Joplin is the only city of consequence which the KCS serves in Missouri today. Hume, the town Stilwell was so anxious to build to, is the home for only 315 people, although the KCS still

provides freight service there as it does for Amsterdam and Drexel. The railroad-promoted town of Statesbury has a mere 48 population, and the KCS no longer services it [Feeney, 1983 & U.S. Department of Commerce, Missouri, 1980].

Indian Territory, another area the railroad built into to reach mining operations, has become part of Oklahoma. Sallisaw (in Sequoyah county) is part of the Fort Smith, Arkansas SMSA, only 19 miles east. This SMSA is ranked ninth in growth in the United States. Major Sallisaw employers include oil and concrete companies, and furniture manufacturing. The Missouri Pacific also services Sallisaw, where population stands at 6,405 [Sallisaw Chamber of Commerce, 1985].

Further south citizens of neighboring LeFlore county consider railroads to have been the greatest single factor in developing the county, in that they opened new areas to timber and provided a major source of county revenue for use in schools and building roads. Indians received royalty from the timber and coal which added to tribal wealth [Poteau, Oklahoma Chamber of Commerce, 1985a]

Poteau showed promising early growth between 1900 and 1915, when population grew from 1,000 to 2,500, but it had grown to only 7,800 by 1980 [U. S. Department of Commerce, Oklahoma, 1980]. Large farming operations are nearby, as are forests and mining. Besides coal, minerals include sand and gravel, and clay. Ten small diversified industries employ 450 people in Poteau, but like Sallisaw many of Poteau's citizens commute to Fort Smith to find employment. The KCS still makes several stops daily at Poteau, but no longer does the KCS bring passengers to the large hotel constructed on Cavanal Hill as it once did in 1905. The hotel burned about ten years after construction. Today the hill,



advertised by Poteau as "one foot short of being a mountain" (1,999 ft.), is used only for radio and TV towers and a ranger lookout station. Burlington Northern services the town too, but to a lesser degree [Poteau, Oklahoma Chamber of Commerce, 1985a].

Poteau has the largest population of any of the old Indian Territory towns which are on the KCS lines today. Sallisaw ranks second with 6,403. Stilwell and Spiro have populations that hover slightly over 2,000. Panama has 1,400, Westville, 1,049, and Watts has only 316 people [U.S. Department of Commerce, Oklahoma, 1980].

Heavener, Oklahoma is located at the northern limit of the Ouachita Mountains. An extension of the railroad leaves Heavener and follows the Poteau River east into Waldron, Arkansas while the main line continues south until it veers into Arkansas towards Mena. This portion of the railroad was built by John W. Gates, who chartered it under the name of the Arkansas Western Railway [Clark, 1958]. The railroad at Heavener is a part of the old Splitlog line. Immediately northeast of Heavener is the 1,200-foot hogback ridge known as Poteau Mountain, under which lie veins of coal and upon which are stands of hardwood timber. In 1910 this town became a KCS division point [Ruth, 1941].

Mena, Stilwell's most successful town promotion, grew nicely to 3,953 by 1910, then began to decline. Today Mena's population is 5,154. Three companies there are related to the lumber business; one builds log homes. The timber industry accounts for 25 percent of Mena's economy, but farming is no longer contributing a significant cash flow. Poultry raising is important and tourism is expanding [U.S. Department of Commerce, Arkansas, 1980 & Mena Chamber of Commerce, 1985]. As in other Stilwell towns, the old railroad station and tracks are adjacent to U.S. Highway 71, and the tracks must be crossed to enter

Mena's business district.

Population in DeQueen, Arkansas had reached 1,200 by 1900, but it grew slowly thereafter. More recent growth had brought 1980 population to 4,594, many of whom were employed at the Weyerhaeuser Company's wood-processing operation. Weyerhaeuser employs 1,700 while other timber or hardwood veneer firms in DeQueen employ another 500. The railroad station still stands. The KCS tracks divide DeQueen, and the town has grown largely west of the tracks. The usual names of Stilwell and his friends still appear on street signs: Vandervoort, Port Arthur Street, DeQuincy, and Stilwell Avenue [DeQueen Chamber of Commerce, 1985].

A paper mill at Ashdown, Arkansas was large enough to justify assigning one of the KCS' switch engines to the location in 1979 [Frailey, September 1979]. This engine is used in clear view of U.S. Highway 71 running adjacent to the tracks and is directly across the street from what appears to be the original business district. Cars are switched here, and several train sections can be seen on side tracks. Other Arkansas railroad towns have not fared so well. Janssen, whose name was changed to Vandervoort, was a village of only 98 in 1980 [U.S. Department of Commerce, Arkansas, 1980].

Hope, situated at the northern terminus of the L&A in Arkansas, was important for cotton growing in the early years of this century. Believed to be the finest quality produced in the state, it commonly commanded a higher price than cotton produced elsewhere [Herndon, 1922]. Today Hope is the Hempstead county seat, and with a population of 10,290 is the largest Arkansas town served by the railroad. Feed grains and soybean production have replaced cotton production here. Lumber, bark byproducts, hickory and ash handles, and sawmill equipment are important to the city which is served by two other

railroads besides the KCS [Hope-Hempstead County Chamber of Commerce, 1985].

Out of all the states it serves, Louisiana contains the most KCS trackage today. The headquarters offices for the southern division of the KCS together with railroad shops (smaller than those in Pittsburg) were originally located at Shreveport [Stroup, 1946d]. Facilities included a 16-stall roundhouse, and some major repair work was done there. Actually there were two yards; one near the shop, the other near the Red River waterfront. In later years the Shreveport yards became the KCS "boneyard" where older or temporarily unused engines could be stored [Frailey, September 1979].

In the early 1920's Shreveport developed a new industrial site. Grades to reach the area from the KCS main line were expensive to operate because they were so steep, and work was done to lower them. By now Shreveport railroad facilities were far from adequate with yard congestion both frequent and serious in nature. Extensive changes within Shreveport were undertaken. The Texas Avenue crossing which was the most dangerous crossing on the entire railroad route, was eliminated. A new yard containing ten miles of track was added, and several places where the KCS tracks crossed those of other railroads were eliminated with the result of better routing of through traffic. Shreveport was also improving its water supply at this time so the KCS made embankment changes which would result in a dam for the city's water, and replaced a timber trestle with masonry to act as a spillway for the new reservoir [Haag, 1925].

Under the Couch brothers' direction major improvements were made in the L&A in the years immediately following affiliation with the KCS. Trackage rights were obtained over another railroad to make possible the abandonment of the ferry between Phillipston and Angola across the Red River. Substandard

track on the river line which rendered it unable to carry any but local freight was improved, allowing freight schedules to be speeded up.

After gaining control of the two consolidated railroads the Couch brothers placed their own appointees in key positions. One of these men was William N. Deramus who himself assumed the presidency of the KCS upon the death of the second brother. Within three years and with the aid of friends Deramus was able to purchase sufficient stock from the Couch family to gain control himself. W. N. Deramus III succeeded him in 1961, and still serves the railroad. During Deramus' tenure (from 1941 to 1961) all engines were painted "Deramus red." This color was later replaced with the white in use today in order to allow better grade-crossing visibility [Frailey, August 1979].

By 1940 agricultural products were furnishing 10.3 percent of KCS freight revenues while animal products added another 5.4 percent. Forest products brought 13.5 percent of the railroad's revenue that year, but fell soon thereafter to a low of 4.8 percent by 1944. Miscellaneous and manufactured products produced 53.2 percent of 1940 freight revenues and promised to increase. Mine products supplied 14.4 percent of revenue, but fluxuated between 10 and 15.5 percent during the ensuing decade [Porter, 1950].

During this time the Neches Butane Products Company and rubber plants were built in a swamp area along the Neches River which is situated in east Texas and flows southeasterly into Sabine Lake. Completed by 1945 at a cost of \$120 million, the KCS profited from shipment of 20,000 carloads of materials to the site. A spokesman for the railroad said that rains were so heavy during construction that the railroad tracks actually floated on the marsh [Stroup, 1946e].

In the previous decade the 1930 depression and new competition from

trucks and pipelines combined with crop failures and low commodity prices to create a downward trend in railroad revenues reaching a 1933 low. Slowly increasing thereafter, 1936 and 1937 traffic was stimulated by increased oil production in the Rodessa field. Gains were less than optimum, however, until 1941 war activity served to almost double pre-1941 traffic [Porter, 1950].

World War II was to prove a profitable period for the KCS. Between 1944 and 1950 increased profits helped reduce indebtedness by \$27 million. KCS President Deramus was able to replace 75 percent of the railroad ties on the KCS and 95 percent on the L&A during this time. Hundreds of miles of 85-lb. to 100-lb. rail were replaced with heavier sections, and new ballast was brought in. The entire line was now in excellent condition.

During World War II all available L&A engines had been needed. This included some of the smallest old LR&N engines, which could only be used on the flattest terrain to pull four- to six-car troupe trains. These ran down the Red River Valley out of Minden and between Leesville, Port Arthur, and Lake Charles. After the War and after the KCS acquired its first freight diesels in 1947 it began to occasionally spare a few for important L&A runs. Although several old steam engines were retained to be available for possible high-water duty the steam era was basically over on the L&A by 1949, and the entire KCS by 1953 [Brown, 1981 & Frailey, August 1979].

The very first of the new diesel engines (out of 20 originally purchased) were used exclusively on the Pittsburg-DeQueen portion of the system, where four more were soon added. Capable of pulling heavily loaded freight trains at a maximum speed of 65 m.p.h. they were placed in service in the area where the grades were the steepest. Although the initial cost was enormous (\$7 million) the advantages included a faster time schedule and substantial savings in

cost of operation and maintenance. The result of the faster schedule was changes in or elimination of some stops along the line [Stroup, 1946a].

War years brought great industrial development to Baton Rouge, Louisiana. In response to this the KCS constructed new yards near the northern edge of the city which were large enough to hold 1,000 cars [Stroup, 1946e]. At this time Standard Oil of Louisiana, the United States' largest oil refinery, was located in Baton Rouge. There were eight other major industrial developments near the city, and KCS tracks encircled most.

In 1946, 100 cars per day originating along KCS lines carried coal for export, as did about 200 cars a day which originated on other railroads. A special fast meat and merchandise freight train was operating between Kansas City and Port Arthur which arrived at destination in 31 hours. By now many of the huge oil-connected industries on the Gulf were served exclusively by the KCS. Many were constructed on KCS property, although millions were invested in them. Such industries tended to attract allied industries [Stroup, 1946d].

Conversion of war plants to peacetime industries brought traffic of synthetic rubber from Port Neches and Lake Charles, Texas, the latter of which had originally been a plant intended to make magnesium to produce chlorine and other chemicals for the war effort. At Kansas City the railroad was able to gain a substantial tonnage of automobiles through reciprocal switching from the former North American bomber plant facilities. By 1950 these autos contributed to the manufactured and miscellaneous commodities carried by the railroad which were furnishing 44.7 percent of total freight tonnage and 65.9 percent of freight revenues.

That same year the movement of agricultural and animal products combined to total 7.4 percent of freight tonnage and 12.5 percent of company profits.

These shipments were made up largely of corn, wheat, processed grains, potatoes, and meat, as well as agricultural machinery being shipped south from the Midwest. Mining products being shipped made up 29.9 percent of total freight tonnage, and consisted of bituminous coal from Oklahoma, Kansas, and Missouri, and crude petroleum, sand and gravel, limestone for use in glassmaking and alumina. This category of freight generated 10.8 percent of freight revenues. Large tonnage of lumber, forest products, and pulpwood for paper manufacture were again taking place in spite of the by now depleted pine forests because of new technology. A paper mill on the L&A at Springhill, Louisiana was an important contributor of this traffic. Total freight tonnage for these commodities was 17.7 percent, producing 8.9 percent of freight revenues.

The year before improvements along the line included huge expenditures for shops at Pittsburg and railyards in Kansas City, \$150,000 to improve 200 acres purchased for industrial purposes in Baton Rouge, and \$200,000 in improvements at New Orleans. The Arkansas River bridge was replaced at Redland, Oklahoma that year as well. It was constructed to be above the high waterlevel. Frequent washouts and disrupted service were a continual problem in this area. Stilwell had mentioned that the river here was the most expensive to bridge; the new bridge cost \$2 million.

By the 1960's agricultural products carried on the line were largely wheat, corn, sorghum grains, barley, rye, flour, coffee, meats, mill products, and cotton. Approximately 60 percent of railroad revenue was being earned from manufactured products ranging from refined petroleum, chemicals, iron and steel (including scrap iron and steel pipe), paperboard, and canned foods. The products commanded higher revenues and low tonnage. At this same time shipments of more traditional commodities but much heavier coal and lumber

which were carried at lower freight rates were declining. Movement of north and south traffic expressed in ton miles was generally balanced. Substantial tonnage was being interchanged with other railroads at Kansas City, Eve, Joplin, and Neosho, Missouri; Pittsburg, Kansas; Sallisaw, Howe, and Poteau, Oklahoma; Ashdown, Arkansas; Texarkana, and Beaumont, Texas; and Shreveport, Louisiana [Porter, 1960].

By the 1960's other railroads were stepping up the speeds of their freight schedules. Under orders from Deramus the KCS was running enormous high-tonnage shipments instead, even though portions of the railroad are ill suited to such loads and the resulting wear on tracks can be substantial. In 1963 trains regularly pulled 200 cars over the Louisiana coastal plains. The policy continued and by 1974 when the typical U.S. freight train was 64.5 cars in length the KCS average was still 88.4. This was even longer than most coal-hauling trains. Added to this was a deferred maintenance policy which the KCS began in the late 1950's, as did other U.S. railroads. Soon derailments were rampant on the KCS; however the KCS had corrected its problems by the time other U.S. railroads were seeking federal assistance [Frailey, August 1979 & Morgan, 1976].

Of greater impact on the landscape than the long freight trains, "Deramus red" locomotives and the Pittsburg park named in his honor was the huge railyard constructed at Shreveport, Louisiana during W. N. Deramus' presidency. It contained 257 acres and was situated north of the city. Known as the "Deramus Yard," the cost was more than \$8 million. Within it were 37 structures including a three-story office building and a railroad hotel, as well as 60 miles of track. It was designed to eliminate 70 percent of the grade crossings and trackage within the city ["New Deramus," 1956]. This cut 17 miles



off the Dallas route and upgraded efficiency significantly. The Deramus Yard has served to make Shreveport known as the railroad center of the South.

It was inevitable that KCS shops began to shift from Pittsburg, Kansas to Shreveport. Not only does the KCS have the largest portion of its rails in Louisiana, but much of its freight originates there also, the most important of which have been lumber, rice, and oil.

After the KCS opened Louisiana pine forests demand was high for the lumber. More than one-third of the lumber being cut in the U.S. in 1916 was yellow pine which when dressed was used for buildings. Undressed it was used for railroad construction [Benedict & Lomax, 1916]. At the beginning of World War I wooden ships were needed, and the mills had abundant lumber supplies available and easy access to Gulf shipyards. In addition to the lumber, valuable pitch was gathered from the trees several years before harvest. At first sawdust was burned as waste, but by the 1920's progress was being made towards utilization of milling residue for the manufacture of charcoal, alcohol, and paper [Emerson, 1919].

Because of this high demand, southern Louisiana parish mills were largely closed by timber depletion by 1925, although work continued for several more years in areas further north. By 1945 the forests near Shreveport were largely cutover and reforestation underway. Chemicals were manufactured during the 1950's in DeQuincy from the stumps remaining in the old pine forests. Livestock raising was combined with the reforestation project. With reforestation came a renewed importance in the lumber industry nearby. Lumbering is important again at Zwolle also, where the Hunt Lumber Company is located. This old Stilwell town in east-central Louisiana today has a population of 2,602 [DeQueen Chamber of Commerce, 1985].

Just below Zwolle is prosperous appearing Many, Louisiana. Many was an agricultural area until arrival of Stilwell's railroad which built through the parish in 1896 and 1897. Forests in this area were gone by 1936, as were the sawmills which had used the railroad to haul cut lumber. By the 1940's reforestation was underway, and pulp and paper mills began to be of importance. These mills used thinnings of forests for their products. Development of pine plywood brought renewed profits to the industry, and the first such mill opened south of town. Oil had been discovered in 1928, and added to the town's affluence. Many's population stood at 3,988 in 1980 and slowly is growing [Sabine Parish Tourist Commission, 1985b].

Reforestation was necessary because during lumbering operations land was clear-cut in order to justify the expense of constructing tram roads. For this reason even smallest trees which could be used for poles or pulp were cut. It was the norm for forest fires to sweep the deforested areas, completing the decimation. Before such lands became usable for agricultural purposes they had to be built up with nitrogen, humus, and often phosphorus. Brush from long-idle cutover lands that had not burned had to be removed before reclamation could take place. In many cases the farmer felt it easier to clear new fields than to build up old areas.

By 1929 over one-half the pine harvest was being processed by small portable mills too far from railroads to utilize them; truck transport was used instead [Stokes, 1954]. As forests were depleted lands were placed on the market faster than they could be sold. Railroads became apprehensive that freight traffic would disappear [Emerson, 1919].

The KCS found it necessary to attempt to solve this problem too. A 1915 KCS Current Events article told that stumps along its route were becoming

a problem, and discussed possible solutions. It noted that lumber companies were converting cutover areas to farming communities. The KCS found such areas to be suitable for rice growing. Even after the initial Nederland Rice Farm project the railroad continued to promote rice. In 1901 the KCS had offered land along its line for sale for this purpose at prices from \$12.50 to \$25.00 per acre, and reported it to be in good demand [KCS, 1901b].

By 1914 rice production had grown to 80 times the pre-Civil War level. While earliest attempts to establish rice farms met with widespread antagonism from cattlemen because of the necessary barbed wire, by 1920 there were 75,983 acres planted to rice in Jefferson County, Texas, where Stilwell and the KCS had promoted it [Federal Writer's Project, 1940]. Cleaning and processing mills became necessary and were built to handle this new agricultural development [Clark, 1958]. Eventually overproduction of rice resulted in decreased acreage, and many Nederland residents found employment in nearby oil refineries. Rice production did continue, however, and by 1947 the world's largest rice mill was located at Lake Charles and the largest rice packaging plant was at Beaumont [Draper, 1947]. Although soybeans have overtaken much of rice's importance, for many years rice was Louisiana's most important crop. It is still grown in the southwestern portion of Louisiana and around the Beaumont-Port Arthur area of Texas [Davis, 1975]. American rice is said to be superior in quality to that grown in other countries, and there is strong demand for it on the world market. In contrast to rice grown in Asian countries where most is consumed within 50 miles of where it is grown, two-thirds of American-grown rice is exported. Today areas of production have shifted, and Arkansas is the leading U. S. rice producer while Louisiana has fallen to third place and Texas fifth. Missouri produces some rice [Bird, 1985].

Although growing rice was promoted by the KCS to produce railroad traffic, other farming was encouraged as well. The KCS had its own agricultural department, and the railroad's special train held schools at areas along its route. It carried specialists who gave lectures on such diverse subjects as growing poultry and cultivation of grapes. There were five schools in Oklahoma alone in 1913. By now the problem of cutover forest land had quite diplomatically been changed to "clearing land for cultivation," and it was noted in the railroad's Current Events that "most of the land on the route was timbered, making it necessary to clear before cultivation could begin" [KCS, 1913]. In addition to cultivation, the KCS stressed the necessity of replacing scrub livestock with purebred, high-quality animals. The railroad itself owned sires and moved them from place to place for breeding purposes [Clark, 1958].

In connection with its agricultural department the KCS ran an experimental farm at Bon Ami, a KCPG railroad town in Louisiana where cutover pine land made up one-third of the 406 acre unit. The purpose of the farm was to discover what to grow and where to grow it. In particular, fruit and truck farming were emphasized. One-half of the farm was planted to fruit trees (30,000 trees) in 1907, and the farm had a fig cannery [KCS, 1910]. In spite of any agricultural benefits which may have been gained from the farm, the town did not survive: it does not appear on any current maps, nor can it be found in the 1980 Census.

At Stilwell's Nederland Rice Farm the first land was purchased by Gatze Rienstra, who bought 80 acres for \$800 cash. Although he considered the land rich, it was within a vast prairie area with no tree or house in sight. Today his property is situated in Nederland's business district. Although people came from the Netherlands to populate the area, others came from nearby Texas and Louisiana. In particular, many French from southern Louisiana moved to

Nederland. Although some took temporary jobs on the railroad, building jetties at Sabine Pass, or farming, many could not adjust to the climate or mosquitoes and moved back to the Netherlands or on to other cities to seek employment. Those who remained engaged in rice, truck, or dairy farming.

Nederland may be the only area promoted by Stilwell which seems to bear no reminders of him in street or park names. Such names as Tex Ritter or Wal Mart are more common than Dutch or the usual names of Stilwell's friends. Rice seems of no importance at all. Nederland is rapidly growing, reaching 20,500 population in 1980 [Nederland Chamber of Commerce, 1985].

Nearby Beaumont is located on the Neches River deep ship canal, which runs immediately by the old business district and connects with the Intracoastal waterway. The city is important as a port and an industrial center. It handles 30 million tons annually of waterborne bulk and liquid cargo. Manufactured goods produced by local industries include chemicals, petrochemicals, and plywood. Agriculture is considered vital to Beaumont's economy with county agriculture products amounting to \$25 million annually. Of this, \$19 million is from rice production. Beaumont is an important rice milling center as well. Raw materials produced here include petroleum, natural gas, clay, salt, and timber [Beaumont Convention and Visitors Bureau, 1985]. Beaumont outgrew its near neighbor, Port Arthur. In 1980 Beaumont had 118,102 population while Port Arthur had 61,251 [U.S. Department of Commerce, Texas, 1980]. Today Port Arthur has the largest petroleum refining center in the United States. The Intracoastal Waterway passes here. Because the Sabine-Neches Ship Channel is built within the city, the visual effect is that ships appear to be moving through city streets [Rand-McNalley, 1984]. This same visual effect occurs in Beaumont as well.

After the Spindletop oil discovery in 1901 thousands poured into Beaumont to seek their fortunes. By 1902, 185 active oil wells were in operation and 600 oil companies had been chartered. By the next year the field was already in decline and overproduction had ruined many wells. In 1926 new technology returned the Spindletop to production, this time using conservation methods [Beaumont Convention and Visitors Bureau, 1985].

A few of the early companies remained and became giants. The Gulf Oil Company began as Guffey Oil Company and built a refinery at Port Arthur. Humble Oil organized to develop the Humble field in 1911, and Magnolia Petroleum Company (Mobile) amalgamated several companies in 1911 in the area. Another early Spindletop company was Texaco, Inc. (organized in 1901 as Texas Company), and KCS personage J. W. "Bet-a-Million" Gates was one of its principal investors. This company built a refinery at Port Arthur also. Gates, the old Stilwell rival, was to do much through the years for Port Arthur, and some of its citizens believed the town should have been renamed to honor Gates rather than Stilwell.

Railroad traffic near refineries increased, and new tank cars were specially designed for use in the industry. Building and maintenance of these refineries provided employment for many workers, and increased use of the automobile led to a rapid growth in the demand for their products.

Baton Rouge, served by the L&A, was a pioneer in the synthetic rubber production which began in the 1920's, and today considers itself the center of the South's petrochemical industry. Although numerous other companies are nearby, the Exxon Corporation was established in Baton Rouge in 1909 and is today the primary petrochemical industry in the area. Exxon manufactures 700 products from petrochemicals, operating the nation's largest refinery. It

is also one of the world's largest industries of this type. The immense quantity of water flowing by the city in the Mississippi River (308 billion gallons per day) is of great advantage to water-using industries located in Baton Rouge [Greater Baton Rouge Chamber of Commerce, 1985].

In 1940 as a result of an oil company accident, the petrochemical industry began in earnest. Attempting to eliminate corrosion in a natural gas line by using fire, a variety of organic chemicals was discovered. Wartime uses were readily found for the resulting alcohol and synthetic rubber. Postwar production expanded into synthetic fabrics, automotive chemicals and such miscellaneous synthetic products as paint. Beaumont became one of two important areas in Texas (along with Houston) which together produced 80 percent of the national supply of petrochemicals. The Texas Gulf Coast contained the necessary raw materials for this development: petroleum hydrocarbons, natural gas, and abundant water for cooling [Connor, 1971].

By 1985 the modern petrochemical industry in the Gulf area has resulted in a landscape crowded with towers, tanks, and refineries, and air that smells greasy, acrid, and metallic. Few complaints are heard from local citizens, for with the chemical companies have come jobs. The area today is known as the Golden Triangle, with Beaumont, Port Arthur, and Orange as its points [Kilman, 1984].

Not every enterprise at the Gulf proved so lucrative to the KCS. In the early years following the turn of the century expenses continued to be heavy on the canal at Port Arthur. In 1902 and 1903 another \$70,000 was spent in re-dredging the canal, yet the work was not complete. In 1904 the Port Arthur Channel & Dock Company was purchased from its original owners by the KCS [Haag, 1925]. The railroad itself became the owner of properties adjacent

to the harbour, including 16,000 feet of water frontage on the turning basin and Taylor's Bayou. Company properties valued at nearly \$3 million were situated around three slips east of the turning basin. This included an 800-foot lumber wharf and 25,000-bushel grain elevator, cotton docks and cottonseed cake mill, along with sheds to serve these facilities.

In 1906 the Port Arthur canal (constructed at a cost of \$1,300,000 in private funds) along with the turning basin, a lumber basin, and a strip along the canal used for right-of-way purposes, passed into the control of the federal government. In exchange the government agreed to take over maintenance of the canal for 99 years and extend it 10 more miles to reach the Neches River at government expense [Stilwell, 1912]. The railroad explained that this was done for the purpose of having Port Arthur declared a port of entry. It was believed it would secure additional traffic, enhance prestige of the port, and avoid further expense of dredging and maintenance.

Ridding itself of endless expense of maintaining the canal, the railroad nevertheless faced heavy continued expenses of maintaining the port facilities. In 1907 a coal dock and tracks were built. The following year \$150,000 was spent to work on wharves, a warehouse, and dredging. An additional \$100,000 in expenditures followed the next year, and improvements in 1910 cost \$100,000 more [Haag, 1925].

Although Gulf Oil and Texaco owned large tracts of Port Arthur property, the KCS retained firm control over the harbor itself and the general cargo docks. After 1910 KCS policies began to receive criticism from the city of Port Arthur that was to increase over the years. These railroad policies were intended to protect business and investments the KCS had already built up and to block potential competitors from Port Arthur.



Also the railroad was refusing to handle the export-import traffic of its rival the Southern Pacific which further discouraged competitive railroad traffic. Port Arthur city leaders believed such railroad policies could present an obstacle to future area progress, and that nearby Beaumont already had an advantage over Port Arthur because it was served by four major railroads. The Port Arthur Board of Trade began to solicit other railroads into the area about 1913, believing it would provide healthy competition for the KCS. The KCS remained adamant, however, to pleas from the Board of Trade to open both its line and water frontage to other railroads. Such attempts were dropped during World War I, but resumed soon afterwards to no avail. The relationship between the city of Port Arthur and the KCS continued to deteriorate.

In 1921 the Port Arthur Chamber of Commerce and Shipping complained about the KCS policies to the Interstate Commerce Commission. The ICC ruled in KCS' favor, but the case was appealed. This time the ICC ruled against the KCS on the basis of serving public interests. This 1928 ruling broke down a 25-year monopoly held by the KCS over the waterfront.

Other companies sharing canal frontage with the KCS at this time were the Long Bell Lumber Company, Texaco, and Gulf Oil Company. Long Bell operated a lumber and coal wharf and Texaco had 6,500 feet of canal frontage containing docks while Gulf Oil owned a total of 2,250 feet fronting the canal and turning basin. On the west bank of the harbor the rival railroad Southern Pacific owned a small amount of property, but offered no regularly scheduled freight trains to the city. All wharves at the port were creosoted timbers, with the exception of one concrete wharf. Water depth ranged from between 26 to 30 feet.

Cotton trade had been important to Port Arthur prior to World War I, but the trade of 200,000 cotton bales in 1910 had declined by half in 1917. Not

only were KCS docks deteriorating and causing high insurance rates, they contained no cotton presses. Oil spillage in the harbor had caused water pollution and closed the Bell Lumber Company because oil had damaged logs. This caused a decline in lumber shipments. Only small amounts of dry cargo had been moving through the port because of irregular steamship service. The port was reported to be seriously hurt by this one factor alone.

During this same era there was a city movement to improve the port by purchasing KCS property and creating it into a public port. The city of Port Arthur estimated necessary renovation of the railroad's terminals could be accomplished for \$1.5 million. Public indifference, opposition from major tax-paying industries, and the 1929 economic crash combined to end the proposed project.

During the 1930's the Gulf Intracoastal Canal, an inland barge route paralleling the coast was built. Its purpose was to reduce transportation costs from commercial and manufacturing centers of the North and East. This canal ran from Carrabelle, Florida to Brownsville, Texas [Cayne, 1981]. Port Arthur citizens asked the railroad to provide barge docks for this project, but the KCS would not comply with their wishes. The city itself was eventually able to pass a bond to provide for the terminal, but it was never a moneymaker because of scarcity of goods and war rationing.

A surge in grain production and export during the 1930's temporarily helped increase traffic through the port, and peak tonnage through it was reached in 1937. After this time general cargo began to be lost to other ports which were by now closer to the timber territory. Lumber production was down. Cotton was being attracted to Houston and Galveston because of more modernized equipment to handle it. The KCS did make improvements to the port

during the 1940's when extensive new devices for loading coal and grain onto ocean-going vessels were added.

Shipper and shipping company disagreements contributed to the problem and caused additional decline in freight. Shippers demanded regular schedules before sending their merchandise to Port Arthur; shipping companies insisted freight would be accommodated on vessels only when and if it was ready for shipment. The fact that regular sailings were not available discouraged development of new companies nearby.

Although wartime brought shipbuilding prosperity to the Gulf area and the railroad, World War II had a depressing effect on the port itself. A marked decline in petroleum shipments was noted after 1939. Commerce dropped off to approximately six million tons through the port by 1943 because sale of oil to European markets was lost. Tanker operations from the Gulf ports were endangered by German submarines along the Gulf and Atlantic coasts. Normal shipment was suspended from Port Arthur, as it was from other ports, and oil was diverted to the East Coast by rail and pipeline.

In the post-war period Port Arthur revived efforts to promote port development. The city perceived the need for weatherproof warehouses to store perishable goods at the docks and believed the KCS needed to be persuaded to upgrade its docks. Favorable freight rates to Port Arthur were needed as well. It was hoped South American and West Indian trade through the port could be developed.

As deep water channels were dredged to ports located further in the interior such as Houston, a decline in the trade through ports closer to the sea began to be felt. In addition, acquisition of the L&A by the KCS in 1939 gave the railroad access to others port facilities and freight diversion

to them. Other factors or a combination of them combined to cause Port Arthur's standing among the nation's top ten ports to fall from sixth to ninth place between 1935 and 1947. By 1950 Port Arthur was being by-passed by ships which were using New Orleans, Houston, Lake Charles, or Beaumont instead. Port Arthur now lacked the facilities to service general-cargo vessels. New corporations needing such services chose other areas to locate in. Again KCS officials were contacted in order to persuade them to improve docks and warehouses to promote business in the area near the city. Again came the reply that railroad officials did not feel new business created by this improvement would justify expenditures.

By now the city believed itself to be in direct conflict with its progressive neighbor Beaumont. The answer seemed to be the creation of a public port. Definite steps were taken to accomplish this in 1957, but it was too late for Port Arthur discovered that Beaumont had spread into nearly all available land. Even though the city believed the railroad too could benefit from any new business generated by improvements to the port, when the KCS was contacted in an effort to persuade the railroad to improve its terminals the railroad again opposed expenditures [Rochelle, 1969].

## Chapter 7

### THE SYSTEM TODAY

Stilwell's first railroad venture, the Kansas City Suburban Belt Railroad Company better known within the system as the "Belt Line," is today just an old company name. The Belt Line itself has been incorporated into the KCS. The Louisiana & Arkansas (L&A) however, like several other short lines and branches owned by the Kansas City Southern (KCS) are kept separate under their own names for tax purposes [Charles G. Pitcher interview, September 8, 1984].

Fairmont Park, built by Stilwell along the Independence branch of the old Belt Line, still exists, but as only a small vestige of its former self. It is situated at the edge of Kansas City within the Independence boundary. Now publicly owned, it still retains the beauty spoken of by Stilwell. Its steep rolling hills, great oaks, and neatly clipped bluegrass are combined with park benches, sturdy wooden rocking horses, and other well-kept playground equipment. No evidence remains of the original buildings, fountain, or lake. Four blocks south of the park running eastward on Highway 24 is Fairmont Shopping Center. It bears more resemblance to an aging strip development than to a shopping center. Whether a moneymaker or not, Fairmont Park was at least more enduring than its imitator Washington Park. A rival railroad attempted to emulate Stilwell's park with its own similar operation in an area slightly southwest of Fairmont [Anderson, (n.d.)e]. Today this huge area probably retains its original size and may even have grown, but it exists as Washington Cemetery. Headstones dating from approximately the turn of the

century give silent yet emphatic witness to entrepreneurial error. Washington Park's existence, however, allows insight into a better understanding of an era which did not find the Stilwell Fairmont Park undertaking to be so foolish as we might be tempted to judge it today.

In 1970 farm products were furnishing 11.6 percent of total railroad commodity tonnage and 11.3 percent of railroad revenues while food products furnished 6.1 percent of tonnage and 8.7 percent of revenue. Lumber tonnage was 15.7 percent of total commodities carried, but only 8.9 percent of railroad revenue while pulp and paper products provided 6.6 percent tonnage but a more lucrative 10.1 percent of total revenue. Petroleum and coal combined to make up 15.4 percent of total tonnage earning 14.8 percent of railroad revenue, and 13.6 percent of tonnage was chemicals which earned 17.9 percent of KCS railroad revenue.

During the early 1960's the railroad had begun to shift its energies to becoming a holding company rather than just a railroad alone. To do so, funds were diverted from line maintenance. The results were felt later when during a record-shattering volume of business in 1972, at a time when huge amounts of grain began to be shipped to the Soviet Union, a series of derailments began. Both the KCS and the L&A were affected. The likely cause was deferred maintenance, although KCS President William N. Deramus blamed several recent years of bad weather conditions. Rails, ties, and the roadbed were worn out, and the L&A division superintendent remarked that no crosstie bore a more recent date than 1953 [Frailey, September 1979 & Hanson, 1980].

Business increased further in 1973. Farm Product tonnage increased to 5,315,000 over 1972's 2,296,000 tons. The year became a record year for tonnage, revenue, and financial loss. Loss was because of a combination of

derailment costs, car-hire expenses, and general inefficiencies brought on by the poor condition of the railroad. Much of the Russian grain was shipped at low, government-dictated rates. It was shipped in unusually bad weather in leased cars that taxed Gulf port capacity, as well as adding unusual wear to tracks already in bad repair. Over one stretch in the mountains of southeastern Oklahoma 90 derailments occurred in one month alone.

Fortunately for the railroad, at this time the prospects for coal hauling loomed high on the horizon with the rise of OPEC. Because of the low price of oil immediately prior to this time, the KCS had been hauling very little coal. Hauling heavy trainloads of coal now posed seemingly insurmountable difficulties, however, in light of the condition of the rails. To solve the problem, KCS President Deramus hired civil engineer Thomas S. Carter to repair the railroad. Carter promptly asked for and received \$75 million for the task. This \$75 million was hurriedly spent to patch up the line sufficiently to begin handling large interchange shipments from Gillette, Wyoming coal mines via the Burlington Northern which the KCS sent on from Kansas City to the coast.

To make necessary line repairs to accommodate coal traffic, during 1973 alone 70 trainloads of ballast (weighing 6,500 tons each) were brought from the Joplin, Missouri abandoned mine tailings. A program of replacing old rail with new heavy-weight welded rail was begun as well. The company lost \$1.6 million that year. This factor, combined with a 1974 postwar recession, stopped line improvements temporarily, and inability to meet payrolls was threatened for a time. Conditions improved, and repair work was resumed shortly thereafter. Between 1974 and 1978 engineer Carter spent \$165 million upgrading the railroad's trackbed [Frailey, August 1979 & O'Hanlon, 1978]. By 1979 at least 250 miles of welded steel 115-lb. tracks were in place. Still

heavier 136-137 lb. imported rail from Canada came into use in 1980 for the first time because of poor performance of domestic rail.

By now there were 400,000 new nine-foot crossties in place as well. Of this amount 8,000 were concrete. Five years later at least 165,000 concrete ties were being used, representing a higher percentage than any other U.S. railroad with the exception of the Florida East Coast Railroad. Most concrete ties were placed in the two active swamp areas through which the railroad must pass where ties constantly stay wet and wooden tie life is only about 15 years. Eventually all KCS ties in swamp areas will be replaced by concrete.

Bridge structures, along with accompanying maintenance costs, are being eliminated by the substitution of earth-fill embankments. Where necessity requires them, open-deck timber bridges are being replaced by concrete and steel structures, several of which have won design awards. Some recent changes have been made on the Texas line, but the KCS main-line route remains much the same as it was built under Stilwell's direction. The mountainous area of the railroad is today a little known feature of the KCS, but between Pittsburg, Kansas and Watts, Oklahoma there remains a 1.7 percent grade, while between Heavener, Oklahoma and DeQueen, Arkansas remains a 1.6 percent grade. Company officials believe one 10-degree curve near Lanagon, Missouri should be removed, but doing so would require removal of a granite mountain [Malone, 1979, 1982, & Shedd, 1984].

During the 1979 yard improvements at Kansas City, two new 3.5 mile tracks were added to enable longer unit trains to get through without stopping. Major yard improvements took place at Baton Rouge, Reserve, and Lake Charles, Louisiana as well. Lake Charles freightyards were new but already outgrown and an additional \$2.25 million was spent there to expand them. In spite of



greatly improved tracks derailments continued to be a problem, and were still reported to be twice the frequency considered average [Frailey, August 1979].

In 1979 farm products were earning lower profits than a decade earlier. They provided 9.8 percent of railroad tonnage and 12.4 percent of revenues while food and food products now contributed only 3.8 percent of tonnage and 5.7 percent of revenues. Tonnage from lumber was down but earnings the same. Lumber composed 12.3 percent of the tonnage and 8.7 percent of the revenue. Chemicals were most important, furnishing 13.3 percent of total tonnage and 18 percent of revenues. Petroleum and coal were only slightly less, making up 14.6 percent of tonnage and 16.5 percent of revenues [Hanson, 1980].

When railroad diversification took place (in a manner more than slightly remindful of Stilwell's business dealings) considerable income began to be earned from other sources all operating under the name of the Kansas City Southern Industries (KCSI). In Stilwell fashion these other sources are often used in conjunction with the railroad, as is the KCSI's Landa Motor Lines trucking company operating in 11 states which was formed to blend railroad carload traffic with highway transport. The real estate portion of the KCSI holds land adjacent to railway right-of-way (6,800 acres) which is available for industrial development to generate new traffic for the railroad. KCSI's microwave relay transmission system serves the needs of the railroad, and KCSI owns joint interest in the Lonestar Concrete Tie Company and uses its product on the railroad. Although KCS lines still remain the largest source of KCSI income, by 1983 other sources contained within the company were furnishing 33 percent of earnings, and by 1984 such income had grown until it nearly equaled railroad revenues [KCSI, 1983, 1984].

The Shreveport yards have continued to be expanded throughout the years.

In 1979 its locomotive repair shop expanded an additional 40 percent, at a cost of \$1.3 million. In addition, a small yard was built at Hughes Springs, Texas, to help alleviate some need for switching at Shreveport [Malone, 1979]. The Shreveport system (now known as the Deramus Yard) is supplier for 15 outlying maintenance points to which it ships supplies in special boxcars.

Among facilities at the Deramus Yard are a shop for heavy car repairs which is 300 feet in length, with a 30-ton overhead crane that spans five tracks. A special wheel shop provides the railroad with between 100 to 140 wheel-and-axle sets a month. All maintenance records are computerized, and a 5,000 square-foot addition to facilities at Shreveport was required just to store computer and office paper goods. All freight billing for the entire system is computerized and handled at Shreveport. Most customer orders are transacted within 45 seconds [Shedd, 1984]. Centralized traffic control, under which the line operates in its entirety from Shreveport, uses codes which travel by microwave. This has the favorable side-effect on the landscape of no line wires anywhere on the system.

The KCS owns approximately 314 locomotives and 7,000 freight cars, and between 30 to 35 road trains operate daily on the KCS system. About half of these are handled through the Deramus Yard. This yard contains the main line, the passing track, and eight receiving tracks. It has 31 classification and eight storage tracks. Usually switching 1,500 to 2,000 cars a day, it handles as many as 2,500 at peak times. A total of 19 men who work in shifts handle this operation.

Principal KCS operations are within Louisiana where the railroad has 735 miles of track. It operates 294 miles in Texas, 234 miles within Arkansas, 197 miles in Missouri, and only 24 miles in Kansas. The KCS owns 1,536 miles

of tracks, and operates an additional 125 miles under trackage rights. Of this amount, the L&A operates 642 miles of its own line and 102 miles under trackage rights. It is 864 miles from Kansas City to New Orleans via the L&A as compared to 786 from Kansas City to Port Arthur over the KCS.

The KCS provides a direct link between western trunk lines and transcontinental carriers at Kansas City in addition to the principal ports of the Gulf and southwestern trade centers. A large volume of tonnage is also interchanged with east-or west-bound trains at the following points: Eve, Joplin, and Neosho, Missouri; Pittsburg, Kansas; Ashdown, Arkansas; Sallisaw, Howe, and Poteau, Oklahoma; Shreveport, Louisiana; and Texarkana and Beaumont, Texas.

In 1983 principal revenues were from manufactured products, in particular those from the Beaumont-Lake Charles-Port Arthur area which the railroad carries northward, and coal, iron and steel pipe, machinery, and cement southbound. Of the total tonnage, approximately 41 percent originated and 76 percent terminated on the line. This traffic was composed of food and food products earning approximately 5 percent of the year's revenues; lumber and wood products earning 5 percent; farm products 7 percent; pulp, paper and allied products 11 percent; petroleum and coal products 13 percent; chemicals 19 percent, and coal 27 percent [Feeney, 1983 & Standard & Poor's Corp., 1984].

Because of low prices for petroleum, coal became almost an unknown commodity on the KCS for a while, until the energy crunch years began and interest in and need for coal was renewed. In 1977 the KCS began its first full year of operating unit coal trains. Profits from coal that year were approximately \$10 million, and nearly double that amount the next. They continued to rise. Lower revenues were being earned from other commodities during this time, and

coal earnings helped offset the lag [Malone, 1979]. In 1977 four utility companies were being served along the KCS lines. In addition to the shipment of Wyoming coal, mines in Sulphur Springs, Texas, were sending coal to a utility company on the line in east Texas, and eastern Oklahoma mines were exporting coal to Spain. The Welsh, Texas, utility plant was tripling capacity in 1979 to utilize one trainload of Wyoming coal daily. A Lake Charles utility company was being built to use this coal, and it seemed certain that petrochemical and paper plants along the line would be converting to coal as well. At this time KCS coal trains traveled 25 m.p.h. loaded and headed south, and 35 m.p.h. empty going north. Other railroads normally used 40 m.p.h. maximum speed on such trains. It was believed that the unit train's uniform loads were resulting in fewer breakdown problems in mountain areas. The only direct expense to such coal traffic is wear on the tracks. The KCS does not own its own unit trains for this commodity, but requires utility companies to furnish them. The KCS and Burlington Northern maintain a power pool for use in compiling coal trains. For this reason KCS units can be seen operating in Wyoming [Gross, 1982 & Frailey, September 1979].

Today shipments of agricultural and animal products are largely made up of wheat, corn, and processed grains shipped southward from the Midwest. The KCS-owned elevator handles substantial amounts of export grain at Port Arthur. One of the two elevators exclusively served by the KCS at Kansas City is owned by the railroad, which also handles grain from other Kansas City elevators reaching the line by reciprocal switching. The L&A serves the five-million-bushel public elevator at New Orleans [Standard & Poor's Corp., 1984].

Traffic from grain tends to be erratic, and not much grain is grown along

the KCS route today. Grain carried south by the railroad is largely that brought to Kansas City over the Chicago & North Western Railroad. To haul grain to Beaumont the KCS must compete for such traffic with another railroad, and fears eventual loss of such traffic in the future because of merger of the Chicago & North Western with other KCS competition. Grain is still being exported, but below the levels existing before President Carter's grain embargo [Frailey, September 1979]. Competition for export corn was stiff in 1984 from barge traffic moving down the Mississippi River [KCSI, 1984].

Lumber and wood are still carried by the KCS, however it is likely to be carried today in the form of paper and pulp. Such products portend promising future growth possibilities. At one time these commodities had been considered lost to the railroad, but they are now coming back because of the railroad's effort to link mills with scattered truck-served supply yards. In 1979 there were eight paper mills situated near the L&A lines. During 1984 the KCSI acquired its own sawmill at Mansfield, Arkansas. It will provide pine and hardwood to railroads, furniture manufacturing and lumber companies. Another new KCSI real estate holding is a cross tie treating facility at Vivian, Louisiana.

The KCS handles nearly 100 percent of all soda ash shipped from the United States through Gulf ports, shipping most of it through Port Arthur. Soda ash comes from Wyoming producers. It originates on the Union Pacific Railroad and is transferred to the KCS at Kansas City. If the Union Pacific merges with the Missouri Pacific that railroad could send it instead to a different port, such as Houston. To counteract such a possibility Port Arthur's facility to handle bulk commodities was modernized in 1983. It is the only major export facility of its type in the Gulf area [Malone, 1979, & KCSI, 1983, 1984].

The KCS' closest competitor, the Missouri Pacific, goes directly from the Gulf to both St. Louis and Chicago. The KCS has attempted to purchase other lines to reach into these areas to meet this problem, but such attempts have been turned down by the Interstate Commerce Commission. Merger plans of competing railroads are a serious threat to the KCS, promising the creation of vast railroad networks offering heavy competition to the KCS not only in the Gulf and Pacific seaboard market areas, but the more northern markets above Kansas City as well [KCSI, 1983].

In an attempt to avoid merger and strengthen its role as an essential competitor in the American railroad network new marketing methods have been made in recent years which combine old KCS traditions with new innovations. Among possibilities considered has been barge movement between KCS-served ports to haul coke, and adding railcar unloading capability at destination. Hauling more bulk goods in the future is considered important. It is probable that the railroad will attempt to acquire segments of other railroads to reach northern and eastern markets. Access to Chicago is considered extremely important, hopefully acting as a hedge against merger. [Malone, 1979].

More and more the KCS is looking towards intermodal traffic possibilities which will utilize the motor carrier authority it has acquired in 11 states. One connection with the Santa Fe Railroad ("The Big D") which operates between Dallas and New Orleans, is already almost entirely intermodal. In the future other similar arrangements may be made with several other carriers. A similar coordinated service arrangement has already been made with Burlington Northern to handle traffic through Kansas City from the Pacific Northwest and the Gulf [KCSI, 1983].

Kansas City facilities now include a holding yard for bulk commodities,

and terminals for tank cars and covered hopper cars. Trucks can deliver to customers within a 400-mile radius, and a goal of the railroad is to get shippers to promote this distribution center and view the KCS as "more than a railroad" [Malone, 1982, p. 2]. There will be more of this type of service offered in the future, possibly developing into something similar to unit trains.

Revenue in recent years has been offset by the necessity of maintaining the higher quality lines necessary to haul unit train coal traffic. Although such high standards will continue to be maintained, such expenditures have declined since 1980.

Government deregulation in 1983 has had an effect on the KCS even as it has upon its competition. Deregulation has the greatest effect upon traffic moving in boxcars, of major significance to the KCS because the greatest volume of its traffic has traditionally moved in boxcars. Since 1983 boxcar traffic has begun to shift to TOFC (trailer on flat car) and COFC (container on flat car) traffic, where it is the fastest growing business for the railroad. Such traffic contains less tons per rail car than boxcars, and the railroad officials believe it contributes very little to net income.

A brighter prospect is seen by the KCSI-owned LDX Group (similar to MCI and AT&T) which has recently constructed a fiber optics network along KCS rights-of-ways. This project cost LDX approximately \$100 million, but the KCS should benefit handsomely. U.S. railroad rights-of-ways are being used to connect the nation with systems of fiber optic cable being buried along their tracks. This will save the communication companies the huge expense and problems otherwise required in purchasing land and negotiations with countless property owners for the right to bury fiber optic cable. Utilizing rights-of-ways

of only a few railroads can achieve the same end. The entire project should be completed by about 1986, and will adequately furnish service to nearly every community in the United States. The KCS is one of the railroads which will soon reap a huge financial benefit from the project by leasing its rights-of-ways to its subsidiary company ["Fiber Optics & KCSI," 1984].

Revenues came recently from an unexpected source when the KCS-owned Calcasieu River bridge was destroyed in a barge accident in December, 1982. An insurance settlement of \$3.4 million was made for the bridge the next year. The bridge was dismantled, and will not be replaced. Trackage arrangements were made to use an adjacent railroad bridge instead.

Company revenue growth since 1980 has been attributed to a combination of both rate and volume increases in unit coal traffic in spite of declines in general commodity carloadings. In 1983 commodities increased two percent over 1982 as a result of improved economic conditions, railroad spending controls, and slightly lower fuel prices than the previous year. The \$3.4 million insurance settlement, although increasing company revenue, was not included in these revenue growth calculations. In 1984, however, company officials were concerned about the fact that profits from both coal and petroleum were beginning to decline [KCSI, 1983, 1984].

Today Port Arthur is listed as only 19th in size among American ports in terms of commerce handled. Loss of its importance undoubtedly has helped improve other KCS railroad-connected ports. New Orleans has regained her port status as first in commerce (167,135,226 tons). Baton Rouge ranks fourth (76,703,422) and Beaumont sixth (58,136,896). In 1982, 32,733,346 tons were shipped through Port Arthur. As Port Arthur citizens had feared, the city had indeed lost importance in comparison to its old rival Beaumont [St Louis



Post Dispatch, 1982].

In 1983 the KCSI was rated only a B+ investment by Value Line Investment, in spite of good future prospects because of an improving economy and plans for further diversification. A factor involved in this rating was the possibility of a merger. Value Line experts believed at that time that the KCS did not need to merge, and would remain economically viable even without the added benefit derived from becoming much less homogenous and earning considerable income from other sources. The next year Value Line rating had improved to B++, and the suggestion was made that long-term investors consider KCSI because of the probability of the railroad's merger. It now believed KCSI would be a good financial investment because the company was involved in other activities in addition to railroad operations which had considerable potential. It also projected that earnings should set a record in 1984. Railroad traffic had been improving the latter part of 1984 and into 1985.

In contrast to such bright predictions, the KCS claims that Santa Fe-Southern Pacific merger which is expected soon will reduce traffic revenue by \$27 million and net income by \$2.7 million per year. The KCS is negotiating with the Interstate Commerce Commission for trackage rights to maintain competition, a step which promises to improve its financial condition. The future effects of the recent successful merger of the Union Pacific and the Missouri Pacific railroads are feared by the KCS. The KCS was denied its requested review of the merger by the Interstate Commerce Commission [KCSI, 1983, 1984]. Questioning KCS officials on the possibility of its own merger with larger railroads always results in denial or polite sidestepping of the issue. Outsiders are sure it is only a matter of time.

Although the possibility of merger casts a shadow of uncertainty upon the future, the Kansas City Southern is today, as it was constructed, the most direct route between the Kansas City rail gateway and the Gulf of Mexico. It has made a profit in all but six of its 85 years, and is considered one of the most profitable railroads in the nation. The Value Line Investment Survey believes that future prospects for the KCS are good [1983, 1984].

As other railroads opened the West to settlement and development, the Kansas City Southern helped open the southwestern United States. Arthur Stilwell built his railroad at a time when doing so defied the economics of the era. The railroad he built was the only major U.S. railroad completed during the 1890 depression years. It was lost to him at the very threshold of its certain success. If he could have retained it and completed his plans it could well have reached Chicago, and some of today's problems within the system would not exist.

With the exception of passenger service, the commodities Stilwell originally intended his railroad to carry have remained profitable through the years. Even the depletion of pine forests which the railroad helped facilitate did not end such traffic, but helped spur conservation practices and new technology resulting in profitable new wood-product commodities. Rice has continued to be transported through the years, and although other grains such as corn or wheat have usurped its importance in tonnage, early KCS encouragement of its production transformed the regional agricultural landscape. Coal traffic, coveted by Stilwell and his board of directors, likewise has continued to be carried and has again reaped huge railroad income in recent years. Added to Stilwell's initial commodity roster have been profits from new natural resource discoveries and diversification of goods carried, in part because of technological innovation taking place during the last 85 years.

The pattern the KCS has assumed in 1985 hides the complexity of the elements that combined to build it as it appears today. As with most human endeavors, a wide range of often unexpected, even seemingly irrational components combined to make this railroad into what it is and what appears on the landscape because of it. Built through mountains, arid areas and swamps, through areas largely devoid of population to a cow-pasture terminus where a canal had to be dredged to reach the ocean, the railroad defied the "impossible" and became a success. Constructed quickly, cheaply, and "straight as the crow flies," it incurred high operating expenses that still plague the operation in 1985.

The route was not chosen because of terrain. Stilwell did survey ahead of construction, but surveying was as much for the purpose of locating town sites as for locating the railroad. He did not mind swerving the "straight as the crow flies" route slightly to secure traffic or take advantage of town solicitations. In addition, in Oklahoma, Arkansas, and Louisiana, routes were often dictated because of earlier competitive railroads.

Not all new towns survived or grew as desired. Few new railroad towns showed prosperity, and some did not survive. Several factors contributed. Already having lost the initial competitive advantage of existing older towns, they often were built too close to each other. Janssen, begun soon after Stilwell's successful promotion of Mena, was only 22 miles south, thus forcing competition for both population and industry. Another critical factor and perhaps the key to survival, seemed to be the necessity of industry diversification. Towns depending on one industry such as lumbering soon failed. Only towns such as Nederland and Port Arthur situated in highly industrialized areas could overcome all obstacles to both remain and flourish.

With the coming of the railroad, the geographical context of the area through which it passed changed. Towns sprang up along the line, and although they did not all survive or grow as desired, a cultural landscape replaced the natural one. Ironically, the physical properties of the KCS itself are perhaps even more visible on the landscape in towns which failed to prosper than in some of those which did. Almost always bisecting the town, tracks often command at least as much attention as town buildings, undoubtedly affecting the daily lives of most local citizens in various ways. In addition to new towns, the railroad brought change to the cultural landscape by bridging, grading, and dredging, as well as by constructing grain elevators, depots, hotels, and pleasure piers. This altered landscape did not remain static, but was revised through the years as the traffic changed or as the facilities were modernized. After Stilwell passed from the scene, the work and dreams of other entrepreneurs were incorporated into the original Stilwell creation. When new natural resources were discovered at the Gulf, the railroad was in place and able to reap profits from sources Stilwell hadn't known existed.

In 1912 Stilwell wrote that his vision had come true. There were fair lumber rates, a ready grain market, real estate values were no longer depressed, new grain elevators were being built everywhere in the area, and Kansas City had become the lumber and grain market of the Southwest. At one time he recounted his business objectives. He wrote, "In railroading there are three phases of the industry which require constant consideration in the development of a successful organization: the building of the road, its operation, and the building of business at points where it would otherwise be nonexistent" [Stilwell & Crowell, December 14, 1928, p. 78]. These business principles appear to remain today. In addition, the commodities he cultivated are still

important to the KCS, even though new ones have been added. He, as is the case today, never intended to reap all profits directly from the railroad. The Kansas City Southern is today, even as it was built, more than a railroad, and its route is still "straight as the crow flies."

## BIBLIOGRAPHY

- Abdill, George. (1960). Rails West. New York: Bonanza Books.
- Anderson, James A. (n.d.). (Scrapbooks). Missouri Valley Room, Kansas City Public Library, Kansas City, Missouri.
- a) A. E. Stilwell passes away. (1928, September 27). Kansas City Journal.
  - b) Kansas City Southern. (1941). Kansas City Southern Line Newsfolder
  - c) Memories turn to local career of A. E. Stilwell, giant of finance. (n.d.). Kansas City Journal Post.
  - d) Prospectus Arkansas Construction Co. of Kansas City, Mo. (1895, January 5).
  - e) Undated clippings and brochures.
  - f) Walters, Edward. (1895). Report on a southern trip, May 27 to July 26.
- Andreas, A. T. (1882). History of the State of Kansas. Chicago: R. R. Donnelly & Sons.
- Background on Development of Union Station. (n.d.). (xeroxed history). Kansas City, Missouri Union Station.
- Bank protection along the Missouri River. (1912, July 12). Railway Age Gazette, 53 (3), 120.
- Beaumont Convention & Visitors Bureau. (1985). (Miscellaneous leaflets and information). Beaumont, Texas.
- Beaumont, Texas. (1896, February 15). Railway Age, 22, 92.
- Beebe, Lucius & Clegg, Charles. (1965). The Trains We Rode (Vol. 1). Berkeley: Howell-North Books.
- Benedict, H. Y. & Lomax, John A. (1916). The Book of Texas. New York: Doubleday, Page.
- Bird, Merle. (1985, April 18). Rice is versatile as ever. The Topeka Capital Journal p. 12.
- Brown, A. E. (1981, Spring). The Louisiana & Arkansas Railway: structure and operation in the age of steam. Railroad History Bulletin 144. Railroad & Historical Society.
- Bryant, Keith L. Jr. (1971). Arthur E. Stilwell, Promoter with a Hunch. Nashville: Vanderbilt University Press.
- Cayne, Bernard S. (Ed.). (1981). Atlantic Intracoastal Waterway. The Encyclopedia Americana International Edition Vol. 2, Anarka to Azusa.

- Clark, Ira G. (1958). Then Came the Railroads. Norman: University of Oklahoma Press.
- Cleveland, Frederick Albert & Powell, Fred Wilbur. (1909). Railroad Promotion and Capitalization in the United States. New York: Longmans, Green.
- Connor, Seymour V. (1971). Texas. New York: Thomas Y. Crowell.
- Cotterill, R. S. (1917, March). Southern railroads and western trade, 1840-1850. The Mississippi Valley Historical Review, 3, (4).
- Could not withstand the wind. (1897, March 8). Kansas City Star.
- Cousins, Garnet R. & Maximuke, Paul. (1978, August). The station that looks like a hotel. Trains, p. 41.
- Dallas Morning News. (1978). Texas Almanac 1972-1973. Dallas: A. H. Belo.
- Davis, Edwin Adams. (1975). Louisiana the Pelican State. Baton Rouge: Louisiana State University Press.
- Department of the Interior, Census Office. (1897). Report on Population of the United States at the 11th Census: 1890. Washington: Government Printing Office.
- DeQueen. (1897, April 17). Kansas City Star.
- DeQueen Chamber of Commerce. (1985). (Miscellaneous brochures and information). DeQueen, Arkansas.
- Deramus, W. N., III. (n.d.). Kansas City Southern Lines to patrons and friends of Kansas City Southern Lines we deeply regret... (Leaflet). KCS offices.
- Distinguished Biographers. (1967). Stilwell, Arthur E. The National Cyclopaedia of American Biography (Vol. 14, p. 460). New York: James T. White.
- Doohan, John J. (1983, December 4). Album. Star Magazine, p. 24.
- Draper, William R. (1947, October). Kansas City Southern. Railroad Magazine, pp. 12-39.
- Emerson, F. V. (1919, January-June). The southern long-leaf pine belt. The Geographical Review, 7, 81-90.
- Fairmont Chautauqua. (1897, May 31). Kansas City Star.
- Federal Writers' Project for the Work Projects Administration. (1940). Texas, a Guide to the Lone Star State. American Guide Series. New York: Hastings House.

- \_\_\_\_\_. (1941). Missouri, A Guide to the Show Me State. New York: Duell, Sloan & Pierce.
- \_\_\_\_\_. (1943). Louisiana. Baton Rouge: Louisiana State University.
- Feeney, James. (Ed). (1983, September-October). The Official Railway Guide, p. 212. New York: National Railway.
- Fiber Optics. (1984, November 19). The Lincoln Star, Lincoln, NE, p. 4.
- Fletcher, John Gould. (1947). Arkansas. Chapel Hill: The University of North Carolina Press.
- Flood in Kaw Valley, (1903, May 29). Kansas City Star.
- Frailey, Fred W. (1979, August). The Kansas City Southern Story 1. The railroad that unraveled. Trains, pp. 22-30, 32.
- \_\_\_\_\_. (1979, September). The Kansas City Southern Story 2. President Carter (Tom that is) puts a railroad back together. Trains, pp. 22-32.
- Freight rates slashed. (1896, May 13). Kansas City Star.
- Garwood, Darrell. (1948). Crossroads of America. New York: W. W. Norton.
- Gibson, Arrell M. (1972). Wilderness Bonanza. Norman: University of Oklahoma Press.
- \_\_\_\_\_. (1981). Oklahoma, a History of Five Centuries. Norman: University of Oklahoma Press.
- Glaab, Charles N. (1962). Kansas City and the Railroads. Madison: State Historical Society of Wisconsin.
- Gould, Charles N. (1933). Oklahoma Place Names. Norman: University of Oklahoma Press.
- Great cities are not accidents. (1897, February 28). (Advertisement). Kansas City Star.
- Gulf ports and traffic. (1897, February 3). Kansas City Star.
- Greater Baton Rouge Chamber of Commerce. (1985). (Miscellaneous leaflets and information). Baton Rouge, Louisiana.



- Gross, Lisa, (1982, September 13). Who needs merger. Forbes, p. 86.
- Haag, H. F. (1925). A brief history of the Kansas City Southern Railway System. (Unpublished manuscript). KCS offices.
- Halsey, William D. & Freedman, Emanuel (Eds.). (1983). Colliers Encyclopedia. New York: MacMillian Educational.
- Hanson, Robert P. (Ed.). (1980). Kansas City Southern Railway Co. Moody's Transportation Manual, pp. 667-671. New York: William O. Dwyer.
- Harrington, Grant W. (1935). Historic Spots. Merriam: Mission Press.
- Haskell, Henry C., Jr. & Fowler, Richard B. (1950). City of the Future. Kansas City: Frank Glenn.
- Healthy growth at Mena. (1897, March 7). Kansas City Star.
- Henry, Robert Selph. (1942). This Fascinating Railroad Business. New York: Bobbs-Merrill.
- Herndon, Dallas T. (Ed.). (1922). Centennial History of Arkansas (Vol. 1). Arkansas Historical Commission. Chicago: S. J. Clarke. (Reprinted by Southern Historical Press).
- Holmes, Jack D. L. (1969). Louisiana trees and their uses: Colonial period. Louisiana Studies, 3 (1), 36-67.
- Hope-Hempstead County Chamber of Commerce. (1985). (Miscellaneous brochures). Hope, Arkansas.
- Howe, S. Ferd. (1886). Commerce of Kansas City in 1886. Kansas City: Ramsey, Millett & Hudson.
- Hubbard, Freeman. (Ed.). (1975, July). Passenger train survey. Railroad Magazine, p. 22.
- Invest in Port Arthur. (1896, December 23). Kansas City Star.
- Joplin Chamber of Commerce. (1985). (Miscellaneous leaflets and information). Joplin, Missouri.
- Kansas City, Missouri Chamber of Commerce. (1938). Where These Rocky Bluffs Meet, Including the Story of the Kansas City Ten-Year Plan. Kansas City: Smith-Grievess.
- Kansas City, Pittsburg & Gulf Railroad Company. (1895, October 30). Kansas City Pittsburg & Gulf Railroad Company to home-seekers and the public generally. (Advertisement). Kansas City Star.
- \_\_\_\_\_. (1896, July 2). The Port Arthur Route.

- \_\_\_\_\_. (1897, January 19). Port Arthur's prosperity is based on the logic of facts.
- \_\_\_\_\_. (1897, February 4). Janssen.
- \_\_\_\_\_. (1897, February 10). Study the map.
- \_\_\_\_\_. (1897, March 9). From the new Pittsburg & Gulf.
- \_\_\_\_\_. (1897, June 7). Opening of the town.
- \_\_\_\_\_. (1897, July 11). Mt. Mena.
- \_\_\_\_\_. (1898). Annual Report of the Kansas City Pittsburg & Gulf Railroad Company year ending June 30, 1898.
- Kansas City Southern Railway Company (1901, July 1a). Industries on the line of the KCSR. K. C. S. Railway Current Events, p. 24. KCS offices.
- \_\_\_\_\_. (1901, July 1b). Rice culture on the gulf, p. 29.
- \_\_\_\_\_. (1910, July) Experiment farm at Bon Ami, Louisiana, p. 127.
- \_\_\_\_\_. (1913, October). Activities of the KCS demonstration train.
- Kansas City Southern Industries, Inc. (1983). Annual Report. KCS offices.
- \_\_\_\_\_. (1984).
- Kansas City Star. (1890, March 7). p. 6.
- Kennan, George. (1922). The Kansas City Southern episode. E. H. Harriman (Vol. 1, pp. 214-231). Boston: Houghton Mifflin.
- Kilman, Lawrence. (1984, December 27). Most Texans comfortable with chemical neighbors. Topeka Capital-Journal, p. 16.
- Laird, Judith Ann. (1975). Argentine, Kansas: The Evolution of a Mexican American Community, 1905-1940. Unpublished doctoral dissertation, University of Kansas.
- Lloyd, Peter E. & Porter Dicken. (1977). Location in Space. New York: Harper & Row. (Original work published 1972).
- Lyon, Marguerite. (1947). Hurrah for Arkansas! Indianapolis: Bobbs-Merrill.
- Malone, Frank (Associate Ed.). (1979, June 25). A lean little road with a PIP of a program. (Reprint by KCS). Railway Age. KCS offices.
- \_\_\_\_\_. (1982, August 30). Kansas City Southern: marketing to stay independent.

- Marion County Chamber of Commerce. (1984). Community Profile. Jefferson, Texas.
- McMasters, Rose. (1936). Origin & Development of the Kansas City Southern Railway Company. Unpublished master's thesis, The University of Missouri, Columbia.
- McReynolds, Edwin C. (1954). Oklahoma A History of the Sooner State. Norman: University of Oklahoma Press.
- Mena/Polk County. (1985). (Miscellaneous brochures and information). Mena, Arkansas.
- Moody, John. (1919). The Railroad Builders. New Haven: Yale University.
- Morgan, David P. (Ed.). (1970, February). Arrivals & departures. Trains, p. 11.
- \_\_\_\_\_. (1976, June). News & editorial comment, p. 9.
- \_\_\_\_\_. (1978, November). p. 12.
- Morris, John W., Goins, Charles R., & McReynolds, Edward C. (1976). Historical Atlas of Oklahoma. Norman: University of Oklahoma Press.
- Mt. Mena, on the P & G. (1897, July 9). Kansas City Star.
- Nederland Chamber of Commerce. (1985). (Miscellaneous leaflets and information). Nederland, Texas.
- Neff, Philip & Williams, Robert M. (1954). Industrial development of Kansas City. Kansas City: Federal Reserve Bank of Kansas City.
- New Deramus Railway Yard is dedicated. (1956, March 24). Shreveport Journal.
- A new north and south line. (1896, May 16). The Railway Age and Northwestern Railroader, 254.
- New towns on the P & G. (1897, February 3). Kansas City Star.
- Odell, Andrew C. & Richards, Peter S. (1971). Railways and Geography. London: Hutchinson University Library.
- O'Hanlon, James. (1978, July 24). The little railroad that went astray. Forbes, p. 66.
- On to the gulf. (1895, September 30). Kansas City Star.
- P & G Jubilee Week. (1897, March 7). Kansas City Star.
- Pittsburg Area Chamber of Commerce. (1985). (Miscellaneous leaflets and information). Pittsburg, Kansas.

- Pletcher, David M. (1958). Rails, Mines, and Progress: Seven American Promoters in Mexico, 1867-1911. American Historical Association. Ithica: Cornell University.
- Poor, H. V. & Poor, H. W. (1893). Poor's Manual of Railroads 26th Annual. New York: H. V. & H. W. Poor.
- Port Arthur is all right. (1897, January 27). Kansas City Star, p. 10.
- Port Arthur on the gulf. (1897, March 8). Kansas City Star, p. 2.
- Porter, John Sherman (Ed). (1950). The Kansas City Southern Railway Co. Moody's Manual of Investments American & Foreign. American Steam Railroad Companies, p. 204. New York: Author.
- \_\_\_\_\_. (1960). Moody's Transportation Manual, Moody's Investment Services, p. 843. New York: D. F. Shea.
- Pushing on to the gulf. (1895, May 7). Kansas City Star, p. 8.
- Poteau, Oklahoma Chamber of Commerce. (1985). Poteau, Oklahoma.
- a) (Miscellaneous brochures and information).
  - b) Peck, Henry L. (n.d.). A history of an Oklahoma county (xerox of Chapter XVIII). Proud heritage of LeFlore County.
- Railway Age. (1895, September 13). 452.
- \_\_\_\_\_. (1895, December 20). 20, 635.
- \_\_\_\_\_. (1896, January 10). 24.
- \_\_\_\_\_. (1896, January 17). 38.
- Railway Age Gazette. (1912, October 11). 53 (3), 120.
- \_\_\_\_\_. (1912, December 27). 1243.
- A railway into Siloam. (1894, January 18). Kansas City Star, p. 6.
- Rand McNalley. (1984). Commercial Atlas & Marketing Guide.
- Reed, Merl E. (1966). New Orleans & the Railroads 1830-1860. Baton Rouge: Louisiana State University Press.
- Resolution of the Board of Trade. (1883, January 25). Kansas City Times.
- Richmond, Robert W. (1974). Kansas A Land of Contrasts. St. Charles, MO: Forum Press.
- Ripley, William Z. (1915). Railroads Finance & Organization. New York: Longmans Green.

- Rochelle, John R. (1969). Port Arthur: A History of the Port. Unpublished Masters Thesis, Lamar State College of Technology, Beaumont, Texas.
- Ruth, Kent & others. (1941). Oklahoma, a Guide to the Sooner State. Norman: University of Oklahoma
- Sabine Parish Tourist Commission. (1985). Many, Louisiana.
- a) Burns, Anna C. (1979, September 6). The golden age of lumbering (clipping). The Sabine Index.
  - b) (Miscellaneous brochures and information).
- Saga of Kansas City Southern Lines (n.d.). KCS offices.
- The Sallisaw Chamber. (1985). (Miscellaneous information). Sallisaw, Oklahoma.
- Sauer, Carl O. (1968). The Geography of the Ozark Highland of Missouri. New York: Greenwood Press. (Original work published 1920).
- Self, Nancy Hope. (1971). Building of the railroads. Chronicles of Oklahoma, 49 (2). Murial H. Wright (Ed). Oklahoma City: Oklahoma Historical Society.
- Shanabruh, Charles, (1977, Spring). The Louisiana immigration movement, 1891-1907: an analysis of efforts, attitudes, and opportunities. Louisiana History. Glenn R. Conrad (Ed.). 17 (2), 211. Lafayette, Louisiana: Louisiana Historical Association.
- Shedd, Tom. (1984, February). Rail-oriented traffic base helps as KCS seeks to stay independent. (Reprint by KCS). Modern Railroads.
- Shipping beef to England. (1897, July 11). Kansas City Star.
- In Shreveport today. (1897, March 2). Kansas City Star, p. 1.
- St. Louis Post Dispatch. (1982). World Almanac & Book of Facts. New York: Newspaper Enterprise.
- Standard & Poor's Corporation. (1984, August 16). Kansas City Southern Ry. Co. Standard Corporation Descriptions, F-K, p. 2313. New York: Author
- State of Missouri. (1898). State of Missouri Twenty-second Annual Report, Year ending 6/30/1897. Jefferson City: Tribune Printing.
- \_\_\_\_\_. (1899). State of Missouri Twenty-third Annual Report of the Railroad & Warehouse Commissioners, Year Ending 6/30/1898. Jefferson City: Tribune Printing.
- Stilwell, Arthur E. (1910). Confidence or National Suicide. New York: Bankers.

\_\_\_\_\_. (1912). Cannibals of Finance. Chicago: Farnum.

Stilwell, Arthur E. & Crowell, James R. (1927, December 3). I had a hunch. Saturday Evening Post, pp. 3-4, 161-162, 165-166, 168.

\_\_\_\_\_. (1927, December 17). pp. 24, 26, 96, 98, 101-102.

\_\_\_\_\_. (1927, December 31). pp. 24, 26, 77-79.

\_\_\_\_\_. (1928, January 28). pp. 26, 83, 86, 89-91, 94.

\_\_\_\_\_. (1928, January 14). pp. 31, 70-72, 77-78.

Stokes, George Alwin. (1954). Lumbering in Southwest Louisiana A Study of the Industry as a Culturo-Geographic Factor. Unpublished dissertation for doctorate in Department of Geography & Antropology at Louisiana State University.

The story of the Kansas City promoter who bucked the panic of 1893. (1939, October 8). Kansas City Star.

Stroup, Louis. (1946). Pittsburg Headlight & Sun. (Reprint by KCS) KCS offices.

- a) KCS modernizing its system; to get world's most powerful diesel locomotive in November.
- b) Deramus, KCS President started with line in Pittsburg 38 years ago.
- c) Exciting history in development of K.C.-to-Gulf railroad dream.
- d) Main KCS shops in Pittsburg handle major repairs; northern division headquarters here.
- e) Gulf Coast terminals of KCS set in maze of industries; strange sights for Kansans.

Taaffe, Edward J. & Gauthier, Howard L. (1973). Geography of Transportation. Prentice-Hall: New Jersey.

Thompson, Slayson. (1914). New union passenger station at Kansas City. The Railway Library and Statistics, p. 311. Chicago: Stromberg, Allen.

Totten, C. C. (Ed.). (1967, April). The Official Guide of the Railways and Steam Navigation Lines of the United States. New York: National Railway.

Twenty-five cars of Leavenworth flour will go south to-morrow. (1897, March 7). Kansas City Star.

- Two new railroad towns. (1890, October 25). Kansas City Star, p. 8.
- U. S. Bureau of the Census. (1960). Historical Statistics of the United States, Colonial Times to 1957. Washington: Government Printing Office.
- U. S. Census Office. (1900). Population, Twelfth Census of the United States (Vol. 2). Washington: U. S. Census Office.
- U. S. Department of Commerce. (1980). Characteristics of the Population, Arkansas. Bureau of Census, Number of Inhabitants (Vol. 1). Washington: Government Printing Office.
- \_\_\_\_\_. Missouri.
- \_\_\_\_\_. Oklahoma.
- \_\_\_\_\_. Texas.
- U. S. Geological Survey. (1979). Rich Mountain Arkansas quadrangle (1:2400).
- U. S. Interstate Commerce Commission. (1909). 20th Annual Report on the Statistics of Railways in the United States for year ending 6/30/1907. Washington: Government Printing Office.
- Value Line Investment Survey. (1983, August 19). Part I, Summary & Index. New York: Author.
- \_\_\_\_\_. (1984, October 9).
- Will push to the Gulf. (1892, July 21). Kansas City Star.
- Work on the Pittsburg & Gulf. (1896, May 12). Kansas City Star.
- Whitney, Carrie Westlake. (1908). Kansas City Missouri, Its History and Its People (Vol. 1). Chicago: S. J. Clarke.
- \_\_\_\_\_. (Vol. 2).
- Zornow, William Frank. (1957). Kansas, A History of the Jayhawk State. Norman: University of Oklahoma Press.

STRAIGHT AS THE CROW FLIES: HISTORICAL GEOGRAPHY OF THE  
KANSAS CITY SOUTHERN RAILWAY COMPANY

by

Wilma F. Baruth

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AN ABSTRACT OF A MASTER'S THESIS

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## ABSTRACT

The Kansas City Southern Railway was built under the direction of Arthur E. Stilwell, who conceived the idea to build a railroad from Kansas City, Missouri, to an area 14 miles from the Gulf, where he built a city, named it after himself, and dredged a canal to reach salt water. During the 1890 depression years, Stilwell almost singlehandedly raised all necessary funds from the Netherlands to build the railroad, which was at first named the Kansas City Pittsburg & Gulf (KCPG).

Building largely through virgin territory, the company had to promote new towns to draw population and create traffic for the railroad. Initial traffic consisted of coal, timber, and passengers. The new railroad opened virgin pine forests in Louisiana, and contributed to the decimation of them. Stilwell's Nederland Rice Farm near Port Arthur created an interest in rice-growing in the Gulf area, and rice became Louisiana's leading agricultural commodity for a while; it is still grown there today.

Stilwell's goal of building a short, "straight as a crow flies" route to the Gulf made it necessary to ignore natural terrain insofar as possible, resulting in high operating costs that still plague the railroad today. Because profits from the railroad could only be negligible until a through line to the Gulf was opened and because funds were scarce during the depression, it was imperative to build as quickly and as cheaply as possible. Quality of construction was ignored, resulting in delay in opening the line and high replacement costs in ensuing years. Delays and huge indebtedness caused default in interest payments, and Stilwell and his friends and business associates lost control of the KCPG when it was forced into receivership.

Following reorganization, the KCPG in 1900 assumed the name of the Kansas City Southern Railway Company (KCS), which it has retained to the present.

In 1939 the KCS merged with the Louisiana & Arkansas Railway Company (L&A), which operates chiefly in Louisiana. Today the L&A operates within the KCS system under its own name. The KCS and L&A cross at Shreveport, Louisiana, where the Deramus Yard facilities are the hub of the system. Main KCS offices are in Kansas City, Missouri.

Originally constructed to be the shortest route to the Gulf from Kansas City, the railroad, through its merger with the L&A, has obtained the shortest route from Kansas City to New Orleans, as well. Today the system reaches a total of five points accessible to the Gulf.

Although the main line has been upgraded in quality, its route remains largely as it was built by Stilwell. Many railroad-promoted towns can still be seen on the map or landscape, and many of the commodities Stilwell carried on the railroad are still important to the KCS. The KCS has become one of the most prosperous railroads in the U. S., and, though its future remains unclear because of speculation about merger, its operation in 1985 bears a striking resemblance to those methods employed by Arthur E. Stilwell when he built the railroad.