

THE UNIVERSITY OF OKLAHOMA

CANADIAN COUNTY: A GEOGRAPHIC STUDY
OF A RURAL LANDSCAPE

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IN CANDIDACY FOR THE DEGREE OF
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DEPARTMENT OF
GEOLOGY AND GEOGRAPHY

BY

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INTRODUCTION

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INTRODUCTION

Canadian County comprises an area of 891 square miles and is located just west of the center of the State of Oklahoma. The eastern boundry is eight miles west of Oklahoma City. The area began its history as a crossway for Spanish, French, and American explorers and traders. It was a grazing ground for buffaloes which were hunted by the Indians for food and clothing and later exterminated by white men who hunted them for commercial purposes. The Indians, whose source of food was exhausted, were forced to accept reservations. The Cheyenne and Arapahoes received a reservation in western Oklahoma with their Agency at Darlington, from which place they received their issue of food and clothing.

After the slaughter of the herds of buffalo, the prairies were utilized by herds of Texas cattle as they were driven north to Kansas markets. The cattle drives were followed by ranchmen who leased the land from the Indians.

The area is unique and interesting in many ways. It was a land occupied by the Indians with white settlement forbidden. However, the agitation of newspapers, railroads, and Boomers was successful in getting the land opened to settlement. The opening was one of the most remarkable events of history. By means of race, a homesteader occupied every quarter section of land in six hours time, a thing which it had

taken fifty years to do in other states. The husbandmen, who took the place of the herdsmen, were composed of a composite group of people from twenty-seven different states and were evenly distributed over the area. The settlers immediately began developing their homesteads. They built houses, broke the sod, and planted crops. Those from humid areas practiced the type of agriculture to which they had been accustomed. After tilling the soil for a few years, farmers recognized regional differences in relief, soil, and available markets and began growing the crops best adapted to their particular area. In so doing, there was a readjustment in population and a gradual shifting in the size of farms. Population tended to become more sparse and farms large where wheat was grown while a dense population and smaller farms was a result in the area growing cotton. Only forty-one years have passed since the time of settlement, yet the action of the cultural forces on the edaphic forms during that period of time has resulted in the development of six cultural areas in the county, each having its distinct characteristics. Wheat is the predominating crop in a major part of the county where large well improved farms are operated by the use of power machinery. The prosperity derived from growth of corn, alfalfa, and wheat in the river valleys is revealed in large two story houses and good buildings. The west central part has average size farms on which wheat and row crops are grown. Cotton reaches its

highest acreage in the aeolian belt. The poor people of the southwestern part of the county grow cotton on small farms. Oklahoma City provides an available market for vegetables and fruits grown on small farms in the southwestern part of the county.

As some of the settlers who made the run were establishing themselves as farmers others, appreciating the need for agricultural trade centers, came to build towns. As railroads were constructed across the county and trunk lines developed, more towns were built. For several years there was an interdependence of trade between the numerous small towns and the immediate adjacent rural districts. The building of good roads and the development of rapid means of transit by automobile caused a reorientation of trade areas. El Reno's trade sphere has slowly increased until it now exacts tribute from the entire county. The small towns have declined notably retaining only some grocery, grain, mail, and banking trade.

Although El Reno absorbs trade from all the county the influence of Oklahoma City's trade is felt throughout the entire extent of the county.

This study is a discussion of the gradual changes of the rural landscape of Canadian County. Thus far, this is the first actual study of a rural landscape which has emanated from

the department of geography. This study suggests a technique and presents a method that can be applied in further studies. The most successful plan for future interpretations of the rural landscape will involve much field work. It is hoped that readers will become interested in this phase of geography, make similar studies of counties throughout the state, and establish a plan of study.

The leading facts derived from material used in the discussion of this area may be summarized as follows: (1) that pioneering culminated in the unusual manner of settlement which resulted in an even distribution of population over the entire county; (2) that the action of cultural forces upon the natural landscape has resulted in a rural scene whose outstanding characteristic is regional diversity; and (3) that the interdependence of rural districts with urban centers is shifting from small towns to the larger centers. The conclusions drawn from this interpretation of land appropriation and development of cultural areas could probably be extended with little modification to include the entire area of Central Oklahoma.

CHAPTER I

THE HISTORICAL BACKGROUND OF THE RURAL LANDSCAPE

During the early stages of the appropriation of the west by white settlers, Oklahoma was a crossway for Spanish, French, and American explorers and traders. Within¹ a half century after the discovery of America, a Spanish expedition made its way across the state in search of minerals and precious stones. Failure to find the desired treasure was not discouraging to later expeditions as the Spanish traversed the area frequently during the next one hundred fifty years.

The last of the Spanish were followed by the French explorers who paddled up the rivers in canoes and established fur trading posts here and there along the streams. The French were friendly to the Indians for commercial reasons and purchased furs² and buffalo hides from them.

Soon after the purchase of Louisiana in 1803, American explorers, traders, and freighters deemed it necessary to pass across the country in the course of their journeys.

The early routes conformed closely to the drainage lines and became more numerous as the years passed. The exploring parties of Major Stephen H. Long and Nathan Boone³ traveled

1 Wyatt and Rainey, History of Oklahoma, (Oklahoma City, 1919) 20.

2 Ibid., 23

3 Captain Nathan Boone's Journal, Chronicles of Oklahoma, VII, March 1929, 97.

along the divides which were later followed by wagon trains⁴ from Van Buren, Arkansas, to Sante Fe, and by gold seekers en route to California (figure 1). Three garrisons⁵ of retreating soldiers tramped out a dim trail in the vegetation as they traveled northward along the ninety-eight meridian. Traders and freighters followed the dim trail made by the soldiers and within a few years a line of travel was established and named the Chisholm Trail (figure 1).

The great open country not only served as a highway for travel but thousands of buffalo fed on the luxuriant prairie grasses and provided a source of food for the Indians. As more white men entered the country, they began to appreciate the economic gain that could be derived from the sale of buffalo hides. Hunters⁶ acquired much wealth from the sale of buffalo hides. A few years after the slaughter of the buffalo, others engaged in a profitable business by gathering up the bones and shipping them to eastern markets.

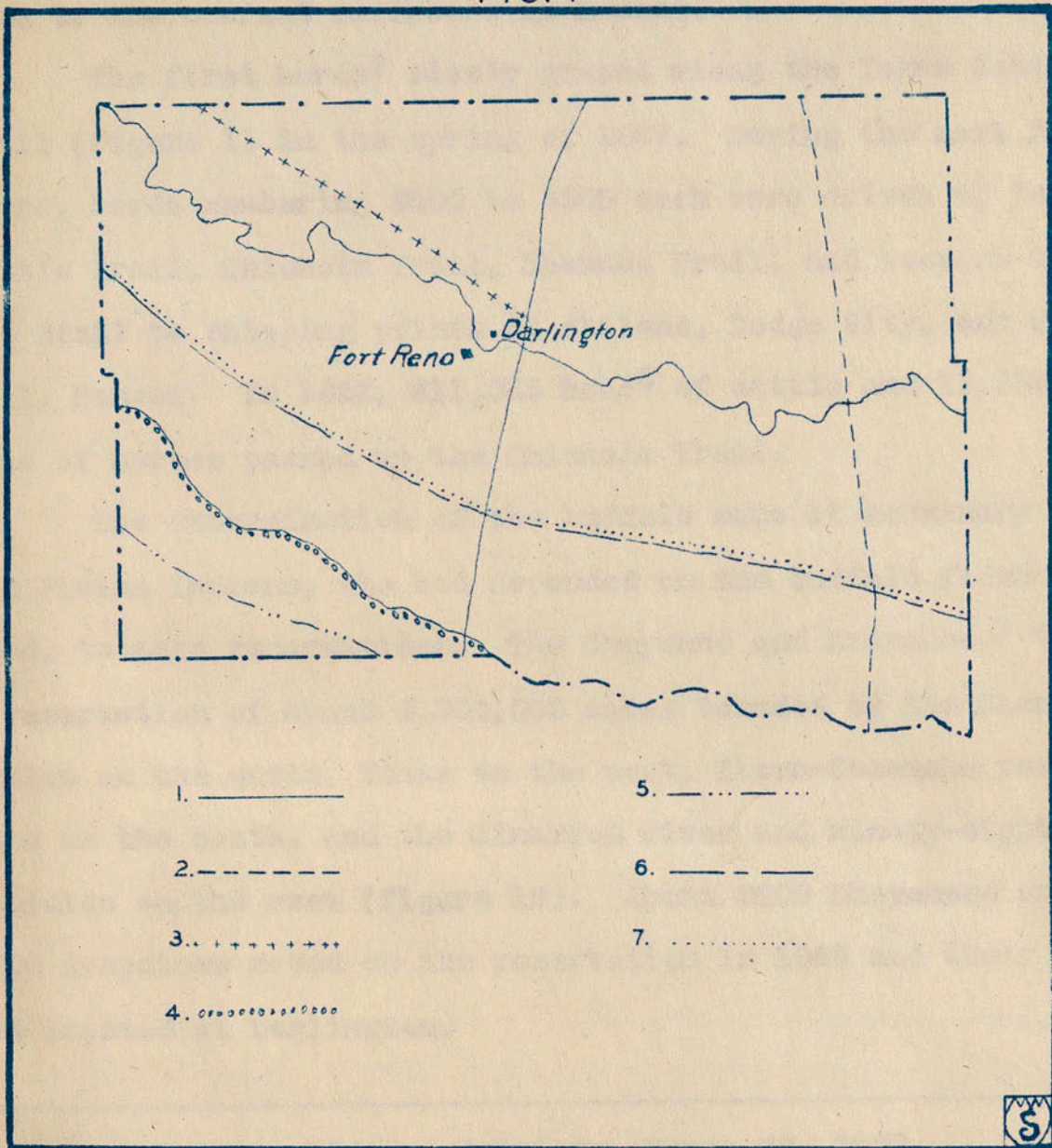
The killing of the buffalo gave impetus to the cattle industry. When the men of Texas returned home after the Civil War, they found there had been a remarkable increase in the size of their herds, yet they had no available markets. The Texas cat-

4 J. B. Thoburn, History and Government of Oklahoma, (no title page), 39.

5 Anette Blackburn Ehler, Along the Chisholm Trail, Rock Island Magazine, Oct. 1922, 80.

6 Hatcher and Montgomery, History of Oklahoma, (Oklahoma City, 1924), 112.

FIG. 1



TEMPORARY ROUTES AND TRAILS

- 1. CHISHOLM TRAIL
- 2. TEXAS CATTLE TRAIL
- 3. ROAD TO CANTONMENT
- 4. SURVEY FOR ROAD
- 5. CALIFORNIA ROAD
- 6. WAGON TRAIN
- 7. EXPLORING EXPEDITION

tlemen did the most natural thing and drove the herds northward to the nearest railroads in Kansas.

The first herds⁷ slowly grazed along the Texas Cattle Trail (figure 1) in the spring of 1867. During the next few years, herds numbering 2500 to 3500 each were driven up Texas Cattle Trail, Chisholm Trail, Shawnee Trail, and Western Cattle Trail to shipping points at Abilene, Dodge City, and Caldwell, Kansas. In 1882, 211,033 head⁸ of cattle and 11,354 head of horses passed up the Chisholm Trail.

The extermination of the buffalo made it necessary for the Plains Indians, who had depended on the buffalo flesh for food, to take reservations. The Cheyenne and Arapahoes⁹ took a reservation of about 4,300,000 acres bounded by the Cherokee Outlet on the north, Texas on the west, Kiowa-Comanche reservation on the south, and the Cimarron river and ninety-eighth meridian on the east (figure 19). About 2000 Cheyennes and 1100 Arapahoes moved on the reservation in 1869 and their Agency was located at Darlington.

7 J. B. Thoburn, El Reno American, March 22, 1928.

8 Cheyenne Transporter, July 25, 1882.

9 Luther B. Hill, A History of the State of Oklahoma, I, (Chicago, 1908), 135.

The Government intended for the Indians to practice farming and provided seeds¹⁰ and implements for their use and a farmer to give them instructions. At one time the Agency received a shipment¹¹ of over 400 plows for the use of the Indians. The Agency and schools plowed fields, built fence, and planted corn,¹² wheat,¹³ oats, millet, and fruit trees. At first very few Indians did any farming since all their supplies including food and clothing were issued to them.

After the Indian¹⁴ uprising of 1874, the Cheyennes farmed about 150 acres of land and harvested a very good crop. In 1879, the Cheyenne and Arapahoes¹⁵ cultivated 1180 acres of land, raised 9540 bushels of corn, put up 175 tons of hay and built 180 rods of fence.

An outbreak of the Cheyenne Indians in 1874 was subdued when five companies of troops arrived from Fort Sill and Fort Leavenworth. It was deemed unwise, thereafter, to leave the

10 Jessie Fremont Bender, The Cheyenne and Arapaho Indians, (Thesis, 1930), 26.

11 Cheyenne Transporter, Oct. 25, 1885.

12 Ibid., Apr. 13, 1884.

13 Ibid., June 30, 1885.

14 John H. Seger, Early Days Among the Cheyenne and Arapaho Indians, (Norman, 1923), 27.

15 Cheyenne Transporter, May 10, 1881.

Agency unguarded so an army post¹⁶ was established just across the river from Darlington and named Fort Reno. The garrison numbered 300 men in 1880. Two companies were colored. The officers¹⁷ and their families occupied five sets of double houses.

The trader's store operated by Evans Brothers was unable to supply fresh vegetables because of the long distance from market so the officers had several acres plowed¹⁸ and used it for gardens. Some of the women raised flocks of pure bred chickens.

The grazing land which once supported large herds of buffalo now provided food for herds owned by the school children. In 1880, they were issued 1500 cattle¹⁹ and 600 cows²⁰ were added to the herd in 1883. The government herd ranged in a pasture six miles northwest of the Agency.

Contractors,²¹ who supplied beef for the weekly rations, were permitted to graze their stock on the reservation. Cattlemen also began pasturing their herds there. The government

16 W. B. Morrison, Oklahoma Forts, The Daily Oklahoman, July 10, 1927.

17 A. P. Jackson, Oklahoma, (Kansas City, 1885), 121

18 D. B. Dyer, Fort Reno, (New York, 1896), 52.

19 Cheyenne Transporter, Aug. 25, 1880.

20 Ibid., June 10, 1883.

21 E. E. Dale, Cattle Ranching in the Cheyenne and Arapaho Reservation, Chronicles of Oklahoma, VII, 1928.

opposed such a practice and sent soldiers to remove the cattle but they were unable to keep the herds off the reservation. By 1882, cattle²² were pastured in much of western Oklahoma. The Cheyenne and Arapahoe Indians wanted to lease the land to the ranchmen but the government refused to let them. Nevertheless, in 1883, beef rations were reduced and the Indians²³ leased 3, 117,800 acres of their land to seven cattlemen for two cents an acre. An opposing faction of Indians caused trouble on the range and all herds were ordered off the reservation in 1885.

The occupation of the grazing land caused others to become interested in the Oklahoma country. The railroads were the first to agitate opening the land to settlement. The free land was discussed by newspaper articles. A group of farmers called Boomers tried to establish colonies in the Unassigned Lands, located in the center of modern Oklahoma (figure 19). Each time they were arrested and sent out of the territory. The principal occupation²⁴ of the garrison at Fort Reno from 1880 to 1885 was connected with keeping the Boomers out of Oklahoma Territory.

An enumeration of some of the attempts at colonization

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- 22 Dale and Buchanan, A History of Oklahoma, (Chicago, 1923), 178.
23 E. E. Dale, Ranching On the Cheyenne and Arapaho Reservation, Chronicles of Oklahoma, VII, 1928, 43.
24 W. B. Morrison, Oklahoma Forts, The Daily Oklahoman, July 10, 1927.

would include a camp which was established near Stillwater, another on the North Canadian river near the present site of Oklahoma City and another settlement²⁵ on the prairies southwest of Yukon.

The following is a description given by a member of one of the Boomer expeditions;

"Crossing²⁶ over the divide you come within sight of the Canadian River. The scene is magnificent, and is greeted by the colonists with gladness and a spontaneous cheer that should be heard in Washington.

For miles through dense, hilly forests, then you strike the rich, billowy prairie--indeed a beautiful meadow.

Glancing over thousands of acres covered with tall grass and dotted with groves, it appears the perfect counterfeit of cultivated fields and orchards. One can hardly persuade himself that he is not scouring a long settled country, whose inhabitants have suddenly disappeared, taking with them houses and barns, and leaving only the rich pastures and hay-fields. Wagon-roads, revealing the jet-black soil, interest the deep green of graceful slopes, where moves tall prairie-grass with wild flowers of blue, purple, and yellow.

Stretching away as far as the eye can reach lies a level and most beautiful plain, covered with a thick growth of vegetation and fragrant flowers, nude of timber or brush, and ready for the plow, until you reach the river-banks, which are skirted with large, fine, and straight timber, consisting of walnut, oak, ash, beech, hackberry, hickory, etc. The soil

25 J. B. Thoburn, conversation.

26 A. P. Jackson, Oklahoma, (Kansas City, 1885), 69.

is black and loamy, and of so arable nature that two horses can plough it with the greatest ease. It seems like a dream to stand and view the landscape o'er. The enchantment of the place is inspiring. It is Oklahoma. Here is the mecca where the long suffering pilgrims have tended. The whole country up and down the Canadian River is instantly recognized by the tired and weary home-seekers as the promised land he so long has sought.

On the Canadian River there will be a great wine producing country, not excelled by California. There are millions of acres that are well adapted to wine-growing, or more than double the area of all the vineyards of France. The mellow lines of Longfellow are not merely the poet's fancy, but literal truth:

"For richest and best
Are the wines of the West
That grow by the beautiful river"

The next generation will see the Canadian and Red River country the Rhine of America. This country will also grow fruits of all kinds."

Many other wonderful stories were told about the region. Some said it was the finest and richest country in all America. Eastern newspapers began to print long stories about Oklahoma. Readers of the papers became intensely interested and so sentiment in favor of opening Oklahoma to settlement became so strong that in the spring²⁷ of 1889 a rider on the Indian appropriation bill passed and the president issued a proclamation for the open-

27 Thoburn and Holcomb, History of Oklahoma, (San Francisco, 1908), 172.

ing of Oklahoma Land on April 22, 1889.

People from all parts of the United States gathered at the boundaries and waited for the appointed time. At twelve o'clock noon, shots were fired as a signal for the settlers to cross the line and take a homestead. Some made the race by train, others in wagons or on fleet horses, while a few made the race on foot. Oklahoma had achieved something in one day that no other state had accomplished in a period of less than fifty years.

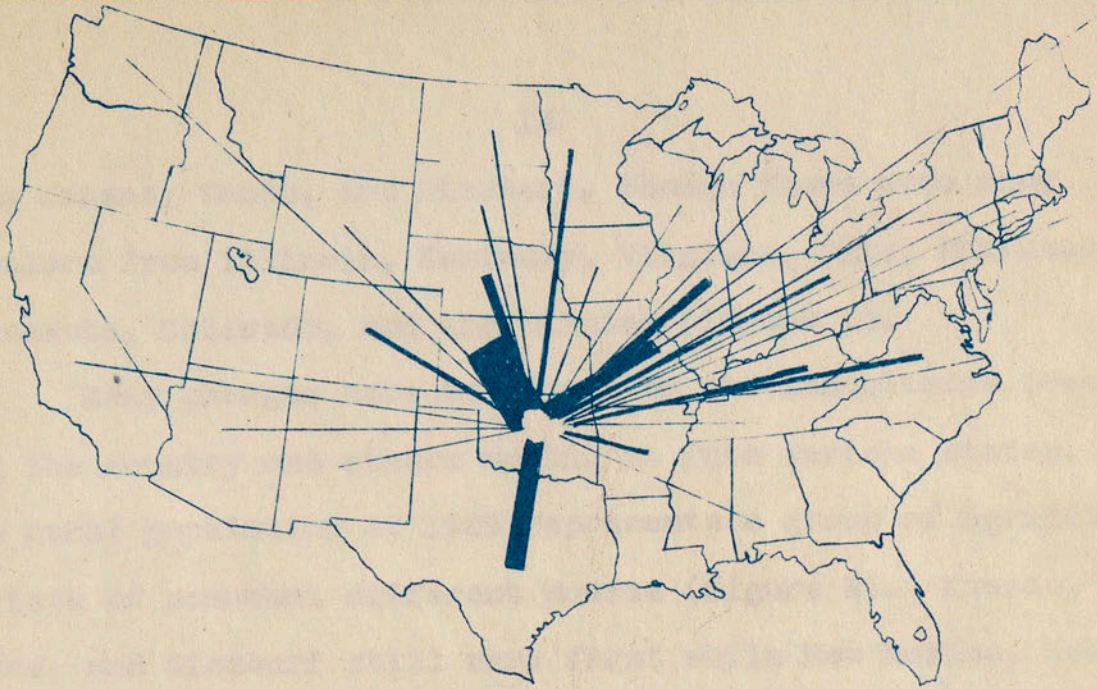
The Indians²⁸ of the Cheyenne and Arapaho reservation took allotments of 160 acres each in 1891 and the remainder of the land was opened to settlement on April 19, 1892. This land opening was a duplicate of the first. The Indians were urged to remain on their allotments throughout the day and many of them were kind enough to advise the white man which claim was the best for him to stake.

In July, 1901, the Kiowa²⁹-Comanche-Wichita reservation was opened to settlement by lottery.

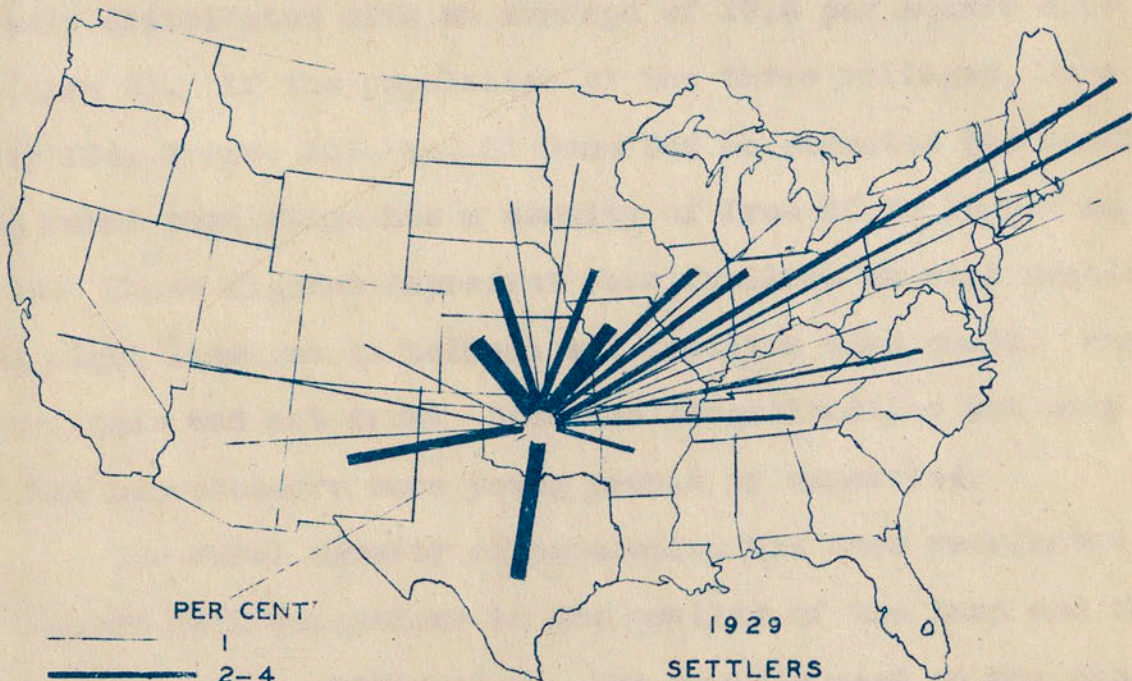
The pioneer settlers of Canadian County represent citizens from twenty-seven states and two foreign countries, (figure 2). The rural population was largely composed of settlers

28 Luther B. Hill, A History of the State of Oklahoma, I, (Chicago, 1908), 296.

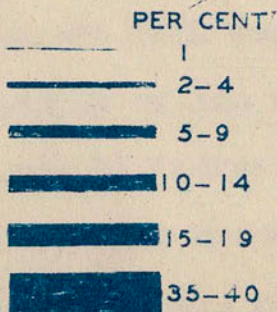
29 Roy Gittinger, Formation of the State of Oklahoma, (Berkeley, 1917), 173.



PIONEER SETTLERS



1929
SETTLERS



SOURCES OF POPULATION
OF CANADIAN COUNTY



FIG. 2

from Kansas, Texas, and Missouri, though there were many settlers from Illinois, Kentucky, Virginia, Ohio, Arkansas, Minnesota, Colorado, and the Dakotas (figure 2).

Many changes have been made by the inhabitants leaving the country and others moving in from various states. The rural population of 1929 represents a group of agriculturists of somewhat different source (figure 2). Kansas, Texas, and Missouri still rank first while New Mexico, Nebraska, Iowa, Illinois, Indiana, and foreign countries rank second (figure 2).

The total population for 1890 was 7,158 and was very evenly distributed with an average of 17.4 per square mile (figure 3). If the population of the three villages, Reno City 234, Frisco 327, and El Reno 546 be deducted the remaining rural population has a density of from 10 to 15 per square mile. These figures represent four families on each section and might lead one to believe all families were small. However, this was not true. Some had large families but many of the homesteaders were young people or unmarried.

The rural density of population has been reoriented to accord with variations in the quality of the land and the intensity of its utilization. The symbols used on the maps (figure 3) indicate the rural population density per square mile and the changes in the population by decades. The population data are mapped on the basis of the township unit. An

interpretation of causes of change in density can be given for some localities.

The decided increase in Yukon township in 1900 was a result of the growth of the town of Yukon. A decline is evidenced for the following period because Yukon was incorporated.

The increase in Mathewson township from 1900 to 1907 was brought about by the development of Piedmont and the increase of El Reno township was probably caused the suburban areas around El Reno.

From 1907 to 1910, Rock Island township shows a decrease. This was about the time of the beginning of increased area in farms per farmer, thus reducing the number of inhabitants per square mile. Cement township shows an increasing population per square mile because of the growth of the Gypsum Mill west of Nemack.

From 1910 to 1920, a decrease in Mathewson, Frisco, Mustang and El Reno townships is shown because of larger number of acres per farm. The removal³⁰ of the Gypsum Mills in 1913 released 65 men and their families, thus causing a decrease in Cement township. The increase in Darlington township was a result of the sale of a part of the Cheyenne and

30 T. H. Kassner, letter.

Arapaho³¹ reservation in 1910 which was sold in 80 acre farms.

The Indian population is nearly all in the western part of the county. It shows a slow decline.

Year	Indian Population	Per Cent of County
1900	621	3.8
1910	409	1.7
1920	479	2.1
1929	408	

On June 30, 1929, the Indian population³² was 408.

There were 184 Indian allotments in the county but they are not all occupied by the owners so the average number of Indians on each allotment cannot be determined.

Negro Population

The rural negro population of the county conforms closely to the poorer areas of soil (figure 4). El Reno is the only town in the county which has negro population.

31 C. E. Bross, letter.

32 C. W. Ruckman, letter.

Year:	Negro Population: Of County	Per Cent County	of: El Reno	Negroes in: Rural:	Per Cent Urban
1890	182	2.5			
1900	363	2.2			
1910	823	3.5	688	17	83
1920	614	2.8	487	21	79

Foreign Born Population

Foreign population of the county represents many countries with Germany first and Bohemia and Czechoslovakia second. The Germans are well scattered throughout the county with groups centered around Okarcho and Union City while most of the Bohemians live in the vicinity of Yukon. The number of foreign born population is of minor importance since only 4 per cent of the total population of the county are foreign born.

Urban Population

Only four towns of the county are incorporated.

City	1890	1900	1907	1910	1920	1930
El Reno	285	3383	5370	7872	7737	9739
Yukon			830	1018	1016	
Okarcho(part of)			245	212	261	
Geary (part of)			127	116	102	

not
incorporated

The urban population³³ is increasing by a small per cent.

Year	Total		Per Cent of Total		Per Cent of Increase	
	Rural	Urban	Rural	Urban	Rural	Urban
1907	14,740	5,370	73.3	26.7		
1910	15,629	7,872	66.5	33.5	-6.9	46.6
1920	14,740	7,737	65.3	34.7	6	-1.7

Summary

Each successive change in the economy of this area brought about an advance in intensity of utilization. The highway of the Spanish and French became a field of commercial exploitation for the American buffalo hunters. The extinction of the numerous herds ushered in the cattle business and also made it necessary for the Plains Indians to take reservations since they were deprived of their food supply. However, the Cheyenne and Arapaho did very little in agricultural pursuits. The pioneering ranchmen and the agitation and repeated invasion of the "Boomers" stimulated an interest in the Oklahoma country. In 1889, a great crowd of people entered in a race for homes and citizens from 27 states took farms in Canadian County. The pioneer settlers

33 United States Bureau of Census, II, (Washington, 1920)

immediately took up the task of converting the district into a productive agricultural area. A discussion of the climatic conditions, edaphic forms, and the cultural influences and their relation to the development of the rural landscape is important.

The story of the interaction of these factors will be related in the following Chapters.

Climatic

A weather record was kept at the Army Post at Fort Reno from 1883 to 1892. A station was then opened at El Reno in 1893. The record was not maintained complete and the El Reno station was discontinued in 1897, being transferred to Fort Reno. A record has been kept there at the present date. Another station was established at Comanche in 1911. Both stations record temperature, wind, rain, precipitation, and humidity and direction.

The mean annual temperature is 56.7° F. with a mean winter temperature of 43.1° F. and a mean winter temperature of 68.2° F. (Figure 1). The long hot summers are tempered by

-
1. J. F. Slaughter, letter.
 2. J. F. Slaughter, *Climatological Data*, (Oklahoma City, 1925), 21.
 3. E. S. Allen, *Soil Survey of Canadian County, Oklahoma* (Washington, 1917), 2.

CHAPTER II

THE DEVELOPMENT OF THE RURAL LANDSCAPE

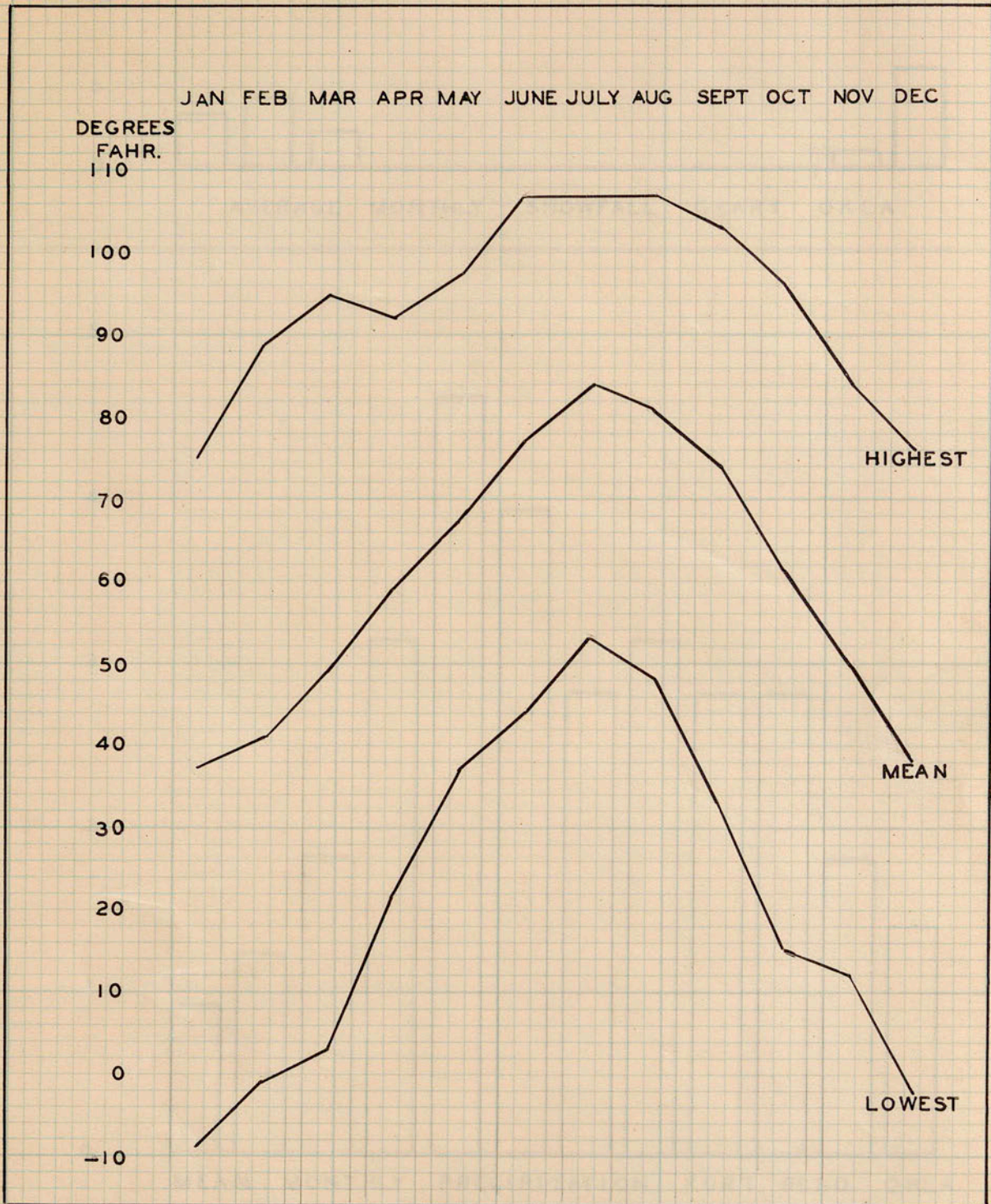
The discussion of the preceding chapter was concerned with the successive changes in the economy of the area and the historical events which lead to the settlement of the county. The following is an outline of the physical make up or endowment of the county and shows how the areas have been modified.

Climate

A weather¹ record was kept at the Army Post at Fort Reno from 1883 to 1907. A station was then opened at El Reno in 1909. The record was not maintained complete and the El Reno station was discontinued in 1917, being transferred to Fort Reno. A record has been kept there to the present date. Another station was established at Geary in 1911. Both stations record temperature, frost data, precipitation, and prevailing wind direction.

The mean² annual temperature is 59.7°F. with a mean summer temperature of 79.1°F. and a mean winter temperature of 38°F. (figure 5). The long hot summers³ are tempered by

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- 1 J. P. Slaughter, letter.
 - 2 J. P. Slaughter, Climatological Data, (Oklahoma City, 1928), 56.
 - 3 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 8.



ANNUAL MARCH OF TEMPERATURE GEARY OKLA.
FIG. 5

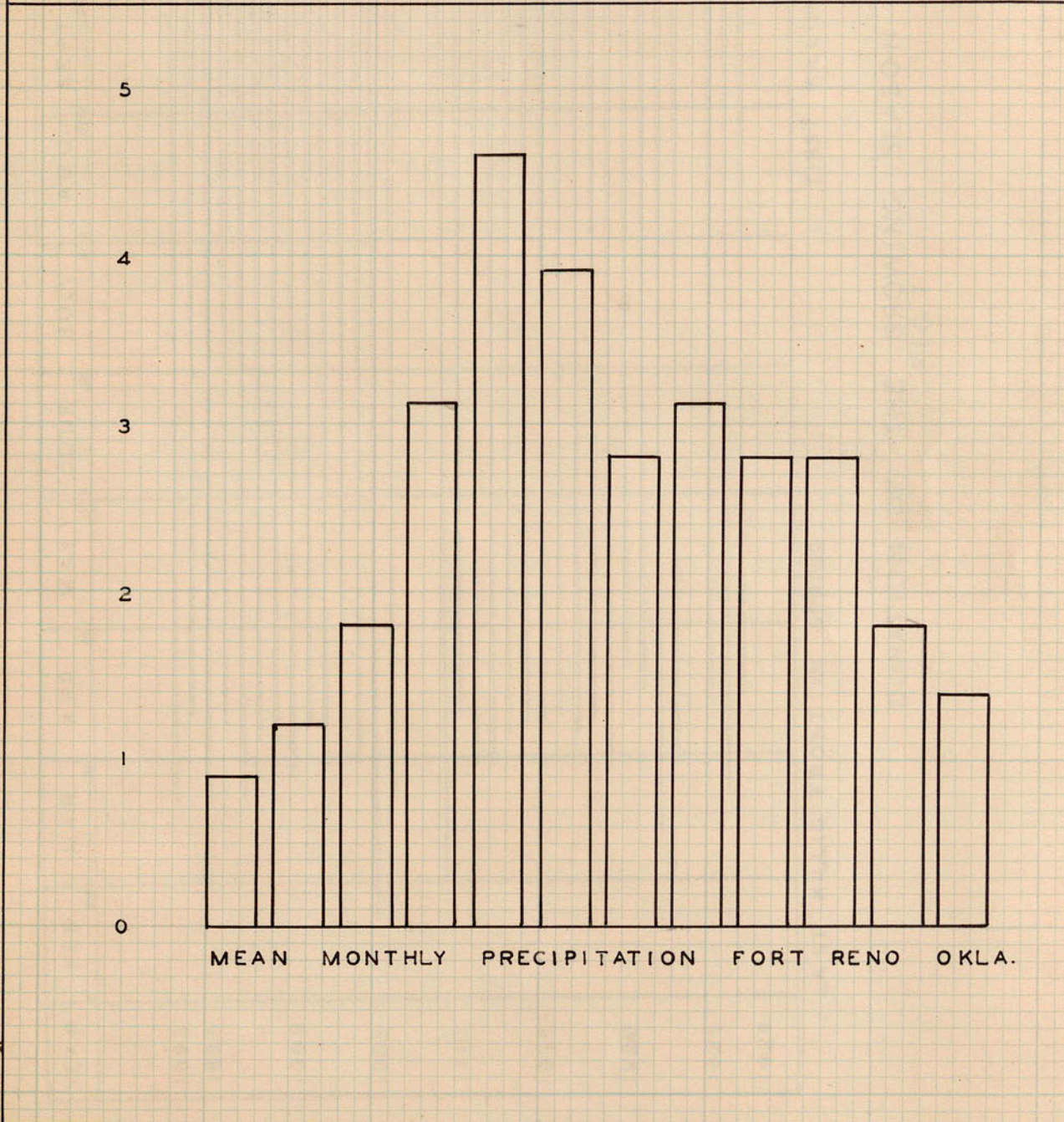
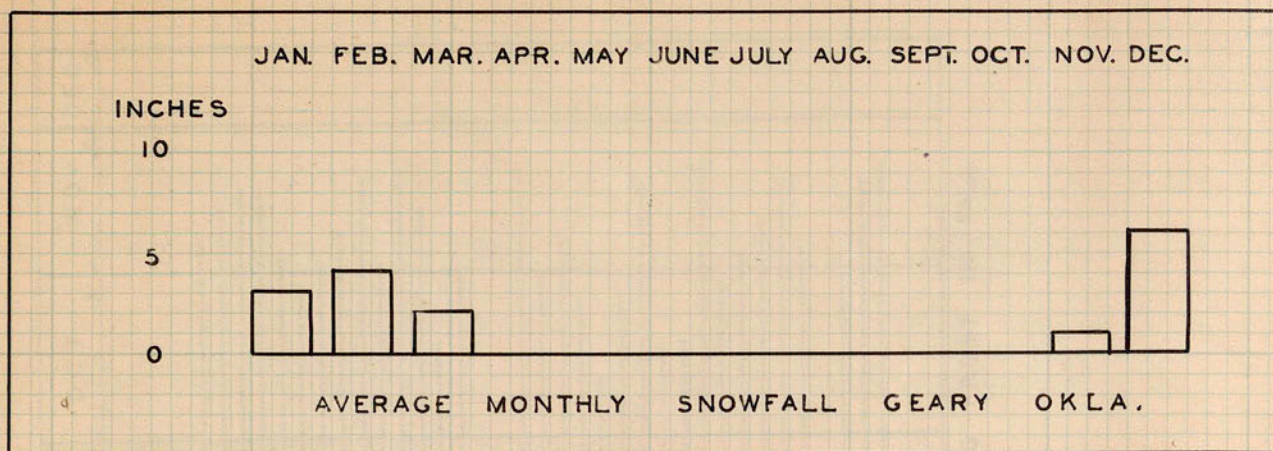
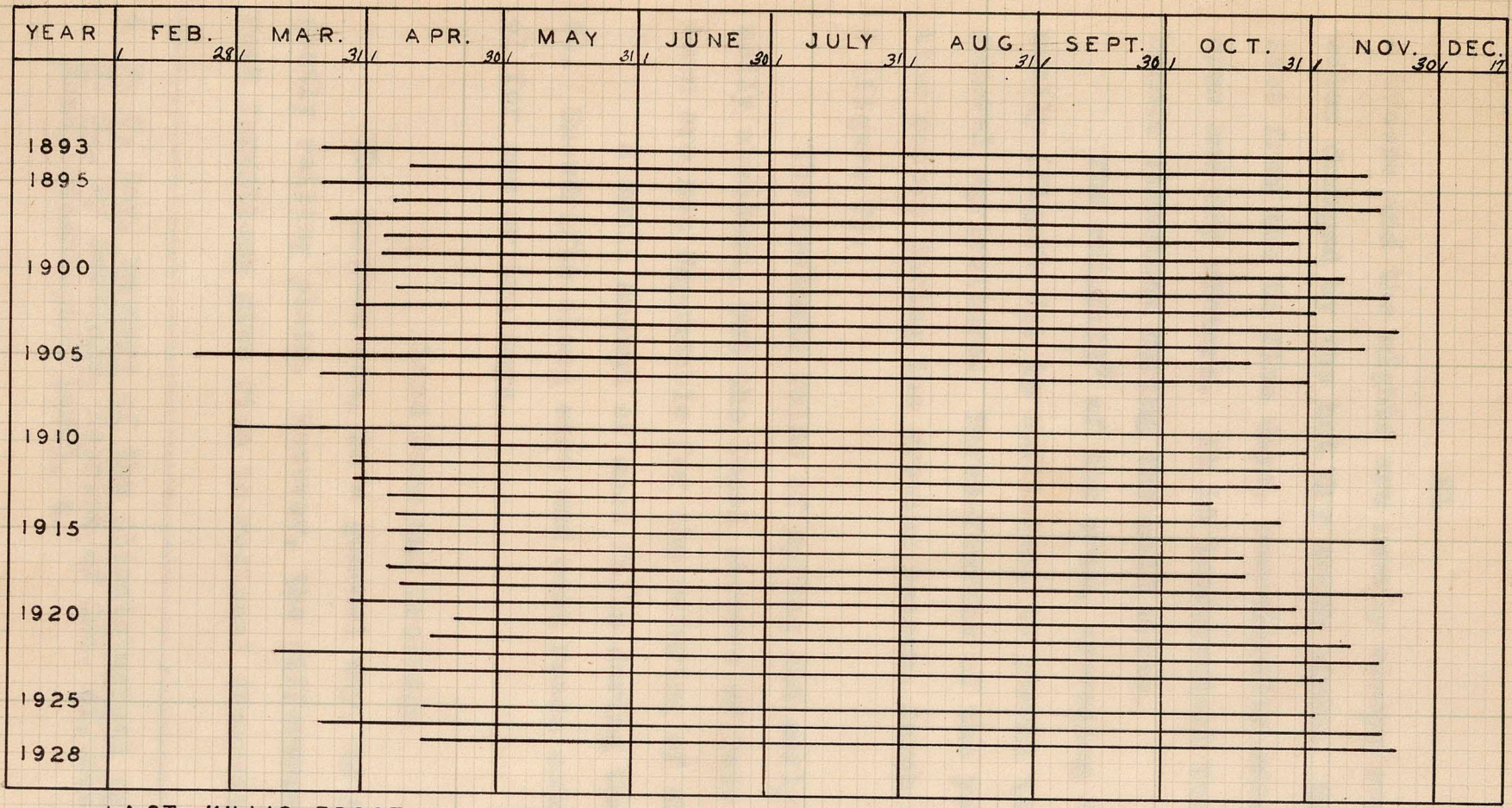


FIG. 6



LAST KILLIG FROST IN SPRING

FIRST KILLING FROST IN FALL

DURATION OF THE GROWING SEASON
FIG.7

a breeze and the nights are nearly always cool. Crops are often damaged by the hot dry south winds. Northers, which last from two to five days, occasionally occur during the open and dry winters. It is inconvenient for farmers to handle livestock during the cold waves.

The rainfall⁴ of the area, averaging 30.15 inches annually (figure 6), is sufficient to permit the practice of general agriculture. Three-fourths of the yearly precipitation occurs during the growing season, March 28 to November 1 (figure 7).

The cyclonic rains of spring and early summer are usually abundant, but the local showers of late summer and autumn are not dependable for the maturing of crops.

A small amount of snow falls during the winter (figure 6). Snowdrifts along east and west roads sometimes block travel for one or two days.

Land Form and Drainage

The surface can, in a general way, be spoken of as a gently rolling plain. However, the differences in underlying rock formations give rise to regional diversity of physical

4 P. C. Day, Summary of the Climatological Data for the U. S., By Sections, Reprint of Sec. 41, Western Oklahoma, (Washington 1920), 4.

features. All surface formations dip⁵ downward to the southwest at an angle of 15 or 20 feet to the mile. As a result the alternate layers of shale and sandstone outcrop at the surface. The inclined beds have been beveled across by erosion and form a plain that is belted with parallel zones running across the county in a northwest southeasterly direction.

The different formations have varying resistances to erosion and produce four characteristic surface zones. The valleys of the North and South Canadian rivers are made up principally of alluvium⁶. A belt of dune sand borders the alluvial deposits of the North Canadian river west from Concho (figure 8).

In the northeast corner of the county the soft red Hennessey shale forms a gently undulating surface with an average elevation of 1180 feet above sea level (profile B, figure 8). Excellent drainage is provided by tributaries which flow northward and northwestward into the Cimarron river (figure 9).

The Duncan sandstone belt extends from Okarche to Richland and then south (figure 8). Its elevation is from 100 to 120 feet higher than the Hennessey shale and ranges

5 W. C. Kite, Geology of Kingfisher and Canadian County, Bull. No. 40--0, (Norman, 1927), 8.

6 Ibid., 6

from 1200 to 1400 feet above sea level. It has wide flat divides and broad valleys about 100 feet deep. The zone is well drained to the Cimarron basin (figure 9).

The diagonal belt of Chickasha and Dog Creek formations is composed of red clay, gypsum, and shale (figure 8). It has offered greater resistance to erosion than the soft red shale and has distinct but rather broad V-shaped valleys with smooth narrow intervening divides. The undulating to gently rolling surface ranges from 1300 to 1500 feet above sea level (figure 10). A greater portion of it drains to the Canadian rivers (figure 9).

The fine red, highly cross-bedded Whitehorse sandstone⁷ in the southwest part of the county has an elevation of 1350 to 1600 feet (figure 10) with a more or less rolling surface. Active erosion has cut narrow V-shaped valleys 100 to 175 feet deep in the southwest corner. All except about eight square miles drains to the South Canadian river (figure 9). These surface zones give the county a gently sloping surface which rises from 1000 feet in the northeast to 1600 feet on the west (figure 10).

The North and South Canadian rivers have cut shallow valleys several miles in width across the county. Alluvium

⁷ W. C. Kite, Geology of Kingfisher and Canadian County, Bull. No. 40--0, (Norman, 1927), 8.

has practically filled the valleys forming gently sloping benchlike areas along the streams (figure 8).

The dune sand belt is composed largely of aeolian materials and has a billowy surface (figure 8). Soft water springs flow out of the Tertiary sand hills and form the head of small streams which flow into the North Canadian river (figure 9).

Natural Vegetation

When the county was opened to settlement, approximately 94 per cent of the area was prairie vegetation, 4 per cent jack-oak timber and 2 per cent was tree growth limited to narrow stretches along streams (figure 11). Differences in native plant life were caused by variations in soil, relief, and especially soil moisture which comes from rains during the growing season of the grass, April, May, and June (figure 6).

This area is classed as the tall grass area but is near the transition line between the tall and short grasses and contains some of both varieties. The grass cover is composed of short curly drought resistant buffalo grass, grama grass, mesquite, a variety of bunch grasses and bluestem. The latter grew principally in valleys and has nearly all been killed by over pasturage.

Practically every acre of prairie land suitable for agricultural purposes has now been plowed. Native grasses

are found only in pastures, on hay land, and along the road sides. They furnish excellent pasturage and some hay for the livestock of the county. In 1919, there⁸ were 8,136 acres of prairie grass which produced 7,729 tons⁹ of hay, part of which was cut on the military¹⁰ reservation at Fort Reno. The acreage had decreased to 6,702 acres in 1924.

Approximately 40 per cent¹¹ of the black-jack oak timber on the aeolian belt has been cleared and ^{the land} is now producing crops. The ravines in the southwest part of the county support a growth of black-jack¹² with considerable cedar on the slopes.

The nearness of the water tables to the surface along streamways accounts for the distribution of phreatophytes. Elm, hackberry, hickory, persimmon, china berry, and black walnut are the most common species.

Soils

The soils of Canadian County belong to the major soil division called pedocals,¹² are lime accumulating and were

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- 8 Oklahoma State Compendium, (Washington, 1920), 86.
 9 U. S. Census of Agriculture, (Washington, 1925), 42.
 10 W. B. Morrison, Oklahoma Forts, The Daily Oklahoman, July 10, 1927.
 11 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 35.
 12 Louis A. Walfanger, Major Soil Divisions of the U.S., (New York, 1930), 66.

developed from sandstone and shale. The county lies in the most easterly belt of the pedocals, the blackerths.¹² An insufficient amount of rainfall has developed a dark colored granular soil with a vegetation cover composed of grasses. Lime concretions remain in the top soil when the moisture evaporates at the surface. Grains, forage crops, and other plants related to the grass family thrive best on the blackerths. The geological structure and vegetation cover have been used as a basis for dividing the soils of Canadian County into the following divisions (figure 12):

I. Mature soil.

1. Mature prairie loam and clay soil.

II. Immature soil.

1. Residual soil.

- a. Hennessey Shale heavy soil belt.

- b. Whitehorse sandstone light soil.

2. Aeolian soil belt.

3. Alluvial soil.

- a. Terrace soil.

- b. First bottom soil.

¹² Louis A. Wolfanger, Major Soil Divisions of the U.S., (New York, 1930), 28.

I. Mature Soil.

1. Mature Prairie Loam and Clay Soil.

The mature¹³ prairie loam and clay soil comprises about 23 per cent of the county. It consists of a brown to dark brown loam underlain by a tough heavy clay and has a well developed profile (figure 12). The surface soil contains a large amount of very fine sand. There are spots where it is sticky when wet and bakes hard in uncultivated fields. All of it is easily worked when properly cultivated.

II. Immature Soil.

1. Residual Soil.

a. Hennessey Shale Heavy Soil Belt.

The Hennessey¹⁴ shale heavy soil is chocolate red loam and clay loam underlain by lighter chocolate red clay. Some areas are covered by 2 or 3 inches of fine sandy loam (figure 12). The greater portion of this soil occupies sloping well drained positions in the region of undulating relief. Locally the surface may be more abruptly sloping, and here the type is subject to rather severe erosion.

b. Whitehorse Sandstone Light Soil.

This type of soil¹⁵ is a very fine sandy loam with a

13 E. H. Smies, A Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 21-27.

14 Ibid., 30-34, 39-40.

15 Ibid., 27-30, 36-39.

light chocolate red fine sandy clay subsoil (figure 12). It is easy to handle because of the loose surface, retains moisture remarkably well, and is very productive.

c. Mustang Fine Sandy Loam Soil.

The mustang fine sandy loam¹⁶ has a chocolate red color and is underlain by a chocolate red very fine sandy clay (figure 12). The soil is easily tilled, holds moisture well, produces a good yield, and is prized for farming purposes.

2. Aeolian Soil Belt.

The surface soils¹⁷ of the aeolian coarse sand belt are brown fine sand underlain by light brown fine sandy loam (figure 12). The area was well covered by black-jack oak timber. Two-thirds of it has been cleared. Farming operations are easily carried on because of the loose texture of the soil.

3. Alluvial Soil.

a. Terrace Soil.

The terrace alluvial soil¹⁸ is composed of materials derived from prairie soil along the streams and deposited in the valleys during periods of overflow (figure 12). It is

16 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 27.

17 Ibid., 34-36.

18 Ibid., 40-49.

brown to dark brown soil with a reddish brown subsoil. The area is very productive. This is the best farming district in the county because of the moisture content.

b. First Bottom Soil.

The steam flood plain along both sides of the rivers is composed of recent alluvial soil¹⁹ derived by stream wash (figure 12). The brownish red surface soils merge into a light textured subsoil. Drainage is good except during occasional overflows. The area is easily cultivated and produces a good yield.

The facts of natural endowment have been sketched and will now proceed to show how the area has been appropriated. The participants in the race for homes had little time to observe edaphic forms. There was a settler on every quarter section of land. Gradually, cultural differences appeared and became emphasized increasingly by the more rapid and gainful utilization of some areas than others. There followed a readjustment of density of population and a gradual shifting in the size of farms. Forty-one years of trial of the land has been under way and has disclosed limitations and attractions that were unknown at first. The county, which once had

19 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 50-58.

similarity and simplicity in land appropriation is now divided into six cultural areas.

Early Development

After the homesteader had taken care of all business matters pertaining to filing on his claim at the land office, he and his family took measures to develop a home. The thing most essential to the welfare of the settler was a house. He lived in the covered wagon until a rude one room shack or shanty could be built. People on the north side of the county hauled lumber from Kingfisher, on the east side from Oklahoma City, and the others from Reno City. Some obtained cotton wood lumber from saw mills which operated along the North Canadian river. The native lumber was not best for houses since it warped badly and was generally used for barns and sheds. Lumber²⁰ cost \$25.00 per 1000 feet. Some, who were not able to buy lumber built dugouts or sod houses. Sheds for livestock and chickens houses were made of sod and a few temporary²¹ sod school houses were erected. A few log houses were constructed in the area timbered with black-jack oak.

After the house was complete, the settlers started digging a well. Machinery was not available and it took a

20 W. F. Combs, conversation.

21 May Kidd, conversation.

long time to dig a well by hand. Most of them measured 3 to 4 feet in diameter and from 30 to 90 feet deep, depending upon their location in the county. The water was drawn by hand by the pulley and bucket method. The wells also served as coolers since housewives hung milk, butter, and cream in them.

People living²² in the central part of the county hauled water from Caddo Springs for domestic use until they could dig a well. Water was hauled in barrels, either on sleds or in wagons. This was a task that was usually left to the children and they encountered some difficulties in performing it. In some instances, the rumble of the barrels would frighten the team of mules and they would run away scattering barrels and children along the trail leading to the spring.

On hot summer days, water which had stood in a barrel for twenty-four hours, was not very refreshing.

In late summer, few who had herds of livestock, dug shallow wells in the creek bottoms in order to obtain sufficient water supply for the stock.

Those who became ill received little medical attention. The first year, the doctor²³ from the Indian school made a few calls although he was not supposed to make visits in the country. A few of the homesteaders had studied medicine and

22 Alma G. Smith, conversation,

23 Ibid.,

could treat minor ailments but when children took diphtheria they were unable to cope with the disease. Several children died. There were no cemeteries and burial was made on one corner of the homestead. As years passed by, others of the community were buried there, and at present those same homestead corners are well cared for cemeteries.

The first Sunday schools were started in one room shanty homes. Schoolhouses were soon built and became the social centers as church services and educational gatherings known as literary were held in them. Later, churches were erected near some of the school houses. Many of those churches have been rebuilt and are used at present, as the social center of the rural community.

The first roads were built on every section line where it was practicable. As need for roads increased, more section lines were developed. In places,²⁴ trails served as short cuts and their abandonment was forced on travellers by plowing²⁵ them up or building fences across them.

The farmers²⁶ of Rock Island township adopted the donation plan and began construction of roads. They gave logs, and stones for bridges, labor, and paid four dollars poll tax.

24 Wm. A. Young, conversation.

25 D. P. Richardson, letter.

26 Okarcho Times, Feb. 1, 1895.

The Rock Island railway gave a car load of tile. Rock Island township and the surrounding townships used their poll tax money to purchase two car loads of larger tile and road machinery consisting of eight scrapers and one plow. A good substantial stone bridge was built across Uncle John's Creek.

The areas²⁷ of clay soil had good roads but it was almost impossible to travel through the gumbo²⁸ bottom lands of the North Canadian in the rainy season. During that season almost every farmer carried a large stick or post in his wagon so when his wheels became clogged with gumbo, as he passed over the road leading four miles north of El Reno, he could stop, prod the mud from between the spokes and travel on a short distance, stop again and repeat the act.

The settlers had very little livestock. Almost everybody owned two to four horses, or mules, or in some instances they used oxen to till the soil. Although many of the cattle that were brought to the county died of Texas fever²⁹, nearly every farmer had one or two cows to supply milk and butter for the home and a few farmers had large herds. The milk was used to make butter. The only available market for the butter was at Fort Reno³⁰ and they had no money with which to

27 A. J. Thompson, letter.
 28 Alma G. Smith, conversation.
 29 W. F. Combs, conversation.
 30 Alma G. Smith, conversation.

purchase it but the farmer gladly exchanged butter for coffee and beans, which had been issued to the soldiers. At times a family might have on hand two grain sacks full of navy beans. Very few hogs were kept. In 1890, there were 7,455 cattle, 3,138 swine, and 23 sheep in the county or an average of 4 cattle and 2 hogs to each farm.

The pioneers did not have time to break sod and plant a large acreage the first spring. Corn was planted in every third furrow and covered with sod. It was not cultivated. Garden seeds were planted and some planted cowpeas. Vegetables and potatoes grew well. The potatoes were buried in the ground for winter use and cabbage was made into sauer kraut. Turnips and pumpkins were sometimes cut up and fed to the cattle. Prairie hay was cut and stacked for winter use. A few small fields of wheat were sown in the fall.

Wheat was the best crop in the early days. In the fall of 1890, the Rock Island³¹ provided seed wheat to the farmers who paid no interest but returned the same number of bushels of wheat after threshing the next summer.

When it came time to harvest the grain, three or four³² farmers banded together and bought a second-hand binder, which

31 J. B. Thoburn, History of Oklahoma, II, (New York, 1916), 837.
32 W. F. Combs, conversation.

had been shipped in from other states by hardware men. The binder was bought for \$140.00 on three year equal annual payment plan. All grain was stacked. A few large steam threshing outfits operated in the county. They furnished their own outfits and fed the crew at a cook shack which employed two cooks. The men slept in the open in summer and in the barn or shed in fall. For years, threshing continued until the first³³ of December. Wheat averaged from 15 to 25 bushels³⁴ to the acre and sold for 35 cents³⁵ a bushel while oats yielded 35 bushel to the acre and sold for 25 cents³⁶ a bushel. In 1890, seventy-five acres of wheat produced 1,182 bushels, 90 acres of oats yielded 2,224 bushels, and 1,125 acres of corn yielded 8,795 bushels.

Cotton was grown by a few people who came from the south. In 1890, fifteen acres of cotton produced 5 bales.

Soon after the Cheyenne and Arapaho opening, a man³⁷ who owned a little store in Union City and ran the post-office, received several pounds of alfalfa seed from a congressman. He had a claim in the western part of the county and planted 5 acres to alfalfa, the first planted in the county.

33 S. F. Smith, conversation.
 34 W. F. Combs, conversation.
 35 H. J. Smith, conversation.
 36 El Reno Democrat, Jan. 4, 1894.
 37 W. E. Fryberger, conversation.

In 1900, there were 694 acres of alfalfa in the county.

Almost everyone planted vinyards and orchards of peaches, pears, and plums.

Sometimes draughts of late summer caused crop failures so farmers began planting a variety of crops and took up live-stock raising. There was a gradual change in kind of farming and the farmer found that some crops were best adapted to soils of certain sections. Also, there were available markets in some parts of the county that were not in others. After a number of years of farming, the people from humid regions found they could not grow corn on the uplands. As a result there began an intensive cultivation of the crop best adapted to their area. There is now regional diversity of crops in the county. Six rural cultural areas have been recognized and named according to vegetation, geological structure, or soil formation (figure 13). They are as follows:

1. Wheat Area.
2. Bottom Lands.
 - a. North Canadian.
 - b. South Canadian.
3. Aeolian Area.
4. Mustang Area.
5. Northern Dissected Area.
6. Southern Dissected Area.

1. Wheat Area.

The mature soil of this area is best adapted to cereals (figure 13). The gently rolling surface permits the use of heavy power machinery. By the use of tractors and combines, one farmer can cultivate a large acreage. Farms range from 160 acres to 640 acres in size.

The greater portion of the area is planted to wheat, while cotton, oats, corn, and alfalfa occupy a minor acreage.

Dairy cattle are kept on almost every farm and the farmers sell cream. A stimulus to truck and dairy farming was given that section of the area along the interurban line in 1911 when farmers began shipping milk to Oklahoma City. Milk routes have recently been organized and milk is collected daily from a greater portion of this area. Few horses are kept.

This area is inhabited by prosperous farmers. Their prosperity is reflected in good houses, barns, fences, roads, machinery, trucks and automobiles.

2. Bottom Lands

The alluvial area is the best farming district in the county (figure 13). The farms are large. The largest acreage is planted to corn, alfalfa, and wheat since the water table is near the surface and plants do not suffer during dry periods. Corn yields from 40 to 60 bushel to the acre. Power machinery

is used in handling some of the hay. Hog raising is practiced. The hogs are pastured on alfalfa and fattened with corn for marketing.

The large yield of corn and sale of alfalfa which averages 2 to 2½ tons to the acre have made these people very prosperous. They have large two story houses, big barns, hay sheds, and automobiles.

3. Aeolian Area

The average size farm of this area is 160 acres although some are cutting up the farms into smaller acreages (figure 13). Cotton is the principle product while corn and kafir corn ranks second in acreage. Grain sorghum is grown for roughage. Fifty acres is an average cotton farm and it takes a large family to operate one of that size. Extra help is employed at chopping time and at picking season. A man is employed to do all the labor, on some farms, and the owner furnishes seed, teams, feed, and land. The profits are then equally divided. Corn yields about 25 bushels to the acre. Most of it is fed to horses and hogs. Kafir corn produces 20 to 25 bushels to the acre. It is used for chicken feed or ground and fed to horses. Crops are little affected by droughts since it is easy to hold moisture on sandy soil. Power machinery is not used. The land is too sandy to operate a tractor.

A few dairy cattle are kept. There are a few flocks of

sheep. Light draft horses are used. Nearly every farm keeps enough hogs to supply meat for home use. Some goats are kept in black-jack oak and underbrush, with a sparse growth of prairie grass.

Orchards and vineyards do well but are not numerous. Sweet potatoes are grown for commercial purposes and there is one drying house in the area. Fifty per cent of the farmers are tenants.

The people are not as prosperous as those of the wheat area. The average size house is three rooms, often unpainted. The cotton picker lives in a one room shack some distance from the house. The barns are small. Fences are built with three wires and black-jack posts that rot out in a few years. Very few people have radios. There is a strip running through the center from north to south two miles wide that has no telephones. Most farmers drive second hand cars and use trailers instead of trucks.

4. Mustang Area.

The farms³⁸ of this area range from 35 to 65 acres in size, the latter being considered a good size farm for one man (figure 13). The area has always grown some fruit and vegetables and shipped watermelons by the car load. The

38 G. S. Rector, conversation.

nearness to Oklahoma City created a demand and also a market for such products. Good transportation to the city is provided over State Highway No. 41 which is graveled.

All kinds³⁹ of vegetables are grown. Many watermelons are raised. Sweet potato fields sometimes contain 50 to 70 acres. The farmers have sweet potato cellars in which to keep the sweet potatoes and truck them later when the market isn't flooded. Those who have no cellars, store their potatoes for ten cents a bushel. Carrots and turnips are planted in ten acre fields. Carrots make an average of 100 dollars to the acre. One farmer⁴⁰ sold 500 dollars worth of carrots from two acres. Tomatoes are planted in 5 and 10 acre tracts.

Fruit trees do well. Vineyards and orchards of apples, peaches, plums, and cherries are grown. Many old orchards are dying and few new ones are being set out.

Just outside of the vegetable and fruit zone, cotton is grown. A 160 acre farm is usually leased to three people. People who come in during picking season sometimes live in tents. They do not depend on negroes to pick cotton, since it is easy to get sufficient cotton pickers from Oklahoma City.

The dairy industry is expanding rapidly since a milk route from Oklahoma City collects milk daily. Buildings in

39 E. J. Sterba, conversation.

40 G. S. Rector, conversation.

this area are poorly kept and small.

The available market at Oklahoma City will increase the intensity of land utilization. All farms will average 40 acres each and the community will be entirely devoted to truck farming, fruit growing, the dairy industry, and perhaps poultry raising will increase.

5. Northern Dissected Area.

The surface of this area is dissected by many small creeks (figure 13). Timber along the streams includes some black-jack and cedar scattered among the other trees. Much of the land under cultivation needs terracing badly. Erosion on the numerous slopes has washed away a large percentage of the top soil and many fields contain gullies several inches deep. Approximately 50 per cent of the cultivated land is in wheat, and the remainder is in row crops of corn, cotton, and grain sorghums. Part of the farming is done by power machinery.

The area ranks as one of medium prosperity. The houses average three or four rooms. Most of them are unpainted. The barns are small and poorly kept.

6. Southern Dissected Area.

Most people⁴¹ of this area occupy a farm of forty acres

41 Fred Percy, conversation.

since they are too poor to finance the operation of a larger farm (figure 13). Six⁴² or eight years ago, much of the area was planted to wheat but it was better land for cotton and the outlay for machinery was not so large when cotton was grown. A transient set of people enter the area in the fall to pick cotton and camp either in tents or shanties on the farm. In 1929, many cotton pickers came from Arkansas where the boll weevil had taken the cotton.

Small two or three room unpainted houses are found on most farms. A few tractors are used. Much land along streams is untillable and is used for grazing or hay land where it is not too rough.

The irregular relief has caused soil to be badly eroded. A few people have terraced their fields.

The action of cultural forces on the edaphic forms during forty-one years has resulted in the development of six cultural areas, each having distinct characteristics. There are a few factors that pertain to the county as a whole which have had a succession of changes, yet they do not group themselves under the cultural divisions. In some instances, these modifications that have been made by man, correlate with the diversity of physical features.

During the period of early development, the principal

crops were cereals and the largest acreage was in wheat. Economic attractiveness of other crops changed the methods of cultivation. The various areas of the county have had a succession of crops and the farmers now practice at least to some extent the growing of the crop best adapted to the soil, the one which has the most available market, and they practice diversified farming. The raising of livestock has an important place on a majority of farms.

The crops of the county are cereals, cotton, hay and forage, and vegetables. The major part of the soil of the county is utilized by the growing of cereals (figure 14). In 1925, wheat constituted 41 per cent of the total cereal crop expressed in bushels, oats 28 per cent, corn 27 per cent and barley 4 per cent.

Wheat is grown chiefly on the loam, clay, and alluvial soils yielding 20 to 25 bushels⁴³ to the acre but the average yield is 13 to 15 bushels,⁴⁴ and it does fall as low as 6 to 10 bushels per acre in extremely dry years. In 1910, there was a small acreage of wheat because the green bugs⁴⁵ killed much of it early in the spring. The ground was plowed and planted to corn or other row crops (figure 15). During the

43 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 24.

44 Statistics of U.S. Census Reports

45 H. Albers, conversation.

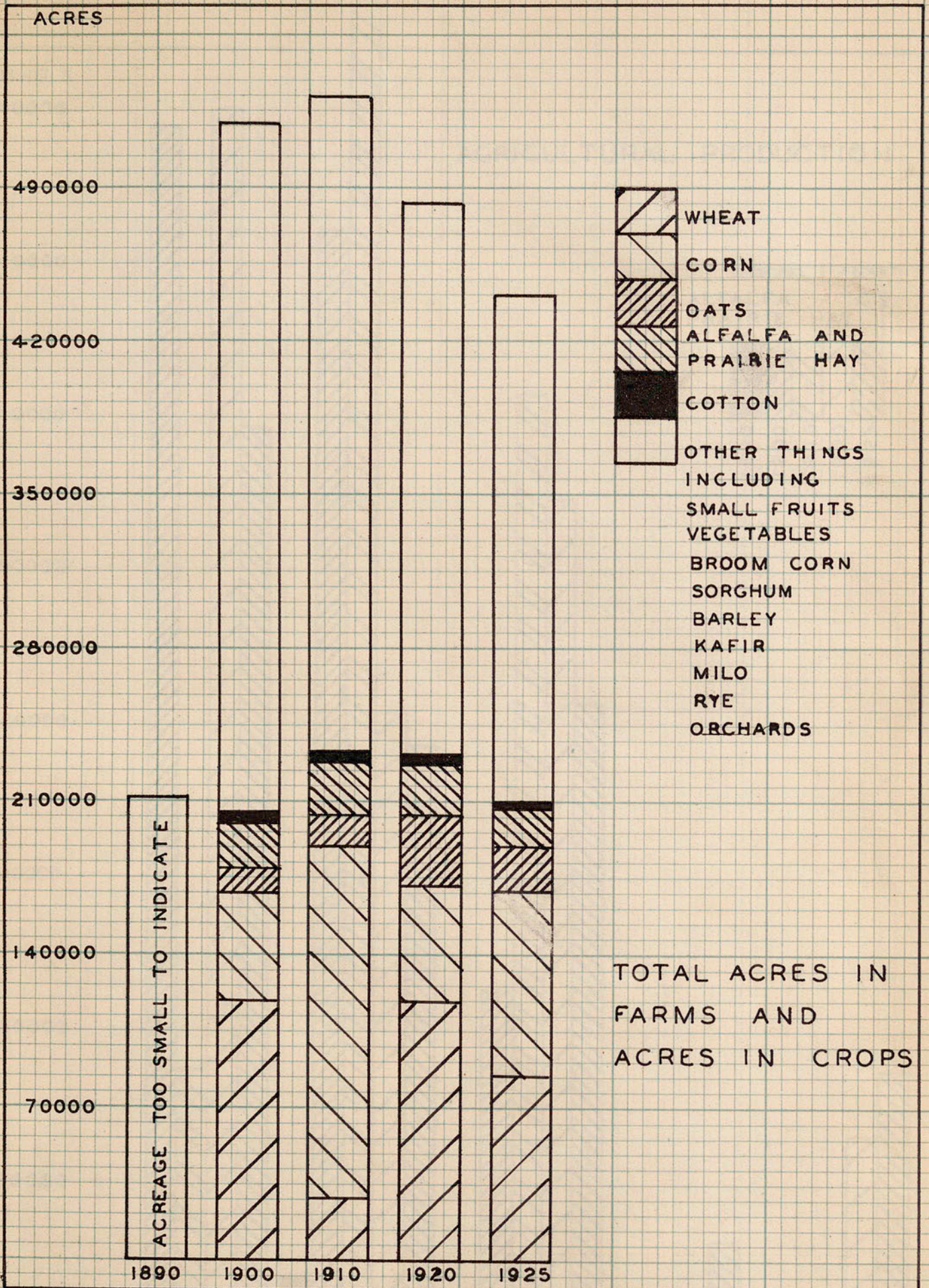


FIG. 14

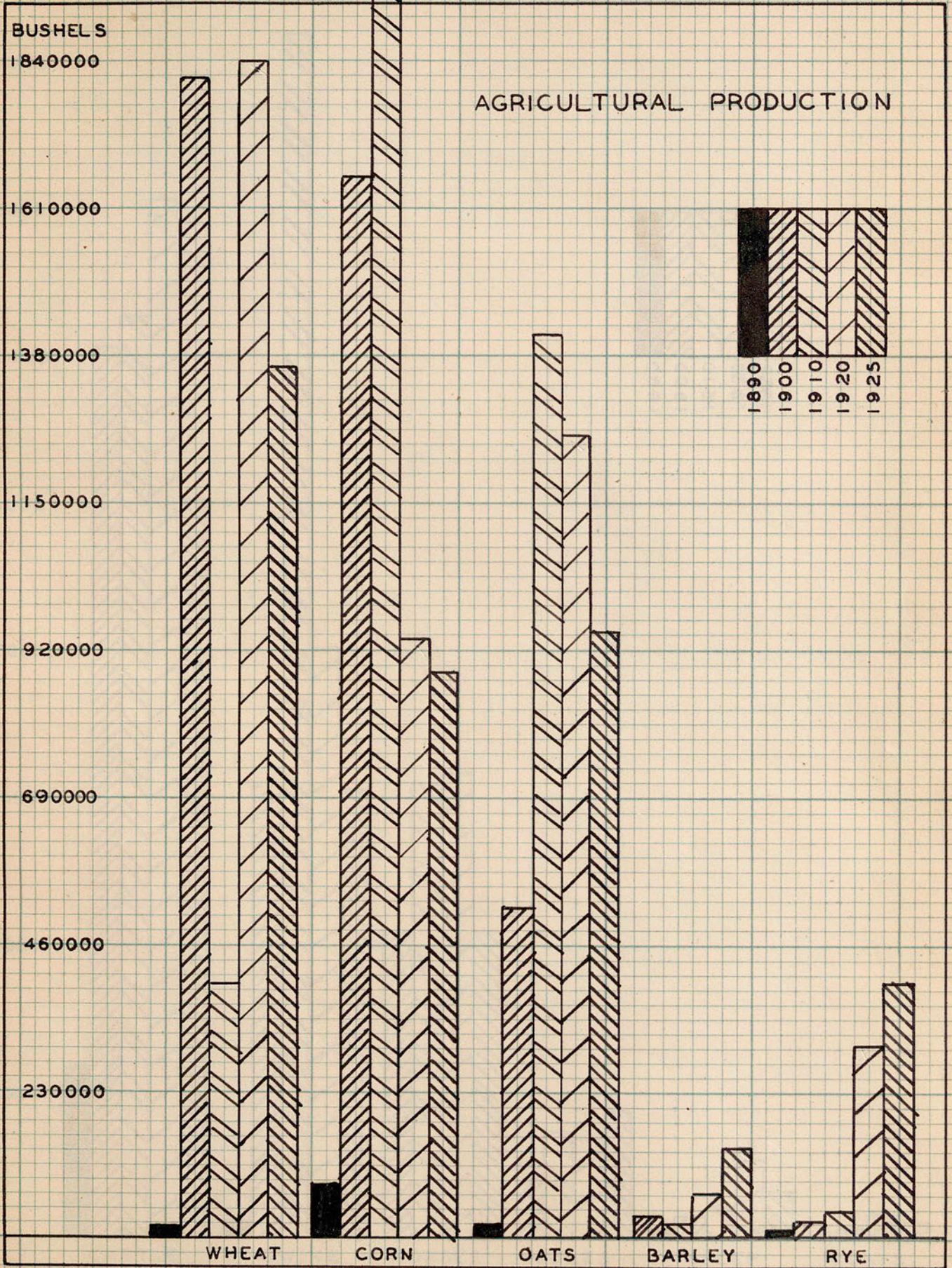


FIG. 15

LIVESTOCK

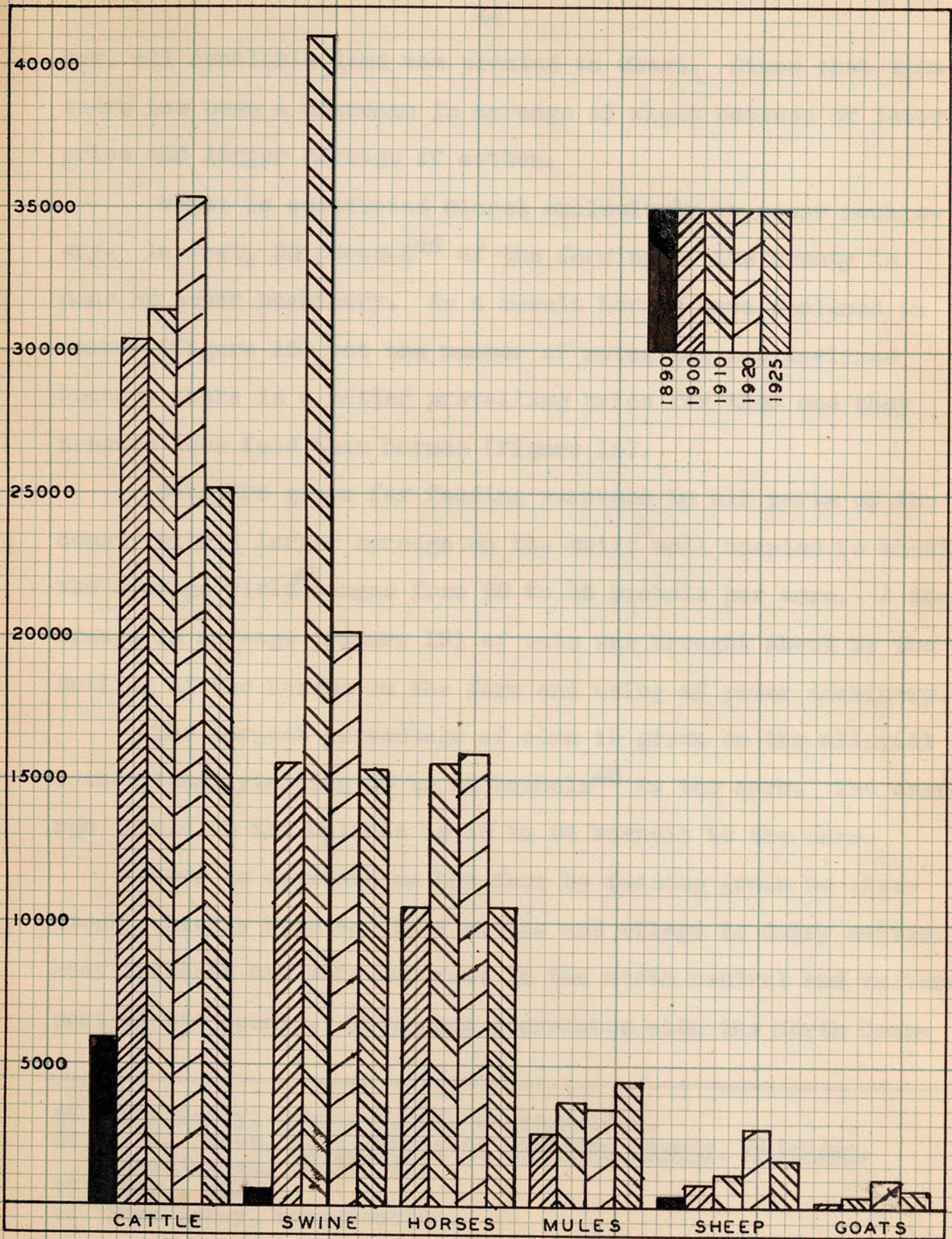


FIG.16

war, all available land was planted to wheat. Since that time there has been a decrease in acreage of wheat because of lower price and larger acreage of cotton.

Wheat is cultivated almost exclusively by power machinery. In fact, 33 percent⁴⁶ of the farming of the county is done by power machinery. As a result horses have declined in number (figure 16) yet the number of mules has not declined because there is a better prevailing price for them and they consume less food than horses (figure 16).

Oats are grown for feeding purposes in all parts of the county with a larger acreage on the soils well adapted to wheat. The average yield⁴⁷ ranges from 20 to 35 bushels per acre. A decrease in acreage (figure 15) of oats was brought about by the selling of the horses on the farm and using of power machinery.

The largest percentage of corn is grown on the alluvial bottom lands yielding 50 to 60 bushels⁴⁸ to the acre. The average yield on the uplands is 18 to 24 bushels to the acre.

Corn is consumed on the farm by feeding grain to livestock, chiefly hogs and beef cattle and silage to dairy cattle. Beef cattle⁴⁹ are more numerous in the north central and western part of the county. This area correlates with the North Cana-

46 Fred Percy, County Agent, conversation.

47 E. H. Smies, Soil Survey of Canadian County, Oklahoma, (Washington, 1917), 11.

48 Ibid., 40.

49 Fred Percy, conversation.

dian bottom lands. The largest herds of dairy cattle, composed principally of Holstein and Jersey, are nearest towns. Although hogs are grown on farms throughout the county for home supply of meat, most of them are grown on the bottom lands and fattened with corn (figure 16). Duroc Jersey and Poland China are the two most popular breeds.

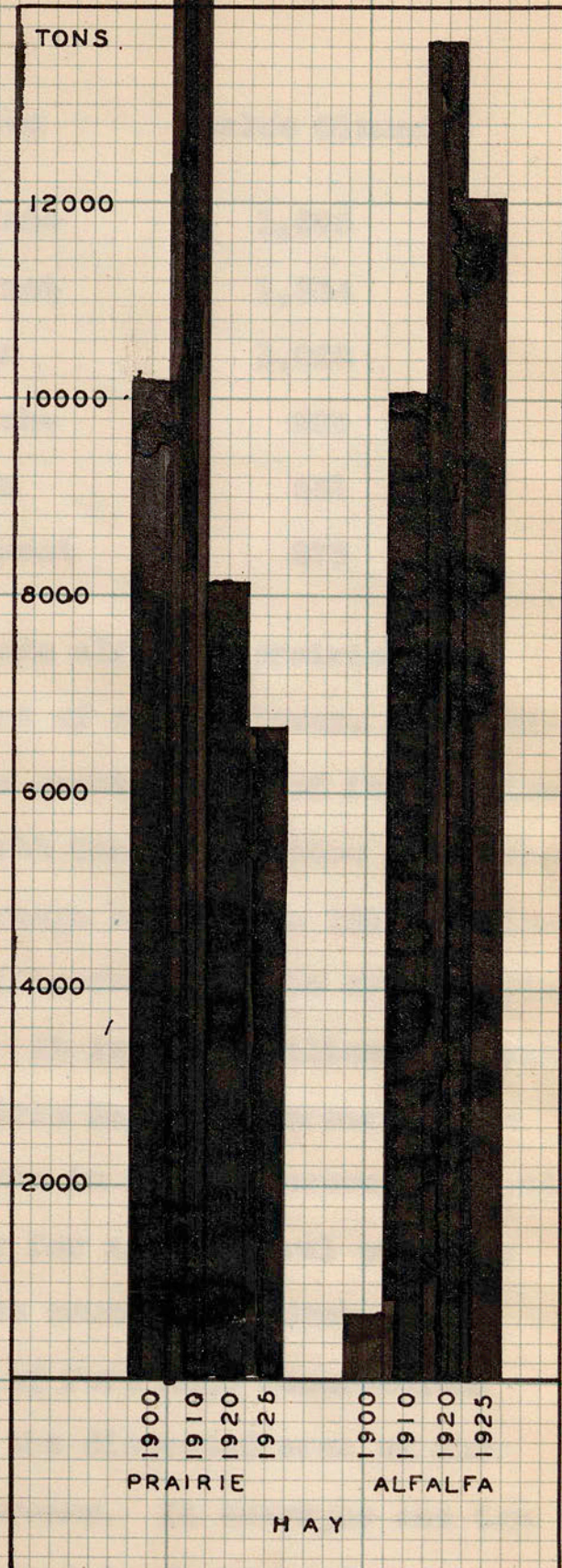
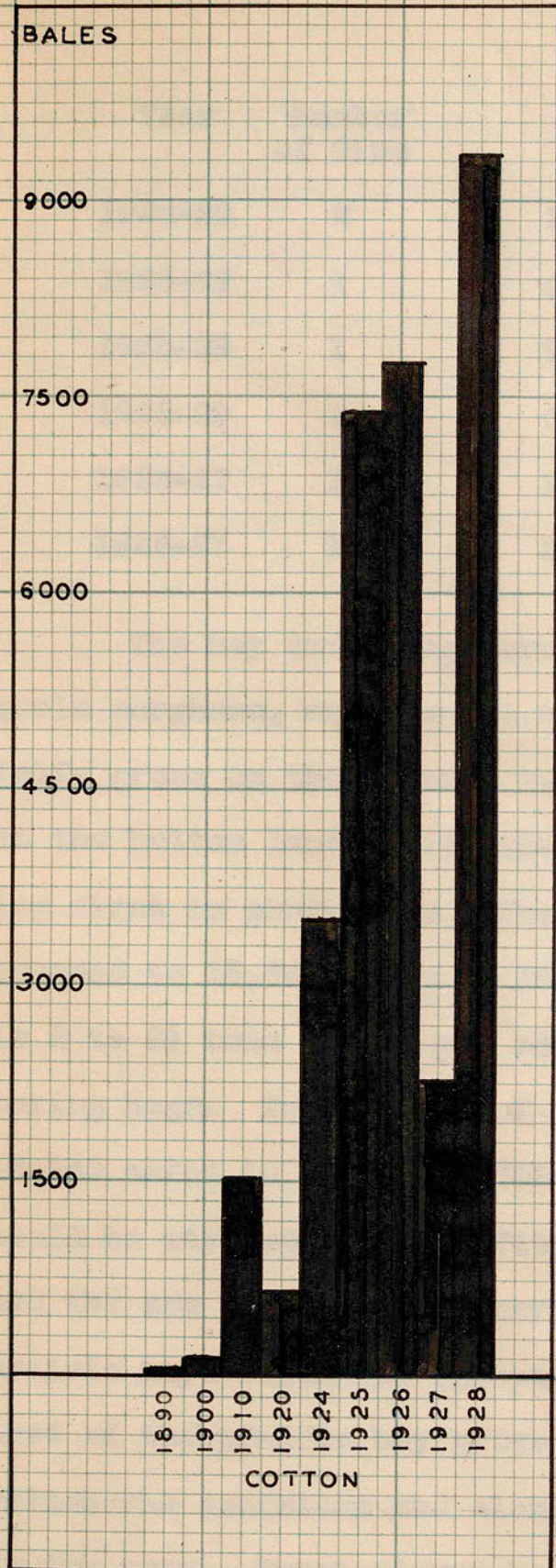
Barley⁵⁰ is grown in the sand area as wheat for the purpose of pasture and for feeding dairy cattle and hogs. Winter barley, which was introduced into the county in 1924-1925 gives a better pasture and a higher yield than spring barley.

On sandy land rye makes the best winter pasture of any of the cereals. A very small portion is harvested for seed.

Cotton is a good cash crop which has been grown in the county from the time of settlement (figure 17) but shows a rapid increase from 3,478 bales⁵¹ in 1924 to 9,407 bales in 1928. The average production is 1/4 to 1/2 bale to the acre. The amount ginned at the various towns indicate a rather even distribution of cotton throughout the county with more intensive cultivation in the aeolian soil belt and the Whitehorse sandstone area.

50 Fred Percy, conversation.

51 Oklahoma Crop Summary, (Oklahoma City, 1929), 208.



AGRICULTURAL PRODUCTION
FIG. 17

Year	Number of Gins	Town	Bales Ginned ⁵²
1928-29	2	El Reno	1,898
1928-29	1	Calumet	1,834
1928-29	1	Yukon	1,028
1928-29	1	Okarche	826
1926-27	1	Union	681
1926-27	1	Piedmont	275

The hay and forage crops are alfalfa, prairie hay, grain sorghums, and a small amount of sweet clover. Some alfalfa grows on the uplands but the greater part of it is raised in the bottom lands, with the North Canadian bottom lands ranking first in production. The acreage was 694 in 1900 and increased to 13,661 acres in 1920 (figure 17). The average yield is 2 to 2½ tons of hay per acre. It is also utilized for pasturing hogs. The acreage of prairie hay has decreased from 15,549 acres in 1910 to 6,702 acres in 1925, because the land could be utilized more profitably for agricultural purposes and the use of power machinery has caused less demand for prairie hay. With the exception of Fort Reno reservation, most of the prairie hay grows in the dissected area of the Whitehorse sandstone and along streams. It averages one ton to the acre. Sweet clover has been introduced by farmers

52 Corporation Commission, Cotton Department, Oklahoma City.

engaged in the bee industry for commercial purposes. Its acreage will increase with the increase of bees. The hives in the county numbered 19 in 1900, 396 in 1910, and 850 in 1920. Most bees are kept along the rivers where there are wild flowers and alfalfa through the summer.

Much grassland along streams and on rough surface is used for pasturing livestock. Small⁵³ flocks of mixed breed sheep, including Shropshire and grade Merino or western sheep, are scattered throughout the county (figure 16). Sheep are good property on small farms since they feed on waste products such as stubble fields, stock fields, and weeds in the pasture.

Some goats are kept in the black-jack area (figure 16). They serve well in cleaning the underbrush from the land.

Grain sorghums are drought resistant plants generally grown throughout the county as roughage for livestock. An increase in the acreage of kafir and milo correlates closely with the increase in poultry raising; 113,539 chickens in 1900 and 253,248 in 1925.

Vegetables and potatoes are grown in all parts of the county for home use. The average yield of potatoes is 55 to 75 bushels per acre. The Mustang area is the only place in the county where vegetables are grown commercially.

53 Fred Percy, conversation.

While the crops were passing through a period of transition and the farmer was taking up the crop best adapted to the soil in his area, there was going on a process of adjustment in size of farms. The shifting was gradual, some farms becoming smaller and some larger. Power machinery made it possible for farmers in the wheat area to till two, three, or as many as four quarter sections.

In an area of nine square miles located four miles south of Okarche there were originally 36 farms of 160 acres each but now the same area is occupied⁵⁴ by 23 families. The farms of the alluvial bottom lands are increasing in acreage since one man can care for alfalfa, corn, and wheat grown there by the use of machinery and some additional help during harvest.

The cotton farms of the Whitehorse sandstone area average forty acres⁵⁵ each. Those in the Mustang area range from 35 to 65 acres⁵⁶ since truck gardening requires much labor. The farms of the aeolian belt tend to retain their original area, though some farms are being cut into smaller cotton farms.

The exceptionally large farms of 1,000 acres and over, numbering three at present, are operated by livestock raisers who have a combination of ranch and agricultural farming.

54 Angeline Cook, conversation.

55 Fred Percy, conversation.

56 G. S. Rector, conversation.

The small tracts of three to ten acres are located near towns, especially El Reno, along the state highway and interurban line and serve as poultry, truck, and young fruit farms.

The farmers gained in a commercial way by growing crops best adapted to their area and cultivating farms of various area, yet the growing of row crops and cultivation of slopes increased soil erosion. The farmers were slow in recognizing the need of proper conservation of the soil. Some are conserving the soil, soil fertility, and moisture on their farms and preventing abandonment of land by terracing.

Approximately⁵⁷ 10,000 acres on 170 farms generally distributed over the county have been terraced and many more farmers are becoming interested in terracing.

The pioneer farmers killed native animal and bird life such as deer,⁵⁸ wild turkey,⁵⁹ prairie chicken,⁶⁰ and quail. The settlers finally realized their mistake in killing off all game, especially bird life since birds eat insects and weed seed and are a protection to the crops.

Game refuges⁶¹ which establish a resting place for the

57 Fred Percy, conversation.

58 Cheyenne Transporter, June 12, 1883.

59 Ibid., Dec. 15, 1884; Nov. 25, 1881; Dec. 11, 1882.

60 H. J. Smith, conversation.

61 W. T. Hunt, Supt. of Refuges, State Game and Fish Department, Oklahoma City.

propagation of game birds, have been located over the county. There are six main refuges consisting of 8,440 acres, and five secondary refuges covering 3,200 acres, making a total of eleven refuges, consisting of 11,640 acres or 18 square miles which is two per cent of the area of the county (figure 18).

Some prairie chickens were once set free on Fort Reno military reservation but they were never heard of again.

Pheasants have also been put out but best success is obtained by releasing Bob White quail.

In 1927, five hundred seventy quail⁶² were liberated throughout the county. Through⁶³ the assistance of the State Department, a total of 800 pair of Bob White quail and 60 pair of Ring Neck pheasants have been released.

Canadian County has chapters of the Izaak Walton League in Okarche, Yukon, Calumet, Union, and El Reno, which have been quite active in helping to protect game and wild life.

Although farmers keep many more livestock than they did in the early period of settlement, there is an adequate supply of water for the needs of the present population. Wells are the source of water for use in rural and urban districts. Streams, ponds, and springs furnish a limited supply of water.

62 El Reno Daily Democrat, March 9, 1927.

63 Herbert Keller, letter.

The depth of individual wells vary from 32 feet⁶⁴ on Duncan sandstone to 119 feet on Whitehorse sandstone while the average is the moderate depth of 61 feet.

Records of 21 wells scattered throughout the county show that eleven wells located on Hennessey shale, Duncan sandstone, and Whitehorse sandstone furnish soft water, nine wells on Chickasha and Dog Creek Blaine have hard water containing a large percentage of gypsum and other mineral salts, and one on the Duncan sandstone is salty.

Many farmers and town dwellers have cisterns in order to keep a supply of soft water for laundry purposes.

The domestic water supply and the only dependable water supply for livestock is obtained from wells. The old bucket and pulley method of drawing water has been replaced by pumps and windmills. With the exception of the area south of the South Canadian river, 50 per cent⁶⁵ of the farms are supplied with windmills.

The wells supply a sufficient amount of water throughout the year. The wells⁶⁶ at El Reno supply two million gallons a day. El Reno's largest consumer is the Rock Island which uses 17 to 18 million gallons per month. The wells⁶⁷

64 Chas. N. Gould, Geology and Water Resources of Oklahoma, (Washington, 1905), 117, 118.

65 Fred Percy, conversation.

66 City Water Department, El Reno, Oklahoma

67 El Reno American, March 22, 1928.

of Yukon supply 140,000 gallons daily. During the construction of pavement in that city, the wells supplied 430,000 gallons daily without causing a shortage.

The need of an increased water supply has grown slowly and constantly. Larger herds of livestock now kept on the farm consume more water than was required the first years of settlement. A new demand is arising in the rural districts. In⁶⁸ 1928, eight rural homes were made modern and it is possible that many more will do likewise in the next few years.

The run-off of surface water is preserved in small reservoirs called ponds. Streams and ponds are utilized as a water supply for livestock during the rainy seasons.

There are springs⁶⁹ of soft and hard water in various parts of the county. A few springs have sufficient flow to irrigate garden patches.

Caddo Springs at the Cheyenne and Arapaho School at Concho is the largest spring. It appears to have been the determining factor in the location of the school at that place. It now supplies water for the 52 buildings, livestock, and swimming pool of the school. The waste flow from the spring forms the head of Caddo Creek, a tributary of John's Creek.

68 Fred Percy, conversation.

69 Chas. N. Gould, Geology and Water Resources of Oklahoma, (Washington, 1905), 118.

Summary

At the time of the opening, the county was appropriated by settlers who were evenly distributed throughout the area. After tilling the soil for a few years, farmers recognized regional differences in relief, soil and available markets and began growing the crops best adapted to their particular area. There followed a readjustment in population and a slow and gradual shifting in the size of farms. The action of cultural forces on edaphic forms during forty-one years has resulted in the development of six cultural areas, each having distinct characteristics.

The construction of trunk lines leading into El Reno enhanced intensive utilization in the zone of interpenetration between the rural area and the urban center.

Canadian County is rural and ^{probably} will continue to be an agricultural district. Intensity of land utilization will increase due to the trade influence of Oklahoma City. Some areas, especially the wheat district, will engage in greater diversity of crops.

CHAPTER III

URBAN ELEMENTS IN THE RURAL LANDSCAPE

Although the Indians who were located on the Cheyenne and Arapaho reservation did almost nothing to develop the great prairie plains agriculturally, they were directly responsible for the somewhat intensive utilization of the land occupied by and immediately surrounding their permanent Agency, Darlington, which was located at the crossing of the North Fork of the Canadian river by the Chisholm Trail. This in turn lead to the utilization of some of the natural resources for the purpose of improving the Agency. A sawmill¹ was constructed on the south side of the river. Employees houses were built from the native lumber. Brick and lime² were also burned in kilns and used about the Agency.

The first houses had from one to three or four rooms and were built along a street which ran parallel to the north bank of the river. The rough cotton-wood lumber was green and shrank badly so that the houses were open and very cold in winter.

Darlington was different in function from most of the

1 John H. Seger, Early Days Among the Cheyenne and Arapaho Indians, (Norman, 1923), 5.

2 Cheyenne Transporter, Sept. 11, 1882.

early towns of Oklahoma in that it was primarily a supply station and distributing point for the Indians of the entire reservation from 1870 to 1892. Every Monday morning, Indians, some of whom lived in tepees within a mile or so of the Agency came in to receive their rations of coffee, sugar, flour, etc., at the commissary and their issue of beef at the corral, which was located across the river, two miles and a half from the Agency.

After³ the issue of 150 to 200 beeves, the camp was a busy scene since most of the Indians brought their tepees and stayed for a day or two. Poles were arranged outside of every tepee and the squaws hung the beef on them to dry.

Each spring, the employees of the Agency went out and gave the Indians instruction and assistance in farming. After three years, the Agent decided that the best way to educate the Indians in the methods of agriculture would be to put the children in schools so that they might teach their parents farming and stock raising. Schools were organized and the children from the reservation were brought together at Darlington. The first schoolhouse⁴ was a shack made from cotton-wood lumber. It had no blackboard and was furnished with two tables and a few benches. The parents objected to having children of

3 D. B. Dyer, Fort Reno, (New York, 1896), 164.

4 John H. Seger, Early Days Among the Cheyenne and Arapaho Indians, (Norman, 1923), 7.

the two tribes attend school in the same room so the Cheyenne children were moved into another building.

The children came to school in the morning and returned to their tepees in the evening. This plan proved very unsatisfactory since parents took their children and went on buffalo hunts about two-thirds of the time.

The irregular attendance led to the establishment of boarding schools. The Arapaho Mission⁵, surrounded by a two acre grove of cotton-wood trees, was a large two-story frame building with accommodations for thirty-five children and later was enlarged to accommodate 120 children. The Mennonite Mission⁶ was a three-story building with a basement and was one-half mile north of the Arapaho mission. The Cheyenne⁷ school was situated three miles north of Darlington in a commodious three-story frame building and its water supply was obtained from Caddo Springs.

Camp Indians⁸ came in to Darlington to Sunday School and church at the Arapaho and Mennonite missions.

Darlington was also of importance as a trade center. The cattlemen who drove Texas herds north patronized the traders' stores and the ranchmen on the Cheyenne and Arapaho reser-

5 The Cheyenne Transporter, Nov. 10, 1880.

6 Ibid., Nov. 10, 1881.

7 Ibid., Nov. 10, 1880.

8 Ibid., Jan. 25, 1881.

vation used Darlington as a regular meeting place to plan spring and fall roundups, to transact cattle business, to replenish their supplies, and were often patrons of the hotel during cold snaps (figure 19). In fact, some of the families of ranchmen lived in Darlington. Seventy-one ranchmen used the Cheyenne Transporter to advertise their brands. Since it was the only paper published within a radius of 100 miles, it had upwards of 800 subscriptions and circulated among many ranches⁹ of the territory, even down across the Texas line.

Traders and travellers who passed through Darlington patronized the stores, hotels, and feed stores.

All¹⁰ goods received at Darlington and the Fort were transported by freighters from Wichita, 165 miles, Arkansas City, 130 miles, and Caldwell, 110 miles until 1887 when supplies were freighted from Oklahoma station at the site of modern Oklahoma City after the construction of the Sante Fe railroad. Individual freighters, some of whom used oxen¹¹, were almost entirely replaced by the Cheyenne and Arapaho Transportation Company¹² which hauled freight for the nominal sum of one dollar and fifty cents per 100 pounds. It was safer and more certain to travel in caravans of 25 to 75 wagons.¹³

The development of stage lines over which passengers,

9 Cheyenne Transporter, Dec. 11, 1882.

10 J. B. Thoburn, El Reno American, March 22, 1928.

11 Cheyenne Transporter, Nov. 25, 1881.

12 Ibid., May 10, 1881.

13 Ibid., Sept. 10, 1880.

mail, and express were conveyed caused Darlington to increase in importance as a crossroad town since three trails intersected there. Buckboards¹⁴ and hacks ran from Darlington, west to Fort Elliott, Texas, by way of Camp Supply three days each week and daily trips were made north to Wichita, Kansas, south to Fort Sill, and east¹⁵ to the Oklahoma station at the site of modern Oklahoma City.

When the Indians took allotments in 1891 and rations were no longer issued to them, Darlington ceased to be a distributing point and rapidly declined. In 1910, the school¹⁶ was consolidated with the Cheyenne school at Concho and the old Agency, including 640 acres of land was sold to the Masonic Fraternity of the State of Oklahoma, who maintained a home for orphans until 1922. The buildings were then purchased by the State and served as a home for drug addicts from 1923 to 1925. Since that time, it has been abandoned and the brick buildings are slowly going to ruin.

The excited throng of pioneers, that gathered at the boundary line of the Oklahoma country and waited for the firing of the shot to start the race on April 22, 1889, was made up of two groups of settlers, who made the race side by side.

14 Cheyenne Transporter, Aug. 25, 1880.

15 A Pioneer Railroad Agent, Chronicles of Oklahoma, II, (1924), 51.

16 C. W. Ruckman, letter.

The object of one group, composed of farmers, was to take a homestead and develop the agricultural industry while the objective of the other group, made up of merchants, bankers, and professional men, was to stake a lot and open a shop in a rough board shanty and develop the commercial life of the community.

Men choosing to settle in Canadian County, staked and platted the townsite of Reno City¹⁷ a few miles from Darlington and Fort Reno. This was thought to be an ideal location for a crossroads town since two railroad surveys¹⁸, one to run north and south and the other east and west, intersected at this point.

Building¹⁹ material, provisions, tents, and merchandise were transported to the new town by wagon trains. Curb lines were marked by sod furrows and the streets were lined with stores, saloons, and shacks.

The arrival of spring rains changed the appearance of the town. Merchants plodded to and from their business through the gumbo mud and farmers came to town for supplies only when absolute necessity demanded. More shacks and store buildings were erected and Reno City continued to grow in spite of the

17 Clyde Musgrove, Oklahoma City Times, April 22, 1929.

18 W. F. Combs, conversation.

19 Clyde Musgrove, Oklahoma City Times, April 22, 1929.

mud, mosquitoes, and regardless of the fact that the rural population was very poor and had little money with which to purchase even coarse food and the poorest quality of clothing. When the town was at its height and one year old, it had a population²⁰ of about 1000 and the business houses consisted of two grocery stores, one bank, a lumber yard, two dry goods stores, a blacksmith shop, and sixteen saloons. These supplied the town and patrons of the rural district as far as the limits of the county on the north and south and only five miles to the east since trade in that direction was shared with Frisco.

Frisco²¹ commenced its formal existence two weeks after the opening of the territory. It was founded as a colonization project by sixty veterans of the Civil War. The site that they had chosen for their proposed colony was taken by one who made greater speed in the course of the race than the veterans, so a new site was chosen two miles south and one mile east of present Richland. Frisco grew rapidly and threatened to surpass Reno City. It once commanded the attention of all of Oklahoma Territory and ranked as an aspirant for the state capitol even though its population numbered²² only 327 in 1890.

20 W. F. Combs, conversation.

21 El Reno American, March 22, 1928, 6.

22 United States Census, 1890.

The farmers of this area, like those of Reno City, were very poor and had grown only a small amount of corn and vegetables and had nothing to market, yet the rural trade from five miles west and twelve to fifteen miles in all other directions, provided ample business for the grocery store, department store, and four saloons.

While Reno City and Frisco were becoming well established in a commercial way, the Rock Island railroad was pushing southward as a friend of the homesteaders and giving opportunity for new towns. The line was completed to Minco, Oklahoma, which remained the terminus until 1892, and the first train crossed Canadian County on February 14, 1890, thus relieving the freighters of their long journey along the Chisholm Trail. The routing of the railroad had failed to conform to the original survey and the Rock Island ran almost two miles west of Reno City.

The completion of the Choctaw railroad connected the Rock Island with Oklahoma City and made the new village of El Reno a crossroads town when it was only a few months old. The Choctaw railway also gave impetus to a new town named Yukon, which was three miles south and one east of Frisco.

The peculiar curve in the railroad north of El Reno accounts for the location of El Reno. It was made when the construction company, at three miles south of Kingfisher,

diverted southwest of the original survey following the Chisholm Trail and ran their line across into the Cheyenne and Arapaho reservation,²³ assuming it was government land and they could take possession of it. When they reached Concho they had planned to direct their route up the draw east of the buildings and would have destroyed the spring which furnished the water supply for the school. The officials of Concho called the troops and they ordered all operations to cease. The Federal Court then granted the railroad permission to direct their line west of Concho, which necessitated making a deep cut, and then they were to curve east and cross the ninety-eighth meridian as soon as possible. They had planned to go through Darlington and Fort Reno but the new routing caused the railroad to miss both.

The place where the Rock Island crossed the ninety-eighth meridian, leaving government land, is the first place in the county where there could be a town on the railroad. A camp, composed of a few tents, some shacks, and a box car which was the original depot, sprang up and was named El Reno. Stores²⁴, restuarants, and saloons were built along the business avenues. El Reno immediately became a rival town of Reno City.

23 W. E. Fryberger, conversation.

24 Clyde Musgrove, Oklahoma City Times, April 22, 1929.

The rains continued and Reno City became an impassable bog, but El Reno was on land of a higher elevation and freighters supplied the town with lumber and provisions. Some people of Reno City took lots in the new town and waited for further developments. Many occupants of Reno City began moving family, business, and buildings to El Reno. Members of the opposing faction took destructive measures to prevent Reno City moving to the railroad but sentiment gradually changed and El Reno was recognized as the real town.

At present, the site of the once flourishing town of Reno City is an alfalfa field and its memory lingers only in the name of a nearby country school.

The Rock Island railroad built a depot at Union City and the original Union, which was one-fourth mile west of the railroad track, moved to the present townsite. The town of 250 to 350 had a rather small rural area from which to draw trade since the area across the South Canadian river was unsettled (figure 20).

Frisco and El Reno both recognized the gain to be derived by obtaining the location of the county seat. On the election day March 17, 1891, Reno City supported Frisco²⁵ but El Reno voted soldiers from Fort Reno and members of the

25 El Reno American, March 22, 1928, 6.

railway construction crew. Frisco received the most votes but El Reno won the county seat by a court decision. Since El Reno was a crossroads town and the political center of the county, it was destined to become the largest town of the county.

Following the loss of the county seat fight and the completion of the Choctaw railroad, Frisco began to fade away. Most of Frisco moved to Yukon and the latter town was now assured of a somewhat extensive growth with its rather large rural tributary area.

The opening of the Cheyenne and Arapaho reservation in 1892 brought about the founding of the town of Okarche, the name of which was coined by the combination of the abbreviations of Ok--Oklahoma, Ar--Arapaho, and Che--Cheyenne. The railroad had built a depot there in 1890. A post-office was established in the same year and was maintained upstairs in the depot by the agents wife. A mail route ran from there to Rock Island, Racine, and Mathewson (figure 21) daily. Okarche²⁶ had served as a shipping point for cattle from all over the western range. In fact, the land which is now the townsite was completely covered with shipping pens, holding thousands of cattle. Okarche²⁷ was

26 A. J. Thompson, letter.

27 John Hau, conversation.

supported by farmers from fifteen miles east, five miles south, and as far west as Watonga, Oklahoma(25 miles), from which place salt was brought from the salt plains (figure 20).

In 1898, the Panhandle Division of the Rock Island was extended west from El Reno and relieved the problem of transportation soon after settlement. A farmer²⁸ felt the need of a shipping point and plotted a portion of his farm into town lots and called the townsite Calumet. Geary grew up on the western boundary line of the county.

Another railroad, the St. Louis and San Francisco, was built across the southeast corner of the county in 1900-1901. A man from Oklahoma City recognized the possibilities of the nearby fruit growing area and started the town of Mustang²⁹ by building a canning factory which never canned any fruit. The town was named from Mustang Creek along which mustang ponies were herded in early days.

The opening of the Kiowa-Comanche-Wichita reservation by lottery in 1901 added the southwest corner to Canadian County. A farmer³⁰ named W. E. Niles began a country store in a building 18 by 24 feet. There were many factors which caused his business to be a success. It was many miles to a

28 Calumet Weekly Criterion, Aug. 1, 1908.

29 G. S. Rector, conversation.

30 I. M. Cooley, conversation.

railroad town and transportation was difficult. About ten per cent of the area was dissected by narrow V-shaped valleys 100 to 175 feet deep. It was evident that it would be many years before good roads could be constructed. A ferry at Caddo Jake's crossing and one south of Union City were the only places the South Canadian river could be crossed if business necessitated a trip to the county seat. Since people were cut off from outside markets, they did practically all of their trading at Niles.

In 1903, the Fort Smith and Western railroad connected El Reno with Guthrie. The agricultural population in the northeast part of the county felt the need of nearby market places and Piedmont and Richland developed along the railroad.

Following the opening, the establishment of numerous post-offices gave rise to centers short distances apart (figure 21). Many optimistic people, hoping to create a city and have a railroad build through it, started a post-office which was operated in connection with a small stock of groceries in the home of a farmhouse. The compensation received was probably an added reason for starting so many. The postmaster³¹ was permitted to keep the entire amount received from the sale of the first 50 dollars worth of stamps.

31 D. C. Bothel, conversation.

Rock Island, Racine, Mathewson, and Eda, until 1890, received their mail by stage which ran from Guthrie by way of Kingfisher and returned to Guthrie by way of Edmond. A hack then made daily trips out from Okarche (figure 21). Miller, Frisco, and Reno City first received mail from Oklahoma station at the site of modern Oklahoma City. It was sometimes delivered on horseback. All other post-offices received daily deliveries from El Reno.

The early settlers of Canadian County were very poor. They had come to the new country to obtain a home. Most of them were young, active, and energetic and had such faith in the future of the region that they set to work with a will to subdue the new land. At first the yields were small but the development of the county proved it was a rich agricultural district. Eight or ten years after settlement, the faith of those who had clung to their land and toiled on was abundantly justified.

The fields of grain yielded an abundant harvest. Cotton had increased in acreage. Herds of livestock had increased in numbers. Fruit trees had begun to bear. Housewives were engaged in poultry raising. In fact, everything grown on the farm produced marketable products.

The prosperity of the agricultural area was reflected in the business of every trade center in the county. There

had developed an interdependence of the urban centers and the surrounding trade area of the rural districts. Farmers were now financially able to purchase lumber and build new houses to replace the rough board shanties or dugouts. New furniture was bought. The grocery and dry goods stores carried a larger stock and a better quality of goods since the farmer's living conditions were of a higher standard. Less material was sold on credit. The implement business expanded. New machinery replaced the old sod plow and second hand binders. People no longer traveled in lumber wagons but in new buggies drawn by driving teams.

On the other hand the farmers were dependent on the towns for available markets. However, the towns readily responded and many new industries began.

The rich agricultural area surrounding El Reno produced enough grain to start a mill³² with a capacity of 150 barrels per day in 1893. All the county hauled wheat to the mill for a year or two. Sometimes it was only a small amount to exchange for flour since it was more economical to exchange wheat for flour than to buy flour at the store. At that time the Rock Island was the most western railroad in central Oklahoma. All grain from the west was hauled to the mill by wagon

32 El Reno American, March 22, 1928, 56.

trains, sometimes as far as 100 miles. Increase in production of wheat caused the capacity of the mill to increase to 300 barrels a day in 1898. Another mill was built in 1894 with a capacity of 150 barrels a day but was increased to 300 barrels a few years later and in 1898 the flour capacity was increased to 400 barrels a day. The mill at Yukon began during the early years with a capacity of 50 barrels a day. Two elevators³³ were built at Okarche and one at Union City prior to 1897. Each of them had a capacity of 5,000 bushels a day. Elevators were built at other towns soon after the town started.

The money received from the sale of products was nearly always spent in the same town and the amount sold would reflect the business. From July 1, 1893 to January 11, 1894, there were shipped from Union City³⁴

501 carloads of wheat

215 carloads of baled hay

54 carloads of oats @ 27¢ bu.

150 carloads of corn @ 30¢ bu.

Okarche³⁵ shipped 521 carloads of wheat, besides other grains. A business of \$10,000. to \$12,000. was done at the depot monthly and was constantly increasing. The business for

33 Supplement of the Okarche Times, Sept. 30, 1898.

34 El Reno Democrat, Jan. 1, 1894.

35 Supplement to Okarche Times, Sept. 30, 1898.

August, 1898 amounted to over \$13,000, an increase of over \$2,000. above that of August 1897.

The farmers of Okarche community purchased fifty cars of coal from the coal dealers during 1897 and a large quantity of corn.

Thirty threshing machine outfits were shipped to Okarche in the summer of 1898.

The dairy business had an early beginning in the county where there were available markets. The first creamery³⁶ in the state was located at El Reno in the summer of 1895. The farmers³⁷ of Canadian County received almost 1,000 dollars for the milk which they sold to the creamery during August, 1895. The creamery had a branch station at Oklahoma City and a sub-station at Frisco. Okarche had a cheese factory which operated for several years.

El Reno was the first city in the territory to secure the location of a cotton press³⁸, which made it the trade center for the marketing of that staple. It had a large trade in both wholesale and retail lines drawn from a distance of more than 100 miles west and southwest. A cotton gin was built at Okarche³⁹ in 1894.

36 El Reno Daily Democrat, July 13, 1895.

37 El Reno Daily Eagle, Sept. 10, 1895.

38 Oklahoma State Gazetter and Business Directory, 1898, Vol. I, 130.

39 Burt Standard, conversation.

El Reno had two wholesale⁴⁰ liquor houses and one wholesale grocery⁴¹ house. Many towns on the railroad and wagons from many western towns were loaded at the wholesale grocery regularly. At times, freighters⁴² from the western counties were forced to go to Minco for their loads because several miles of the road this side of the Canadian bridge was impassable.

In 1893, El Reno⁴³ had 267 business houses. An increase in production of the surrounding agricultural community increased the demand and in 1895, there were 327 business houses, of which 201 were retail stores.

Methods of agriculture have advanced some by the use of power machinery yet the yield has increased very little, giving the agricultural population of the county little more to spend at present than they had twenty years ago.

However, the improvement of roads and rapid means of transportation have brought about a change in the size of the trade zone tributary to each urban center and has reduced the amount of trade in small towns.

Practically every mile of road in the county can be traveled in comfort. The 236 miles of county road which are graded

40 El Reno Democrat, May 5, 1893.

41 El Reno Daily Eagle, Sept. 16, 1895.

42 Ibid., July 12, 1895.

43 El Reno Democrat, May 5, 1893.

periodically are well distributed throughout the county while the 80.75 miles of gravel road are in the river bottom, on extremely sandy areas and on the axial roads leading into the small towns (figure 26).

The good roads have not prevented the small towns from retaining their grain markets since the market price of grain is about the same at all places, especially during threshing season. Nearly all grain is trucked directly from the combine to the elevator. The charge of trucking is a certain amount per bushel per mile and it is cheaper to market at the nearest place. However, there are times when the elevators are full and the farmers need to make longer hauls until the railroad can supply cars to relieve the elevators.

Nearly every rural home has a telephone and the farmer usually inquires about the price of wheat at several towns before making deliveries, especially in winter when there is a greater fluctuation in prices.

When the Fort Smith and Western railroad discontinued operation in 1910, Richland lost its grain market. The elevator moved. Piedmont also suffered from the loss of the railroad. One elevator⁴⁴ was torn down and the remaining truck their wheat to Yukon, thus giving Yukon an added profit from the area. The cotton gin at Piedmont also ceased

44 Ed Wascheck, conversation.

running two years ago since the surrounding area is principally a wheat area and there was not enough cotton grown for profitable ginning business. Mustang elevator burned and has not been replaced. The canning factory was made into a four stand gin which was also torn down.

Okarche has retained four elevators, one small mill, and one gin. Calumet has two elevators and one gin. Union has one elevator and one gin. Yukon's mill has grown continuously to a capacity of 2,000 barrels⁴⁵ of flour a day and 500 barrels of meal a day. Wheat used for milling is obtained from Oklahoma and sometimes from other states. Yukon has one gin.

One El Reno mill⁴⁶ was enlarged to 1,000 barrels of flour a day and an elevator capacity of 800,000 bushels and the other mill has a capacity of 800 barrels of flour and 300 barrels of meal per day and elevator capacity of 225,000 bushels of grain. El Reno has two cotton gins.

A poultry feed mill has been added (1927) with a capacity of 300 barrels of meal.

The alfalfa mill organized in 1912 and has been enlarged to capacity of 75 sacks an hour or four cars a day with a storage house with capacity of 75 carloads.

45 C. F. Alexander, letter.

46 El Reno American, March 22, 1928, 56.

The small towns have also retained their grocery trade (figure 22) with the exception of Mustang, which has one very small grocery store where only townspeople and school teachers trade. Country people trade there only when the roads are extremely bad and they cannot get to Oklahoma City. Richland has two small grocery stores.

Every square mile of the county is supplied with U.S. Mail and every town with the exception of Richland has a rural delivery going out from the local post-office (figure 21).

The banking⁴⁷ business is well distributed among seven economic centers in the county and one outside of the county. There is very little overlapping in the banking trade. El Reno serves the largest community (figure 23).

Practically all the trade of the southwest corner goes out of the county.

All the agricultural districts show a similar growth in educational matters (figure 24). El Reno has the best high school but its area does not have as high percentage as the

47 J. Paul Loasen, Okarche, letter.
 Ed Wascheck, Piedmont, conversation.
 Montye A. Kilgore, Union, conversation.
 L. W. Holman, Calumet, conversation.
 Cashier of Hinton Bank, letter.
 D. B. Phillips, Yukon, conversation.
 J. Y. Taylor, El Reno, conversation.
 L. R. Gephart, El Reno, conversation.
 C. F. McDonald, El Reno, conversation.

map might indicate since Calumet, Union City, Mustang, and Piedmont have consolidated schools, Okarche transfers some districts as a whole and District No. 2 is Union graded.

Local newspapers from Okarche,⁴⁸ Yukon,⁴⁹ Calumet,⁵⁰ and Geary⁵¹ are well distributed around their centers while the El Reno⁵² papers are found in many homes throughout the county (figure 25).

While the small towns have retained most of their trade in groceries, grain, machinery, and banking, El Reno's trade sphere has expanded slowly and steadily until it now envelops trade from the entire county.

El Reno is the county seat and favorably located in the center of the county. The two United States Highways Numbers 81 and 66, the Main Street of America, intersect and the town is locally spoken of as the Crossroads of America (figure 26). Highway No. 66 is paved from Oklahoma City to one and three-fourths miles west of El Reno. U. S. Highway No. 81 is paved from Okarche to one mile south of El Reno and the remainder of the highway is under construction (1930). Gravel roads lead to the pavement so one can travel from any part of the county,

48 E. Q. Lain, letter.

49 H. W. Smith, conversation.

50 Editor of Calumet Chieftain, letter.

51 Editor of Geary Star, letter.

52 Alice Smith, conversation.

N. A. Nichols, conversation.

except the southwest corner, to the county seat in thirty minutes.

Many farmers from the entire county make a practice of going to El Reno once a week. There has been a small increase in the number of business houses in El Reno but a great change has been made in the size of them and the quality of the stock carried. People who have rapid means of transit naturally go to the town which offers the largest variety from which to select. Practically all dry goods and some ready-to-wear clothing are purchased there. The only moving-picture theaters in the county are three in El Reno, and many, especially young people, are attracted by that social advantage.

The hospital gives medical treatment to patients from a rather wide area. All Rock Island employees of the district are cared for at the El Reno Sanatorium.

The city library⁵³ serves the men and women of the farm clubs with bulletins, farm periodicals, and agricultural books. Books are loaned to rural schools.

El Reno is fortunate in receiving trade from Fort Reno⁵⁴ and Concho. Fort Reno has an average monthly expenditure of \$26,551.52 for salary, forage, supplies, and other materials. The employees of the fort spend much of this amount in El Reno

53 El Reno American, March 22, 1928, 6.

54 Ibid., 4.

and some of it reaches the town indirectly. Polo tournaments draw many people to El Reno.

The 51 employees⁵⁵ and 225 Indian children of Concho school do some shopping in El Reno. The government provides food for all of them and clothing in addition for the children.

The laundry and cleaners serve every town in the county by sending out trucks to collect clothing and return it several times each week.

Gasoline is delivered by truck to most of the towns and to filling stations which are located along the paved highway.

El Reno ranks first as an agricultural town and second as an industrial town. The largest industry is owned by the Rock Island railroad.

The completion of the intersection of the two trunk lines at El Reno made it the logical point for the location of the second district office building, the joint shops for the Oklahoma-Southern and Panhandle divisions, and other departments of its gigantic business.

In 1928, the Rock Island⁵⁶ erected a steel car repair shop which is 78 feet wide, 400 feet long, and 40 feet high, and five miles of additional yard tracks. The erection of the building brought 50 steel car repair men and their families to

55 C. W. Ruckman, letter.

56 The Daily Oklahoman, Nov. 3, 1929.

El Reno.

In 1928, El Reno⁵⁷ had a population of 8,576 and 1,146 of them were employees of the Rock Island. Of this number 979 were heads of families making 3,362 people or 40 per cent of El Reno directly dependent on the railroad for its monthly wage of \$169,262.89 and yearly wages of \$2,031,154.68. In 1929, the Rock Island⁵⁸ paid \$76,961.30 taxes to Canadian County. One hundred fifty men and women are employed in the office building. The El Reno offices have direct supervision of the second district which covers 4,000 miles including lines from Kansas City to St. Louis, Missouri; St. Joe, Missouri to Dallas, Texas; Harrington, Kansas to Tucumaari, New Mexico, thence to Memphis; Little Rock to Eunice, Louisiana; and all the branch lines between these points.

El Reno's solidity as a center has been influenced by the tributary agricultural area, by its railroad shops, and its industries. It is not probable that El Reno will increase much in size unless some unforeseen development should arise. However, there are indications of oil development. Most of the farms are leased for oil and many farmers north and east of El Reno are selling one-half their royalty for \$4,000. Should oil develop, it would only help the town temporarily. The drillers and men

57 W. E. Babb, letter.

58 The Daily Oklahoman, Nov. 3, 1929.

who work in the oil fields would, no doubt, live in El Reno but all oil business would be transacted in Oklahoma City and the oil capital would remain in the city. Also, most of the wealth suddenly gained by the farmers would be spent in Oklahoma City.

Since roads have been improved and transportation has become more rapid, trade of the entire county has been overshadowed by the state's metropolis, Oklahoma City. Products such as bread, groceries, etc., are supplied from the city daily. Recently⁵⁹ milk routes have been organized and milk is collected daily for Oklahoma City use. One route extends some miles west of Calumet. The daily newspapers from the City are delivered to Canadian County farmers who watch for reduced prices of clothing, machinery, and auto accessories and take advantage of them. Almost all livestock is trucked to the city. The local automobile agencies keep very few new cars in stock, but go to the city and get a new one for delivery when a sale is made. Many people go to Oklahoma City for medical treatment and the hospitals have a rather large patronage.

According to the last census report, Oklahoma City's trade sphere⁶⁰ includes El Reno and Yukon. In fact, it has

59 S. F. Smith, conversation.

60 The Daily Oklahoman, June 3, 1930.

entirely absorbed the trade of some areas on the east side of the county. Many people living in El Reno buy all their clothing at the city. The railroad people have passes and often go to Oklahoma City twice a week to shop. The effect is very evident. The dry goods stores and ready-to-wear stores of El Reno do not carry as good quality or as large stock of goods as they did ten years ago.

Some people who work in the city live in Yukon and go back and forth on the interurban or drive daily. They naturally do most of their trading there.

The district surrounding Mustang has been entirely absorbed by Oklahoma City. The farmers of that area raise vegetables⁶¹ and fruit and truck it to the city markets over State Highway No. 41, which is graveled. Mustang receives trade from its surrounding area only in extremely bad weather.

The proprietor of the country store at Niles gets all his goods from Oklahoma City except gasoline which is trucked from Hinton. He has built up a good transportation business in Walnut township by trucking livestock to Oklahoma City and trucking his grocery supplies on the return trip.

An artery of growth extending out from the central organism of Oklahoma City has developed along United States High-

61 E. J. Sterba, conversation.

way No. 66. Little stores, filling stations, truck farms, nurseries, and tourists camps are along the way and have reached the east boundary line of Canadian County. In a few years it will push out farther and increase the price of land by its intensive utilization.

Summary

Settlers of the county early felt the need of a market for agricultural products and towns were built along the railroad lines at about equal distances apart. They thrived and grew for a time since their business received practically all trade from the surrounding area.

After the building of good roads, the paving of United States Highways and the coming of automobiles, there was an orientation in trade areas. El Reno slowly reached out and drew trade from small towns. At the same time Oklahoma City's trade sphere was pushing out and overshadowing the entire county with a greater intensity on the east side.

The small towns will continue to lose trade to El Reno and Oklahoma City and some of them will decline rapidly in the next few years. El Reno will continue to be an agricultural center and a railroad town, but will grow very little in size because it is too near Oklahoma City. There is a possibility of oil development which would cause El Reno to have a tempo-

rary growth composed of oil drillers and workmen. The oil business and managers will remain in Oklahoma City.

However, should the oil business attain an exceptionally high degree of development, and cause Oklahoma City to grow so that El Reno would be incorporated as a suburb of Oklahoma City, El Reno might become a residence section for the better and wealthy class of people.

Conclusion

Although the Indians occupied a part of Canadian County almost twenty years prior to settlement, they did very little toward the utilization of the fertile soil. The homesteaders entered the area by race and immediately began agricultural pursuits. The rural landscape has constantly changed in appearance from that day to the present time. The one room shack has been replaced by a larger and better house. Population has decreased in some areas and increased in others. As the farmer adjusted his type of farming to the crops best adapted to the soil and to climatic conditions, farms have gradually shifted in size. The original 160 acre farm became larger in the cultural areas where wheat is grown and smaller in the divisions that engage in cotton and truck farming.

Canadian County will continue to be an agricultural area unless some unforeseen economic factor, such as the discovery of oil, should develop. Farmers will probably continue cultivating the same plants since the county lies within the sub-humid area of central Oklahoma and climatic conditions will not tend to cause a change in agricultural products. However, as years advance, Oklahoma City may be influential in changing the type of farming and the intensity of land utilization to a certain extent. The trucking industry of the Mustang area will doubtless expand and extend over into neighboring areas. As

more milk routes and routes of greater mileage extend out from Oklahoma City, more farmers will engage in the dairy business. Larger and more numerous dairy herds will necessitate the planting of a larger acreage of crops such as rye for pasture and a greater production of hay and forage crops. The acreage of kafir and milo will increase in accordance with the growth in size and number of poultry farms.

The small towns will retain a certain amount of the trade of the rural districts tributary to them but they will slowly decrease in size. The ones which do not have railroad transportation facilities will become extinct. Even though El Reno is able to absorb more trade from the entire county, it will always be primarily an agricultural town. There is little prospect that it will increase much in size because of the trade influence of Oklahoma City. However, El Reno will continue to be the political center and will retain a place of major importance in the commercial leadership of the county.

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APPENDIX A

SOURCES OF MAPS

- Figure 2. United States Bureau of Census, (1890, 1900, 1910, 1920), Washington.
- Figure 3. Survey made by C. W. Thornthwaite, Norman, Oklahoma.
- Figure 4. From map of Central Oklahoma made by C. J. Bollinger.
- Figure 5,6,7. Summary of Climatological Data of U. S., by Sections, Reprint of Sec. 41, Western Oklahoma, (1920), Washington.
- Figure 8. W. C. Kite, Geology of Kingfisher and Canadian County, Bull. No. 40--O. (1927), Norman.
- Figure 10. Eastern half from Kingfisher Sheet, 1892 and Chickasha Sheet, 1893; Western half approximate.
- Figure 11. Captain Nathan Boone's Journal, Chronicles of Oklahoma, VII, March 1929.
- E. H. Smies, Soil Survey of Oklahoma.
Information from pioneers.
- Figure 12. Generalized from map in E. H. Smies, Soil Survey of Canadian County, Oklahoma, (1917), Washington.
- Figure 14,15,16,17. United States Bureau of Census, (1890, 1900, 1910, 1920), Washington; Oklahoma Crop Summary, (1929), Oklahoma City; United States Census of Agriculture, (1925), Washington.

- Figure 18. W. T. Hunt, Supt. of Refuges, State Game and Fish Dept., Oklahoma City, Oklahoma.
- Figure 19. Senate Executive Doc. 54-48-1.
- Figure 20. Information from W. F. Combs, W. E. Fryberger, El Reno, John Hau, Okarche, O. V. Mulvoy, Yukon, D. P. Richardson, Union.
- Figure 21. Grant Foreman, Early Post Offices of Oklahoma, Chronicles of Oklahoma, VI, VII. Areas served by mail supplied by postmasters.
- Figure 22. Information from Business people of towns represented on maps.
- Figure 23. Information from bankers of towns represented on map.
- Figure 24. Information from Office of County Superintendent, El Reno, Oklahoma.
- Figure 25. Information from editors of newspapers represented on map.
- Figure 26. From map compiled by H. G. Powell, County Engineer, El Reno, Oklahoma.

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