

GENERAL HISTORY OF OK - PRELUDE TO "KREMLIN LIFE" by Arrel Toews

I thought it good to preface the "[Kremlin Life](#)" history on [this website](#) with a **brief overview of the history of our area** and have decided to **begin with the formation of the universe** itself!

Updated 5/04/2025

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Layman's Overview of the Geology and Geography of OK

Although it has a number of lakes, both naturally occurring and man-made, as well as several notable rivers, OK is about as **land-locked** as it could possibly be. The northern shore of the Gulf of Mexico, which once basically was at the S boundary of OK, is now ~400 miles S, and the Pacific and Atlantic Oceans well over 1,000 miles to the W and E, respectively. Although relatively dry during the current era, eons ago what is now OK sat on the lush tropical paleo-equator in the middle of supercontinent Pangaea - for 500 million years or so, it was either at the bottom of a shallow ancient sea - or alternately a dry lakebed - as the sea filled up, then receded, then filled again with warm salty water. These cycles began in the late [Cambrian Period](#) (~500 million years ago; mya), and the recurring alternate inundation by shallow seas followed by uplifting above sea level eventually left sedimentary strata (sandstones, limestones, dolomites, shale, salt, gypsum, chert) rich in [fossils](#) and mineral deposits. During the [Carboniferous Period](#) (360-300 mya), rich organic deposits accumulated and percolation of this organic debris over millions of years has given OK its rich **petroleum resources**, albeit buried over a mile beneath the surface!

For about 15 million years during the [Permian Period](#) (286-270 mya), it was overrun by [dimetrodons](#), predecessors of the dinosaurs with massive sails on their backs. Subsequently, as the world's tectonic plates drifted and clashed, Himalayan-sized mountains were pushed up - **Rockies** to the W, **Wichita, Ouachita and Arbuckle** to the S, and **Ozarks** to the NE. Erosion of these mountains left layers of sediment in current OK 10,000 to 40,000' thick (2-8 miles!).

Previous residents have included [brachiopods](#), [ammonites](#), and other sea creatures, [dinosaurs](#) and their cousins, [mammoths & mastodons](#) ([Ice Ages](#); 2.5 mya-11,500 years ago), rhinos, [horses and camels](#) (~12 mya), and eventually [bison](#), [jackrabbits](#), [coyotes](#) and [humans](#). Triassic/Jurassic (360-300 mya) outcroppings in the [OK Panhandle near Kenton/Black Mesa](#) (Cimarron County) have been a rich source of [dinosaur fossils](#), in addition to [dinosaur tracks](#) in a mostly dry streambed.

When the Rockies were pushed to their full height ([Laramide Orogeny](#); 80-55 mya), they tilted future OK to slope towards the E, pouring the ancient sea off of it. Glaciers formed on the mountaintops and meltwaters formed our current rivers. So our state is basically an ancient trash heap of mud, gravel, sand, and clay - its geographic location dictates its annual rainfall, which in turn dictates its predominant vegetation - tall to mixed grass prairies, which in turn dictates its native fauna. Today, wheat, milo, soybeans and some corn and canola have largely replaced native prairie grasses. Cattle (including longhorns!), along with a few horses and sheep, have replaced its once prominent bison as predominant animal species.

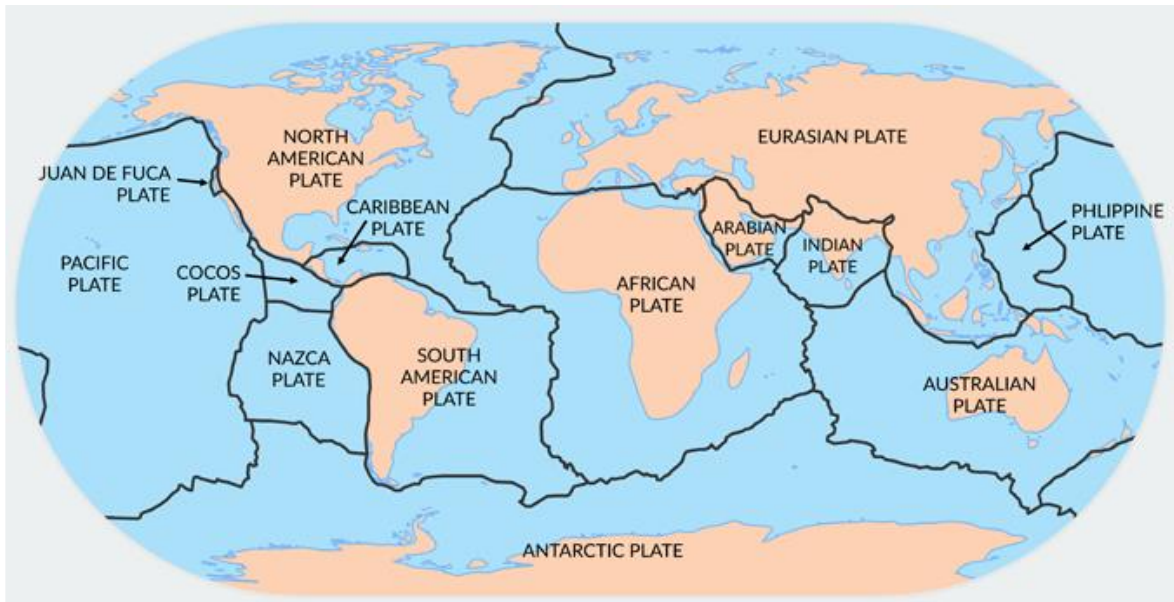
Geologic History

The [universe is ~14 billion years old](#) and our [earth ~4.6 billion years old](#); continents began forming ~3 billion years ago (bya). Since the continents formed, they have migrated, fused to form supercontinents, then separated again. For example, the super-continent [Pangaea](#) formed in the late Cambrian, about 600 million years ago. It then separated, breaking up to give N & S America, Africa, Europe, Australia, Antarctica & more ~180 mya.

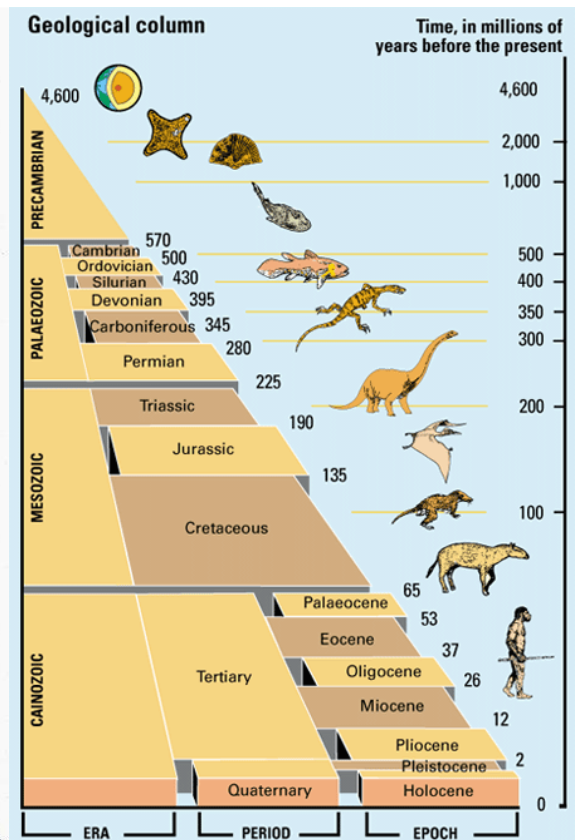
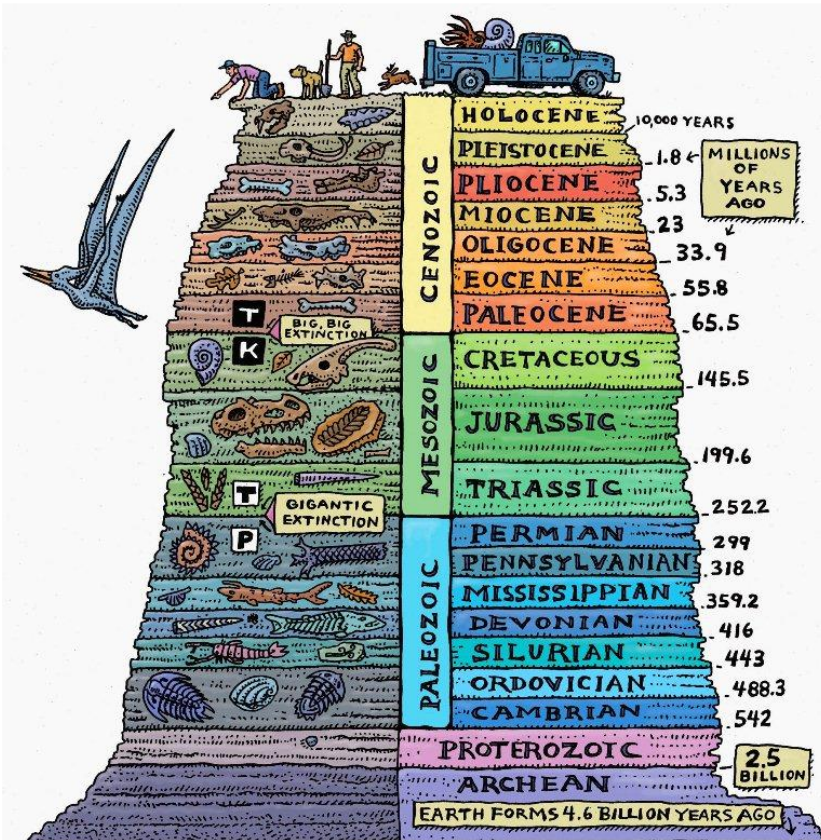
But [OK](#) has been and remains part of the [N American craton](#), the relatively stable interior portion of our continent. A map of [super-continent Pangaea](#) with modern day countries delineated is shown at R.



The continents rest on tectonic plates that make up the earth's crust and they are constantly in motion, floating on the underlying mantle; there are 7 major continental and oceanic plates and a number of minor ones. Collision of slowly moving plates results in mountain building (Andes in S America, US Pacific Coast ranges, Himalayas in Asia), volcanos (Mounts St Helens, Rainier & Hood; Vesuvius & Etna in Italy), and numerous earthquakes. See also National Geographic.

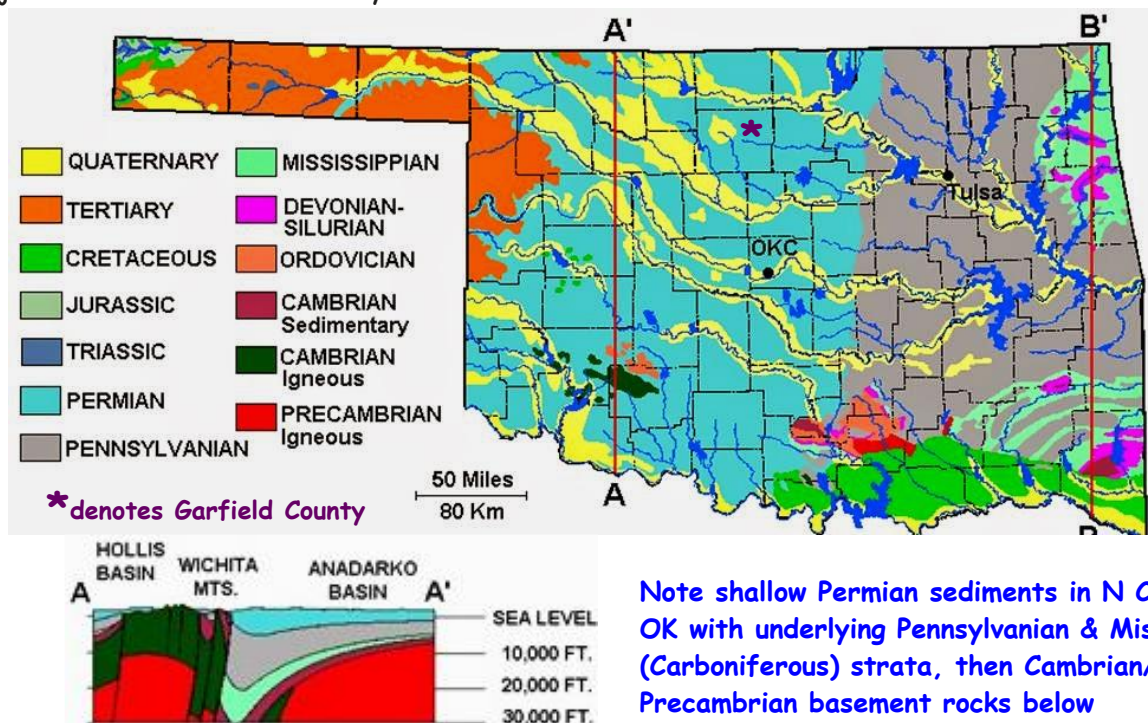


Geologic column diagrams below provide some temporal perspective. The 1st (L) has present on top, with oldest on bottom, while in the 2nd (R), the temporal order is reversed, with oldest strata on top.

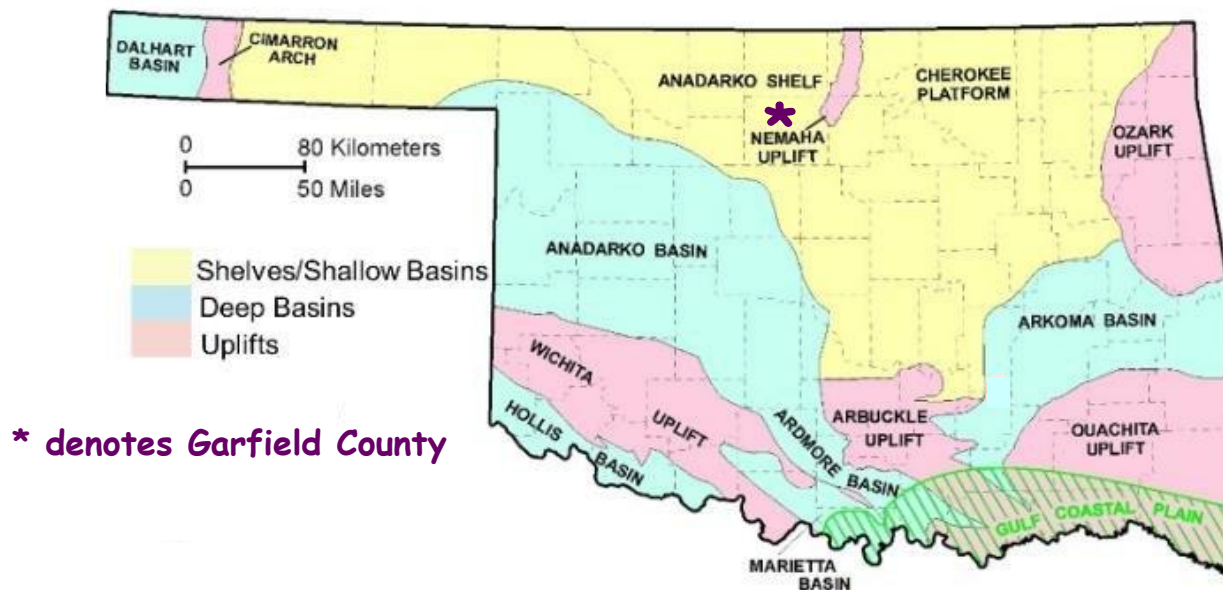


Oklahoma's oldest rocks are **Precambrian igneous and metamorphic** rocks dating to about 1.4 billion years ago; these rocks and similar, slightly younger **Cambrian** (540 mya) rocks underlie all of OK and are the **basement layer** on which younger strata have been deposited. In the geologic past, what is now Oklahoma was alternately above and below sea level. Thick layers of sediments accumulated in shallow seas, becoming lithified (turned to stone), then later were uplifted and subsequently eroded. **Garfield County** lies on the **Anadarko Shelf**, more specifically a part of the "**central red-bed plains**" geologic province, in which shallow underlying marine, deltaic, and alluvial **red shales and sandstones** dating to the **Permian Period** (~300-250 mya; last period of the **Paleozoic Era**) form gently rolling hills and broad flat plains dissected by broad shallow river valleys. Erosion has produced the generally **red soils** of the region, mostly humus-rich clay/loam or silt/loam soils. **Red shale beds** outcropping or lying close to the surface have been used to "**shale**" rural farm roads in our area. The red color of our shales and soils comes from oxidation (rust) of iron-containing minerals they contain.

Permian red-beds with erosion-resistant **gypsum caps** (CaSO_4) comprise our scenic **Gloss Mountains** near Orienta OK, about 40 miles W of Enid on US-412. Our region is relatively rich in petroleum deposits arising from **Carboniferous** sediments (360-300 mya; American geologists separate the Carboniferous into **Mississippian & Pennsylvanian Periods**). Oil and gas-bearing formations generally lie between 4,000-6500' beneath the surface (about a mile and a quarter). As a specific example, our **RDG-2406 1-19H** well has **gas** from 4 formations - Tonkawa sandstone ~4275'; Cottage Grove sandstone ~ 4780'; Big Lime-Oswego limestone ~5325'; Cherokee shale ~5418', and **oil** from 3 formations - Mississippian lime ~5857'; Woodford shale ~6428; Misener-Hunton sandstone ~6450'. **OK Geologic maps** are shown below (**Cross-section A-A'** is just W of Garfield County).



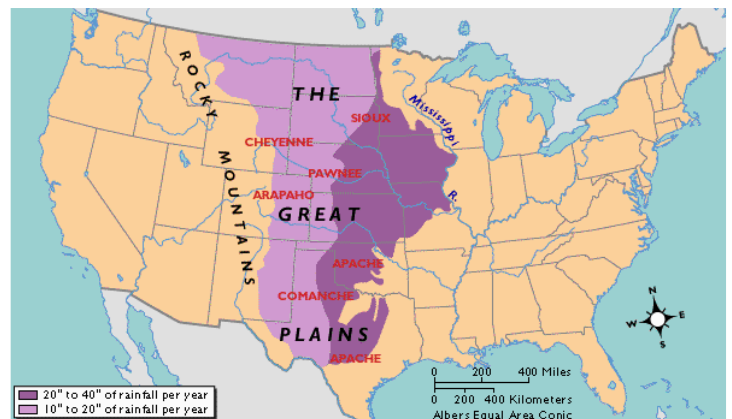
Note shallow Permian sediments in N Central OK with underlying Pennsylvanian & Mississippian (Carboniferous) strata, then Cambrian/Precambrian basement rocks below



Readers interested in [OK Geology](#) - I hope this includes everyone! - can consult [Geologic History of Oklahoma](#) by KS Johnson, OK Geological Society, for maps and additional interesting details.

Geographic History

A good part of OK, including our local area, is part of the vast high plateau of semi-arid grassland known as the [Great Plains](#). Garfield County is drained by tributaries of the [Arkansas](#) (including [Red Rock Creek](#)) and [Cimarron Rivers](#). Near Kremlin, [Sand Creek](#) and [Wild Horse Creek](#) are notable drainage features. [Little Wild Horse Creek](#), a tributary of Wild Horse Creek, runs at the edge of our Houghtaling Farm and then through the adjacent Butler Place to the N.



Our annual rainfall defines the dominating native vegetation, and we are in a [mixed-grass/tallgrass prairie](#) region (tall bluestem, Indian grass, switchgrass, little bluestem), although little native prairie remains. [Shortgrass](#) species such as buffalo grass and the gramas (sideoats, hairy & blue) are also present. Salt grass and alkali sacaton are prominent on moist alkali soils. [Indian grass](#) (*Sorghastrum nutans*) is our [State Grass](#)!

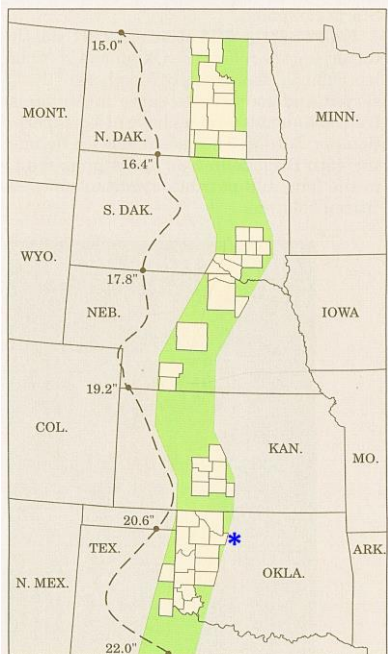
Of course numerous [wildflowers/forbs](#), shrubs and sedges populated our prairies and still do in some locations, including the native prairie restoration efforts on our farms. OK State's [Wildflower Gardening in OK](#) has a nice listing of [native OK wildflowers](#) at the bottom of the website. Notable native flora include [Indian blanket flower](#); [OK state wildflower](#) (*Gallardia pulchella*), [butterfly milkweed](#) (*Asclepias tuberosa*), [prairie coneflower](#) (*Ratibida pinnata*);

including [Mexican hat](#), a form with mahogany-red petals), [tall wild blue indigo](#) (*Baptisia astralis*), Rudbeckias (coneflowers, including [black- and brown-eyed susans](#)), [prickly pear cactus](#) (*Opuntia humifusa*), [trumpet honeysuckle](#) (*Lonicera sempervirens*), cattails, various [sunflowers](#) & more.

[Trees](#) are mostly found along rivers and creeks or in sandy quaternary alluvium areas like those that follow the Cimarron River path; common species include [cottonwood](#), weedy [black and honey locust](#), [juniper](#) and [red cedar](#), [American elm](#), [mulberry](#), [bois d'arc](#) (*Maclura pomifera*; [Osage orange](#) or [hedge apple](#)) & [blackjack oak](#) (prefers sandy soil).

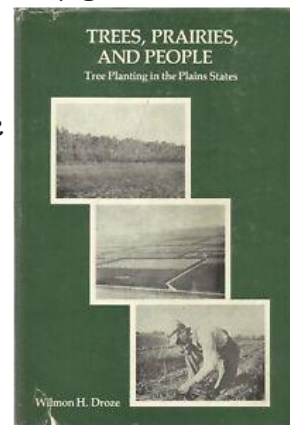
Our [Houghtaling Farm](#) has a 1930s "Shelterbelt," part of FDR's efforts to minimize erosion and other "dust-bowl" effects of wind-related problems during the notorious "Dirty Thirties." This is a rarity in our immediate area, although there are some others within 50 miles or so. Ours is approx. $\frac{3}{8}$ mile in length and consists of rows (N/S) of desert willow (destroyed by grader-man

Great Plains shelterbelt project, 1934-1942

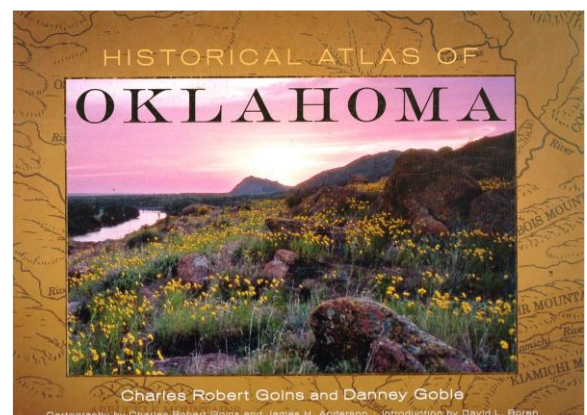


----- Rainfall line of average annual precipitation (in inches) deemed adequate for success of shelterbelt project. Outlined counties were selected for the first plantings.

several years ago!), red cedar, pine, hackberry, cottonwood, black and honey locust, and American elm. It does indeed provide a literal break from the wind and also provides haven to birds and other creatures. Grandpa Jacob A Voth established this tree belt (planted by the USDA), and he and a hired man hauled water in barrels on a horse-drawn wagon to get them established and growing - OK is particularly unforgiving for newly planted trees and this was even more acutely so during the droughts of the 1930s. We are justifiably proud and thankful for this living wonder. A detailed treatment of the shelterbelt program can be found in [Trees, Prairies, and People](#) (WH Droze, TWU Press, Denton TX, 1977). A copy is available in our Toews Brothers OK Farm Library (in pew hymnal rack above loft toilet). The [Historical Atlas of OK](#) (2006) has further useful information in [Topic 87](#) (pp 182-3; see also map at L). Lots of other useful information in this book as well. The asterisk denotes



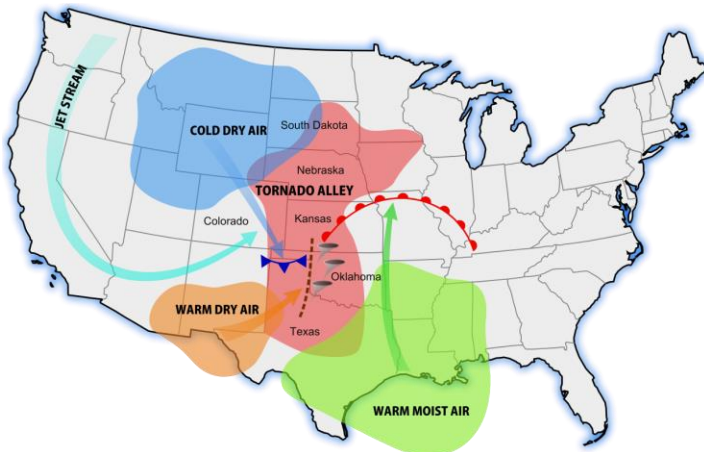
Garfield County, adjacent to counties selected for initial plantings. [Civilian Conservation Corps](#) (CCC) crews planted most trees and [Works Progress Administration](#) (WPA) crews built fences - both CCC and WPA were part of [FDR's New Deal](#). There was a district office in Enid OK for this project. By the time the project was terminated in 1942, 145 million trees had been planted in a zone that ran from the Brazos River in TX N to the Canadian border, a distance of about 1200 miles!



Mollisoils - deep darkly colored soils that formed under grasslands, are the predominant soil order in Garfield County - the dark color is due to high levels of organic materials.

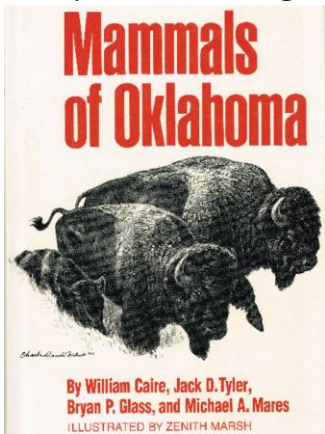
For more detail than you will care to know about OK's eco-geography and native vegetation, see [Oklahoma's Native Vegetation Types](#) - it has a number of nice maps.

Our county averages about 36" of precipitation yearly with an average temperature of 60°F and average windspeed of 11 mph - but sometimes and often somewhat higher! Highest and lowest temperatures for Enid are **118°F** (12 August 1936) and **-20°F** (13 February 1905).



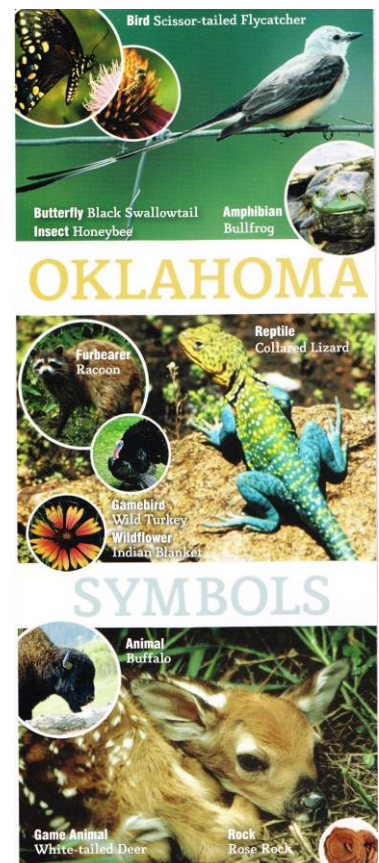
Garfield County lies firmly within "[Tornado Alley](#)" and twisters of varying severity are rather common. Oklahoma's 146 tornados in 2019 set a record. OU's [OK Climatological Survey](#) has additional details. [Maximum wind gusts](#), associated with the 24 May 2011 El Reno tornado, were recorded at **151 mph**, with a 1-minute average wind speed of 113 mph.

The [OK Wildlife Conservation website](#) has a nice pictorial listing of most **native fauna** and is worth a look. In addition, I have a copy of [Mammals of Oklahoma](#) (W Caire et al., OU Press, 1989); it has nice pen/ink drawings and good descriptions along with distribution maps. Notable **native mammalian species** include the American bison (*Bison bison*; formerly known to us as **buffalo**), **coyotes** (*Canis latrans*), white-tailed deer, cottontail and jack rabbits, porcupines, 9-banded armadillos, skunks, bobcats, cougars (mountain lions), and **prairie dogs** (a fairly large



"town" was located in our homeplace pasture when we were kids - ask me how we got rid of them!). Badgers, racoons, the list goes on!

Perhaps this might be a good place for insertion of the "[Symbols of Oklahoma](#)," including the rose rock ([barite rose](#); BaSO_4), our **state rock**! Oklahoma Geological Survey's [The Barite Roses of Oklahoma](#) has more than you will possibly want to know about these interesting mineral crystals. They are found in a narrow N/S band of **Garber sandstone** outcroppings in central OK.



Our state bird is the [scissortailed flycatcher](#) (*Tyrannus forficatus*), often seen on fence and utility wires or catching insects (image by George Sutton). [Indian Blanket](#) (*Gaillardia pulchella*) is our state flower.



Our [state crystal](#) is the [selenite sand "hour-glass" crystal](#) found exclusively on the [Salt Plains](#) salt flats near Jet/Cherokee OK. We have dug and harvested these crystals on numerous occasions, and I have a very nice selection of complex and compound crystal arrays in my study collection - ask to see them! [Selenite sand crystals](#) are hydrated gypsum ($\text{CaSO}_4 \cdot \text{H}_2\text{O}$) crystals with sand inclusions. Worth a trip if you have not yet done so - take a spade, bucket and towel to kneel on while crystal-mining, plus a hat and lots of cold drinking water.

For more detailed information on these unique selenite sand crystals, including their formation, see my [Salt Plains Reservoir and Salt Flats](#) document on our [ToewsBrothersKremlin.info](#) local history website. Lots more about the Great Salt Plains in this document as well.

Below is a barite rose aggregate, then 3 selenite sand crystals.



Our [state dinosaur](#) is [Acrocanthosaurus atokensis](#) and [Saurophaganax maximus](#) (another dinosaur more wicked than T Rex) our [state fossil](#). [The Bone War of McCurtain County](#) (Russell Ferrell; Rabelais Publishing, 2016) - about *Acrocanthosaurus atokensis* - is fun reading!

Reptiles and amphibians include turtles, toads and frogs, horned toads, and numerous snakes, including rattlesnakes. Our [state reptile](#) is the colorful [collared lizard](#), common in the Gloss Mountains area and easy to spot sunning on the barren Permian redbeds. Tarantulas and black-widow spiders are among countless arachnid species worth avoiding. Many many insects too!

Much of the following historical overview has been shamelessly lifted from [Brittanica.com](#) - they seemed to have a good perspective on events. The [Encyclopedia of OK History and Culture](#) website is also an **excellent source for all things OK**.

COUNTY MAP OF OKLAHOMA

Legend:

- State Boundary
- - - County Boundary
- ★ State Capital
- County Seat

Scale: 0 to 100 Miles / 0 to 150 Kilometers

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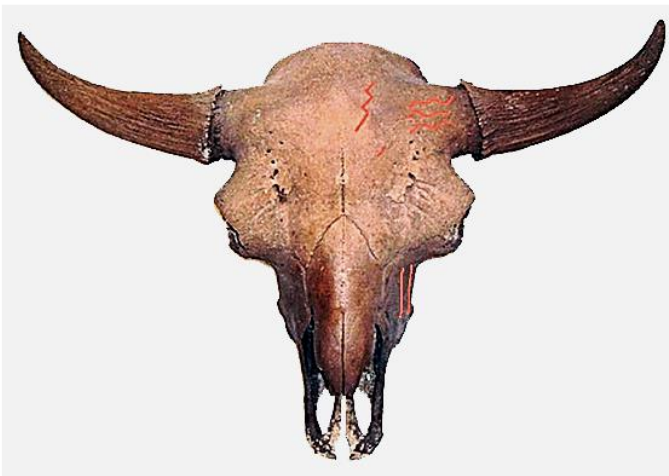
Early Habitation and European Exploration of Oklahoma

Although one of the newest states in the union (1907; 46th/50 states), OK has one of the oldest records of human occupation. Its abundant resources attracted early [hunter-gatherer](#) peoples known as the [Clovis & Folsom cultures](#) by about [9500 BCE](#) - they began the exploitation of these resources, living and otherwise, that continues to this day. Clovis and Folsom points are shown at R.

There are a number of significant Paleo-Indian (12,000-8000 BCE) sites in what is now OK, including the [Cooper Site](#) near [Fort Supply](#) in [Harper County](#) noted below.



About 10,000 years ago, a group of big-game hunting "Folsom people" drove an extinct form of bison along the Beaver River floodplain near the OK Panhandle and into a deep narrow gully, thus trapping the animals for slaughter. They left behind evidence of their butchering practices on the skeletal remains of the bison, as well as a number of their distinctive spear points and other tools. More significantly, they took one of the bison skulls and painted a thunderbolt on it before placing it, nose-first, into the gully. This is the [earliest known artwork found in North America!](#) The [Cooper Site bison skull](#) and associated [projectile points](#) are shown below.



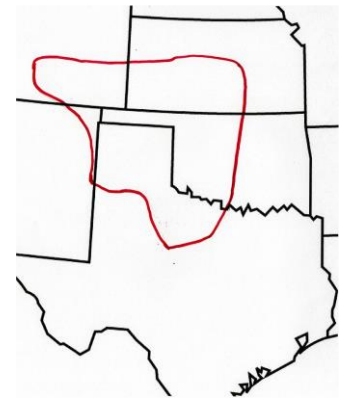
Beginning about 700 CE, people in what is now eastern OK developed a variety of exquisite pottery, textiles, sculpture, and metal-ware. These members of the [Mississippian culture](#) engaged in farming, hunting, fishing, and the gathering of wild plant foods and were part of a system of trade and communication that included most of southeastern North America.

The [Spiro Mounds](#) site (occupied from about 850 to 1450 CE) is an outstanding example of these settlements - just S of I-40 and just W of Ft Smith AR, it is well worth a visit. Archaeologists excavating these mounds have found copper from the Great Lakes, shells from FL, pottery from NE and obsidian from Mexico, indicating this area of OK was once the hub of a huge trade network - basically a central marketplace for prehistoric N America.

What is now [central Oklahoma](#) was also home to groups whose economies relied on farming as well as foraging. Known as [Southern Plains Villagers](#) (map at R), they built their hamlets and villages along rivers and streams to take advantage of the more easily tilled earth found in bottom lands. There they grew several varieties of corn, beans, and squash, produced pottery and fine stone and bone tools, and engaged in a rich cultural



life. What is now the western part of the state was too dry to farm successfully. However, its broad grasslands supported large herds of bison as well as other animals and both the Plains Villagers to the east and Pueblo Indians to the west visited the region on hunting expeditions. Arrowheads shown at L were made with TX Panhandle [Alibates flint](#); they were widely traded by Plains Villagers [I have Alibates flint specimens in my collection - ask to see them]. Sometime in the last millennium, probably between 1100 and 1500 CE, people began to settle on the plains permanently.



The descendants of all of these groups were still living in the area in the [late 15th century](#), but their communities were largely decimated by the violence and epidemic diseases that accompanied European exploration and colonization. At the time of his [1541](#) expedition through this region, [Francisco Vázquez de Coronado](#) claimed the area for [Spain](#), but it became little more than a highway for wide-ranging Spanish explorers. Searching for the legendary [Seven Cities of Cibola](#), the [Coronado Expedition](#) likely passed through both the TX and OK

[Panhandles](#) and far [W OK](#), but not our N Central OK region.



Francisco Vasquez de Coronado

In 1714, Louis Juchereau de Saint-Denis visited OK, and other **Frenchmen** subsequently established a fur trade with the Native Americans living there. Present day OK lay on the N fringe of Spanish exploration of N America, which took place in the 1500-1600s, and on the W fringe of French exploration, which took place in the 1600-1700s. In effect, OK was a border region between these two empires in N America, and it served as a transportation corridor for their rival military and economic ventures. France and Spain struggled for control until the



return of the French flag in 1800. Three years later, in **1803**, Oklahoma (except the Panhandle) was acquired by the United States as part of the **Louisiana Purchase**.

The purchase of these 830,000 square miles for \$15,000,000 doubled the size of the US. The expansion of the US between 1780 and 1819 is shown in the map below (Historical Atlas of OK). In 1804,

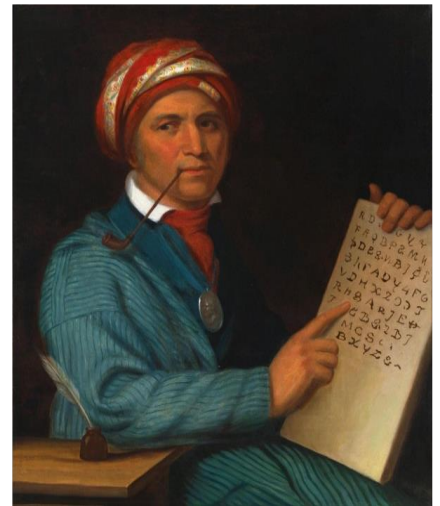
President Thomas Jefferson sent **Meriwether Lewis** and **William Clark** (L) on their famed **"Corps of Discovery"**

expedition (**1804-06**) to explore these newly-acquired lands, but they came no closer to OK than their starting point, St Louis MO.



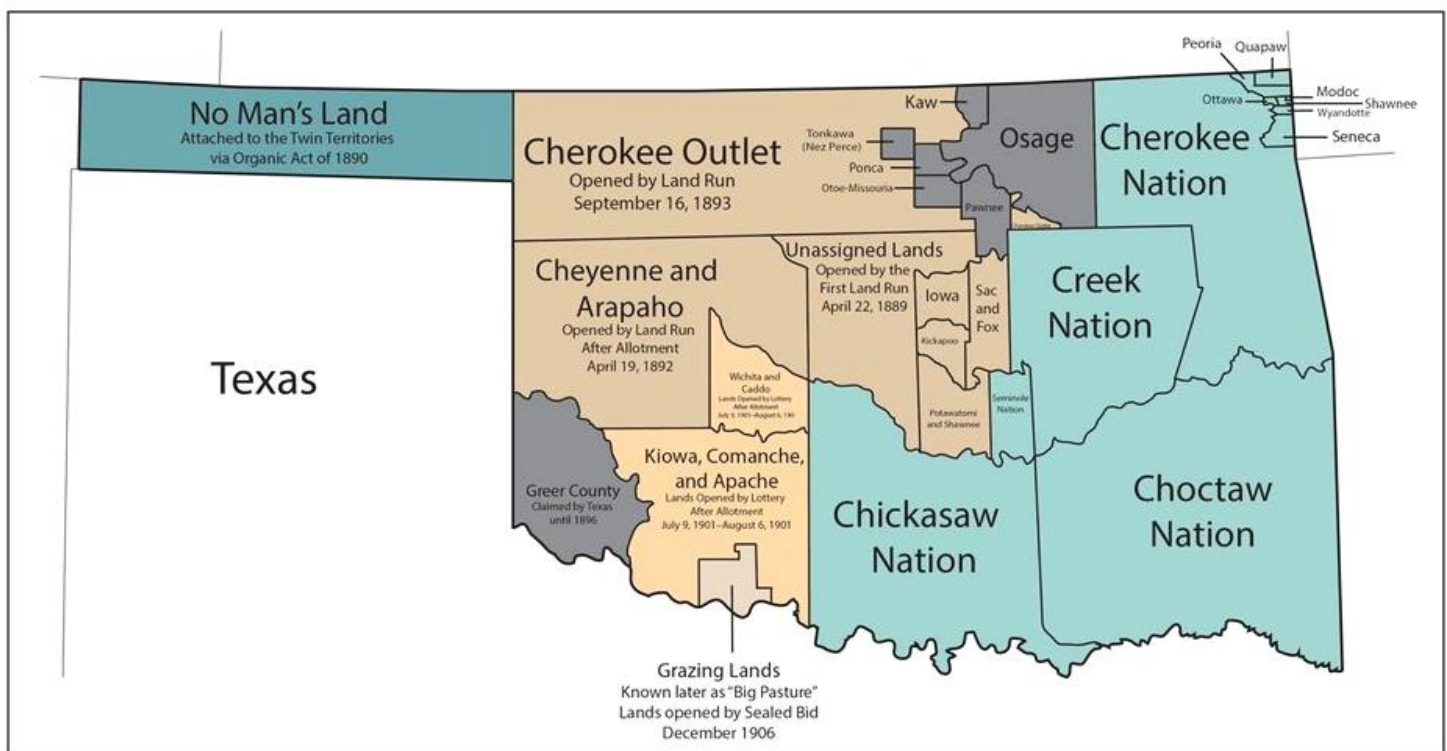
Because of hostile [Native Americans](#), Spanish intrigue, mislabeling of the region's treeless plains as the "[Great American Desert](#)" by expedition leader Stephen Long in 1820, and the pressure for removal of the Native Americans from the settled Eastern US, the U.S. Congress in 1828 reserved Oklahoma for Native Americans and required all others to withdraw. By 1880 more than [60 tribes](#) from other areas of the country had been forcibly removed to [Indian Territory](#), where they joined local tribes including [Wichita](#) and [Kansa](#) groups. [Eastern](#) forcibly relocated tribes included the [Creek](#), [Cherokee](#), & [Choctaw](#) (1830s), as well as [Plains Indians](#) tribes including the [Cheyenne](#), [Arapaho](#), [Kiowa](#) & [Comanche](#) forcibly relocated in the 1870s.

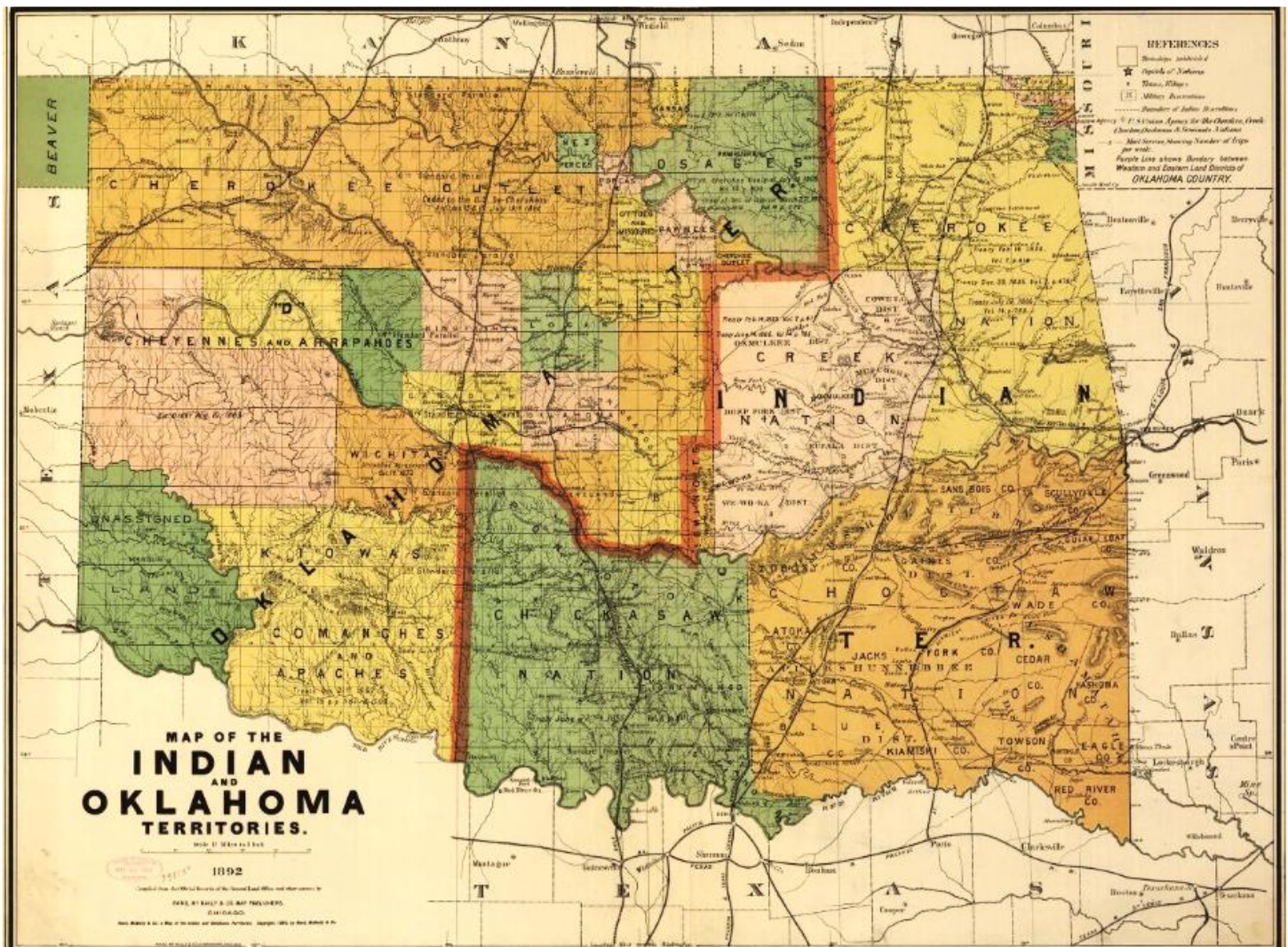
Among both the original inhabitants and the newcomers, some were sedentary, peaceful, agricultural, and Europeanized (even to the point of owning slaves of African descent), while others were migratory and eager to fight in defense of their land and other interests. The newly defined [Indian Territory](#) consisted of [five republics](#), or nations, with fixed boundaries, written constitutions, courts, and other governmental apparatus similar to those of the Eastern states. The major difference was that in each republic, all land was either held jointly or in severalty by an individual tribe. These included the [Cherokee Nation](#), with [Sequoyah](#) and his [Cherokee alphabet](#) perhaps their most notable resident.



[Indian nations & territories](#) are shown on maps (1889 & 1892) below and on the following page.

Indian Territory Boundaries, 1889
(Pre-Organic Act)

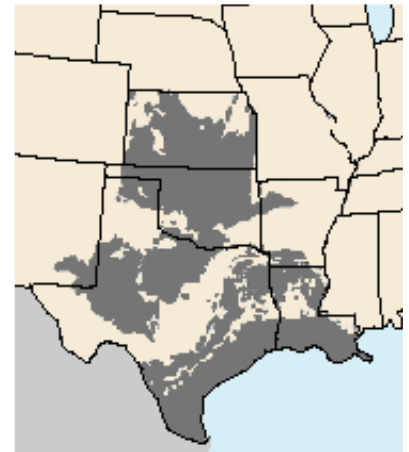




During the Civil War, the [Five Civilized Tribes supported the Confederacy](#), and over 3500 Indians served in Confederate units, the [Confederate Indian Brigade](#) and the [Union Indian Home Guard](#) chief among them. [Stand Watie](#), who served as the second Principal Chief of the Cherokee Nation from 1862-66, was a brigadier general in the Confederate States Army and notably, the last Confederate general to surrender!

The first major threat to the Native American governments came when, as former allies of the South during the [Civil War \(1861-65\)](#), they were placed under military rule during [Reconstruction \(1865-77\)](#). The Reconstruction treaties required, among other things, land cessions to former slaves, the resettlement of additional outside tribes, and railroad rights-of-way. Although a scheme to colonize free blacks in Oklahoma never materialized, the weakness of the Native American governments encouraged non-Native Americans from adjoining states to trespass. Thus, the territory once again became an embattled refuge for Native Americans and an even greater cultural hodgepodge of ethnicities.

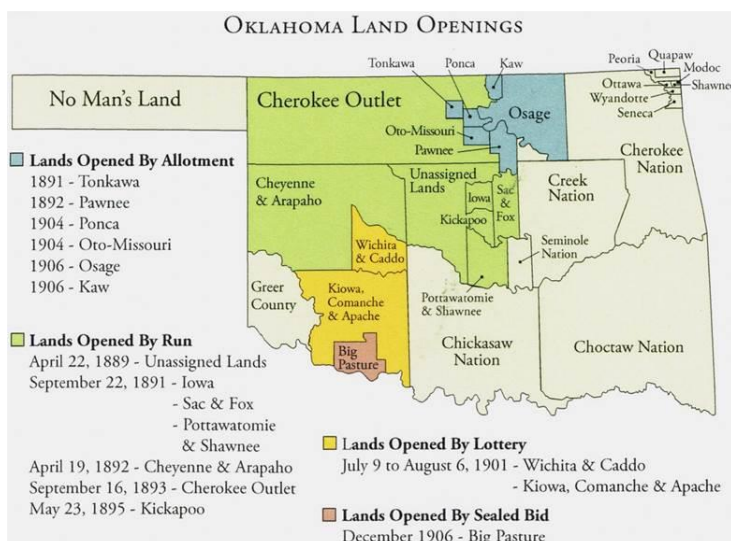
The territory's [petroleum deposits](#) were long known to the local Native Americans, who used the oil for medicinal purposes. Oil often oozed to the surface and collected on rocks and bodies of water, and gas seeps betrayed their locations by inhibition of plant growth in the surrounding areas. Early American explorers and settlers also used the oil and natural gas, but attempts were not made to exploit Oklahoma's reserves commercially until the 1870s. Perhaps the [first OK oil well](#) was drilled in [1859](#) by Lewis Ross, brother of Cherokee Chief John Ross - drilling a well for saltwater (brine was much desired for making preservative salt), he found a pocket of oil that produced 10 bbl/day for nearly a year. Or maybe it was in [1885](#) in Atoka County, Choctaw Nation, Indian Territory, known as the [Old Faucett Well](#)? The first commercially productive well was the [Nellie Johnstone No 1](#) drilled in the Bartlesville sand (near current Bartlesville) in the Cherokee Nation, Indian Territory in [1897](#). [Frank Phillips](#) (Phillips 66) and [EW Marland](#) (Conoco) were not far behind! The territory's oil boom began in earnest in the early 20th century and was to last until at least mid-century. In the early-mid 1900s, there were rich oil plays near Kremlin - [Garber/Covington](#) and [Hennessey](#), to name a couple. In an irregular fashion, it continues to this day! The map at R shows [Mid-continental oil fields](#).



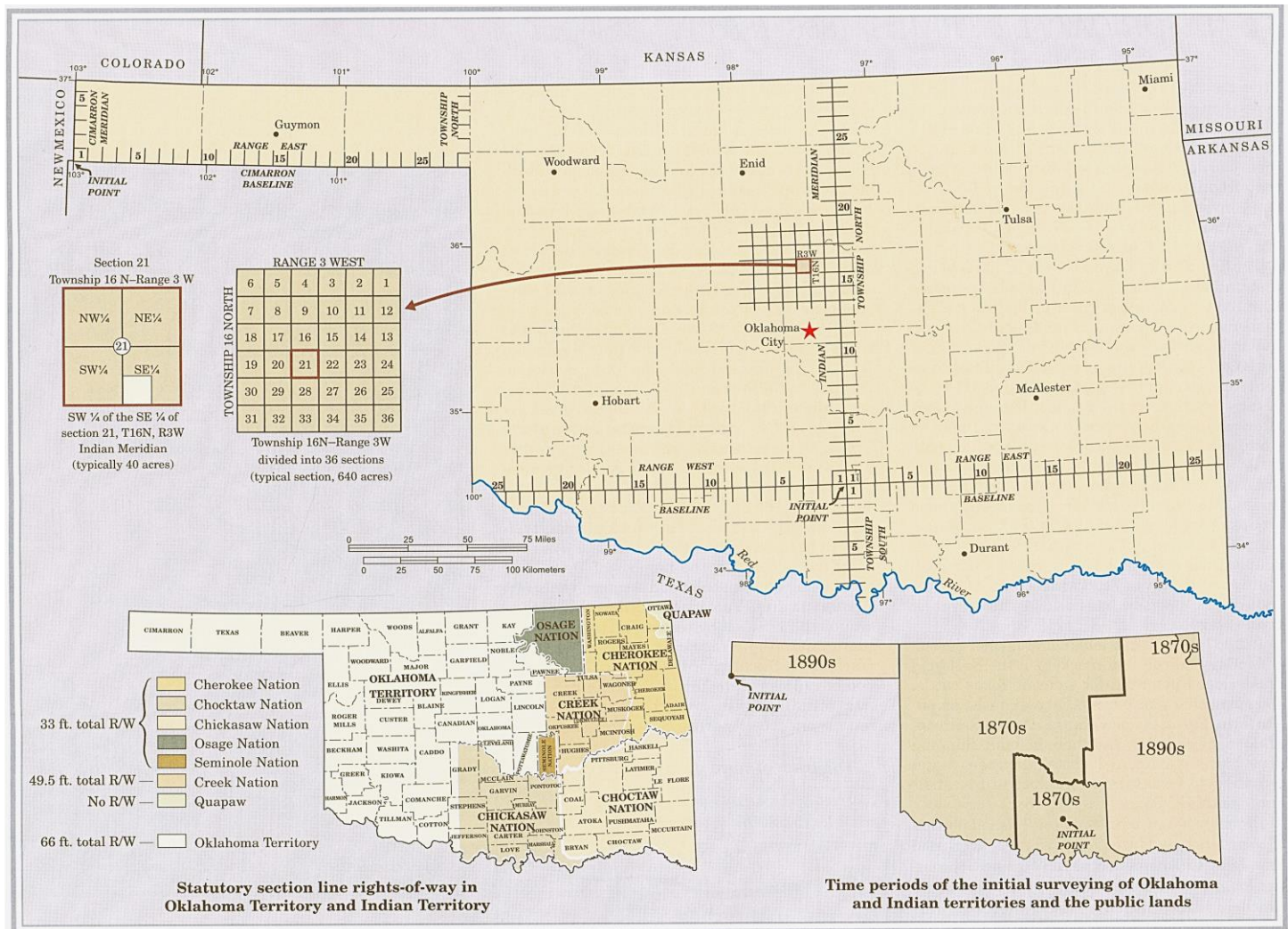
United States Settlement, Land Runs, and Oklahoma Statehood

Railroads seeking revenue and American settlers seeking property coveted the land of the Native Americans. By 1879, organized bands known as "[Boomers](#)," so named because of the economic boom that obtained in the 1870s and '80s across most of the country, were moving in, in defiance of federal law. Although most were ejected, pressure continued until Congress

opened some 3,100 square miles of western Indian Territory, bringing on the famous [OK Land Run of 1889](#) that began with the signal from a cavalry bugle at noon on April 22, 1889. Known as [Oklahoma Territory](#), the new area came to include, through further land runs, about half of the former Indian domain. Then its settlers, many of whom earned the name "[Sooner](#)" for entering the area before receiving official permission, sought union of the two territories in statehood.

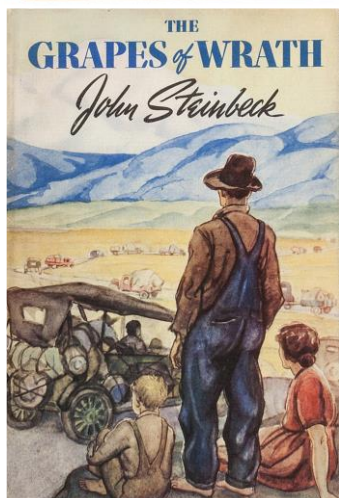
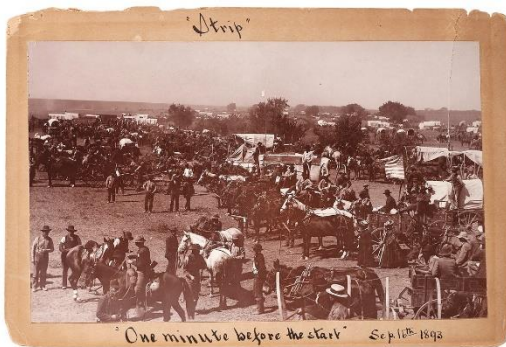


Settlement and development of what is now OK was facilitated by **land surveys** in the late 1800s - see map below for details. There were two "**initial points**" for the survey of OK - The intersection of the **Baseline** and **Indian Meridian** was used for most of the future state, while the **Cimmaron Meridian** and **Cimmaron Baseline** were used for the OK Panhandle. Land was divided into 6-mile wide **ranges** running N/S and denoted as E and W of the principal meridian, while **townships** consisted of 6 x 6 mile portions (36 square miles), with each "**section**" divided into four **160 acre "farms"** one-half mile square. These "farms" were the parcels of land available for **homesteading** during and after the several OK land runs. Numbering nomenclature is also shown in the map below (Historical Atlas of OK, 2006).



The remaining [Indian Territory](#), most of it opened to U.S. settlers by the [1893 Cherokee Strip Land Run](#), officially the [Cherokee Outlet Opening](#) (which included our area), was dissolved by assignment of lands to the various tribes, and the tribal governments were pressured to approve the constitution of the proposed combined state in 1907. The [Oklahoma Territorial Museum](#) in the beautiful original [Carnegie Library](#) Building in [Guthrie OK](#) has a fascinating exhibit on the events and intrigue leading up to the approval of a combined state constitution - the 2-state alternative almost succeeded! Well worth a daytrip to Guthrie (ask me for food stops too). [Garfield County](#) was officially "settled" during the [Land Run of 16 September 1893](#), the 4th and largest of OK's land runs, including the staking of homesteading claims for rural lands and the establishment of towns and cities, [Kremlin](#) and [Enid](#) included.

Photos below show the [Cherokee Outlet Land Run of 1893](#); upper L "One minute before the start," lower L and R, just after the start. Wikipedia and OHS Collection, respectively.



The drought years of the 1930s blighted many rural areas of Oklahoma and created the [Dust Bowl](#) that drove thousands of farmers, the so-called "[Okies](#)," into long migrations in search of some form of livelihood. Many went to CA, traveling down the [Mother Road, Route 66](#) - their migration and plight immortalized by [John Steinbeck's 1939 classic "The Grapes of Wrath."](#) Although not subject to the severe debilitating dust storms of the Dust Bowl seen in the [OK Panhandle](#), the Garfield County area suffered through the same drought and economic hardship in the "[Dirty Thirties](#)" and accompanying [Great Depression \(1929-39\)](#).

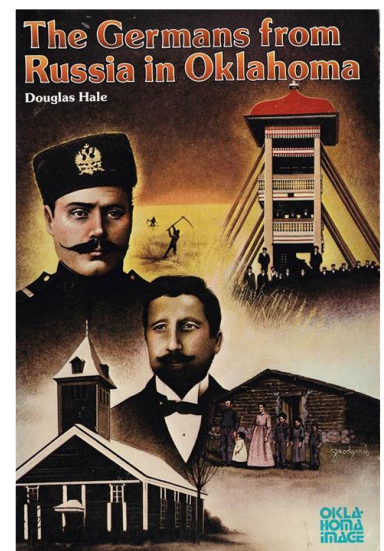
The subsequent economic boom of [World War II](#), however, allowed the local and state economies to diversify and thrive. This diversification was marked by growth of the oil and natural gas industry, which eventually suffered setbacks in the 1980s. In Garfield County, as in the state as a whole, there have been [recurring cycles of boom and bust](#), both in the [petroleum](#) business and in [agribusiness](#) as well. The latest (early 2000s) oil/gas boom was initiated with the development and refinement of horizontal well boring and slick-water hydraulic fracturing. A great many of these wells were drilled in the area W of Kremlin, including 2 underneath farms which we hold partial mineral rights for. Production continues in 2025, but there is virtually no new drilling in progress.

See the last section below for details on oil and gas production in our area.

[Immigration to North Central Oklahoma](#)

For specific information on the immigration of our Mennonite family ancestors to OK, please see ["Ancestors of David A & Rosa M Voth Toews"](#), available on [our Family History website](#) and upon request. These [Mennonite farmers](#), originally of [Dutch/Swiss ethnic heritage](#), immigrated from the Molotschna Colony of S Russia to NE and KS in the 1870s. Prior to their time in S Russia, they had spent time in the Vistula/Nogat River delta area near Danzig, W Prussia (now Gdansk Poland) and while there, they took up Low German ([Plautdietsch](#)) as their spoken tongue. Because they spoke a German dialect, they were often confused as being ethnic Germans, when in fact they were ethnic Dutch and Swiss. Most of my ancestors moved from NE and KS to N Central OK in the early 1900s.

An excellent source of information on the settlement of our area of OK is ["The Germans from Russia in Oklahoma"](#) (D Hale, OU Press, 1980). As noted above, Mennonites settlers were not ethnic Germans even though they spoke a German dialect, but there is good coverage of Mennonites in this book. Perhaps the earliest Mennonites in what would become OK were (General Conference) Mennonites who founded the [Darlington Indian Mission](#) on the [Cheyenne-Arapahoe Reservation](#) just E of Ft Reno (W of current El Reno) in 1880, 9 years prior to any land runs. A number of adventurous young Russian Mennonites also participated in the "Unassigned Lands" land run of 1889 and settled near the Darlington Mission - in 1891, they founded the [Mennoville Mennonite Church](#) along what is now US-81 between Ocarche and El Reno. This church was the [first Mennonite Church in Oklahoma \(Territory\)](#) and stood



beside the highway until several years ago. It was moved to El Reno's Heritage Square; only a plaque and the concrete steps and cemetery remain onsite.

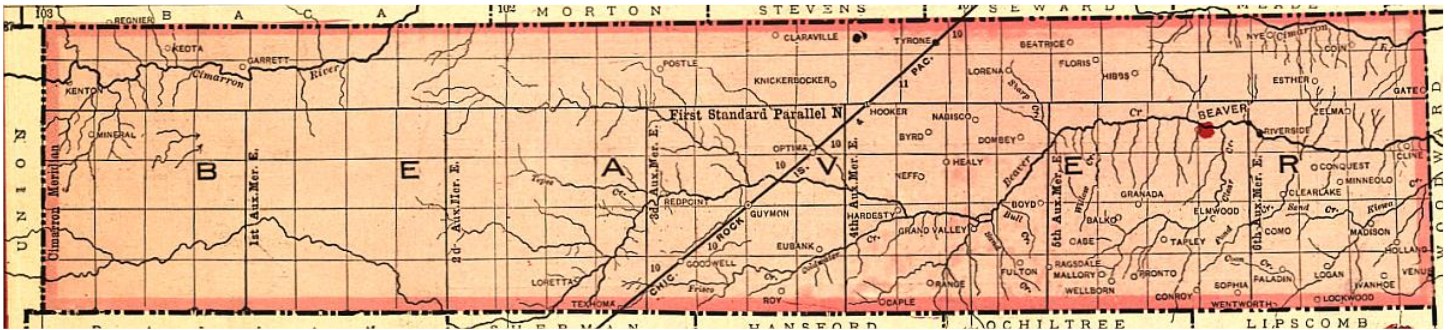
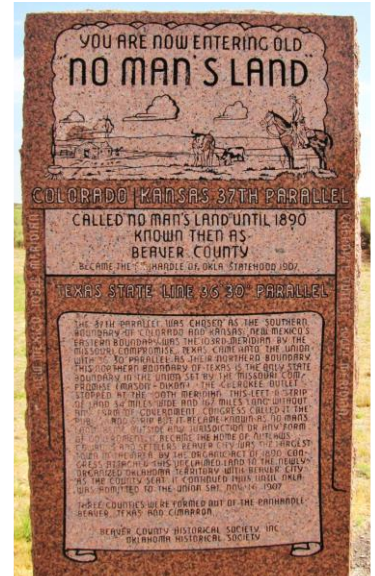
Interestingly, one of the major characters in the Darlington Mission was the preacher/missionary/ethnologist [Heinrich R Voth](#) (my 5th cousin, twice removed!). He later spent time with the [Hopis](#) in AZ, becoming an expert on their culture - he was selected by the Field Museum of Natural History in Chicago to curate an exhibit on Hopi culture and was tasked by [Fred Harvey](#) with creating the iconic [Hopi House](#) on the S rim of the Grand Canyon. He published extensively on the Hopis and made significant and lasting contributions to the documentation and preservation of their culture. [GAMEO link](#) for him is good.

None of our ancestors participated in the [Cherokee Outlet Land Run of 1893](#), all of them instead arriving in the very early 1900s. Many homesteaders staked their claims with the idea of soon selling them for a profit, and many well-intentioned but naïve homesteaders quickly became disillusioned with the arduous hardscrabble life and unforgiving climate/weather of NW OK, so farms were readily available for sale at the turn of the 20th Century. Our [Toews, Buller, Voth and Schmidt forebears](#) all purchased farms in the [Kremlin/N Enid OK](#) area during this time. See ["Ancestors of David A & Rosa M Voth Toews"](#) on our [Toews-Voth ancestry website](#).

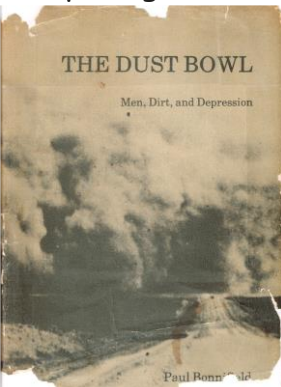
In addition to German-speaking Mennonites from S Russia, there were also many ethnic Germans living in the area of S Russia in the late 18th and early 19th Centuries, and many of them immigrated to the US about the same time (1870s) as did our ancestors. They had earlier fled the chaotic SW German territories for nearby S Russia in the mid-late 17th Century - Germany at the time consisted of over 400 independent, divided, and mostly antagonistic states, and many German settlers were also lured to S Russia by [Catherine the Great's 1763 Manifesto](#). Many of them also eventually settled in NW OK, where their family lines remain to this day. They were mostly Lutherans (~85%) but also a significant number of Roman Catholics (~13%). Unlike the fiercely rural agrarian Mennonites, many of the other "Germans from Russia" gravitated towards cities and towns. The [Mennonites from S Russia](#) in OK were guided by their three defining tenets, the ["Three Fs," - family, faith, farming!](#)

Of course, there were many other ethnicities and nationalities settling in our area of OK at the same time, including notably, [Bohemian \(Czechoslovakian\) Roman Catholics](#) - the [Zaloudek](#) clan prominent among them. [German Lutherans](#) include the Wuerflein, Reinhart, and Meyer clans.

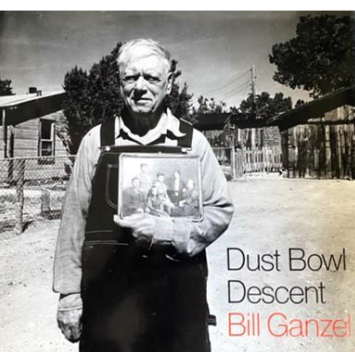
The **Panhandle of OK** (affectionately and accurately known to this day as "No Man's Land") was home to 3 **Mennonite communities** before statehood - Hooker in Texas County and **Balko** and Turpin in **Beaver County**. **Abraham J Neufeld (Kathy's G-Grandfather)** was a guiding presence and founding member of the Balko community - born in the Molotschna colonies of S Russia, he came with his parents to the Hillsboro (Marion County) KS area where he grew up. After marrying, he moved to **Hitchcock OT**, where he served as postmaster and had a general store, before homesteading in the Balko area in 1905. For details, see **Ancestors of Kathy Neufeld Toews**. Roadside marker near Gate OK is shown at R. The entire OK Panhandle was known as **Beaver County** from 1890 until statehood in 1907 (map below).



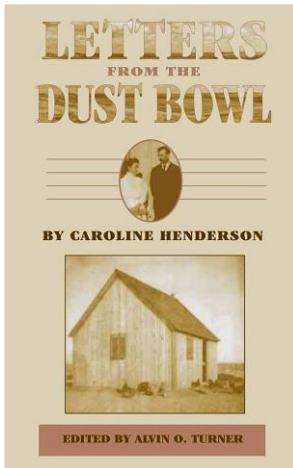
The **OK Panhandle** was ground-zero for the [Dust Bowl](#) during the “**Dirty 30s**” in the midst of the **Great Depression** (see also [“What was the Dust Bowl”](#) for some poignant photos). The **Edwin J Neufeld family**, including **Kathy’s father Leon** (1922-2005) lived through this and he had some compelling stories to tell. I have several **books on the Dust Bowl** worth perusing:



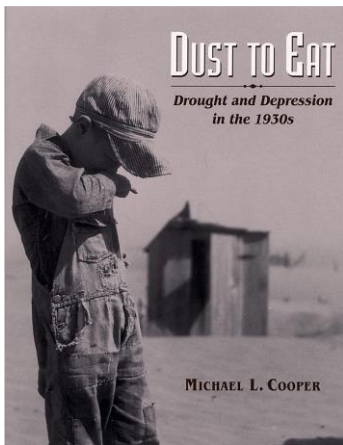
The Dust Bowl - Men, Dirt & Depression - Paul Bennifield, 1979: Emphasis on first-person accounts and local information sources. Actual photographs of dust storms collected by previous book owner are mounted onto inside covers. Gift from [Terry Oberg](#), who found it in Dinuba CA Thrift Store.



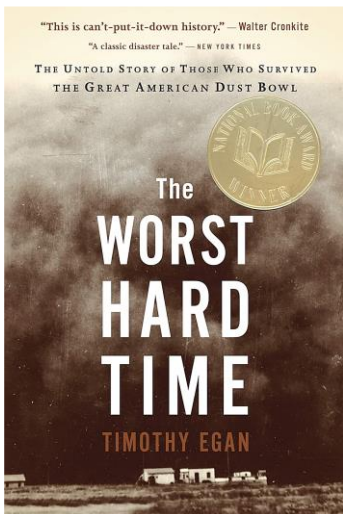
Dust Bowl Descent - Bill Ganzel, 1984: During the Great Depression, as part of the New Deal, the federal government sent photographers, including **Dorothea Lange**, **Marion Post Wolcott** & **Russell Lee**, to document the nation. Bill Ganzel revisits sites and people they photographed and presents a visual feast of "then and now" photos.



Letters from the Dust Bowl by Caroline Henderson (TX County; 1877-1966), a Mount Holyoke graduate who moved to the OK Panhandle to homestead and teach in 1907. This collection of Henderson's letters and articles published from 1908 to 1966 presents an intimate portrait of a woman's life in "No Man's Land." Her writing mirrors her love of the land and the literature that sustained her as she struggled for survival.

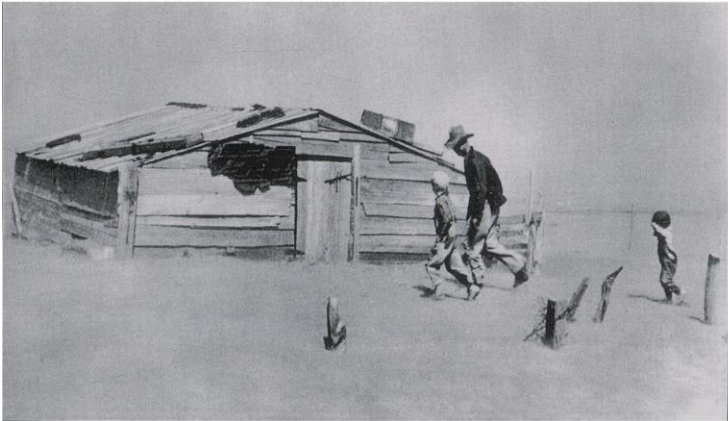


Dust to Eat: Drought and Depression in the 1930s by Michael L. Cooper (2004) - ostensibly for young readers, it is actually a great and informative book, filled with vivid personal anecdotes from figures such as John Steinbeck and Woody Guthrie, and an extensive selection of heart-rending photographs by Dorothea Lange and others that illuminate those individuals who faced poverty, illness, and despair as they coped with this extraordinary challenge.



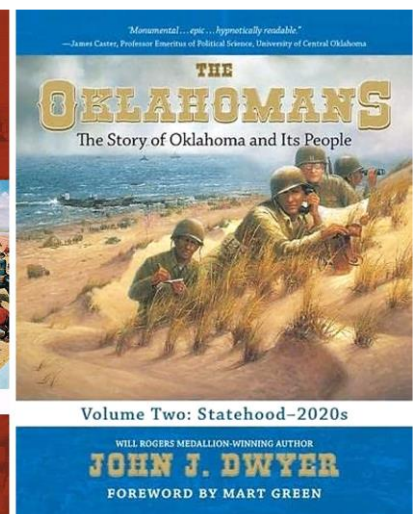
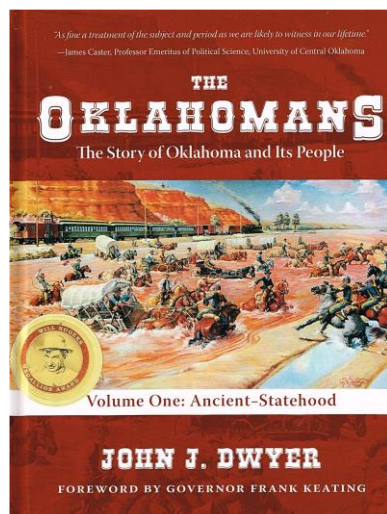
The Worst Hard Time by Timothy Egan (2005) - National Book Award winner by New York reporter Tim Egan, who collected first-person accounts of living through the Dust Bowl and wrote a most excellent account of their lives and almost unbelievable struggles. I highly recommend this book to all readers. It is indeed "the untold story of those who survived the Great American Dust Bowl."

A collage of photos from the **Great American Dust Bowl (1930s)** is presented below:



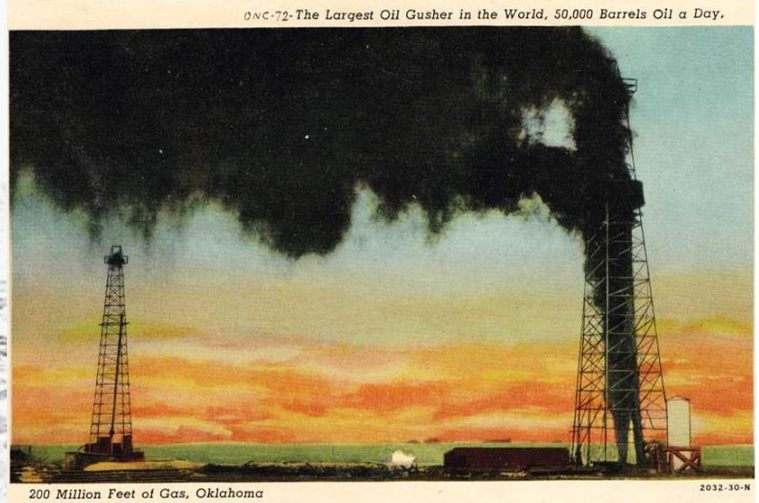
Clockwise from L: A Boise City OK ranch is engulfed in a massive dust storm the day after "Black Sunday," 15 April 1935; A dust storm towers over Ulysses KS in 1935; A classic photo of a farmer and his two young sons in the midst of the Dust Bowl in 1930s Cimmaron County OK (OK Panhandle); Dunes bank against a fence of a farm home, barn and windmill near Guymon OK in the OK Panhandle on 29 March 1937.

The Oklahomans - The Story of Oklahoma and Its People: Perhaps a good spot to note a couple of nice OK History volumes by Waukomis author John J Dwyer. Volume I begins with "ancient times" and ends with OK statehood in 1907. Volume II covers statehood until the present. There are many other commendable OK history books but these volumes are relatively unknown, so I want to make interested readers aware of them. Perhaps not for everyone, but I personally recommend them to your attention.



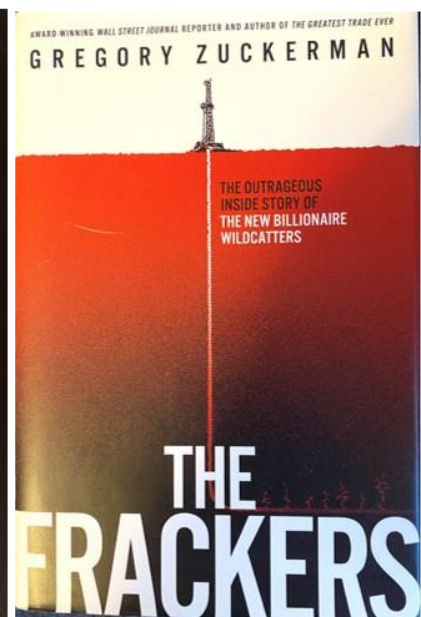
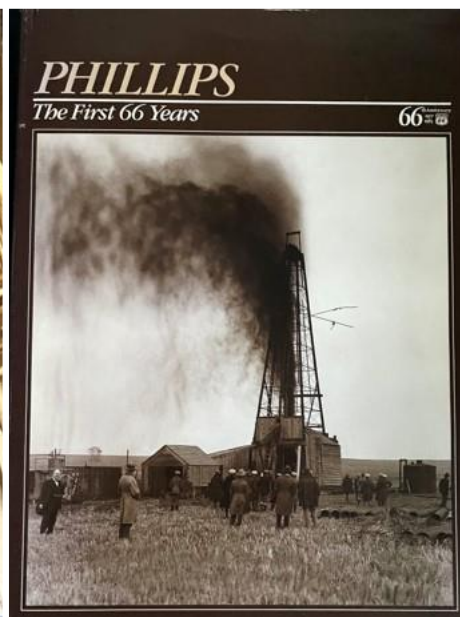
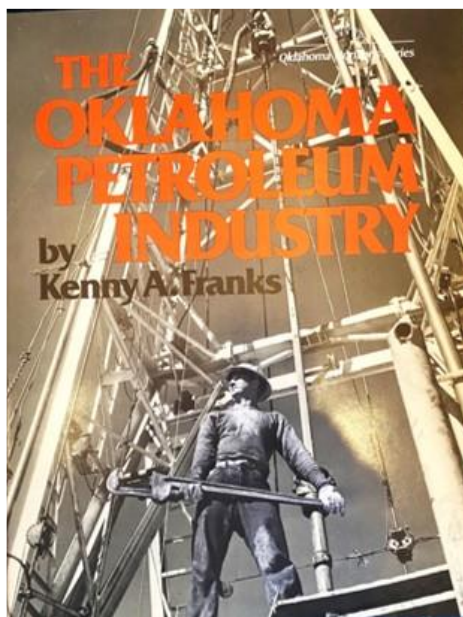
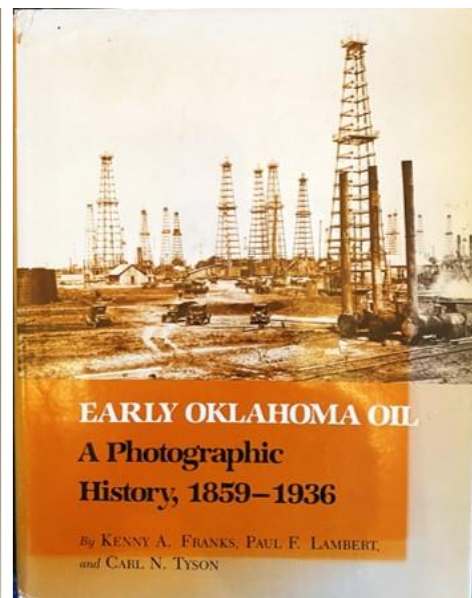
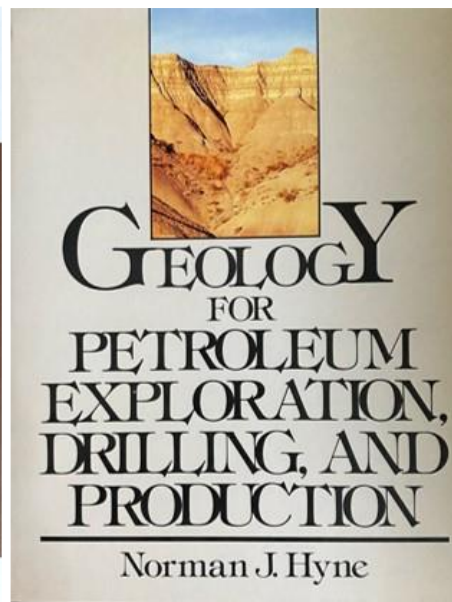
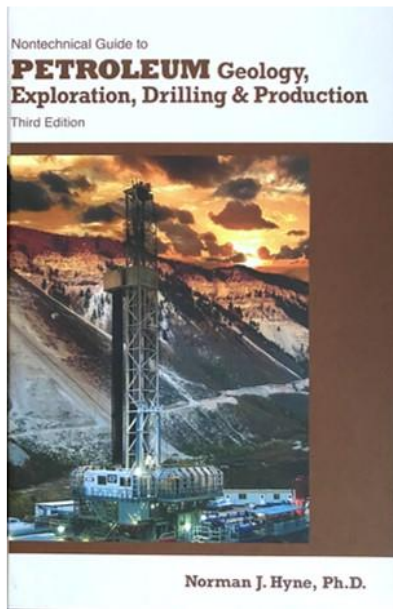
Oil & Gas Extraction in N Central Oklahoma

As noted above, there has been considerable petroleum production in our NW OK area, initially in the [Garber/Covington](#) area - the photograph at L below shows the Roxana Company's operation on the Schroeder Farm at the Garber-Covington oil field (EJ Banks, Wichita, KS, c. 1926; [OK Historical Society Photo Collection](#)); below R, vintage postcard of an OK gusher. Bottom: [RE Hoy Oil Well #1](#), drilled for Milton & Bert Garber by [Harry F Sinclair](#) in 1916 (1156' depth; 100 bbl/day initial production). [Hennessey](#), S of Enid, has also seen booms of oil/gas.



In our immediate area, there are currently many producing oil/gas wells - 2 were drilled on our DAT homeplace (1972 producer; 1985 dry hole) and we currently share production of 4 JAV oilwells - 2 drilled in the mid-1950s by [Herb Champlin](#) on Menno Voth's farm ([Anadarko Minerals](#)) and 2 recent horizontal/hydraulically fractured wells under the JAV homeplace & under our Houghtaling Farm ([Sandridge Energy](#)). There are numerous similar wells W of us, all drilled in the past 10 years or so, mostly by [Sandridge](#) or [Chesapeake Energy Corporations](#).

A few of my books on petroleum, its geology and role in OK history



Nontechnical Guide to Petroleum Geology, Exploration, Drilling & Production - Norman J Hyne, 2012

Geology for Petroleum Exploration, Drilling and Production - Norman J Hyne, 1984

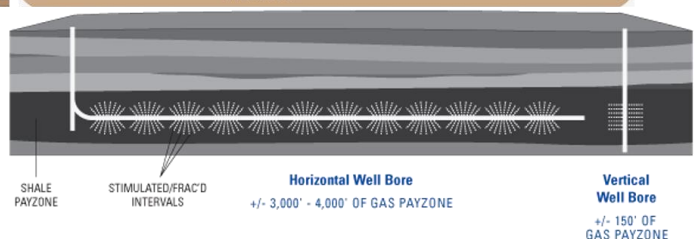
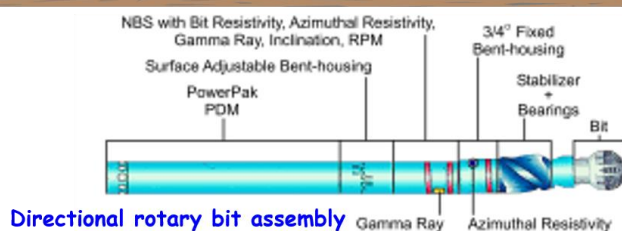
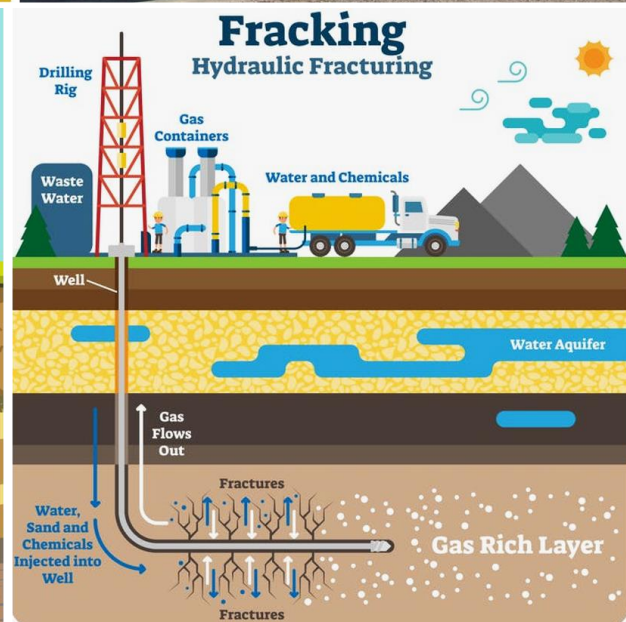
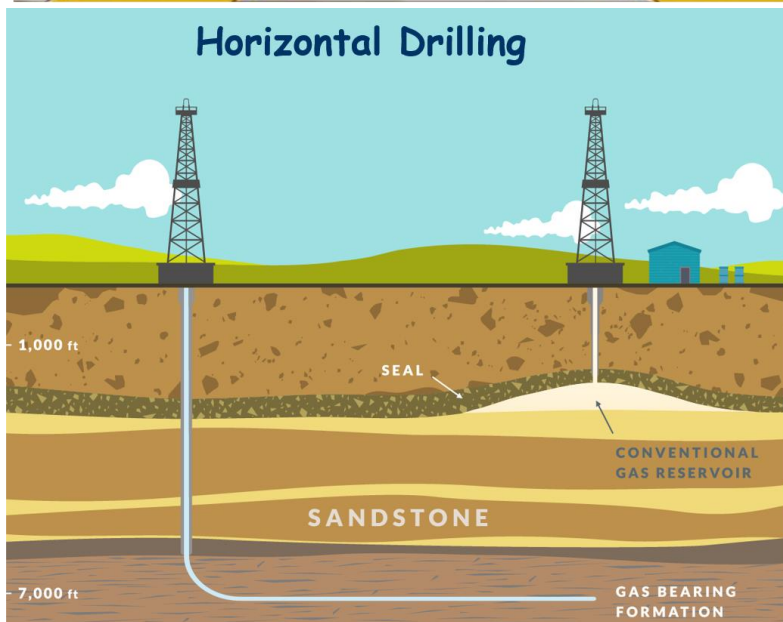
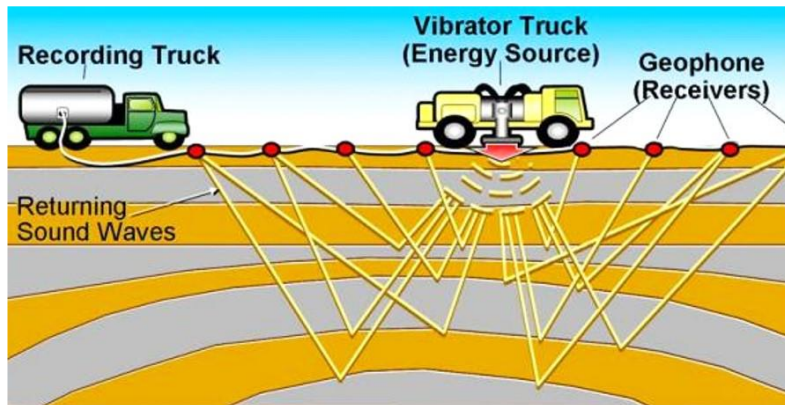
Early Oklahoma Oil - A Photographic History, 1859-1936, Kenny A Franks et al., 1981 - autographed by authors

The Oklahoma Petroleum Industry - Kenny A Franks, 1980

Phillips - The First 66 Years - Phillips Petroleum Company, 1983

The Frackers - The Outrageous Inside Story of the New Billionaire Wildcatters - Gregory Zuckerman, 2013

The advent of sophisticated seismic vibration (Vibroseis) exploration technology and horizontal drilling techniques, along with major advances in slick-water hydraulic fracturing (fracking) have enabled the recent oil/gas boom in our area between Kremlin and Hillsdale, with several wells often located on the same well-pad, often within 15' of each other, but at the time of this writing, there is little or no new activity in our area. Most are ~6500' deep; 5000' horizontal. Some diagrams and photos relevant to current petroleum extraction practices are below:



Below: Two of **DRT Family Farms oilwells: JAV #1** (L), N of N Enid and **RDG-2406 1-19H** (R), just S of the Midway Corner on Keowee Road.



A **hydraulic fracturing photo collage** is included below. This well is just S of Keowee Road between Kremlin and Hillsdale OK, about 4 miles W of Midway Corner.



Photo below is from [2014 hydraulic fracturing of our RDG-2406 1-19H well](#) underneath the JAV homeplace. The vertical bore hole is actually W across Keowee Road (Kremlin-Hillsdale blacktop; on section 18) from section 19 where actual production is. Well head is just R of light pole, behind black square tank.

[PowerPoint slide set of this operation](#) available upon request.



Comments and suggested additions/edits always welcome. [Underlined purple text](#) indicates an active weblink.

[Supplemental materials](#) of potential interest are on the next page.

Arrel Toews

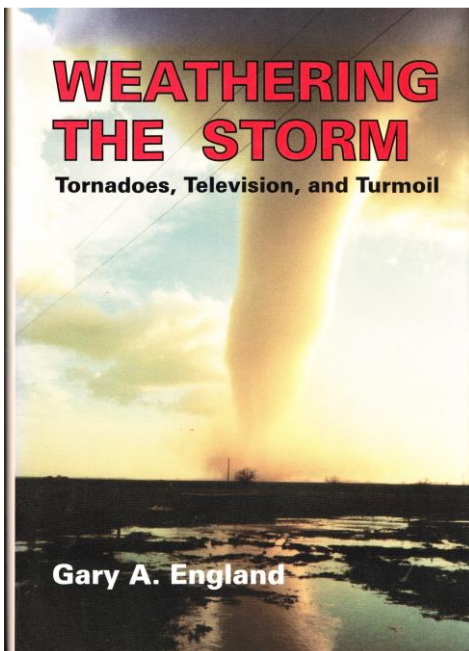
Carrboro NC

atoews@hotmail.com

4 May 2025

ARREL\GEOLOGY\HISTORY OF OK

Supplemental Materials



Weathering the Storm - Tornadoes, Television and Turmoil - Gary England, 1996. Iconic (& Emmy Award-winning) WTVD-9 OKC meteorologist [Gary England](#) details his life spent informing the OK public about tornados and other storms. He was a pioneer with Doppler radar and forecasting tornados, and a local legend when I was growing up. He even has a small part in the movie "[Twister](#)," warning Helen Hunt, Bill Paxton and other folks about impending tornados. Twister was filmed in and around [Wakita OK](#), about 30 miles NW of Kremlin. Wakita's [Twister Museum](#) is worth a visit if you're nearby - call ahead so it will be open and staffed with locals who have some great movie stories of their own! Several minutes of the 2024 movie "sequel" [Twisters](#) was filmed at the [Midway \(Keowee Road and US-81\)](#) as well as near [Orienta OK](#). A hoot not to be missed!

Another map of [Indian Territory OK](#) detailing [Native American tribes and their locations prior to statehood in 1907](#) - largely redundant with other maps in this document, it has some additional tribes listed.



[State Flag of OK](#) is at R. Adopted in 1941, it features an Osage shield with a calumet (peace pipe), olive branch, crosses, and seven eagle feathers. The design, created by Louise Funk Fluke, supposedly symbolizes a people united by peace. Hmmm!

