Science under Attack: John T. Scopes, the Monkey Trial, and a Lesson for our Times

Matthew R. Silverman

Robert L. Bayless, Producer LLC, 621 17th St., Ste. 2300, Denver, Colorado 80293

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EXTENDED ABSTRACT

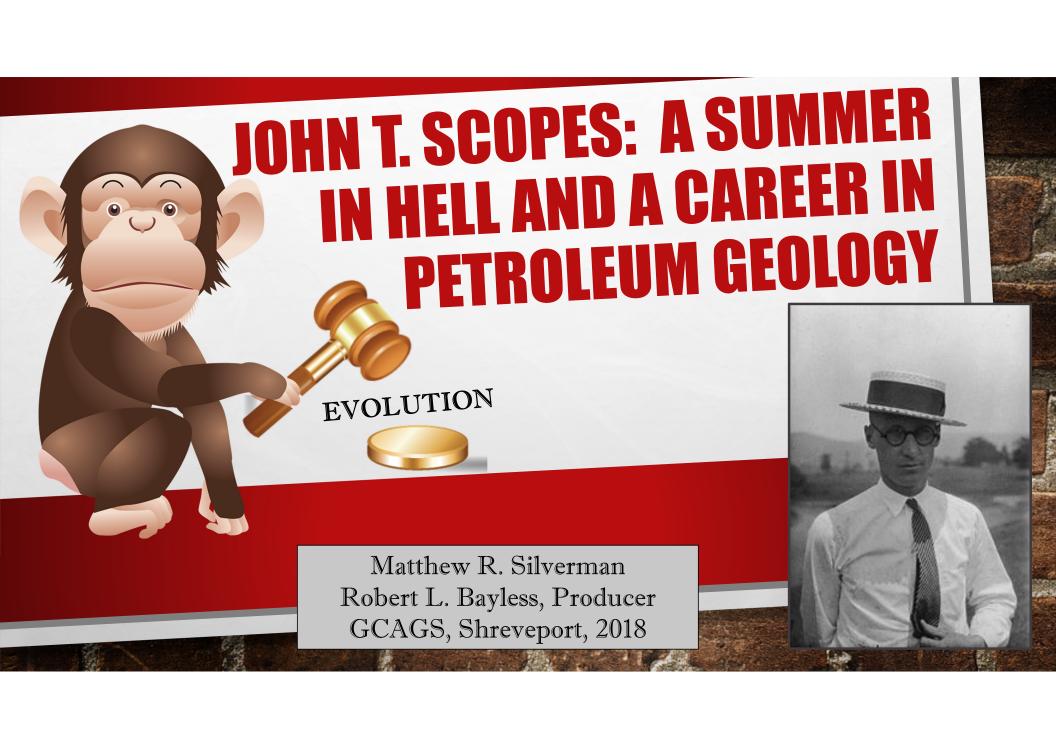
The most famous person who was a petroleum geologist, but you probably didn't know it is John T. Scopes. Remember the "Monkey Trial" from your American history books? Scopes was the defendant in the sensational 1925 trial that tested a Tennessee law prohibiting the teaching of human evolution in public schools (Fig. 1).

His story provides a lesson for today, as well as a peek into the life of a man whose devotion to the truth cost him a career in education before he found a home in petroleum geology.

Scopes was born in 1900 in Paducah, Kentucky, and moved at 17 to Salem, Illinois. (Ironically, Salem was also the birthplace of William Jennings Bryan, of whom more will be described later in this paper.) At the University of Kentucky, he earned a bachelor's degree in law, with coursework in science, including a minor in geology.

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^{*}Article based on an extended abstract published in the *GCAGS Transactions* (see footnote reference below), which is available as part of the entire 2018 *GCAGS Transactions* volume via the GCAGS Bookstore at the Bureau of Economic Geology (www.beg.utexas.edu) or as an individual document via AAPG Datapages, Inc. (www.datapages.com), and delivered as an oral presentation at the 68th Annual GCAGS Convention and 65th Annual GCSSEPM Meeting in Shreveport, Louisiana, September 30–October 2, 2018.



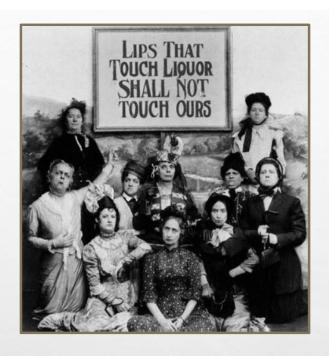
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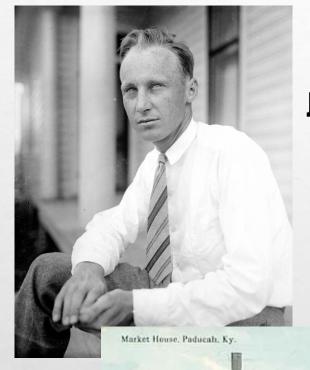


THE ROARING TWENTIES

THE BIBLE BELT





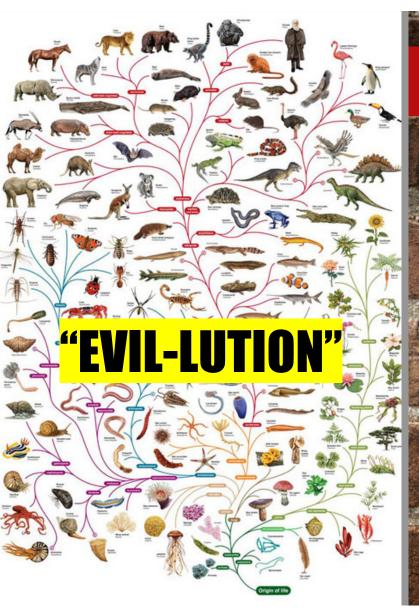


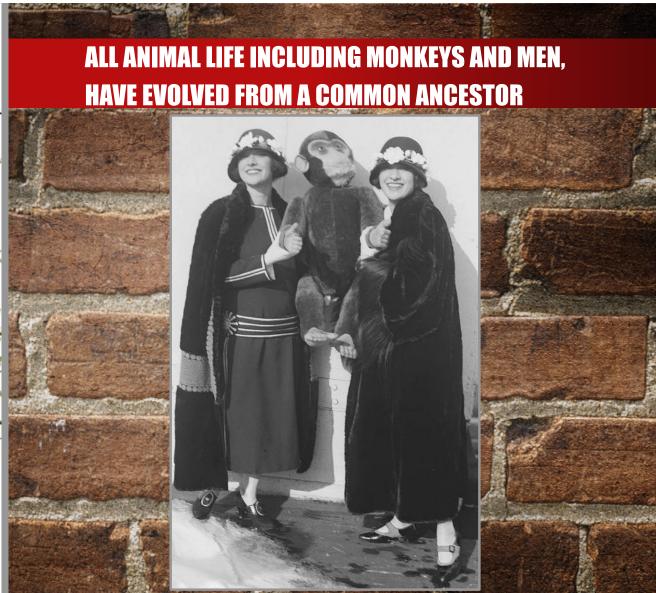
John T. Scopes 1900-1970



'A TOWN MARK TWAIN WOULD HAVE LOVED"

Paducah, Kentucky



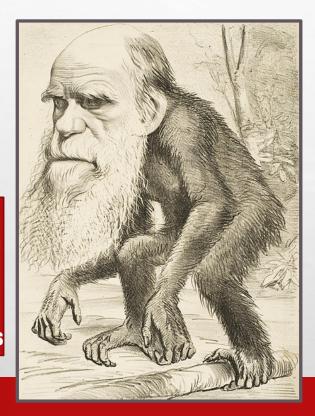


DARWIN AND DAYTON

Great is the power of steady misrepresentation . . . - Charles Darwin, *Origin of Species* (6th ed., 1872)

Myths die hard and Dayton is not the only place in America where evolution is still thought to mean that homo sapiens descended from monkeys rather than our common ancestors.

- John T. Scopes



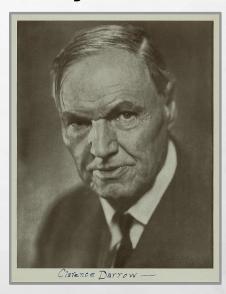


TENNESSEE
PASSES
THE BUTLER ACT
1925

John T. Scopes in custody at the trial



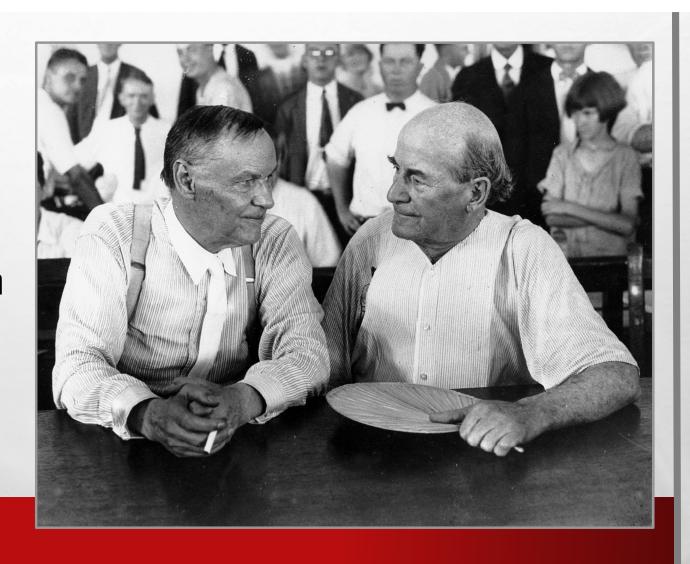
Clarence Darrow, "Attorney for the Damned"



"I furnished the body that was needed to sit in the defendant's chair."

Hulton Archive/Getty Images

The antagonists:
Clarence Darrow
and
William Jennings Bryan



H. L. MENCKEN, THE SAGE OF BALTIMORE

COINED THE TERMS "BIBLE BELT" AND "MONKEY TRIAL"

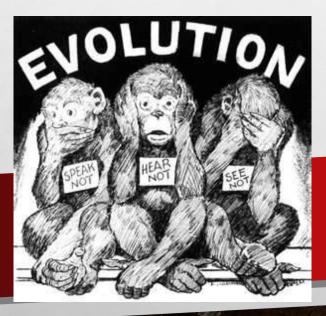
Democracy is the theory that the common people know what they want, and deserve to get it good and hard.

No one ever went broke underestimating the taste of the American public.

World-class curmudgeon

GUILTY!

The Monkey Trial





LANT EDITION Defendant is the Core Guickly After Bryan Yavis PAY ORD many is Enganged From Secand Argumenta Are Waived, and Julge Charges July-Market Defendant, First \$100. Techna Termanopa Sill Union When Sunoversed Sefers Bar -Thirty Days Given for Appool-Reed in Fixed at \$100 -- Defunes Coursel Expects to Co to Higher Court. GOOD WILL AT WINDOW COUNTROOM DAYTON, Test. Dally March (westlet) of guilley was related in the Surpey rase total Join Thurse Books, the defoul-ant, was estimated before the best Julys John T. Harlebox Lish Men-al Son prescribes by the year, read 0000 of the statute to blue, and tion from the first to \$100. the water to let law. MANUAL PROPERTY AND PERSONS INCOMES

Matury of Scopes Case

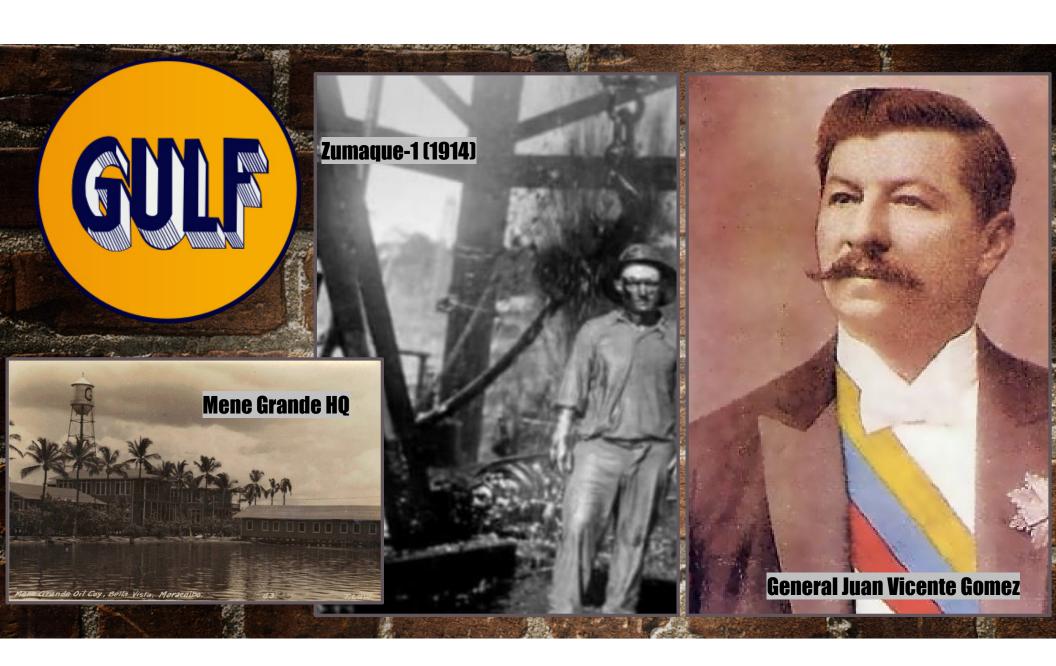
Post-trial

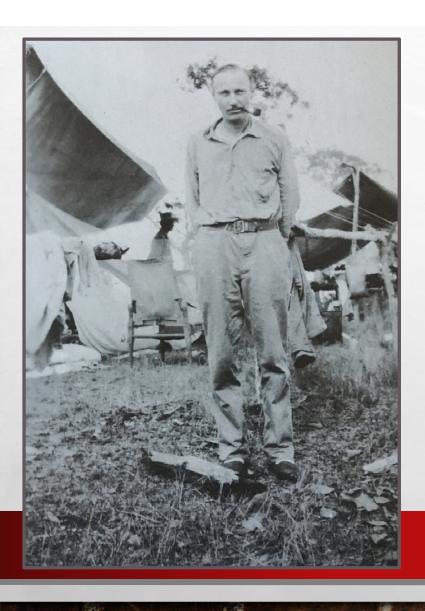
NOTORIETY IS AS TENACIOUS AS A BEDBUG. I HAD HOPED THAT, ONCE THE TRIAL WAS OVER, MY NOTORIETY WOULD EBB AND I WOULD BE FORGOTTEN. THESE WERE FALSE HOPES.

JOHN T. SCOPES



GRAD SCHOOL AT CHICAGO





"The offer I got from the oil company was a good one and a young fellow takes what he can get."

"I would be just another Yankee oil hunter"

"I hate office work and city life."

Scopes in Venezuela, 1927







FIELD WORK AT LAKE MARACAIBO, 1927-30

"there was no prize that Gulf Oil could win that was worth the risk of going into a Colombian jail."

- Founded 1930 in Shreveport
- One of the first great gas transmission companies
- First to deliver 1 BCFD
- Moved 8% of US gas; Gulf Coast markets
- Merged into the much smaller Pennzoil 1968; early leveraged buyout (aka raid)



"My personal depression ended in the summer of 1933"

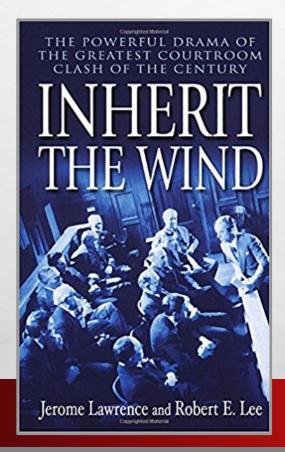
"Mine was the normal, ordinary work characteristic of any large oil and gas company. There were no high lights and I had the same number and same kind of

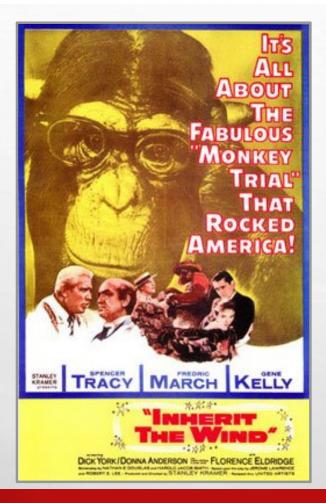
experiences as anyone else who did that type of work."

Gas reserves, appraisals, oilfield economics, taxation and regulatory affairs, testimony

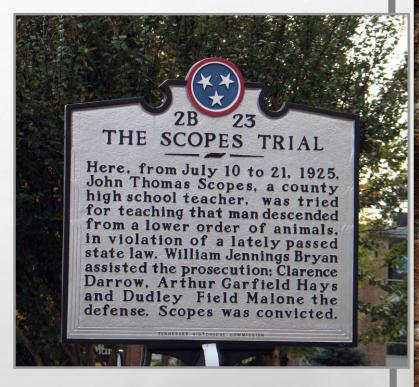


The Play!



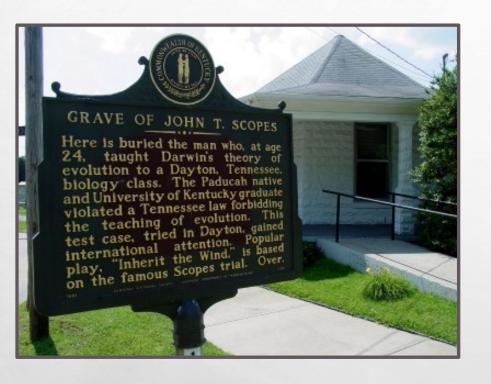


The Road Sign!



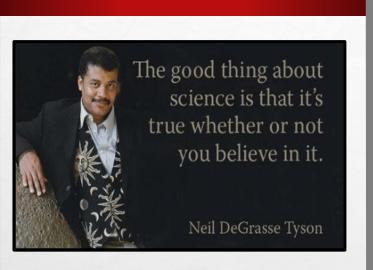
Scopes Trial Museum Photo

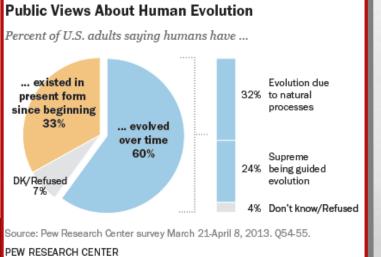
The Movie!



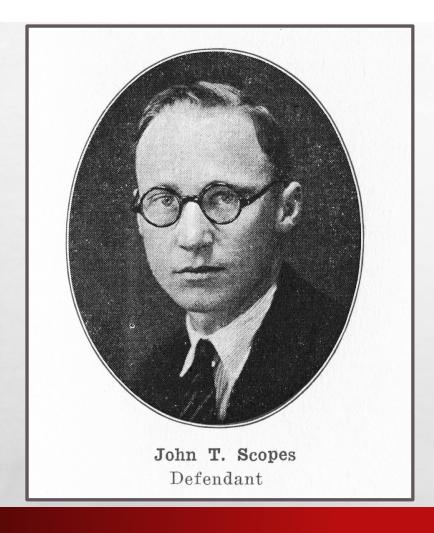


Butler Act finally repealed in 1967: "I am very happy."



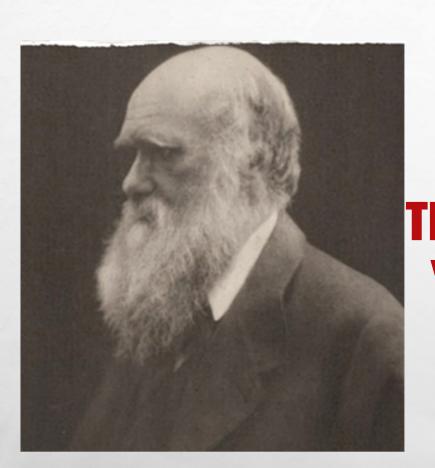






"THE BASIC FREEDOMS OF **SPEECH, RELIGION, ACADEMIC** FREEDOM TO TEACH AND TO THINK FOR ONESELF DEFENDED **AT DAYTON ARE NOT SO DISTANTLY REMOVED: EACH GENERATION, EACH PERSON MUST DEFEND THESE FREEDOMS** OR RISK LOSING THEM FOREVER."

Photo from the Clarence Darrow Digital Collection, University of Minnesota



THANK YOU



REFERENCES

Moore, Randy and McComas, William, 2016, The Scopes Monkey Trial, Arcadia Publishing

Scopes, John T. and James Presley, 1967, Center of the Storm: Memoirs of John T. Scopes, Holt, Rinehart and Winston

Shreveport Times, The, 1930s to 1990s, archives accessed via Newspapers.com

Slide 1

The most famous person who was a petroleum geologist, but you probably didn't know it is John T. Scopes. Remember the "Monkey Trial" from your American history books? Scopes was the defendant in the sensational 1925 trial that tested a Tennessee law prohibiting the teaching of human evolution in public schools.

His story provides a lesson for today, as well as a peek into the life of a man whose devotion to the truth cost him a career in education before he found a home in petroleum geology.

Slide 3

Context: Prohibition and Al Capone, Silent Cal in the White House, the Jazz Age, hemlines up, but in contrast --

Slide 4

An informal region in the South in which socially conservative evangelical Protestantism plays a strong role in society and politics.

Christian church attendance is much higher than the nation's average.

A series of religious revival movements, many associated with the Baptists, gained great popularity.

Slide 5

Born 1900

Also the birthplace of Wm Jennings Bryan

Law degree UK, minor geol

At 24, Scopes gets first job, coaching football and teaching science in Dayton TN.

Slide 6

The issue was evolution, the theory which explains how new species or populations develop through natural selection from preexisting forms over successive generations.

This was deemed contrary to the literal interpretation of the Bible by many who reduced "Evil-lution" to the notion that man came from monkeys.

Slide 7

The Butler Act had just been passed by the state legislature to prohibit public school teachers from teaching the theory of human evolution, thereby denying the Biblical account of man's creation.

To test the constitutionality of the new law, ACLU said it would defend anyone who defied the new law.

Slide 8

The trial was staged to attract publicity to Dayton, which was struggling economically, as well as to oppose the Butler Act. Scopes later admitted that he was unsure if he really had taught evolution (substitute teacher).

Slide 9

Darrow, attorney for the damned; shambling, brilliant, agnostic, progressive

Bryan, three-time candidate for President; populist, rejected Darwinism, lobbied for anti-evolution laws (dies 5 days after trial ended). Testified about literal interpretation of the Bible.

Slide 10

First broadcast trial

Led the media circus

Social critic (prudishness and provincialism)

"gaping primates" and "yokels"

curmudgeon

Slide 11

Scopes never testified, and after eight intense days, the jury found him guilty within minutes. He was fined \$100 and resigned forever from teaching.

Conviction was later overturned on a technicality related to sentencing by the judge, not the jury. The law, however, was held to be constitutional by the state's Supreme Court.

Slide 12

He immediately enrolled graduate school in geology at the University of Chicago, through the generosity of Mather and others. Scopes worked towards his Ph.D. until he ran of money.

A fellowship that would have enabled him to study the origin of oil and gas, as well as complete his degree, was denied him. Scopes said he was told, "you can take your atheistic marbles and play elsewhere."

Slide 13

Goes to work for Gulf Venez 1927

General Juan Vicente Gomez, President and de facto ruler of Venezuela 1908-1935; despotic and corrupt, opened Venezuela oil fields to intl companies

1920s Gulf logo

Sede de la Mene Grande Oil Company en el sector El Milagro (HQ)

Zumaque-1, Venzuela's first commercial oil well, 1914. Carribean Petroleum, later Royal Dutch Shell

Slide 14

Photo from the Riesenfeld Rare Books Research Center, University of Minnesota Law Library

Quote from Moore and McComas, p. 106

Slide 15

He was assigned to work parties in the jungles surrounding Lake Maracaibo and the foothills of the Andes, learning to make maps and take gravity measurements with a torsion balance. Eventually he was made party chief for Gulf's subsidiary, Mene Grande.

Gulf instructed Scopes and his party to extend their survey into Colombia, even though the company did not have permission to work there and would be unable to protect them if caught. At the Colombian frontier on the Rio Meta, Scopes concluded that "there was no prize that Gulf Oil could win that was worth the risk of going into a Colombian jail." He turned the boat around, returned to headquarters in Maracaibo and was promptly fired.

Slide 16

Fired by Gulf, returns to UC, runs out of money again in 1932

Gets job for United in Houston

The Louisiana State Office Building in Shreveport was originally the headquarters of the United Gas Corporation.

Now called Gulf South Pipeline (owned by Loews)

Slide 17

His work focused on gas reserves, appraisals, oilfield economics, taxation and regulatory affairs, including testimony in Washington, Memphis and Baton Rouge. Scopes was a member of the Shreveport Geological Society but never joined AAPG.

Autobiography provides the best insights into his role in the trial, but precious little about his career as a geologist in South America and the Gulf Coast.

<u>Slide 18</u>

Play: 1955: Lawrence and Lee, parable used to criticize McCarthyism, 806 performances, revived on Broadway twice.

Film: 1960, directed by Stanley Kramer, good reviews, 4 Oscar nominations, lost money. Three television film remakes.

<u>Slide 19</u>

Modest, quiet life in Shreveport. Retired 1964.