



Photo courtesy of NIAR

## Gerardo OLIVARES

Aerospace / Mechanical Engineering  
National Institute for Aviation Research (NIAR)

### Gerardo OLIVARES current

- Has degrees in aerospace and mechanical engineering from Wichita State University.
- Is the director of and a senior scientist for the Crash Dynamics and Computational Mechanics Labs at NIAR.
- Studies aircraft passenger safety and plane structural strength through crash tests.
- Using several kinds of math, physics and computer software, he uses virtual reality to visualize effects of crashes and to design better safety systems for aircraft and autos.

**EXTRA COOL:** Did a simulation for a National Geographic documentary in 2006 to figure out if Amelia Earhart might have survived a plane crash in the Pacific Ocean. He found she could have.

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2011 SCIENCE in KANSAS  
150 years and counting

## Kansas Sesquicentennial 2011



Credit: Sigma Pi Sigma website

## L. WORTH SEAGONDOLLAR

PHYSICS



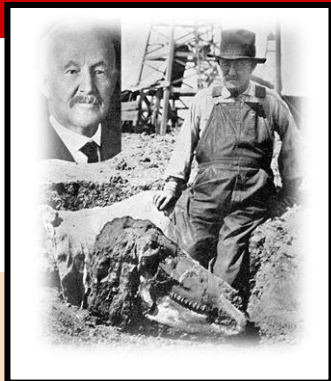
### L. Worth Seagondollar 1920-

- Born in Hoisington, raised in Emporia.
- Earned degree in physics from what is now Emporia State University in 1941.
- During World War II, worked at Los Alamos National Laboratory in New Mexico on the secret Manhattan Project in which he helped figure out the amount of plutonium needed for an atomic explosion.
- He was one of the few who saw the first man-made nuclear explosion at the Trinity site in New Mexico. Use of the atom bomb ended World War II.
- Taught at and built the first particle accelerator or "atom smasher" at KU. Taught at North Carolina State University for almost 30 years.

**EXTRA COOL:** The physics national honor society Sigma Pi Sigma gives a Worth Seagondollar award.

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## Kansas Sesquicentennial 2011



## CHARLES H. STERNBERG

PALEONTOLOGY



### Charles H. Sternberg 1850-1948

- At age 17, his family moved from Iowa to a ranch south of Ft. Harker (now Kanopolis) where his older brother was a military surgeon.
- Started out collecting fossil leaf imprints from the Dakota sandstone. Studied at what is now K-State under B. F. Mudge (see February).
- Collected reptile and fish fossils from the Smoky Hill Chalk in Gove and Logan Counties, also in Wyoming and even dinosaur bones in Canada.
- Sons George, Levi and Charles also hunted fossils. Sternberg fossils are on exhibit all over the world, including in the Smithsonian Museum in Washington D.C., and in both the American and British Museums of Natural History.

**EXTRA COOL:** The Sternberg Museum of Natural History in Hays is famous for its "Fish within a Fish" fossil collected in 1952 by George Sternberg.

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Credit: Fairchild Tropical Botanical Garden Archives

## Walter SWINGLE

Botany

U. S. Department of Agriculture

### Walter SWINGLE 1871-1952

- Grew up on a farm outside of Manhattan and was homeschooled. Wrote his first scientific paper at age 16.
- Earned degrees at Kansas State University. Joined USDA in 1891. Was so young he had to have his parents' permission to accept the job.
- Sent to Florida to find ways to fight diseases affecting orange groves. Helped develop hardier breeds of citrus plants.
- Traveled the world, researching subtropical plants and became one of the 20<sup>th</sup> century's top experts on citrus.

**EXTRA COOL:** Inducted into the Florida Citrus Hall of Fame in 1962.

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