L to r: Will, brother Edwin, Flo, C.F., and Karl Menninger

Courtesy Kansas Memory.org, Kansas Historical Society

C.F., Karl and Will MENNINGER

Psychiatry

The Menninger Clinic

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2011 SCIENCE in KANSAS *150 years and counting*

C.F. 1862-1952, Karl 1893-1990, Will 1899-1966 Menninger

- The Menninger Clinic was founded in Topeka in 1919 by C.F. Menninger and son Karl, both medical doctors. In 1926 son Will, also an MD, joined them.
- They thought mental health was as important as physical health and that mental illness comes from a combination of physical, emotional and stress factors. The Menningers brought about many advances in the treatment of the mentally ill.
- Karl and Will graduated from Washburn University before attending medical schools at Harvard and Cornell.
- Karl published a famous book in 1930, *The Human Mind*, explaining that psychiatry was a science. They have always done research studying things like migraines or brain activity or biofeedback to find ways, both medicinal and otherwise, to help patients.

EXTRA COOL: Though it moved to Houston in 2003, the Menninger Clinic is still known as one of the top psychiatric centers in the country, just as it has always been.

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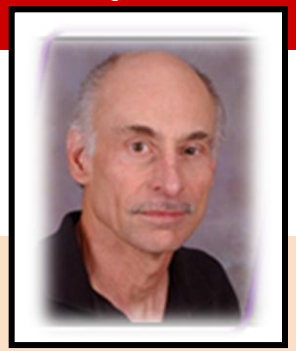
Kansas Sesquicentennial 2011



Credit: KSU Photo Services

CHRISTOPHER SORENSEN

SOFT MATTER PHYSICS

Kansas State University

150 YEARS and Counting SCIENCE IN KANSAS

Christopher Sorensen current

- Works with soft matter physics, things such as liquids, gels or biological materials.
- Studies the fundamental physics of aerosols (tiny particles suspended in air) like water vapor clouds, factory smoke or diesel engine exhausts.
- Often when tiny solid particles cluster, they stick together in what is called a fractal shape. He wants to know how these fractals move through the air, how they scatter and absorb light. How do these factors affect global warming?
- Also works in the area of nanoscience with particles a few billionths of a meter in size. He is trying to make a crystal structure in which nano-particles are arranged in repeating orderly patterns called superlattices.
- The nanoparticle superlattices he is making have completely new properties unlike any previously known material.

EXTRA COOL: In 2007 he was named the United States Professor of the Year by the Carnegie/Case Foundation for the Advancement of Teaching.

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Courtesy of J. Thomasson

Joseph THOMASSON

Botany

Fort Hays State University

2011 SCIENCE in KANSAS *150 years and counting*

Joseph THOMASSON current

- Born and raised in Hays. Earned degree in botany at FHSU. Taught there for 29 years.
- Has conducted research on fossil grass evolution in Kansas from 1973 to the present. Some of his work was featured in a NOVA production "Buried in Ash."
- Directed excavations of the Minium Quarry for the National Geographic Society in the 1980s. This site near Morland is rich with fossils of ancient plant life like bamboo, rice and bulrushes. Continues research there.
- Each summer he surveys for rare plants in several states for the U.S. Forest Service.
- Is curator of botany and paleobotany at the FHSU Sternberg Museum of Natural History.

EXTRA COOL: Thomasson has had three fossils named after him, including *Thomassonites sinuatum* the oldest known fossil grass.

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Kansas Sesquicentennial 2011

Photo courtesy Janet Twomey

JANET TWOMEY

INDUSTRIAL / MANUFACTURING ENGINEERING

Wichita State University

150 YEARS and Counting SCIENCE IN KANSAS

Janet Twomey current

- Her research attempts to reduce the environmental impact of manufacturing.
- She assesses the stages of manufacturing—how much energy, what materials and amount of materials are used in making a product.
- Using what she has learned, she is developing software to help manufacturers identify ways to reduce these usages.This will make the product more environmentally and economically friendly.
- Also working with the health care industry. Looking at energy reduction in hospital services like CT scans, MRIs or x-rays. These use a lot of energy even when not in use. For example, could manu-facturers design these differently or put a "sleep mode" on the machine for when it's not being used?

EXTRA COOL: Spent 3 years at the National Science Foundation in Washington D.C. at the Manufacturing Enterprise System program. As a program officer she reviewed science research proposals to fund the most innovative and determine the direction for future research.

www.adastra-ks.org