

American Society of Mechanical Engineers (ASME) Dinner Meeting Series

A few examples of technology in history

Robert O. Woods, Ph.D.

Dr. Woods has chosen three subjects from among his dozen historical articles in *Mechanical Engineering* magazine. The first will discuss the U.S. Capitol dome which is painted to resemble marble but is actually a virtuoso demonstration of the art of iron casting. The structure was erected against the background of the Civil War and involved a large cast of colorful characters. The second subject will be the Pont du Gard (Roman) aqueduct at Nimes, France. This is an example of high precision surveying done without optical equipment. It can be regarded as an ancient example of finite element analysis. Graphical representation of the topography could only be done by breaking it into a vast number of orthogonal prisms since Roman instruments could only project angles of zero and ninety degrees. The discussion will conclude with some remarks about the communication problems which arose when the world of engineering collided with computerized solids modeling.

Robert Woods, Ph.D. is a retired professional mechanical engineer whose career at Sandia National Labs was primarily devoted to the development of research instrumentation. He has worked with small sounding rockets, stratospheric balloons, satellite optical structures and mechanical energy storage mechanisms. His tenure concluded with a brief excursion into robotics and solids modeling. His avocation is tracing the influence of technology on human history. He has long been an enthusiastic glider pilot and model builder, radio amateur and tourist.

DATE: Thursday, November 13

PLACE: The County Line of Albuquerque, 9600 Tramway Blvd., ABQ, NM 87122

MENU: All-you-can-eat, family-style meal including entrees of chicken, beef ribs, and brisket, and side dishes including homemade potato salad, fresh cole slaw, ranch style beans, warm house bread, and unlimited soft beverages (iced tea, coffee, and soda). Cash bar will also be available.

TIME: 6:00 PM social time, 6:30-7:30 PM dinner, 7:30 PM speaker.

COST: \$24 per person, pay by cash or check at the door.

RSVP: Contact Monica Perry at (505) 284-2759 or mnperry@sandia.gov by Tuesday, November 11.