July 21, 1983
FERMI NATIONAL ACCELERATOR LABORATORY

FermiNews

SARUS CRANES TEST CAGES FOR SANDHILLS

Tom Warkins, a fulltime employee of Roads and Grounds, plays cautiously with one of the sarus cranes. Tom is working on his M. S. in Landscape Architecture at the University of Wisconsin, and his specialty is restoration, management, and assessment of native plant communities. Tom has been closely connected with the Fermilab Prairie Project and instrumental in obtaining the "test" cranes.

by Tom Warkins

During the past month or so, a transition has taken place in the center of the Main Ring. Two large pens have been constructed to house sandhill cranes. The flights are 100 ft×50 ft with a vinyl netting covering the top. The pens can easily be seen from the upper floors of Wilson Hall. The flights are constructed not only to keep the cranes in but also to keep predators out. Shelters for the cranes will be added during the summer.

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As of now, four sarus cranes reside in the pens. Sarus cranes are from India where they are becoming extinct because of hunting and loss of habitat. The sarus cranes are larger and more aggressive than the sandhill crane and for this reason the sarus cranes have been placed in the pens to help in analyzing any possible flaws that may have occurred in the design. The main threat to the cranes are raccoons, fox, and humans. The raccoons and fox hopefully will be kept out by the fence and netting, but the humans are harder to control. It should be understood that these birds are easily excited and disturbed. Because of their temperament, any unneeded disturbance of the birds could cause them to injure or kill themselves. Also, keep in mind that these birds are on loan from Craig Hendee, an Aviculturalist from Glenview, Illinois, so more care should be taken with what is not ours. Interested parties should not advance beyond the gravel road when observing or taking pictures of the birds. The sarus cranes will be here for approximately another month.

Once the pens have been sufficiently tested, mated pairs of sandhill cranes will be brought to Fermilab. Two sets of mated pairs will be placed in the pens, one pair for each pen. If all goes well, the birds will mate next spring and produce offspring. The offspring will be allowed to go free in the hope of having them return each year and establish a breeding population of sandhill cranes once again in Illinois. Wild sandhill cranes have not bred in Illinois since the 1800's.

Once again, it is imperative that the sarus and sandhill cranes not be disturbed in the event it may cause the failure of the whole project.

FOUNDATION FUNDS INSTITUTE

Leon Lederman (left) and Marjorie Bardeen (right) were pleased to witness the presentation of the Bersted Foundation's contribution to the success of Fermilab's first Summer Institute for Science Teachers. The occasion was a luncheon on July 12, held at the conclusion of the four-week session, when Robert Wiegand, Vice President of the Continental Bank, presented Jean Fisk, Vice President of the Friends of Fermilab Association, with the $25,000 check. The Bersted Foundation has as its primary interest the support of programs benefiting the residents of the DeKalb, Kane, McHenry, and DuPage counties.

FULBRIGHT SEEKS ALUMNI

The Fulbright Alumni Association is seeking to locate former Fulbrighters and enroll them in its program of support for international education. Inquiries should be directed to Arthur P. Dudden, Fulbright Alumni Association, P. O. Box 1042, Bryn Mawr, Pennsylvania 19010.

BIOLOGY TEACHER PRAISES SUMMER INSTITUTE

by Bonnie Redmer, Biology Teacher, St. Charles High School

The Fermilab Summer Institute for Science Teachers has been a fabulous experience for the biology teachers. We have been privy to current, in-depth information, much of which has not yet been published in our textbooks. The stimulating lectures have revitalized our teaching enthusiasm, and the information gained will greatly aid our interacting with students this fall.

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45 TEACHERS ATTEND INSTITUTE CLASSES, LABS

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The first week was devoted to genetics and to the current chromosomal research findings. Some emphasis was given to the battle of understanding cancer.

(Left to right) biology teacher Sherry Yarema, University of Chicago Professor David Raup, biology teacher Charles Henninger, and Summer Institute Director Marjorie Bardeen discuss a recent lecture by Raup on "The Role of Extinction in Evolution."

The second week we studied cellular biology. We all gained a new appreciation of the cell and its very complex functionings. (To interject a tidbit here, we learned that we floss our teeth, not to remove all the plaque, but to disrupt the intercellular communication between bacteria. By doing this, the bacteria cannot secrete the destructive lactic acid for approximately 24 hours until they reestablish their communication system. So flossing merely keeps mouth bacteria in disarray!)

The third week was spent studying organismal physiology--which is the interaction of all the body systems--with a special emphasis on the endocrine system. Hormones seem to control everything about the total organism from growth to the urge to eat or stop eating and to the commonly associated sex drive.

The last week was spent enhancing our understanding of ecological systems with regard to the importance of energy flow. We finished with a fascinating analysis of a specific ecosystem--the prairie at Fermilab.

Each week's morning classes were accompanied by afternoon labs where we exchanged ideas and gained new lab techniques. For example, we made slides of **Drosophila** salivary glands to observe chromosomes. We dissected sheep brains and hearts for anatomical study, and we analyzed barn owl pellets for food distribution purposes.

The experience at Fermilab this summer has been a refreshing one from which we and our students will reap the benefits for a long time. Thank you for the opportunity.

LECTURE ON VATICAN ART

by Jane Green

The big art event of the year is the unprecedented visit of the Vatican exhibition to the United States, opening at the Chicago Art Institute on July 23. This dazzling display of premier masterpieces of the papal art collection provides a chance to see the works of art that have affected standards of taste for centuries. In order to help add greater depth to visits to the exhibition, the Auditorium Committee is presenting a lecture, "The Popes as Patrons and Collectors" by Ian Wardropper, Friday, July 29, at 8 p.m. in Ramsey Auditorium.

Drawing examples from the exhibit, Mr. Wardropper will trace the history of papal involvement in the arts. The 237 objects in the exhibit provide a sweeping historical perspective on our changing relationship to art and the setting of standards for taste down to our own times. In the exhibit, we see the change from patronage to the collecting of art and the beginnings of the great museums.

Wardropper is Assistant Curator in the European Painting and Sculpture Department of the Chicago Art Institute. He is the curator in charge of the Vatican exhibition at the Institute. His specialty is sculpture of the period from the Middle Ages to 1900 with emphasis on French and Italian Renaissance and Baroque sculpture of the 16th and 17th centuries. He has held a Chester Dale Fellowship at the Metropolitan

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Museum of Art and is a repeated recipient of Kress Foundation research support. He has taught at New York University and Drew University, as well as working with Sotheby Parke Bernet on the cataloging of old master prints. In addition to working in the European Sculpture and Decorative Arts Department at the Metropolitan Museum of Art, he is a recognized authority on several of the works at the heart of the Vatican exhibition.

Admission to Wardropper's talk is $2, $1 for senior citizens, and tickets are now available at the Information Desk in the atrium of Wilson Hall, ext. 3353. Phone reservations are held for five days, but due to ticket demand, those reservations not paid for within five working days will be released for sale.

CAFETERIA TO CLOSE JULY 30

The Cafeteria will be closed all day Saturday, July 30, due to an electrical power outage from 6 a.m. to 6 p.m. in Wilson Hall. This power outage is for maintenance reasons and will effect all floors in Wilson Hall, including the catacombs and basement.

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ALPHORN CONCERT JULY 27

Transport yourself to the Alps on Wednesday, July 27, at noon when the Köhler Family fill the atrium of Wilson Hall with the beautiful, haunting sounds of their alphorns. A family of six from Baden-Württemberg, Germany, the Köhlers perform traditional Swabian folk songs in their native dress. These costumes combine with the huge alphorns to invoke a recollection of the Swiss Alps.

The thirteen foot long alphorn is made from a fir tree, which is crooked at the rootstock. It produces soft, natural tones and was first used in the Alps for communication between mountain herdsmen. Through the centuries, the alphorn has been absorbed into the folk customs of Switzerland and the Allgäu, and today it is heard as often in its original mountain setting as it is at official occasions and special concerts.

Bernhard Köhler is the Filderstadt Municipal Music School Director. In addition, he leads music camps, coordinates concert tours, and directs a religious choral society, and several orchestras. His wife, Astrid, teaches recorder, and their four teenage children play a variety of instruments. The family has been performing on alphorns for the past twelve years, and Köhler has made three of these spectacular instruments.

Plan to enjoy the Köhler Family presentation in the atrium from 12 to 12:40 p.m. on July 27. Should you forget, the beautiful resounding sounds of alphorns will serve as an enticing reminder.

← *the Köhler Family*

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TO DR LEON LEDERMAN
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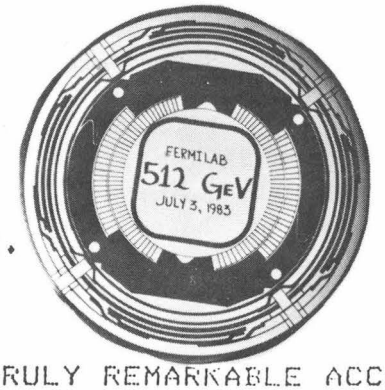
BATAVIA IL



PLEASE DELIVER TO DR. LEDERMAN AS SOON AS POSSIBLE.
THANK YOU.

DEAR DR. LEDERMAN:
YOU AND YOUR STAFF ARE TO BE CONGRATULATED FOR A TRULY REMARKABLE ACCOMPLISHMENT. THE OPERATION OF THE ENERGY SAVER TO A NEW RECORD ENERGY OF 512 BILLION ELECTRON VOLTS IS AN EVENT OF SIGNIFICANCE FAR BEYOND THE ESTABLISHMENT OF NEW WORLD RECORD IN ENERGY LEVELS. YOUR EFFORTS TO DEVELOP AND BRING INTO SUCCESSFUL OPERATION A NEW TECHNOLOGY ON SUCH A MASSIVE SCALE WOULD HAVE BEEN NOTEWORTHY IF FAR LESS HAD BEEN REALIZED . THAT SO MUCH HAS BEEN ACHIEVED IN SUCH A TIMELY MANNER DEMONSTRATES A MASTERY OF THE ADVANCED SUPERCONDUCTING SYSTEMS THAT FEW WOULD HAVE EXPECTED AT THIS TIME.
I AM KEENLY AWARE THAT ALL HAS BEEN ACCOMPLISHED BECAUSE OF THE CREATIVITY , IMAGINATION, AND HARD WORK OF YOU AND YOUR EXCEPTIONAL STAFF. THE OUTSTANDING PERFORMANCE OF THE FERMILAB TEAM HAS PLACED THE UNITED STATES IN POSITION OF DRAMATIC TECHNOLOGICAL LEADERSHIP IN OUR FRIENDLY COMPETITION WITH OTHER NATIONS IN OUR MUTUAL EFFORTS TO BOTH EXPAND AND UNIFY MANKIND'S UNDERSTANDING OF THE UNIVERSE. THIS ACCOMPLISHMENT ALSO DEMONSTRATES THE COMMITMENT OF THIS NATION TO A STRONG BASIC RESEARCH PROGRAM THAT PROVIDES BOTH THE TOOLS AND RESOURCES NEEDED TO UNDERTAKE SUCH A MISSION.
ON BEHALF OF THE DEPARTMENT OF ENERGY AND THE ADMINISTRATION, PLEASE ACCEPT MY PRAISE FOR YOUR ACHIEVEMENT AND MY GRATITUDE FOR YOUR CONTRIBUTION. AFTER APPROPRIATE CELEBRATIONS, I KNOW YOU AND THE FERMILAB TEAM WILL RETURN TO WORK WITH THE INTENTION OF APPLYING THIS NEW TOOL TO THE EXCITING INQUIRIES AHEAD.

DONALD PAUL HODEL

Secretary of Energy !

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US DOE-CH ARC

Please schedule lunch early for Thursday, July 7, 1983 - due to party! in the Atrium 4:00-7:00 Cafeteria will be closed for dinner.

Thank You

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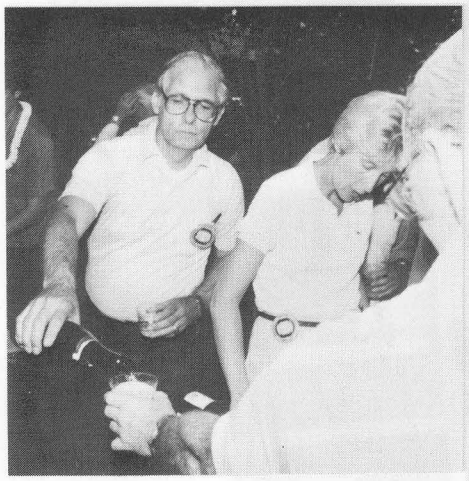


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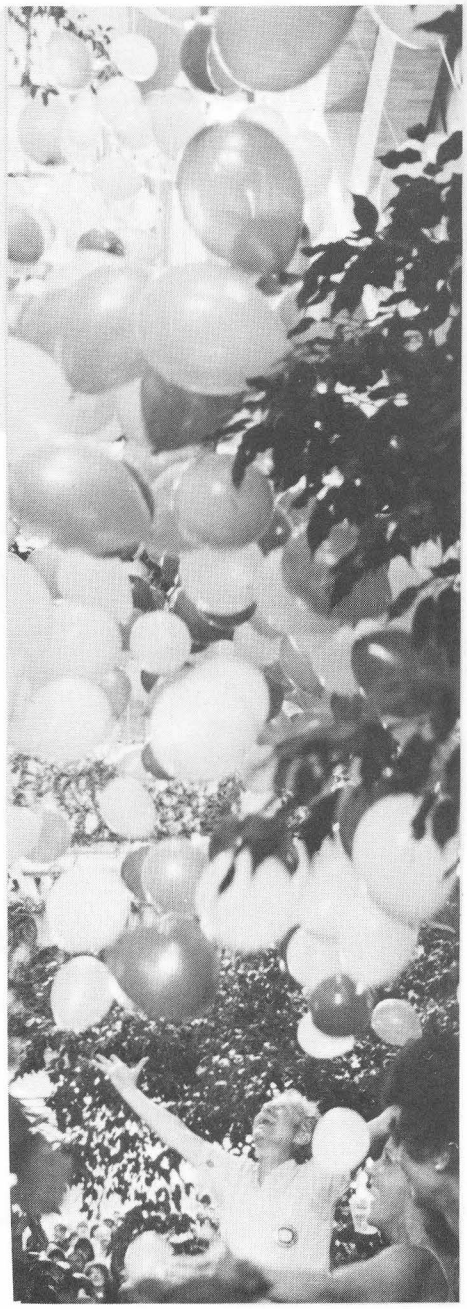

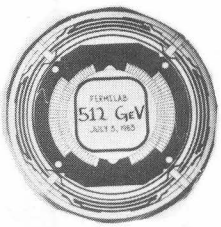
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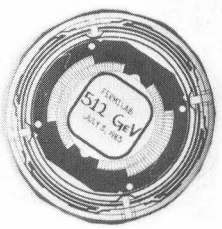
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