## **University of Wisconsin-Madison**

### **Department of Geology and Geophysics**

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# **Annual Report for 2000**

### **Visitors**

In the year 2000, the museum was once again a popular destination for school groups and others taking advantage of our educational displays. Approximately 17,000 visitors toured the museum, including 11,000 children who arrived in yellow school buses. The most popular exhibits were the blacklight room with its colorful fluorescing minerals, the cave, complete with the sounds of dripping water and an electronicallygenerated echo, and the dinosaurs and other prehistoric vertebrates. Visitors coming on a Saturday morning probably spent some time observing our dedicated volunteer Lou Goodman prepare fossils. For the past 20 years, Lou has diligently matched bone fragments and glued them back together, a square inch at a time. His main project this past year, and for some time to come, is the restoration of *Triceratops* bones.

### Dinosaurs, etc.

The museum's dinosaur crew, led by students Chris Ott and Lisa Buckley, embarked on vet another successful expedition to the badlands of Eastern Montana. One of the goals was to find more bones of the three-horned dinosaur Triceratops to supplement the museum's ongoing reconstruction project. Major discoveries include a partial Triceratops skeleton, some juvenile dinosaur remains, including a foot bone of an



Museum volunteer Lou Goodman demonstrating the art of fossil preparation.

extremely rare avimimid dinosaur, and the skeleton of a three-foot-long gar fish. Tom and Margaret Blair once again graced us with their hospitality by allowing us to camp on their property and by letting us use water pumped by their windmill.

For two weeks, our expedition was joined by members of the Burpee Museum of Natural History in Rockford, Illinois, to introduce them to dinosaur exploration and excavation techniques. They plan to eventually develop their own program.

### Collections

Chris Ott continued the identification and cataloguing of our collection of fossil vertebrates in order to bring it up to the standards set forth

by the federal government. Lisa Buckley, while studying the theropod dinosaurs (meat eaters), discovered the partial leg of a previously undescribed dromaeosaur, which is similar to the Velociraptor depicted in the movie Jurassic Park. Lisa is working on an article describing this new discovery. Meanwhile, student volunteer Ian Sweeney has begun the task of preparing the skeleton of a sheep-sized mammal Oreodon for eventual display in the museum. The bones were retrieved from storage where they had been kept since their discovery in 1978. Reorganization of the extensive collections of minerals, rocks, and fossils stored in the basement of Weeks Hall continued. Mike Henderson of the Burpee Museum of Natural History,

Rockford, Illinois, helped with the identification of our museum's extensive collection of fossils from the famous Carboniferous deposits of the Mazon Creek area in Northern Illinois.

### **Contributions**

The museum was awarded a grant of \$5,900 by the David E. Jones Foundation, Worthington, Minnesota. The money, given "for paleontology research resulting in a publication, or for K-12 education in paleontology," will be used to write a book on the fossils of Wisconsin. Publication of the book is anticipated toward the end of this year. It will initially be distributed free of charge to schools and museum visitors. Other major gifts were received from David E. Jones, Worthington, Minnesota; Laura Linden, Madison; the Amoco Foundation and many others. Some of these gifts were made to the Friends of the Geology Museum.

The Black Hills Institute of Geological Research, Inc. enhanced our exhibits with the generous donation of a replica of the skull of the "bone head" dinosaur *Pachycephalosaurus*.



Museum visitors Alex and his mother admiring the Pachycephalosaurus skull, a fossil replica donated by the Black Hills Institute of Geological Research, Inc.

The skull of this unusual dinosaur has become an instant attraction in our hall of vertebrates. Friends of the Geology Museum funds were used to acquire a large slab of Cambrian-age, ripplemarked marine sandstone from Mosinee, Wisconsin, containing the impressions of three jellyfish. The jellyfish were stranded near, or on a beach, at a time when most of Wisconsin lay submerged under a shallow ocean. Another acquisition, provided for by the Friends, is a large cluster of sandstone concretions, from Western Wisconsin. The Laura L. Linden donation enabled us to purchase a beautiful group of aquamarine crystals from Afghanistan.

The Anglogold Mining Company, Elko, Nevada, donated to our mineral exhibits a spectacular barite and quartz specimen from the Elko Mine. The donation was arranged through the efforts of Jane and Casey Jones, Geoprime Mineral

Company, Monrovia, California. Peter Sturgul, Plover, presented the museum, with a specimen of sheet copper from the White Pine Mine of Upper Michigan, measuring four feet across. Dr. and Mrs. John J. Prucha, DeWitt, New York, donated several

Emeritus Professor Dr. Robert H. Dott examining a slab of sandstone containing the impressions of three extinct jellyfish.

outstanding mineral specimens. Dr. Gene Musolf, Schofield, contributed minerals from the collection of the late Mike Anderson of Wausau. Kurt L. and Susan Christensen, Verona, gave us part of a lower jaw of a Gomphotherium, an extinct relative of the elephants. The Christensens had recently brought this fossil back from a trip to China.

### **Exhibits**

Michigan's "Copper Country" Minerals was the theme of our Special October Exhibit. It featured an outstanding collection of copper and associated minerals loaned to us by the A. E. Seaman Museum at Michigan Technological University in Houghton. The museum's curator, Stanley Dyl, delivered the collection, set up the display, and returned a second time in November to pick it up again. We are grateful to him for the loan.

Museum visitors can once again enjoy the sound of dripping water and the echo in our walk-through model of a Wisconsin limestone cave. The overhaul of the electronics was accomplished by project assistant Matt Kuchta. The blacklight display of fluorescent minerals was also upgraded, with better lighting and by incorporating several new specimens. Work on this, the most colorful exhibit in the museum, is continuing.



Sandstone concretions from Western Wisconsin. an acquisition sponsored by the Friends of the Geology Museum.



Ellis Taff, dedicated tour guide for seven years, passed away in November. He is missed by us all.

### The Passing of a Friend

In the fall, we lost one of our most dedicated and beloved tour guides, Ellis Taff, who died at the age of 92. Ellis joined the museum as a volunteer in 1993 when he was 85. During the past seven years, he gave about 700 tours. He was both a skilled educator and a wonderful storyteller. A videotape of one of his tours, used in the training program for new guides, will keep his legacy alive and pass it on to those who did not have the opportunity to know him personally.

### **Comings and Goings**

We are pleased to announce that the museum will soon have an assistant museum director in charge of outreach. This new three-year renewable position is funded by the University's College of Letters and Science. Richard Slaughter, a vertebrate paleontologist, will assume this position in July of 2001. Mr. Slaughter is currently completing his Ph.D. at the University of Iowa in Iowa City.

Matt Kuchta, student project assistant, has left his position at the museum to become a teaching assistant in the Department of Geology and Geophysics. During his two years with the museum, Matt worked on the reorganization of the collections, entered data on the computer, improved our web site, and helped with the museum's day-to-day operations. Elizabeth Leslie will be our new project assistant.

### Teacher Training

In spring, the museum started its second two-year cycle of Paleontological Experiences for Teachers, a Howard Hughes Medical Institute-funded teacher training program in vertebrate paleontology. Seven seventh-to twelfth-grade teachers from across Wisconsin participated in the program, which was led by Dr. Joe Skulan and two science teachers, Steve Bower and Marilyn Hanson. As in previous years, the high point of the program was a ten-day field trip to western Kansas and Eastern Colorado. In the Late Cretaceous chalk beds of Kansas, we successfully completed the excavation of a mosasaur that had been discovered the previous summer. We would not have been able to complete this task without our hard-working field assistant Rick Sewell, a Dane County sheriff deputy, who used his vacation time to accompany us on our expedition. On our last day in Kansas, we discovered another mosasaur, which we will excavate next summer.

Leaving Kansas, we drove to the Gaskill Ranch in Southeastern Colorado, where we discovered and recorded several new dinosaur trackways. We also recorded a large number of bone fragments for teachers to use in their classrooms.

All of last summer's participants are looking forward to June, when they will return, each accompanied by a Ksixth-grade teacher from their school districts. Past and present participants in Paleontological Experiences are developing classroom activities based on their summer experiences. As these activities spread to other teachers, we hope that they will help to improve the quality of paleontology instruction in Wisconsin.

### The Museum and the Web

The museum's web site enjoys considerable popularity. This is evident from the more than 15,000 hits registered last year. To pay the museum a virtual visit, go to http://www.geology.wisc.edu/~museum/.

### **Lectures and Public Programs**

In March, Museum Director Klaus Westphal presented the keynote address on the museum's dinosaur program, at the "Out of the Rock Paleo Festival." This annual four-day event, sponsored by the Burpee Museum of Natural History in Rockford, Illinois, features various topics in paleontology. Klaus also gave the lecture at Waunakee High School's "Science Night." In addition, he talked to service clubs, schools, and senior citizen groups. As part of the University's On the Road Program, he presented a hands-on program at the Milwaukee Public Museum, designed for youth at their day off from school. Other wellattended, hands-on activities for children were held at Henry Vilas Zoo, Monona Terrace, and the Yahara Rock Quarry.

As in the past few years, the museum was a participant in the Nature Passport Summer Program. This program gives children and their parents an incentive to explore educational nature sites in and around Madison.

The museum's Annual Open House once again drew several hundred visitors, most of them families with young children. Gary Richards, Appleton, gave a lively presentation "Way Back Then—When Copper was King" on the hard life of a copper miner in Upper Michigan, a hundred years ago. Children from the audience participated in the program, wearing vintage miners helmets and handling some of the tools that were used in those days. Sue and Earl Steininger, Dubuque, Iowa, demonstrated how to draw

> The museum's Annual Open House: The Free Rock Pile for Kids.

dinosaurs and other prehistoric creatures, and shared their artistic knowledge with the younger audience. The Free Rock Pile for Kids, the traditional scattering of minerals, rocks, and a few fossils in the courtyard, rounded off the event.

### Alumni—I'd like to talk to you!

For many years, Museum Director Klaus Westphal has given lectures on the University's dinosaur expedition program, to service clubs, university organizations, and teachers conventions. We would like to share our experience and the excitement of exploring for dinosaurs with you. The program is available to you, provided that corporate or organizational funding can be secured to cover the Museum's travel expenses. For details see the next page.



The museum's Annual Open House: Gary Richards presenting a program on copper mining in Upper Michigan





Geology Museum
University of Wisconsin-Madison
Department of Geology and Geophysics

in South Dakota and Montana.

Dr. Westphal's slide presentation lets you experience the excitement of participating in an expedition. See how the bones are prepared for display and learn about the scientific significance of the discoveries.

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Klaus W. Westphal, a native of Berlin, earned a PhD in paleontology from the Eberhard-Karls University at Tübingen, Germany in 1969. Since then he has been director of the UW-Madison's Geology Museum. He oversees the museum's exhibits and outreach programs and teaches a course in introductory paleontology, "Life of the Past." E-mail: westphal@geology.wisc.edu



### The Friends

The museum owes much of its success to the Friends of the Geology Museum, Inc., a group of individuals who are enthusiastic about minerals, rocks, fossils, and the earth sciences in general. The non-profit organization supports the museum's expeditions, the restoration of dinosaur bones and other fossils, the occasional acquisition of specimens for display, and the museum's educational outreach programs.

### The Geology Museum gives thanks to its staff and the many dedicated volunteers

Steven Bower, Teacher Training Program Anna Bradshaw\*, tour guide Lisa Buckley, student assistant, fossil preparator, expedition member Adam Eisenach, tour guide Christin Engstrom\*, tour guide Lou Goodman, volunteer, fossil preparator, expedition member Maggie Guzinski\*, volunteer, fossil preparator, expedition member Marilyn F. Hanson, Teacher Training Program Haddie Heitkamp\*, tour guide and tour coordinator Julie Hill, tour guide and tour coordinator Keith Hennings, tour guide Reuben Johnson, tour guide Blake Kellogg, volunteer, maker of replicas of fossil specimens, editor Robin Kodner\*, tour guide Matt Kuchta\*, project assistant Carrie Larson, tour guide Elizabeth Leslie, project assistant Edward Mathein, volunteer, fossil preparator

Shasta McGee, volunteer, fossil preparator Christopher Ott, student assistant, fossil preparator, expedition leader Christine Pagelsdorf, tour guide D. Lyle Setwyn, tour guide Joseph L. Skulan, instructor in the Teacher Training Program David Suls\*, volunteer, fossil preparator, expedition member Kurt Spearing, volunteer, fossil preparator

Ian Sweeney, volunteer, fossil preparator Ellis Taff+, volunteer, tour guide Bill Unger, grant preparation advisor Stephen Vihel, tour guide Susan Werther, volunteer, Annual Report editor Melissa Wraalstad\*, tour guide

### ...and the Friends of the Geology Museum

John R. Rettig, President Richard Emerson, Vice President John Evans, Treasurer Maxine Triff, Secretary

Thank you! Dr. Klaus W. Westphal, Director

<sup>\*</sup> indicates no longer with the museum