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In the Field

THE MUSEUM OF THE FIELD MUSEUM

MAY•JUNE 1998

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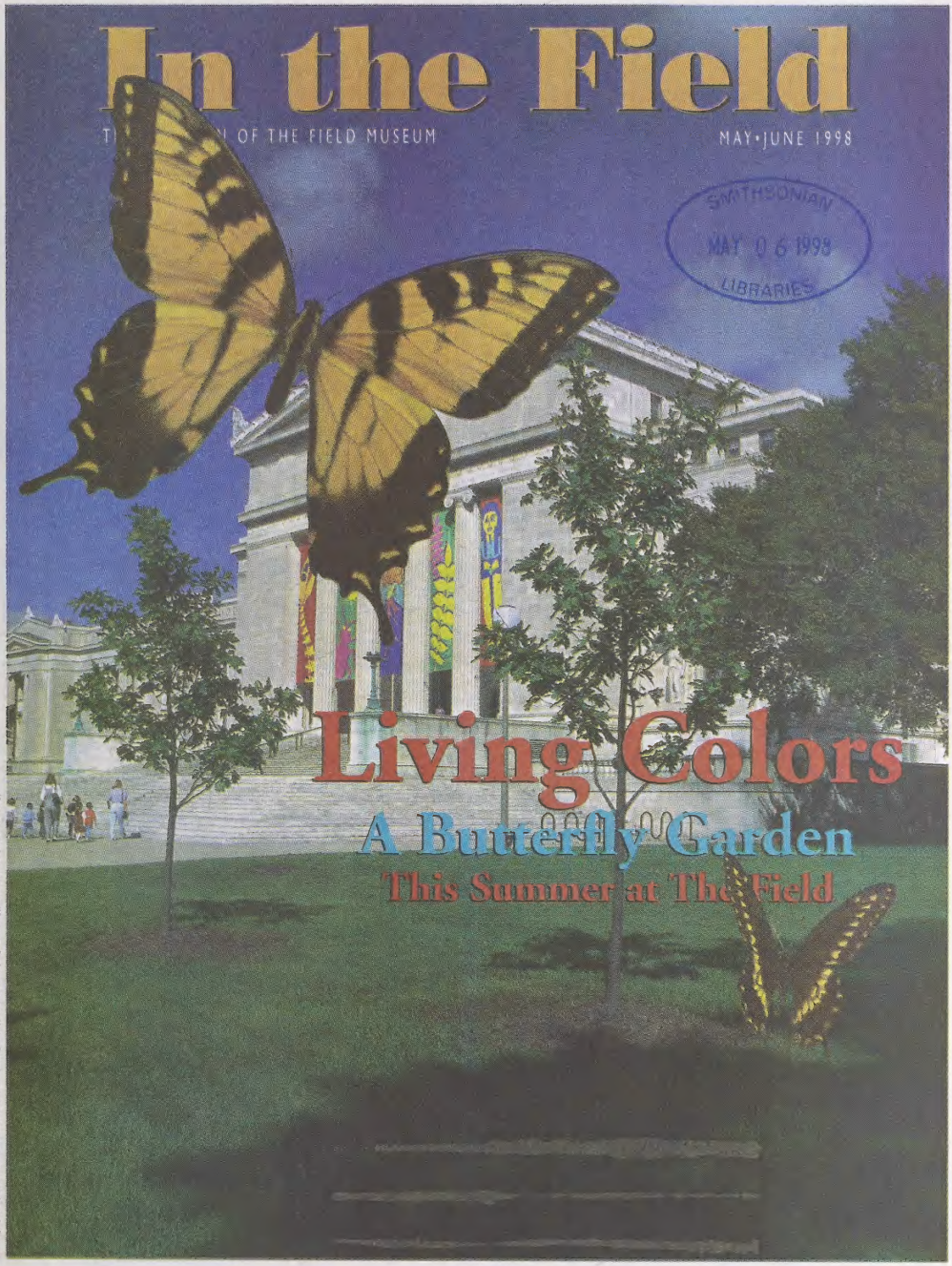

Living Colors

A Butterfly Garden

This Summer at The Field

Photographs by John Weinstein: GN87075.01C (background); Z94198.02C (large butterfly); Z94216.03C (small butterfly)

In the Field

THE BULLETIN OF THE FIELD MUSEUM MAY•JUNE 1998

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During its annual meeting on March 16, 1998, the Board of Trustees raised the Museum's campaign goal by $10 million.

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A complete schedule of May/June events, including a list of activities and exhibits planned in celebration of the Philippine Centennial.

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The Founders' Council presents The Field Museum's Award of Merit to journalist and Princeton University professor John McPhee.

LIVING COLORS: A Butterfly Garden
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Catching sight of a butterfly while out on a summer stroll is a delightful experience. But imagine walking through a very special outdoor environment where you're surrounded by hundreds of live butterflies.

Todd Dacquisto

T. rex *Inaugurates New Public Paleontology Lab*

By William F. Simpson
Chief Preparator and Collections Manager, Fossil Vertebrates

The Field Museum's *Tyrannosaurus rex* is the quintessential dinosaur and arguably the most famous fossil in the world right now. For me, T. *rex* is still part of the inner wonder that first inspired me to pursue a career in paleontology. But I am not the only one fascinated with this creature. Throughout my 19-year career at the Museum, visitors have asked, "Do you have a T. *rex*?" or worse, "Where is your T. *rex*?" — assuming all great natural history museums have one. Now I reply, with a grin, "Yes, of course we have one — the biggest and most complete ever discovered!"

I think the fascination with T. *rex* comes from all the unanswered questions that still surround it: How did it move? Was it an active predator? What were its tiny arms used for? How did it evolve? And, what kind of world did it live in?

Then, when seeing a mounted T. *rex*, the fascination is even more visceral. It is the thrill of confronting the physical reality of this carnivore, an animal so unlike anything walking the face of the Earth today.

Getting the T. *rex* to the point at which visitors can see it mounted and researchers can begin studying it is a long and arduous process. Despite what you see in movies like *Jurassic Park*, fossils don't just come out of the ground ready for exhibition after a scientist brushes away the dirt. They are completely encased in solid rock (matrix); fractured and distorted after being buried for millions of years. It is the job of preparators to expose the skeleton by delicately removing the matrix, as well as to glue the bones back together like a huge jigsaw puzzle.

Beginning June 9, 1998, the Museum will show just how much work precedes the study and display of a large fossil by building — with the support of McDonald's Corporation — a fully functional laboratory next to the **Life Over Time** exhibit. Not only will technicians prepare the T. *rex* in this lab but also will work on a wonderful collection of dinosaur fossils from Madagascar. After the preparation work is completed within the next few years, the Museum will move the lab next to the mounted T. *rex* specimen.

Preparators will use this public lab both to disseminate the science of paleontology to a broader audience and, together with existing labs in the building's nonpublic areas, to support The Field Museum's vertebrate paleontology research programs.

A team of six highly skilled preparators will work on the T. *rex*, three in this new lab and three at a second lab being built at Disney World in Orlando, Fla. Preparators at Disney will work on the fossil's hind limbs and tail, while at the Museum we will complete the rest of the skeleton, including the huge skull.

From a preparation standpoint, the Museum's T. *rex* is an ideal specimen. The matrix, which surrounds the extremely hard and durable bone, is relatively soft. This is not always the case with fossils. For example, John Flynn, MacArthur Curator of fossil mammals and geology chair, is currently studying fossil mammals unearthed in the Chilean Andes that are no harder than chalk but are entombed in extremely hard rock comprised of volcanic shards firmly cemented together. Some of these fossils have taken more than six months apiece to prepare, yet are tiny in comparison to a T. *rex* bone.

Before we can begin removing the matrix from the T. *rex*, however, preparators must first open the plaster "jackets" wrapped around each bone to protect them. These jackets — which are composed of plaster, burlap and sometimes surgical gauze — have not only protected the fossil during transportation from the excavation site but also during the T. *rex's* cross-country journey to New York and Chicago. We will remove these jackets with a knife or a cast-cutting saw (the same tool doctors use). Though the knife is slower, it is less likely than a saw to nick the bone surface.

Once the jacket is opened, preparators will begin removing the matrix from the bone with a pneumatic-impact tool called an airscriber. Air compressed to 90 pounds per square inch drives the instrument. This tool is a lot like a jackhammer but is only the size of a pen. At the end of this hand-held tool is a carbide tip that strikes the rock with such force that it rapidly chips away the matrix. Since carbide is much harder than any minerals we might encounter in the rock, the matrix comes apart with relative ease. In fact, carbide is so hard that we have to use a diamond-coated tool to keep it sharp. Using the airscriber, we will begin removing the matrix from the bone, carefully avoiding the bone surface. This process leaves several millimeters of rock clinging to the exterior of the specimen.

John Weinstein /GE086122.8C

We then will remove this last layer with an air-abrasion machine. In essence, it is a miniature sandblaster that uses baking soda, a much gentler and safer abrasive than sand. To ensure the baking soda doesn't harm the bone, we have tested the air-abrasion instrument on several samples and checked the bone surface for damage under a scanning electron microscope. With the air-abrasion tool, we will transform the fossil from its current dull, dusty and tan appearance to the shiny and dark-brown color of actual bone surface. One side effect of this process, however, is that the preparator is now covered with fine dust. Because of the obvious dangers of inhaling large quantities of baking soda and minute rock particles, preparators using the air-abrasion machine must wear respirators and work in an isolated booth that has its own ventilation system.

The lab itself is designed to accommodate the joint needs of preparation (cleaning the fossil for study and mounting) and exhibition (showing the process to the public and putting it in context). A continuous bank of windows running along the lab's entire perimeter provides a clear view of the preparators at work. Other than the air-abrasion procedure that will be confined to a square booth at one end of the facility, most of the preparation work will be conducted within the main lab. Some work will also take place behind the scenes in existing labs located in the building's research areas.

Inside the lab, we will prepare the massive bones on worktables arranged along each wall of the triangular-shaped lab. Each

Continued on page 4

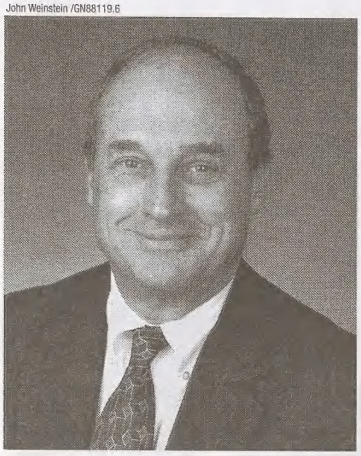
Above: A *preparator uses the airscriber to remove matrix from a section of the* T. rex's *left lower jaw. The photograph also shows the difference in texture and color between bone (far left) and matrix.*

Lower Left: *An illustration of the prep lab. The room to the far left is the air-abrasion booth.*

Jason Grandt

The Museum Campus — A Return To Prominence

John Weinstein /GN88119.6



For more than half a century, The Field Museum and its lake-front partners were isolated from the city, literally stranded in the middle of one of the state's busiest thoroughfares. Visitors driving to the Field needed nerves of steel and a keen set of eyes to find the exit to the Museum before being swept away in a stream of speeding traffic. Once safely parked near Soldier Field, those wishing to get to the Shedd or Adler on the other side of the Drive had to walk through a dark, musty underpass. Visitors strolling along Lake Michigan's bike path or walking across Grant Park fared no better.

But it wasn't meant to be that way.

When Daniel Burnham, a student of Europe's most elegant cities, designed Grant Park in 1909, he envisioned a sprawling urban park filled with museums. He even named The Field Museum as the centerpiece of his master design with the idea, in his words, of "leaving a parade ground on the north and a playground on the south of it." Though Burnham didn't get everything he wanted (we ended up a stone's throw from Grant Park), the Field, along with the Shedd and Adler, stood for many years as imposing reminders of his vision. Unfortunately, this didn't last.

In 1943, with the construction of Lake Shore Drive to the east of the Museum and with the introduction of Meigs Field to Northerly Island a few years later, The Field Museum suddenly found itself trapped in a sea of concrete at the center of a traffic island. Burnham's plan to surround the Museum in a natural setting became a footnote in Chicago history.

Two years ago, however, we received a commuted sentence. In the fall of 1996, the city moved the northbound lane of the Drive to the west of the Museum as part of its $110-million Lake Shore Drive Improvement Project. At the same time, the city redesigned the entrance and exit roads to the area, solving the traffic problems that had plagued us for years. The icing on the cake, however, was still to come.

Within months of finishing the project, the city took the final step in restoring the Adler, Shedd and Field to their former prominence with the groundbreaking of the Museum Campus — a 57-acre park (10 acres of which were reclaimed from the relocation project) designed to create a seamless connection among the three institutions.

On June 4, 1998, Mayor Richard M. Daley will present the finished Museum Campus — complete with its terraced lawn, trees, bike paths and pedestrian walkways — to the people of Chicago. With this final step, the city once again will have a cultural and entertainment destination worthy of its reputation.

To celebrate the opening of the Museum Campus, the combined boards of the Adler, Shedd and Field (and representatives from the Park District and the city departments who made this all possible) will host a gala on June 12. This once-in-a-lifetime event will forever turn back the calendar to the 1930s when the area south of Navy Pier, north of McCormick Place and east of Michigan Avenue was the envy of every U.S. city. The gala will include a guided tour of the Museum Campus and entertainment based on a theme from the 1930s. As night falls across the campus, guests then will be treated to an evening of food and dance under a 30,000-square-foot tent on the new belvedere at the foot of the Museum's north entrance. From the terrace, guests can absorb the full beauty of the new park as it enters Grant Park and slopes toward the edge of Lake Michigan — all under the glowing lights of Chicago's famous skyline (for more information about this event, please call 312.409.3902).

The gala, however, is just the start. On June 26, the city and the three campus institutions will kick off a summer-long festival to mark the campus opening. Every weekend through Labor Day, we will offer campus visitors a plentiful supply of free entertainment — including live music, theatrical performances and family activities — that will reflect the three different missions and themes of the campus partners. Since this probably will be a busy summer, we will also offer free trolley service to shuttle visitors around campus.

Though the summer opening of the Museum Campus will be a monumental event in Field Museum history, it has much greater significance. I believe the Museum Campus will infuse the campus institutions with a new sense of purpose and energy and will serve as the catalyst in bringing a new era of cooperation among Chicago's cultural and educational institutions.

Have a great summer and don't forget to visit our new outdoor summer exhibit, "Living Colors: A Butterfly Garden," at the gateway to the new Museum Campus.

John McCarter

John W. McCarter, Jr.
Field Museum President and CEO

Around Campus

Adler Planetarium

Every day is **Astronomy Day** at the Adler Planetarium. But on May 2, from 11 a.m. to 3 p.m., the Adler will teach visitors everything they want to know about meteor showers, the constellations that are visible in the fall and the kind of telescope needed to see Jupiter's moons. In addition, visitors can learn to make pocket sundials, star finders and star clocks.

At the **Summer Solstice Sunfest** on June 21, from 11 a.m. to 3 p.m., visitors can learn about the importance of the Sun to various cultures. The event also includes live performances, dances and craft shows. In addition, visitors can view the turbulent surface of the Sun through the planetarium's telescopes (weather permitting) and can participate in a "Sun" art contest.

Shedd Aquarium

What do seahorses, seadragons and the musically named trumpetfish, cornetfish and pipefish have in common? They're all fishes, they're all related and they're all part of Shedd Aquarium's new special exhibit, **Seahorse Symphony**. The common themes among the 20 species on display are tube-shaped mouths, rigid plates instead of scales and reproductive role-reversal (among seahorses, the males get pregnant). Then evolutionary solos led to dissonant appearances, including stripes, spikes and leafy appendages. The exhibit highlights an innovative conservation project for seahorses, which are seriously threatened from overcollection for medicinal uses, the pet trade and souvenir market. **Seahorse Symphony** is free with Oceanarium admission. For more information, call 312.939.2438.

We would like to know what you think about ***In the Field . . .***

Please send comments or questions to Robert Vosper, publications department, The Field Museum, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605-9410, or via e-mail at <<rvosper@fmnh.org>>.

In the Field

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The Field Museum
Exploring
The Earth And Its
People

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Museum Board Raises Campaign Goal To $70 Million; Elects Five New Trustees

At its annual meeting on March 16, 1998, The Field Museum's Board of Trustees raised the goal of the current fund-raising campaign from $60 million to $70 million. The board based its decision on the community's impressive early response to the Museum's largest-ever fund drive, CONNECTING: *The Campaign for The Field Museum.*

"It is succeeding because of the continuing generosity and active involvement of Field Museum supporters," remarked Board Chair Judy Block after the meeting. "The institution's important research and education objectives attract the kind of extraordinary response we have enjoyed to date from the public and private sectors."

Scheduled to conclude on Dec. 31, 1999, the campaign will reach its original goal of $60 million in 1998, one year earlier than planned. The Board's approval of the new goal will allow the Museum to take advantage of opportunities not included in the campaign's original objectives.

These new opportunities include several major capital improvement projects, including the restoration of James Simpson Theatre; the expansion of the Museum's west entrance; the expenses incurred in the acquisition of the new *Tyrannosaurus rex* fossil (and the money required to prepare and mount the specimen); and improvements needed to the Museum's infrastructure.

In addition, the Museum will use the new funds to improve the storage facilities for its priceless anthropology collections. To secure a major grant of $700,000 from the National Endowment for the Humanities (NEH) for this project, the Museum will solicit $2 million in matching funds from private sources. Museum President John McCarter explained that the NEH grant "will allow us to improve the care and storage of the Museum's irreplaceable collection of cultural artifacts, ensuring its availability for future generations of scholars and the public."

Besides these new opportunities, the campaign must complete funding for projects included in its original goal such as **Underground Adventure**, a $12-million exhibit and environmental-science literacy program.

"**Underground Adventure** is central to The Field Museum's research interest in science and conservation and its public interest in educating people of all ages about today's most pressing environmental issues," McCarter said.

The exhibit, the largest and most ambitious in Museum history, is scheduled to open March 1999.

New Trustees Elected

During its annual meeting, the Board also elected five new trustees, increasing the total number on the board to 43. The new trustees are:

Laura S. Washington — editor and publisher of *The Chicago Reporter*, an investigative monthly that examines racial issues and urban affairs in metropolitan Chicago. Washington joined the monthly, which is published by the Community Renewal Society, in the early 1980s as a reporter and editor; she left in 1985 to assume the position of deputy press secretary to Mayor Harold Washington. Five years later, however, she returned to *The Chicago Reporter* as editor and assumed her current position in 1994.

Stephen McConahey — president and CEO of Everen Securities. McConahey started his career with the brokerage firm in 1977 when he joined its predecessor, Boettcher & Company. Earlier in his career, McConahey was a White House Fellow and served as special assistant to President Gerald Ford.

Peter Pond — principal and managing director in the investment banking department of Donaldson, Lufkin & Jenrette (DLJ) and head of DLJ's Midwest Investment Banking Group. Pond has been a member of The Field Museum's Founders' Council since November 1996.

John Weinstein /GN88517.06

Susan A. Willetts — managing director of Goldman, Sachs & Company. Willetts joined the investment firm in 1989 as vice president; in 1997 she transferred from the company's New York office to Chicago.

Casey Cowell — vice chairman of 3COM and former CEO of U.S. Robotics (U.S. Robotics merged with 3COM in 1997). Cowell is also a governing member of the Orchestral Association and director of PLATINUM Technology Inc.

These five new trustees join other recently elected Field Museum Board members that include:

Marshall Front — managing director of Trees Front Associates.

Jack W. Fuller — president and publisher of the Chicago Tribune Company.

Philip L. Harris — partner at Winston & Strawn.

Linda Wolf — president of Leo Burnett USA.

Above: *With a $500,000 gift from Abbott Laboratories earlier this year, the Museum completed the funding for* ***Living Together****, a permanent exhibit that teaches visitors how to understand different cultures. This gift makes Abbott Laboratories the exhibit's lead sponsor.*

John Weinstein /GN88254.25C

New Dates For Members Nights

Thursday, July 23 & Friday, July 24

5 p.m. to 11 p.m.

It will be worth the wait to see all the Museum's summer attractions in full swing, including "Living Colors: A Butterfly Garden;" the new dinosaur prep lab; the Museum Campus; and, of course, all the behind-the-scenes favorites that have made these nights part of Chicago history.

John Weinstein /GN88257.7C

Kimberly Mazanek /GN88261.19Ac

John Weinstein /GN88255.12C

Paleontology Lab . . . *Continued from page 1*

Photo Courtesy of Sotheby's

Above: *When preparators finish working on the 5-foot-long skull, the Museum will display it in an exhibit case opposite the lab until the entire specimen is ready to be mounted. In the interim, the skull of* Tyrannosaurus' *smaller cousin,* Albertosaurus, *will occupy the case.*

table is custom built to support a weight of up to half a ton. They also are covered with a scratch-resistant laminate we selected after running extensive tests on various counter-top materials. The tables are fitted with wheels that permit us to roll, rather than carry, each bone into the air-abrasion booth, reducing wear and tear on bone and preparator. A wheel-locking system stabilizes the tables during preparation work.

From a safety standpoint, the most important lab system is ventilation. As preparators pulverize the matrix, various forms of silica dust escape into the air. To neutralize this hazard, we will suspend an array of exhaust ducts from the ceiling that we affectionately call "elephant trunks." Inside each duct (which is attached to powerful exhaust fans and filters) is a jointed metal frame that allows preparators to position the exhaust nozzle where it can be most effective.

Amid all these high-tech tools is a simple sandbox we will use to hold large bone pieces together during gluing. For example, if the T. *rex's* 4-foot femur were broken in two, we would press one section into the sand to hold it in place. Then we would place the second piece on top and adjust the bottom section until the top piece is perfectly balanced. Preparators would remove the top piece, add glue and rebalance it, relying only on gravity to hold the two sections together as the glue sets. Because we are forced to find the perfect fit during the balancing stage, we have found this passive system to be far more accurate than a mechanical clamp.

Perhaps the most difficult job will be preparing the 1-ton skull. Currently, exhibit developers are hoping to design a hydraulic table that will support the skull's weight and will allow us to move the specimen up and down, making it easier to access every inch of the skull. Our first step may be to separate the skull's lower jaw, a process that will require us to turn the skull upside down. To accomplish this, we may use a heavy girder built into the lab's ceiling and attach to it a chain hoist that can handle the skull's immense weight. We also may use this apparatus to manipulate the massive ilium (a pelvic bone) that is still attached to a large chunk of the heavy vertebral column.

Some other equipment visitors will see in the lab will include a sink for making plaster, storage cabinets for tools and a fireproof cabinet to house glues and solvents. In addition, we will cover the floor with white tiles, difficult to keep clean, but easy to spot smaller fragments that may have fallen to the floor.

To help visitors understand the preparation process and its scientific importance, exhibit developers will surround the lab with various displays. For example, at the base of the lab's windows they will construct a reading rail to explain the tools and techniques preparators are using on the fossil. Near the entrance to **Life Over Time**, they will install a variety of fossils that figure prominently in current Museum research into vertebrate paleontology, as well as two mounted skeletons to illustrate the connection among preparation, research and exhibition. They include *Barylambda*, a 60-million-year-old primitive mammal from Colorado and *Aulacephalodon*, an animal that once roamed South Africa 250 million years ago, millions of years before the first dinosaur appeared.

Our wonderful new T. *rex* offers the Museum an opportunity to excel in all three major missions of the institution: education, exhibition and research. Because it is on display, this new laboratory will not only allow our visitors an early look at the T. *rex* bones as we prepare them but will also educate visitors on the importance of preparation to vertebrate paleontology and on the vitality of that science at The Field Museum.

IRAP: *Protecting Biodiversity In Chicago's Wilderness*

By Cathy Geraghty
Environmental and Conservation Programs

Chicago Wilderness: a contradiction in terms? Not to The Field Museum nor to the other 60 organizations involved in the Chicago Wilderness Biodiversity Council — a groundbreaking partnership for the conservation of the region's natural treasures.

The Chicago metropolitan area is one of only a handful of urban regions in the world that harbors globally endangered natural communities. Unlike most other Illinois landscapes long since converted to farmland, Chicago has outstanding remnants of oak savanna and woodland, tallgrass prairie and distinctive wetlands (collectively known as Chicago Wilderness). But the pressures of the nation's third largest metropolitan area take their toll: The ecological processes that sustain these communities are now threatened or, in some cases, no longer exist. The continued survival of this region's natural treasures depends on ecological management based on the best available biological information.

To quickly gather the necessary biological information, two Chicago Wilderness partners, The Field Museum and the Illinois Department of Natural Resources, created the Illinois Rapid Assessment Program (IRAP) in the spring of 1997. Researchers with the program obtain information that is central to understanding the dynamics of the region's natural communities and that can serve as the foundation for powerful and timely conservation management decisions.

Modeled on the successful worldwide Rapid Assessment Programs (RAP) designed by Conservation International, IRAP focuses on intensive, yet time-effective inventories of the biological richness of Chicago Wilderness sites. IRAP's approach is unusual in that it integrates information across organism groups and across scales, from individual species to entire landscapes. In addition, local, state and federal policy-makers, as well as land managers, ecologists and conservation leaders have immediate access to the program's results.

Currently, the IRAP team is testing a broad spectrum of plants and animals for their ability to indicate status and change in the environment. Bryophytes; vascular plants; fungi; land snails and slugs; rove, ground and carrion beetles; spiders; amphibians; reptiles; and birds are among the possible indicators researchers can use in strategic combination. Because IRAP focuses on ecosystem function, it also has targeted soil-associated organisms that are often overlooked in biological inventories. As a side note, while conducting these studies, IRAP scientists have made some extraordinary discoveries: a beetle species that is new to science; mushroom and land-snail species recorded for the first time in Illinois; and plants that have not been found locally in more than 60 years.

Combining scientific rigor with speed, IRAP works by taking a biological "snapshot" or a quick record of the species composition (diversity) and condition of Illinois ecosystems. It then lays the groundwork for monitoring the ecological health of these communities over time. These snapshots are among the tools shaping the Chicago Wilderness regional Biodiversity Recovery Plan that will guide the activities of scientists, land managers and policy-makers throughout the area.

To date, the IRAP partners have chosen four test sites to assess rapid response methods. These sites represent the region's major natural communities: Midewin National Tallgrass Prairie, a 19,000-acre mosaic of prairies, wetlands and oak woodlands; Swallow Cliff Woods, an open oak woodland; Green Lake Savanna, a complex of oak savannas and marshes; and Lake Calumet, a patchwork of marsh, prairie and woodland in a heavily industrialized area.

This spring, the Museum's education department will offer several field trips led by IRAP scientists that highlight these study sites and the inventory work being conducted in and around Chicago (see schedule below). For more information, please call Stephen Bell at 312.922.9410, ext. 362; to register please call Sandra Blake at 312.322.8854.

The Spring Awakening: Amphibians
Saturday, May 9, 1998.

Spring Mushroom Walk
Saturday, May 16, 1998.

The Art and Science of Botanical Collecting
(two sessions), Saturday, May 30, 1998, and Saturday, June 6, 1998.

Your Guide To The Field

5/7 Thursday

E. O. Wilson: *The Diversity of Life* — A Membership Lecture

7 – 9 p.m. Join renowned biologist Edward O. Wilson for a discussion about the global effort to prevent species extinction. Wilson, a two-time Pulitzer Prize winner, once calculated the rate of species extinction at a staggering three an hour. And that is his conservative estimate. The consummate optimist, Wilson will enlighten the audience to what can be done to slow this "silent hemorrhaging." $12 for members; $16 for nonmember guests. Advance ticket purchases recommended. Call 312.322.8871 for more information or to order tickets.

5/16 Saturday

Urban Garden Fair

9 a.m. – 3 p.m. The Field Museum welcomes the return of GreeNet's **Green and Growing Fair**. The Fair, now in its seventh year, uses exhibits, lectures and workshops to present three broad garden topics: environment and habitat, food production and cultural interactions. Hundreds of gardeners from all over Chicago will gather for a day of learning about new and exciting ways to grow gardens in their communities. Admission to the fair is free with Museum admission. Call 312.427.4256, ext. 385, for more information.

5/30 Saturday

Adult Course
Butterfly Gardens

9 a.m. – noon. Don't miss this opportunity to learn how to create your own butterfly garden. The first part of the morning will be spent with Bryce Banstra, the horticulturist and landscape designer of The Shedd Aquarium's butterfly garden. Banstra will discuss the principles of butterfly garden design, including what to look for in a potential site, maximizing the existing landscape, what to plant and tips on purchasing supplies. During the second part of the morning, participants will embark on a behind-the-scenes tour of The Field Museum's butterfly collections with David Pollock of the insects division. A visit to the exhibit "Living Colors: A Butterfly Garden" is also included. $30 ($25 members). For more information or to register, call 312.322.8854.

6/6 Saturday

Field Trip: Birdwatching at Nelson Lake Marsh

8:30 – 11:30 a.m. Naturalist Mike Spravka will lead an exploration of the flora, fauna and bird's nests of Nelson Lake — a large alkaline marsh located just west of Batavia in Kane County. Trails around the lake wind through a diverse and rich array of habitats, including oak woodlands, thriving marshlands and farm fields. Sora rails, northern orioles and wood ducks are among the many birds that can be seen along these trails during breeding season. Please note: Participants need to provide their own transportation to Nelson Lake Marsh. $21 ($18 members). For more information or to register, call 312.322.8854.

6/26 Friday

Family Overnight

5:45 p.m. – 9 a.m. What is it like to be in a museum after the crowds have gone home and the doors have been locked? Experience the Museum in a unique way as you and your family spend a night of discovery before falling asleep among Field Museum exhibits. Overnights are designed for families (adults accompanied by children grades 1–6) and include two natural-science workshops, an evening snack, a performance and a continental breakfast. Activities highlighting the Museum's new summer exhibit, "Living Colors: A Butterfly Garden," are included in this overnight. $45 per participant ($38 per member participant). For more information or to register, call 312.322.8854.

The following are programs offered in conjunction with the exhibit

"Assignment: Rescue"

See exhibit description on the next page

5/28 Thursday

Adult Course
Surrealism in Extremis: The Marseilles Chronicle

6 – 8 p.m. Join art historian and curator Amy Winter for an in-depth look at the work of some of the artists Varian Fry rescued from France. Explore the world of surrealist art and how Marseilles became the gathering place for artists like André Breton, Max Ernst, Victor Brauner, Marc Chagall and Marcel Duchamp. You will also learn about the artists' lives during the period they lived in Marseilles, how they escaped and their lives in exile in the United States. Included in this discussion is a guided tour of the "Assignment: Rescue" exhibit. Space is limited. $12 ($10 members). For more information or to register, call 312.322.8854.

6/7 Sunday

Lecture: Women Rescuers During the Holocaust

2:30 p.m. Marquette University professors Eva Fleischner and Michael Phayer will talk about their new book, *Cries in the Night*, that chronicles the lives of some European Catholic women who took action to defend and rescue Jews from Nazi persecution. For these Catholic women, rescuing the Jews became a compelling moral concern for which they were willing to die. The lecture is cosponsored by the Joseph Cardinal Bernadin Center for Theology and Ministry at Catholic Theological Union. Free with regular Museum admission; preregistration is not required.

6/22 Monday

Keynote Panel Discussion Colleagues of Varian Fry: The Mission in France

6:30 – 8 p.m. Varian Fry's heroic coworkers will come together to share stories about their 13-month clandestine rescue operation in France. Susan Morgenstein, the curator for "Assignment: Rescue," will moderate the discussion. Free to the public. Please make a reservation; tickets will be held at the door. For more information or to register, call 312.322.8854.

6/25 Thursday

Why Did They Act As They Did? The Motivations of Holocaust Rescuers

5:30 p.m. Join guest speaker Elliot Lefkovitz as he talks about the differing views of what compelled the "Righteous Among the Nations" to take action during the Holocaust (Varian Fry is the only American to be included in this group). Though there is no definitive response to why they risked their lives, current research into their altruistic behavior has produced some compelling and thought-provoking insights. Included in the lecture is a viewing of the film "The Courage to Care." This event is cosponsored by the Spertus Institute of Jewish Studies. Free to the public. Please make a reservation; tickets will be held at the door. Please call 312.322.8854 for more information or to register.

Photo Courtesy of U.S. Holocaust Memorial Museum

Above: *Varian Fry is responsible for rescuing 2,000 anti-Nazi refugees from Vichy France during World War II.*

7/19 Sunday

Field Trip
Assignment Rescue: Chicago Connections

9 a.m. – 5:30 p.m. Spend a day exploring Chicago connections to the work of Varian Fry. Irving Cutler, professor emeritus at Chicago State University, will lead this day-long excursion to a number of Chicago museums. After taking an audio tour of The Field Museum's "Assignment: Rescue" exhibit, participants will board a bus to the Spertus Museum to learn about the events leading up to the Holocaust, as well as to explore the museum's cultural exhibits. The field trip will also include stops at the Museum of Contemporary Art and the Art Institute to explore the work of some of the surrealist artists Varian Fry saved, including Marc Chagall and Max Ernst. The final destination will be the University of Chicago's Smart Museum of Art for a viewing of the work of German artist Felix Nussbaum (he didn't escape Nazi persecution). Lunch and transportation by bus included. Departs from the Field Museum's west door. $65 ($55 members). For more information or to register, call 312. 322.8854.

Living Colors: A Butterfly Garden

Imagine: It's spring and all around you the world is turning green, the trees are budding and the flowers are coming into bloom. There's rich-pink phlox and white-meadow rue, fragrant lavender and lilac, red-bee balm and daisies with golden eyes. Everything smells fresh and new, and the air is filled with the sound of gently flowing water.

Above: *The io moth — a large, yellowish, North American moth* (Automeris io)*with an eye-like spot on each hind wing. Its caterpillar has poisonous, stinging hairs.*

Right: *The Colorado hairstreak butterfly.*

As the sun warms the air, a flash of red, coppery orange and bright yellow catches your eye. One by one, butterflies are spreading their wings, welcoming the sun and taking flight. Soon the space around you is filled with a rainbow of living colors: butterflies, everywhere you look . . *Hundreds* of them — chasing each other, sipping nectar from the flowers and flying within inches of your head. If you're very quiet, maybe one of them will land on your shoulder.

Welcome to "Living Colors: A Butterfly Garden." It's more than an exhibit; it's an experience in nature that is on display from May 23 to Sept. 7, 1998.

At the building's south terrace, the Museum will construct an enchanted garden of living colors in an expansive screened-in area. Here visitors can follow a path through a natural environment and experience three typical Midwest habitats: a prairie with grasslands, pond and stream; a woodland with trees and a waterfall; and a very special backyard garden. In each area, the Museum will plant native flowers and grasses, trees and shrubs — all specially chosen to appeal to butterflies and moths.

Though it is natural, Museum researchers have left nothing to chance. They will stock the garden with native Midwest Lepidoptera — 38 species of butterflies and moths (about 1,000 individuals at any given time).

The garden is designed to be a glorious sensory experience in which visitors are encouraged to linger and investigate the exhibit's natural surprises. For example, a mottled brown "leaf" may suddenly open and reveal itself as a beautiful red admiral, or a spicebush swallowtail may land on a zinnia, uncoil its long proboscis and take a sip of nectar.

In the exhibit's backyard garden there is an "emerging tree." Here visitors can find butterflies in the making: the pupa stage or chrysalis. Inside the chrysalis, the pupa — formerly a caterpillar — will metamorphose, changing its structure to become an adult butterfly. For a lucky few, a butterfly may emerge from its chrysalis (or a moth from its cocoon), pushing clear of its enclosure and expanding its crumpled wings. When the wings are dry and hardened, it will take flight, looking for its first meal and an opportunity to reproduce.

Beyond the garden is an interpretative area with drawings, photos and interactive displays. In this area, visitors can learn everything about butterflies: their life cycle, the way they fly, the difference between butterflies and moths, the reason their wings are so colorful, how they hide from predators and what is being done to protect these important, delicate and beautiful creatures.

While walking through the exhibit, visitors can ask guides for help in identifying the butterflies that have made this environment their home. In addition, the plants in "Living Colors: A Butterfly Garden" will grow and change as the summer progresses — making each visit a completely different experience.

ASSIGNMENT: RESCUE

The Story Of Varian Fry And The Emergency Rescue Committee

Right: *Surrealist artists André Breton (left) and his wife, Jacqueline Lamba Breton, peer over the shoulder of Varian Fry (right). The photograph was taken in Fry's office at the Centre Américain de Secours, Boulevard Garibaldi, Marseilles, France. Max Ernst is standing in the background.*

The exhibit "Assignment: Rescue," which is currently on display until August 30, 1998, reveals through photographs, walk-in environments, artifacts, artwork and documents the extraordinary story of Varian Fry, an American relief worker responsible for rescuing 2,000 anti-Nazi refugees from Vichy France during World War II. Among those he rescued were Hannah Arendt, Victor Brauner, André Breton, Marc Chagall, Marcel Duchamp, Max Ernst and Jacques Lipchitz.

Fry, an American foreign-policy editor, undertook a daring mission to France in 1940 to rescue anti-Nazi artists, scientists, writers, intellectuals and political refugees. Representing the Emergency Rescue Committee, a private American relief organization created when France fell to Germany, Fry entered Vichy (the unoccupied portion of France) to offer assistance and support to political, intellectual and artistic refugees endangered by the "Surrender on Demand" clause of the Franco-German Armistice. This clause required the Vichy government to extradite any German nationals the Gestapo demanded. After arriving in Marseilles, armed only with a YMCA card entitling him admission to the country as a relief worker, Fry soon discovered that the French and American authorities would offer him little or no assistance.

Realizing the refugees would have to flee in secret, Fry began a perilous clandestine rescue mission from his room at the Hotel Splendide and later from the Centre Américain de Secours, a legal cover for his operation. With a team of Europeans and American associates, Fry forged documents, exchanged money on the black market and devised escape routes to Spain. The French, however, cut Fry's mission short when they expelled him in 1941.

Varian Fry remained haunted by the knowledge that his mission had been incomplete. He died in 1967, shortly after receiving the Croix du Chevalier of the French Legion of Honor. In 1996, he was the first American named "Righteous Among the Nations" by Yad Vashem (Israel's Holocaust Remembrance Authority) in recognition of rescue performed by a non-Jew on behalf of Jews in the face of life-threatening danger.

"Assignment: Rescue" is organized by the United States Holocaust Memorial Museum. The Chicago presentation is supported by the Crown Family, Sara Lee Corporation, Judith L. and Robert A. Appelbaum, Richard and Mary L. Gray, Holleb & Coff, Elizabeth F. Cheney Foundation, Baxter International Inc., Delta Air Lines, Illinois Tool Works Inc. and LaSalle National Bank.

Photograph by Yila; The Jewish Museum

Voyage of a nation The Philippines

Celebrating The Philippine Centennial, 100 Years Of Independence From Spain

This summer, The Field Museum will kick off a citywide celebration of the Philippine Centennial with the opening of two major exhibits "Voyage of a Nation: The Philippines" and "Vanishing Treasures of the Philippine Rain Forest," as well as the publication of a new book and the presentation of public events focusing on the rich ecological and cultural history of this island nation (see next page). On June 6, 1998, the Museum will host the Philippine Centennial Ball.

Voyage of A Nation: The Philippines
June 1, 1998 to Nov. 29, 1998

Using as many as 150 cultural artifacts from the Museum's collections and from the Chicago-area Filipino community, the 3,500-square-foot exhibit "Voyage of a Nation: The Philippines" explains significant events in the country's history. It also emphasizes the creative skills of Filipinos throughout the island chain. A highlight of the exhibit will be the famous Agusan Image (see right), a solid-gold statue of a Buddhist or Hindu deity discovered on the island of Mindanao and dating to approximately A.D. 1000 to A.D. 1300. This statue reflects the long history of contact between the Philippine Islands and other world cultures.

The exhibit is divided into the following five sections:

Symbols of a Century introduces visitors to the individuals and events that have shaped the modern history of the Philippines.

Southern Philippines (Mindanao and Sulu) highlights the Muslim and Highland traditionalist cultures of the southern islands.

The Central Philippines (The Visayas and Southern Luzon) tells the story of the influence of Spanish culture in the Philippines and features one of the earliest maps of the archipelago.

The Northern Philippines (Northern Luzon) focuses on the Highland traditionalists living in the mountains.

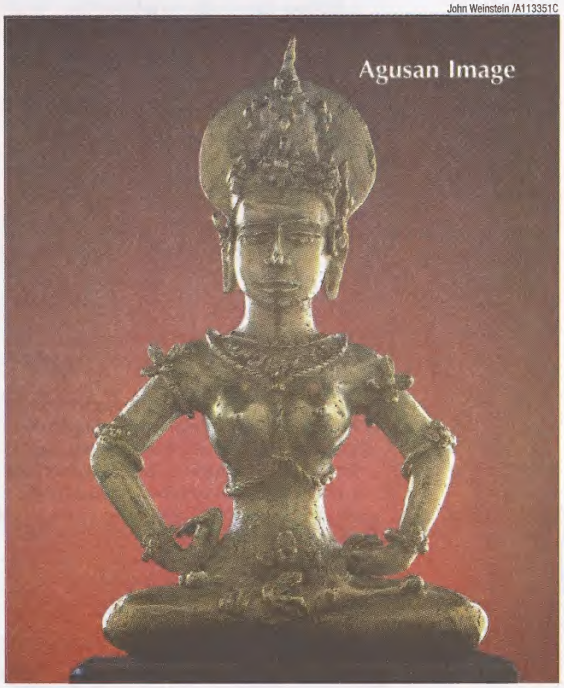
The Final Section explores the Filipino–American identity through a computer interactive, a video on Filipino youth and family genealogy.

Vanishing Treasures of the Philippine Rain Forest
June 1, 1998 to Nov. 29, 1998

The Philippine archipelago is home to a remarkable collection of plants and animals. Acre for acre, the Philippines may have more unique species of mammals, birds and plants than any other country. Nearly all depend on the rain forest that once virtually covered the country. Today, only 7 percent or less of the land remains covered by old-growth forest. As a result, many conservation groups have labeled the Philippines as the "hottest of the hot spots."

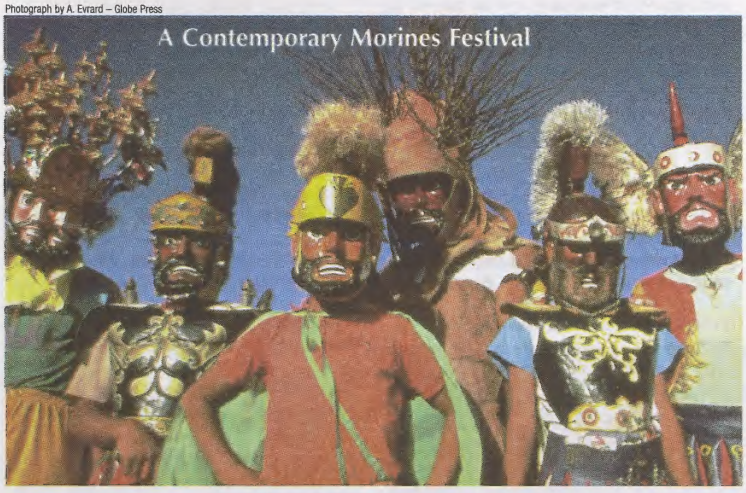
"Vanishing Treasures of the Philippine Rain Forest" shows the amazingly rich flora and fauna of the Philippines. It aims to raise awareness of the ecological crisis facing the nation and to demonstrate the importance of conservation efforts to the island's future economic and social health. Several specimens from the Museum's collections will be on display, including the Philippine eagle (the second largest eagle in the world) and golden fruit bats (the largest bats in world with wing spans of up to 6 feet).

John Weinstein /A113351C


Agusan Image

The Field Museum acknowledges the following members of the Filipino community for their assistance in planning and supporting the 1998 Philippine Centennial exhibits and public events: the Philippine Centennial Commission in the Republic of the Philippines, the Consulate General of the Philippines, the Philippine Centennial Committee of Chicago and Midwest States and the Filipino Friends of The Field Museum.

Photograph by A. Evrard – Globe Press


A Contemporary Morines Festival

The Philippine Centennial — A Brief History Lesson

June 12, 1898, marks a date of historic significance for the people of the Philippines and for the Filipino–American community. On that day, General Emillo Aguinaldo and leading Filipino statesmen signed the Philippine Declaration of Independence from Spain, the first such declaration by an Asian colonial country. This day also ushered in a century of interaction between the Philippines and the United States.

In honor of this historic occasion, The Field Museum will celebrate the centennial with a series of special exhibits and programs organized in conjunction with local and nationwide Philippine Centennial events. The celebration is an important example of The Field Museum's commitment to cultural understanding.

It also represents the continuation of The Field Museum's long association with the Philippines that began in 1905 when Robert F. Cummings, a grain merchant from Clifton, Ill, funded Museum anthropological research on the Philippine Islands. On a series of trips between 1906 and 1911, Museum anthropologists assembled a collection of Philippine artifacts that now ranks as one of the best in the world outside the Philippines. More recently, The Field Museum collaborated with a number of Philippine institutions on various biodiversity and conservation research projects, including botanical inventories and mammal and bird surveys.

In the last few years, Museum researchers also have created biodiversity conservation training programs in the Philippines that assist Filipino scientists and agencies in developing strategies for the management and sustainable use of their country's natural resources.

Voyage of a nation
The Philippines

Philippine Centennial Celebration: The Field Museum

In conjunction with the exhibits "Voyage of a Nation: The Philippines" and "Vanishing Treasures of the Philippine Rain Forest," The Field Museum is presenting a summer of festivities celebrating the unique arts, heritage and people of the Philippines. These festivities will include performances, folk-art demonstrations and family activities in Stanley Field Hall. All events are free with general Museum admission. For more information, call The Field Museum at 312.922.9410.

Saturday, June 13
10 a.m. – 3 p.m.

PERFORMANCES

10 a.m. **Ati-Atihan** — Join the pageantry of a Mardi Gras-like procession featuring drummers, percussionists and dancers adorned in brightly colored feathers, shell and palm-leaf costumes inspired by tribal costumes of the Atis region. Originally celebrated on the island of Panay on the third Sunday of January, this celebration honors the infant Jesus. This procession is the kick off to the Philippine Centennial summer celebration at the Museum.

11:30 a.m. **Philippine Martial Arts of Escrima, Kali & Arnis/Four Winds Martial Arts** — Enjoy a demonstration by students and accomplished masters of the intricate moves, deep-rooted principles and great skill of the Philippine martial arts. The demonstration is coordinated by Thomas Sipin, martial art teacher and director of the Four Winds Martial Arts School in Wisconsin.

Noon. **Philippine Performing Arts of Chicago Youth Group** — Witness exciting native dances from different regions of the Philippines performed by a 25-member young-adult group.

1 p.m. **Philippine Martial Arts of Escrima, Kali & Arnis/Four Winds Martial Arts** — (see above).

1:30 p.m. **Liwayway Youth Dance Group** — *Pandanggo sa Ilaw*, a dance using votive candle lights, will be one of many dances performed by an accomplished youth group from Milwaukee, Wis.

ACTIVITIES

Family activities feature the games and toys of the Philippines: *piko*, a Philippine version of hopscotch; *luksong tinik*, a hurdle game with a coconut stick; *dama*, a Philippine version of checkers; *sipa*, a game similar to hackey sack; *sungka*, a fun board game similar to mankala that is played with cowry shell markers; *lobong papel*, a paper-ball game used to teach children to count; *siklot*, a stone and jack game played with cowry shells; *tapatan*, a Philippine version of tic-tack-toe; and the *yo-yo*, a fun game based on precolonial hunting tools. During these activities, visitors will also discover Philippine folk art through demonstrations of *tinikling*, a lively dance with individuals hopping in and out of clapping bamboo poles, and *parol*, the making of beautiful paper lanterns.

FREE LECTURE AND WORKSHOPS

9 a.m. – 4 p.m. **College Exposition: Leading us Into the Next 100 Years** — Workshops/Symposium. The symposium is a chance for Filipino college students to explore their cultural identity and rich historical roots, while building a strong foundation within the Filipino community. Topics will include politics, art and the economy. The College Exposition continues on Sunday, June 14, with a display showing the histories of different Filipino college-student associations and campus life for Filipino students at various universities. For more information, call 312.322.8854 or send an e-mail to <<next_100@hotmail.com>>.

Sunday, June 14
10 a.m. – 3 p.m.

PERFORMANCES

10 a.m. **Dances of the Philippines** — Traditional dances performed by Filipino college students from the University of Illinois at Chicago, University of Chicago and the University of Wisconsin at Madison.

11:45 a.m. **Maharlika Escrima** — Experience a lively demonstration of Spanish sword and dagger fencing combined with indigenous Philippine sword art.

Noon. **Kultura: Pilipina** — This adult and college Filipino group will perform regional dances from five areas of the rural and mountainous regions of the Philippines. They will also demonstrate Spanish-inspired dances.

1:45 p.m. **Maharlika Escrima** — (see above).

2 p.m. **Kultura: Pilipina** — (see above).

2:30 p.m. **Sugar Country** — Sing along and tap your feet to Filipino songs, both old and new, performed by a folk-rock trio.

ACTIVITIES

Family programs include the important role of the coconut in the daily lives of Filipinos, including coconut cracking and mat weaving. Discover Philippine folk art through demonstrations of *maglalatik*, a dance with coconut shells; *pastillas* and *palaspas*, the making of palm and paper-food wrappers; and the playing of indigenous instruments — including nose flute and *Kuling* — from the northern region of the Philippines.

Saturday, July 11
10:30 a.m. – 11:30 a.m.

LECTURES

10:30 a.m. **Vanishing Treasures of the Philippine Rain Forest** — A free lecture with the Field Museum's Lawrence Heaney, associate curator of mammals.

11:30 a.m. **Dolphins and Whales of the Philippines** — A free lecture by Louella Dolar, Ph.D. candidate at the University of California at San Diego.

Sunday, July 19
10 a.m. – 4 p.m.

PERFORMANCES

11 a.m. **Philippine Culture of Madison & The Licos Sisters** — This accomplished family performance group will highlight dance and music from the Philippines.

11:30 a.m. **Philippine Martial Arts of Escrima, Kali & Arnis** — (see June 13).

Noon. **Philippine Performing Arts of Chicago Youth Group** — (see June 13).

1 p.m. **Philippine Martial Arts of Escrima, Kali & Arnis** — (see June 13).

1:30 p.m. **Sugar Country** — (see June 14).

2 p.m. **Philippine Culture of Madison & The Licos Sisters** — (see above).

ACTIVITIES

Learn how to make *Kiping*, brightly colored, paper-thin rice ornaments strung as decorations and eaten as golden wafers. Includes many other family activities.

Sunday, July 26
10 a.m. – 4 p.m.

PERFORMANCES

11:45 a.m. **Zamboanga del Norte – Subanon Courtship Dance** — Catch a glimpse of the beautiful courtship dances from the Subanon region.

Noon. **Maharlika Escrima** — Experience a lively demonstration of Spanish sword and dagger fencing combined with indigenous Philippine sword art.

1 p.m. **Sampaguita Choral Group** — Enjoy the popular and religious songs of the Philippines with a 22-member Filipino choral group.

2 p.m. **Maharlika Escrima** — (see above).

2:30 p.m. **Filipiniana Dance Troupe**.

ACTIVITIES

Learn about games and toys of the Philippines. Discover Filipino folk art through demonstrations of *tinikling* and *parol*, the art of paper-lantern making. (See June 13).

Saturday, August 1
Sunday, August 2
10 a.m. – 3 p.m.

During this weekend of activities and performances, visitors can purchase a variety of pastries and rice dishes from Chicago-area Philippine restaurants in the "Taste of the Philippines" food court.

PERFORMANCES

11:30 a.m. **Philippine Martial Arts of Escrima, Kali & Arnis** — (see June 13).

Noon. **Philippine Performing Arts of Chicago Youth Group** — (see June 13).

1 p.m. **Philippine Martial Arts of Escrima, Kali & Arnis** — (see June 13).

2 p.m. **Philippine Performing Arts of Chicago Youth Group** — Enjoy this adult Filipino choral group.

ACTIVITIES

See June 14 listing.

Sunday, August 2

PERFORMANCES

11 a.m. **Filipiniana Dance Troupe**.

1 p.m. **Almazan Philippine Dance Troupe** — Traditional dance and music performed by this accomplished family dance troupe.

Noon & 2 p.m. **Maharlika Escrima** — (see June 14).

ACTIVITIES

See July 19 listing.

Voyage of a nation
The Philippines

Philippine Centennial Celebration: The Community

The Field Museum is working with the Philippine Centennial Committee of Chicago and Midwest States to promote a city-wide series of events in celebration of the Philippine Centennial. For more information, call The Field Museum at 312.922.9410.

May 31

9 a.m. – 5 p.m. **Community Day at The Field Museum** — celebrate the opening of two new exhibits "Voyage of a Nation: The Philippines" and "Vanishing Treasures of the Philippine Rain Forest."

11 a.m. – 5 p.m. **FIESTA FILIPINIANA — Flores de Mayo, Santacruzan, Taste of the Philippines and Health Fair** at the Museum. A beautiful Philippine rite-of-spring festival featuring music, folk dance and a beautiful floral adornment procession at 1 p.m. Food from Philippine restaurants like Barrio Fiesta will be available. The celebration is presented by the Filipino communities of Illinois, Wisconsin and Indiana.

June 1

11 a.m. **Philippine Flag Raising and Cultural Show** at the Daley Center.

9 a.m. **Official Opening** of the Field Museum's exhibit "Voyage of a Nation: The Philippines."

June 6

6 p.m. **Philippine Centennial Ball** at The Field Museum.

June 6 - 12

Tikim: Taste of the Philippines at the Chicago Hilton and Towers Hotel — A special Philippine á la carte lunch and dinner menu will be served daily at the Pavilion Restaurant.

June 7

Noon. **Centennial Parade** — Floats and bands will gather on Wacker Drive and parade southbound on Dearborn Street.

3 p.m. – 9 p.m. **Musicfest and Centennial Fireworks** at Navy Pier.

June 12

9 a.m. – 10 a.m. **Independence Day** — Flag-raising ceremony and cultural presentation at the Daley Center coordinated by the Philippine Consulate of Chicago.

June 13 & 14

9 a.m. – 4 p.m. **College Exposition: Leading us Into the Next 100 Years** at The Field Museum. Filipino college students explore cultural identity through workshops.

10 a.m. – 3 p.m. **The Field Museum Philippine Festival** — Lively performances, family activities and folk-art demonstrations (see previous page).

July 11

10:30 a.m. **Vanishing Treasures of the Philippine Rain Forest** — Free lecture at the Museum (see previous page).

11:30 a.m. **Dolphins and Whales of the Philippines** — Free lecture at The Field Museum (see previous page).

July 19

10 a.m. – 4 p.m. **The Field Museum Philippine Festival** (see previous page).

July 26

10 a.m. – 4 p.m. **The Field Museum Philippine Festival** (see previous page).

August 1 & 2

10 a.m. – 3 p.m. **The Field Museum Philippine Festival** (see previous page).

Photo by A. Evrard — Globe Press

The Philippines: Islands Of Diversity
A Field Museum Tour

February 1999

For more than a century, Field Museum scientists have been conducting zoological, botanical and ethnological fieldwork in the Philippines. In conjunction with its Philippine Centennial celebration, the Museum is offering for the first time a study tour to this island nation. Lawrence R. Heaney, associate curator and head of the division of mammals, will lead this tour. Heaney is an expert on the mammals and the ecology of Southeast Asia and has been conducting fieldwork in the Philippines since 1981.

Composed of more than 7,000 islands just north of the equator, the Philippines is a "living laboratory" for evolutionary studies and is a storehouse of biodiversity. In terms of square acreage, this island nation probably harbors more endemic species than any other place on Earth — more than Madagascar and the Amazon. Because of this unique distinction, Museum scientists are actively involved in ongoing research in the Philippines, studying its flora and fauna and assisting local experts and students in the fight to conserve the country's many endangered habitats. In addition, the Philippines has an extraordinary cultural heritage as evident in its many fascinating ethnic groups and in its colonial and post-colonial history.

Participants on this Field Museum Tour will depart in February 1999 for a rare exploration into the the natural and cultural history of the Philippines. Though final details of the tour are still being confirmed, highlights probably will include:

- The eighth wonder of the world — the extensive and beautiful rice-terraced mountains in northern Luzon.
- The lakes, tropical forests and offshore coral reefs of Negros Island.
- The fascinating tribal villages of T'Bouli on Mindanao Island.
- The forests and wildlife of Luzon's Mount Isarog Park.
- The historic sites of Manila.

To receive more information about "The Philippines: Islands of Diversity," please call Field Museum Tours at 800.811.7244, Monday through Friday, 8 a.m. to 6 p.m., or send an e-mail to <<fmtours@sover.net.>>

Lawrence Heaney

Above: *Contemporary Bukidnon wearing traditional costumes.*

Below: *Small outrigger canoes like the one in the right foreground were the primary means of inter-island transportation in the Philippines for hundreds of years.*

Voyage of a nation
The Philippines

Museum Publishes Book On Biodiversity And Conservation In The Philippines

By Ron Dorfman
Editor of *Vanishing Treasures of the Philippine Rain Forest* and former editor of *In the Field*

The Field Museum

Right: *The cover on the book shows the Philippine Eagle, one of the most spectacular and endangered inhabitants of the Philippine rain forest.*

Below: *Tree ferns can grow to seven meters in height and are present in most rain-forest habitats in the Philippines. In Southeast Asia, there are at least 190 species of tree ferns, 37 of which are found in the Philippine Islands.*

To complement its new exhibit on biodiversity and conservation in the Philippines, the Museum has published an important book exploring the extraordinary diversity of life in the Philippine rain forest — in many ways the richest, most unusual and most threatened in the world.

Vanishing Treasures of the Philippine Rain Forest explains in nontechnical terms how this profusion of life came to exist on the islands, and why destruction of the forest threatens not only the unique plants and animals but also the economic and social health of the Philippine nation. Lavishly illustrated with full-color photographs, maps and drawings, the book identifies important steps the Filipino people must take to protect both their magnificent natural heritage and the country's future as it marks its Centennial.

The authors are Lawrence R. Heaney, associate curator and head of the division of mammals, and Jacinto C. Regalado Jr., research associate in the botany department. Angel C. Alcala, former Secretary of the Department of Environment and Natural Resources and now Commissioner of Higher Education in the Philippines, contributed the book's foreword.

Heaney and Regalado single out for close examination several dozen unusual species and groups among the "vanishing treasures" of the book's title. These include the spectacular Philippine eagle, second-largest eagle in the world, with only about 30 breeding pairs remaining; the gorgeous flowering kapa-kapa (*Medinilla magnifica*) of which "there are in all likelihood more . . . specimens growing in cultivation than living in the wild;" dwarf ungulates like the Visayan spotted deer and the tamaraw (a water buffalo that stands only 3 feet 6 inches tall at the shoulder), both seriously endangered; the jade vine with its emerald blossoms, which along with other lianas is threatened by the loss of trees on which to climb; the Isarog shrew-rat that eats almost nothing but earthworms (which are not in short supply); and the waling-waling (*Euanthe sanderiana*), whose 4-inch flowers make it the largest among the country's more than 800 species of orchids.

Benito C. Tan

In addition, there are such oddities as the elephant-foot yam, whose large flower smells so similar to rotting meat that passersby were said to pass out ("Nevertheless," Regalado writes, "we have studied them and remained standing"); and the Philippine dwarf fruit bat, whose adult females spend 50 weeks of every year pregnant with a single young.

Heaney and his colleagues have themselves discovered 16 species of Philippine mammals new to science. And Regalado is a leading expert on the *Medinilla* and co-principal investigator for the Palawan Council for Sustainable Development on a MacArthur Foundation-supported project to inventory and map the plants of Palawan island. These inventories will serve as a basis for management and sustainable use of forest resources.

A few stark facts frame the book's message:

• In the 16th century, 95 percent of the land area of the island nation was covered by old-growth rain forest. When the United States wrested control of the Philippines from Spain in 1898, 70 percent of the land was still forested. Today, after a century of commercial logging, mining and plantation agriculture, as well as from continuing pressure from a burgeoning population of hard-scrabble farmers, only 7 percent or less of the land remains covered by old-growth forest.

• Because of its volcanic origins, geological history and climatic peculiarities (the country is mountainous and lies across the primary typhoon track in the western Pacific), the 7,000 islands of the archipelago harbor what is, acre-for-acre, the highest concentration of endemic species of any country in the world — more than Brazil, Madagascar or any of the other countries commonly thought of as storehouses of biodiversity.

• Remarkably, all but a few of these thousands of endemic plants and animals have managed to survive (with reduced populations) in the small patches and ribbons of forest that remain. But most are severely threatened by the shrinking of their habitats. According to many scientists and conservationists, the Philippines is a prime candidate to experience the first great extinction spasm since the Ice Age.

• Deforestation has allowed the frequent typhoons to flood the lowland cities and plantations, erode the mountainsides and destroy once-productive coral reefs with siltation. Drought has also become an increasingly serious problem since eroded watersheds can no longer retain storm water for slow release into the ground-water system.

"There is still time," Heaney writes in the final chapter, "to assure a prosperous future for most of the people of the Philippines and most of the remarkable fauna that is their natural heritage, and to prevent irreparable damage — but there is not much time, and it is slipping away."

A glimmer of hope is offered by reforms instituted after the 1986 "People Power" revolution, as well as a reinvigorated national park system, environmental education and action in rural communities, international assistance for conservation and other recent developments, the book notes. But long-term solutions must involve reduction of the population of landless farmers through education, urbanization and industrialization.

David Quammen, author of the best-selling *The Song of the Dodo* and the new collection of essays, *Wild Thoughts from Wild Places*, says *Vanishing Treasures* is "a beguiling, wise and very valuable book."

Russell Mittermeier, president of Conservation International and co-author of *Megadiversity*, says the book is "a must for anyone interested in biodiversity and rain-forest conservation, and provides a valuable introduction to one of the biologically wealthiest and most threatened nations on Earth."

In his preface to *Vanishing Treasures*, Field Museum President John McCarter notes that the Museum has conducted biological research on the Philippine fauna since 1896 and has greatly increased its research and training programs there in the past 20 years. "We hope this volume generates interest in the country's amazing flora and fauna, raises awareness of the current ecological crisis and makes evident the importance of conservation efforts to the nation's future economic and social health," he writes.

The oversize (9-1/2 inch by 10 inch), 96-page book will be available in June in the Museum Store, bookstores nationwide and in the Philippines. List price is $24. Museum members receive a 10 percent discount when purchasing the book at the Store or by phone; call 312.922.9410, ext. 495, or fax 312.922.0091.

Pacific Island Heritage Month Celebration

Celebrate Asian and Pacific Islanders Month with The Field Museum and Kupa'a–Pacific Island Resources, a Chicago-based non-profit organization. The celebration takes place on Saturday and Sunday, May 9 and 10, from 11 a.m. to 3 p.m.

Music and dance demonstrations and performances will highlight the traditions and values of South Pacific Island cultures. A display in the **Living Together** exhibit will feature Kupa'a–Pacific Island Resources. At the display, staff and volunteers from the organization will provide information about the South Pacific islands and will answer visitors' questions about their organization.

Schedule of Events:

DEMONSTRATIONS
11 a.m. – 3 p.m.

Friends of Polynesia – A Pacific Island dance troupe, whose members also belong to other Chicago- and Milwaukee-area dance troupes, will demonstrate *Hula* (ancient) and *Hula Auana* (modern).

Ki Ho'Alu — An Hawaiian slack key and ukulele performance club brings together regional performers. Their demonstrations will feature various vocal and instrumental styles, including the Hawaiian-cowboy style.

Na Kupuna Ukulele Club — A senior-citizen club performing a wide variety of songs from old Hawaiian favorites, Japanese favorites and old-time folklore tunes.

Students from the Old Town School of Folk Music invite you to experience the South Pacific as they demonstrate the rich musical culture of the islands. Lanialoha Lee, director of Kupa'a–Pacific Island Resources, will lead the students.

Hawaiian Steel Guitar Association — Members of this Midwest association will explain the history of the Hawaiian steel guitar and its development. They will also play some of the more popular songs of Hawaii.

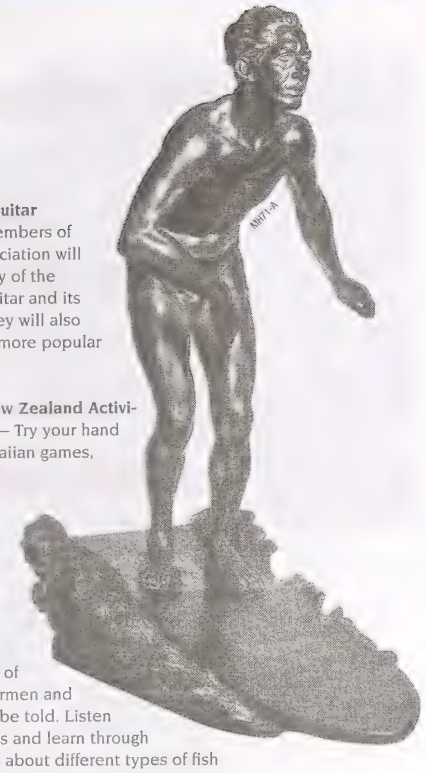
Hawaiian and New Zealand Activities and Games — Try your hand at Maori and Hawaiian games, including *poi balls*.

STORYTELLING
Saturday and Sunday,
May 9 and 10
Noon & 1 p.m.

Historical and mythical legends of old Hawaii's fishermen and daily sea life will be told. Listen to poetic proverbs and learn through coloring activities about different types of fish native to Hawaii. Kids of all ages will learn the significance of the traditional fishing party and hula dances.

FEATURED PERFORMANCE
Saturday and Sunday,
May 9 & 10 at 2 p.m.

Pacific Sounds Productions presents "Travel the Pacific." Sail with us to the Pacific through the music and dances of Hawaii, Samoa, New Zealand and Tahiti.



Above: *"Hawaiian Man" — one of the many bronze sculptures depicting people from various parts of the world that noted artist Malvina Hoffman created for The Field Museum in the early 1930s.*

Photo Courtesy of NASA

Left: *This extraordinary photograph taken by NASA in September 1993, shows the summit and southeast portion of Mauna Loa volcano, an active shield volcano in Hawaii Volcanoes National Park on the island of Hawaii. It also shows the Olaa Rain Forest (dark green) and the agricultural land along the eastern coast. Lava from this volcano, whose summit is 13,680 feet above sea level, is extremely fluid because of its low silica content and high temperature. During an eruption, the lava can flow more than 20 miles before it cools and hardens.*

Microsoft Executive Presents His Theories On Supersonic Dinosaurs

Tuesday, May 19, 1998 at 6 p.m.
James Simpson Theatre
$12 ($10 members)

In the December 1997 issue of the journal *Paleobiology*, Microsoft's Nathan Myhrvold wrote an article with Philip Currie of the Royal Tyrrell Museum of Paleontology titled "Supersonic Sauropods: Tail Dynamics in the Diplocids." In the article, the authors explore the question of whether large sauropod dinosaurs could break the sound barrier with a flick of their long, powerful tails. While studying the question, Myhrvold used his expertise with computer simulations to develop a research field he termed "cyberpaleontology."

"What I really find interesting about their work is the way they have applied mathematics and engineering models to understand animals that have been extinct for millions of years," said John Flynn, MacArthur Curator of fossil mammals and chair of the geology department. "Similar approaches are being used in some of the work we are conducting at the Museum on living animals."

During his presentation, Myhrvold will discuss this new field and share with the audience the discoveries that led him and Currie to believe that dinosaurs like *Apatosaurus* and *Diplodocus* had tails designed to be used much like bullwhips. According to Currie and Myhrvold, when these dinosaurs whipped around their tails, it produced a sonic boom. Myhrvold will also offer insights about how dinosaurs may have used these sounds in mating rituals, communication and defense.

Myhrvold, Microsoft's chief technology officer, is responsible for the broad strategic and business planning for the Seattle computer giant. He holds a doctorate in theoretical and mathematical physics and a master's degree in mathematical economics from Princeton University. When he is not playing with his computer and dreaming about dinosaurs, Myhrvold serves as an assistant chef at one of Seattle's leading French restaurants. Tickets required. For more information or to register, call 312.322.8854.

Photo Courtesy of Nathan Myhrvold

Please note that programs are subject to change. On the day of your visit, pick up a Field Notes Sheet *for an up-to-date program listing.*

Every Wednesday

11:30 a.m. & 1:30 p.m. **Into the Wild** tour. Visit classic animal dioramas and learn about their history and the mounting techniques of the great Carl Akeley. Every Wednesday in May and June.

Every Thur & Fri

1 p.m. **The Aztec, the Maya and Their Predecessors** tour. Learn about the diverse and complex pre-Columbian cultures of Mexico and Central America. Every Thursday in June and every Friday in May. Check listings for Thursdays in May and Fridays in June.

Every Sat & Sun

Interpretive Stations activities. Visit exciting hands-on activity stations in various halls of the Museum. A facilitator will guide visitors through an investigation of touchable objects relating to a surrounding exhibit. Please check the *Field Notes Sheet* located at the information booth in Stanley Field Hall for specific times and locations. Weekday schedule is also listed on the *Field Notes Sheet.*

1 p.m. **Preschoolers Alert! Story Time: Facts, Fables and Fiction** is an exciting new program located in the *Place for Wonder* — a hands-on area for children. Enjoy a relaxing time, learn new songs and stories, and have fun creating artwork. One adult for every three children, please.

Peggy Macnamara

Above: A *watercolor illustration by Peggy Macnamara depicting the fighting elephants of Stanley Field Hall.*

Below Right: *The Benld meteorite that landed in Macoupin County, Illinois, on Sept. 29, 1938 at 9 a.m.*

May 2 – Saturday

10 a.m. – 1 p.m. **Drawing in The Field** activity. Join artist Peggy Macnamara to learn how to draw your favorite Museum artifact.

10 a.m. & 2 p.m. **Inside Ancient Egypt** tour. The mysterious empire of ancient Egypt and its people have fascinated the world for hundreds of years. Explore the lives and afterlife of these people — the food they ate, the clothes they wore, the monuments they built and the gods they worshiped.

11 a.m. & 2 p.m. **Highlights of The Field Museum** tour.

May 3 – Sunday

1:30 p.m. **The Early Maya Civilization** tour. Discover the diversity of American Indian Nations and learn about their concepts of home to compare cultural similarities and differences. Learn about Native American influence on contemporary America.

May 7 – Thursday

1 p.m. **The Aztec, The Maya and Their Predecessors** tour.

Highlights of The Field Museum Tours are offered Monday through Friday at 11 a.m. & 2 p.m. Visit some of the exhibits that make this Museum one of the world's greatest. Discover the stories behind the exhibits. Check weekend listings for Saturday & Sunday **Highlight Tours.**

May 9 – Saturday

11 a.m. – 3 p.m. The Field Museum and Kupa'a-Pacific Island Resources present **Pacific Island Month Celebration.** See program in "Get Smart" page for more information.

May 10 – Sunday

11 a.m. – 3 p.m. **Pacific Island Month Celebration.** See "Get Smart" page.

11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

May 16 – Saturday

11 a.m. & 2 p.m. **Highlights of The Field Museum** tour.

11:30 a.m. **The Aztec, The Maya and Their Predecessors** tour (English). Discover the diversity of Mexican cultures and languages that have evolved over a 3,000 year period. Find out how the Aztec migrated to central Mexico, assimilated to the region's lifestyle and built a mighty empire prior to the arrival of the Europeans.

1 p.m. **Voces Indigenas: Pre-Columbian Literature** multilingual poetry readings and Latin American music. Enjoy recordings of pre-Hispanic music and readings of mexica (Aztec) literature in Nahuatl, the language of the Aztecs; English; Spanish; and Maya.

2:30 p.m. **El Imperio Azteca y sus Predecesores** tour (español). *Descubra la diversidad de las culturas y lenguas mexicanas así como su herencia de hace* 3000 *años. Aprenda cómo los Aztecas* (Mexicas) *emigraron al centro de México, se adaptaron al estilo de vida de esta región y construyeron un poderoso imperio antes de la llegada de los europeos.*

May 17 – Sunday

10 a.m. & 2 p.m. **Inside Ancient Egypt** tour.

11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

Noon. **Meteorites!** These rare pieces of asteroids, comets and star dust from outer space hold many secrets. Do they cause extinctions? Did they kill the dinosaurs? Did they help create life? What are they made of? Are they dangerous? Come with your questions and touch the oldest objects in the solar system.

May 23 – May 25

11 a.m. – 3 p.m. **Living Colors: A Butterfly Garden Opening Weekend** activities. On Saturday, meet scientist Dave Pollock and see specimens from the Museum's research collections.

Noon & 2 p.m. **Butterflies** play. A lively performance by the Greenlight Performing Company.

May 30 – Saturday

10 a.m. & noon. **Rapunzel Marionette show.** This enchanting German classic chronicles the universal human dilemma of a child's struggle for independence amid a parent's resistance to separation. Set in the Middle Ages, the age-old struggle is told by a solo performer using life-like marionettes and live voices.

May 31 – Sunday

1:30 p.m. **The Early Maya Civilization** tour.

June 5 – Friday

1 p.m. **The Aztec, The Maya and Their Predecessors** tour.

June 6 – Saturday

10 a.m. – 1 p.m. **Drawing in The Field** activity. Join artist Peggy Macnamara to learn how to draw your favorite Museum artifact.

11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

June 7 – Sunday

10 a.m. & 2 p.m. **Inside Ancient Egypt** tour.

Noon & 2 p.m. **Butterflies** play.

1:30 p.m. **The Early Maya civilization** tour.

June 12 – Friday

1 p.m. **The Aztec, The Maya and Their Predecessors** tour.

June 13 – Saturday

11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

11 a.m. – 3 p.m. **Field Museum Scientists Phil Parrillo** shows specimens from the Museum's butterfly and moth research collections.

June 14 – Sunday

11 a.m. – 1 p.m. **Adinkra** activity. Traditional designs from Ghana represent different African proverbs. Stamp your favorite!

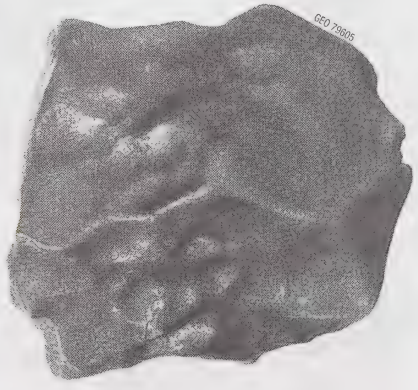
1:30 p.m. **The Early Maya Civilization** tour.

June 18 – Thursday

Noon. **Meteorites!** tour.

June 27 – Saturday

10 a.m. & 2 p.m. **Inside Ancient Egypt** tour.



11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

11 a.m. – 3 p.m. **Field Museum Scientists Phil Parrillo** shows specimens from the Museum's butterfly and moth research collections.

11:30 a.m. & 2:30 p.m. **Dave & Sue's Stars on Strings** marionette show. Dave Herzog's newest production features beautifully hand-crafted marionettes. Enjoy a wholesome, upbeat and always family oriented show.

June 28 – Sunday

11 a.m. & 1 p.m. **Highlights of The Field Museum** tour.

Noon & 2 p.m. **Butterflies** play.

RESOURCE CENTERS

African Resource Center
Learn about the cultures of Africa and African-American peoples through books and audio/visual tapes.
Open daily, 10 a.m. – 4:30 p.m.

Daniel F. & Ada L. Rice Wildlife Research Station
Learn about the animal kingdom through videos, computer programs, books and activity boxes.
Open daily, 10 a.m. – 4:30 p.m.

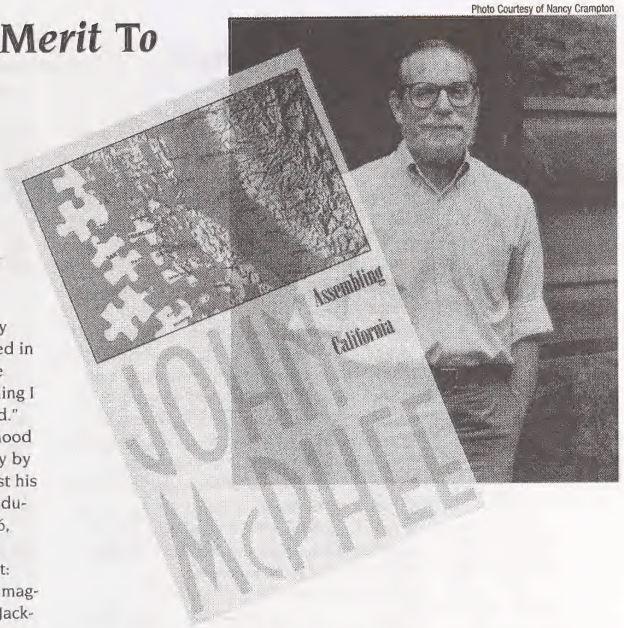
Webber Resource Center
Use books, videos, tribal newspapers and activity boxes to learn more about native peoples.
Open daily, 10 a.m. – 4:30 p.m.

Pawnee Earth Lodge
Visit a home of mid-19th century Pawnee people. Learn about these Native Americans and their traditional life on the plains.

Ruatepupuke:
The Maori Meeting House
Discover the world of the Maori people of New Zealand at the treasured and sacred Maori Meeting House.
Weekdays: 10 a.m. – noon
Weekends: 10 a.m. – 4: 30 p.m.

Founders' Council Presents Award Of Merit To John McPhee — The Natural Choice

Photo Courtesy of Nancy Crampton



By Robert Vosper

Journalist and Princeton University writing professor John McPhee is like a seasoned chess player — it is impossible to predict his next move. In his 45-year career, McPhee has covered such a variety of subjects it is futile to keep tabs. Oranges, a canoe maker, a sailor, the New Jersey Pine Barrens, the Swiss Army, experimental aircraft and nuclear bombs are just some of the themes he has tackled as a writer for the *The New Yorker* and author of more than 25 books. But like a chess player who remains true to his own strategic style, McPhee never strays too far from his two favorite subjects: nature and geology.

It is for his coverage of these two subjects — which includes discussions of plate tectonics, the Alaskan wilderness and man's attempt to control nature — that the Founders' Council on April 30, 1998, presented McPhee with the Award of Merit, given each year in recognition of outstanding achievement in bringing issues of environmental and cultural understanding to the forefront of public attention.

For many Museum members, McPhee is probably not a name they immediately associate with science and the environment, at least not as readily as the names of past award recipients like Sir David Attenborough, Edward O. Wilson and Jane Goodall. But Peter Crane, vice president of academic affairs and director, labels McPhee "one of the great nonfiction writers of this generation — with a particular gift for making environmental and geological sciences accessible and entertaining for the nonspecialist."

"His writing for many of us has enriched our understanding of the American landscape," he adds. "He has helped make some central ideas of geology accessible to the public and highlighted the complexity of interactions between humans and nature."

McPhee, who has lived most of his life in Princeton, N.J., attributes his fascination with nature to a very ordinary American rite of passage: summer camp. Every year as a child, he would escape the stifling humidity of New Jersey by heading to Camp Keewaydin on Lake Dunmore in Vermont. In this setting McPhee would spend his days canoeing and hiking in the wilderness of the Green Mountains, the Champlain Valley and the Adirondacks. But no matter how much pleasure McPhee gleaned from these early outdoor adventures, he never let let them interfere with his one passion: writing.

"Writing is what I do, and it is the only thing I know how to do," McPhee explained in a telephone interview a month before the award ceremony. "Actually, it's the only thing I ever wanted to do since I was 11 years old."

But unlike most people whose childhood dreams are quickly replaced after puberty by more pressing pursuits, McPhee never lost his early desire to write. A few years after graduating from Princeton University on June 16, 1953, with a bachelor's degree in English, McPhee landed his first job as a journalist: writing back-of-the-book profiles for *Time* magazine about such Hollywood notables as Jackie Gleason, Richard Burton and Barbara Streisand. Though the weekly news magazine rewarded his work with a steady paycheck, McPhee had his sights set a little higher, in fact much higher. Even while churning out "fluff" pieces at *Time*, he found the energy to submit story ideas and finished pieces to the illustrious *The New Yorker*. Unfortunately, other than accepting a short article in 1963 he wrote about his experience playing basketball in the Tower of London, the magazine took no interest in McPhee's work. That all changed, however, in 1964 when editor William Shawn read McPhee's article about an undergraduate by the name of Bill Bradley who was performing magic on Princeton's basketball court (McPhee later turned it into the book *A Sense of Where You Are*). Not only did Shawn publish the piece, but asked McPhee to join the magazine's staff.

During these early years at *The New Yorker*, McPhee began to hone what would become his trademark writing style, a style that combines the exhaustive research of an investigative reporter, the appetite for accuracy of a *New York Times* fact checker and the prose and storytelling techniques of a literary writer. Though he completely immerses himself in his subjects to capture the color that makes his writing so distinctive, McPhee's own voice remains subdued. That is not to say McPhee isn't an integral part of his stories, but rather that unlike his literary journalism peers like Hunter S. Thompson and Tom Wolfe, he doesn't scream for attention. Most of the time, he simply acts as the reader's eyes and ears, chiming in to guide readers over the technical subjects that epitomize his work. However, transforming technical subjects into readable and entertaining prose can take its toll.

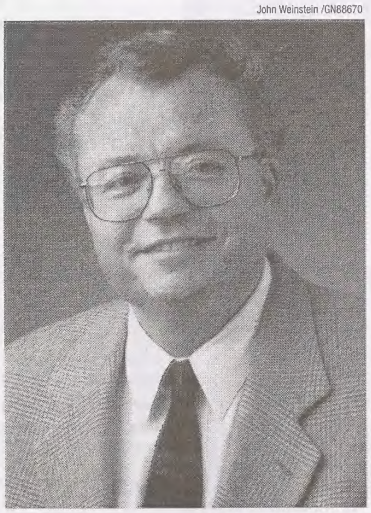
"It is difficult," he noted. "A writer is to some extent a compulsive. That isn't to say it is an unmitigated disaster when I am trying to write. It is really the process of putting together a first draft, which in the case of *Assembling California*, I did nothing but come into this room [his Princeton office] for two years trying to get that thing together. I didn't have any confidence in it. But when I finished the first draft and then turned back to work on it, a different person started on the second and third drafts. By that time the anguish is gone. The first drafts are awful, but that is pretty true for most writers."

Writer's block, or whatever the term is to

Continued on the next page

Museum Names New Director For Field Museum Tours

John Weinstein /GN88670



After a year-long search, The Field Museum selected Robert Todd Nielsen as the new director of Field Museum Tours, replacing Dorothy Roder who recently retired after 37 years of service. Nielsen, the former tour director of the American Museum of Natural History in New York, joins The Field Museum with more than 25 years of experience planning and administrating worldwide study tours.

Immediately after graduating from Brown University in 1975, Nielsen, a native of New York City, began working at the American Museum teaching students and adults about pre-Columbian cultures. Three years after taking this job, he accepted the position as assistant coordinator of the museum's travel program (Discovery Tours). That same year, the American Museum promoted him to travel director, a position he held for 14 years.

During his career, Nielsen has arranged study tours to more than 150 countries and has worked with hundreds of curators and educators to provide travelers with the highest level of educational tours. In addition, he is a frequent and popular lecturer and is well-known in the museum community as a pioneer in developing tour programs for nonprofits.

"A goal of Field Museum Tours is to take interested participants to the actual destinations where many Museum specimens and artifacts originated," explained Nielsen, who maintains an office in Walpole, N.H., with six full-time employees. "Under the guidance and leadership of Field Museum experts, travelers gain insight into the evolution of life on Earth. I also look to outline and demonstrate firsthand the value of the many exciting research projects carried out by Museum curators around the globe."

Nielsen and his staff can be reached at the new Field Museum Tours toll-free number, 800.811.7244, or via e-mail at <<fmtours@sover.net>>.

John McPhee . . . *Continued from previous page*

describe McPhee's literary anguish, is probably about the only thing he has in common with "most" writers. Unlike many of his colleagues, McPhee has a remarkable gift for breathing life into subjects that most would consider too dull or enigmatic — a skill that has not only made him a successful journalist, but one that is respected in both literary and academic circles. But gaining the respect of these two diametric groups is hard earned: It comes from telling the complete story, introducing layer upon layer of detail and background, without ever compromising accuracy.

Take "Atchafalaya" for example, an essay he wrote for *The Control of Nature* that begins in simple conversation with Louisiana native Norris F. Rabalais, one of the men responsible for keeping an eye on a navigation lock on the lower Mississippi River. The playful gibing between Southerner and Yankee writer progresses into a phenomenal story of the strategies and tactics used by the Army Corps of Engineers to stop the Mississippi from taking a short cut to the Gulf by digesting the nearby Atchafalaya river (as a result, bypassing New Orleans by 80 miles). Woven into this fascinating article is a detailed history of the river, the story of the Corps' rise to prominence, a brief geological summary of Louisiana's genesis and a remarkable account of the complex forces governing the river's unpredictability.

Though "Atchafalaya" is peppered with background information and detail, the reader never loses sight of the real story: a disturbing account of man's ceaseless attempts to tame Mother Nature. It is a theme that continually resurfaces in McPhee's writings. In *Encounters with the Archdruid*, for instance, McPhee joins David Brower, the Sierra Club's former executive director, as he faces three of his archenemies: Charles Park, a mineral engineer with whom he hikes into Glacier Peak Wilderness; Charles Fraser, a resort developer with whom he camps on Georgia's pristine Cumberland Island; and Floyd Dominy, the man responsible for creating Lake Powell whom Brower joins for a rafting adventure down the Colorado River. During the heated, yet civilized debates that follow over the morality of harnessing nature's power and beauty for the sake of comfort and progress, McPhee takes no sides and offers no opinion. He presents these powerful men with such symmetry and respect that readers on both sides of the equation may question the soundness of their values and convictions.

"The way I wanted this piece to work was the people that Brower is arguing with are not setups, there to be knocked down by the great environmentalist," McPhee revealed. "It was terribly important to keep my distance and create a balance to make the book work . . . My goal as a writer is not to persuade people, but rather to show them and to leave judgement to the eye of the beholder. All I do is present a situation from both sides and present it as clearly and accurately as I can. But I will never tell anyone what lever to pull in a voting booth."

This delicate balancing act of presenting all sides of a story also runs through his highly acclaimed books about geology. In the late 1970s — after pondering how gold ended up in the Yukon drainage of Alaska and Canada — he decided to write a book about the monumental history of the Earth's crust as it stretches from present-day New York state to the San Francisco Bay. More important, he wanted to document the differing opinions of geologists on the revolutionary theory of plate tectonics that swept the scientific community in the 1960s. His initial idea was to create a mammoth volume under the title of *Annals of a Former World*.

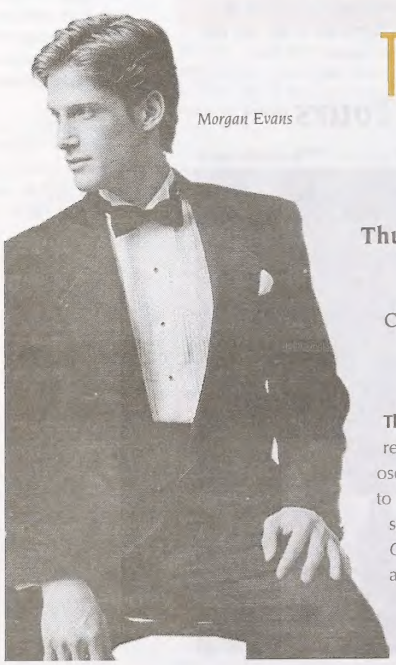
"I was going to do a single piece of writing that would be a long one and it would traverse the North American continent along the latitude that you and I are on," McPhee explained. "I did that for more than a year, traveling with different geologists to different parts of the county. Then I typed up all my notes for over a year and made a structure for a piece of writing that I organized by reactions to the theory of plate tectonics. But when I was done building this structure I realized I would be writing about nothing but geology for about eight years — I am a general nonfiction writer and I wanted to be doing other things."

McPhee's solution was to divide the one volume into multiple books and release them over the next two decades [*Basin and Range* (1981), *In Suspect Terrain* (1983), *Rising from the Plains* (1986) and *Assembling California* (1993)]. In each book, none of which deviate from his original outline, McPhee takes the reader on a cross-county journey with a different geologist, each offering their strong opinions about the continent's topography, arguing over everything from the Earth's age to how the Rockies and Alleghenies first formed. Just below the surface of these debates is a wonderfully detailed lesson about how erosion, volcanic activity and continental drifts have scarred, molded and transformed the North American landscape.

Fans of McPhee will be glad to hear that on the day of this interview, McPhee had just finished writing the last part of the series, an essay titled "Crossing the Craton" — a discussion of the midcontient between Chicago and Cheyenne. With this essay, McPhee will have completed the geologic journey he started in the 1970s. But instead of releasing the essay as the fifth installment, McPhee will publish it as part of his original plan for one coherent magnum opus. The opus, still to be titled *Annals of a Former World*, will include the new essay, all the material published in the first four books, a narrative table of contents, a comprehensive index and 25 high-resolution landform maps.

"Who knows if this is my last book I will write about geology," McPhee remarked when asked whether he has had his fill with geology. "You know, I get letters that say 'please don't write about geology, write about something else.' But then I get letters in greater numbers asking for more. It is very interesting, because there is more of a division among readers on this subject than anything I have ever written."

Farrar, Straus & Giroux Inc., McPhee's publisher for more than 30 years, plans to release the book in June.



Morgan Evans

THE GERSHWIN® YEARS

a concert in two acts

Celebrating the 100th Birthday of Gershwin

Thursday, June 25, at 8 p.m.
The Field Museum
Call **312.322.8871** for tickets

Friday, June 26, at 8 p.m.
Chicago Historical Society
Call **312.642.4600** for tickets

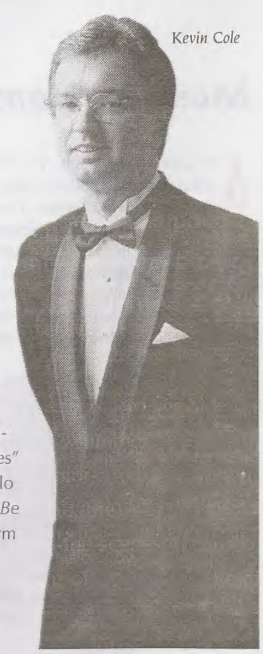
$20 members; $25 nonmembers

The Gershwin Years concert chronicles the musical lives of the Gershwin brothers, reflecting the tempos and changes in America from 1916 to 1937. Kevin Cole's virtuoso piano playing displays the infinite variety of George Gershwin from "Rialto Ripples" to "Rhapsody in Blue." At times, Cole is joined by several singers for medleys and solo songs that pay tribute to legendary musicals like *Girl Crazy*, *Funny Face* and *Lady Be Good*. Gershwin's music and Cole's talents will provide an evening of drama, charm and American musical joy!

Featuring:

Kevin Cole, pianist and vocalist; Jill Walmsley; Janine Serresseque; and Morgan Evans

Kevin Cole



The Field Museum /A87867

From The Photo Archives . . .

On April 12, 1939, Harwa, the Museum's 2,800-year-old adult-male Egyptian mummy, left Chicago and took to the friendly skies aboard a United Airlines sleeper plane to find fame and fortune in the Big Apple. For two years, General Electric Co. displayed the mummy at the World's Fair in New York as part of an exhibit on electrical progress. Visitors to the display could push a button that would move a full-length fluoroscopic screen in front of Harwa. A few seconds later, an X-ray powered by 125,000 volts of electricity would penetrate Harwa's dried flesh and layers of wrapping, magically producing an eerie shadow of his skeleton on the screen. The X-ray showed, among other things, that Harwa was missing a left rib and had an abscess on one tooth. After 30 seconds, the screen would retract until another curious visitor activated the contraption. By the time the World's Fair closed in 1940, Harwa had exposed his bones to more than 9-million people. The popularity of the display prompted GE to reinstall it at The Field Museum.

For Harwa, who had been an agricultural overseer for a temple of the god Amon, the World's Fair was a new lease on life. During his first 35 years at the Museum, Harwa collected dust in the anthropology department's storeroom — a victim of a museum surplus of mummified adult Egyptians. After the Fair, he became somewhat of a legend: he is believed to be the first adult, dead or alive, to have been publicly fluoroscoped and is the first mummy to have traveled on a plane. Today, visitors can find him in the **Inside Ancient Egypt** exhibit on the ground floor, though his days of being bombarded with radiation are over.

From the Field Archives

May 1931

The Field Museum placed on exhibit five guanacos (*Lama guanacoe*) — a wild member of the camel family, native to the Andean foothills and surrounding plains — collected during the 1926 Marshall Field South American Expedition.

Members of the Marshall Field Zoological Expedition sent a message to say they had arrived in the mountains of China's Sichuan Province without incident. With the help of 40 local hunters and skinners, the party searched the area for rare animals. Their main objective, however, was to catch a takin, a goat-like bovid ruminant (*Budorcas taxicolor*) of the Himalayan forests.

Arthur S. Vernay donated his collection of ethnological material representing the Khoisan culture (Bushmen) of the Kalahari Desert in Botswana. Quivers, poisoned arrows, bows, beaded aprons and engraved ostrich eggs were included in the collection. According to the *Field Museum News*, Vernay also donated a "well-preserved Bushman skull, much valued because of the difficulty of obtaining anatomical specimens."

June 1931

Researchers on the Marshall Field Archeological Expedition to Europe brought back a 25,000-year-old, 3-inch-long bone needle believed to have been used by Magdalenian craftsmen (the last upper Paleolithic archaeological culture of western Europe) to make clothes from reindeer hide. The expedition unearthed the needle in a rock shelter in Ganties, France.

The Field Museum resumed its second season of research at the Lowry ruin in southwestern Colorado. While traveling to Colorado, Paul S. Martin, assistant curator of North American archaeology and the expedition leader, stopped at a Dakota (Sioux) reservation to gather data for an upcoming exhibit on the Native American tribes of the Great Plains.

Captain Harold A. White, the leader of a Museum expedition to Africa, sent the zoology department five specimens of the bongo (a spiral-horned antelope native to equatorial Africa) for use in a new habitat group.

Unearthing The Mysteries Of The Andes

The Arts and Entertainment Network will feature John Flynn, MacArthur Curator of fossil mammals and chair of the geology department, and Bill Simpson, chief preparator and collections manager, on its *New Explorers with Bill Kurtis* TV series. The program, **Mystery of the Andes**, will air Thursday, May 21, at 8 p.m.

Ten years ago, while searching for dinosaur fossils deep in the Chilean Andes, Flynn and his colleagues made a startling find: embedded in volcanic rock thought to be more than 100 million years old were the remains of small mammals only 32 million years old. But how, they thought, could these fossils be 70-million-years younger than the supposed age of the rocks that contained them? This mystery ultimately led to the discovery of many more spectacular fossils (some filling a prior 20-million-year gap in the South American fossil record) during expeditions and research supported by the U.S. National Science Foundation. Further study of these Andean fossils back at The Field Museum yielded vital new insights into the evolution of South America's unique animals and environments. Ultimately, these fossils forced Flynn and his colleagues to rethink the scientific theory of how and when the Chilean Andes formed and, in the process, raised new questions about the mountain range's entire geologic history.

For years, scientists thought the process of mountain building in South America was a relatively simple function of plate tectonics, caused by earthquakes and volcanoes uplifting the western edge of South America as Pacific Ocean plates moved beneath the continent. The model suggests that more than 65 million years ago a single phase of uplift formed the entire 5,000-mile-long chain of the Andes. But discoveries by John Flynn and André Wyss of the United States and Reynaldo Charrier of Chile, as well as other team members, challenge this older model. They now believe the rocks that make up the Chilean Andes are much younger than once thought and that the geologic processes that created them much more complex.

In **Mystery of the Andes**, the international team scale the steep, slick slopes of an unexplored region of the Chilean Andes searching for fossil evidence of strange mammals that roamed South America millions of years ago. The bones of these mammals will provide the team with clues to how and when the Andes formed, as well as to how the creation of these mountains impacted the environment and global climate of the time. Using their new knowledge of surrounding areas gained during past expeditions, the team has predicted both the age of the rocks they will encounter at the new site, as well as the types of rock that will yield fossils. Join these *New Explorers* to learn more about their research and to see whether their predictions are accurate.

John Flynn

Above: *The Field Museum's research in the Chilean Andes represents a long-term, scientific collaboration with the University of Chile, the National Museum of Chile, the University of California at Santa Barbara, as well as with many other institutions.*

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Bruce Patterson, MacArthur Curator of Mammals and president of the Society for the Study of Mammalian Evolution, will lead the tour. Patterson, an expert on evolution and zoology, has conducted extensive field research into Africa's biodiversity and has been a very popular study leader on several past tours. Assisted by local naturalists, Patterson will help us explore Kenya's exciting wildlife and ecology.

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