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125TH YEAR SPECIAL ISSUE

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Wisconsin Academy Review

A JOURNAL OF WISCONSIN CULTURE

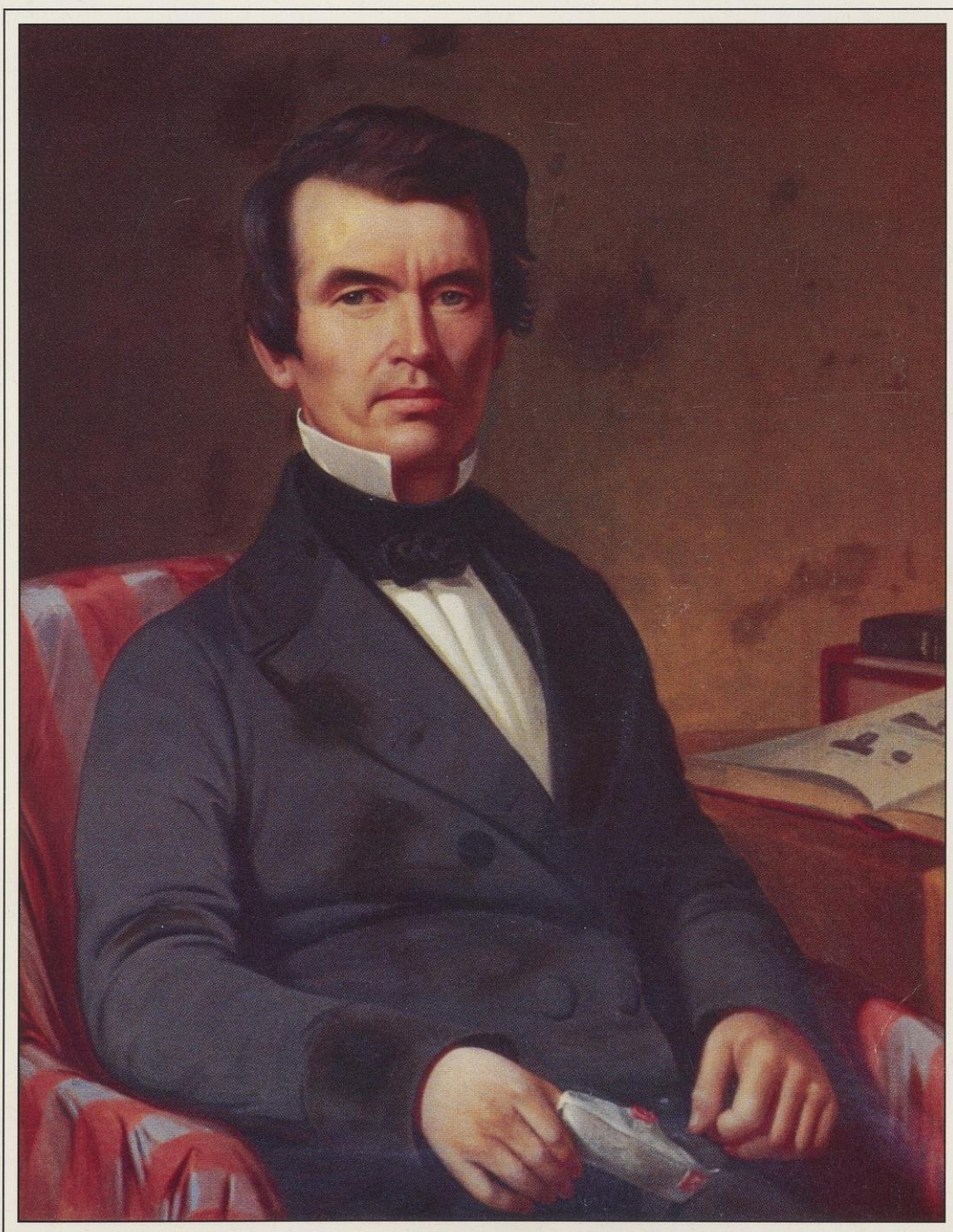




Figure of Minerva, tending the lamp of learning, and a motto from Lucretius, *Naturae species ratioque* (In Nature there is order). One side of a bronze medallion created during the presidency of E. A. Birge for the fiftieth anniversary of the founding of the Wisconsin Academy.

FRONT COVER: Young Increase A. Lapham. Oil done in 1855 by Samuel Brookes, Milwaukee. The portrait, 36 x 28 inches, hangs in the archives room at the State Historical Society of Wisconsin on the fourth floor. Courtesy State Historical Society of Wisconsin.

BACK COVER: The reverse side of the bronze medallion described above. According to Birge, the men figured on the medallion were selected "for their intellectual eminence and for their services to the Academy." Three (Chamberlin, Lapham, and Hoyt) were founders; the others were members very early in the Academy's history.

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**The Promotion of Knowing and Feeling:
125 Years of Activity at the Wisconsin
Academy of Sciences, Arts and Letters**
by Arthur Hove

4

Increase A. Lapham: A Useful and Honored Life
by Paul G. Hayes

10

H.B. Merrill: Early Wisconsin Scientist and Adventurer
by Merrilyn L. Hartridge

16

Letter from the Wisconsin Academy's First President
by John Wesley Hoyt

23

The Academy Vision in the Turner Revolution
by Richard J. Daniels

25

My Friend Bernard Milofsky and the Pro Arte Quartet
by James F. Crow

29

CHRONICLE

35

Return to the Roots: South Africa Thirty Years Later (Conclusion)
by Daniel P. Kunene

Ten Millennia of Climatic Variation in Wisconsin
by Reid A. Bryson

44

**POETRY
a taste of the island**
by Matt Welter

46

Our Millionaire
by Sprague Vonier

Lost Blues

Me, Now, Here

Ghost Story
by Ellis Amdur

REVIEWS

48

INSIDE THE ACADEMY

53

The Academy and Transactions: Providing Opportunities for Students
by Patricia Allen Duyfhuizen

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*The front cover is provided by the
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There is an aura of keen awareness and appreciation pervading the offices of the Wisconsin Academy these days as we observe a benchmark in our history: 125 years of continuous operation as an organization dedicated to scholarly pursuit, information exchange, and convergence of disciplines. In this issue of the *Review* we spend some time looking back; but always the vision of those long-ago founders (yes, mostly white males with beards—women became active later!) inspires us to be engaged with the present and look to the future.

In 1953, E.B. Fred, then president of the University of Wisconsin, linked the Wisconsin Academy with the “Wisconsin Idea,” and it seems appropriate on this occasion to revisit his comments. Here are some excerpts:

Many of you have heard me speak before of the “Wisconsin Idea,” and I think that idea is best served by the free and unguarded exchange of information, ideas, and opinions among men and women of widely different fields. This idea is best served when people from all corners of the state and from many academic institutions meet to speak for themselves in the fields for which they are best qualified, and to report on the work they have been doing.

The Academy is a necessary organization for Wisconsin; it plays an extremely important part in the cultural and scientific life of the state. One of the unique contributions of the Academy is the way it brings together both humanists and scientists.

...

The questions are endless. They will be answered by the modern counterpart of the men who first explored our continent. The pioneer has always been a good investment. He initiates the discovery of continents, he lengthens our life expectancy, shortens our hours of toil, makes the hours of leisure more fruitful. Without the pioneer, in whatever field he may work, our society and our civilization would progress very slowly.

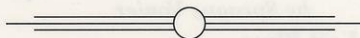
Our best insurance against such stagnation in the future is the sort of work that the Academy is doing . . .

...

The Wisconsin Academy has played an important role in the life of Wisconsin and her people since it was founded in 1870. We are proud of Wisconsin and her accomplishments, and the Academy has had no small part in the attainments for which Wisconsin is known.

On behalf of all of us at the Academy, I invite you to enjoy these glimpses of history generously provided by our contributors, who spent considerable time researching and writing for this special issue. There are some instances of overlapping among the various articles, but we think of these overlaps as being connections rather than redundancies.

Also included is an article about the Pro Arte Quartet—another Wisconsin institution observing a benchmark this year as new musicians occupy the first and second violin chairs—and the conclusion of Prof. Daniel Kunene’s chronicle of his South African sojourn, as well as poetry, book reviews, and an Inside the Academy account of how our publications are being used as teaching tools at the university.



Remember to mark your calendars for June events. There will be an exhibition of George Parker’s rare seventeenth-century maps of the Great Lakes region in the gallery, along with artifacts and other images which will provide additional cultural perspective for the maps. Lectures are being scheduled relating to this period of French and Native American influence which is such an important part of our state’s history.

Finally, a special reminder that on June 7, Academy members will gather at Olbrich Gardens in Madison to celebrate our rich history and reaffirm our commitment to the future. You all are invited.

Wisconsin Academy Gallery schedule

March: ellsworth snyder, paintings and drawings

April: Daniel J. O’Neal, Paintings

May: Lewis Koch, Photography

Faith B. Miracle

Now in its 125th year, the Wisconsin Academy of Sciences, Arts and Letters was chartered by the State Legislature on March 16, 1870, as a membership organization serving the people of Wisconsin. Its mission is to encourage investigation in the sciences, arts and letters and to disseminate information and share knowledge.

CONTRIBUTORS

- ▶ Ellis Amdur is a former Wisconsin resident now living in Seattle. His articles have appeared in martial arts magazines and his life as a poet began when he started writing and “simply continued when something demanded to be written.”
- ▶ Samuel Brookes (1816–1892) came to Milwaukee from England in the 1840s and with his partner, Thomas Stevenson, established an art studio. Brookes and Stevenson were commissioned by the State Historical Society of Wisconsin to do a number of portraits of Wisconsin dignitaries in the mid-nineteenth century.
- ▶ Reid A. Bryson holds degrees in geology and meteorology. He joined the faculty of the University of Wisconsin–Madison in 1946, and in 1948 he founded its meteorology department. He is now emeritus after having served as director of the Institute for Environmental Studies on the Madison campus. He is a fellow and a past president of the Wisconsin Academy and has written numerous articles and books.
- ▶ James F. Crow, a geneticist, received degrees from universities in Kansas and Texas, and before coming to the University of Wisconsin–Madison in 1948 he taught at Dartmouth College. He served as acting dean of the Medical School and chairman of the Department of Medical Genetics. A scientist who is particularly interested in the effects of radiation and nuclear fallout, he is also an accomplished violist, formerly of the Madison Symphony Orchestra. He has published widely in his field and is a fellow of the Wisconsin Academy.
- ▶ Richard J. Daniels is the associate director of the Wisconsin Academy and the director of administration and development of the Wisconsin Academy Foundation. He studied the history and criticism of rhetoric under the direction of Edwin Black and Lloyd Bitzer in the doctoral program, Communications Arts Department, University of Wisconsin–Madison.
- ▶ Merrilyn L. Hartridge studied art history at Washington University in St. Louis, at the Corcoran Gallery of Art in Washington, D.C., and in Europe. She has taught art history at the Madison Area Technical College and served on the local board of the National League of American Pen Women in Arts and Letters. She has written and produced young people’s educational programs for Madison affiliates of NBC and ABC television networks and was a contributing editor for *Madison Select* magazine. She is particularly interested in history and has written many articles on history-related topics.
- ▶ Paul G. Hayes, a science writer for *The Milwaukee Journal*, earned his journalism degree from the University of Illinois. He twice received the American Association for the Advancement of Science Westinghouse award and is and a fellow of the Wisconsin Academy.
- ▶ Arthur Hove is a special assistant in administration at the University of Wisconsin–Madison and is the author of *The University of Wisconsin: A Pictorial History* (University of Wisconsin Press). He is a long-time member of the Academy and for years had a regular feature in the *Review*.
- ▶ Daniel Kunene is professor of African languages and literature at the University of Wisconsin–Madison. He also taught at the University of Cape Town, the University of California–Los Angeles, and the Johannes Gutenberg University in Mainz, Germany. He has published numerous books, articles, and poems, and in 1990 one of his poems, “Soweto,” was set to music for choir and orchestra by a Dutch composer and performed throughout the Netherlands. It premiered in the United States in 1992.
- ▶ Sprague Vonier lives in Milwaukee and also spends time on a farm in the northern Kettle Moraine area. For many years he worked in television—writing, producing, directing, managing. He now teaches broadcast writing as an adjunct faculty member at the University of Wisconsin–Milwaukee. His poems have appeared in journals, and he is the author of *Edward R. Murrow*, a book for young readers.
- ▶ Matt Welter, a naturalist, storyteller, and interpreter of history, has lived and worked in the national parks since 1988. His poems have been published in numerous journals, and he has appeared on both Wisconsin and National Public Radio. He is currently developing a visual poetry performance which will take place in Washburn and is compiling an anthology of work by members of the Open Mouth writers’ group of Bayfield.

SAVE THE DATE!

June 7, 1995—Olbrich Gardens, Madison
Wisconsin Academy’s 125th Anniversary Celebration

The Promotion of Knowing and Feeling: 125 Years of Activity at the Wisconsin Academy of Sciences, Arts and Letters

by Arthur Hove

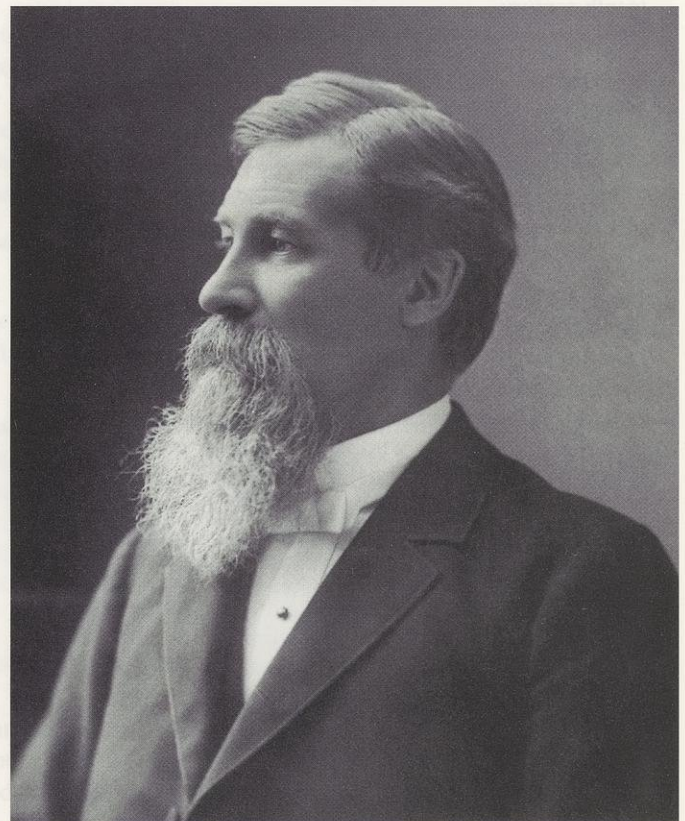
In 1906, John J. Davis gave this valedictory following two years of service as president of the Wisconsin Academy of Sciences, Arts and Letters:

He who knows but does not feel may be a bad citizen; he who feels but does not know may be fully as dangerous; he who both knows and feels is the ideal citizen. The promotion, then, of knowing and feeling, of knowledge and culture, of the sciences, the arts and letters, is the work of the Academy.

That work has been continuous over the past 125 years, since a group of more than a hundred men and women assembled in Madison in the winter of 1870 to establish the Wisconsin Academy. (Although women were present at that first meeting, they were not admitted to membership until six years later.) Those who gathered were citizens of a still young and often boisterous state, an entity less than a quarter century old and changing rapidly as the frontier pushed farther westward.

Enormous changes had taken place from the time when Wisconsin was a territory to the time when the Academy was founded. Former University of Wisconsin President Thomas C. Chamberlin, a charter member of the Academy, spoke at the fiftieth anniversary and put its founding into a context. He noted that the state's first stage of development was characterized as a "pioneer struggle" in which "the trackless forests of Wisconsin had been replaced by cultivated fields, comfortable dwellings and prosperous towns . . . bound together by a network of roadways and railways that united the whole into an intercommunicating cooperative community ready to enter upon a common organized career in pursuit of its higher interests."

The scene is not quite so idyllic from a revisionist's perspective. The settlement of the state involved more freebooting than nobility of purpose. The events that were a significant part of the early territorial and statehood days substantially transformed what many had regarded as an Edenic setting. The arrival of the frontier produced what Alan Moorehead has described in his book *The Fatal Impact* as "that fateful moment when a social capsule is broken open, when primitive creatures, beasts as well as men, are confronted for the first time with civilization; the moment which is not so much one of truth, nor



Thomas Chrowder Chamberlin (1843–1928), president of the University of Wisconsin, 1887–1892, and charter member of the Wisconsin Academy and its president, 1885–1887. Courtesy State Historical Society of Wisconsin.

even of recognition, as of an eager, awkward fumbling to try and understand" (Harper and Row, 1966, pages xiii–xiv).

In this instance, the fateful contact included the displacement and subjugation of the indigenous Native Americans, a relentless series of incursions which reached a climax in the Black Hawk War of 1832. As Yankee settlers from the East and ethnic groups from Europe moved into the area, land speculation became commonplace. The state's natural resources, which seemed so abundant, were taken for granted and the virgin forest, which covered a major portion of the land was systematically cutover, making way for agriculture at the same time it altered the ecological balance of plants, wildlife, and humans.

ance of plants, wildlife, and humans.

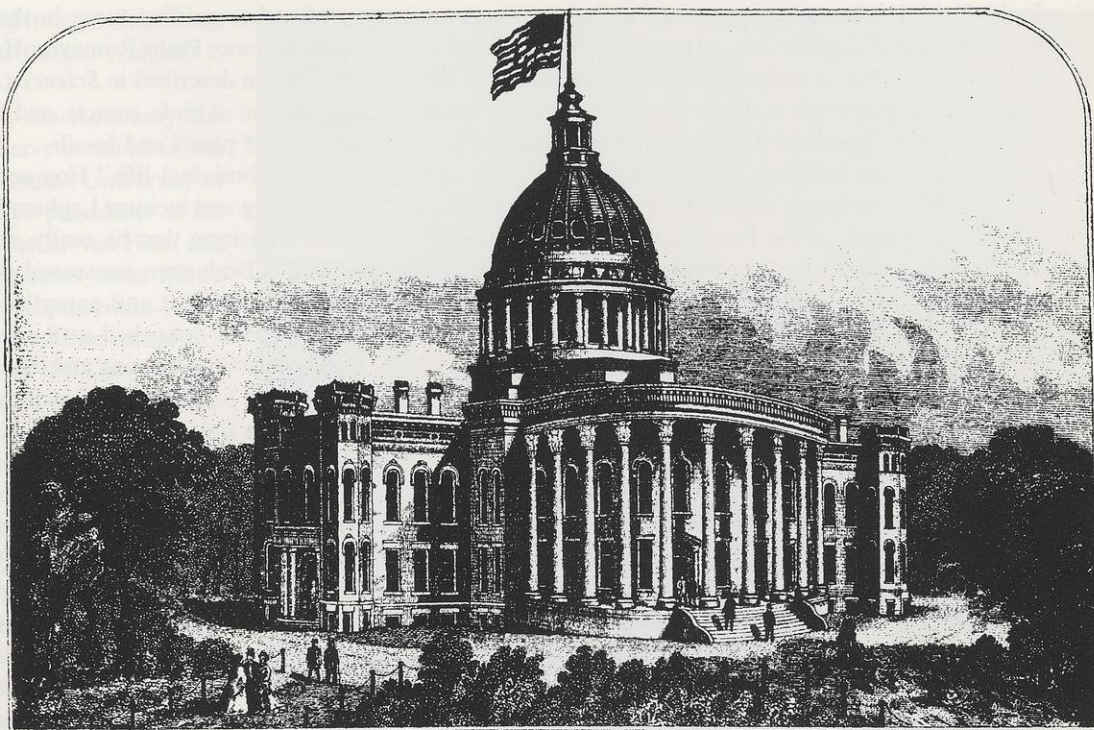
The resulting openness of the landscape was a magnet for settlers. It produced such an inpouring that the population grew from 11,000 in 1836 when Wisconsin was organized as a territory to more than a million by 1870, twenty-two years after statehood.

There were some among the new Wisconsin citizenry who saw the dangers of profligate expansion. In securing the frontier, efforts were needed to take stock of what was being lost and what needed to be preserved. These concerns were among the primary considerations in the drive to organize the Academy in 1870.

The practical organization of the first meeting was left to John Wesley Hoyt, secretary of the Wisconsin State Agricultural Society and editor of the *Wisconsin Farmer*. In a *Wisconsin Magazine of History* article (Spring 1970) commemorating the Academy's centennial, Mary Frost Kroncke noted Hoyt's "abundant energy and organizational ability." A native of Ohio, he had cleared and developed three separate farms early in his career, studied law and medicine, taught school, and served as governor of the Wyoming Territory before coming to Wisconsin.

More than a hundred prominent citizens from around the state joined Hoyt in the call for a meeting. The call noted that "the prosperity and power of a State depend not more upon its material resources than upon the culture of its people and the extent of their knowledge of nature and man." Information had to be gathered and transmitted through a proper mechanism: "... such culture and knowledge as are furnished by all schools and colleges are themselves primarily dependent on the discoveries, inventions and labors of men and associations of men devoted to original investigation; and that, therefore, it has been the policy of every enlightened country of modern times to encourage the establishment of societies and institutions for the promotion of such objects."

The proposed Wisconsin Academy would bring together those "who, though already more or less engaged in original studies and investigations of various kinds, accomplish less than they would had they frequent associations with each other, a common storehouse into which they bring their material col-



The Wisconsin Academy was chartered by the legislature on March 16, 1870, and the organization's first offices were at the State Capitol.

lections, and some proper medium through which to publish the approved results of their scientific labors to the world."

While many of those invited could not be present for the meeting, they expressed their support in letters responding to Hoyt's call. The letters, which were read at the meeting and incorporated into the record, were uniform in their enthusiasm and came from throughout the state—from Prairie du Chien to Milwaukee, from Shullsburg to Appleton.

Hoyt's plans for the Academy were articulated in the first issue of *Transactions*, the Academy's annual scholarly journal which has been published continuously since the founding. He offered an ambitious program. The Academy would "employ and fairly compensate one or more competent and efficient officers" and, through cooperation with existing societies, would serve as the major catalyst for research in the state. Its physical resources would include a museum, library, and an art gallery. The Academy's many activities would be supported through an endowment of \$100,000, augmented by private donations.

Hoyt moved on to California after serving as the Academy's president for six years. A short time later, he returned to Wyoming and served for three years as the first president of that state's university. He subsequently settled in Washington, D.C., where he spent the balance of his professional life promoting the establishment of a national university. While many of his plans for the Academy were not realized, he provided the conceptual framework for the broad scope of today's program.

In this light, it is important to remember that the Academy rose out of the frontier which imbued it and the state with a distinctive character. The distinguished American historian and Wisconsin native Frederick Jackson Turner was an Academy member early in his career and gained some of his initial perspectives from his participation in Academy activities. Turner formally described the nature of westward expansion in his lecture "The Significance of the Frontier in American History" presented at a meeting of the American Historical Association held in Chicago during the summer of 1893 in conjunction with the Columbian Exposition. Turner put forward the idea,

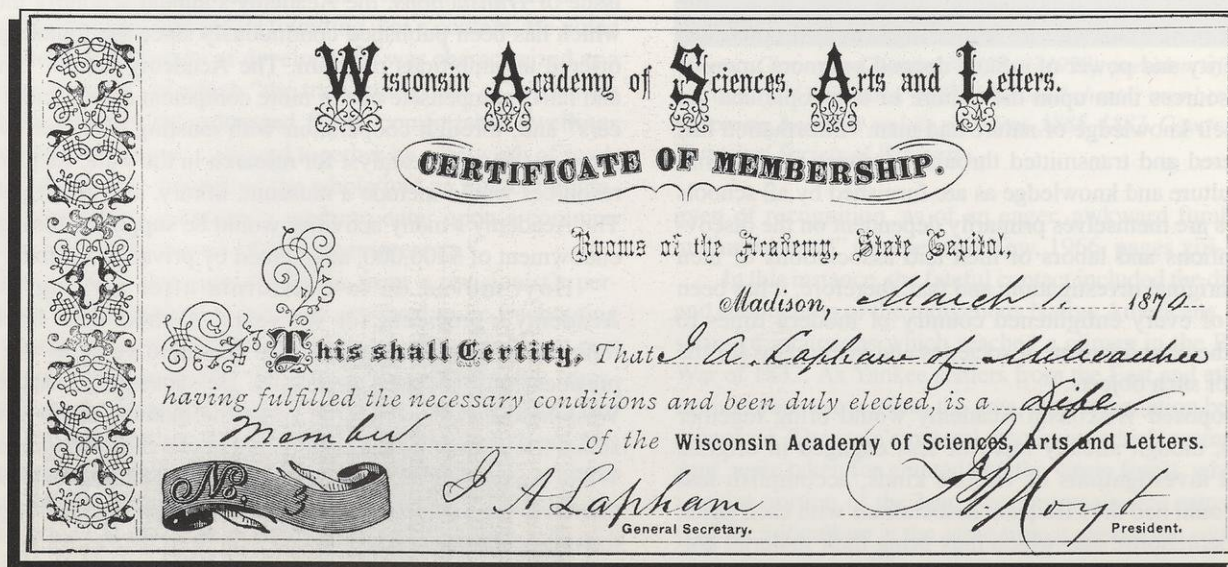
that to the frontier the American intellect owes its striking characteristics. That coarseness and strength combined with acuteness and inquisitiveness, that practical, inventive turn of mind, quick to find expedients, that masterful grasp of material things, lacking in the artistic but powerful to effect great ends, that restless nervous energy, that dominant individualism, working for good and for evil, and withal that buoyancy and exuberance which comes with freedom,—these are the traits of the frontier, or traits called out elsewhere because of the existence of the frontier (State Historical Society of Wisconsin edition, 1986, page 47).

Increase Lapham is one of those individuals who personifies the qualities Turner found compelling in the formulation of his thesis. It is important to highlight Lapham's unique contributions. He was the first Wisconsin resident to draw a map of the state, and he helped found and later served as president of the State Historical Society of Wisconsin. Throughout his life, Lapham proved to be an indefatigable collector and cataloger of plants and geological specimens. His interest and work in climatology led to the establishment of the U.S. Weather Service. A charter member of the Wisconsin Academy, he served as the first editor of *Transactions* and as an elected secretary of the organization until his death.

Another guiding force in the initial development of the Academy was Philo Romaine Hoy, a Racine physician who Chamberlin described in *Science* (July 20, 1920) as "... a veteran student of birds, insects, and fishes, and ... an enthusiastic collector of plants and fossils ... also an eager student of the relics of aboriginal life." Hoy served as a complement to the unassuming and taciturn Lapham because he "so bubbled over with enthusiasm that he easily set the pace in demonstrative interest." Both men possessed that insatiable curiosity and breadth of interest and expertise that reflected the range of inquiry which flourished as the state and nation came of age. Their respect for learning and the extensiveness of their knowledge served to advance the society.

Similar qualities are found in William Francis Allen who died in office as president of the Academy in 1889. As a faculty member at the University of Wisconsin, Allen established the Department of History, served as mentor for Frederick Jackson Turner, and became one of the university's most widely-known and respected scholars. Allen's published work ranged in subject matter from the antiquities of Rome to the society of the Middle Ages and to American slave songs. He had a broad knowledge of language, literature, music, economics, and civics. Prodigious in his writings, he contributed regularly to *The Nation* magazine and was eulogized by his colleague, David B. Frankenburger, as a pervasive influence: "We were not quite certain what we ought to think of the last new book until Professor Allen had been heard from. If a revolution occurred in any quarter of the globe, we turned to him for the causes and conditions that led to it" (*The Aegis*, December 20, 1889, page 250).

Stanley G. Hall, cited in *The University of Wisconsin: A History, 1848–1925* by Merle Curti and Vernon Carstensen, observed that Allen's "work was an 'almost epoch-making modification' of traditional historical instruction and scholarship. It realized to an amazing degree his precept that no histor-



ical fact is of any value unless it helps understand human nature and historical forces" Volume 1, page 347).

Throughout its history, the Academy has been closely linked to higher education in the state. During the early years, three University of Wisconsin presidents served as presidents of the Academy—Chamberlin, Charles R. Van Hise, and Edward A. Birge. Two presidents from Beloit College have been similarly represented—A. L. Chapin and Melvin A. Brannon. More recently, J. Martin Klotsche, chancellor of the University of Wisconsin—Milwaukee; Robert Swanson, chancellor of University of Wisconsin—Stout; and University of Wisconsin System President Katharine Lyall also have held the post.

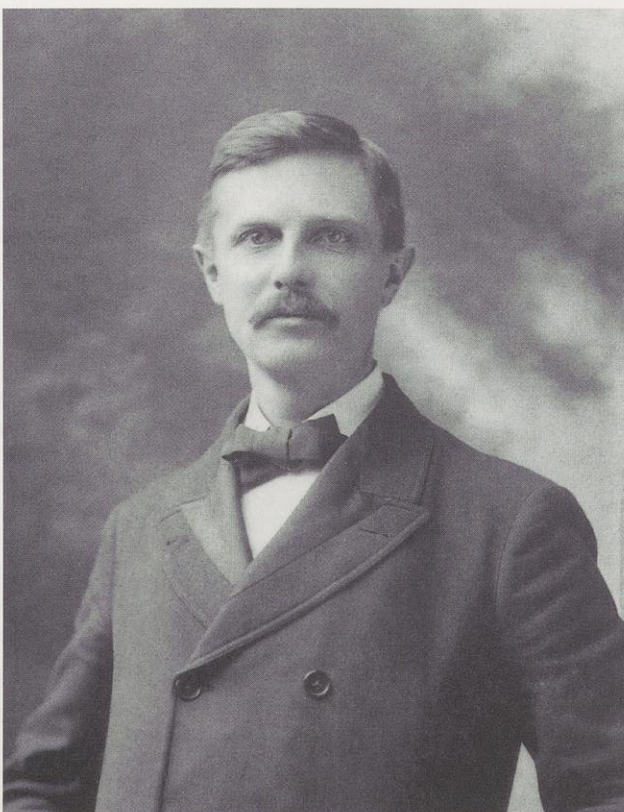
Hoyt's original plan that the Academy serve as the primary focus for research was overtaken by events. Other institutions with broader bases of support and involvement rose to assume that responsibility. Nevertheless, the Academy made significant contributions to the continuing development of the state's cultural and intellectual activities.

Past President A. W. Schorger, in a 1962 *Transactions* article, observed that, "The founding of the Academy was due largely to the efforts of scientists and they have constituted the majority of its members" (page 258). In 1945, the Academy and University of Wisconsin Extension began an academic joint venture that touched thousands of high school students throughout the state. The Junior Academy of Science, composed of science clubs organized in state high schools, encouraged the study of science through regional and state competitions at science fairs. It also published research findings resulting from student experiments and offered scholarships and research and travel grants to promising students.

LeRoy Lee, the Academy's executive director since 1981, was director of the Junior Academy during the 1970s and into the 1980s. The activity continues today as part of the Academy's general youth program rather than officially as the Junior Academy. This focus on education has expanded to working with teachers throughout the state. A recent example of this educational commitment is the Wisconsin Academy's Staff Development Initiative (WASDI), a five-year, \$25 million project which initially is being funded through a \$6 million grant from the National Science Foundation. The program is designed to reach nearly 3,000 kindergarten through twelfth-grade teachers at ten dif-



William Francis Allen (1830–1889) in the library at his home on Langdon Street in Madison, circa 1887. Founder of the University of Wisconsin Department of History, he served as president of the Wisconsin Academy, 1888–1889. Courtesy State Historical Society of Wisconsin.



Frederick Jackson Turner around 1900, before he left the University of Wisconsin for Harvard. Courtesy State Historical Society of Wisconsin.



Original Science Hall building in ruins after the fire of 1884. The Wisconsin Academy contributed its fossil collection to the university in 1892 to replace the Lapham collection of rocks and fossils destroyed by the fire. Courtesy State Historical Society of Wisconsin.

ferent sites across the state. It will offer workshops to assist teachers in developing methods for teaching science, math, and technology.

While science may have been the primary focus during the Academy's first hundred years, the first quarter of its second century has been witness to a considerable widening of the hori-

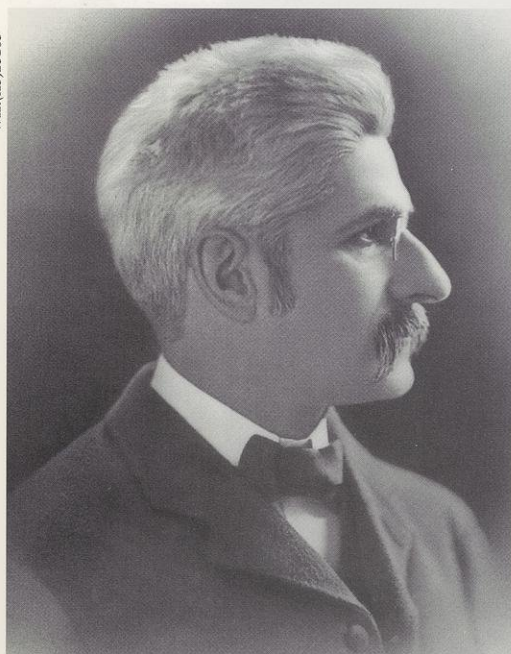
zon. Much of this has been due to the expansion of the *Wisconsin Academy Review*, which regularly features articles on the arts as well as poetry and fiction. In 1993 four Wisconsin poets were profiled; in 1994, the work of four Wisconsin artists was featured in color. In addition, the Wisconsin Academy Gallery serves as a valuable showcase for displaying the work of Wisconsin artists. And the Academy has published volumes of poetry and other publications which feature non-scientific material. With regard to the property of the Academy, the University of Wisconsin has benefitted most directly. When the university's original Science Hall building burned to the ground in 1884, the fire destroyed Lapham's collection of rocks, ores, minerals, and fossils which had been purchased by the state and entrusted to the university. Following the construction of a new Science Hall in 1887, the Academy

voted in 1892 to turn over its collection of fossils to be used for educational purposes, a contribution which proved to be a welcome addition to the university's developing program in geology. A short time later, representatives of the Academy joined others in lobbying for an eventually successful effort to establish the Geological and Natural History Survey.

The publication of *Transactions* has had a significant impact through a journal exchange. This exchange, which began almost immediately after the Academy was founded, has continued to grow in intervening years. The original collection was turned over to the university in 1909, thus enhancing the university's library. Just last year, Kenneth Frazier, director of the University of Wisconsin-Madison General Library System, reported that copies of *Transactions* are now sent to 121 U.S. and 515 foreign institutions while more than 850 titles are received in return. Frazier points out that,

One of the major benefits of this program is that some of the titles provided in exchange for *Transactions* are not readily available from our serial vendors. Many of those from the European Community and Japan which are available through vendors would prove quite costly if we were not able to obtain them through the exchange program (Letter dated August 22, 1994).

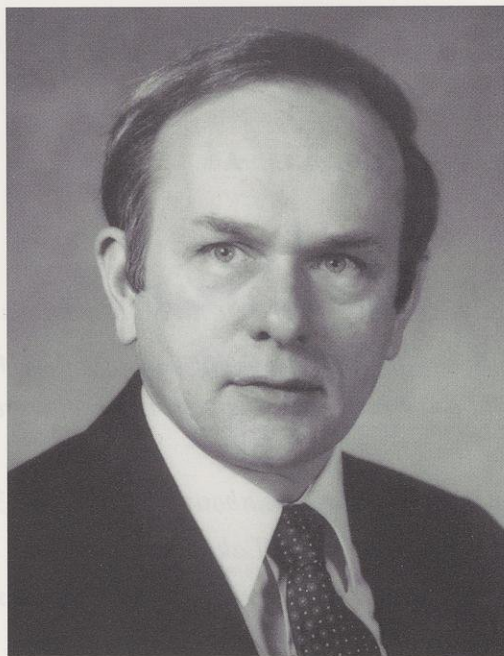
The Academy publications have been incorporated into the general library collection and are identified by an Academy bookplate. A 1992 accounting indicated that the collection consisted of more than 62,000 volumes, valued at nearly \$13 million.



Edward A. Birge (1851-1950), president of the University of Wisconsin, 1918-1925, and president of the Wisconsin Academy, 1889-1890 and 1919-1921. Courtesy State Historical Society of Wisconsin.



Harry Steenbock (1886–1967), biochemist who synthesized Vitamin D, generously endowed the Wisconsin Academy. Photo by Harold Hone.



Robert P. Sorensen, associate director of the Center on Education and Work at the University of Wisconsin–Madison, is the current president of the Wisconsin Academy.

Much of the Academy's largesse in this regard is due to the fact that it had no permanent home for virtually all of its first hundred years. The Academy's quarters initially were rooms in the State Capitol building set aside to house its collections. The base of operations shifted to the university's lower campus area when the Academy library was moved to the newly constructed State Historical Society building in 1900. It took until 1971 for the Academy to obtain its present home, the Steenbock Center on University Avenue.


The building is named after one of Wisconsin's scientific giants, Harry Steenbock. His pioneering efforts in vitamin research led to the discovery of Vitamin D and to its subsequent application in the irradiation of foods to prevent crippling bone disease. When Steenbock died in 1967, he left a generous portion of his estate to the Academy. The gift, which amounted to nearly \$1 million, put the Academy on a firmer financial foundation and provided for the employment of a full-time staff and the purchase of its own building.



Katharine Lyall, current president of the University of Wisconsin System, was president of the Wisconsin Academy in 1990.

Through all of its history, the Academy has benefitted from the leadership and participation of some of the state's most extraordinary citizens. In conjunction with the observance of its semi-centennial in 1920, the Academy struck a special medalion to honor six of its distinguished members—Allen, Chamberlin, Hoy, Lapham, and geologist Roland D. Irving and zoologist William Peckham. Although this form of collective recognition languished for several decades, it was revived in 1982 with the establishment of the Wisconsin Academy fellows program. This program honors "Wisconsin citizens who have made outstanding contributions through their professions to the nation's intellectual and cultural life." To date, more than fifty men and women have been singled out as exemplary representatives of distinguished achievement.



In our present seductive age of media celebrities, it is important to recognize that there is a profound difference between those who are famous for who they are and those who are valued for what they do. The Wisconsin Academy has consistently respected those whose achievements serve as eloquent testimony to the extent of human potential in making meaningful contributions to society and to the world. They have been people who both know *and* feel. 

Increase A. Lapham: A Useful and Honored Life

by Paul G. Hayes

On July 1, 1836, after ten days on a steamboat from Detroit, a clean-shaven young man of small build and quick walk stepped ashore at Milwaukee. His head, large for his body, was adorned with thick, dark hair and his piercing eyes were dark blue. Increase Allen Lapham had arrived at the very frontier of the United States.

Wisconsin's population was about 30,000 in 1836. The Black Hawk War had ended only four years earlier and regular navigation of Lake Michigan had begun only two years earlier. Four days after Lapham's arrival, Congress created the Territory of Wisconsin out of what had been a part of the Territory of Michigan, now that Michigan was next in line for statehood.

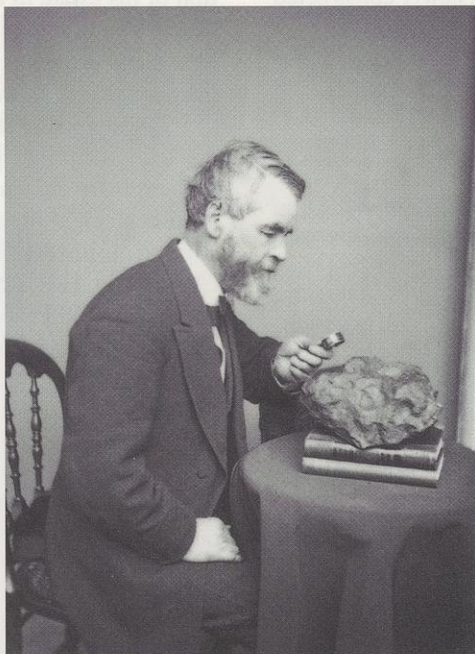
Lapham walked down the dirt streets of a town of fifty houses scattered on either side of the river of the same name. Lots in Milwaukee (or Milwaukie—its spelling seemed to make no difference) were selling for \$500 to \$5,500 each, constituting a land boom that gave the place the aura of a gold rush. Yankee speculators bargained for land within sight of Indians trading pelts for goods. Wigwams of the native Menominee Indians still could be seen from the houses and stores that sprang up overnight.

Lapham was the fifth of thirteen children of Seneca and Rachel Lapham, New York Quakers. When he came to Wisconsin he was twenty-five years old, a self-taught natural scientist and civil engineer who had started from Ohio with \$16 and not much baggage, but with an enormous appetite for knowledge.

He had learned canal building from his father and brother and had been hired by Byron Kilbourn, one of Milwaukee's founders, to be chief engineer for a new Milwaukee company that planned to build a canal from Lake Michigan to the Rock River.

For perhaps the only time in his life, young Lapham was diverted by a lure of fast money. He bought three town lots for \$5,000 on credit, simply to hold them awhile and sell for a

profit. This brief distraction may have cost him, as the Milwaukee land boom dissolved in the panic of 1837. Lapham was never to become known as a sharp businessman, although many of his contemporaries, Kilbourn among them, became enormously wealthy.



Increase A. Lapham (1811–1875), a Wisconsin Academy founder and its first elected secretary. In this photo, Lapham is inspecting a meteorite which was found in Washington County, north of Milwaukee, in 1868. Courtesy State Historical Society of Wisconsin.

The wild shore of Lake Michigan, the nearby primeval prairies, forests, rivers, and lakes soon had Lapham's full attention. Before the year ended, he had published "A Catalogue of Plants and Shells Found in the Vicinity of Milwaukee on the West Side of Lake Michigan," a booklet printed by the town's fledgling newspaper, the *Milwaukee Advertiser*. Not only was this the first scientific publication in Wisconsin, but it also may have been the first in the region west of the Great Lakes and north of St. Louis.

Firsts surround Lapham: He would add to the list the first map of the state of Wisconsin, the first book published in Wisconsin, and the first geological map of Wisconsin.

Meantime, there was much to see and do. In letters to his brother, Darius, he talked of doing "a little botanizing" and he promised: "Sometime I will tell you of the ancient mounds found here, made to represent turtles, bears, lions, etc." He also would take to life in Milwaukee. On

Feb. 25, 1837, even while the panic was under way, he wrote Darius: "I have fresh whitefish for breakfast every day, for I board with a fisherman! Nobody starved in Wisconsin yet!"

The next year, he married Ann Maria Alcott, a Michigan girl he had met while she visited Milwaukee. They settled into a home near what is now McKinley and Third streets, where Lapham had room enough to grow a botanical garden. They were to have three sons, Henry, Seneca, and Charles, and two daughters, Mary and Julia.

The canal project, for which Lapham had been brought to Milwaukee, was to become immersed in delays for a couple of years before everybody realized that railroads would do a better job.

On January 22, 1840, Lapham lectured to the Milwaukee Lyceum, a group of young men intent on self-improvement, on the moral virtues and charms of studying natural science: "There is no life so long as to be in any danger of exhausting them," he said. "There is no condition of life debarred from these pleasures; all may study nature—the poor as well as the rich, old, young, male and female, the ignorant, the learned—all may enjoy the pure and simple pleasures they afford."

Lapham discovered the pure and simple pleasures as a boy. He was born in Palmyra, New York, but the family moved often because his father, a contractor, was in demand at the height of the canal-digging era before railroads. The family temporarily settled in Lockport in western New York, where Increase, only fourteen, went to work for Darius as a surveyor's helper and stone cutter on the Erie Canal. "I found my first fossils and began my collection," he wrote years later.

In 1826 he followed his father to Miami, Ohio, where he worked on the Miami Canal as assistant to Kilbourn. That December, he moved to Louisville to work on a canal around waterfalls on the Ohio River. In Kentucky he began collecting plants for a herbarium that, at death, would contain 8,000 specimens. He walked the woods with Victor Audubon, who was collecting specimens for his father, John James Audubon, the wildlife artist.

In 1827, at age sixteen, Lapham published his first scientific paper. It was an account and description of the Louisville and Shippingport Canal, in Yale's *American Journal of Science and Art*, edited by Prof. Benjamin Silliman. Possibly influenced by Silliman, Lapham aspired to enter Yale University in Connecticut, but could not find the money. His lack of a university education troubled him for the rest of his life, but it did not divert him from his obsession with natural science.

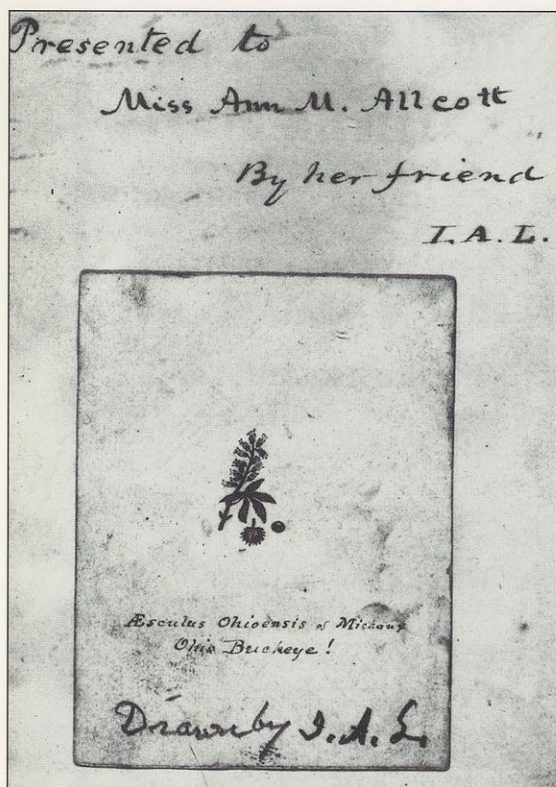
In 1828, he and his brother Darius turned out yet another paper, "Facts and Observations Respective of the Primitive Boulders of Ohio." They had noticed smoothed boulders of greenstone embedded in clay in the banks of canals around Louisville. Lapham surmised correctly that they had been brought there prehistorically from the north, possibly Canada, but he did not know how. So he tentatively ascribed the cause to a great, prehistoric flood.

A
CATALOGUE
OF
PLANTS & SHELLS,
FOUND IN THE VICINITY OF
MILWAUKEE,
ON THE
West side of Lake Michigan.
BY I. A. LAPHAM.
MILWAUKEE: W. T.
PRINTED AT THE ADVERTISER OFFICE.
1836.

Title page from a bicentennial commemorative facsimile of Lapham's 1836 publication.

When Lapham arrived in Wisconsin, he would find on the beach and in the bedrock here precisely the kinds of fossils—brachiopods, corals, cephalopods, trilobites, crinoids, bryozoans, all creatures that inhabited ancient salt-water seas—as those he had picked up as a teenager in Lockport. This enabled him to identify the bedrock as Niagara dolomite, or limestone, a formation that later was proved to lie like a saucer from eastern Wisconsin, under all of Michigan, to western New York state, its western rim forming Door County and eastern Wisconsin and its eastern rim forming the very lip over which Niagara Falls flows. Thus, by luck, the first geologist to live in eastern Wisconsin knew beforehand about the rocks here. This saved time. Lapham knew that the coal under Illinois, Indiana, Ohio, and Pennsylvania was younger rock, and thus it would be foolish to explore for coal here.

He explained this in 1844 in the first hardcover book published in Wisconsin, called *A Geographic and Topographical Description of Wisconsin, with Brief Sketches of its History, Geology, Mineralogy, Natural History, Soil, Productions, Government, Antiquities, etc. etc.* This book and a second,



A presentation note to Miss Ann M. Alcott, his future wife, with a miniature drawing of the flower, leaf, and fruit of the Ohio buckeye tree, circa 1836.

improved 1846 edition not only sold well, but it also was plagiarized by a scoundrel in Buffalo!

The book did as much as anything to attract immigrants to Wisconsin. "The Great Lakes have a very sensible effect upon our climate, making the summers less hot and the winters less cold than they would otherwise be," Lapham reported in his 1844 book on Wisconsin. The modern translation is "cooler near the lake" (or warmer, depending on the season). Lapham's detection of Lake Michigan's effect upon eastern Wisconsin was among many such insights in the book.

He divided Wisconsin roughly into four geological zones: the north, underlain with "primitive" rocks such as granite; a sandstone-dominated district on the west; the mineral district of the southwest, where lead was being mined; and the limestone district of eastern Wisconsin.

Included in lists of animals and plants were lynx, bear, and wild turkey, said to have been seen in Milwaukee County, which then extended west to the center of the territory and south to Illinois. However, several animals already had "been compelled to leave Wisconsin," he said.

"The industrious beaver has left traces of its existence on nearly every small brook; and horns of the elk are still occasionally found scattered over the prairies. The buffalo has but recently been driven beyond the Mississippi . . ." When fur trapping ceased being pioneer Wisconsin's leading industry, the beaver re-established itself and now is a common sight in the

state. Any buffalo (or, correctly, American bison) seen in the state today, however, are wards of zoos or hobby farmers.

Lapham's lifelong interest in weather led him to conclude that Wisconsin's climate was close to that of New York's, although southern Wisconsin was slightly warmer, its corn "tasseling out" about five weeks before New York's. He published a list of dates when the Milwaukee River was closed to navigation by ice from 1836 to 1843, the mean date being November 20.

He described what we now know as the Kettle Moraine as full of unusual kettles and hills and surmised that the irregular surface might have been caused by the erodability of the limestone bedrock underneath.

Likewise, he noted evidence that Lake Michigan once flowed southward through the valley of the Illinois River to the Mississippi. "It is the opinion of some that there was once a barrier across the straits of Mackina (sic) . . ." that would have prevented Lake Michigan's drainage northeastward.

In these last two observations he was struggling for answers, but in his day, the evidence of an age of continental glaciation, or ice age, was not yet recognized. Indeed, there had been a barrier, of ice, that caused our Great Lake to drain southward, but Lapham could not have explained it at the time. Nor could he yet have interpreted the tortured landscape of the Kettle Moraine as the effect of two lobes of the great Wisconsin glacier as they receded.

He described Wisconsin as a healthful, promising place, adding: "For the scientific naturalist, the sportsman and the angler, Wisconsin affords a very interesting and highly attractive field."

The book brought unexpected benefits to Lapham. Naturalists from the East wrote him with further questions. Lifelong correspondence was begun with Asa Gray, botanist at Harvard College in Massachusetts, who wanted examples of Wisconsin plants, and with Louis Agassiz, the Swiss scientist who came to the United States in 1846 and who asked Lapham for samples of Wisconsin fish and turtles. Agassiz had begun work on the theory of continental glaciation, and Lapham probably would learn glacial science directly from its first theorist.

In 1849, a year after the University of Wisconsin was founded, Lapham sent it a collection of more than 1,000 prepared, labeled, dried plants. They represented the beginning of the present university herbarium, which now numbers close to one million specimens and still includes Lapham's contribution, according to Emeritus Professor Hugh H. Iltis, acting director of the herbarium.



As early as 1842, Lapham had written Darius: "One hundred persons, chiefly Germans, landed here yesterday, and we now have a daily average of about 50 immigrants, foreign and domestic . . . We begin to feel much encouraged in the prospect of building up a large city."

Growth, as always, comes with a price. Lapham became alarmed at the speed with which ancient effigy mounds he had begun to study in Milwaukee were disappearing under the plow

and because of urban expansion. In a few years, Milwaukee's mounds had all but vanished.

In 1849, he wrote to the American Antiquarian Society of Massachusetts, proposing to survey the Wisconsin mounds. The society allotted \$500 for expenses, and Lapham set out to travel as far north as Lake Winnebago and as far west as La Crosse, mapping hundreds of mounds in various shapes: panthers, lizards, turtles, and birds.

He amassed an enormous amount of information. To save time, according to Lynne G. Goldstein, professor of anthropology at University of Wisconsin–Milwaukee, he simply wrote his field notes into his daily letters home to his wife and helper, Ann. When Increase was away, Ann took over his routine of recording weather data four times a day, at 6 and 9 a.m. and at 3 and 9 p.m. “I imagine we have your thoughts four times a day,” she chided her husband in a letter. “The observations have not been neglected.”

The work on mounds, *Antiquities of Wisconsin*, was published by the Smithsonian Institution on behalf of the Antiquarian Society in 1855, a book with Lapham's beautiful drawings and maps of the larger clusters of mounds. Lapham noted that many of the mounds were destroyed immediately after the survey was completed. Earlier observers had attributed the mounds to some vanished people, such as the lost tribes of Israel or refugees from Atlantis. Lapham dismissed this as nonsense and correctly declared the mounds to be the work of the ancestors of modern Indians.

Lapham did not spend all of the \$500. He was allowed to keep the balance. Also, he received fifty free copies of the book. That was his compensation for years of work.

Lapham, who always lived near the Great Lakes, was appalled by the loss of life caused by storms. With the advent of telegraph, he realized that shippers could be warned of approaching storms in time to find safe harbor. As early as 1858, he proposed a storm-warning system to C.J. Brydges, president of the Detroit and Milwaukee Railway Company which had opened winter navigation of Lake Michigan between Milwaukee and Grand Haven, Michigan.

In 1859, as an exercise, he charted the origin, path, and speed of a storm that originated in southwestern Texas and hit Lake Michigan twenty-four hours later.

For years he doggedly promoted the idea of a national storm-warning system. In 1869, he wrote a resolution that U.S. Representative Halbert W. Paine (R-Wis.) submitted to Congress, along with Lapham's list of lives lost on the Great Lakes.

Congress approved, and President Ulysses S. Grant organized a weather service, to be run by the Army Signal Corps.

On November 8, 1870, Lapham, sitting in an office in Chicago, coordinated information from telegrams coming in from the West and sent the first official weather prediction in the United States:

Noon. Chicago. Nov. 8, 1870—A high wind all day yesterday at Cheyenne and Omaha. A very high wind reported this morning at Omaha. Barometer falling, with high wind at Chicago and Milwaukee today. Barometer rising and thermometer rising at Chicago, Detroit, Toledo, Cleveland, Buffalo and Rochester. High winds probable along the lakes.

One or two newspapers along the lakes printed the prediction. The results verified the prediction: High winds were reported the next morning from Milwaukee, Detroit, Toledo, and Buffalo, with very high winds at Duluth, Chicago, and Cleveland.

For a short time, Lapham served as assistant to the chief signal officer at a salary of \$2,000 a year. At home, daughter Julia wrote a letter to a brother: “Last Friday, father sent home \$128.03 to be deposited as the first money of any amount he ever received for any scientific occupation (regular salary at least)



Milwaukee in the 1870s, “a delineation by pen and pencil,” from *Picturesque America*, edited by William Cullen Bryant. Appleton and Company, 1872–74. Courtesy American Geographical Society Collection of the University of Wisconsin–Milwaukee Golda Meir Library.

Twentieth-century Thinking from a Nineteenth-century Mind

In a time beset by concern about rain forest exploitation, worry over eventual energy shortages, and a general fear for the long-term health of the natural environment, it is startling to read the following from a pamphlet published in Madison in 1867 by Increase Allen Lapham:

On the question of fuel, we are to calculate by ages of the Earth, and not by the life of man. Fuel will be required so long as man shall inherit the Earth, for his comfort and for his existence. Without fuel, humanity would cease to exist. Viewed in this light, the deposits laid up during uncounted periods of time . . . in the shape of coal, petroleum and peat, and which man is now drawing out and using for fuel or wasting, must be exhausted.

Here is twentieth-century thinking from a nineteenth-century mind. Two insights stand out: that Earth's age is understood to be vast and that the planet's resources of coal, petroleum, and peat are understood to be exhaustible.

Nevertheless, here they are in a pamphlet written and printed in Wisconsin not yet twenty years after Wisconsin became a state and only eight years after the first successful oil well was drilled in the United States, in Pennsylvania, thereby introducing the present petroleum age.

The pamphlet, titled "Report of the Disastrous Effects of the Destruction of Forest Trees Now Going on so Rapidly in the State of Wisconsin," was produced by a three-man commission which presented it to the Wisconsin State Legislature at the height of the cutover of the vast primeval forests of Wisconsin. While it did little to halt the cutting, the message may have hastened the program to replant the cutover lands decades later.

The chairman of the commission and principal author of the pamphlet was Lapham, then fifty-six, of Milwaukee, a pioneer Wisconsin resident, self-taught scientist, and a nationally known expert on botany, zoology, meteorology, horticulture, conchology, cartography, and archeology.

Notwithstanding Lapham's brief schooling and his lack of university training, by 1867 he already had become Dr. Lapham, an honorary doctor of laws from Amherst College in Massachusetts. He also held an honorary life membership in the Royal Society of Northern Antiquarians of Copenhagen, Denmark.

That same year he was president of the State Historical Society of Wisconsin and recently had been president of the board of trustees of the Milwaukee Female Seminary, later to become Milwaukee Downer College, now part of Lawrence University in Appleton.

A writer all his life, Lapham never before had turned out anything in as urgent a tone as the report on forest destruction. Obviously he and others who had experienced

Wisconsin in its undisturbed condition were appalled at the rapacity with which the state's prime resource, wood, was being felled and floated on rivers southward to provide the lumber and fuel for industry and development elsewhere. He was especially concerned because Wisconsin's main source of energy then was wood: Wood heated homes, powered locomotives and steamboats, and fired boilers in factories.

The heartening aspect was that wood was a renewable resource. If every farmer planted a few trees each year, Lapham wrote, Wisconsin would have a constant, never-ending supply of good fuel and building material.

The 1867 pamphlet went into detail about how trees tempered winds, purified the air, enriched soil, modified the climate. It recommended the best trees for cultivation and recommended that shelter belts of trees be planted on farms. It suggested what amounted to a tax exemption for farmland on which trees were grown, a version of which passed the Wisconsin State Legislature as the Forest Crop Law of 1927.

Lapham explained that trees "purify the air by absorbing the carbonic acid gas (carbon dioxide), which, when existing in sufficient quantity, is destructive to animal life, and by emitting, at least during sunshine, oxygen gas," all heady science for the time. "A state that finds authority to regulate the times and seasons when the citizens may catch fish, or shoot game, may certainly assume such as may be needed to preserve the civilization of the present times," the report concluded.

The pamphlet was Wisconsin's first important contribution to the literature of environmental protection, and its message still applies more than 125 years later. Because it was prophetic and because the pamphlet revealed a sophisticated understanding of the relationship between humans and natural resources, the State Historical Society of Wisconsin reprinted it in facsimile a century later, in 1967, just as the modern environmental movement was coming of age. ♦



Drawing of Increase Allen Lapham. From the 1898 National Cyclopedia of American Biography.

and Thursday afternoon I was downtown and met B. He said had been around some of father's friends and collected \$100 to make father a life member of the Chicago Astronomical Society."

At heart a Wisconsinite, Lapham left the Signal Corps post and came home. By this time, he had helped to found the State Historical Society of Wisconsin, the Milwaukee Female Seminary, and the Wisconsin Academy of Sciences, Arts and Letters. He had given a large natural history collection to the German-American Academy, a collection that eventually grew into the Milwaukee Public Museum. (In 1876, after Lapham's death, the legislature would acquire his remaining collection of fossils, minerals, shells, meteorites, and Indian relics for the University of Wisconsin.)

Wisconsin had become home. Once, when he was asked which field of science he specialized in, he responded: "I study Wisconsin."



In 1873, largely as a result of the efforts of the Wisconsin Academy, the Wisconsin Legislature passed a bill calling for a full geological survey of Wisconsin. As a founder of the Academy in 1870, Lapham was serving as its elected secretary and as editor of its prestigious scholarly journal, *Transactions*. On April 10, Gov. Cadwallader C. Washburn named Lapham as state geologist. At last, Lapham was in position to conduct a study that he had long dreamed of, and for the first time ever he could do it on a regular salary and with sufficient staff and support.

He hired three young assistant geologists and set to work. The study was to be not just about bedrock geology; it was to be a comprehensive report on the natural resources of Wisconsin and their potential. Lapham began to process the information almost as soon as it was collected. The 1874 *Transactions* of the Wisconsin Agricultural Society published Lapham's article "On the Relation of the Wisconsin Geological Survey to Agriculture" in which he revealed answers to some old puzzles, including the greenstone boulders of Ohio and the curious kettles and hills west of Lake Michigan. Lapham's paper referred to "the drift phenomena, gleaned from a study of the loose materials covering and concealing the more solid rocks, left here by the glaciers of the Ice Period..."

The geological survey progressed with impressive speed. In January 1875, Lapham reported in a Madison newspaper that one-third of Wisconsin's towns had been checked by the survey, fifty maps prepared, and thousands of specimens collected.

Then, without warning, a month later a catastrophe struck. Lapham received a curt message of dismissal from Gov. William R. Taylor, the Democrat who had succeeded Washburn, a Republican. By an oversight, Washburn had neglected to submit Lapham's appointment to the legislature and so Lapham had no protection. Taylor used the oversight to pay a political debt by appointing O.W. Wight to Lapham's job.

Wight's "sole recommendation for the position was political services, no one having ever heard of him before as

acquainted with geology or any other science," noted an outraged writer for *The American Journal of Science*. Newspapers in Madison and Milwaukee also attacked Taylor for abusing one of the least political, most notable sons of Wisconsin.

The three assistants wrote Lapham a note in which they trusted "that time, which cures all things, will do you ample justice..." One of these, Thomas C. Chamberlin (also an Academy founder), later became chief of the Wisconsin Geological Survey and president of both the University of Wisconsin and the Wisconsin Academy.

Apparently the most accepting of Lapham's shabby treatment was Lapham himself. At sixty-four, he had begun to sense a failing heart. He left Madison but he did not return to Milwaukee, which had been his home for almost forty years. Instead, he moved to a farm on the south shore of Oconomowoc Lake where sons Seneca and Henry and daughter Julia were living.

Driven still by curiosity, he kept collecting, observing, and writing. Two papers were published in 1875, incorporating information Lapham had gathered earlier: "A Catalogue of the Plants of Minnesota" and "The Law of Embryonic Development, the Same in Plants as in Animals."

Two larger projects also occupied him. The United States centennial was to be celebrated in 1876 in a yearlong exposition in Philadelphia, and some of Lapham's colleagues suggested that Lapham's vast collection of Wisconsin minerals, fossils, and shells be sent there as part of Wisconsin's exhibit. He also spent much of the warm weather of that summer in a boat, taking soundings, collecting clams and snails, and observing the fish in many of the lakes of Waukesha County.



On September 14, 1875, according to daughter Julia, Lapham finished a paper called "Oconomowoc and Other Small Lakes of Wisconsin Considered with Reference to Their Capacity for Fish Production" (*Transactions*, Volume 3, 1875-76, pages 31-36). That afternoon, he walked down to the shore of Oconomowoc Lake and set off in a rowboat to do some fishing.

At 6:30 p.m., Lapham, dead of a heart attack, was found lying in the bottom of the boat drifting just offshore, his hand grasping an oar.

Coming so soon after his dismissal, the death of the scholar rekindled public dismay about the way the politicians of Lapham's beloved state of Wisconsin had treated its first genuine scientist. Newspapers ran long obituaries gushing with admiration for Lapham and dripping with apology and anger for the way he had been abused. It was his old friend and lifelong correspondent, Asa Gray, the eminent botanist at Harvard College, who cast Lapham's life in a more appropriate framework.

Gray called Lapham "a modest, retiring, industrious, excellent man. I have the idea that he had a happy, as well as a useful and honored life. What more could be asked?"

H.B. Merrill: Early Wisconsin Scientist and Adventurer

by Merrillyn L. Hartridge

*Oh, I'd love to roll to Rio
Some day before I'm old*

Rudyard Kipling

In 1900 Harriet B. Merrill joined the faculty at the University of Wisconsin as an assistant professor reporting to Dr. Edward Asahel Birge, chair of the university's Department of Zoology. Her experience as head of the science department at Milwaukee Downer College and the years of teaching in Milwaukee high schools had prepared her for this role. She found that her studies in microbiology required more extensive monitoring of a cladoceran in the family Macrothricidae, a study that Birge himself had begun but found little time to research. She had written a monograph on the systematics and anatomy of the genus Daphnia; at the time it was published, she could not have known that it would become a life-long pursuit.

This also was the year that Birge was appointed acting president of the University of Wisconsin, distracting him further from his research. He had begun teaching at the university in January 1876 and was well known among his colleagues. Descriptions of him stress his rather imperious demeanor and disposition. Colleagues remembered his aloof and often brusque manner—he was both disliked and admired. I could find no indication that he gave credit to Harriet Merrill's eventual contributions to science, nor did he appear to give much credit to other male researchers who followed later. In 1902 Merrill had launched a campaign in Madison and Milwaukee to support Birge as candidate for president of the university; in 1903 Charles Van Hise was unanimously elected to the position.



Harriet Bell Merrill (1863–1915), early Wisconsin scientist, was the first woman to hold the position of vice-president on the Wisconsin Academy council. This photo was taken in 1890 when Merrill was twenty-seven, the year she graduated from the University of Wisconsin with a master's degree. Courtesy State Historical Society of Wisconsin.

Merrill's early involvement with Birge—their association and correspondence spanned more than twenty-five years—placed her in the center of science activities both in Madison and in Milwaukee. Birge had used his position as dean of the School of Letters and Science to channel funds to the new limnology program on campus. During these years he was active in the Wisconsin Academy of Sciences, Arts and Letters and director of the Wisconsin Geological and Natural History Survey, and he hoped to use these positions to lure scientists to the study of limnology at Madison. Merrill's active role as his research assistant enabled him to further this work. Her research eventually resulted in an authoritative account on the taxonomy of Cladocera.

The Treasure Box File

Several years ago at the death of my great aunt, Mrs. Nathan Emmons Merrill, several of her cherished mementos were given to me for safekeeping. There were some American Revolutionary period coin silver spoons engraved with the name Emmons, a couple of Victorian vintage napkin rings (one marked "Hattie"), and other family heirlooms. To me, however, the most intriguing of the treasures was a legal box file labeled simply "H.B. Merrill papers." It was filled with postcards from countries foreign to me, old photos of South America, Merrill D.A.R. genealogy papers, and several small volumes bearing H.B. Merrill's name. There was a booklet titled "Ferns of the Dells of Wisconsin—Kilbourn City" with photos and text by Harriet Bell Merrill. A copy of the 1893 *Transactions of the Wisconsin Academy of Sciences, Arts and Letters* gave me the initial clue that Merrill had had a teaching career at the University of Wisconsin.

There were a few other articles pertaining to Merrill's discipline, zoology, but the monograph for her master's thesis titled "The Structure and Affinities of *Bunops scutifrons*" (with drawings), published in *Transactions* (Volume 9, page 319) proffered the mystery as to who or what motivated her to pursue the study of the genus *Bunops*. According to scientists who are still researching the relationships of these particular species on different continents, this is a rare genus. I ultimately discovered that the genus *Bunops* was the primary reason for Merrill's later important research in South America.

The documents in the box file added up to an impressive list of accomplishments for a scholar at the turn of the last century, particularly a young woman who augmented an extensive teaching career with related research in foreign countries and who competed in predominately male academic institutions.

For a person of small physical stature (she weighed 100 pounds and stood five feet tall, according to family records), Merrill showed surprising determination and strength. Some of her colleagues expressed concern for her health, for she had a history of myocarditis. Her brothers—Roger, an investment broker in Milwaukee, and Nathan, a patent attorney in Chicago—were opposed to her going "to a hostile country" without one of them accompanying her. But Hattie Merrill, resolutely determined to follow her own plans, sailed off on her own.

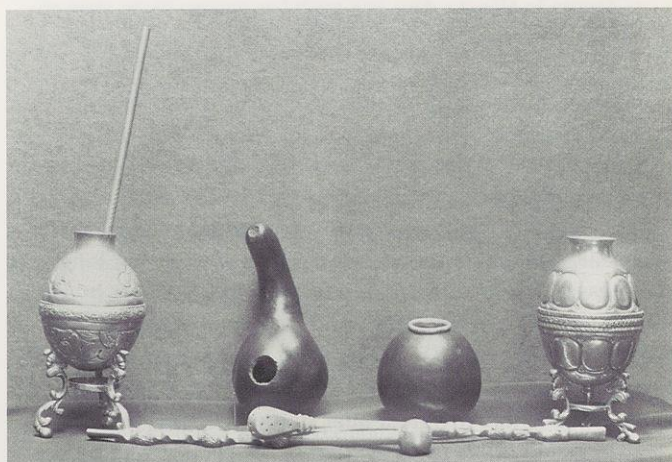
She ultimately made two journeys to South America. The first trip, 1902–1903, was in a sense a tour de force; the second, 1907–1909, was a return to known territory for further study. Both trips were partly under the aegis of the universities where she taught. Letters of introduction gained her entry to university accommodations with access to biological laboratories. In the larger South American cities, she was a guest of American consulates and well established land owners at their *estancias*.



A South American riverboat as shown on a postcard.

This sepia-toned epoch, to which I had been introduced by way of old photographs, compelled me to delve further into the life of H.B. Merrill and become her biographer. She was my namesake, though her life had ended before mine began. All I had previously known of her was from vague references made by my elders about her academic achievements. Except for teachers and nurses, the lives of women in my German grandmother's generation were circumscribed in a routine that revolved around *kinder, kochen, und kirche*. My mother and her sister (Harriet Merrill's nieces, Florence and Elsie Hess) described their Aunt Hattie as

a gentle woman, bright and petite with large blue eyes and a fair complexion which required protection. She often wore a boater, and her small frame was usually encumbered with specimen



Yerba mate cups, bombilla (communal drinking tubes), and other artifacts were brought back to Wisconsin by H.B. Merrill from South America and are now at the Milwaukee Public Museum. Leaves of the holly family were steeped in the cups and used as we use tea or coffee; Merrill learned that the drink was a hunger suppressant.



On the Amazon, a trek to the interior, dated July 23, 1902.

gathering paraphernalia and camera equipment as she tromped about the University of Wisconsin campus and lakes in bulky, high-top boots. Aunt Hattie considered women's shoes inadequate for the rigors of field trips or forays into unknown terrain. She preferred the sure-footed support of men's boots, and they became a trademark.

Merrill was both amused and frustrated when her shoes would disappear as she traveled aboard trains and boats. They were often whisked away by "boot-blacks" who assumed they were men's foot gear. She wrote,

Most people find the low heels and broad soles of this lady's shoes objects of curiosity. It is possible that I could pay my expenses by exhibiting them as a new trend for women (notebooks).

Part of the satisfaction of research is the related reading on the way to uncovering evidence. A book of verse by Rudyard Kipling revealed well-worn pages, as brittle as the leaves of a botanical specimen plucked on an outing one season long past and pressed against a favorite passage: "Oh, I'd love to roll to Rio / Some day before I'm old." This and other volumes of poetry, including an 1852 first edition written by noted English poet and parliamentarian Winthrop Mackworth Praed, were subtle insights into my great-aunt Hattie's persona.

The photo prints from the turn of the century had suddenly become nascent to my biography. A State Historical Society of Wisconsin archivist who examined some of the photos felt that I had inherited a rather rare collection of prints from the period. A further key to their importance was evident from the outset:

On the reverse side of each photo there were handwritten instructions connecting them with articles that were to be published in the *Milwaukee Sentinel*. The text, however, was not with the photos.

The State Historical Society of Wisconsin had transferred newspapers from the early 1900s into microfilm, and I found what seemed to be the complete series of articles written from Merrill's jottings made en route during her research tour in South America during 1902–03. Included with the articles were all of the now familiar photos I had found in the box file!

A young Wisconsin teacher's perceptive accounts of the rampant flora and fauna of South American rain forests and encounters with natives in their villages must have been especially newsworthy just after the turn of the century. Her interests were wide-ranging, and she observed and wrote about customs, politics, labor problems, education, the role of women, business, and commerce as well as the scientific subjects which were her prime interest and her reason for being there. Her travels by steamboat on treacherous rivers, by cog-rail, and on horseback were arduous for a woman traveling virtually on her own.

Rolling Down to Rio

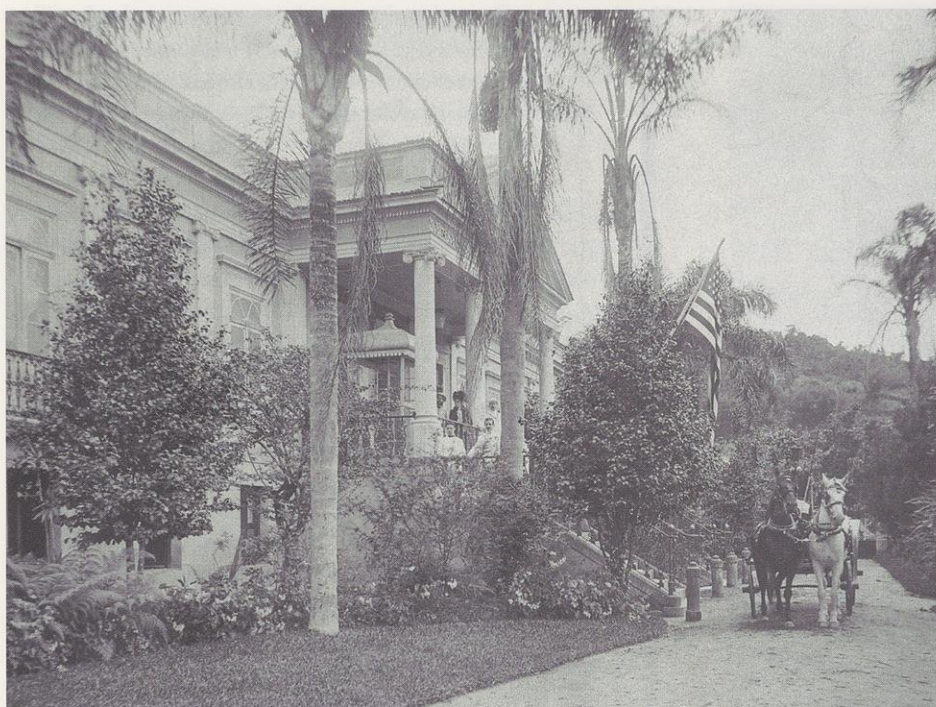
In the early 1900s, due to the predominantly Latin protocol of South American diplomatic societies and among the population in general, a strict dictum was still observed: Single ladies must travel only in the company of a duenna or, better, a male member of the family. From that point of view, Hattie Bell Merrill, the diminutive female teacher, was a conundrum. How the perplexed but fascinated South Americans dealt with her situation made for lively entries in her journals!

Merrill's notes on preparing to leave the midwestern university scene and sail to South America expressed "A release as liberating as loosing the constraints of corset stays and changing to a shift." She carried mainly the essentials for her research: boxes in which to collect specimens for a herbarium, glass slides, and camera equipment. An important part of her baggage were special fishing nets made of fine silk, designed and provided by Birge. She packed one "sensible" suit, a good dress, petticoats ("good insulators"), and her ubiquitous boots. She sailed from New York aboard the *S.S. Byron* on July 15, 1902, and began her notes on day one, most of them in the form of undated jottings:

The journey is long and lonesome as no other craft of any kind is seen for weeks. The ships out of New York are small, and I am really "rolling to Rio" (notebooks).



The *Byron* on which I sailed was supposed to be the best of the line but was dirtier and more uncomfortable than any ship or



Home of American Legation Colonel William Page Bryan at Petropolis, Brazil. March 1903. The Bryan family is gathered at the front.

even the riverboats of South America. Cockroaches (with a long roll to the r) were swarming over the ship. . . . They crawled on my berth and over my head. They got under my pillow, and when I turned it over to the cool side, they scurried away like creatures with guilty consciences, antennae waving like pitchforks waiting to return and impale their victim in the night.

They formed a mosaic in my washbowl. They crawled into my teacup before I could lift it to take a second swallow. The S. American passengers with native pride assured me they are nothing compared to the giant S. American varieties, as large as mice (notebooks).



The Purchase family met me at Rio on Colonel Bryan's launch. . . . Because of the plague, they do not want me to be out. I had a delightful time with them at Petropolis doing the "social act"—a reception at Col. Bryan's, breakfast at Consul Seegers, but Mr. Purchase (with Standard Oil) is concerned. The yellow fever is fatal and the English & Americans steep themselves in whiskey. I go from here to Santos to Buenos Aires on the fifth, come back to Rio and then to Para[guay]. Your mail to me should be directed to the London & Brazilian Bank (letter to Birge from Sao Paulo, July 31, 1902).



Sunsets are beautiful here but strange. The sun hangs in the sky—a great red ball, never setting, just slipping away near the horizon like a phantom, while the atmosphere envelopes us in opalescent tints.

Anchored on a riverboat at night, it is pitch black except for occasional torches from Indian camps. There is an incessant chirping, croaking, and growling of nocturnal creatures (notebooks).



S. America is rich in fossil remains of extinct monsters. In La Plata, the row of glyptodonts down the center approach makes one think of so many pack mules, so common do they seem. I long to bring them back to the North to replace our incorrect models (notebooks).



As you have noted, I have not let the grass grow under my feet. My "fishing" in Sao Paulo has been quite successful. There is also a fine museum there. The director, Dr. H. von Ihering, is the man who sent my samples to Sars. He had all of Sars' papers and I studied them prior to collecting further north than von Ihering has gone (letter to Birge from Buenos Aires, August 11, 1902).



I start Thursday for Asuncion and the Iguazu Falls. I have been told that no more than a half dozen white women have ever seen them. I can't send my photographs from here but am getting a considerable amount of zoological material. . . .

We started out on horseback through dense foliage about 20 miles from the falls whose roar from the cataracts echoed through the forest. Moisture spilled from every leaf end under an eerie green canopy and there was such a tangle of growth as to cause all forms of life to develop into eccentric forms in the struggle for survival.

We continued on foot through barbed barricades of epiphytes and parasites. Underfoot, the Selaginella was equally precarious and I sunk in up to my boot-tops every step of the way. Some tree trunks with 6 in. thorns sticking out in bunches grabbed my clothing and by the time we got to a clearing, I felt I had awakened from a nightmare. At last we reached our destination (notebooks).



Señor Zabellos, who was Argentine minister in Cleveland's time, has been very kind. He has traveled extensively and speaks pleasantly of Milwaukee and the Pfister Hotel. Mr. Vilas must know him. I wish he could be thanked in the name of the university for being gracious to an American. He also gave me an introduction to Governor Lanusse of Misiones and I was royally entertained there. I have eight other letters of introduc-

WISCONSIN ACADEMY OF SCIENCES, ARTS, AND LETTERS.

President,
CHARLES S. Slichter, - Madison.
Vice-President,
HARRIET D. MERRILL, Milwaukee.
CHARLES H. CHANDLER, Ripon.
HAROLD G. SMITH, - Beloit.



Secretary,
HAROLD B. SKINNER, - Madison.
Librarian,
LOUIS KAHLEBERG, - Madison.
Treasurer,
H. W. HILLMAN, - Madison.
Curator,
SAMUEL WHITMAN, - Madison.

Dec. 11th 1891

Dear Mr Birge:-

I do not suppose Miss N. Brown
your answer's letter, but I think you can
understand the situation better if you
it as enclose a copy. He there propose
a petition and if that is what he is going
to do we perhaps best do that and get
in before the next meeting. Perhaps
the Chicago petition is already
in I will try and find out.

Very truly yours

P.S. you received a note from me
yesterday about the letter? I
can't be quite sure that I post-
ed it.

could we not add an name to
the Chicago petition?

tion to guide me into the wilderness. Our own minister, Mr.
Lord at Buenos Aires, has done nothing whatever.

I am not forgetting you and have some things I think will
interest you. I only wish you were here (letter to Birge from
Asuncion, September 18, 1902).



In Paraguay, Merrill met with Salano Lopez, son of
General Francisco Lopez who died in 1870 and was edi-
tor of the newspaper, *La Patria*, in Asuncion:

Senor Lopez is handsome and rather short of stature. As
superintendent of schools, he is knowledgeably conver-
sant about N. American school systems and political
institutions. He has published President Roosevelt's
speeches made last fall and is translating them for his
countrymen. With his keen intelligence, I would not be
surprised if he became dictator of Paraguay . . . (note-
books).



Through the kind auspices of the Consul General
Seeger, I am a guest aboard the same train that is carry-
ing a part of the St. Louis Fair committee consisting of
Mr. Bryan, minister to Brazil, Mr. Buchanan, ex-minis-
ter to Argentina, Mr. Bicknell of the United States
Department of Agriculture, and at least a dozen others.

They have invited me to join them, as a representative
of my country, to their breakfast and dinner meetings.
Other women in my coach were curious as to what pos-
sible interest I could have in men's business or indeed
in the opinions I might offer them. In order to avoid the
dilemma of being one women among my countrymen, I
pretended to be a stranger to them explaining that I
would call on them only in case of great need (note-
books).

During Merrill's second trip to South America,
1908-1909, she was working at the species level, partic-
ularly on chydorids and macrothricids. As a result of her
research, a species from Brazil was named *Diaptomus*
merrilli after her by Dr. Stillman Wright, a student of
Prof. Chancey Juday who, along with Birge and Prof.
Arthur Hasler, developed the limnology program at the
University of Wisconsin-Madison. Prof. Hasler
explained that the importance of these forms of life,
which are less than 1 mm. in length, is their relationship
to the ecology of the earth's bodies of water. The
research which Merrill began continues today.

The Later Years

In 1914 Merrill enrolled in the Ph.D. program at the
University of Illinois. During the period beginning May
22, 1914, until her death from heart failure on April 10,
1915, there are a total of fifty-eight letters from Merrill
to Birge. In addition to informing him of her work—"I
am getting pretty good Cladocera, but they do not live. Lab is
irregularly heated."—she wrote about such matters as national
and campus politics, sports events, her health (about which
Birge expressed concern), student activities and attitudes.



Merrill's photo of a "coolie's" home along a river in Paraguay. The roof is
thatched with banana and other large tropical plant leaves.

The freshmen are as verdant as elsewhere. One instructor reported a quiz question "Discuss metabolism" and got "cell theory" from one and "mitosis" from another. . . . High schools generally excuse from exams, and the effect is very bad (September 23, 1914).



The University this term had an enrollment of 4,400, the largest in its history. President James lectured the faculty on University regulations early in the semester: teachers *must* stand when conducting recitations; all buildings are locked on Sundays, except for the feeding of animals (I shall proceed to grow animals); smoking is forbidden on campus; there is to be no golf on Sunday . . . (September 27, 1914).



This town went crazy over its Minnesota football victory. The student body met the team at 12 today. I do not know what the pious ones did. Wisconsin did rather well to tie Chicago to no score. I told you I am with the undergraduates now. From faculty down this institution hates Chicago University. No one tries to conceal it. . . .

I am sorry you are so driven with administrative work, for one can't do literary work without leisure (November 1, 1914).



I had not realized the [Charles] Allen matter was so serious. McGovern was very cheerful in getting the University into the mess. And I suppose V.H. [Van Hise] is equally cheerful in letting you pull him out. His geological mind works so slowly he would never know what Allen was driving at.

I am sorry it has been so hard on you and so worthless (December 12, 1914).



I went home this noon, not intending to go to my room, but the girls told me the plumbing pipes had burst for the third time since I have been living in the house, and my room and clothes closet flood every time (December 28, 1914).

Her last letter to Birge was written on April 8, 1914, from her hospital bed, two days before her death. In it she expresses regret that due to her illness she cannot attend a dinner in his honor, to which she has been invited by his department. "I wish I could see you. You know the hours here. You can see, I am better today and worse tomorrow . . ."

In the final days of her life she had been inundated with reading material. She especially enjoyed Emily Dickinson's poems, and probably was familiar with "There is no Frigate like a Book \ To take us Lands away." In her lifetime Merrill had been continents beyond Dickinson's sequestered realm. Perhaps during those days confined to her bed she recalled a day at the Sao Paulo Botanical Gardens where she had been a guest of the director. At the time she had written:

Rows of Royal palms and giant ferns buttress this verdant sanctuary, its isles carpeted in verbena and aubrieta cascading down all sides. Enormous tropical butterflies cluster together like flut-

Her Life

Harriet Bell Merrill was the first woman to hold an office in the Wisconsin Academy. She was elected vice president-sciences in 1896, and in 1899 she succeeded Frederick Jackson Turner as vice president-letters, a position she held until her departure for South America in 1902.

Merrill's father, Samuel, had ventured west to Wisconsin from Brunswick, Maine, when the lumber business in Portage County boomed in 1858. There he married Anna Comstock Emmons, a school teacher from upstate New York. Harriet Bell was born in Stevens Point on February 6, 1863, and graduated from the University of Wisconsin *summa cum laude* in 1890 with a B.S. degree; did graduate work at Cornell, Chicago, and Wisconsin universities; and received an M.S. degree from Wisconsin in 1893. She was head of the science department at Milwaukee Downer College (1897–99) where she taught credit courses in general chemistry, organic chemistry, general biology, zoology, vertebrate and invertebrate anatomy, physiology, and psychology. She was director of the physiology and biology departments at Milwaukee's East and South high schools (1890–99); was elected honorary fellow of the University of Chicago (1894–99); did research work during the summer of 1893 at Woods Hole Biological Laboratories (1898–1900); lectured alternately at Cornell, Chicago, and Wisconsin universities in departments of zoology, economics, biology, and botany. She was elected to the Wisconsin chapter of the Natural History Society on October 31, 1901.

She traveled throughout South America collecting specimens and doing other research during 1902–03 and again during 1907–09. She returned to the University of Wisconsin as an assistant professor in zoology and at the time of her death in 1915 she was enrolled in the Ph.D. program at the University of Chicago.

In 1990 a new cabin at Trout Lake Research Station at Boulder Junction was named for H.B. Merrill by the University of Wisconsin–Madison Center for Limnology.

tering masses of bright blossoms—all open to the heavens where colorful species of birds and insects fly unwarily about in a symbiotic paradise.

I keep expecting to glimpse the wire boundaries of this endless "conservatory" and wonder—when will the magnificent specimens be captured and put back in their proper cases in some museum? (notebooks)

After her death, Merrill's brother Roger turned over her professional effects to Birge, who saved her notebooks, various letters, and all of her microscopical preparations. These items were sub-

sequently deposited in a laboratory at the University of Florida and were scheduled to be housed in the archives at Yale when they were diverted to Dr. David G. Frey at Indiana University. Through correspondence with Frey, former Ph.D. student of Dr. Chancey Juday, I asked that the Merrill papers be deposited at the State Historical Society of Wisconsin, and this is where they are today. In all, her notebooks number fifteen, and she assiduously collected more than 700 samples of Cladocera. In addition, many of the artifacts she collected remain at the Milwaukee Public Museum—hundreds of her botanical, zoological, and ethnological specimens are cataloged there.

A woman in her position could inspire her students to explore in their chosen fields of science. Within her own family, she was an inspiration for her niece, Elsie Hess, who in 1920 taught sciences in the University of Wisconsin home economics department and, with her husband, spent several years in dietetic research among the native people of Southeast Asia. Through Merrill's life-long career of zoological and ethnological study and instruction, from the elementary grades to the university level, her enthusiasm for nature's scientific wonders never seemed to diminish. ■

The author is indebted to Prof. Stanley I. Dodson of the University of Wisconsin—Madison Department of Zoology and Prof. John J. Magnusson and Emeritus Prof. Arthur Hasler of the university's Center for Limnology. Annamarie L. Beckel of the university's Trout Lake Station was a valuable resource for verification of E.A. Birge's instructional and research methods. Extensive correspondence with the late Dr. David G. Frey, formerly of Indiana University Department of Biology, was helpful in verifying Merrill's importance to the science.

Lines of poetry are borrowed from "The Beginning of the Armadillos," Just So Stories by Rudyard Kipling (Century Company, 1902) and The Complete Poems of Emily Dickinson (Little, Brown, 1960), edited by Thomas H. Johnson.

Sources

Annual Report (No. 14), Milwaukee Public Museum. 1899.

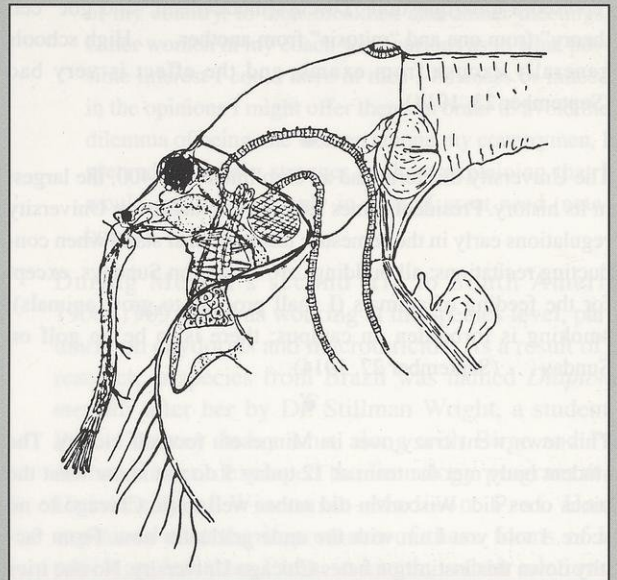
Annamarie L. Beckel and Frank Egerton. *Breaking New Waters: A Century of Limnology at the University of Wisconsin*. Wisconsin Academy of Sciences, Arts and Letters (special issue of *Transactions*). 1987.

Ferns of the Dells of the Wisconsin at Kilbourn City. Burdick and Allen for the Chicago, Milwaukee and St. Paul Railway. Circa 1900.

G.C. Sellery. *E.A. Birge, A Memoir*, with an appraisal of "Birge the Limnologist, an Explorer of the Lakes" by C.H. Mortimer. University of Wisconsin Press. 1956.

Transactions, Volume 9. Wisconsin Academy of Sciences, Arts and Letters. 1893.

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Bunops scutifrons. Head. X 100. a, lens-like body. Drawing by H.B. Merrill. Wisconsin Academy Transactions, Volume 9, Part II, page 342, plate XIV. 1892–93.

"Merrill's paper is excellent. She has detailed observations on the external and internal anatomy, but of greater significance, she has arranged all the genera of the family Macrothricidae according to differences in number of setae on the antennae, structure of the postabdomen, and shape of the antennules" (letter from Dr. David G. Frey to the author, August 1, 1986).

Limnology nomenclature

Bunops scutifrons. A genus/species name applied to tiny freshwater creatures within the family Macrothricidae (see below).

Cladocera. Tiny transparent animals having a single compound eye, commonly referred to as water fleas because of their jerky style of swimming.

Chydoridae. One of the five families of bottom-dwelling freshwater cladocerans.

Daphnia. A genus name for one of the best-known cladocerans. In contrast to the Macrothricidae and Chydoridae families of Cladocera, all Daphniidae tend to be able to swim well enough to remain largely independent of plant and sediment surfaces.

Diaptomus merrilli. A species of minute freshwater copepods which, along with cladocerans, play an important role in aquatic food webs.

Macrothricidae. Bottom-dwelling marine creatures that live on aquatic vegetation or sediments and are able to swim only short distances; one of five families of freshwater cladocerans.

Letter from John Wesley Hoyt, Wisconsin Academy's First President

John W. Hoyt (1831–1912) was born in Ohio and studied both law and medicine. He taught chemistry and natural history at Antioch College and came to Madison in 1857, where for ten years he edited and published the Wisconsin Farmer. During this time he served as secretary of the Wisconsin Agricultural Society and was instrumental in elevating the organization to the status of a state department. In 1859 he invited Abraham Lincoln to Milwaukee to deliver the annual address at the Wisconsin State Exhibition. He introduced Lincoln to the approximately 40,000 people in attendance, and afterwards named him as “the man for next president of the United States.”

In 1862 Hoyt represented Wisconsin at the London Universal Exhibition, and he was the U.S. commissioner to the Paris Universal Exposition, where he became acquainted with the Emperor Napoleon. After traveling extensively, he returned to the United States and prepared a 400-page report on European educational institutions. It was published by Congress in 1870, the year in which Hoyt became one of the primary founders of the Wisconsin Academy and its first president (1870–1874).

In 1878 he was appointed governor of Wyoming Territory, and in 1887 became the first president of the University of Wyoming. In 1891 he moved to Washington, D.C., where he directed his energies toward the promotion of a national university.

The following letter was written during the last year of Hoyt's life.

Washington, D.C.
#5460 39th St.
Feb'y 12, 1911

Mr. Arthur Beatty, Secretary
Wisconsin Academy of Sciences, Arts and Letters
Madison, Wisconsin.

My Dear Sir:

I have been asked to furnish such reminiscences as I can in relation to the founding of the Wisconsin Academy of Sciences, Arts and Letters, as a brief introduction to the celebration of its forty-first anniversary, on the 16th inst.

Barely out of bed, after another of those fearful attacks of brain-congestion which seem to constitute a never-ending

series, consequent on a well-nigh fatal injury in 1885, in Wyoming, I am conscious of such impairment of the memory as to make it doubtful whether I should attempt anything in the way of such reminiscences as those solicited.

I can never forget the difficulty I had in making a beginning—how nearly everybody I approached, while admitting that such an institution, in itself, would be immeasurably useful, thought it yet too early in the history of a new Western State; that an attempt to organize anything that could properly bear so high and comprehensive a title would surely prove a failure, and that, without hesitation or trembling, indeed, with what savored of audacity, I said, substantially, “My conviction is otherwise. One with another is competent to a systematic work in any field of needed service. The State of Wisconsin abounds in riches pertaining to each of the great departments of science, which should be studied and brought to the notice of the world. That much I know already; also, that there are citizens quite competent to this important work, and who will be ready to have part in the proposed organization. I may mention, among others, Drs. Lapham, Hoy, and Hobbins, but they can speak more fully for themselves. Besides, there are citizens, both male and female, in the boundless field of original thought and in sympathy with this movement. Here too is our growing State University, with its agricultural college endowment but lately added; both of them destined to furnish men for the Academy.”

Without being able to give the date of the first meeting called to settle the question of an organization, I remember that it was some weeks before the final action. After many interviews and a wide correspondence on my part with all classes of citizens likely to be interested, the first preliminary meeting was held in the Assembly Chamber of the State Legislature, several hundred being present. Of these, somewhere from one quarter to one third were women, they, however, taking no part save as

listeners. The reason, I suppose, for this absolute silence on their part was that, in Wisconsin, the antagonism to woman suffrage as a political and social measure was at its height. Women sometimes have extraordinary common sense, expressed in extraordinary ways, and this was one such occasion.

The general consensus of the meeting reflected the individual opinions already stated. It was also urged that, if attempted, and no very successful issue secured, it would postpone the realization of such an institution much longer on that account. I plead anew the cause as best I could, persistently declaring that now was the time to begin any such enterprise as would advance the intellectual quality and dignity of the State. I went so far as to plead two very remarkable circumstances. One was that of Christ himself, standing sole and alone as the representative of the highest ethical possibilities, and proceeding to the laying down of his life in verification of his teaching that the highest possible ethical procedure was exactly what the human race needed. I quoted also that remarkable statement by Emerson: "Every revolution was once a private opinion. When it becomes a private opinion again, the revolution is under way,

and nothing can stay it." This use of the word "revolution," as standing for any marked change in public opinion, was characteristic of that master of ideas; and I declared that I stood there as representing the idea that then was the very time to begin this great work, and that there I would stand until some *one* joined me. After much talking, in which there was a very general participation, it was decided that the society should be organized as soon as the preliminaries could be brought about. No committees were formed, and it was left for me to decide at what time and place the meeting should be called for effecting an organization, and who should be specifically invited to attend.

There was but one dissent from this proposed freedom of action on my part, and that was to the effect that no Catholics should be invited to become members. I stoutly defended the rights of the Catholics to participate in such a movement, declaring that, in my judgment, religion, as a sectarian matter, had nothing to do with science, art, or literature; that, however much it might have to do with them, as real religion, yet, when considered as sectarianism, as including or excluding membership in organizations designed to promote these great interests, it had literally nothing to do. I went so far as to say that, if Catholics were excluded, I would have nothing further to do

with the proposed society. To the admission of Catholics there was final though reluctant assent.

Yes, there was one more proviso, courteously but emphatically put forward, namely, that there should be no lady members. This was pretty thoroughly discussed, and as I had for the Catholics, so for the woman I advocated admission; but the prejudice and the practice of separating them from everything considered the highest for men were too pronounced and long standing, and I, with several others of the more liberal of those present, said, finally: "Very well, let it go that way for the present, for their time is coming."

I am positive that the above facts are exactly as I state them, for there is now living one other person then present, with whom I have often talked this matter over, and who has also the most remarkable memory I have ever come across, this person saying to me but to-day: "The facts above stated are exactly what occurred." This person is my wife, who, having been refused membership at first, has not sought it since, though women are now freely admitted.

With reference to the centenary of Dr. Lapham, I regret that I can make no contribution that would be

considered of value, much as I honored him as a geologist; while with regard to Lincoln, whose name you also suggest, I cannot do better than refer you to my reminiscences of him, recently published by the Academy ["Some Personal Recollections of Abraham Lincoln," *Transactions*, Volume 16, pages 1305-1309. 1910].

Regretting more than I can tell you my inability to be present with you this week, and with best wishes for this and returning anniversaries,

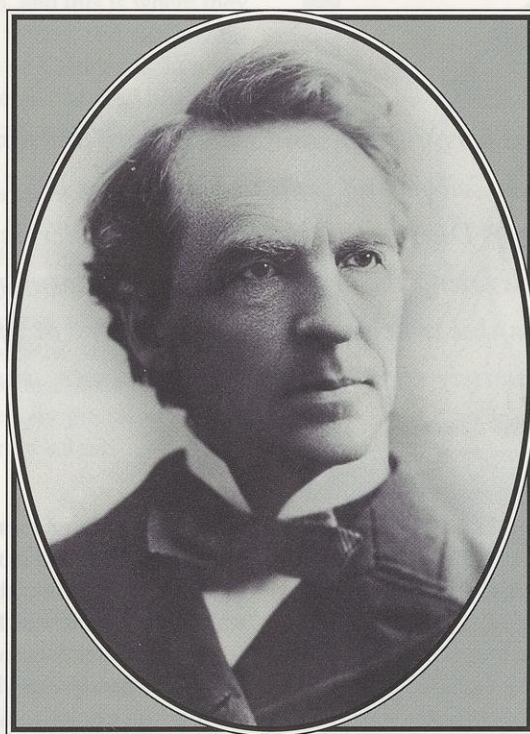
I am, very truly yours,

John W. Hoyt

John W. Hoyt

[P.S.] The Secretary will please do with this paper as deemed proper, eliminating any portions not just suited to the occasion. J.W.H.

The original letter is in the Wisconsin Academy archives at the State Historical Society of Wisconsin.



John Wesley Hoyt (1831-1912), a founder and first president of the Wisconsin Academy. Courtesy State Historical Society of Wisconsin.

The Academy Vision in the Turner Revolution

by Richard J. Daniels

Frederick Jackson Turner, born and raised in Portage, may be the single most important historian in American letters. He not only radically altered the conception of American history, he revolutionized the methodology of historical research. Six years before his seminal address, "The Significance of the Frontier in American History," Turner was elected to membership in the Wisconsin Academy. He was an active member, eventually elected to the vice presidency of letters. The Academy was an important influence on Turner; it is reasonable to believe that his revolution in historiography had as its source the vision of the Academy's founders.

When elected to Academy membership in 1887, Turner was only a graduate student at the University of Wisconsin, but one with extraordinary promise. His revolutionary thought on historiography was publicly expressed five years later as a member of the faculty in *The Aegis*, a university student publication. The article previewed his "Frontier" address of the following year:

When we turn to consider our history from the point of view of America itself . . . at bottom . . . little has yet been done in investigating the part played by the environment in determining the lines of our development. . . . When the geologist, the meteorologist, the biologist, and the historian shall go together hand in hand in this study they will see how largely American history has been determined by natural conditions (page 49).

Turner multiplied the sources of information available to the historian by adding geology, meteorology, biology, and later other disciplines, and thus transformed the method of historical research. From the perspective of the late twentieth century, with the development of the social sciences, Turner's thought hardly seems revolutionary; but

from the perspective of the late nineteenth century it was almost incomprehensible.

The standard study on the origin of Turner's conception of American history is *The Genesis of the Frontier Thesis* by Ray Allen Billington. Billington, who was a senior research associate at The Huntington Library in California (depository for Turner's papers and publisher of the study, 1971), did not overlook the Academy's annual journal, *Transactions*. His research yielded the following observation:

As a member of the Wisconsin Academy of Sciences, Arts, and Letters Turner heard numerous papers by Van Hise and his fellow geologist, T.C. Chamberlin, all couched in environmental terms (page 107).

In the article published in *The Aegis*, as the excerpt above illustrates, the environment is pivotal to the transformation of historiography that Turner advocates.

In juxtaposition to Turner's idea for revolutionizing the method of historical research in *The Aegis*, consider the agenda of a typical Wisconsin Academy meeting. At the meeting which marked Turner's election to membership, for example, he would



Frederick Jackson Turner in his office in the State Capitol in Madison, probably around 1892, the year in which he and Edward A. Birge served together on an Academy membership recruitment committee. Courtesy State Historical Society of Wisconsin.

have heard a paper in literary criticism on "The Imagery of Dante" and another paper in geology on "The Raised Beaches of Lake Michigan." At an Academy meeting in 1890 when Turner read a paper written by his colleague Charles Haskin on United States constitutional history, he heard Charles Van Hise's paper titled "Some Observations on Lake Superior Stratigraphy" during the morning session. In the afternoon session, Turner heard Joseph Jastrow's paper, "Some Generations of Comparative Psychology," and Thomas Chamberlin's paper, "Recent Progress in Correlation and Differentiation of Glacial Deposits."

This mixture of papers in the sciences and letters was the preferred agenda for Academy meetings. This preferred agenda was anticipated in the call for a convention to establish the Wisconsin Academy in 1870. The call began:

An institution of the kind in question would bring into more intimate relations many men, who, though already more or less engaged in *original studies and investigations of various kinds*, accomplish less than they would had they *frequent associations with each other* . . . [emphasis added].

Within this call is an expression of the Academy founders' vision.

Thomas Chamberlin, a founder of the Academy and former president of both the Academy and the University of Wisconsin, gave fuller expression to this vision at a joint Academy and University of Wisconsin convocation in 1920 on the Academy's fiftieth anniversary:

. . . the formal organization of the academy was distinctly broad, and there was a general desire and a definite effort to preserve an appreciative and balanced attitude toward all phases of research and of culture.

By 1890,

The distinctions of departments, that were rather formally defined at the outset, began to fade away, while the departments themselves grew more divergent. A more cosmopolitan spirit arose which made less of subjects and more of method and real intellectual advance.

This vision of interdisciplinary scholarship could have been the source for Turner's idea of historiography. His membership in the Academy came sufficiently early in his intellec-

tual development; he was an active member during this formative period, and the presence of the Academy's vision was apparent to the membership.

Some further relevant observations are provided by Billington in an address at the centennial celebration of the Wisconsin Academy in 1970, published the following year in *Transactions*. The section of the introduction devoted exclusively to the Academy begins and ends as follows:

For a fruitful century the Wisconsin Academy of Sciences, Arts and Letters has stimulated the intellectual currents that elevated the state and its universities to an enviable spot in the hierarchy of the nation's harbingers of civilization. . . . The Academy is to be commended [for] keeping alive the spirit of interdisciplinary investigation in a day when the knowledge explosion threatens to compartmentalize all learning (page 7).

Whether or not the occasion required Billington to indulge in hyperbole in his praise of the Academy, his remarks on Turner in this address are thoughtfully measured. In the section of the introduction on Turner, Billington acknowledges Turner's commitment to the Academy's vision of interdisciplinary scholarship:

. . . Frederick Jackson Turner, a long-time member of the Academy, . . . more than any other historian of his day sought to popularize its [the Wisconsin Academy's] ideals and utilize the approaches that it advocated (page 7).

Billington later observes

. . . that Turner's immersion in the interdisciplinary atmosphere of the Wisconsin Academy helped broaden his interests to the everlasting benefit of historical scholarship (page 12).

The acknowledgment supports the assertion that the Academy was a source of influence while the observation appears to paraphrase the assertion itself. However, the observation requires interpretation.

Referring to Turner's education at the University of Wisconsin under the tutelage of history professor William Francis Allen, Billington specifies the meaning of the phrase, "the everlasting benefit of historical scholarship":

This early training inclined Turner toward the interdisciplinary approach to history, but I like to believe that his resolutions were



William Francis Allen, Turner's mentor and noted historian. From *Transactions*, Volume 8 (1888-1891).

.....
*Allen's direction of Turner was
 part and parcel of the
 Academy's vision.*

Turner's Times

In 1887, six years before he delivered his famous address titled "The Significance of the Frontier in American History" at the World's Columbian Exposition in Chicago, Turner was elected to membership in the Wisconsin Academy of Sciences, Arts and Letters. His election occurred at the Eighteenth Annual Meeting of the Wisconsin Academy in Madison the same year in which his mentor, William Francis Allen, a professor of history at the University of Wisconsin, had been elected the sixth president of the Academy. Allen was considered such an important member of the Academy his image was cast with Thomas C. Chamberlin and four others on the Academy's fiftieth anniversary commemorative medallion (see back cover).

Turner entered the University of Wisconsin in 1880 and received his bachelor's degree. His master of arts degree was completed in 1888, the year after his election to Academy membership. Turner attended Johns Hopkins University in Baltimore, receiving a doctoral degree in 1890. However, before completing his doctorate he returned to a professorship at the University of Wisconsin in 1889, made available by the death of William Francis Allen. He was elected to the Wisconsin Academy's office of vice-president of letters in 1896.

Except for a brief stint as a journalist and his doctoral study at Johns Hopkins, Turner was associated with the University of Wisconsin from 1880 until 1910 when he accepted an appointment at Harvard. He was an active member of the Wisconsin Academy until his departure for Harvard, after which he remained a corresponding member of the Academy until his death in 1932.

A Chronology of Turner as Recorded in *Transactions*

The Wisconsin Academy's annual journal *Transactions*, printed continuously since 1872, provides a valuable glimpse into the level of Turner's participation in the Academy during his active membership and a basis for the assertion of Academy influence on Turner's method. The proceedings of annual conferences and reports of other academic meetings were printed in the journal during this period. Turner's name appears with relative frequency from 1887 until 1899.

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| <p>1887 Elected to membership in the Wisconsin Academy of Sciences, Arts and Letters, 18th Regular Annual Meeting, Volume 7, page 267</p> <p>1890 Read C.H. Haskins's paper titled "The Eleventh Amendment to the Constitution," 21st Regular Meeting, Volume 8, page 409</p> <p>1891 Appointed to New Members committee with Professors Birge and King, 22nd Regular Meeting, Volume 8, page 413</p> <p>Read Kate A. Everest's paper titled "Early Lutheran Immigration to Wisconsin," Volume 8, page 415. Her paper was later published in <i>Transactions</i>, Volume 8, pages 289-298</p> <p>1892 Listed as Active Member, Turner, Prof. F.J., Volume 8, page 428</p> <p>1893 Dissertation from Johns Hopkins University titled <i>The Character and Influence of the Indian Trade in Wisconsin</i> listed in the inventory of the Wisconsin Academy Library, Volume 9, page 123</p> <p>1894 Discussed with Charles Van Hise and Orin Grant Libby, Libby's paper titled "The geographical distribution of the vote on the ratification of the federal constitution (1787-88)," 24th Annual Meeting, Volume 10, page 580</p> <p>1895 Read paper titled "State making in the West, 1774-89," Third Summr Meeting, Volume 11, page 549</p> | <p>1896 Discussed with C.H. Chandler, John G. Gregory's paper titled "The qalification of voters," 27th Annual Meeting, Volume 11, page 561</p> <p>Read paper titled "The projected French expedition of George Rogers Clark against Louisiana," Volume 11, page 561</p> <p>Elected to three-year term as Vice-President of Letters, Volume 11, page 562</p> <p>1899 Listed Vice-President of Letters, three-year term, Volume 12, Part II, page 562</p> <p>1901 Listed as Active Member; Director of the School of History and Professor of American History, University of Wisconsin, Volume 13, Part II, page 641</p> <p>1903 Listed as Active Member; Professor of American History, University of Wisconsin, Volume 14, Part II, page 715</p> <p>1910 Listed as Active Member; Professor of American History, Harvard University, Volume 16, Part II, page 1332</p> <p>1914 Listed as Corresponding Member; Professor of American History, Harvard University, Volume 17, Part II, page 1388</p> <p>1925 Listed as Corresponding Member; Turner, Frederick Jackson, 2214 Van Hise Ave., Madison, Volume 22, page 434</p> <p>1933 Listed with six other members of the Academy who had died during the past year: F.J. Turner, Mar. 15, 1932, Volume 28, page 401</p> |
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strengthened by the intellectual environment of Wisconsin provided by the Academy of Sciences, Arts, and Letters (page 12).

Billington attributes to the University of Wisconsin and William Francis Allen the influence of directing Turner toward interdisciplinary scholarship. He then delimits Academy influence on Turner's seminal idea of historiography. The Academy was not a source for Turner's approach to historical method, rather it "strengthened" Turner's resolve in his own approach. Allen, however, was not only a member of the university faculty, he was an early and highly active member of the Academy. He rose to the Academy presidency the very day before Turner was elected to membership. Allen's direction of Turner was part and parcel of the Academy's vision.



What has been overlooked in the consideration of an Academy influence is Turner's rhetorical training at the university. Within this training lies that which can provide the link between the Academy's vision and Turner's revolution. Turner's education at the University of Wisconsin included the study and practice of rhetoric and oratory. Indeed, he distinguished himself both as a speaker and writer. He won both oratory and essay contests as an undergraduate. After graduation, a teaching appointment at the university in rhetoric and oratory enabled him to pursue a master's degree in history.

Turner was a stylist thoroughly trained in the figures of speech. His "Frontier" address elegantly attests to this. A classical figure of speech is synecdoche—the substitution of parts for wholes or wholes for parts of things. This rhetorical figure, among others, is employed in his "Frontier" address; and it is this figure that provides the link. Turner substituted the Academy's vision of scholarship-in-general as interdisciplinary for the particular discipline of history and the method of historical research. For a stylist such as Turner, it would have been an almost natural movement of thought to substitute the idea of the whole for a part.

This is not to cast Turner's revolutionary idea of historiography into a rhetorical figure, but rather to identify the intellectual means that finally accounts for his original turn of thought. Furthermore, to assert that the vision of the Academy's

founders may have been the source for Turner's revolution does not in any way diminish his originality. Turner's inventiveness can only be an object of admiration.

The University of Wisconsin as well as the State Historical Society of Wisconsin were without doubt important influences

on Turner. The university exerted a formative influence. Turner entered the University of Wisconsin in 1880 as a student and left thirty years later as a professor with only two relatively brief absences. His course of study and teaching assignments alone would have been of considerable influence. Yet the Wisconsin Academy and the university in the late nineteenth century were, intellectually, polar opposites. Where the policy of the university worked to free its faculty from having to teach multiple subjects and to enable them to specialize, the vision of the Academy worked to free its members from disciplinary constraints and to generalize. The State Historical Society, according to James Danky in his bibliographic note in *Frederick Jackson Turner: Wisconsin's Historian of the Frontier*,

was intimately involved with . . . Turner from the beginning. The richness of the collections at the Society . . . provided the sources in which Turner grounded and tested his ideas. The provision of an office for Professor Turner was but one of many examples of the

close relationship between the great university and its equally celebrated library (page 65).

The State Historical Society was a supportive influence.

Among these other great Wisconsin institutions of the nineteenth century and their influence on Turner, the Wisconsin Academy may distinguish itself as having contributed significantly to his revolutionary idea of historiography. The wisdom of the Academy founders in their endeavor to create a "cosmopolitan spirit" which makes "less of subjects and more of method and real intellectual advance" may not have been simply the source of inspiration, but the very source itself for a young graduate student in history about to embark on a career of study which would change forever the way American historians engage their subject. ♣

FREDERICK JACKSON TURNER

Wisconsin's Historian of the Frontier

Edited by MARTIN RIDGE



Special centennial publication of writings by and about Frederick Jackson Turner. State Historical Society of Wisconsin, 1993.

My Friend Bernard Milofsky and the Pro Arte Quartet

by James F. Crow

"Over and over, and over and over, and over and over. Endlessly . . . Until I think I can stand it no longer . . .

We rehearse again tomorrow, the same place, the same music, the same cruel obstacles.

We record today. Forever, forever and ever descending generations will hear me. Over and over they will play the records, over and over, with scores in their hands to check every note . . . and if I miss a note, or play badly, or even a little badly or even a tiny bit badly, they will know and sneer.

Oh, Otto—do not, do not insist that we play from memory. It frightens me so. It is so difficult to remember a viola part, the counterpoint, the harmony. And the crazy disharmonies of the modern music! Thirty-nine quartets have I memorized so far, and fear seeps into my being with every one. I do not know what it is to live without a score, when I eat, when I sleep."

These quotes come from the diary of Andrea Dante. Andrea is a character in *The Fiddlers Four*, a novel by my friend, Bernard Milofsky. A member of the Pro Arte String Quartet in its earlier days at the University of Wisconsin–Madison, Bernie was a tragic victim of multiple sclerosis, which cut short his performing career. He then combined his musical experiences and writing skills in a novel—about a string quartet. It was never published and Bernie, doubly disappointed, lived on for almost half a century. For much of that time, he was bedridden.

The Pro Arte Quartet, Bernard Milofsky, and *The Fiddlers Four* are thoroughly intertwined. This is the story.



The Pro Arte Quartet in 1929. Left to right: Alphonse Onnou, Robert Maas, Germain Prevost, and Laurant Halleux. Courtesy Library of Congress.

The Original Pro Arte Quartet

On May 10, 1940, Hitler's armies invaded Belgium. That day the renowned Pro Arte String Quartet was to give a concert in the new Wisconsin Union at the university in Madison. The concert went on as scheduled and consisted of three favorites, Beethoven's Rasoumoffsky quartets, opus 59. Of the four musi-

cians, three were Belgians, now suddenly men without a country. The fourth was British, filling in for the regular cellist who had been detained in Belgium.

University of Wisconsin President Clarence Dykstra spoke from the Union Theater stage to break the news of the German

invasion and to say further that he would make every effort to find a home for the ensemble as "The Pro Arte Quartet of the University of Wisconsin." Thus Wisconsin became the first major university to have a string quartet in residence, and it had gotten one of the finest.



The regular members of the Pro Arte—violinists Alphonse Onnou and Laurant Halleux, violist Germain Prevost, and cellist Robert Maas—had played together since World War I. By the outbreak of World War II the quartet was at the height of its fame. Bartok had dedicated his Fourth Quartet to the group, and other composers eagerly wrote compositions for them to perform. Today, classical music stations still broadcast recordings from this period.

The musicians now looked forward to a happy continuation at Wisconsin, once the bloody war was over and they could be reunited with their families. Although the quartet had performed at the university the year before that fateful Beethoven concert in 1940, the original four never played in Madison after beginning their university affiliation. When they left Belgium for their American tour in February 1940, Maas was too ill to go along. For some time he had had a painful jaw infection, which bothered him greatly although he continued to play. The malady turned out to be acti-

nomycosis, a fungus infection. He was replaced for the tour, including the Madison concert, by the distinguished British cellist, C. Warwick Evans. Evans was then living in Hollywood following the breakup of the London Quartet, of which he had been a founder, and was delighted to join forces once more with a world-class chamber ensemble.

By the summer of 1940 Maas was cured and ready to rejoin his long-time colleagues, but he had trouble getting exit documents from Belgium, then occupied by the Germans.

Furthermore the United States Immigration Service apparently confused his actinomycosis with foot and mouth disease. As a result, the man widely regarded as the world's best chamber cellist spent the World War II years playing in Brussels cafes, as he had done during World War I.

Maas finally came to the United States in the fall of 1945 but did not

rejoin the Pro Arte Quartet. Instead he accepted a superlative offer from a wealthy patron to organize his own quartet, with matched Stradivarius instruments and colleagues of his own choosing. The new group was called the Paganini Quartet, so named because one of the instruments had once belonged to the great virtuoso. The quartet was immediately popular. But Maas's career was cut short; he suffered a fatal heart attack during a concert in 1948.

Meanwhile the Pro Arte had suffered another setback. In August of 1940 its first violinist and leader, Alphonse Onnou, was found to have leukemia and died within three months. The two remaining members of the original group tried to continue with substitutes for Onnou and Maas. A succession of cellists followed, with one after another being drafted into the armed services. Moreover, the players had to adapt to a new first violinist, who quite naturally tried to put his stamp on the quartet, with mixed results.

Increasingly discouraged, the second violinist, Halleux, left Madison to play in the RKO studios in Hollywood, undoubtedly making more money. Yet Halleux never felt comfortable with the Hollywood milieu. He joined the Los Angeles Philharmonic and played in three different string quartets. Eventually he retired to his Belgian homeland. Halleux was replaced in the Pro Arte by another Belgian, Albert Rahier.



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*Wisconsin became the first major
 university to have a string quartet
 in residence, and it had gotten
 one of the finest.*



The quartet at the time Bernard Milofsky was a member. Left to right: Albert Rahier, Milofsky, Ernst Friedlander, and Rudolph Kolisch. Courtesy University of Wisconsin-Madison Archives.

In 1944 the quartet started in a new artistic direction with the recruitment of the Viennese violinist, Rudolph Kolisch as first violinist. With this move, the Pro Arte took on a new life. Kolisch was close to Schönberg, musically, intellectually, and genealogically—his sister was married to the composer. In the 1920s Kolisch had formed his own quartet, noted especially for two things: playing entirely from memory and premiering new music. The Kolisch Quartet gave the first performances of Schönberg's Third and Fourth quartets and Berg's *Lyric Suite*, and Bartok's Fifth and Sixth quartets were dedicated to the group. Kolisch's quartet broke up in 1939 because they could not make a living as quartet players, and his musicians joined symphonies. He tried to form another quartet, but without much success. So the Madison offer was most opportune.

With Kolisch in Madison, the Pro Arte consisted of two Belgians and two Viennese. The second Austrian was cellist Ernst Friedlander, who had been chosen earlier, partly because he was not subject to the draft. Kolisch was never satisfied with Friedlander; he wanted Maas. Nevertheless, the critics liked the new lineup. Olin Downes of *The New York Times* wrote, "... the Pro Arte has gone Viennese. It has exchanged the Gallic style of execution for Central Europe without any loss of excellence." The quartet was in its second period of greatness.



In 1947 violist Prevost resigned from the quartet and followed Halleux to Hollywood where he became a studio musician for MGM. Like Halleux he joined the Los Angeles Symphony and played in various chamber groups. He also gave a series of recitals with young Andre Previn. Nevertheless Prevost's heart remained with the Pro Arte. A generation later he still welcomed the quartet, who played in his home whenever they were in California. After his hearing deteriorated, the players would arrange themselves around him to focus the sound. Prevost died in 1986 at the age of ninety-five, the last of the original Pro Arte group.

Milofsky Joins the Pro Arte Quartet

Prevost's replacement was my friend Bernie Milofsky. A *wunderkind* from Baltimore, Milofsky had soloed with the National Symphony at age twelve. He graduated from Peabody Conservatory and the Curtis Institute. He played with Stokowski's Youth Orchestra, with symphonies, and with various New York groups; he played "gigs" at Radio City Music Hall. He also played in a Kolisch string quartet and found that

he and Kolisch had much in common. Milofsky admired Kolisch's thorough, analytical approach to music. They shared an interest in chess and spent many hours over a board. Both were highly intelligent and widely read, and both had retentive memories. Kolisch remembered musical scores; Milofsky remembered countless anecdotes and jokes, of varying degrees of ribaldry. (His friends often wished his memory were not quite so good!)

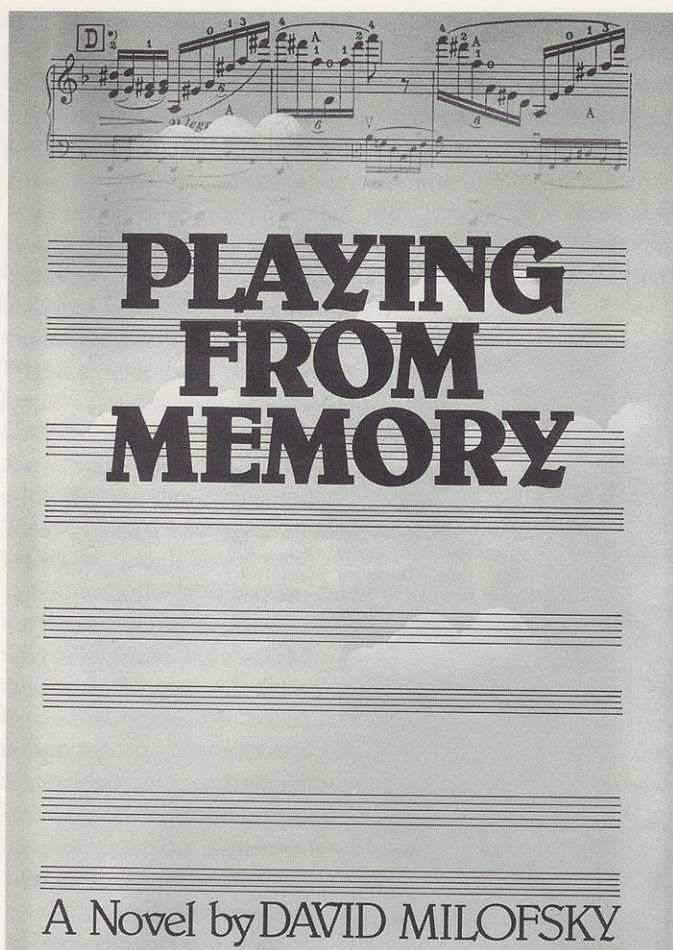
Prodigiously talented, Milofsky was a virtuoso performer on either violin or viola with a facile, Paganini-like technique. When he was appointed to the world famous Pro Arte Quartet, he was pleased to again be playing with his hero, Rudolph Kolisch. He had achieved the highest success that a chamber violist could hope for. At the time he joined the quartet he was generally regarded as one of the best, if not *the* best, of the up-and-coming American violists. This is

documented in his recording of Stravinsky's *Elegie*, a composition with a Pro Arte connection. Stravinsky, who frequently visited Madison, wrote the work in honor of the quartet's violinist, Onnou, and it was first performed by Prevost.

Bernie enjoyed company and conversation, and he liked records. I particularly remember one evening soon after the new Juilliard Quartet had recorded the complete Bartok quartets. We listened to all six of them in a single evening. The playing was brilliant, Bernie was enthusiastic in his admiration for both the compositions and the performance, and the evening was emo-



The quartet, 1976–1988. Back row: Norman Paulu, Parry Karp. Front row: Richard Blum, Martha Blum. Courtesy University of Wisconsin–Madison Archives.



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*"No one but me knew how bad I was,
and that was humiliating. It got so I hated
to pick up my fiddle. I'd skip rehearsals and
come at the last moment for concerts.
And when they'd ask why, I'd beg off
because of the disease."*

Playing From Memory by David Milofsky

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tional and rewarding. But it was also long, for inserted between each pair of recorded quartets were several of Bernie's stories.

Bernie Milofsky's new dream career didn't last long. I met him in my first year in Madison, his second, and he soon told me that he had multiple sclerosis. For the first three or four years the effects were not noticeable in his playing, although there were changes in his gait. The disease progressed in a maddening way, not gradually, but in spurts. There were periods of weeks or

months in which his playing was as great as ever. Then there would be a sharp deterioration and his playing would suffer in small ways noticeable to the musical *cognoscenti*. The situation was nerve-wracking, not only for himself, but for the other quartet members, who never knew what to expect. Nor did he. And I suspect that such uncertainties exacerbated the deepening personal differences within the group.

Realizing that his playing future was short, Bernie started taking courses to complete a university degree. He was bright, but irascible. He loved to tell about his classroom experiences. His algebra class, with its naive teaching assistant considerably younger than he, provided him with a new anecdote after every class. With his brusque manner, lack of inhibition, and outrageously rude sense of humor, he was a severe trial for his teachers, especially the younger, less secure ones. One inexperienced teaching assistant in zoology tried to show Bernie the anatomy of a clam. She pointed to a structure and told him it was the liver. "Prove it," he demanded. In the same vein he loved to complain about the perversity of microscopes, which he regarded as instruments of torture. He shared James Thurber's inability to distinguish flickering microscopic cilia from his own eyelashes!

More significantly, however, and of greater influence in his later life, he took writing courses and began to work on a novel.



Multiple sclerosis is a mysterious disease. Jacqueline DuPré, the great cellist married to Daniel Barenboim, was a victim. Another was Claude Carlson of the Stradivarius Quartet. It's almost as if the disease had a diabolical preference for string players. Symptoms usually begin in early adulthood, in the twenties or thirties. As it progresses the disease eats away at the myelin, the tissue that surrounds nerve fibers. The situation is like removing the insulation from electric wires, leading to inappropriate cross-circuiting and mixed signals. The cause is unknown, although it is clear that the immune system goes awry, seeming to attack normal body cells as if they were foreign invaders. The symptoms are varied: muscle weakness, loss of balance (Bernie once fell while leaving the stage), lack of coordination, loss of sensation, and problems of bladder control (troublesome but providing an entre for his sardonic humor).

A cause of great psychological distress to those with multiple sclerosis is that, added to the certainty that things will get worse, is the uncertainty as to when and how this worsening will be manifest. Of course Bernie knew this, for he read all he could find about the disease. He was difficult and often deliberately insulting, perhaps as a consequence of his devastating life. If so, certainly understandable.

Multiple sclerosis is now being studied intensively. A new international journal devoted solely to the disease has recently appeared. We can confidently expect to have a much deeper molecular understanding of the condition. But the transition from detailed molecular understanding, which will probably come in the near future, to effective prevention and treatment is likely to be long and discouraging.

What did Bernie do after being confined to a wheel chair? He played chess, often by correspondence. He read. He watched television. He conversed with anyone within range. He taught a few students, including at least one member of the Milwaukee Symphony. But his major interest was the novel, *The Fiddlers Four*, which he had started earlier.

The Fiddlers Four

Of course Milofsky's novel is about a string quartet, the Casa Bella Quartet. It consists of a man and three women and, inasmuch as this is a novel, their sex lives are interlaced and complicated: It isn't a love triangle, it is a multi-edged polygon! There is a great deal about string quartet playing in the story, and there is cruelty and violence (though not as much as in *Tosca*). For those who indulge in pop psychologizing, there are enough neuroses to stuff a psychiatry handbook.

The main character is Marcus Aurelius Otto, clearly modeled after Kolisch, "a graduate of the University of Vienna, an authority on the Chaldean language, a mathematician, an extremely talented painter, and a member of the national chess team." Otto quotes Rilke. Like Kolisch, he has a photographic memory—he memorized the Canadian rail schedules—and insists that his quartet play from memory. The others don't find memorizing as easy as Otto does, and this adds to their nervousness. (In real life, this must have been stressful for the members of the Kolisch Quartet. The practice was discontinued when Kolisch joined the Pro Arte in Madison.)

For musicians there are many tidbits, such as reference to the practice of sandpapering too-thick calluses on the playing fingers. There is disagreement over glissandos and advice on how to make them less obtrusive. There is description of how an alert orchestra ignores an incompetent conductor and plays with the soloists. There is a colorful description of the enormous union hiring-hall in New York.

Among his other attributes, Kolisch enjoyed a remarkably exact sense of tempo. This prompts a wonderful passage in which Otto, in a spate of anger, observes his rising pulse rate. At each stage he identifies the speed by its being the same as the metronome marking in a quartet movement. Otto has no use for the music of Ernest Bloch. (I remember Kolisch's disgust at a Madison concert when Isaac Stern played

the Max Bruch G Minor Concerto, with piano. Kolisch stage-whispered that the Bruch concerto should never be played, but if it has to be, let it be with orchestra. For Kolisch, and therefore for Otto, music was either main line, from Haydn through Beethoven to Schönberg, or not to be played by serious musicians.) A turning point in the novel occurs when Otto, the man with the perfect memory, has a lapse and misses five notes in the Brahms Double Concerto.

Unfortunately, musical details and memory lapses are not the stuff of best sellers. But this is also a psychological study of a string quartet, the world's finest, that comes to pieces with a death and sexual mixups. And there are interesting characters. There is Olga Hallant, an enormous woman who handles the cello as if it were a toothpick and annoys the others by grunting as she plays. A discerning ear could hear the grunts on some of the recordings. (The Pro Arte was once joined by a grunting cellist. Was this Bernie's source?) Olga also keeps the cello endpin very sharp, pock-marking floors in several cities. Late in the novel the sharpened endpin becomes a handy lethal weapon.

Another character is Maia von Eber, a gifted violinist who insists on wearing an ermine neckpiece to hide the "fiddle marks" under her chin. There is Andrea Dante, a brilliant, mute violist. She permanently injured her vocal chords with a too-large viola in early childhood. Being mute she communicates by imitating human sounds on the instrument. While Maia caricatures playing styles of famous violinists, Andrea imitates their voices. Andrea is the cement that holds the quartet together, a sensitive personality and one of Milofsky's best



The quartet at present. Left to Right: Parry Karp, Sally Chisholm, Norman Paulu, and Jae-Kyung Kim. Courtesy University of Wisconsin-Madison School of Music.

characterizations. She loves music but hates rehearsing and public performances. (Could this be autobiographical? In his later life Bernie often claimed that he hated the life of a professional.) Andrea dies early—murdered, we discover late in the book—and from then on the quartet is on a downhill slide.

The remaining three musicians try to continue as a quartet including piano with Thede, the beautiful wife of the quartet's manager. But Thede annoys them with her flamboyant style and by playing too loud and using too much pedal, for which she is adored by the public and praised by critics. A moderately good pianist, she is a virtuoso seductress and the final ruination of the Casa Bella Quartet. In an explosive ending, all their vices emerge.

In the end Otto is no paragon of virtue. I must not fail to emphasize that Otto is modeled after Kolisch only as regards musicianship and intellect; Machiavelli would be a better model for his character. Yet there were tensions in the Pro Arte, and perhaps the novel reflects some of Bernie's experiences—hyperbolized, of course.

The manuscript was sent to one publisher after another, and regularly rejected. After each rejection Bernie made revisions. I remember periods of optimism when a publisher seemed to express interest. Finding a publisher became an obsession. One editor who had seemed interested died inopportunely. But finally Bernie gave up. True, the novel is overblown and melodramatic, yet I think there are many, not just musicians, who might have enjoyed reading it. Ironically—and fittingly—David Milofsky, Bernie's son, became a writer and produced a successful novel. Titled *Playing from Memory*, it is also the story of a string quartet. (David is now on the faculty at Colorado State University, head of creative writing and editor of the *Colorado Review*.)

Bernie moved from Madison to Milwaukee when his artist wife, Ruth, joined the faculty at the University of Wisconsin—Milwaukee. She was cheerful and courageous, supporting him spiritually and financially. Then her premature death brought the additional burden of loneliness. Bernie continued his confining existence, outliving Ruth by many years. He later moved to a nursing home in Lewisburg, Pennsylvania, near his other son, Carl, who is a professor of sociology at Bucknell University.

At last, friendships and memories became the important things in Bernie's life and his irascibility gave way to a certain measure of contentment, even serenity. He died in 1993 at the age of seventy-six. I am told he is deeply missed at the nursing home.

The Pro Arte in Recent Years

Milofsky's replacement was Richard Blum, who remained with the quartet for thirty-four years, a tenure equaling that of Prevost. Earlier, Friedlander had left and was replaced by Lowell Creitz. They were joined by Norman Paulu and Tom Moore, forming a quartet of Americans. In 1976 the quartet again found a stable

membership: Norman Paulu and Martha Francis Blum, violins; Richard Blum, viola; and Parry Karp, cello.

This was the third great period in the quartet's history. The group concertized over much of the world and performed new works by such composers as Babbitt, Lerdaahl, Lansky, and Imbrie. The recordings of the complete quartets of Bloch were particularly well received. The Pro Arte also recorded the original version of Beethoven's First Quartet, permitting listeners to hear the kinds of changes that Beethoven had made as he revised. And the group played before larger audiences and made a wider impact on the Madison musical community than the quartet did in the Kolisch days.

Jae-Kyung Kim and Sally Chisholm replaced Martha and Richard Blum, who retired but who continue as active musicians and principals in the Madison Symphony. The 1993–94 year was a great success. The quartet played all fifteen of the Shostakovich quartets to large and enthusiastic audiences. Norman Paulu announced his retirement at the end of the 1993–94 season, and the search for a replacement began. The person chosen is young David Perry, who made his solo debut with the Chicago Symphony as a teenager and has won several contests. He has been concert master of the Orpheus Chamber Orchestra and the Wichita Symphony, and frequently appears as soloist. Yet his first love is quartet playing, and the Pro Arte is a chance for him to devote his talents to it. Perry's obligations prevent his joining the group immediately. Fortunately, Norman Paulu is willing to postpone his retirement until the autumn of 1995 and will continue to play with the group until that time. And now a search is underway for a musician to replace Jae-Kyung Kim, who recently announced her departure from Wisconsin.

Final Note

After Bernie left Milwaukee I never saw him again. I have a poignant memento, though: his viola. When we were playing quartets together he didn't like the sound of my viola and suggested that I use his. After he could no longer play he offered to sell it to me. As much as I enjoy playing this instrument, there is always a tinge of regret that cruel circumstances conspired to keep Bernard Milofsky from playing it as only he could. ♫

Sources

Martha Blum. *The Pro Arte Quartet: 50 Years*. University of Wisconsin School of Music, 1991. Most of my information about the quartet comes from this source.

Bernard Milofsky. *The Fiddlers Four*. Unpublished novel. A copy is deposited in Mills Music Library at the University of Wisconsin—Madison.

David Milofsky. *Playing from Memory*. Simon and Schuster, 1980.



Return to the Roots: South Africa Thirty Years Later

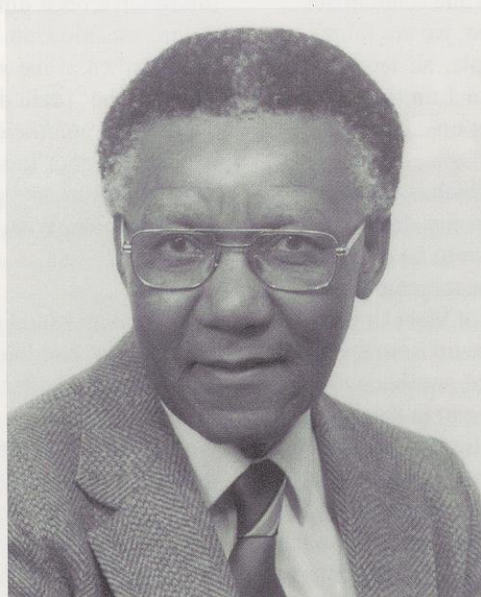
by Daniel P. Kunene

During the summer of 1993, Daniel Kunene, accompanied by his wife, Selina, visited South Africa after thirty years in exile, most of it spent at the University of Wisconsin–Madison. Part I of his journal appeared in the Fall 1994 issue of the Wisconsin Academy Review. At the end of Part II, which appeared in the Winter 1994 issue, we left Prof. Kunene at the guest house at the University of South Africa (Unisa) in Pretoria.

Conclusion

It is Tuesday, August 3. This morning I address the Department of African Languages and Literature on the topic, "Time as a narrative organizing element in Nyembezi's novels." Not long after I start, and as I warm up to my topic, the door of the auditorium at the far end from the rostrum opens, and a rather heftily-built woman comes in accompanied by a man. They come straight down the aisle towards me, past where the rest of the audience is sitting. My first impression is that they are enthusiasts who are late for my lecture and who want to come and sit close to the podium. But what happens next startles me and brings my presentation to a screeching halt. The woman, who I now realize is on the warpath as she comes and stands right in front of me with the man who comes trotting down the aisle with her, looks up at me and shouts, "When are you going to finish? I am supposed to have this room right now. I have a guest speaker who is supposed to have started already. When are you going to stop?"

I am stunned. I look at my host, Prof. Themba Msimang, who is sitting close to the front, and I shrug my shoulders and say, "Prof. Msimang, I commend myself into your hands," words to that effect. Prof. Msimang tells the woman he reserved this room for my lecture, and says there must be some mistake, would the woman go outside with him to try to settle the matter. The woman follows Prof. Msimang with the gentleman I assume is her guest speaker, following her like an obedient puppy. Before the door shuts behind them I make a joke about the incident that brings the audience down with laughter which I'm sure the woman hears. I tell myself she deserves it. Prof. Msimang, always ready to see the funny side of things, later tells us what happened outside the auditorium. It was obvious that a mistake had been made in the office that allocated the room. So he says to the woman, "I am sure we can settle this matter through negotiation with the space management office." Whereupon the woman, who is now rather distraught, shouts,



Daniel P. Kunene

"Negotiation! Negotiation! This country has got into a mess because of *negotiation!*!" And Themba is laughing his infectious laughter as he narrates the incident.

I look forward to an evening at the Finlaysons' for supper and drinks. After this morning's experience I feel I cannot wait to relax and share conversation, food and drinks with friends and colleagues, and indeed *negotiate* a few things. Prof. Swanepoel drives me to the Finlaysons' house in the late afternoon, but he cannot stay. Prof. Rosalie Finlayson is dressed resplendently as she welcomes us from the end of this long, tunnel-like passage leading towards the living quarters of the house. This is a part of Pretoria with large estates and mansions, including some Consulates and Embassies. It is called

Waterkloof. Ken Finlayson is his usual amiable host. I get reacquainted with Prof. Finlayson's mother whom I first met when she accompanied her daughter to the guest house a few days ago. She is absolutely charming, and she and I enjoy quite a

long conversation together. There's music and lively conversation among all the guests, who are colleagues and students. At the end of the evening I am given a ride home by one of the guests. In a BMW!

Wednesday, August 4, is a routine day: breakfast at the guest house, lunch with colleagues at Unisa, some time in my office. For supper, Prof. Lenake takes me to a very nice restaurant somewhere close to the Waterkloof area. It's quite a long drive but it's all worth it. The food is excellent, and the service efficient, courteous, and even personally friendly. I keep having to remind myself that I *am* back in South Africa, being served by white waitresses and wine stewards, and that thirty years ago this would have been unheard of.

Thursday, August 5, is the eve of my departure from Unisa. I look forward so much to being reunited with my wife tomorrow at Potchefstroom. I have called her almost daily since we parted at Jan Smuts Airport on our arrival from Umtata almost two weeks ago. I give my second last workshop. The topic is "Dialogue in C.L.S. Nyembezi's novels."

I was invited this morning, apparently on the spur of the moment, to have lunch with one of the lecturers, Ms. Hlumela Motlhabane, at her house in a Pretoria suburb. On the way there she picks up a friend from her place of work. She lives in what appears to be a growing suburb of Pretoria. It is integrated and, as if to prove this, as we arrive there my hostess's daughter, about eleven, arrives from school with her white schoolmate.

Not long after we get to Hlumela's place, we are joined by Rose Moeketsi and perhaps two other people, all lecturers or assistants in the Department of African Languages and Literature at Unisa, whom I had already met on campus and at the Finlaysons' party.

It is a pleasant and relaxing afternoon which is cut short by the need for me to get back and prepare for my departure the next day. Furthermore, this same evening I'm to be entertained to dinner by Prof. Chaphole whom I met at the conference at Wits, and who teaches at the Soweto campus of Vista University.

Evening comes. Prof. Chaphole picks me up from the guest house. He is accompanied by his wife and another woman. Chaphole has chosen a very exclusive restaurant in the city, in a building with a front that resembles a public office building, with many wide concrete steps leading to the front entrance. It specializes in Italian foods, but serves other entrees as well. The place is empty. It feels unhomey. We are seated not far from the entrance, near the reception counter. We are not particularly happy about this spot, and our understandably suspicious minds tell us this is unofficial apartheid. Why isolate us to the spot where we will be disturbed and subjected to drafts as people come and go? And where we would be isolated from the rest of the diners? Furthermore, Prof. Chaphole had reserved our table so long in advance. We tell the man in charge, who seems to be doing everything by himself—receiving diners, taking them to

their tables, and seating them, etc.—that we want another table. He is a tall rather reddish complexioned man who, I assume, is Italian. He is very obliging, saying we could pick any table we chose. So we move to another table. More people start coming in, and it begins to feel homely. The man is also joined by two black waiters, one of whom is assigned to our table. He brings menus which are big and rather intimidating, the sort of menu that brings all conversation to a halt as you try to figure it out. We make our choices and settle back to our conversation.

I keep wondering what it's like to be a Vista professor. Thoughts of my conversation with the young lecturer from Wits

who drove me there for my lecture on July 28, and of my brother's experience of "apartheid" treatment by a white woman receptionist at another Vista campus (in Welkom, Orange Free State) keep coming into my mind. Would I accept even the most lucrative job, even as a visitor, to a place like that? I imagine myself subjected to racist white authority which has become totally alien to me in my thirty years away from South Africa. I know, for example, that students at Vista in Soweto set buildings alight

not long before my wife and I returned to South Africa. I know this was a political act, a rejection of this modern version of the "bush" college. It seems to me that this "ghetto" college is no different except for its urban setting unlike the "bush" colleges which mostly had rural settings.

Inevitably, questions about my plans for the immediate future have been directed at me from various members of this group, meaning, in short, "Come back!" This sentiment has been thrown at me so many times during our tour! People are aware of the "brain drain" that has been one of the tragic consequences of apartheid, and would like to see the whole thing reversed. Again the question flashes in my mind: Vista? It's been a pleasure and an honor to be a guest at Unisa, University of Cape Town, Wits, University of Transkei. But Vista?



The evening winds down. It's been wonderful. The food has been superb, and the service excellent. I appreciate Chaphole's hospitality, and after dessert and coffee, they drive me back to the guest house.

Friday, August 6, is my last day at Unisa. I give my final workshop. This afternoon Themba Msimang is going to drive me to Potchefstroom. As we walk toward the lecture room, I keep thinking my hosts want to milk me to the last drop, and I love it. It's been such a wonderful visit. This is a sweet and sad occasion. The family we have become in the past twelve days is about to split. During the workshop, my friend Chris Swanepoel, takes several pictures. At the conclusion I am presented with a copy of the Department's brochure and a picture is taken while Prof. Msimang, as head of the department, hands it to me. As the audience leaves, there are emotional handshakes, embraces, and good words.

.....
*People are aware
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tragic consequences of
apartheid*
.....

I rush back to the guest house to say goodbye to, and thank in different ways, a wonderful, dignified black woman called Sophie. Sophie, a Venda woman, is the housekeeper at the guest house. She is tall and dark brown in complexion. She has a ready smile, and you know that in spite of her politeness and the lowly tasks she performs, she is conscious of her dignity as a person. In fact, her attitude tells you she does not regard her job as lowly; she is proud to do it and derives satisfaction from doing it well. Sophie gratefully accepts the items of food remaining in the refrigerator that I give her. In thanks for her services throughout my stay, I pay her at least twice what I was told was reasonable, as indeed I did also each time she did my laundry.

I pack my suitcase, put together my papers and books. Chris Swanepoel has fortunately agreed to mail the bulk of my books and papers for me. I walk back to Unisa where I join Themba Msimang, Chris Swanepoel, Johnny Lenake, and other friends for our last lunch together. Themba takes care of a few small administrative details to conclude the financial arrangements of my visit.

Back at the guest house with Themba and Chris, I ask Chris to take a picture of me dangling the huge bunch of long steel keys that operated doors at the guest house. The bunch reminds me of jail keys!

We load the car. I give Chris a goodbye embrace, and Themba and I are off.

98

Political violence has never let up. It has gotten worse. When Selina and I first arrived, it happened mostly on weekends, but it has now become a daily occurrence. I keep wondering why so many people have to die for the handful of power-hungry dupes and incurable racists refusing to accept the extension of human rights *as civil rights* to other human beings who happen to be black. I am convinced that the demand for a separate, autonomous homeland for the uncompromising extreme right-wing white racists is a prelude to serious attempts to destabilize and otherwise undermine the new government envisaged for some time in 1993. So also with the demand for an independent, autonomous KwaZulu homeland. The question is not only why must so many die for the gratification of these bigots, but why so many are *willing* to kill and be killed in defence of such retrogressive objectives.

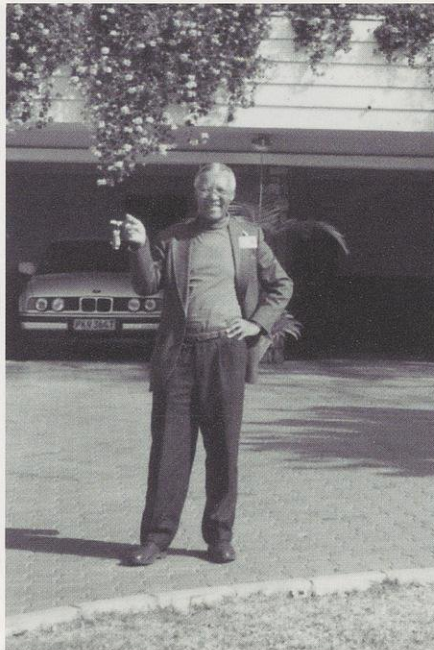
Black residential areas like Sebokeng, Thembisa, Katlehong, and Boipatong have become the chronic victims of such politically-directed and controlled violence and have in the process inevitably generated their own violence which has taken a life of its own by creating hostilities, grudges, and desire for revenge where such did not exist before. The de

Klerk government has responded by having troops stationed permanently in these so-called townships, but the troops are known to encourage rather than reduce violence, to help Inkatha trouble-makers fighting against African National Congress supporters, and generally to make the situation worse. The people of these townships want the army out of their areas and have made this perfectly clear to the authorities. Instead, as Themba and I cruise along towards Potchefstroom, barely one-third of this one-and-one-half to two-hour journey, we meet the vanguard of an army convoy headed for Johannesburg. We have heard in the news that significant reinforcements of the troops already in the townships were contemplated. I wonder: To what end? Is there going to be war? It is a frightening aspect, this interminable line of army trucks with soldiers armed to the teeth, trundling their way towards Johannesburg.

We have passed some apparent road-blocks as we wove our way past black residential areas adjoining the city, but have, fortunately, not been stopped. We now wonder aloud if the army might decide to stop us and ask us a few questions. I say to Themba, "I so wish I could take a picture of this convoy, but that might be a fatal mistake as they would have an excuse to shoot us and claim we were pointing a gun at them." Needless to say, Themba fully concurs. Some of the units have stopped by the wayside, maybe for the soldiers to relieve themselves and enjoy a smoke, each soldier balancing a gun in his

hand. The convoy is endless, and we only come to the tail end of it as we reach the outskirts of Potchefstroom. I estimate we have passed nearly one hundred miles of army trucks, certainly no less than seventy miles.

After driving through the white part of Potchefstroom with its beautiful buildings, shopping centers and tarred roads, we enter Ikageng Township and negotiate the inevitable potholes, rubbish dumps, and clouds of dust to reach my sister-in-law's house where she, my wife, and some relatives are waiting for us. Unscathed! What a relief. But I'm concerned for Themba who has to drive all that distance back alone. He does not seem much concerned. He takes off his jacket and relaxes while my sister-in-law's daughter makes tea which she serves with some of the home-made cakes we love so much. A conversation ensues. I keep reminding Themba not to leave too late, wondering, among other things, if he might find himself driving behind the military convoy we met on our way here, which would slow him down considerably in the two-lane highway. Themba eventually leaves. I ask him to telephone that evening so we know he arrived safely.



The author at the University of South Africa at Pretoria guest house with the "jail keys."

At last I am with my wife again. She looks slightly better. She has told me in our telephone conversations how well her sister, Miriam, was looking after her. Tomorrow we leave for Kroonstad and my brother Peter's house. Before that we plan to visit some of the graveyards of relatives again, particularly the grave of Selina's father, which we were unable to locate on our previous visit.

We also have to find someone to drive us to Kroonstad since Peter and Yvonne are not able to fetch us this time.

It is Saturday, August 7. We have been warned not to go to the graveyards too late since Saturday is the day for burials, and we may find ourselves caught up in a funeral procession. But first we must ensure that there is a car to drive us to Kroonstad this afternoon. We can only think of Mr. Matlawe, a relative of my wife's family by marriage, a sort of "uncle-in-law" to my wife.

"Well, maybe. We'll see. OK. I think so. I think so definitely. Yah. It's OK," says Matlawe.

"How much?" we ask.

"Well, we'll see when we get there. I can't say before we get there because I don't know how far. When we get there, then I can tell you."

Well, we just have to take it, and be ready for whatever figure he might come up with when we reach Kroonstad.

Kgani, Miriam's daughter, drives us to the graveyards. She picks up Manotshi, a cousin of my wife's, who knows exactly where each relative's grave is, visits them regularly, and keeps them clear of weeds. We first buy artificial flowers in town, and then off we go to the cemeteries to say goodbye to the departed ones. I am determined to take pictures of areas where the new "loan" houses and the shanty towns stand side-by-side, separated only by a street. Someone drives me there in Kgani's car and I take some shots.

We have a rather late lunch. There is the sadness of parting, the reluctance to say the final goodbyes. Uncle Matlawe, who is apparently very strict on time, comes approximately ten minutes early. He has someone with him, a kind of co-pilot. This somewhat disorganizes us, especially when he goes outside and sits in the car. We feel under pressure. We aren't quite ready. But at last we leave, approximately fifteen minutes past the set time. Miriam comes with us since there is room in the car, and this will give all of us a few more hours together.

After filling up in town, Uncle Matlawe's "co-pilot," who is in fact the pilot, drives in a direction we are not used to. I

keep my peace, believing they know a shorter route than Peter and Yvonne usually take. But for quite a while it looks as if we are heading for Cape Town. I eventually ask: "Is this the way to Kroonstad? I've never travelled this way before." "Yes," they answer, "we turn left at Orkney to proceed to the Free State." It turns out they have taken a much longer route, which Peter confirms when we meet that evening. Not out of malice. We get to know later that Uncle Matlawe is terrible with directions. He is sure he knows, but in fact he doesn't. Miriam confirms this when she calls us about their safe arrival back in Potchefstroom. Uncle Matlawe took a different direction trying to correct his first mistake, but they ended up in Parys, a town at a far right-angle to where they wanted to go. But they eventually reached home.

Peter and Yvonne are not at home when we arrive. They have warned us this might happen since they had a previous engagement away from home, hence their inability to fetch us from Potchefstroom. When they get back, amid all the excitement, they unlock the bedroom we have come to consider "ours" from our previous

visit. Ah, what a wonderful surprise! Now we know why the room was locked when we arrived. It's been arranged like a bridal suite with fancy linen and frilly pillow slips. It's just gorgeous. We are so excited. We embrace them and tell them how much we appreciate it. We spend a pleasant evening together.

We wake up to a beautiful Sunday morning, August 8. I am thinking about the "Three Million Gang" which terrorized the black townships of Maokeng, Seeisoville, Gelukswaarts, Phomolong, and other black ghettos. Mention of the "Three Million Gang" sends chills down the people's spines. My continued interest in the causes of violence leads me to probe into this specific manifestation of it.

It was at Edenville that I first heard stories about the "Three Million Gang." Now we are in Kroonstad, its headquarters and sole field of operation till its demise. Murders by the gang, we are told, took all kinds of sadistic forms. The story was told of a man who was thrown to the ground and repeatedly plunged through with a gardening fork. The victim was a black policeman regarded as being too soft in his treatment of his fellow blacks.

The police instigated the formation of the "Three Million Gang" to terrorize the people, especially those who protested and resisted police acts of brutality.

Is there any significance in the phrase "Three Million" in the gang's name? we ask. None. It means absolutely nothing.



Daniel and Selina Kunene leaving the guest house at the University of Cape Town.

And there, it seems to me, lies the full horror of it. An ordinary object, this time a number, has been hijacked from its regular, normal signification and transformed into a symbol of violence and death. Like the number “thirteen” in Western European folklore—high-rise buildings were built with the thirteenth floor omitted. When you reach twelve, skip to fourteen. The terror of the name “Three Million Gang” abided precisely in the fact that it stood for nothing but pure terror.

The gang’s leader was a black young man called George, also known as Diwitty. He and his gang had the full support and protection of the police and the courts. George’s personal involvement in the reign of terror unleashed on the townships, including his own personal murders, were repeatedly reported to the police by eye-witnesses. George would be taken into “custody,” and released on the same day, without any charges brought against him. Instead of punishment, the police rewarded him by bestowing on him the honorary title of “King George.”

Phomolong Township was the center of the gang’s activities. They terrorized the residents of Phomolong so that they fled, and the gang moved in to occupy the vacated houses which by now carried the scars of violence in doors and windows where only the frames remained, around some of which was evidence of arsonists’ fires. The gang abducted young girls as concubines, and no one, let alone their parents, dared to intervene. They declared Phomolong a “No-Go Zone.” They nicknamed it “Beirut.” When “Beirut” erupted, streets would be littered with rocks, and tires would be lit up to prevent traffic from going through. These pictures materialize into a numbing reality as we are driven, this Sunday afternoon, on a tour of some of the worst-hit areas. Since Peter has other business on this day, it has been necessary for us to hire a taxi. Our driver is both enthusiastic and nervous. “Beirut,” he announces, as we negotiate a corner. “This is where it begins.”

“Wow!” I say.

“Good lord!” says Selina.

Symbols of death and devastation are all around us! We are tempted to whip out our cameras and take some pictures, but we fear it might not be safe. Yes, confirms the driver. We shouldn’t even stop the car to look, he adds. This might identify us as curious sightseers. “Beirut” is now an abandoned town, and through my mind flash such images as “bombed city,” “ghost town,” “Hiroshima,” “terror-by-rule-of-law.” These shattered window panes, missing windows and doors are like lifeless eyes and mouths and nostrils, giant skulls symbolizing the ravages of war. The fact that the houses in this segment of the ghetto are identical adds another dimension, the soul-destroying monotony of a military barracks. It gives an eerie feeling to know that people have perished there or abandoned the place in flight.

Among the people George assassinated was a man whose son was himself a gangster of

some notoriety in Johannesburg. This turned out to be “King George’s” fatal error. Our informants tell us that the victim’s son, on receiving the news, started preparations for a face-to-face confrontation with the “King” to avenge his father’s murder. Then one day he drove to Kroonstad and traced George to the railway station. When he came on the scene, a parking lot in front of the station, George was happily chatting away with some acquaintances or friends. The stranger from Johannesburg came and stood right behind him and called his name: “George!” The “King” turned around, startled, and there was a split-second, eye-to-eye contact, followed by the stranger pulling a mask over his face and rapidly pumping bullets into “King George’s” face and body. The people rejoiced, their murderer was dead. The police mourned, their “King” was dead. On hearing the news, the people poured out into the streets and celebrated, and the police came out to the townships in force and paraded up and down in an act of intimidation.

George’s notoriety made him into a legend, and we were told there was another version of his assassination, namely that it was carried out under different circumstances by some white woman. Who knows what the implications of that story might be? Our informants assure us, however, that the stranger from Johannesburg was arrested and is still serving his sentence. The “Three Million Gang,” now leaderless, began to disintegrate.

Our driver takes us through other areas. Among the things we would like to see are schools. Talking to teachers at Edenville, we had become aware that all was not well in the school system, so we are curious to see some school buildings even though there is no activity there, this being a Sunday. One that captures our attention as we drive in its direction is a secondary school with a large mural of the map of Africa on a wall dominating the approaches to the school. The purpose of this map was primarily to inspire the students with a sense of a larger identity than that of blacks trapped like mice in the confines of



Tin shack urban dwellings

Min(e)d words

Graffiti sprayed on Soweto walls

Anonymous

Pervasive

Powerful

Alive

Graffiti infiltrates all the layers of

The mind of the driver cruising by

The mind of the combi-taxi with its sardined cargo

The mind of the cyclist squeak-squeaking on the dust-ridden street

The mind of the foot-slogger rousing to rebellion the sleeping sand

The mind of the tourist chewing a Cuban cigar and wiping the sweat
from his double chin with a white handkerchief

The mind of white South Africa answering tomorrow's questions
with yesterday's stale clichés

Graffiti is life writ large

with all its infinite questions

is the mind's window to blurred futures

like misty mountains on distant horizons

never stagnant

never stale

No graffiti on suburban walls

Like the late Berlin Wall

So alive with the people's provocative art this side

So sterile-ly blank and pale as death on the other

Graffiti

Your irreverence is infectious

You are life's exuberance

You are life's hope

Graffiti on the wall

Graffiti on the wall

Daniel Kunene

apartheid. The map was to join them with the rest of the African continent and generate in them the sense of being part of the sweeping changes that have taken place, down to the very borders of South Africa.

But now, the entire school shows ample signs of ruin: gardens, once beautiful, now trampled to bare ground; window-panes broken, doors no longer locking properly because they have been forced; windowless and doorless lavatories with seats ripped off. These are not the ravages of the "Three Million Gang," but have been wrought by the students who are supposedly there to study and to move toward their future. But that may be precisely the problem: They have lost all sense of *future*

that would make their *present* meaningful and worth nurturing. Africa stands sad and weeping at the wanton destruction, yet likewise proud, always looking beyond the storm clouds into that future which has eluded the students.

But destruction by your hand, when forced, is not destruction by your hand. If you suffer from dementia induced by intense persecution, and in your demented state you commit the most heinous crimes, you cannot be held morally responsible for those crimes. The ultimate moral responsibility belongs to those who induced your deranged mental state. It should have been obvious that the authority-defying children of Soweto in 1976 and onwards would mature into today's authority-defying young adults of the ghetto.

To be able to put all this into perspective, I talked to teachers old enough to have been practicing their profession in 1976. In the heat of the struggle against oppression symbolized most poignantly by apartheid, it was difficult for those involved in the struggle from a distance to avoid glamorizing the children's actions, including their subversion and perversion of the normal parent-child, adult-child, teacher-child relationships. Normally parents had the authority, made decisions, and, if necessary *made* the children obey their orders. In school, teachers had an *in loco parentis* relationship to the children with all the responsibilities that went with that relationship of surrogate parents. 1976 changed all that. During the children's revolt starting June 16, 1976, in Soweto, which soon spread to other parts of the country, these roles were reversed. The parents and the teachers were given orders by the children. Not a pretty sight.

At that early stage, the children considered the teachers to be part of the Bantu education system they were rejecting. I asked if they demanded that the schools be closed and the teachers go home. No, said my informants, on the contrary they wanted the schools to remain open. Schools were convenient places for them to meet and organize. But the teachers were to do what the students told them. One reported instance was that of a group who called the teachers

together and laid before them the new ground rules. They, the students, were thenceforth going to do whatever they wished for whatever reasons. Specifically, the girls told the teachers that they were going to wear make-up to school, stretch their hair, paint their nails and lips, wear broad figure belts, and do anything to make themselves look very attractive. And, to add a touch of tragic humor, they warned the male teachers not to come proposing love to them when they saw them looking so beautiful! Where would they get the money to do all that? asked the helpless teachers. From their men, the girls answered.

It was not an easy time to be a teacher or a parent. That was the price paid for the political gains from the children defying

apartheid laws and their agents, the police. Apartheid corrupted the children, and they carried their corruption into their adulthood. And the younger children, growing up in this environment of recalcitrance and acts of extreme violence, themselves became defiers of authority and potential perpetrators of violent acts. At this secondary school where we are being shown around, the tell-tale multiple security locking, barring, and bolting system on the door to the principal's office tells a story of its own.

Continuing our tour after the school, we pass the remains of the "Mayor's" garage, i.e., filling station with auxiliary services like changing tires and minor repairs. It is a charred ruin that was burnt down because he was a "sell-out." He was participating in the municipality's fraud of pretending that blacks had a viable, self-sustaining city of their own. The truth is that, like all other black townships, the Kroonstad black townships were, and are, no more than cheap labor dormitories for blacks serving the white masters and madams in the white city where the real mayor and the real city council are.

The "Mayor" of Maokeng was therefore benefitting from apartheid by helping to perpetuate it. (Shortly before the April 1994 elections, the "Mayor," claiming to be a member of the ANC, attended an ANC rally Mandela addressed at a stadium in Maokeng. The crowd was incensed and demanded that he should leave. But, with his usual magnanimity and diplomacy, Mandela intervened on the "Mayor's" behalf, arguing rather disarmingly, that if he, Mandela, could work with de Klerk, his erstwhile jailer, for change in South Africa, why couldn't he—and everybody else—work with the likes of the "Mayor?")



Dinner with Roddy and Hermine Wengrowe at the Water Front restaurant.

Tomorrow we plan to go to Edenville. We intend to come back the same day. We call them to let them know. One of my nieces who works in a store in Edenville town will come home during lunch time to be with us. It is more than a mile which she covers on foot, morning and evening.

On Monday, August 9, we are slow getting ready to leave. It's partly because Peter and I first go to a bank in town, where he does his banking business, to cash my check from Unisa. It turns out not to be as difficult as we had feared. He also takes rolls of film for developing and printing. We'll pick them up tomorrow. We fear we might miss my niece because she will have returned to work. We buy some Kentucky Fried Chicken to provide everybody's lunch at Edenville. Peter stops shortly after

we leave Kroonstad and hands the wheel over to me to drive. I re-adapt quickly to driving on the left side of the road.

As we approach Edenville, I realize that I will never get used to the changes I see superimposed on the Edenville of my childhood, even my early adult years before I left for the United States. The "winds of change" have wrought new themes on the story of the tiny town I once knew. As we get closer we see my niece, Mmamosa, walking briskly home. I am happy that we

did not miss her. I stop the car and she rides with us the rest of the way. We first go to her home, the house of my late older sister Sophia. My sister Magdeline and my brother Philip come to join us there. My niece makes tea for all of us. We decide to have lunch before going to the cemetery so that my niece can go back to work. Reluctant to part with us, she takes a little longer than her usual lunch break. Thereafter Peter and I drive her back to town where we say our final goodbyes.

Back at the location, we visit the graves of my parents and my sister Sophia,

and some of my in-laws, the Maletes and the Mokhanelis. When we get back we pass on to Magdeline's house which will be our last stop before we return to Kroonstad. Once again we are entertained to tea and some biscuits. We settle down to a conversation, but it is clear that, as they say, we are sitting on one buttock. We keep reminding ourselves that highways are dangerous after dark, we must be sure to get back to Kroonstad while it is still light. As in Potchefstroom, I want to take pictures of the dwellings, especially of the old location, the reminder of my childhood. I want to have a permanent record of the degeneration that I see. After I take a few shots, we bid farewell to my sister Magdeline and my brother Philip, and we are off back to Kroonstad.

We mostly spend Tuesday, August 10, doing odds and ends. We go to pick up the pictures. We examine a few. They've come out very nicely. Peter wants me to meet a distant cousin who works somewhere in town. We meet her on the sidewalk and exchange greetings. She is very excited to see me. We have a brief conversation in which we try to establish family connections in the genealogical tree. As we stroll back to the car, Peter sees a classmate of mine from my high school days, Pearl West, who later trained as a nurse and was senior in the Boksburg-Benoni Hospital where my wife was a junior trainee nurse.

Years ago my wife (then still my fiancée) talked very highly about Pearl West's patient, clear, and sympathetic approach in teaching her juniors. I was then in Cape Town studying for my

master's degree. And then some years later, when my wife and I were married and living in Cape Town, and my mother was seriously ill, it was Pearl West, Peter told me, who very kindly and sympathetically tried to persuade my mother to go to the hospital in Kroonstad, where she now worked and promised her the best care the hospital could give. My mother, who believed that was the time to have her family around her rather than be isolated in some hospital, thanked her but refused to go.

Pearl and I had shared several years of high school study together. I am therefore very excited as Peter and I follow her and catch up with her. She cannot believe her eyes. We have an animated conversation, as each obviously tries to recapture the faces we knew in our youth. She has now retired from her nursing. I tell her my wife will be very excited to hear that I saw her.

I have indicated to Peter that I would like to visit Mrs. Cingo, the widow of the man who was principal of Kroonstad Bantu High school those years when Pearl West and I were classmates, Dr. Reginald Cingo. So Peter calls Mrs. Cingo to arrange it. I indicate I would also like to visit Dr. Cingo's grave, with her permission. It will be OK on both counts, she says. She will send her son, Sanana, who runs a small pharmacy next to her house, to pick Selina and me up early the next morning to go to the graveyard first and then come to her house for a visit. At the house, we reminisce about my student days at Kroonstad Bantu High School when her husband was principal there. Selina and I have planned to leave Kroonstad for Johannesburg on Thursday, August 12, stay with the Nthebes, that is Rankele and his wife Thenjiwe, Peter's daughter.

We spend Wednesday, August 11, largely preparing for our departure the next day. This is the day I have a brief glimpse at the old location which, in my student days, was simply known as "Kroonstad location," and was divided into sections A, B, C and D. This place has simply decayed into an unrecognizable

dump of raw earth, corrugated iron sheets on walls that lean precariously. The dirt streets are eroded into a succession of potholes. Again the sense of death is prevalent, not death of the flesh, but of the soul, of the joy of living, of the will to go on. It seems people living here (for, incredible as it may seem, these dumps are still occupied) have lost all sense of the purpose for living. They are simply vegetating from one day to the next.

Our driver from Potchefstroom had strayed into this heap of rubble now called "Old Location" when we missed a turn going to Peter and Yvonne's house the previous Saturday, and I did not recognize it as a place I once knew. But this is where Teacher Makae, Teacher Matsepe, Teacher Tlhapone, Rev. Tlhole, Rev. Lipholo, and we youngsters and workers of all descriptions lived. Some landmarks have simply succumbed to the ravages of time, despair, and neglect. The Anglican Church is one of them, that once-magnificent building (for a black location, that is). There's no trace of it. Teacher Matsepe's house has long been reduced to a mound of dust.

We also take advantage of this uncommitted day to simply sit and relax and chat, though, with the hour of parting getting close, we seem to have become paralyzed: So much to say, but all of it somehow blacked out of the mind. Though my wife is holding out bravely, I am now impatient for us to be on our way back to the United States so she can resume her treatment of natural remedies and vegetarian diets so badly disrupted by our intense tour and well-intentioned but incompatible diets that have inhibited her progress.

On Thursday, August 12, Peter and Yvonne drive us to Johannesburg. Halfway there, Peter hands the car over to me to drive the rest of the way. We first go to the elementary school where my niece, Thenjiwe, is principal. We are shown around the school, which is isolated from any of the townships and by that fact alone gives the impression of being less prone to disruptive attitudes. We drive to the Nthebes' house with Thenji. Peter and Yvonne are going back to Kroonstad the same day. We have a quick cup of tea and biscuits, and they are soon on their way. That evening, at my niece's house, we watch a video of Chris Hani's funeral. Hani was secretary general of the South African Communist Party, and former chief of staff for the ANC military wing, Umkhonto Wesizwe or MK (The Spear of the Nation). He was ideologically much more radical than Mandela and, at the relatively young age of perhaps middle fifties, was a favorite of the youth. He was gunned down outside his home in a white working class suburb of Boksburg which he was trying to integrate. How much of a rival to Mandela he would have been for the position of first black president of South Africa was to remain unknown.



Leah Tutu, Bishop Desmond Tutu, Selina Kunene, and Daniel Kunene in Madison in 1989.

Selina and I spend much of Friday, August 13, going from one bank to another trying to convert



Choir at the airport, bidding farewell.

our rands to American dollars. I get snubbed by the white assistants at several of them. I feel it's not only a matter of carrying out government restrictions on exporting rands, but deliberate acts of meanness. We have virtually given up and are returning to the car where our driver is waiting for us, when we decide to try one last bank. The United Bank receives us most courteously and the woman helping us does our conversion with no fuss at all.

Next, we visit Ravan Press where I have a long conversation with Glenn Moss, its director. I have three books published by Ravan, *A Seed Must Seem to Die* (poetry), *From the Pit of Hell to the Spring of Life* (short stories), and *Thomas Mofolo and the Emergence of Written Sesotho Prose* (literary analysis). We have a lot to talk about and we are there for about an hour and a half. We rejoin the driver and return home.

Saturday August 14, is a day for packing and getting ready for our departure the next day. But we also go souvenir hunting. We are driven to the city center (downtown area) where a weekly open market of all kinds of crafts is held. Of course it is meant to cater for the tourist market and there are all indications of mass production. We are nonetheless able to come up with some reasonably good purchases.

First thing on the morning of Sunday, August 15, Rankele loads up our luggage, which is rather big because of gifts we have been given by relatives and friends during our stay, as well as our own purchases. Even though our flight leaves at eight in the evening, we decide to get to the airport around three, and certainly not later than four to take care of formalities prior to our flight.

As we cruise along the network of highways, there are long spells of silence in which my mind wanders and occasionally

recaptures in haphazard order some of the high points during our visit: Stellenbosch, Wits conference, Edenville, square miles of shacks mushrooming all over the country; Cape Town and our friends Roddy and Hermine, blacks and their three-d deficiency, Unisa, Themba Msimang, Chris Swanepoel and his family; my brother George in Odendaalsrus who has gone completely blind. Now and again the mind dwells on one picture. Graffiti, anonymous voices, irreverent, often prophetic, sometimes humorous, such as the one that said: "I was a member of the Anglican Church until I put tu and tu together!" A work of genius, I thought when I was told about it. Besides, who knows what color or political persuasion the persona is? Frustrated white Anglican, expressing his/her dilemma? An artist simply succumbing to the creative urge?

Oh, there's the sign to the airport. Yes, we'll have plenty of time. It's about quarter-to-four.

I have one more check to convert. Chris and Anne-Marie Swanepoel join us at the airport to say goodbye as previously arranged. Chris accompanies me to the exchange bank, which turns out to be a blessing since,

once again, I am faced with problems that are only solved when he makes a personal check in the same amount as mine and I sign mine over to him.

We are back on the main floor. It's early evening and as we stand around, there is suddenly a burst of singing from some part of the airport. It grows louder and louder. What could it be? I cannot banish a nagging fear that this might be a prelude to some violence about to erupt at the airport. But such lovely singing! Does not sound anything like a war song. It's a mixed choir, which comes to the concourse where we are, arranges themselves, and begins another song. I think, by the way, there was a time not so long ago when the police would have come out in force and arrested these singers for "disturbing the peace." But today the choir has simply taken over the airport and people begin to gather around them. A young conductor directs some of the songs. I soon gather that he is on his way overseas for further studies, and that his choir came to bid him farewell the best way they knew how. But this turns out to be a generous farewell to all who care to accept the gift.

My wife and I are thrilled. We were received with song at the African Language Association of Southern Africa's conference celebrations of the Doke Centenary when we first arrived, and we are flying out on the wings of song! Goodbye South Africa! Goodbye our fatherland! Not a goodbye but an *au revoir*. Having seen each other again after thirty long years and renewed our bond, we shall see each other again and again. For, as they say in Zulu, *Abakhe babonana bayobonana futhi!* Those who have once met will meet again! ☞

Daniel and Selina Kunene returned to Wisconsin on Monday, August 16, 1993. Selina Kunene died on Friday, October 22, 1993.

Ten Millennia of Climatic Variation in Wisconsin

by Reid A. Bryson

A fundamental principle of earth science has long been that the present is the key to the past. In recent years it has become clear that if one cannot understand the past, then one cannot hope to understand the future. In other words, the past is the key to the future. This realization has increased the interest in studies of climatic change as elucidated by the study of past climates.

Much progress has been made in the science of interpreting weather since Increase Lapham charted climatic occurrences near Lake Michigan during the mid-nineteenth century. Recently, for example, it has become possible to model past climates for specific places and specific times, within two centuries. This is very important to the study of prehistory, because the time scale of culture change is centuries rather than millennia, and the spatial scales of cultures are usually a few thousand rather than a few million square miles. If climate and climate change varied gradually over long distances and long times, high spatial and time resolution would be unimportant, but even the direction of climatic change can vary within a hundred miles. Climatic changes or events may occur within a century or two.

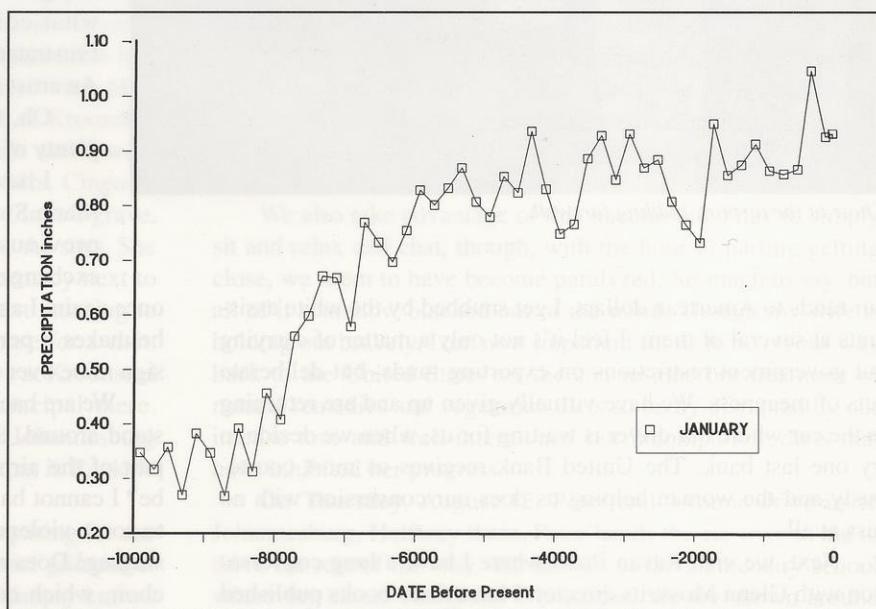
Here are the first model simulations of a specific place in Wisconsin. Two figures show aspects of the winter and summer monthly precipitation totals for Wausau. The third gives the corresponding model of temperature for January and July. For comparison, the fourth figure shows the corresponding summer rainfall history for Madison.

The results shown in the graphs were produced by a high-resolution climate model running on a personal computer. It is, however, about as complex as one person could produce in seven years of work.

Whether these model simulations are correct or not awaits confirmation by field studies, such as pollen profiles for the area after objective, quantitative analysis. ☛

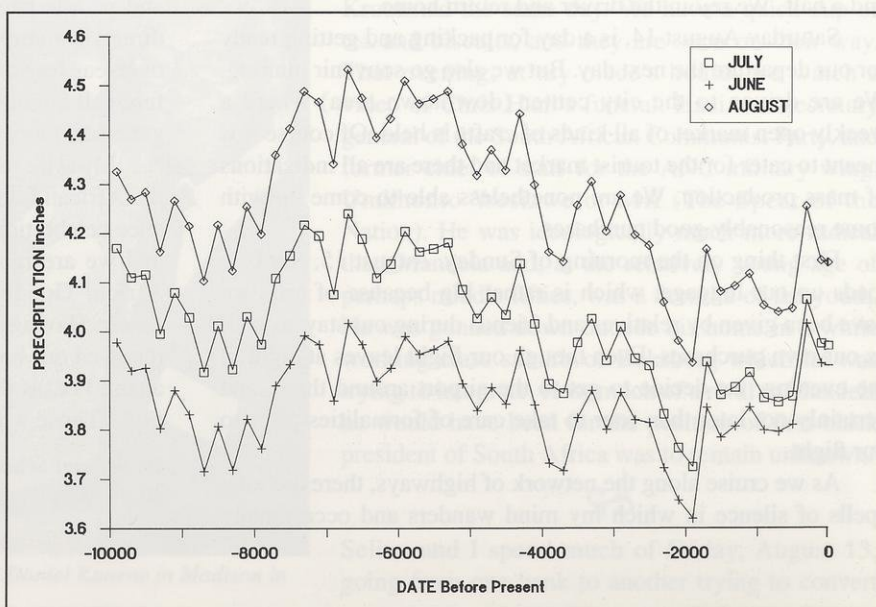
Simulated Past Precipitation

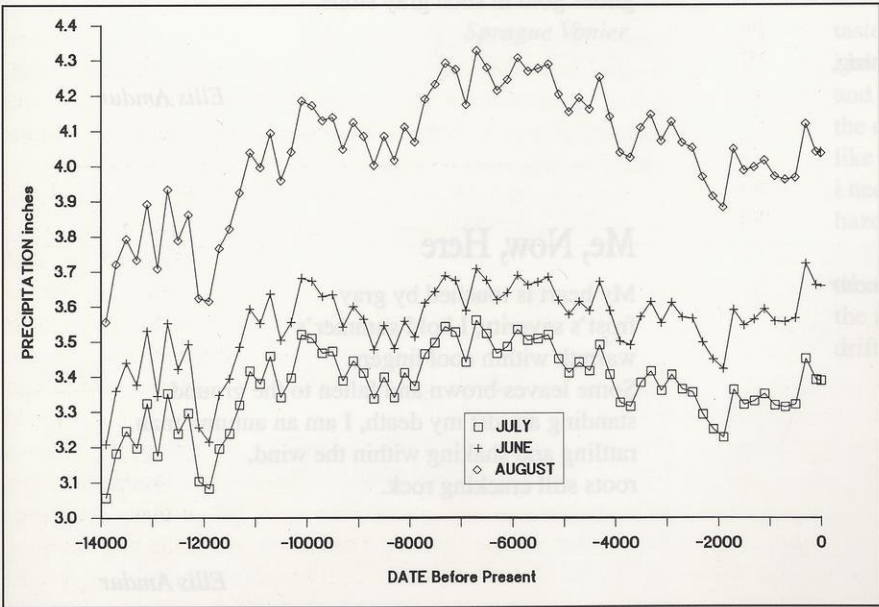
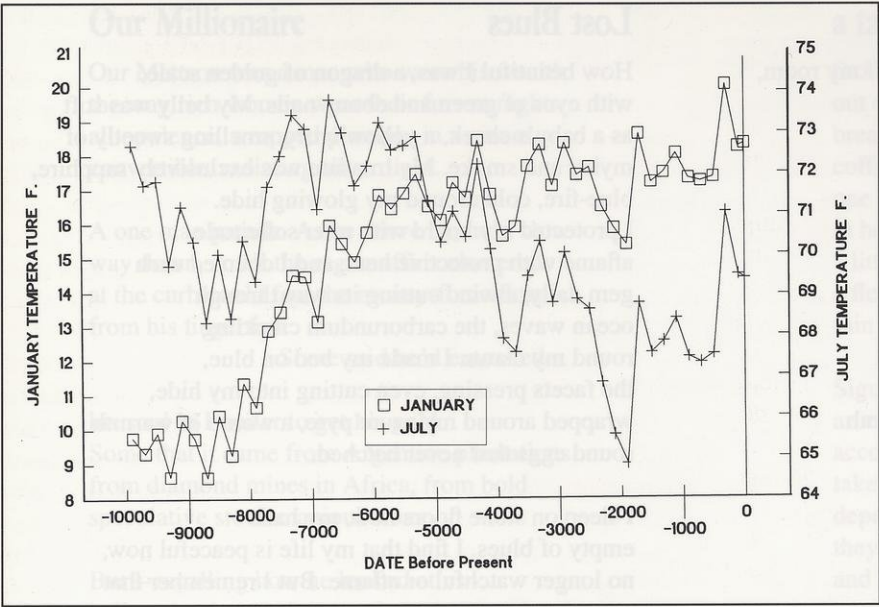
WAUSAU, JANUARY First experiment April 15, 1994



Simulated Past Precipitation

WAUSAU, SUMMER First experiment April 15, 1994





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Ghost Story

I picked up your raven hair from the corners of my room,
From the carpets, from the drains, and
The leaves of the children's books, untangled
It from around my buttons, and I
Draped it over my hands. I gathered
It up and laid it on white cloth, the
Black strands stark lines slashing the
Cotton in graceful curves. I took your
Hair and knotting it into delicate chains,
Wove a prayer mat, two by one, and knelt
Upon it. Drawing my sword, I cut the air.
But amputation does not remove a phantom limb.

I sheathed my blade and laid it softly
At my side. Still kneeling, I bowed my head.
But no prayer casts out a ghost of love.

I went to the lake, and at the end of
The dock, set fire to my prayer mat,
Two by one, and dropped the
Ashes onto the water where they
Floated into the weeds.

I walked home to my sons, the little one coughing,
Burning with fever and soaked with sweat,
The house more empty than ever before.
Wisps of you, midnight,
Twine around the fingers of his tiny hand

Ellis Amdur

Lost Blues

How beautiful I was, a dragon of golden scale,
with eyes of green and ebony nails. My belly was soft
as a baby's cheek, a yellow ivory, smelling sweetly of
myhrr and smoke. My treasure was exclusively sapphire,
blue-fire, cold around my glowing hide.
I protected my hoard with utter solicitude,
afame with protective heat, and I counted each
gem daily, a wind cutting its way through
ocean waves, the carborundum crackling
round my claws. I made my bed on blue,
the facets pressing, even cutting into my hide,
wrapped around my azure pyre, a womb of warmth
round eggs that never hatched.

I sleep on stone floors now, my halls
empty of blues. I find that my life is peaceful now,
no longer watchful or aflame. But I remember that
once, long ago, I used to swoop in the air
like a spark from a bonfire, gyring and spinning
among the clouds, and that the sky was also blue,
yet she needed no attendance. And I do not
glitter gold in such gray stone.

Ellis Amdur

Me, Now, Here

My heart is touched by gray
frost's severity, I hold summer's
warmth within cool fingers.
Some leaves brown and fallen to the ground,
standing amidst my death, I am an autumn man,
rattling and shaking within the wind,
roots still cracking rock.

Ellis Amdur

Our Millionaire

Our Mattson was a man who wore his wealth
the way rich women wear their furs at night:
all opulence, wrapped plumply in a cream
convertible, radiating silver light.

A one man parade. As he drove by, he'd slow
way down, so all the ragamuffins clustered
at the curb could feel the money-force flow
from his fingertips.

Some said he'd entrusted

his soul to Lucifer to get his gold.
Some that it came from Argentine plantations,
from diamond mines in Africa, from bold
speculative stock manipulations.

But I—recalling how he looked at us—
believe he drew his power from our eyes.
He pierced our souls and judged us covetous,
read our thoughts and learned to steal our pennies.

Sprague Vonier

a taste of the island

food must have tasted good
out of the wood stove
bread absorbing the balsam pitch
coffee roasting with birch or cherry
one could probably taste a forest fire
in her toast or his sand cherry pie
a little sand here
a fleck of clay there
rain water in everything

Sigurd Olson says you can taste
an entire bog in a wild cranberry
according to Arora, mushrooms
take on different flavors
depending on what trees
they grow under
and i've tried orange milkcaps
oozing with cedar peat
i wonder if its the same
with eggs, milk, berries,
potatoes or even onions?

tasted the loaf of white bread
i had baked with a pan of water
and bark steaming beneath it
the crust had an aftertaste
like freshly popped balsam sap
i need more of a mix
hazelnut, aspen, willow

the more the island gives me
the more i feel like smoke
drifting deeper into the wood

Matt Welter



GOD'S LOUD HAND by Kelly Cherry. Louisiana State University Press, 1993. 58 pages. \$15.95, hardcover; \$8.95, softcover.

by Ann Struthers

Kelly Cherry, professor of English at the University of Wisconsin-Madison, is a prolific writer. Before this recent volume of poetry, she had penned three other poetry collections, five novels, and an autobiographical narrative, *The Exiled Heart*. There are essentially two kinds of poems in *God's Loud Hand*: love poems and religious poems. And sometimes the two are one. This collection contains a series of poems with Russia as the locale, a selection of short poems which are essential variations on a theme in the musical sense and are titled "Songs for a Soviet Composer: A Text for a Musical Cycle," and two sections which contain mostly poems on religious and theological themes. Kelly Cherry's religious poems are rigorously intellectual, but at the same time they are deeply felt. This is a combination that few writers achieve. Her love poems are innovative, expressive, and often mysterious.

The Russia poems are especially lyrical, reflecting both the brevity necessary for an art song and deep-felt emotions about the country and about the revelations Cherry found there. All of this is intertwined with her religious insights. In "Song of the Siberian Shaman" she constructs a song from the viewpoint of a Siberian wise man whose spirit is "the shadow of snow." She hears the medicine man say, "I'm thin as wind, strong as water. I peel back layers of rock, / kneel in the land's hand, rise. . . ." This narrator discovers what it is to use even absence, saying that "what I lack lifts me, / like ritual feathers torn from a bird's body and dispersed among the dark skies."

Her approach to her religious subjects comes from an intellectual stance. Hers is a religion of the inquiring mind and of a sophisticated, modern thinker. While it is probably going too far to compare her to John Donne or Gerald Manley Hopkins, her approach to faith is similarly rigorous.

Moreover, she is a religious writer with her metaphors firmly placed on this earth. In "The Radical," which is about Jesus washing the feet of the disciples before the last supper, the poem ends:

And now he traces each instep with the nap of the towel
as if it were a country he wants to map,
as if he wants to remember where it has been,
the steps it took
to get here,
the earth it walked on—
to him, a miracle greater than walking on water.

Her theology, too, is exemplified by the things of this earth. In "Grace" she finds that this religious concept is like "The dark bird rising like smoke . . ." And in "The Island of Contentment, When God was a Child" she finds this pre-Eden is where God "Swam and splashed in the pool / at the base of the water-

fall . . ." and fruit falls from frangipani trees. This is certainly a fine imaginative place anchored firmly in reality.

Perhaps the best of the religious poems is "Reasons," which is about a woman who came to Jesus' tomb to anoint the body, and its narrator answers the angel's question, "Woman, why weepest thou?" The reasons are theologically sound, but as poignant as if spoken today. And indeed, the separation from the spirit of Jesus can still evoke the same sense of loss. So this is a poem about a historical situation which still has major theological and emotional repercussions. And Cherry does all of this in a fine lyrical manner. It is truly a tour de force.

She also writes love poems, but some of them are problematical. Her love poems, like Emily Dickinson's "Wild Nights! Wild Nights!" may be about human love, or they may be about spiritual love. Sometimes the two are obviously intertwined, sometimes she leaves no clues. In "Body Song" it is unclear whether the love she writes about is human or spiritual. When she writes, "Put your mouth on mine / and make music with my windpipe: / my throat is a thirsty flute only sound can slake . . ." she may be importuning God to inspire her poetry. Or she may be whispering these words to a very human lover. Either way, the poem is resonant and evocative.

Cherry is not afraid to use traditional forms, or variations on traditional ones. Her Shakespearean sonnet, "History," has a kind of sly humor. She uses triplets "In the Garden by the Sea: Easter," and often her use of rhyme is the more difficult slant rhyme rather than true rhymes. She is a craftsperson who knows and honors her craft. She is a careful thinker who has a great lyric gift. These are fine poems in every way.

Ann Struthers is professor of English at Coe College in Cedar Rapids, Iowa. Her latest collection of poems is titled *The Alcott Family Arrives*.

NIEDECKER AND THE CORRESPONDENCE WITH ZUKOFSKY, 1931-1970

edited by Jenny Penberthy. Cambridge University Press, 1993. 378 pages, \$59.95 hardcover.

by Faith B. Miracle

In the preface to the collection of letters written by Fort Atkinson poet Lorine Niedecker (1903-1970) to New York poet Louis Zukofsky (1904-1978), editor Jenny Penberthy comments that the forty-year correspondence between the two writers is "one of the closest and most productive in recent literary history." It is unfortunate that only the Niedecker letters are represented in the book—the executor of Zukofsky's estate refused permission to quote directly from Zukofsky's letters. Still, since they wrote each other regularly—often more than once a week—and responded directly and literally to each other's letters, one can project at least some of Zukofsky's part of the correspondence. One of the important aspects of this exchange is that the correspondence represents for both their largest production.

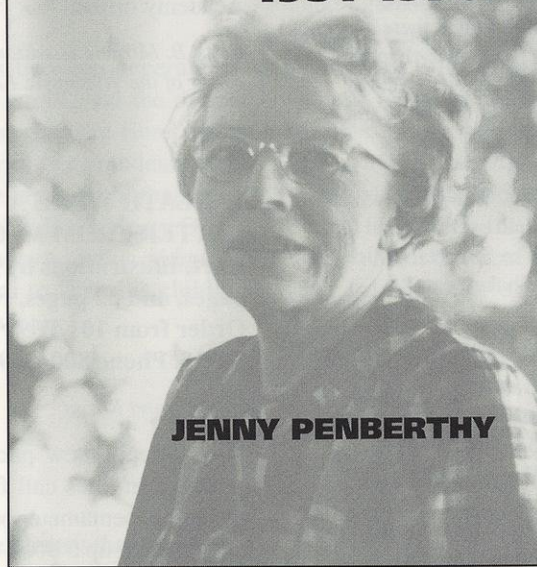
Lorine, who was very aware of her own talents, was convinced of Zukofsky's genius, and many of her letters reflect a certain tension: On the one hand, she seemed to assert herself as his equal; on the other hand, throughout their relationship she deferred to him in a way that often seems annoyingly self-effacing. Zukofsky, apparently, felt comfortable in the role of proclaimed genius. The relationship played a major role in her career, and she continued to express appreciation to Zukofsky even though their friendship grew strained toward the end of their lives.

The friendship began with the February 1931 issue of Harriet Monroe's *Poetry* magazine, an issue devoted to the Objectivist movement of which Zukofsky was one of the founders. It was here Lorine encountered the Zukofsky poems that ignited her own writing career. She was attracted to the Objectivist principles—a focus on things as they exist, absence of romanticism, pristine expression of thought, economy of words. While Zukofsky's commitment to the movement wavered, Lorine for a time remained committed to both Objectivism and the Surrealism which had influenced her as a very young writer. She eventually departed from both styles.

During the early 1930s, the bond between the two poets developed quickly. Close friends verify that by 1933 they were romantically involved, and during those years Lorine made trips to New York to be with Zukofsky for periods of time. According to these friends, Lorine underwent an abortion at some point, the romance foundered, and by 1936 the relationship was platonic. By mutual agreement, most of their correspondence covering the 1930s was destroyed. And inasmuch as Lorine asked Al Millen, her husband, to destroy her diaries and other personal notes when she died, there is no record of the intimacies of the early Niedecker-Zukofsky years other than the accounts of the close friends.

Zukofsky married and had a son, Paul, and Lorine became part of their family life. From the early 1940s until the mid-1960s, Zukofsky once again became her closest friend. Many of their poems sprang from ideas and fragments of expressions in their letters. On August 6, 1951, Lorine wrote: "Yes, we take things from each other; if it's anything you've written in poetry I'm apt to do it unconsciously." Zukofsky, in turn, admitted that abstracts from her notes were so well buried within his poetry that they were unlikely to be identified by readers not familiar with their correspondence. They both used empty bracket signs

Niedecker and the Correspondence with Zukofsky 1931-1970



throughout their letters, which Jenny Penberthy identifies as a device to suggest intimate, caring thoughts not expressed in words—an attempt, apparently, to outwit possible intruders into their privacy.

The competition and witty one-upmanship became a game, and they were mutually critical and supportive of each other's work. They discussed ideas, problems with daily life, mechanics of writing (rhyming, meter, form, style), and the work of fellow poets. In 1955 Lorine completed an eighteen-page critical essay on Zukofsky's poetry, the first lengthy appreciation of his work to be written. It appeared in *Quarterly Review of Literature* 8 in 1956. For Zukofsky's part, he promoted her work among his friends—William Carlos Williams, Ezra Pound, Marianne Moore, and others. She visited the Zukofskys in New York; they visited her on Blackhawk Island.

Here are some excerpts from Lorine's letters to Louis Zukofsky:

March 16, 1948

I have a story, too, that unfolds & grows only in my dreams. I can't even remember it now. It never happens in waking life, only in dreams & while I'm adding to it in sleep, I realize that I'm composing & think of myself as quite a genius.

What a life!!

April 25, 1949

Dear Zu:

... I mailed [Paul] wild flower books for your vacation []. Wish I could talk with him. I'd tell him about the jewel weed that grows here and Joe Pye way up over your head by a little creek and we cut it in the fall and take it in the house for winter bouquet. And bindweed (morning glory) that I have to pull off the little trees and plants to keep them from being choked out and in a week's time they grow right back there again . . .

April 19, 1952 (written on a small card before going to the hospital for surgery)

My personal belongings such as clothes and books and papers to Celia Zukofsky and her husband Louis Zukofsky. Also to them \$3000 from the sale of my house and land, to be held by them for Paul Zukofsky or for all three in some educational or travel or publishing project. Notify Louis Zukofsky, 30 Willow St., Brooklyn, NY.

Lorine Niedecker

But the will was premature. On April 15, 1954, she wrote:

Dear Zu:

OK, you have Stendhal for the Mozart. I liked the Mozart. Little Moz at 7 composing a symphony, saying to his sister, "Remind me to give something good to the horn."

Woikn outdoors now. I feel as tho I'm greening right along with the rest of the world here. My iris where the oil barrels stood coming fine. I took out some oil-soaked ground there and put in some new. My oil stove doesn't burn right since changing to the new drum—the flow comes from the north now instead of the south, or from honeysuckle bushes instead of from iris, and oil heaters are so touchy that I may have to change to roses before I get a good heat.

Thanks for the reference to Coleridge and Hotson . . . I've had two revolutions in my life—one when I first laid eyes on your writing and two when I read Shakespeare! The Sonnets. Notice the evolution—first you, then 23 years later, Shakespeare!

March 1956 (shortly after her mother had died)

Dear Louie:

I'm all right. I take down not my Bible but Marcus Aurelius and follow up with Lucretius and Thoreau's Journal. Why couldn't somebody like Thoreau—a whole family of him—have settled here near me? [. .]

Was going to copy a page or two from Letters of Yeats for you but got started on a poem about my mother—this is her birthday and the snow and Marcus Aurelius and my overloaded loneliness and it's a temptation to write like Yeats, a kind of mellifluous, lush overloading, . . . but I must not.

By the early 1960s tension had entered the relationship to the point where either correspondence dropped off drastically, or it was destroyed. At any rate, only a handful of letters remain after 1964. The relationship became particularly strained when Lorine opened discussions with Zukofsky about the possibility of publishing their letters. Zukofsky was preparing his accumulated papers for the archives at the University of Texas, and Lorine felt it was logical at this time to make their correspondence public. Also, she needed the money.

The negotiations with Zukofsky did not go well, however, even though Lorine engaged in extensive censorship in order to excise personal references from the letters. He refused to give permission to publish. In 1969 the University of Texas purchased the mutilated documents, and Lorine and her husband used the money to build a garage for their Blackhawk Island home. The Zukofsky and Niedecker papers are now in the Harry Ransom Humanities Research Center of the University of Texas at Austin.

In May 1968, less than two years before she died, Louis and Celia Zukofsky came to Madison and visited with Lorine. That was the last time the two poets saw each other. Zukofsky died eight years after Lorine, on her birthday, somewhat disgruntled and disillusioned over his lack of recognition in the literary world.

When *Between Your House and Mine: The Letters of Lorine Niedecker to Cid Corman, 1960 to 1970* (edited by Lisa

Pater Faranda) was published by Duke University Press in 1986, important light was shed on the last decade of Niedecker's life. With the publication of her letters to Zukofsky, we now gain insight into her early years and her development as a writer who is today considered by many critics to be one of the finest American poets of this century. A selected reading list of works by and about Lorine is available on request from the Academy office.

Faith B. Miracle is editorial director for the Wisconsin Academy and editor of the Wisconsin Academy Review.

IF DEATH WERE A WOMEN, UNCLE JAKE, and LETTER FROM McCARTY'S FARM. Poems by Ellen Kort, Illustrations by Jeffrey Hargreaves. 17 pages, 19 pages, and 32 pages, respectively. Fox Print, Inc., 1994. Order from 101 West Edison Ave., Suite 247, Appleton, WI 54915. Phone 800-369-8253.

by Margaret Rozga

Poetry needs new packaging. For some, pages with words arranged in lines call forth memories of tension-filled lessons on iambic pentameter or synecdoche. Such readers may hesitate to even pick up a book of poetry.

Appleton writer Ellen Kort presents her work in a package so inviting reluctant readers will have the book in hand before they remember to resist. Those who then read will be doubly rewarded.

If Death Were A Woman, Uncle Jake, and Letter From McCarty's Farm come handsomely gift boxed. The bottom of the boxes are cloth-lined, the sides cushioned in cloth so that the volume of poetry rests in the center, visible through the clear top, almost like a favorite photograph lovingly framed. Each volume is tied with a ribbon to which is attached a token—a stick of cinnamon, a dried apple slice, a pine cone. To complete the sensory appeal, the slim volumes of poems are printed on textured paper, and the pages are graced with Jeffrey Hargreaves's pen and ink drawings.

Such attention to packaging may raise suspicions about whether what is in the package is equal to the trimmings. Kort's poems quickly dispel such doubts. The accessible, conversational style of the poems invites readers to relax, maybe to read aloud, to consider new possibilities. Certainly this is true of the title poem from *If Death Were A Woman*: "I'd want her to come for me / smelling of cinnamon. . . ."

Some poems simply celebrate the miracle of natural growth. The thrust of the tomato plant to break through the earth into its own life, for example, is celebrated in "Something Red" (*Letter From McCarty's Farm*). Other poems applaud those who have had to struggle but have not lost their verve in the process; one of these, "Small Pieces Of Light," comes from a woman who "has a rose tattooed / on pucker of skin, where her left breast / used to be" (*If Death Were A Woman*).

Sometimes the images are transformed symbolically in just a few words as the conclusion of the poem "Letter From McCarty's Farm" demonstrates:

that landscape
is to be read as text
I will take it as wafer
the whole complete roundness of it
place it on my tongue

The best of these poems build bridges between generations, between the human world, the natural world, and the divine. For example, the speaker in "The Longer We Are Here" hears in the music of the speech and laughter of her granddaughters the music of Uncle Harold playing the Jew's harp, though he was dying of cancer. Likewise, "Our Father Have Mercy On Us Who Gather Wood" (*Uncle Jake*) concludes with this address to Uncle Laine, who cut down his orchard to keep his children from freezing to death in a Depression winter:

I call your name across the years
see your back bent in planting
You grow into me
and I am gathered back to the haze
the rich smell of burning wood.

Ellen Kort's is poetry in a new package, poetry that may draw in new readers. It is also poetry that does what poetry does best: use language to make connections, to give insight, to give pleasure.

Margaret Rozga is an associate professor of English at University of Wisconsin Center-Waukesha County. Her poems have appeared most recently in the 1995 Wisconsin Poets Calendar, The Northern Reader, and Booklovers.

TROUT BIOLOGY: A NATURAL HISTORY OF TROUT AND SALMON

by Bill Willers. Lyons & Burford, 1991. 273 pages. \$29.95.

by David J. Jude

It is fitting that I read this book on the banks of the holy water of the AuSable River in Michigan, home to many of the unique finny organisms that capture the imagination of biologist, fisherman, and lay person alike and where some of the research summarized in this book has been conducted. This is an excellent compendium for the fishery biologist who wants to look up a long-forgotten fact (e.g., how a trout eye accommodates), for the avid angler who wishes to enrich his sport by assimilating all the information available on the life history of these legendary (and sometimes mysterious) fish, and it could probably be used as a text for teaching an introductory course in trout biology.

Bill Willers is a professor of biology at the University of Wisconsin-Oshkosh. His book is a cornucopia of facts, per-

spectives, and philosophies, delivered in a friendly, fireside-chat manner, presenting the essentials of many different fields which all relate to the life and times of trout and salmon, with special reference to Wisconsin. I would have to summarize at least fifteen books from my library—books from such diverse fields as limnology, physiology, evolution, genetics, anatomy, diseases and parasites, physics, ecology, entomology, spawning and agonistic behavior, embryology, fish management, habitat rehabilitation, eutrophication, and phylogeny to cover the many fields that Bill Willers has addressed in this effort.

If you want to know about piscine orgies, drumming stoneflies, otoliths, pterygiophores, spiracles, thalwegs, plastrons, pharyngeal teeth, fish vampires, fish lice, fish that squawk, why freshwater fish drink so much, and fish global positioning systems, then this is the book for you.

It is for the most part free of grammatical or spelling errors, but I did see, for example, "data was" instead of "were" and "principle" where "principal" was the correct word. More importantly, BOD should be "biochemical oxygen demand" not "biological oxygen demand." Another concern is use of the word salmonid, which was correct until the taxonomists (lumpers) threw the family Coregonidae (whitefishes) in with the Salmonidae (trout, charr, and salmon); now the subfamily salmoninae contains the trout, which should be referred to as salmonines. I also disagree with Willers's conclusions regarding low genetic diversity in Great Lakes lake trout: Our data indicate that prior to the sea lamprey invasion, genetic diversity was much, much higher than now.

The text is nicely supplemented with line drawings, some beautiful color photos of various species, and frequent black-and-white photos, some of which are of poor quality (probably the result of making a color slide into a black-and-white photo). Many photos could have been more clearly rendered, but the illustrations make up for this lack of good contrast. The book seems reasonably priced, has a helpful table of contents, index of key words, and an appendix of extra reading and explanations for each chapter.

There is an excellent blending of concepts with examples. There are good illustrations of generalized patterns so as not to bog down a reader, yet Willers provides ample caveats that variation is to be expected and that "normal" is difficult to define. There is a much needed discussion of the uses to which hatchery-reared fish should be put and how exotic fishes have destabilized fish communities. I was very much pleased and in concert with the overarching themes of Willers's pleas to consider the ecosystem as a whole, his strong commitment to biodiversity, how man has blatantly had a destructive impact on the habitat and genetics of these wild fish, and how we must appreciate the aesthetics of the wild kingdom of trout, especially our own place in it.

David J. Jude is a fishery biologist and limnologist with the Center for Great Lakes and Aquatic Sciences in Ann Arbor, Michigan, and has been involved with Great Lakes fish communities for twenty years.

PAUPER AND PRINCE: RITCHEY, HALE & BIG AMERICAN TELESCOPES

by Donald E. Osterbrock. The University of Arizona Press, 1993. 359 pages. \$45.00.

by R. C. Bless

Astronomy is in the midst of a revolution in telescope technology. Within this decade several telescopes having apertures (diameters) between six and ten meters will have been constructed at superb mountain-top sites in Hawaii and Chile. Not only is the light-gathering power of these monsters several times greater than that of the older telescopes, but much attention is now being given to making the images they produce as sharp as possible. This increases their brightness over the background, making fainter objects visible.

Many of the "new" techniques being employed were suggested sixty and seventy years ago by an enormously talented telescope designer, G.W. Ritchey, the subject of this very interesting book. How and why most of his work was ignored, how in fact Ritchey was made a non-person in American astronomy is much of the story of this volume. Don Osterbrock, the book's author, is well qualified to tell this tale. A distinguished astronomer (for many years at the University of Wisconsin-Madison before moving to California), he grew up in Cincinnati and studied astronomy at Yerkes Observatory in southern Wisconsin, locations significant for Ritchey.

Ritchey's career was closely intertwined with that of George Ellery Hale, the incredibly successful builder of observatories—Yerkes, Mount Wilson, and Palomar—and also one of the most effective organizers this country has produced.

Ritchey, the pauper of the title and the grandson of immigrants, grew up in Ohio and Indiana in a family of craftsmen. From the beginning, Ritchey was a perfectionist, a trait that later was sometimes in conflict with the budget and schedules of projects he undertook. He became interested in astronomy before finishing high school and taught himself to grind telescope mirrors. During his short career at the University of Cincinnati, he served as a volunteer at the university observatory, distinguishing himself by his avid interest in astronomy. After moving to Chicago to take a job as a shop teacher in 1891, Ritchey met Hale. The thirty-year-old Ritchey and the twenty-five-year-old Hale hit it off immediately. For Ritchey, Hale provided access to an observatory; for Hale, Ritchey was a useful handyman, soon to become his optician. They also shared a conviction that the future of astronomy resided in reflecting (mirror) telescopes, rather than the then more conventional refractors (lenses).

Hale, the prince of the title, was the son of a doting father who had gotten into the elevator business just as the first Chicago skyscrapers were being built. He became very wealthy and spent considerable sums to support George's interest in

applying the still new techniques of spectroscopy to the study of the sun. His father's wealth enabled him to indulge his passion for ever larger and more powerful instruments. His astronomical obsession was *building* bigger instruments rather than *using* them.

In a few years after meeting Hale, Ritchey was not only making high quality optics, but had developed new techniques for doing so. By 1896 he had become so indispensable to Hale that the latter persuaded his father to pay Ritchey's full-time salary. In the following year Ritchey followed Hale to Williams Bay, Wisconsin, where the Yerkes Observatory of the University of Chicago was nearing completion. Ritchey immediately set about establishing an optical shop in order to grind and polish a sixty-inch mirror which, characteristically, Hale had acquired even before work had begun on the forty-inch.

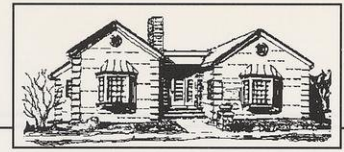
Ritchey had a keen interest in astronomical photography and by 1901 had taken the best photographs in the world with an excellent twenty-four-inch reflector of his own design and construction as well as with the Yerkes forty-inch. Articles he wrote and popular lectures he gave—first in Milwaukee, Chicago, and other midwestern cities, later over the country and in Europe—established his reputation as an outstanding optician and photographer.

In many ways, his work in Wisconsin, or work begun in Wisconsin and finished in California, was the high point of his career. In 1908, after four years in California, he finished the sixty-inch Mount Wilson reflecting telescope, which proved to be an outstanding instrument. His downfall began when, on his own, he tactlessly solicited funds from someone Hale was himself wooing for support of his one hundred-inch project. Hale took this to be an extremely disloyal act and began to separate himself from Ritchey. Most of Hale's contacts with Ritchey were through Walter Adams, a very capable astronomer but a mean-spirited man who took every opportunity to humiliate Ritchey.

The rest of Ritchey's life was one of frustration and failure, partly a consequence of his own actions and personality, but also a consequence of Hale's enormous influence in the astronomical community which was such that few dared to cross him and support Ritchey. So complete was his isolation that it is fair to say that the performance of telescopes was set back several decades as a result.

Pauper and Prince describes the probably inevitable conflict between Ritchey and Hale—two driven men, but each with his own goals. It also gives an account of an often neglected aspect of the scientific enterprise, namely, the influence of instrumentation and technology in shaping scientific research. On both counts, this book is highly recommended.

R.C. Bless is a professor of astronomy at the University of Wisconsin-Madison.



The Academy and Transactions: Providing Opportunities for Students

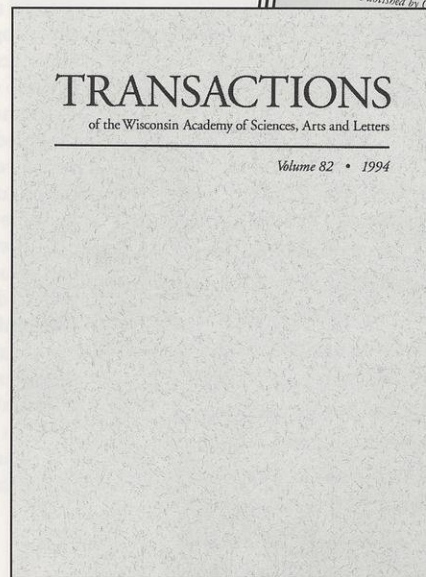
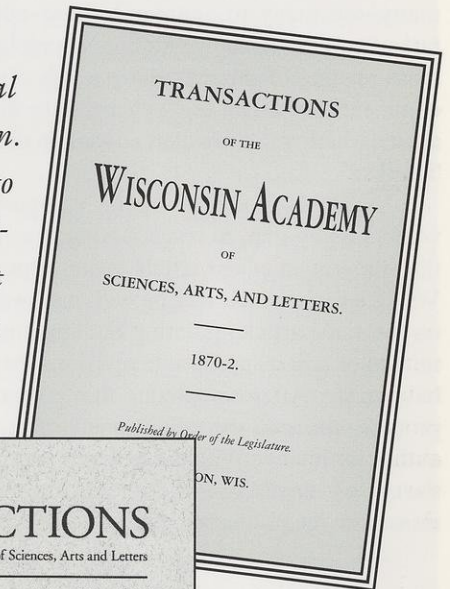
by Patricia Allen Duyfhuizen

In 1872 the Wisconsin Academy began publishing a scholarly journal titled *Transactions* as one important means of fulfilling its mission. Today this journal continues to be published annually. In addition to being sent to the Academy's membership, it is exchanged for similar scholarly volumes with more than 600 libraries worldwide. The volumes that are received in return compose the Academy's book collection, which is housed at Memorial Library at the University of Wisconsin–Madison.

On any given weekday afternoon during the spring or summer semester at the University of Wisconsin–Eau Claire, you may find a small group of students in the English department's Kate Gill Library, sitting around a table that is covered with papers and open books: *Transactions* article manuscripts or page proofs, technical dictionaries, science journal style guides, and the *Chicago Manual of Style*. An animated discussion will be going on, with students working together on copy editing a *Transactions* article manuscript or looking over their article layouts, comparing their work, and discussing their different approaches: "Did you check the spelling for 'allochthanous'?" The author spells it differently in two places." Or "The author mentions figures 2 through 5 on the same page in the text. How did you place the figures?"

Over the last eight years, I have worked with thirty student interns as part of the publication of *Transactions*. Since 1987 when editor Carl Haywood, now associate dean of arts and sciences at the University of Wisconsin–Eau Claire, suggested a student internship, students have been involved in copy editing, proofreading, preparing layout "dummies," and more recently in working with the newer technologies of desktop publishing. The *Transactions* internship is one of several offered through the technical writing program at the University of Wisconsin–Eau Claire. The internships are prized by students, giving them hands-on professional experience, thereby making them more competitive in the job market.

The students come into the internship as already competent, though fledgling, copy editors comfortable with desktop publishing software. They acquire their skills through courses such as technical editing, document design, or book editing and publishing, or through other internship opportunities. I expect them to be familiar with printing jargon, to use standard editorial and proofreading symbols, to proofread accurately and carefully, to work cooperatively, and to demonstrate initiative and problem-solving



skills, such as how to fit an oversized table into our page format. During their internships, students refine their skills, using my own work on the same articles as guidelines for discussion and comparison.

Early in the spring semester, and following a rigorous review process, (*Transactions* is a refereed journal), *Transactions* editor William Urbrock, professor of religious studies at the University of Wisconsin–Oshkosh, forwards the first of the articles he has accepted for publication. Two or more interns copy edit the same article manuscripts, reading for content and organization and editing for mechanics and consistency. The degree or level of edit varies, with some manuscripts requiring only a light copy edit and others a more detailed, technical edit.

Interns are not expected to master the content of our mostly scientific articles, but they do acquaint themselves with the terminology, looking up the meanings and verifying the spelling of special terms. Also, there are many elements that must be carefully checked for consistency. For example, the tables and

figures must be compared with information in the text to be sure that the data given in the text correspond to the data presented in the figures or tables; technical terms must be checked for consistent spelling throughout; the author's use of numbers and abbreviations is also checked for consistency. These are just a few of the many—too many to enumerate here—editorial tasks that interns apply. Authors appreciate our close reading of the manuscripts: We often get comments back such as, "I changed the discrepancies which you were alert enough to discover. Thanks!"

In weekly meetings, interns compare their work, line by line, to reach a consensus before they present an edited article manuscript to me. We then review their editing with my own work on the same article, pointing out anything they missed or any inappropriate revisions they may have made. After completing this instructional process, we send the edited manuscript to the author for review. With the author's approval of the edited manuscript, the interns are ready to move into the production phase.



For *Transactions*, production procedures changed radically one day in early January 1993 when LeRoy Lee delivered a couple of large boxes to my office. The Macintosh IIsx and inkjet printer had arrived, and with that delivery, one of the oldest academic journals in the state had made the leap to desktop publishing!

Authors now submit both hard copy and disk versions of their manuscripts, and editorial changes are keyed into the disk copy, rather than having a typesetter re-key the manuscript. After all revisions have been keyed into the file, interns are ready to begin their next task: preparing the layouts on screen.

Preparing a layout is a creative, even artistic, endeavor that requires much time and thought and careful attention to each detail, such as the effective use of white space, the placement of illustrations and tables, and the type style and size for individual elements such as the regular text, subheads, mathematical formulae, tables, bibliographic material, and captions. Interns learn how these technical elements are put together to create an effective visual presentation of the material.

Each intern creates an electronic "template" that specifies the layout parameters such as margins and columns, placement of page numbers and running heads, and the various type styles required for publication. (It would be easier and faster if I pro-

UNIVERSITY OF
WISCONSIN
MADISON

General Library System
Office of the Director
August 22, 1994

Richard J. Daniels, Associate Director
Wisconsin Academy of Sciences, Arts and Letters

Dear Richard:

Since we last met, I have asked staff to review the current status of the Academy Exchange Program and am pleased to report that it continues to be an important part of our acquisitions program.

Each year, the UW-Madison General Library System sends copies of *Transactions* to 121 U.S. and 515 foreign institutions. In exchange for these, we receive in excess of 850 titles on a "standing order" basis. In the recent past, staff surveyed exchange partners receiving *Transactions*. Recipients reported a high degree of satisfaction with the publication as well as a strong desire to see the exchange continue.

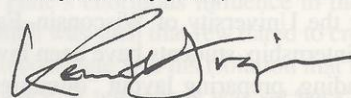
In addition, a review of a small sample of the titles acquired through the program confirmed that the materials received in exchange for *Transactions* are clearly of a scholarly nature and are worthwhile additions to our collections.

One of the major benefits of the program is that some of the titles provided in exchange for *Transactions* are not readily available from our serial vendors. Many of those from the European community and Japan which are available through vendors would prove quite costly if we were not able to obtain them through the exchange program.

I was impressed by the strong consensus of staff opinion regarding the value of the exchange program and by the speed with which they were able to document its importance. I'm sure that we would be glad to gather more information if you need it. I'm delighted to hear that you are exploring prospects for developing and printing an index to *Transactions*. Such an index would be of great benefit to Wisconsin scholars and, as the above information suggests, to a wider community of researchers who are interested in Wisconsin's contribution to the world of learning.

Thank you for giving me the opportunity to comment on the enduring value of this long-standing program.

Very cordially yours,



Kenneth Frazier, Director

vided each intern with a copy of my own template and "master pages," but the experience is valuable to them.) The intern "places" the word processing file for the article manuscript into the template, reviews the formatting, and applies the appropriate type styles to the text before proceeding with the layout decisions.

As they work through the layout for each article, interns must determine the best placement for the illustrations, which ideally should appear on the same page as, or immediately fol-



Transactions intern Chris Solberg discusses the layout of the 1994 issue with new interns (left to right) Sheri Jackson, Cynthia Barber, and Gretchen Toth. Courtesy University of Wisconsin-Eau Claire. Photo by Bridget Gaffney.

lowing, the first textual reference to that figure. Interns indicate figure placement in the layout by drawing boxes to the exact dimension of the figure, which is determined by “sizing” the art for the printer: “Shoot figure 3 to 78%.” They also place and reformat the tables, some of which are long and complex.

Two or more interns work on the same article layout, comparing their work and refining it through their discussions, before finally presenting a set of page proofs to me for further review and discussion.

Upon completion, the entire issue layout is sent to the printer on disks, along with the art originals, which the printer reduces, enlarges, or crops to our specifications. The printer produces final high-resolution negatives directly from our electronic files, eliminating the need for us to send “camera-ready copy.” Negatives of the reduced art are then “stripped in” the layout negatives. Some printers also have the capability to go directly from customer’s electronic files to printing plates! Also, beginning with the 1995 issue, our printer will scan the art for us, returning our art originals with electronic art files, which we will then “size” on-screen for direct placement in our article files—another learning opportunity for the interns.

Prof. Wilma Clark, who serves on the technical writing committee at the University of Wisconsin-Eau Claire and teaches a number of the technical writing courses, believes that the “internships are a most important part of our program. The practical experience of doing real work with professionals in the field is finally what makes our students competitive in the job market when they graduate.” The *Transactions* internship will continue to offer “real world” opportunities to technical writing students for enhancing their skills and for experiencing first-hand the production of a professional journal.

Patricia Allen Duyfhuizen is managing editor of *Transactions* and teaches in the English department at the University of Wisconsin-Eau Claire.

Indexing the Review

In 1993 the students in Prof. Edwin Cortez’s classes at the School of Library and Information Studies at the University of Wisconsin-Madison were offered the opportunity to engage in a learning experience by developing a comprehensive subject index of the *Wisconsin Academy Review*, beginning with Volume I (1954). Work on a *Review* indexing project was initiated some time ago by librarians at the University of Wisconsin-Eau Claire, but due to changes in personnel and circumstances, the effort was set aside during the 1980s. The first students who chose the project as a practicum in Prof. Cortez’s class in 1993 worked from a base of terms developed during that earlier phase of the project, adding or altering terms as the need arose.

Given the eclectic nature of the *Review* and the wide range of subjects included over the more than forty-year period, the project presents a considerable challenge. The students, however, are meeting the demands with enthusiasm. One young woman described her approach in a report dated December 1993: “In assigning indexing terms, I utilized a three-step process. First I read the article and wrote down all the possible subject terms, using a combination of derivative and assignment indexing. Next I checked the terms against the existing list of terms and altered them accordingly. Finally, I added selected terms to the list according to the order in which the other terms were listed and the aspects which already existed for a term.”

To date twelve students have chosen to use the *Wisconsin Academy Review* indexing project as a practicum. One student expressed her appreciation for the opportunity in a letter: “I enjoyed the reading and the process of assigning subject terms to these articles so much that I would like to continue with the project for an additional twenty hours to fulfill my practicum requirement for graduation from the School of Library and Information Studies. I would do the work over the January break, so that it would be ready for the next practicum students who accept the project for the spring semester.”

The work continues, and the Wisconsin Academy hopes eventually to find funding to publish both a comprehensive subject index and a complete author/title index so that readers and scholars will have easy access to the rich collection of articles, art, poetry, fiction, essays, and reviews which have appeared in the *Review* since its inception. In the process, the *Review*, like its prestigious sister publication, *Transactions*, is providing a valuable learning experience for university students.

Faith B. Miracle, Editor

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