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WISCONSIN'S FIRST FARMERS • GREAT WISCONSIN IDEAS, II
ESSAYS FOR A NEW MILLENNIUM

Wisconsin Academy Review

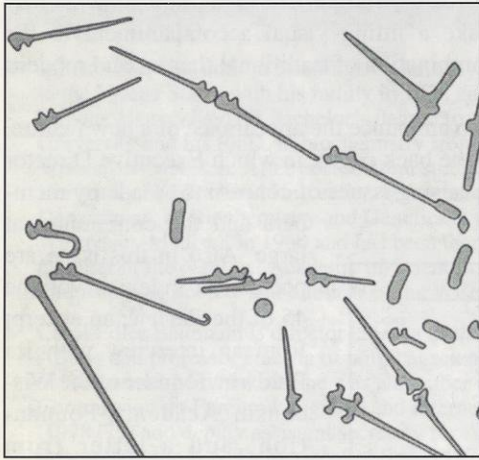
A JOURNAL OF WISCONSIN CULTURE



Wisconsin Academy Review

Winter 1999-2000

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Native Americans constructed effigy mound groups throughout the southern two-thirds of the state primarily between A.D. 800 and 1100. This map shows mounds in Lizard Mounds County Park in Washington County. Drawing by the University of Wisconsin Cartography Lab.

FRONT COVER: Celebration by Randall Berndt. Acrylic/Panel, 16 x 20 inches, 1999.

BACK COVER: Walking, Not Riding by Randall Berndt. Acrylic/Panel, 16 x 20 inches, 1997.

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Robert G. Lange, Publisher
Louise E. Robbins, Managing Editor
Michael A. Goodman, Editorial Assistant
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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.



I've never enjoyed New Year's Eve, and I don't expect much from the eve of the new millennium. I always skip retrospectives of the year or the decade and have been avoiding wrap-ups of the century and the millennium. But suddenly this fall I found myself surrounded by a swarm of essays written for the *Review* in honor of the imminent calendar change, and I realized that I was not only reading them with interest but thinking about them afterwards. I began to understand what Paul Boyer meant when he wrote, in his introduction to the "Essays for a New Millennium," that commemorating these types of anniversaries has profound cultural meaning and expresses deep human needs.

This special issue originated a year ago, when former editor Faith B. Miracle wrote to a number of thinkers and leaders who have a Wisconsin connection and asked them to contribute a piece expressing "an opinion or concern" about the past or the future. Amazingly, many of these busy people said yes, most of them submitted their essays on time, and all of them were gracious with their editor. The essays are wonderfully varied. Some people focus on their own lives or fields, while others consider Wisconsin—its landscape, politics, religious or educational institutions—and a few address international issues. If there is an underlying theme, it is the relation of the small to the large: the individual to history, the neighborhood to the world. It's an appropriate subject to contemplate as we take a glance behind, turn and step into the two thousands, and decide what direction to take into the unformed future.

Also in this issue, Robert Birmingham looks back to the people who lived in this region at the turn of the first millennium—a time of great cultural change. Philip Farrell, concluding his article from the previous issue, outlines ways to implement the four great Wisconsin ideas to keep the University of Wisconsin a world-class university. Our own gallery director, Ran-

dall Berndt, is the featured artist. His paintings, analyzed by Richard Long, make a fitting visual accompaniment to the issue, with their combination of traditional themes and modern elements.

We are happy to announce the appearance of a new feature, the Back Page (on the back page), in which Executive Director Bob Lange will be raising issues of concern to Academy members and the community at large.

Also in this issue are poems; an index to volume 45 of the *Review*; an excerpt from an interview with Ira Baldwin, founder of the Wisconsin Academy Foundation; and a letter from Academy Council President Rolf Wegenke.

In the next issue, yet another feature may appear, if readers make it happen: a letters to the editor page. If something you read here irks you or excites you, write a brief letter and address it to "Letters to the Editor," *Wisconsin Academy Review*, 1922 University Ave., Madison, WI 53705, or send an e-mail to review@wisconsinacademy.org with "Letters to the Editor" in the subject line. Please include your name, address, and telephone number. Letters may be edited and will not be acknowledged unless published. In fact, why not

write to me on New Millennium's Eve? I'll probably be sipping champagne and checking my e-mail.

Louise E. Robbins



Wisconsin Academy Gallery Schedule

December	Vincent Leon Olmsted, glass
January	Fuyuko Matsubara, fiber
February	Marna Goldstein Brauner, fiber

CONTRIBUTORS

- ▶ Julius Adler was born in Edelfingen, Germany, in 1930. He came to the United States with his family in 1938 and grew up in North Dakota. He received his bachelor's degree from Harvard University and his Ph.D. in biochemistry from the University of Wisconsin–Madison. After postdoctoral studies at Washington University and Stanford University, he became a professor in the Departments of Biochemistry and Genetics at the University of Wisconsin–Madison in 1960 and has been there ever since. He is a member of the National Academy of Sciences and the American Philosophical Society and a fellow of the Wisconsin Academy.
- ▶ Carol Edler Baumann is director emerita of the Institute of World Affairs and professor emerita of political science at the University of Wisconsin–Milwaukee. She was a member of the President's Commission on Foreign Language and International Studies (1978–79) and deputy assistant secretary for Assessments and Research in the U.S. Department of State (1979–82). She serves or has served on a number of national boards, including the Foreign Policy Association and the National Council of World Affairs. Her B.A. is from the University of Wisconsin–Madison and her Ph.D. from the London School of Economics and Political Science, which she attended as a Marshall Scholar.
- ▶ Randall Berndt is director of the Wisconsin Academy Gallery. For biographical information, see page 31.
- ▶ Robert A. Birmingham is the state archaeologist with the State Historical Society of Wisconsin. He is chief editor of the book *Wisconsin Archaeology*, which was published as a special volume of the journal *Wisconsin Archaeologist*. His new book, *Indian Mounds of Wisconsin*, will be published by the University of Wisconsin Press in fall 2000.
- ▶ Kimberly M. Blaeser is an associate professor of English at the University of Wisconsin–Milwaukee, where she teaches Native American literature, creative writing, and American nature writing. An enrolled member of the Minnesota Chippewa Tribe, Blaeser grew up on the White Earth Reservation in northwestern Minnesota. She is the author of *Trailing You*, a book of poetry which won the Native Writers' Circle of the Americas first book award, and *Gerald Vizenor: Writing in the Oral Tradition*, a critical study, and editor of *Stories Migrating Home*, a collection of Anishinaabe prose. Her poetry, fiction, and essays have been published in over fifty Canadian and American journals and collections. She lives in rural Lyons township and is completing her second book of poems, *Absentee Indians*.
- ▶ Paul Boyer is Merle Curti Professor of History and director of the Institute for Research in the Humanities at the University of Wisconsin–Madison. Boyer has written numerous books, including *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (1985), *When Time Shall Be No More: Prophecy Belief in Modern American Culture* (1992; winner of the Banta Award of the Wisconsin Library Association), and *Fallout: A Historian Reflects on America's Half-Century Encounter with Nuclear Weapons* (1998). He is also author or coauthor of several college and high school textbooks and serves on the national advisory board of the public television series *The American Experience*. He is the recipient of Guggenheim and Rockefeller Foundation Fellowships, among other honors.
- ▶ James F. Crow grew up and attended college in Wichita, Kansas, and received his doctorate from the University of Texas in 1941. After teaching at Dartmouth College, he came to Wisconsin in 1948, where he pursued research in population genetics and the genetics of the fruit fly, *Drosophila*, and served as chair of the Genetics and Medical Genetics Department. He is a member of the National Academy of Sciences, a foreign member of the Japan Academy, and a fellow of the Wisconsin Academy. He played the viola in the Madison Symphony Orchestra for many years.
- ▶ Michael P. Dombeck became the fourteenth chief of the U.S. Forest Service in January 1997. Early in 1998, he introduced the Forest Service Natural Resource Agenda, which centers on watershed health and restoration, development of a forest roads policy, sustainable forest management, and recreation. Dombeck grew up in northern Wisconsin, where he spent summers during college at the University of Wisconsin–Stevens Point as a fishing guide. He has a doctorate in fisheries biology from Iowa State University. Before becoming Forest Service Chief he served as acting director of the Bureau of Land Management, where he focused on creating a long-term vision to improve the health of the land.
- ▶ Anthony S. Earl has served as Wisconsin state representative (1969–74), majority leader of the Wisconsin legislature (1970–74), secretary of the Department of Administration (1975), secretary of the Department of Natural Resources (1975–80), and governor of Wisconsin (1983–86). He is chair of the Center for Clean Air Policy and director of the Great Lakes Protection Fund. Earl has a law degree from the University of Chicago and is a partner in the law firm Quarles & Brady.
- ▶ Philip M. Farrell is dean of the University of Wisconsin–Madison Medical School and Alfred Dorrance Daniels Professor on Diseases of Children. Farrell has been on the faculty of the University of Wisconsin–Madison since 1977, associated with the Medical School (Department of Pediatrics) and the College of Agricultural and Life Sciences (Department of Nutritional Sciences). He became dean in 1995 after ten years as chair of pediatrics.
- ▶ Karin B. Gordon was born and educated in Denmark and has worked in Denmark, Sweden, Switzerland, and the U.S. She received an M.L.S. from Lake Forest College and works as a translator and interpreter. Her fiction and poetry have appeared in *Tusitala*, *Collage*, and *Whetstone*. Most of her creative writing is done in her home in Eagle River, Wisconsin.
- ▶ Donald F. Kettl is professor of public affairs and political science at the Robert M. La Follette Institute of Public Affairs at the University of Wisconsin–Madison and is nonresident senior fellow at Washington's Brookings Institution. He is the author of or contributor to, among other works, *Reinventing Government: A Fifth-Year Report Card*, *Civil Service Reform: Building a Government that Works*, *Sharing Power: Public Governance and Private Markets*, and *Deficit Politics*. Kettl has consulted for government organizations at all levels, regularly discusses public issues on radio and television, and is a columnist for *Governing* magazine. He served as chair of the Wisconsin Governor's Blue Ribbon Commission on Campaign Finance Reform.
- ▶ Daniel P. Kunene received his B.A. degree from the University of South Africa, which, fifty years later, in October 1999, conferred on him the degree of D. Litt. et Phil. (Honoris Causa). His M.A. and Ph.D. degrees are from the University of Cape Town, where he taught before leaving for a position at the University of California, Los Angeles; a few years later he came to the University of Wisconsin–Madison. He has published several books in the areas of African languages and literature, creative writing (poetry and prose), and translations from Zulu and Sesotho. For many years Kunene was involved in political activism for the liberation of South Africa from apartheid, which was realized in 1994, with the first democratic elections.

Continued on page 58

The Last Millennium: Wisconsin's First Farmers

by Robert A. Birmingham

As the third millennium approaches, Wisconsin, along with much of the world, finds itself in the midst of an information revolution—a time of technological, economic, and social change so profound that it promises to affect the direction of cultural evolution far into the future. Similarly, people living in Wisconsin at the end of the last millennium found themselves in the middle of a revolution, one that not only transformed Native American life at the time but continues in many ways to define the identity of Wisconsin today. Sometime just before A.D. 1000, Native American groups in midwestern North America began to shift from mobile hunting and gathering of wild foods to village-based cultivation of corn and other crops, notably beans and squash. The turn of the last millennium witnessed the appearance of Wisconsin's first farmers.

Cultivating the Land

Native Americans had been cultivating wild plants for quite some time before they began planting corn. They carefully nurtured plants such as goosefoot, knotweed, maygrass, little barley, and sunflower, whose seeds they ground up and used for food. Squash, which may have been first domesticated in the southern part of North America, has been found at Wisconsin sites that are several thousand years old. Such crops made up a very small part of the diet, though, and were clearly only supplementary foods.

After about A.D. 800, corn, first domesticated in Mexico, began diffusing into Wisconsin. Within two hundred years, settlement patterns changed considerably: most people in what is now southern Wisconsin began living in small semi-permanent farming villages and tilling large fields with hoes made of wood, stone, or animal bone.

The spread of corn and a farming lifestyle into Wisconsin was stimulated in part by contact with people to the south who were expanding out of their homelands and in part by changing environmental conditions. From A.D. 400 to 1200, the climate was slightly warmer and moister than it is today, providing a lush environment for plant growth and improving what had been marginal environments. Archaeologists have recorded an explosion of camp sites and villages all over the landscape of southern Wisconsin at this time.

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 centuries spanning
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 and social change.*

The Late Woodland People

Two and possibly three different cultural traditions, the Woodland, the Mississippian, and the Oneota, existed in Wisconsin one thousand years ago. The Woodland tradition is separated from earlier traditions by the appearance of pottery, the presence of earthen burial mounds, and other changes. The Late Woodland stage of the Woodland tradition, from A.D. 500 to 1200, is characterized by the first use of the bow and arrow, thin-walled and elaborately decorated pottery, and, in Wisconsin, con-

struction of mysterious and monumental effigy mounds over much of the landscape.

Late Woodland people for a long time moved with the rhythm of the seasons within defined territories; they hunted, fished, and gathered wild foods. They established small seasonal villages and camps in different parts of the territories to take advantage of optimum times for harvesting different foods. Gardens of indigenous plants as well as squash supplemented the diet, but archaeologists have concluded that corn became increasingly important after about A.D. 800. Evidence ranges from the preserved kernels from tiny prehistoric corncobs to the remnants of agricultural fields that are still visible in some parts of the state.

Late Woodland habitation sites include small villages and special camps for hunting, fishing, and collecting, which were

usually located on or near bodies of water. In southwestern Wisconsin, for example, small groups of people broke off from the villages to hunt deer in the sheltered valleys of the Driftless Area, temporarily occupying caves and rock overhangs, or to fish and harvest clams from rivers. Some later villages in central and eastern Wisconsin were fortified with wooden palisades, indicating increased warfare—a pattern that has occurred throughout the world whenever people have adopted agriculture.

The ancient Woodland custom of building burial mounds was continued by Late Woodland people, but with some stunning differences. Sometime after A.D. 700, mound construction greatly accelerated and people throughout southern Wisconsin and parts of adjoining states began sculpting hilltops and other prominent locations into ceremonial complexes of effigy mounds—huge earthen birds and animals, and even human beings—as well as innumerable low round and oval (conical) mounds and long low embankments known as linear mounds. The dead were interred in most, though not all, of the mounds. In some cases, round or rectangular earthen, ridged enclosures were associated with mound groups, evidently defining sacred spaces for rituals and ceremonies. Effigy mound construction is usually radiocarbon-dated to between A.D. 700 and 1200, but many archaeologists believe it peaked around 800 to 1100. By the time this comparatively brief and spectacular custom ended, Late Woodland people had constructed over fifteen thousand effigy, conical, and linear mounds at over eight hundred locations throughout the southern two-thirds of the state.

Effigy mound groups were not simply burial grounds, but were also frequently visited ceremonial centers that linked together bands of Late Woodland people. The mound forms appear to represent the powerful spirit beings and clan totems of Native American belief systems, which divided the world into upper (sky) and lower (earth/water) realms—this organizing principle still underlies the cosmology and clan systems of many Native American tribes. The mound group ceremonial centers are therefore “cosmological maps” that model a world in balance.

The impetus for construction of the effigy mounds was undoubtedly related to what was happening elsewhere in the Midwest. The period of several centuries spanning the year 1000 was an unstable time of rapid technological, economic, and social change; population growth; warfare; and migrations of tribes and bands. Much of this change emanated from the area south of Wisconsin. Perhaps the Late Woodland people of the effigy mound region were unsettled by change, even as they accepted new ideas, such as corn horticulture. Perhaps, through building models of an orderly universe, the effigy mound people sought to call upon the power of their spirit beings to restore harmony to a quickly changing world.

I also believe that construction of the effigy mounds and the ceremonies performed there helped to unify Late Woodland people into a new, horticultural tribe or tribal confederation with a distinct clan structure similar to that depicted by the effigy mound forms themselves. Archaeologists refer to the

new social entity that gradually emerged in the archaeological record sometime after A.D. 1000 as the Oneota. The comparatively rapid transition to this new way of life was in large part stimulated by direct and indirect interactions with a new and powerful cultural presence on the Wisconsin landscape between A.D. 1000 and 1200—the Middle Mississippians. By the time the transition was completed, the Oneota had developed social mechanisms (such as permanent villages and a well-organized clan structure) and new ceremonials adapted to a horticultural lifestyle that eventually replaced the various social and spiritual functions of mound building. In short, the culture had dramatically changed, and the building of earthen mound ceremonial centers no longer played an important role.

The Mississippians

Around A.D. 1000, the cultural history of the people in southern Wisconsin was much affected by the evolution of a new cultural tradition that sprang up in the vast, fertile Mississippi River floodplains of southern Illinois. In about A.D. 800, Late Woodland people in these bottomlands made the shift to corn horticulture and, within a few hundred years, organized one of the most complex societies in prehistoric North America. This new culture has been referred to as the Middle Mississippi because it developed in the central part of the Mississippi Valley. The last vestige of Middle Mississippi culture was still thriving in parts of the southeastern United States when Spanish and French explorers arrived.

At the heart of prehistoric Mississippi culture is the largest native North American city ever to have been constructed, a place we now call Cahokia. Cahokia is situated on the Mississippi River floodplain in Illinois across the river from St. Louis, Missouri. Archaeologists have traced Cahokia's development from a concentration of villages and mound ceremonial centers to a veritable city with large, flat-topped earthen ceremonial mounds, residential districts, and wooden fortifications. At its time of greatest power, around A.D. 1100, the huge settlement covered over five square miles and accommodated a population estimated in the tens of thousands.

The complexity of Cahokia society is evident from the extraordinary burials of its rulers. The body of one such individual was laid on a bed of twenty thousand marine shell beads arranged in the form of a large hawk or falcon, an ancient Native American icon that had become the fierce symbol of Cahokia aggressiveness. He was surrounded by the corpses of sacrificed humans, including the remains of over fifty young women who had apparently been killed so that they could accompany their ruler into the afterlife.

It is easy to imagine the impact that the rise of Cahokia and Mississippian society had on adjoining regions. Feeding and clothing tens of thousands of people must have quickly strained the local resource base. Mississippians may have been interested in trading with people on their northern frontier, in Wisconsin, in order to obtain lead (for white paint) from the

southwestern part of the state, stone for tools, meat and hides from Wisconsin's vast and productive southern deer country, and other food. Many archaeological sites in Wisconsin have unmistakable evidence of interaction with Cahokia or at least the Middle Mississippian sphere of influence, and new sites are being discovered all the time.

Middle Mississippian trade in Wisconsin appears to have been first conducted through middlemen, some of whom migrated into the region and undoubtedly competed with and otherwise unsettled the indigenous population. The Mississippians themselves built ceremonial centers at several strategic points that apparently served as trading stations. One of their first long-distance trading partners in Wisconsin may even have been the Late Woodland effigy mound people. Such a connection is suggested by rock art on the walls of the Gottschall Rockshelter in Iowa County. Here, paintings rendered in Mississippian style are associated with effigy mound pottery deposited on the cave floor about one thousand years ago.

Small groups of Mississippians moved into Wisconsin just after A.D. 1000. In what is now the tiny town of Trempealeau on the Mississippi River north of La Crosse, the Mississippians sculpted the summit of a high bluff into two or three low platform mounds reminiscent of the monumental platform mounds at Cahokia. Farther north, another center of intense Mississippian-

influenced activity existed along the Mississippi River in what is now Goodhue County, Minnesota, and Pierce County, Wisconsin. A series of large fortified villages was surrounded by dense Late Woodland-like burial mound complexes, but two small Mississippian-style platform mounds on the Minnesota side suggest a Mississippian presence. In Wisconsin, the village and mound complexes include the Diamond Bluff Site. Some researchers have suggested that Diamond Bluff and other sites near Red Wing are places to which Late Woodland people from throughout the region were drawn and where they became culturally transformed by Mississippian influence, thus giving birth in that area to the new Oneota culture. This process of transformation may have been repeated, with variations, in other regions of the state.

Aztalan

Wisconsin's largest and most famous Mississippian site is Aztalan, located on the Crawfish River near the town of Lake Mills, and now a state park. Archaeological evidence indicates that Aztalan began as a Late Woodland farming village between A.D. 800 and 900. The villagers may have been not the local effigy mound builders but rather a group of part-time farmers who had migrated from the south, perhaps from north-central Illinois, as part of the initial expansion of Late Woodland people following acquisition of corn agriculture. However, the effigy mound people must also have used the locale for ceremonial purposes at some point: directly across the river from Aztalan are an effigy mound and two small ceremonial enclosures.

The particular Late Woodland group that settled at Aztalan had connections to the emerging Mississippi society in southern Illinois, perhaps serving as middlemen. However, there is unmistakable evidence, in the form of artifacts and extensive site modification, that at about A.D. 1050 people from Cahokia were present themselves. At this time Aztalan was expanded and built along the lines of other Mississippi communities, with earthen platform mounds and a massive wood and clay town wall.

In its heyday, the town covered fifteen acres. At the four corners, the Aztalan Mississippians constructed earthen platform mounds similar to those at Cahokia, though smaller. The southeastern mound is actually a natural knoll incorporated into the town design, and not much is known about it. The other three mounds were civic



Mississippian warrior thought to be the legendary cultural hero Red Horn, from paintings at the Gottschall Rockshelter. The figure shows what archaeologists believe to be a typical Mississippian hairstyle, with braids extending forward and a copper disk headpiece; his hands have been cut off in battle. Courtesy of Robert J. Salzer, Beloit College.



Aztalan, near Lake Mills, was a large Mississippian outpost and ceremonial center. Artist reconstruction by Eric Paulson. Courtesy of the University of Wisconsin–Milwaukee Archaeological Laboratories.

and religious structures, and each one appears to have played a different role in Aztalan life.

Aztalan's residential district accommodated several hundred people and occupied the eastern side of the village, where it appears to have been set off from several of the platform mounds by a wall. There, archaeologists have discovered the remains of small, but substantial, single-family houses built of wattle and daub. Like that of other Mississippian communities, the economy of Aztalan was based on corn agriculture, although wild foods such as fish and deer were also important to the diet.

The presence of several types of Late Woodland pottery, including that of the effigy mound people, could lead one to believe that the Mississippians at Aztalan enjoyed peaceful relationships with at least some of the local Late Woodland people. This notion is reinforced by the recent discovery of contemporaneous and unfortified Late Woodland sites within a short distance of the town. But Aztalan itself was a town at war, if not under siege. It is massively fortified, and throughout the town proper, archaeologists have exhumed countless discarded, burned, and butchered human body parts, some of which provide unmistakable signs of cannibalism—a grisly byproduct of intense warfare. Ritual cannibalism and human sacrifice were common during periods of warfare in many parts of the New World. Early explorers, for example, described how tribes such as the Huron, Creek, and Tunica tortured, burned, cut into pieces, and sometimes ate their prisoners in order to acquire the power and courage of their foes.

The enemies of Aztalan could have been other Late Woodland people not yet allied with the Mississippians. However, most probably they were a large group of *former* Late Woodland effigy mound builders—the Oneota. One nearby group of Oneota lived in large villages on the shores of Lake Koshkonong, which until about A.D. 1000 had been a major center for the effigy mound people and was also a center for cultural contact with Mississippians. Aztalan's foes may have been the descendants of their initial trading partners—Late Woodland effigy mound people of Lake Koshkonong who were now becoming part of a rapidly evolving and formidable new horticultural tribe. Fierce warfare may eventually have erupted between the Lake Koshkonong Oneota and the Mississippians as the former became more settled and proprietary over their lands and resources, and the latter more expansionistic and aggressive.

Later Events

Between A.D. 1200 and 1300, Cahokia and its remarkable society evaporates. The city is abandoned, as is its daughter community of Aztalan. After dominating the region for several hundred years, the Mississippians vanish from Wisconsin and the Midwest. The reasons are not yet known, but suggestions include any or all of a variety of factors: over-exploitation of local resources, warfare, loss of political and ideological power, disease, and the onset of a lengthy cool, dry climate after A.D. 1200.

By this time, the Late Woodland tradition and its effigy mound ceremonial in the southern part of the state had also vanished. In northern Wisconsin, a fairly mobile hunting, fishing, and gathering Woodland tradition persisted right up into historic times, but over the rest of the state a new tradition replaced that of the Woodland and Middle Mississippian. The Oneota were an apparent confederation of tribes with new, distinctive forms of pottery and a lifestyle less complex than that of the Mississippians, centered on large, permanent villages supported by cultivated corn as well as wild foods. It is believed that descendants of the Oneota

in Wisconsin include modern tribes such as the Ho-Chunk (or Winnebago) and Iowa.

For the people living in what is now the state of Wisconsin, the turn of the last millennium was a time of turmoil and change. The events of the time molded the cultures of the Native American nations that reside in the state today. However, the economic changes that took place continue to touch everyone. As we travel through the countryside past Wisconsin cornfields, we should remind ourselves that an important part of the modern economy of the state is based on Native American ingenuity and a cultural revolution that took place one thousand years ago. 🍷

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2000 ESSAYS FOR A NEW MILLENNIUM

Reflections on the Coming of a New Millennium

by Paul Boyer

For all the hoopla surrounding it, the advent of the year 2000 seems in some ways the quintessential nonevent.

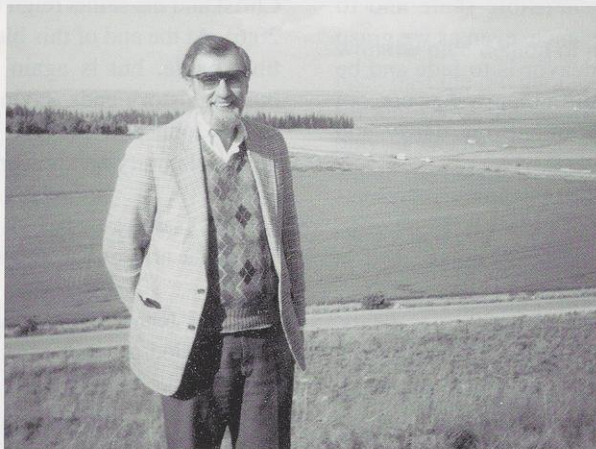
Despite the media-driven obsession with the Y2K Bug and fears of disruptions in our computer-dependent society, the odds strongly favor the premise that the presence of three zeroes rather than three nines on the calendar will make little appreciable difference in our individual lives or in the course of history. The sun will probably rise on January 1, 2000, as it does every day, and we will find ourselves with the same neighbors, working at the same job, facing the same routines of daily life.

The coming of a new "millennium," after all, is a mere byproduct of a cultural artifact, the Western calendar. Our perceptions of day and night and the passing seasons arise directly from experience, but beyond that, when it comes to measuring time, one increasingly enters the realm of culturally constructed reality: that we divide the day into twenty-four hours rather than, say, nineteen is purely arbitrary. The "week" is an artificial invention, unrelated to any reality in the physical world. The "month," to be sure, does approximate the lunar cycle, and the "year" is roughly equivalent to the earth's orbit of the sun—but these are approximations, necessitating months of different lengths, and constant corrections in the length of the year by periodically inserting a day or a second.

As for other major units into which we gather together bundles of time—decades, centuries, millennia—these are merely Latin-named byproducts of the decimal system, which in turn probably arises from the evolutionary coincidence that we have ten fingers rather than eight or fourteen. If octopuses ever evolve to a point where they need to reckon time, they

will presumably develop a base-eight system rather than a base-ten system.

The Romans dated events from the founding of Rome, *ab urbe condita* (A.U.C.), and for several centuries into the Christian era, for the elites who cared about such matters, this usage continued. (The European peasantry marked time simply by the seasons, the succession of religious holidays, or the year of the reigning monarch.) The sixth-century Roman monk Dionysius Exiguus was the first to use the birth of Jesus (*Anno Domini*) as a starting point for dating events. After the English chronicler Bede adopted Dionysius's system it gradually came into common usage in the West and, with European expansion, spread worldwide. But Dionysius had miscalculated, placing A.D. 1 four years after Jesus' actual birth, so even as an anniversary marker, the year 2000 has no real meaning.



Will it all end here? Paul Boyer at Har Megiddo (Armageddon) in Israel, January 1990.

James Gilbert

So why all the fuss? Why should the *Wisconsin Academy Review*, along with countless other periodicals from supermarket tabloids to high-brow publications, devote so much attention to this nonevent? In fact, of course, compelling reasons exist for commemorating big turning points on the calendar. Even as we recognize that they bear little relationship to the world of physical experience, we can also sense that they have profound cultural meaning and that marking them expresses deep human needs.

Fundamental to human existence is the fact of mortality: our lives have a beginning and an ending. In the impersonal sweep of time, these boundaries demarcate, for each of us, a fleeting moment of intense meaning. Similarly, the rise and fall of cultures, civilizations, and nations represent intervals of



Apocalypse of the End Times: Manasseh and the Forgotten Word by Norbert H. Kox. Acrylic and oil on canvas, 48 x 80 inches, 1990–91. Courtesy of the artist.

meaning inscribed by human will on the palimpsest of time. The importance we place on beginnings and endings, whether of weeks, years, centuries, or millennia, expresses our need to reduce the flow of time to a comprehensible scale and to invest it with at least an interim significance, even as we grasp that the eventual fate of all human endeavor is to fade and be forgotten. The calendar is the frail wall humanity has erected against the ultimately irresistible forces of entropy, decay, and oblivion.

Of all these temporal benchmarks, the millennium represents the longest span of time that has cultural meaning. Geologists, astronomers, and other physical scientists, of course, deal in much longer epochs, but these lie largely outside historical time, beyond the ordinary person's grasp. Therefore, since years, decades, and centuries have personal and collective significance for us, the millennium, by extension, takes on even greater meaning, even though that meaning remains nebulous and rather remote. We celebrate birthdays and wedding anniversaries yearly, and a hundredth birthday or a fiftieth wedding anniversary is a big event. For societies, the units of celebration can be longer. In 1976 we observed the bicentennial of American independence; in 1992, the quincentennial of Columbus's voyage. In 1998, Wisconsin celebrated its sesquicentennial. But apart from the most ancient human institutions—some religions, a few cities—the opportunity to celebrate a millennial anniversary is rare. By its very length, however, at the far outer reaches of our corporate memory, the millennium takes on a universal quality as a marker of historical experience itself, rather than belonging to a specific institution or social group.



The millennium—in this case, the year 2000—is notable also because the word itself has powerful religious resonances, evoking what Christians have since the beginning of the faith anticipated as history's crowning event: the *Millennium*, Jesus

Christ's thousand-year earthly reign. In fact, the garden-variety event that this special issue of the *Review* commemorates bears no relation to the momentous eschatological era known as the Millennium. Christ's thousand-year reign, foretold in the twentieth chapter of the Book of Revelation, has no connection to the arrival of the year 2000 on our Western calendar. But since the same word is used for both, it is hardly surprising that the passage of a calendrical millennium should take on religious overtones as well.

For Christians, belief in the Millennium derives from a passage in the Book of Revelation, the Apocalypse of John, written by an otherwise unknown prisoner on the island of Patmos, off the coast of Asia Minor, around A.D. 100.

After portraying humanity's ordeal in the last days, when a demonic figure called the Beast will rule the world, John describes the Beast's defeat by Christ at the Battle of Armageddon. The Beast is cast into a Lake of Fire, and Christ and his saints reign on earth for "a thousand years" (Rev. 20:6). At the end of this blessed interval, the Beast escapes for a final battle, but is again defeated. After the Last Judgment, human history ends, giving way to a New Heaven and a New Earth. John portrays this glorious fulfillment in a passage of great solemnity and power (Rev. 21:1–5):

And I saw a new heaven and a new earth: for the first heaven and the first earth were passed away; and there was no more sea.

And I John saw the holy city, new Jerusalem, coming down from God out of heaven, prepared as a bride adorned for her husband.

And I heard a great voice out of heaven saying, Behold the tabernacle of God is with men, and he will dwell with them, and they shall be his people, and God himself shall be with them, and be their God.

And God shall wipe away all tears from their eyes, and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain: for the former things are passed away.

The Apocalypse of John, culminating in this poignant utopian vision, arose from an ancient Middle Eastern tradition of apocalyptic writing, involving myths of cosmic struggle between order and chaos, righteousness and evil, light and darkness. John surely also knew the passages from Isaiah and other books in the Hebrew scriptures describing a glorious future era, as well as Jesus' own words about the last days recorded in the Gospels. Bringing his considerable literary skills to bear upon these traditions, John inscribed his message of hope for the

struggling churches of Asia Minor, addressing each by name in the early portion of the work.

The millennial hope powerfully shaped early Christianity and thereby entered into the Western cultural tradition. The first Christians anticipated Jesus' imminent return; when this failed to happen, the hope remained alive but extended further into the future. As the church gained temporal power, its leaders discouraged eschatological speculation, offering instead historicized or allegorized readings of the biblical apocalypses. But millennialism pervaded medieval Europe, as Norman Cohn demonstrated in *The Pursuit of the Millennium* (1970), transmitted by wandering prophets, reform-minded monks, and small communities of persecuted believers convinced that Christ's coming was imminent. Some scattered evidence suggests that the year 1000 roused apocalyptic fears in urban centers such as Paris and Rome, although for most European peasants, as well as monastic chroniclers, the turn of the first millennium seems to have passed largely unnoticed. The best-known medieval prophecy interpreter, Joachim of Fiore, a twelfth-century Cistercian monk, saw history unfolding in three great stages culminating in an era of righteousness he called the Age of the Spirit. The Crusades arose from the determination of European Christians to recapture

Jerusalem from the Muslim infidels, thereby preparing the way for Christ's millennial reign in his Holy City.

Millennial anticipations suffused medieval European culture, from mystery plays, map illustrations, and illuminated versions of John's Apocalypse to stained-glass windows and cathedral carvings representing the Last Judgment. The musical works and paintings of the twelfth-century German abbess Hildegard of Bingen represent her effort to convey aurally and visually her intense millennial visions. Albrecht Dürer's most powerful woodcuts represent scenes from John's Apocalypse.

Reformation leaders generally avoided literalist readings of the apocalyptic scriptures, especially after the Anabaptists used these texts to buttress their claim that the Millennium had arrived. The slaughter of Thomas Müntzer's followers at Frankenhausen in 1525 and the bloodshed that ended Jan of Leyden's disastrous rule in Münster in the early 1530s extinguished the millennialist expectations that had blazed up on the Reformation's radical outer fringes. But even as Luther and other Protestant leaders recoiled from millennialism, they confidently branded the Pope as the Antichrist, and the Roman Church as the Whore of Babylon portrayed in Revelation—insults that Catholic polemicists gleefully returned in kind.

Time Machine

it is old
it is green
it has a Jurassic V-8
the old truck
it rolls backwards
in a dream
with me in it cursing
as Balaam must have cursed his ass
in the Bible
it rolls backwards!
not joyfully toward the Millennium
not gladly into the gaping maw of The Ascension
it refuses to Rapture
will not be accepted
in Noah's Ark literary magazine

it rolls backward across the sand
refusing to rhyme
follow dad
pick up that inspiration
please Pharaoh
carry God's interpretation
the skinny kine
or the heads of seven sparrows
bumps back
through that other dream
past the Haywain Machine

with the blue demon of medicine on top
back past the old garage Big Sam built
for the Ark of the Ventriloquist radio station
into the weeds
where the creations used to be

back it careens
to the edge of the cranberry bog
where the old poet is buried
in Plato's Republic
bumps up hill a bit
then rocks forward and settles
as if to say this is fundamental
where I want to mean something

I step out
cursing the old myth
stand leaning against the fender
can hear it apologizing to me in the dream
you didn't really want to go that way did you?
a prophet of that bodiless New Age
flying up from damnation
from the whale they made to swallow creators
come sit in me,
we will drive through the black rose
toward the new world wearing your musics
where my radio used to be!

Jeffery Lewis

Millennialism flourished in seventeenth-century England, as Puritan writers denounced not only Rome but also the Anglican Church as partaking of the spirit of the Antichrist. A group of Puritans known as Fifth Monarchy Men anticipated the imminent arrival of God's earthly kingdom, the successor to the four historical kingdoms represented symbolically in the Book of Daniel.

The Puritans who settled New England brought these expectations with them, and millennialism burrowed into the early American consciousness. Some believed that God had chosen the New World as the site of the millennial kingdom and foresaw the fulfillment in America of biblical prophecies of a glorious future age. Millennial expectations again blazed forth during the Great Awakening of the 1740s. Jonathan Edwards expressed the hope that Christ's kingdom, as foretold in Revelation, could be achieved through evangelism, prayer, and united Christian effort. In the jargon of those who study these matters, Edwards was a "postmillennialist": he believed that Christ's kingdom would be achieved in the present age, and that Christ would return *after* the millennial kingdom had already become a reality and human society had been brought to perfection by Christian believers.

This hopeful, action-oriented version of millennialism suffused the American Revolution (in partially secularized form), the frontier revivalism of the early nineteenth century, and the antebellum era's communitarian ventures and reformist crusades, including the antislavery movement. The subject of the Civil War's great anthem, Julia Ward Howe's "Battle Hymn of the Republic," is, in fact, an apocalypse: "Mine eyes have seen the glory of the coming of the Lord; He is trampling out the vintage where the grapes of wrath are stored . . ." A generation later, Protestant ministers like Washington Gladden and Walter Rauschenbusch preached the Social Gospel, insisting that the Kingdom of God could be achieved through municipal reform, child-labor laws, and encouragement of labor unions. Woodrow Wilson's soaring vision of a benevolent and righteous America spreading universal peace and democracy around the world owed much to this long millennialist tradition.



But a darker strand of prophetic interpretation had meanwhile gained ground in the United States—an interpretation that foresaw Christ returning suddenly and unexpectedly, like a thief in the night, at a time of growing wickedness and worsening conditions. This is the so-called *premillennial* version of prophetic interpretation: Christ will return *before* the Millennium: indeed, only this supernatural intervention, not any human effort at betterment, will usher in the glorious age of righteousness and peace. In the late 1830s and early 1840s, many Americans accepted the calculations of a self-educated upstate New York preacher named William Miller, who taught that according to the Book of Daniel, Christ would return in 1843 or 1844. Soon the Millerites fixed upon a specific date, October 22, 1844, which became the focus of intense anticipation. Followers

would later write sadly of the "Great Disappointment" when the momentous day came and went.

For over a century, millions of Americans have embraced a specific form of premillennial doctrine, dispensationalism, promulgated by the nineteenth-century British Dissenter John Darby and the American Cyrus Scofield, a prominent lecturer and author of the 1909 Scofield Reference Bible. Weaving together a series of biblical texts into a single compelling narrative, dispensationalists hold that at some unknown future moment, after an era of ever-increasing wickedness, war, and natural disasters, all true believers will be snatched from the Earth to join Christ in the air. This event, called the Rapture, will be followed by a seven-year interval, the Tribulation, when the Antichrist (the Beast of Revelation) will rule the world. Only after the Antichrist's defeat at Armageddon, dispensationalists hold (with other premillennialists), will Christ's millennial reign begin. This more pessimistic vision of the future gained ground in the period of disillusionment that followed World War I and exerted even greater appeal after World War II, when nuclear weapons, the Cold War, the founding of Israel in 1948, and the Israelis' capture of the Old City of Jerusalem and the Temple site in 1967 all seemed prophetic signs that the end was near. More recently, many have seen the rise of the European Union, an international economic order, and a global communications system, not to mention the ever-swelling tide of human wickedness, as anticipations of the Antichrist's global rule. The computer will play a central role in this process, giving the Antichrist the sophisticated technology he will need to establish his control of the global economy. According to public-opinion polls, some forty-two percent of contemporary Americans embrace the dispensationalist version of Bible prophecy.

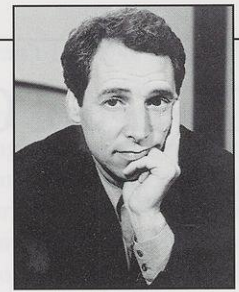
But despite their awareness of the terrors that will precede the blessed event, dispensationalists, like all millennialists throughout history, still eagerly anticipate Christ's glorious thousand-year reign on earth. Cyrus Scofield, in 1918, could scarcely contain himself when he described the Millennium: "It is impossible to conceive, to what heights of spiritual, intellectual, and physical perfection humanity will attain in this, its coming age of righteousness and peace."



In short, as we share in the anticipation surrounding the year 2000, and as the *Wisconsin Academy Review* offers this special millennial issue, we become participants in a cultural ritual that has deep roots in the human condition, in Western history, and in the Judeo-Christian tradition. Like a surveyor's calculations or a mariner's celestial readings, which provide means of situating oneself in space, these calendar-driven benchmarks allow us to position ourselves in time. The coming of a new decade, a new century, and even a new millennium invites us to reflect on the past ten, or hundred, or thousand years of history; to seize this moment of chronological transition to assess changes that have occurred—for better or worse—and to reflect on the transience of our own brief moment on the stage. ❁

Time is Place

by Ben Sidran



I was raised in Wisconsin and I've been a Badger for more than half of the twentieth century. I rode the old North Shore Railway from Racine to Milwaukee back when you could still stand on the rear platform and watch the past recede into a wild scramble of tiger lilies and milkweed. I regularly drove to Madison before the interstate system was built, back when Highway 100 was the main route from Milwaukee and one got to learn every turn in that old "blue-line" road. I watched the hot rods at Hales' Corners Speedway and swam in the warm waters of Brown's Lake. I rode on the Little League float in Racine's Fourth of July Parade, and I was teargassed on the University of Wisconsin-Madison campus when the Vietnam War was raging. And for much of the past thirty years, I've heard voices from around the world ask, "Area code 608, where's that?"

It's hard to describe where it is. For many years, to many Americans, it was just part of the great no-man's-land so aptly depicted in Saul Steinberg's classic *New Yorker* cover, showing everything west of the Hudson River and east of the Pacific Ocean as a flat land containing a few boulders, possibly contiguous with Utah or the Canadian border. But for those of us who shoveled the snow and pulled the weeds, Wisconsin has been the taste and the sting of our sweat, a cold beer at a small country tavern with a softball game out back. In short,

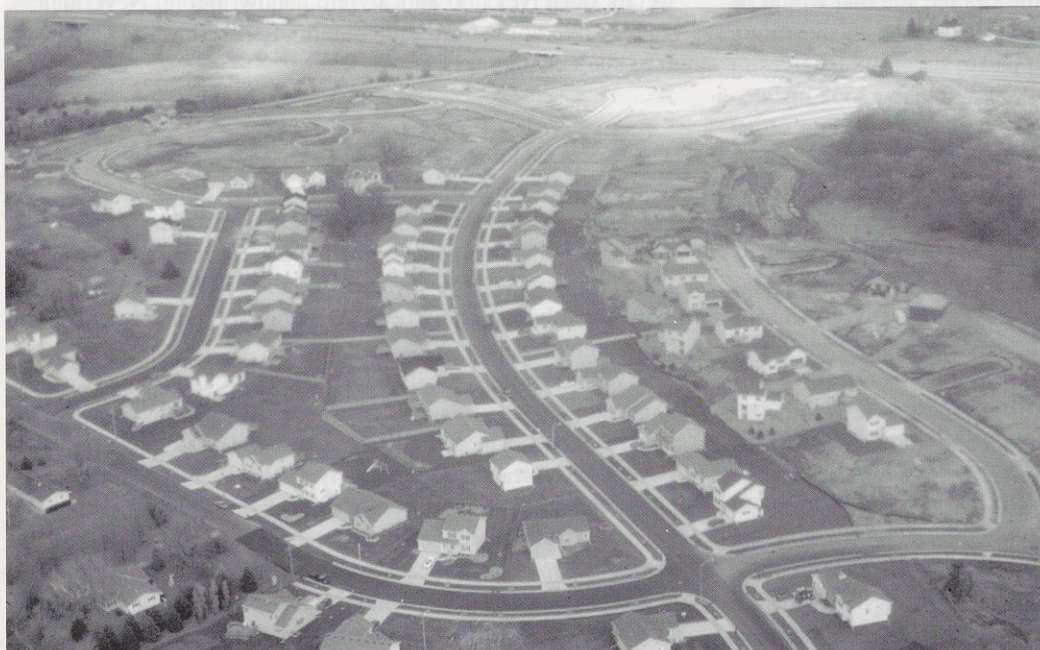
Wisconsin is as much my home as the little house on Carmel Avenue in Racine is the place where I learned to walk. Wisconsin is inside of me.



But obviously it's going to be radically different in just a few short years. Already, mine is a fading vision, like something seen in a swoon. I pass through the ferocious development that surrounds my city, much of it with no thought for the look and the feel of everyday life, just thrown-up structures and gouged roads that serve to deliver the pizza from one oven to another, and I could be anywhere. Truly, I could be out in the wasteland of Saul Steinberg's famous cartoon. I know that eventually the skinny little trees will grow to provide shade, and the kids will grow up and give their parents as much heartache as I gave mine, but the sense of place will be absent. These streets are no more "Wisconsin" than an Arby's is a local restaurant. When I'm driving through them, I feel much older than my years. I feel like I'm from another time entirely. And I come to realize that time is place: you can't remove the "when" from the "where."

I hear the governor's working on getting the trains back. That would be wonderful. I hear some developers are trying to build houses closer together, with front porches and back alleys,

to create a sense of community. That pretty much describes the neighborhood where I live now, a 100-year-old neighborhood not that different from so many others around the state of Wisconsin. Has anyone here seen *Pleasantville*? *The Truman Show*? What's the difference between nurturing a living place and trying to re-create the past for fun and profit? The former supports an indigenous culture, while the latter is at best an E-ticket ride. As they say, you can't make old friends. Or, more to the point, treasure Wisconsin now; later it's going to cost a lot more to reproduce.



Urban sprawl near the eastern edge of Madison.

William H. Fisher

The Age of Community

by Donald F. Kettl



Jeff Miller

In the early 1990s, I spent a year roaming around the country with other members of a special government task force, trying to figure out how best to deal with the problem of nuclear waste. We weren't poking into the science of waste storage; a team of geologists, physicists, and other scientists was worrying about that. Instead, the Secretary of Energy had charged our task force with recommending what the department could do to help citizens trust the decision the scientists and top government officials reached.

It was a tough puzzle. If anything was clear, it was that citizens didn't have much trust in government at any level—but they had the *least* trust in the feds. They joked about one Department of Energy (DOE) facility's efforts to reintroduce wildlife to a former nuclear bomb factory. In Rocky Flats, Colorado, the DOE reintroduced prairie dogs—which, of course, quickly became known as “hot dogs.” The point was driven home at one of our public hearings, when a citizen told us, “Your job is to figure out a solution that has to last ten thousand years—longer than the recorded history of life on earth.” We've spent the last half of the last century of the last millennium creating radioactive material so lethal that we don't know how to store it—but we have to devise a solution that lasts longer than we've been around.

Indeed, the problem is so long lasting that DOE officials had been working on the sign for the storage site that would be intelligible to our distant descendants millennia in the future and to visitors from other planets. It had to suggest that it wasn't really a good idea to pop open the door and take a look inside.

Citizens across the county told us that they just didn't trust government to solve this problem. But on the other hand, *someone* had to solve it, because a half century's legacy of nuclear weapons production and nuclear power plants couldn't safely be left as is. One afternoon I found myself leaning against barrels of plutonium waste, with radioactivity dosage meters hanging around my neck. I asked myself how to get anyone to trust anything the government did with a material that can kill in microscopic doses.

The Crusaders started this millennium by committing themselves to a noble (but often violent and intolerant) quest to recapture sacred ground. We've ended it by inventing new weapons that, if activated by the right codes at the wrong time, could obliterate life on earth. We've managed to avoid using those weapons, but in the process we've created a nuclear legacy that will take millennia to resolve. Along the way, we got Shakespeare and Michelangelo and a trip to the moon and the cell phone. But we also lost trust in our civic institutions—especially our government—to solve our problems.

The long slide in public trust toward government has leveled off—but at embarrassing levels. A 1997 Hart-Teeter poll conducted for the Council for Excellence in Government showed that confidence in the federal government was at 22 percent; in state government, 32 percent; and in local government, 38 percent. Almost half of all Americans—47 percent—believed that government was more a hindrance than a help in pursuing the American dream. Citizens have come to believe that government doesn't work well, that their elected officials waste money, and that public bureaucracies specialize in producing red tape.

This frames government's central dilemma as we venture into the twenty-first century. We face problems we can't avoid, such as cleaning up and storing radioactive waste. We need government to do the job—society simply cannot leave a risky ten thousand-year task to any private-sector organization. In other public programs, the government has a central role in steering the ship even if it doesn't always man the oars. From dealing with urban sprawl and providing for the national defense to educating our kids and keeping the streets safe, government has important jobs to do. But we just don't trust the institutions we need to do the job. Thus, we can't get to where we need to go—but we don't have any choice about whether to go there. It's much too tempting, at the end of the millennium, to talk ourselves into apocalyptic handwringing. Nevertheless, at the dawn of the third millennium after the birth of Christ, we face stark challenges.



The first millennium was the *age of the village*. From the fall of Rome to the launch of the Crusades about a thousand years ago, most people lived in small communities. The Dark Ages weren't so much dingy as limited in connections. People solved their problems on their own and didn't worry much about what people in other communities did, as long as they didn't turn into marauding invaders.

With their tales of adventure and exotic lands, the Crusades changed that. Their enterprise ushered in a new millennium, an *age of bureaucracy*. Kings consolidated and expanded their power. Democracies replaced royal and even Communist rule. The power of the nation-state and of citizens' reliance on it became firmly established. But even as democracies won the struggle for governance, they ran into trouble everywhere. Voters, especially in the United States, turn out in small numbers. Citizens in nations around the world have signaled that they want lower taxes, a balanced budget, and more effective programs. In short, people seem to want the government bene-

fits and services that they already have, but they don't want to pay as much in taxes to fund them.

A basic mismatch between our expectations of government and our willingness to support it has spilled over into our trust of governmental institutions themselves. A serious strain has grown between our individual roles—what we want and what we're willing to pay—and our collective roles—how we make decisions to govern ourselves. Other nations around the world are facing the same basic questions. As we move from the medieval village to the global village, we need to bridge this gap.

The comments of one witness at a public hearing we held on the nuclear waste problem suggest an answer. We sat in a large community auditorium in Las Vegas, with TV cameras outside filming noisy demonstrators against nuclear power. A young woman, who said her name was simply Cynthia of the Desert, came forward. She said that she lived with her husband and her baby in the desert near the Energy Department's Nevada Test Site. The prospect of storing nuclear waste in the nearby Yucca Mountain site frightened her, she said, and she didn't trust the department. But she had been talking with senior department officials, asking questions, and beginning to understand the process. She said she still wasn't sure she trusted the department—but she did trust the officials who had leveled with her.

After the hearing, we concluded that solving the nuclear storage problem—indeed, tackling the broader problem in trusting government—had to begin with these kinds of one-on-one links. Cynthia of the Desert taught us an important lesson about how to rebuild the relationship between citizens and government: as we enter a new millennium, we are leaving the age of bureaucracy for the *age of community*. We still need bureaucracies to organize complex actions, from fighting fires to school-

ing kids. But we've learned that we can't leave government's work solely to government.

Government has become ever more tightly wired into civil society. State governments are managing welfare reform largely through a network of for-profit and nonprofit contractors. Your doctor might at one moment be in private practice, treating someone with insurance from a company, and at the next a government worker, treating someone whose services are paid for by Medicare or Medicaid. Our national "industrial policy" for half a century has come through defense and space contracts, which in turn have been subcontracted out to small shops in every state.

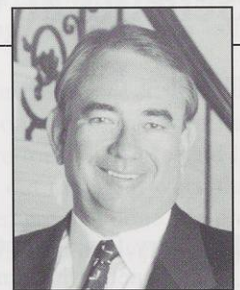
Despite all the talk of privatizing government, what we've actually done is governmentalized the private sector. We can complain about government, but the talk is disingenuous—more and more, government and its bureaucracy are all of us. There are no longer neat boundaries separating federal, state, and local governments; different government programs, such as education and public safety; or government and the private sector. Government has become woven into the community; it's not "us versus them"—it's us.



So Cynthia of the Desert has taken the first step toward the real government of the twenty-first century. She's learned that government only works if we invest ourselves in it. Trust flows from realizing that government starts from the community and grows from there. Even though we ended this millennium by inventing technology strong enough to obliterate life on the planet, we managed to squeak by. We'll thrive in the next millennium if we can build on the new foundation of community. ■

Wisconsin's Pioneering Spirit: Then, Now, and into the New Millennium

by Tommy G. Thompson



On May 2, 1848, on the eve of Wisconsin statehood, Sheboygan settler J. McMullen put pen to paper and described to an eastern companion the destiny of America's newborn. He wrote, "The people have adopted a constitution and in a few months Wisconsin will take its place among the glorious states of our republic. . . . With her green ocean-like prairies, the unequalled fertility of her soils, and facilities for commerce, she will become not only the 'garden of the west' but also the richest, fairest land in our broad country from the Atlantic to the Pacific."

A settler's dream of a Wisconsin yet to be. McMullen's excitement was indicative of the people that inhabited this land. They were pioneers in education and commerce, agriculture and transportation. Wisconsin pioneers created America's first land conservation program. They invented kindergarten and the nation's first system of support for vocational, technical, and adult education. The University of Wisconsin was the first in the country to offer extension courses and to establish an agricultural research station and a department of agricultural economics.

Wisconsin was the first state to prohibit unlawful discrimination on the basis of race or disability, and to ratify the nineteenth amendment providing women the right to vote. And yes, our state even set the pace in areas of leisure by inventing the hamburger, the malted milkshake, the gasoline-powered outboard motor, and the snowmobile.



Our great state has boldly lived up to its motto, "Forward." This motto has helped us build the greatest state in the country. We continue to build upon the foundation first laid 150 years ago. It's a foundation of innovation and ingenuity, which has led to many new discoveries that are improving the human condition not only in Wisconsin, but around the world.

Wisconsin has revolutionized health care, education, and welfare reform and fostered a burgeoning economy. We have a higher proportion of people working than in any other state and the lowest unemployment rate in state history. Tax cuts have certainly contributed to the health and vibrancy of our state's economy, as have unrivaled investments in education. The state has picked up two-thirds the cost of public schools, strengthened school choice, abolished social promotion, and created academic standards and a graduation test to prepare our children for a global economy. We've also made significant investments in higher education, including a \$30 million commitment to the University of Wisconsin-Madison to attract and retain star-quality faculty and staff, and to further advanced research in biotechnology.

People are confident about their future because it's ripe with possibility. We've pioneered new ways to give people hope about the future, and our Wisconsin Works, or W-2 program, has led the way. People are earning a paycheck rather than receiving a handout and are contributing to their own success. We're also eliminating barriers for those who have long been out of the workforce with our Pathways to Independence Program. This program will allow those receiving SSI (supplemental security income) to work without fear of losing their health benefits. And we're providing low-income working families access to high-quality, affordable health care through Badgercare, an initiative that is now being duplicated on the federal level.

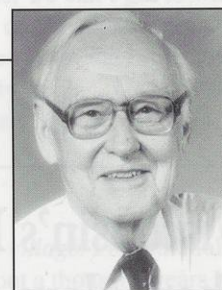


People are thriving. Businesses are thriving. Wisconsin is thriving. Pioneering? Yes. Anywhere near our peak? Never. The next 150 years will certainly be as momentous as the first. For we will continue to shape our destiny, a destiny that is, as J. McMullen spelled out so eloquently in 1848, ripe with ingenuity, innovation, and opportunity.

As we turn the corner into the new millennium we will continue to follow the lead of our pioneers, who had the courage to boldly embrace the daring and shuck the status quo. Forward into the twenty-first century we go. 🍂

Genetics at Wisconsin Fifty Years Ago

by James F. Crow



Very few subjects have undergone the revolution that genetics has enjoyed. Everybody talks about DNA, genetic engineering, gene transfer, and gene therapy—some with eagerness, others suspicious of the unknown. Genetics used to consist mainly of experiments on breeding; now it is almost a branch of chemistry. The excitement generated by this subject is reflected in much better facilities. The days of doing research by growing corn in the field or breeding rats in crude structures held together by baling wire, rope, and clothespins are over.



I joined the Wisconsin faculty in the summer of 1948. I was delighted to be part of an institution with an international rep-

utation in so many fields, especially genetics. Actually, while an undergraduate student in Wichita, Kansas, I had heard a speech by Glen Frank, then president of the University of Wisconsin. He was a charismatic speaker, and I began to entertain a dream of sometime being at Wisconsin. In 1948 the dream materialized.

The research programs in genetics, as well as in zoology, botany, biochemistry, and various agricultural sciences, were all that I had expected, and more. It was a heady feeling to be in daily association with people whom I had previously only read about. Since graduate school days I had been acquainted with M. R. Irwin's work on the inheritance of blood antigens in pigeons. Later I learned of the beautiful studies of Ray Owen, who discovered that twin calves whose blood had been

thoroughly mixed during their fetal stages did not show any transfusion reactions. This research foreshadowed the whole subject of immune tolerance. I knew that Wisconsin plant breeders had been successful in producing vegetable crops that were resistant to some of the worst pests. I knew of the pioneer vitamin discoveries in the Biochemistry Department. I knew the reputation of the Enzyme Institute and the McArdle Laboratory. I knew about the vitamin D patents and the Wisconsin Alumni Research Foundation. I knew of R. A. Brink's leadership in maize genetics. And above all, I knew of the work of Joshua Lederberg, whose demonstration that bacteria have a sex life initiated the genetic analysis of these tiny creatures. (They turned out to be far more willing to reveal their inner nature than were larger plants and animals.) This was a major step, perhaps the decisive one, in what later became the molecular revolution. The opportunity for daily contacts with the stimulating people and activities in the university community was even more exciting than I had expected. Indeed, Wisconsin had one of the world's best genetics departments, and I was proud to be joining it.

And to add icing to an already delicious cake, I would be in the same town as one of my favorite music ensembles. I had listened regularly to scratchy 78-rpm records of the Pro Arte String Quartet, and the opportunity to hear them in the flesh and on a regular basis was exciting indeed. In my first year in Madison I attended almost all their regular Friday afternoon performance classes. And I went to concerts, such as Sir Thomas Beecham conducting the London Symphony Orchestra, though I wasn't prepared for the Stock Pavilion as a concert hall. Barnyard smells were pervasive, and I think it was no accident that Sir Thomas chose to play Beethoven's *Pastoral* Symphony. The acoustics were great, but there seemed always to be a noisy freight train passing, apparently timed to coincide with a pianissimo passage. The contrast between the magnificence of the sound and the inadequacies of the hall epitomized Wisconsin in 1948. One more thing: I had greatly admired the pioneering role that the university had played in early social legislation, much of it reflected in national policies that are still in place, such as social security. I was happy to be associated with a university that had this legacy.

I was totally unprepared, however, for the abysmal physical facilities. They were appalling. The entire Genetics and Veterinary Science Departments were crowded into one small building, now the home of the Department of Agricultural Journalism. There was no air-conditioning in those days. In the summer it was a Turkish bath. I've never been in a Turkish bath, but I think I know what it would be like. The heat from wall-to-wall human bodies and blazing Bunsen burners pushed the thermometer ever higher. A ramshackle wooden building housed the pigeon and rat colonies—it was hot in the summer and cold in the winter. Mercifully, it burned down a few years after my arrival. The cattle and pig barns were old and crowded. The draft horses—there were still a few remaining—seemed to be a little better off.

My own laboratory was in a temporary building across the street from the ice cream shop in Babcock Hall. I scrounged around and got an old butcher's walk-in refrigerator. It had a maddeningly noisy motor, but it permitted my flies to survive the summer. The great population geneticist Sewall Wright was brought here a few years after I arrived, when he retired from the University of Chicago. To his disappointment, there was no place for his guinea pigs. I believe this was a blessing, for Wright's most famous work was theoretical, and not having to spend hours each day tending his guinea pigs left him time to complete a monumental four-volume treatise, *Evolution and the Genetics of Populations*.

Most of all I was impressed by what Joshua Lederberg was doing in a very unpromising location. He had a combination lab-office-kitchen in a single basement room about sixteen feet square. In this space he, his wife, a graduate student, and about three student helpers all worked. It was in those shameful quarters that Lederberg did his pioneering experiments, work that led to Wisconsin's first Nobel Prize.



Looking back from our air-conditioned, up-to-date, spacious, and well-equipped laboratories, it seems almost impossible that anyone could have done research at all—let alone world-class research. But it *was* done. I remember the visit of a distinguished Swedish scientist who simply couldn't believe that path-breaking work in bacterial genetics was being done in such a tiny, crowded, poorly equipped place. Of course the important point is that the people doing the work had ideas and determination, qualities that can win out over seemingly insuperable odds.

Gradually we got air-conditioning. Then more elaborate equipment. And finally a new building. In 1963 we moved across the street to the present genetics building. It seemed like the last word in spaciousness. Then, thirty-five years later, the new genetics-biotechnology building was constructed. Still bigger!

In 1963, when the genetics department moved into the new elegant quarters, my student Motoo Kimura, who had graduated a few years earlier, was here for a visit. He said he would make a prediction. He pointed out the great work that Irwin, Owen, Brink, Wright, and Lederberg had done. He predicted that genetics in the new quarters would never again be as great as it had been in the past.

His prediction was wrong, of course. The genetics program at Wisconsin has continued to grow and prosper. Great things were to come. Modern research requires sophisticated equipment and computers, plus assistants, and these take space. A researcher has to operate on this scale, or be shunted to the periphery of the field. Nonetheless, it is simply astonishing, as I look back, to think of the great discoveries that arose from such an unpromising locale. Brains and determination are a great combination. ♣

Did the Twentieth Century Have a Golden Age?

by Henry S. Reuss



In 1880, William James, the philosopher of pragmatism, gave his views on what is needed for a “great epoch” in history:

The best wood-pile will not blaze until a torch is applied . . . Sporadic great men come everywhere. But for a community to get vibrating through and through with intensely active life, many geniuses coming together and in rapid succession are required. This is why great epochs are so rare—why the sudden bloom of a Greece, an early Rome, a Renaissance, is such a mystery. Blow must follow blow so fast that no cooling can occur in the intervals. Then the mass of the nation grows incandescent, and may continue to glow by pure inertia long after the originators of its internal movement have passed away. (“Great Men and Their Environment,” address to the Harvard Natural History Society)

As the end of America’s twentieth century nears, the pop historian dares ask: did it perchance contain one of James’s “great epochs”—a golden age of “many geniuses coming together and in rapid succession”?

My answer is Yes: the middle years, 1933–1967, can arguably be regarded as such a golden age. A generation shaped by lost opportunities, by the Great Depression, and by World Wars I and II came upon the scene. The wood-pile was ready, the torch was applied, and “the mass of the nation grew incandescent.”

The “many geniuses” at the start were mainly Franklin and Eleanor Roosevelt. Together, they live on as the embodiment of the New Deal. The nation remembers “the only thing we have to fear is fear itself” as fully as the achievements at home of social security, unemployment compensation, protection for investors, public works, minimum wages, and the accomplishments abroad of facing down the dictators and forging the Four Freedoms and the United Nations.

But the New Deal was merely the prelude to the golden age. It left unanswered the question of whether the nation could put in place measures to forestall another great depression and a World War III. It left a formidable agenda of unfinished business, with civil rights at the top of the list.

Fortunately, after 1945 there were “many geniuses coming together in rapid succession.” Think of:

President Truman, who initiated the Employment Act of 1946, integration in the military, the Marshall Plan, NATO, and Point Four for the developing world; Eisenhower, who brought an era of good feeling but did not try to dismantle the gains already made; Kennedy, who showed a cool head in the 1962 Cuban missile crisis, created the Peace Corps and the Alliance for Progress, supported European unification, stood up for human rights, and became eloquent about big things to come; and Johnson, bigger than life until Vietnam ended it all, bringing Medicare, the war on poverty, and leadership in civil rights, the environment, the city, and education.

Statesmen like General Marshall, Secretary Acheson,



Women in Milwaukee County making new and repairing old clothing for relief families, 1935. Courtesy State Historical Society of Wisconsin.

Senator Vandenberg, Adlai Stevenson, William Averell Harriman, and George Kennan, who fashioned our response to Soviet communism.

Economists like Walter Heller, John Kenneth Galbraith, Leon Keyserling, and James Tobin, who showed the way to full employment without inflation.

Environmentalists like Aldo Leopold, Rachel Carson, and Stewart Udall.

Human rights champions like Martin Luther King, Jr., Rosa Parks, Robert Kennedy, and Marian Anderson.

Legislators like Speaker Sam Rayburn and Senators Paul Douglas, Joseph Clark, Richard Neuberger, William Fulbright, Hubert Humphrey, John Sherman Cooper, and Mike Mansfield—a strong Congress.

Justices like Earl Warren, William O. Douglas, and Thurgood Marshall, who adapted the Constitution for modern times.

Theologians like Reinhold Niebuhr, and labor leaders like Walter P. Reuther.

Compared to the golden age of the mid-twentieth century, the first and last thirds of the century were times of torpor. There were a few “sporadic great men” in the early twentieth century—Teddy Roosevelt, with his trust-busting and his Big Stick, Woodrow Wilson, with his tentative reforms, Wisconsin’s own Bob La Follette, with progressivism at the state level; it is hard to identify any in the last one-third. The wood-pile was not set ablaze.

Now comes a new millennium and new opportunities. Will there appear once again “many geniuses and in rapid succession,” able to make the mass of the nation “incandescent”? In the words of Alexandre Dumas, we can only Wait and Hope. ♣

Grandpa

My grandpa
who was left for dead in Prussia
on the kitchen table
when a billy goat knocked him senseless,
would wait for me after school
sitting in the general store with his pals.
He would buy an ice cream cone for me
while a picture of him
standing in the back row of a baseball team
looking handsome when he was young
hung among the shelves.

My grandpa
who couldn’t read or write
clung to a steamship in a storm at sea
and prayed among the animals.
He literally wept for joy
when he saw emerging from the ocean
in New York’s Harbor a new light—a chance for liberty.

My grandpa
was led when he was still a boy
into the boreal forest of Hurley, Wisconsin
where he clung to the rungs of a ladder
when he climbed one hundred feet down
into the darkness of an iron mine
with only a candle on his cap to light the way.

My grandpa
when he was old
listened after supper in the ever-darkening dusk
of the small light of his radio
that Storm Trooper’s boots were smashing
the faces of Poles and Russians in the mud of war.
And he knew about faces in mud.
By staring in horror at pictures in *Look* and *Life*
he saw that Prussians no longer clung to rifles
flung aside in throes of death.

Hansel’s
drunken parents burned the house down
and tried to lose him in the boreal forest;
even the small birds ate his trail of crumbs.
He must have groped in deep-mine darkness
not finding his pathway home.

I
do not know he may have dreamed
that his father and mother had a change of heart
and came to fetch him;
but I think he must have learned along the way
not to cling to ashes but to build
his own house to keep the timber wolf at bay.

Leonard L. Tews

Genre of the Journal

by Luna B. Leopold



An account of happenings well told can satisfy the aesthetic taste of both writer and reader. It may also contribute to curiosity about one's fellow man. Happenings also are the stuff of history. An account may be simply a recitation of facts, but I here draw a distinction between a collection of facts and something that goes beyond. The other part is something that refers, even tangentially, to the process of life and the practice of studying life. The journal is such an account. I use the term "journal" to refer to an unedited, extemporaneous account of observations, thoughts, analyses, or experiences. Though like a diary, it is not a daily record; its entries concern trips, visits, happenings, or observations. The journal melds into the diary or into notekeeping.

An essay or paper for publication is often drawn from the journal but is carefully edited and involves reorganization of first drafts. The field notebook is another related form, but it usually consists of data, numbers, lists, or short notes rather than complete paragraphs of text. All of these forms grade into one another, and different individuals use their own combination.



The journal form must be at least as old as the novel, although many early journals were actually fictitious. Apart from those who have made history or journalism their profession, one can think of many writers of the past whose extended observations written in journal form are a revered part of our history and literature.

During a period of probably less than a few lifetimes, the Greek historians opened a window on the world that is still being examined with pleasure and gain after twenty-four hundred years. The writers appeared to have no doubt that their observations on people and the physical world were worthy of reading. The opening line of *Clio: The First Book* of Herodotus, written in 443 B.C., reads, "These are the researches of Herodotus of Hallicarnassus, which he publishes in the hope of thereby preserving from decay the remembrance of what men have done, and of preventing the great and wonderful actions... from losing their due need."

This work was in journal form, for it must have been written extemporaneously without editing. There is no indication that a scribe was involved. Herodotus recorded not only what

he heard, what myths were extant, but what he observed. His commentaries on both are of special interest. For example, while traveling in Egypt, he inquired as to the origin of the waters of the Nile. Three explanations were reported, of which two were local myths. The third stated that the water originated from the melting of snows, and he gives several reasons why that would be impossible. He concludes that it "is positively furthest from the truth."

Yet in another instance Herodotus made an important addition to geography. He visited a marvelous structure called the Labyrinth, "which lies a little above lake Moeris A measure of its circumference is sixty schoenes, or 400 miles, which is equal to the entire length of Egypt along the sea-coast." No such lake was mentioned by any writer or shown on any map for the next two thousand years, but in the twentieth century, archaeologists found the lakeshore and the buildings and statues along it, much smaller than described by Herodotus, but nevertheless real.

Several writers of Antiquity wrote in the journal form. Julius Caesar's *Gallic Wars* is a classic still studied for history, language, and form. Caesar probably had a scribe to take down his words, but there is no reason to think that the text was edited or worked over. About this work Cicero said, "He wrote commentaries exceedingly well, I assure you, to be liked; naked they be, straight and upright, yea, and lovely too, being divested, as it were, of all ornaments and trim attire of style"

Another journal writer, Suetonius Tranquillus, was himself a scribe and at one time was the private secretary to the emperor Hadrian. His best known work, *Lives of the Emperors*, treats twelve rulers from Julius Caesar to Domitian, that is from about 100 B.C. to A.D. 96. Suetonius lived from about A.D. 69 to 141, so a good part of the history he reports occurred during his own lifetime and reflects personal observation. His commentary is especially marked by a concentration on the vices and debaucheries of the characters, and a paucity of detail about some of the most important political and military events of the time. For example, the nine-year period during which Julius Caesar exploited Gaul and wrote his account of the wars was treated by Suetonius in just one long paragraph.

From the eighteenth and nineteenth centuries, there are several examples of works that actually carry the title of journal

.....
*There is a pressing
need for the powers of
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.....

and clearly were written in the manner and for the purpose defined above. It is especially interesting that these were often related to membership in a club. One of these, the Falconers' Club, was started in 1772 by the Earl of Oxford and his friends. These gentlemen started the custom of employing Dutch falconers to train and keep the birds, according to Roger Upton's account in *O for a Falconer's Voice*. The birds included both peregrines and gyrfalcons, whose main quarries were initially kites, but later included herons and rooks. The club was in operation up to 1838. It is not clear how consistently entries were made in the club journal, but members apparently kept individual journals as well, fragments of which were preserved.

The best known of these organizations was the Old Hawking Club, which began in about 1861 and was active for sixty-two years. The total number of herons, rooks, grouse, larks, and other quarries obtained is really surprising, but the hunting was easier in those days because there were no fences, and the birds were followed on horseback. Paid hawkers trained and cared for the birds, and the members seemed to have both money and leisure.

Upton makes many references to the Club Journal, but it is not clear who was responsible for writing in the journal. Some of the members of the various hawking clubs also kept personal diaries that read like the type of journal discussed here.

On the American scene, the most revered examples of journal literature were written by those who successfully merged notekeeping with journal exposition. The art was immortalized by Lewis and Clark at the request of Thomas Jefferson, who was himself a prolific writer of this genre. That expedition of 1803 may not have influenced the explorers of 1822 to 1849, however, for the journals of Lewis and Clark did not reach publication for many years. The complete work was not produced until the Coues edition of 1893.

Nearly all the later explorers of the American West kept extensive journals. The best exploration documents were written by the topographic engineers and the officers of the Army of the West, such as Philip St. George Cooke, Wm. H. Emory, J. J. Abert, J. E. Johnston, J. H. Simpson, Josiah Gregg, John R. Bartlett, J. C. Fremont, and John T. Hughes. Their journals have contributed immensely to our historical record.



The modern scene does not encourage this form of expression, and not because we are lacking topologies of mind and scenery

that are worthy of exploration. The abundance of material is amply demonstrated by John Steinbeck's *Travels with Charley*, a commentary on American life and people that is indeed an account of happenings well told.

A number of people I have known who are proficient writers maintain a journal of the type I describe. At least some of them do so following the practice of Aldo Leopold, as I have.

My own style of record-keeping derives from the fact that in my professional life dealing with rivers, field surveying by level or plane table was an important aspect of the work. Therefore my field notebooks are of the "collection of facts" type, consisting of numbers, short sentences of description, and sketch maps. I am now on field book number 69. My journals are true journals, often illustrated with sketches, photographs, and small painted landscapes. I now have ten bound volumes. I have drawn the bulk of my published writing from the field books and journals.



There is a pressing need for the powers of observation and recording that might be well served by experience in keeping a journal. There can be but few persons in the physical and biological sciences who are not acquainted with the demand for monitoring, a general concept in some cases required by law. Monitoring in the physical and biological world requires some knowledge of the processes or rates of change of natural systems. Writing about such observations and impressions should be made a required part of technical training in the sciences. ♣

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The Leopold Legacy

by Michael P. Dombeck



It is amazing to be alive at a time when one can reflect back on a century, and fantastic to be able to reflect on a millennium. In the field of natural resource conservation, the past one hundred years have produced American voices of leadership which are unparalleled in any nation. Theodore Roosevelt, Gifford Pinchot, John Muir, and Rachel Carson are among those who shaped the field. One strong, clear voice was that of Aldo Leopold, whose seminal work, *A Sand County Almanac*, was published in 1949. This collection of essays is an accumulation of personal discoveries and shared revelations that resulted from his life of working on the land as a farmer and a public servant. In the context of a new millennium, it may seem strange to talk about the contributions of someone who lived in Wisconsin over fifty years ago. Yet, I would argue that the lessons of Leopold's life resonate as deeply today as during his own lifetime—if not more so.



In October of this year I had the privilege of coming to Madison to participate in the conference "Building on Leopold's Legacy: Conservation for a New Century," sponsored by the Wisconsin Academy. This conference brought together conservationists from across the continent to celebrate Aldo Leopold's legacy, to take stock of accomplishments in conservation, and to look ahead to the next century. It was remarkable to hear of Leopold's impact on wildlife and wilderness management and about the influence he had on so many in forming their own personal land ethic.

My respect and admiration for Aldo Leopold—his ideas, ethic, and writing—began in the era of Vietnam, civil rights struggles, flower children, and the first Earth Day. In those days, northern Wisconsin's Sawyer County, where I grew up, did not have a single stoplight. It was the perfect setting for someone who loved the outdoors. The Moose Lake area, twenty-five miles from Hayward with its population of 1,500, is located in the Chequamegon-Nicolet National Forest in what Laura Ingalls Wilder called the Big Woods. It was a place where paved roads ended and became dirt roads. During spring break-up, some of these roads became impassable muddy quagmires. The folks from central Wisconsin called it "Up North." It was a time when going to work out meant just that—going outside to work. The lumberjack era had come to an end. The great white



pine forests of the north were long gone, the old growth hardwood forests, too. In winter, snowshoes or skis were the preferred mode of cross-country travel. The scars of the turn of the century clear-cut and burn era were healing. The forests were beginning to look like forests again.

During my freshman year at the University of Wisconsin-Stevens Point, I bought and read a ninety-five-cent copy of *A Sand County Almanac*. Then I read it again and placed paperclips on the pages with my favorite passages. For eleven summers I carried that book with me while I spent long days on Wisconsin's beautiful cobalt blue lakes, where I worked as a fishing guide. I still have that dog-eared copy of *A Sand County Almanac*. Little did I know that I would one day be honored to quote from that wonderful book as the director of the Bureau of Land Management or the chief of the Forest Service.

I felt a kinship with Aldo Leopold. He was also a midwesterner who spent half his life in Wisconsin and worked for the Forest Service. He died the year I was born. My mentor in college, Dr. George Becker, eminent author of *The Fishes of Wisconsin*, was a student of Leopold's in 1939. During my first semester of student-teaching in college, I used *A Sand County Almanac* as the text for the advanced biology class that I taught. As my career progressed, I gained a deeper appreciation for how much of Leopold's land ethic was developed during his work as a Forest Service employee. Leopold began his career in 1909 in the Southwest, and, in 1924, became the assistant director of the Forest Service's Forest Products Laboratory in Madison. Later, at the University of Wisconsin, he became the nation's first professor of game management.

What made Leopold's life and work so significant was that he conveyed the need for people to develop a conscience concerning ecology and to extend that conscience to the way they viewed and took care of their lands and waters. Leopold had a keen sense of the interconnectedness of ecological systems. Just as he saw that the river-lake systems of Wisconsin flow into and feed one another, so did he recognize that people are "plain and simple members" of the biotic community.



In the new century and millennium, we must do more to ensure the sustainability of our resources for generations to come. We must take what we've learned, along with new scientific discoveries and changing social values, and put them to work for the stewardship of federal, state, tribal, and private lands, both rural and urban. It is also time to consider issues such as resource consumption.

As I look across the landscape and see the natural resource issues of most concern to future generations of Wisconsinites—urban sprawl, water quality, preservation of wild and open spaces, and outdoor recreation opportunities—I often think of

Leopold. He criticized short-sighted people who “had not learned to think like a mountain.” He believed that the respect that we accord one another is reflected in our treatment of the lands and waters. As a professor, Leopold understood that the same qualities that define a good teacher and land manager—patience, humility, study, and an ability to listen—were more than simply a recipe for stewardship. In an era of compromise and half-gestures, these qualities represent our best and most lasting hope for learning to live in harmony with the natural resources that sustain us all. ♣

Sense of Place, Sprawl, and the Future Wisconsin Landscape

by William H. Tishler

A sense of place is fundamental to what we see and how we relate to the Wisconsin environment that we cherish and call our home. It inspires our poetry, photography, painting, writing, architecture, and other forms of creative expression and, perhaps more important, influences our mental and emotional well-being. Sense-of-place features are to our environment almost what personalities are to people. Life would be dull if we were all clones and everyone had the same identity, and this is also true for communities and landscapes.

The landscape is fundamental in establishing place identity. Throughout our history, the land has profoundly influenced who we Wisconsinites are and what values we hold. It was the quest for land and its resources that attracted Native Americans and, later, immigrants to this area. Since earliest human habitation, the land provided sustenance—it enriched and inspired people and shaped our very character. We can read our history in the land. I myself have found fossils that are more than 400 million years old in the rocks my agrarian ancestors cleared from their fields in northern Door County.

Wisconsin's very first residents, the American Indians, had a spiritual respect for the land, and they shaped it only in subtle ways. Thus, none of their fragile structures and little of their imprint on the environment survive. An exception, however, is the mounds they built in southern Wisconsin's pre-resettlement landscape. Early surveys by Increase Lapham documented an unusual array of these ancient earthworks—well over a thousand existed in the Madison “Four Lakes” region alone. It is a sad commentary on our relationship to the land and our attitude toward indigenous culture that today only approximately twenty percent remain. Many of these have been pillaged or disfigured.

The first significant human imprint on Wisconsin's landscape resulted from how it was surveyed. The early French “long lot” land division system can still be seen in their old set-

tlements at Green Bay and Prairie du Chien. Later, the federal land survey stamped the ubiquitous grid on the land.

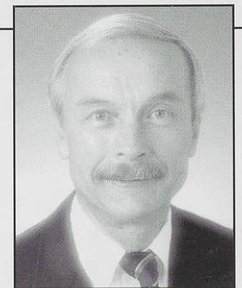
Three major land-shaping activities occurred on this surveyed landscape: mining, logging, and agriculture. Each helped establish a special “sense-of-place” identity, but agriculture left by far the most enduring and extensive imprint. Agrarian features remain a hallmark in our rural landscape, where farmsteads are interspersed in a grid of field crops, pastures, and gently rolling woodlands.

These places speak to our visual sense. They tell us about what makes Wisconsin special. They are reminders of the diverse human-shaped environments we have inherited from our past.



Today, however, we are losing these qualities to a hodgepodge of sprawling development that is destroying the special qualities of our landscape and our communities. This transformation is being driven by powerful forces: our insatiable appetite to develop raw land and consume its resources, our habitual reliance on the automobile, our misguided community design conventions, our over-zealous tourism promotion, and our reluctance to create residential areas that harmonize with the landscape and respect place-related character and human scale. Sprawl will be a relentless threat in Wisconsin's future, and one of the most difficult issues for us to deal with.

How can we cope with this problem? Wisconsin must develop and legislate better statewide land use planning. This has already been done in Vermont, Oregon, Florida, New Jersey, and other states that are getting serious about conserving open space and controlling sprawl. Recent attempts to promote “smart growth” are a start, but the state still lags in this regard.





Aerial view of a portion of southwestern Wisconsin's attractive countryside, a landscape still not penetrated by urban sprawl.

Dealing effectively with sprawl also involves rethinking our outdated patterns of automobile-based mobility and establishing mass transit systems. There is no question that bigger, wider, faster highways spawn more and more traffic and wasteful, automobile-oriented growth and development. We are covering our landscape with ribbons and blotches of concrete and asphalt. Too often our roads resemble enlarged versions of supermarket aisles full of packaged products—highway strips lined with fast-food restaurants and “big box” retail outlets. Unfortunately, commercial strip development exists on the edges of most of our cities and towns, creating serious problems for the economies of inner-city areas and the downtown centers of our small communities. Beyond the urban fringe, most of our highway rights-of-way are made homogeneous by aggressive roadside mowing which destroys the native plants that contribute important sense-of-place qualities to travel corridors. A careful comparison of our budget for highways to that for other needs such as parks, education, and historic preservation leads me to believe that our spending priorities may be more than a little lopsided.

Another way to control sprawl is to revise our approach to designing residential areas. Instead of converting vast expanses

of land to housing, we must emphasize cluster development. “Smart growth” and “traditional community” design concepts now being revived afford better ways to shape future neighborhoods. This is already occurring in a handful of new developments such as the innovative Middleton Hills subdivision near Madison. These projects are laid out to fit the terrain; they have smaller lots, narrower streets, generous interconnected systems of open space, shopping within walking distance, and pedestrian-friendly environments.

Over-zealous tourism promotion can also obliterate our sense of place. Our quaint small towns and scenic rural areas become overwhelmed with large influxes of tourists and are usually ill-equipped to deal with the resulting problems. Tourism, of course, is important to our state and one of its largest industries. However, promotion to attract visitors usually begins long before adequate thought is given to planning, land use, sanitation needs, or traffic congestion.

Seeking tourists and the business they might generate, some American communities devise themes for changing their downtown areas or their community images. They create a phony “Wild West” atmosphere, an imagined ethnic theme, or an inappropriate historical townscape, or perform out-of-character architectural surgery on historic structures. These changes can turn entire towns into versions of a giant theme park. While this may provide a temporary fix for business, it also portrays a community image that violates the real sense-of-place potential that many towns and villages actually have. Often, better and more honest approaches to community revitalization can evolve from a town’s real history—one centered around the preservation and restoration of its historic buildings, places, events, and traditions.

Not everyone can afford custom-designed houses to fit individual needs and specific locations. However, most houses built in America today have an uninspiring sameness. Furthermore, they are usually surrounded by acres of monotonous, energy-consumptive, chemical-infested, water-guzzling, neatly mowed lawns. Jens Jensen, our state’s most prominent landscape architect and a visionary conservation advocate, vigorously advocated the use of native plants. He created some of the Midwest’s finest parks, gardens, and estates. In housing developments, as along roadsides, minimizing mowed turf and incorporating the rich diversity of an area’s native plants can be one way to retain sense-of-place features.

Perhaps we might still see the day when each region will look to its own rich tradition of vernacular building design to inspire appropriate contemporary interpretations. These could also be energy-efficient, ecologically sound dwellings, on smaller lots, fronting on narrower streets, and connected to an open-space system containing community garden plots—all sited in harmony with the land, and in keeping with an area’s distinctive sense-of-place qualities.



Throughout the first half of this century, Wisconsin’s population changed from primarily agricultural to largely urban. During

the last half of this century, people moved to the suburbs, opening the floodgates to a deluge of sprawling, placeless, automobile-oriented growth.

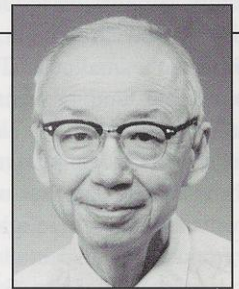
I fear the results of continued growth in the next half of the new millennium. Will what remains of our countryside also become suburbanized? Will the precious but fragile beauty of Wisconsin's remaining undeveloped landscape become a vast undifferentiated sea, polluted with the same ugliness we created during the last half century? I hope not. But, clearly, the early

warning signs are there. Unless we act quickly to promote better planning, design, and retention of our legacies from the past, unless we accept a land development ethic guided by a commitment to maintain the sense-of-place features we cherish, we will diminish greatly the quality of life for our children, our grandchildren, and all future Wisconsinites. ■

Adapted from a keynote address given in 1998 to the first Governor's Consortium on the Arts at Stevens Point.

The Lure of Good: Scale and Commitment

by Yi-Fu Tuan



All human beings without exception want good rather than evil to happen to them. Problematic is the meaning of good, which is so varied in Western usage that Milton's Satan has effectively reduced it to absurdity by saying, "Evil, be thou my good." What is good to the bully is evil to his victim. What is delightfully warm (good) to one person can be insufferably hot (bad) to another. And so on. Such commonplaces of experience make "relativism"—the idea that values and preferences are relative—easy to accept. People practice relativism routinely, whether they know it or not.

On American campuses in the last three decades, however, there has been a tendency for students, with apparent encouragement from their mentors, to elevate relativism from homely evaluations and judgments of daily life to the position of a moral/political doctrine. In the world of things and values—the belief goes—one should concentrate on their distinctiveness, their uniqueness, their difference rather than their commonality. Such a focus is convenient in our pluralistic society, for it excuses one from any obligation to compare, judge, or rank—steps that can offend ethnic or religious sensibilities.

Note that although the popularity of the relativist doctrine on campuses is new, it is in conformity with and grows out of the tradition of excluding God from the curriculum of public schools and universities. God is excluded on the principle of the separation of church and state, but there may be a deeper reason; namely, not just the Judeo-Christian idea of God, but the pagan Greek idea of Good, too, inevitably conjures an image of perfection—an absolute standard and lure to which all human beings aspire. Not all human beings, however, can hope to reach the same high rung on the "ladder of ascent," for they differ in motivation and ability. Moreover, societies differ in the

degree to which they encourage and enable their members to rise up to God or Good. These are subversive ideas if one is a radical egalitarian. God or Good, therefore, must remain in the closet.



Are all values relative, as students appear to believe? Are there, then, no pictures of the good life shared by many if not by all? Well, if one surveys the ethnographic literature one finds a remarkable, though hardly surprising, concordance in what constitutes good. Good is survival. There! I have hit rock bottom. All animals surely want to live. Human beings, however, want more, and that "more" is having material resources that go beyond mere sufficiency. Good is thus abundant harvest, well-stocked folds, plenty of timber on the land and fish in the waters, healthy children. The precise cluster of desirable material things varies from people to people. Nomads want well-stocked folds, farmers want well-supplied granaries. So their idea of good differs in specifics. But at a more abstract level—that of sufficiency or plenty—they agree.

In schools and universities, the character of the human world is taught systematically in the social sciences, which, for the most part, are concerned with activities of the middle scale: making a living, maintaining human relationships, building settlements, and creating structures of thought and belief. "Good" acts as a lure in all these efforts. I have already mentioned material plenty as one such good. Are there others, more elevated, that are also widely shared? Are there intangible goods (values) not yet acknowledged by many, but which, thanks to their appeal to basic human nature, may become so once they are made known? I believe there are. But they tend to be exhibited

in scales—the very large or the very small—that schools and universities seldom touch. What is good? Good is immensity, sublimity, overwhelming power; at the other end, it is—or it is manifest in—the barely visible, the transient and the fragile.



As immensity and power, good is akin to God. God is good, we say. But how so? Is “good” that is God compatible with “good” as understood by and applied to human beings? One meaning of good cannot be applied to God, or more precisely, to the Godhead, namely, the virtue of submission. Many people consider that it is good (a virtue) for mortals to recognize their limitations and submit to the great forces of nature which is, ultimately, submission to God. But God cannot submit, for God is great. In Jewish thought, God’s greatness is at times contrasted with man’s smallness. To Job’s complaints about unjust treatment, God famously answered, “Where were you when I laid the foundations of the earth? Who laid its cornerstone when its morning stars sang together?” Even more than Judaism and Christianity, Islam has made submission to God’s majesty and power the heart of religion. To the enlightened humanist, however, power is suspect even when—indeed, especially when—it is draped in majesty. Submission to it is necessity, which is hardly the same as good. Confounding the one with the other is all too easy and has, historically, contributed to the acceptance and endurance of blatant social inequalities.

God’s overwhelming power—a divine attribute—must be considered good as such. His power is also good from a narrowly human perspective, for he has been known to use it to help human beings out of a bind, as when he parted the Red Sea to allow his chosen people to escape. However, in almost all religions, Judeo-Christian included, God’s help cannot be taken for granted. “Heavenly Father,” Christians call God, but as father he is not as solicitous as even a good human father can be. The phrase “God is good” or “God equals good” does not always conform with human experience. Using such phrases threatens to make the word “good” meaningless.

God, however, is not only power. He is also beauty. If submitting to raw power tends to leave the human being a little diminished, perhaps even a little ashamed, submitting to beauty has no such negative effects. One can be overcome, even annihilated by beauty and yet feel strangely fulfilled, ecstatic. And so God’s answer to Job may be understood not as muscle-flexing, but as the Supreme Artist exhibiting his sublime work.

Sublimity inevitably contains an element of darkness and threat. In Europe during the eighteenth and nineteenth centuries, sublimity was typically evoked through images of nature on the rampage—nature in a moment of agony. Other cultures in other times have also indicated an appreciation for the sublime. The God of the ancient Hebrews, for example, was not only the creator of order, but also a turbulent, boundary-shattering force. In China, taste for the sublime is most in evidence in landscape painting, with its whirling clouds, plunging waterfalls, and thrusting peaks. But many cultures ignore the sublime altogether, and many more acknowledge only its dark threaten-

ing side and so treat it more as a force to be placated than as the dramatic exhibition of beauty.

The sublime, then, is not a universal lure. And for good reason. Life—daily life—is uncertain and turbulent enough as it is. Why seek more frightening examples of it in nature? Most people desire not the excitement or exhilaration that the sublime may provide, but rather reassurance and, if possible, serenity. And serenity, despite what the poets say, is seldom found on earth. In the experience of the bulk of humankind, the earth is a confusion of hills and valleys, its broad plains are subject to catastrophic floods, its weather is undependable. Only when people look up to deep space or heaven, far away from earth, do they discern majesty and design. The sun always moves from east to west. The sequence of the seasons does not change. The polar star stays put. Heaven’s power—its divinity—is manifested in the circular paths of the stars, in music or restful silence.

Order in heaven has provided a model for order on earth. In different parts of the world, outstandingly, ancient China, cities were built with walls oriented to the polar star and the cardinal points. The ancient Greeks were, however, an exception. Rather than show their heavenward tilt in geometric cities, they did so in abstract thought. The Greeks revealed a characteristic bias against the particular in favor of the general, against change in favor of permanence, and so against the myriad forms and their transmutations on earth in favor of the relative simplicity and permanence of the stars, and even beyond the visible stars to the invisible laws that govern them.

Let me provide a recent, concrete illustration of these two scales—the very large scale of heaven and the middle scale of the earth. For several days in January 1995, more than two thousand astronomers convened in Tucson, Arizona, for the American Astronomical Society’s largest meeting up to that date. While the astronomers were excitedly discussing the latest findings in the miracle of creation—naked quasars and flaring stars—a number of American Indians and their environmentalist supporters were protesting a telescope project that, if built, would stub the toes of a local mountain god. Knowing more about flaring stars does nothing to ensure better harvest, whereas offending the spirit of the earth could have bad consequences for all living things (*Science*, vol. 267, 27 January 1995, p. 456). This case records a neat confrontation between the very large—a possible gateway to the transcendental good—and the middle scale of activities that sustain routine life. We live the middle scale, from necessity. But also, it seems to me, from a certain willful blindness. For even in the universities, privileged places where acquiring adequate food and clothing is seldom the issue, faculty and students dwell almost wholly on subject matters of the middle scale. Very few course offerings turn to the very large and the very small for moral readings—for clues to the transcultural good.



The good in the two forms that I have sketched—sublimity and cosmic order—provides us with an aesthetic inspiration, an aes-

thetic of the immense that liberates us if only by putting our own egotism and pettiness to shame. But it has little to say about the *moral* good that can also lift the human spirit. The middle scale of society and livelihood is rich indeed in moral rules and exhortations. But these are almost always compromised, their values at times even reversed, in practice. For a hint of the unadulterated good and its pure inspiration, we need to turn elsewhere—to the small scale. By small scale, I mean actions of a passing and often spontaneous nature that punctuate our lives like grace notes from heaven, which we may receive in gratitude but then all too quickly forget.

Of course, the small scale can also offer us beauty. If the beauty of the immense is the eternal procession of the stars, the beauty of the small is—let us say—the early-morning dewdrop on the rose petal. Its very evanescence aligns it, paradoxically, with the eternal and transcendental. So one might argue that a single dewdrop can be as much a lure as a panoply of stars. If nevertheless I choose to set aside the aesthetic to attend to the moral, it is because of a special quality to be found in the moral good at a small scale that cannot be found in the moral good at larger scales. This is its relative freedom from contamination by murky motives and from bad, unforeseen and unforeseeable consequences. The small-scale moral action can, for this reason, impress one as possessing moral beauty. The moral and the beautiful fuse. Good at that scale means, naturally, both.

Let me give an example. Heavy snow fell for days in late November 1982. When I looked out of the window of my tenth-floor apartment in downtown Minneapolis, I could see that the entire city was blanketed in white. Foolishly, I tried to drive to work; predictably, my car was stuck within half a mile of my apartment building. There were very few vehicles on the streets, and most were as immobilized as mine. I thought of abandoning my car, but just at that moment, I saw someone waving at me from across the street. He had just pushed a vehicle free. He came over to say that he would give mine a push too. The wheels spun, skittered forward. My car could now run on its own power. I offered the man a ride. I said that since I couldn't possibly make it to the office, I was returning to my building—the River Towers Condominium. He said that he was heading that way too, that he worked there as a mechanic. In the slow crawl home, I asked him where he lived. In St. Paul, he said, and added that he had had to abandon his own car a couple of miles back, and that as he trudged his way through the thick snow toward Minneapolis, he helped as many stranded motorists as he could. I was struck by what he had done. It carried biblical undertones. Like Christ, he couldn't "save himself," but he could save others. In the car, I had to concentrate on my driving and so barely glanced at my rescuer. In the garage, I was able to look at him. I found a young man bursting with vitality. He smiled when I thanked him, exposing a set of perfect teeth. I thought of him, in a fit of fantasy, as an archangel temporarily put on earth to help stranded mortals.



My topic is the lure of good in terms of scale and commitment. Let me turn briefly to commitment. For there to be commitment, there must be a lure—a Holy Grail out there, although my preferred term is simply good or the Good. Students in the 1980s and 1990s are deeply suspicious of the overriding goal—a Holy Grail. Perhaps the closest to such a goal, for them, is the housekeeping one of saving the environment. Anything beyond—anything less practical, more otherworldly—smacks of fanaticism or elitism. I applaud young people's distaste for fanaticism. But the lure of good, as I have sketched it here, seems to me to guard against fanaticism of the blind, self-righteous kind because it is both an open-ended search for the stars of the night—that is, for all that is encompassingly beautiful—and attentiveness to specific, unselfconscious, heart-warming acts of human kindness in daily life. As to elitism, there the criticism sticks. How can there be good and a ladder of ascent toward it without striving and commitment, without the feeling that, even with the best will in the world, we fail almost as often as we succeed? Worse, for it is closer to the heart of the idea of elitism, is that some people make further progress than do others, some may even be better human beings than others. However, if we know anything at all about Good, we who are less far along or less gifted do not feel resentful. To the contrary, we rejoice, for the human exemplars ahead of us and their achievements are themselves a lure—flares that mark the way to the Good. ❧

Somewhere New

If only I could turn myself back into the ground
with the grace and agility of a maple letting go
of a thousand vibrant leaves in the fall and face winter
unburdened and skeletal

if only I could cover my naked limbs in snowflakes
and have the moon lift my darkest shadow off the ground
and hold me through the night till the sun returns
with a different beginning

if only I could meet you unexpectedly somewhere new
before our journey got in the way of the joy I would feel
if we had never met and I knocked on a different door
and you opened and said welcome

Karin B. Gordon



A Still Small Voice: The Paintings of Randall Berndt

by Richard Long

And he said, Go forth, and stand upon the mount before the Lord. And, behold, the Lord passed by, and a great and strong wind rent the mountains and brake in pieces the rocks before the Lord: but the Lord was not in the wind: and after the wind an earthquake; but the Lord was not in the earthquake: and after the earthquake a fire: and after the fire a still small voice. — I Kings 19:11–12

Considering where it is in time and space, Randall Berndt's work is remarkable as much for what it is not as for what it is. It is not large, ham-fistedly polemical, crudely executed, technologically dazzling, morally transgressive, or cleverly subversive. Nor is it a cold, detached, impersonal expression of corrosive postmodernist irony. Art proceeding from a frankly political imperative tends to be like the great wind that breaks in pieces the rocks of purely visual aesthetic experience. Conceptual art, performance art, and, to a lesser extent, computer art constitute an earthquake that reduces to rubble the art object as it has commonly been experienced time out of mind. And art animated by a deconstructionist perspective operates like a strange nonconsuming fire. But the "Lord" (art) is not in the wind, or the earthquake, or the fire—but in a still small voice.

Randall Berndt's recent work presents the viewer with beautifully and authoritatively executed paintings done on small panels rarely larger than about 16 x 20 inches. His handling of acrylic pigments mercifully avoids the regrettable effects frequently encountered in this medium (e.g., pasty, plastic surface, or dull, embalmed color). The brushwork has a light, almost caressing quality but evinces an authority grounded in sound and sensitive draftsmanship. Although Berndt's painting has undergone considerable transformation since the large color-field paintings he produced during his youth in the tumultuous 1960s, he has had at his command for over three decades the powers of a consummate draftsman.



Memory fragments of events/experiences of his childhood passed on the family farm in rural Wisconsin in the 1950s are the source of most of Berndt's current work. These impressions are given initial substance in the form of small, summary, and deftly executed pencil drawings collected in bound sketchbooks. The formal architecture (disposition of figurative elements, spatial relationships, etc.) undergoes little substantial

change in the translation to the subsequent paintings. But Berndt's creative process is much like that of the Nature he venerates: ruthlessly selective. More than a few of his small "idea" sketches enjoy the only life they will ever have in the hidden womb of the sketchbook.

It is in the painting process that Berndt first engages the issue of color. And it is with color that he brings the aesthetic statement implied in the sketches to rich and vibrant fruition. His inventive, and sometimes almost magisterial, handling of color imparts to his work much of its narrative force as well as its purely aesthetic appeal.

It must be stated flat out that Berndt's work is unarguably traditional, although the state of contemporary art and art criticism inevitably renders such an observation pejorative. He unapologetically works with and within conventions developed during the long history of Western art. The essence of the prevailing postmodernist Zeitgeist (and to some extent the modernist project as well) is a studied contempt or a willful ignorance of the past and all traditions coming to us from the past. For the most part, postmodernist artists, philosophers, and historians conceive of the past as an abandoned mine useful only as a source of evidence to illustrate the "crimes, follies, and misfortunes" of Western civilization. For Randall Berndt, tradition is not a dark, confining prison but the sustaining air we breathe, a treasure trove of human experience built up over countless generations from which he draws the materials and strategies necessary to express his own very personal vision.

Berndt's work is hard to classify according to the existing categories and, to this viewer at least, its *modus operandi* is curious. In his most recent work the artist is dealing with images which derive from memories of his childhood experiences in rural Wisconsin. Since he is fifty-five years old, these experiences are quite remote; and they are probably totally foreign to most of the people likely to see his painting. His work deals, in fact, with a vanished world—vanished from his own life and from the current reality of the vast majority of the American people. He



Fox's Fire. Acrylic/Panel,
16 x 20 inches, 1998.
Collection of Howard and
Rebecca Gilbertson.

somewhat disarmingly expresses his admiration for what he calls the great “illustrational” painters like Winslow Homer and Norman Rockwell (!). On the face of it, one seems compelled to classify him as some kind of realist. But he does not really illustrate (or document, or preach, or whatever realists do). What Randall Berndt actually does is much more like conjuring.



Berndt's paintings produce a feeling, an ambience, that is both evocative of concrete events and at the same time devoid of the solid clues essential to establishing certainty in regard to what is actually happening. Possible solutions increase in direct proportion to the degree of scrutiny applied. This aspect of his work is strikingly evident in *Fox's Fire* (1998). The subject of this painting seems to be easily described until one tries to do so. A person with his back to the viewer occupies the foreground of the painting. He(?) is observing a campfire(?) within a circular(?) stone enclosure in the woods. And the fire is being watched (tended?) by a fox perched on the stump of a tree(?). The campfire located near the center of the picture lends a tenebrist effect to the whole *mise en scène*. This description, while accurate as far as it goes, is strewn with irritating parenthetical question marks. Moving from description to interpretation multiplies the questions. What is the purpose of a stone

enclosure in what appears to be a wilderness? Do foxes really perch on stumps? The branches which feed the fire seem to be carefully arranged in a very stable pyramid. Fire, which by its very nature resists a stable form, is united to one of the most stable and suggestive forms imaginable. . . . Hmmm. The figure of the fox on the stump is virtually a definition of the enigmatic. On first blush, it seems to describe an actual, if unlikely and precarious, circumstance. But it also seems oddly static and totemic (perhaps a monument to a vanished past). Is the stump with its tapered end evidence of permissible human interventions in the natural order (whittling, building fires or cabins) or a relic of the timber industry's predations (maximizing profits, enriching capitalist pigs)? For those with a knowledge of ancient art, the small branch protruding from the front of the stump raises the possibility of an allusion to classical herms. Well, maybe But the point is that the work does not so much inform the viewer of a simple, fixed, straightforward narrative as it draws one into an inviting, intriguing experience of fluctuating and sometimes elusive possibilities.

The formal program of Berndt's work follows an equally sophisticated and compelling strategy. Figures, natural phenomena, architectural forms, and various flora and fauna are teased into pictorial existence by means of a confident but relatively loose and seductively painterly touch. Nevertheless, the forms



October Moon.
Acrylic/Panel, 16 x 20
inches, 1998.

thus rendered have the solidity and the defined self-contained presence usually associated with a tighter, more controlled and rigorous “realist” stance. Thus he gives us the best of both worlds: the generous and vital surface of a painterly/expressionist tradition *and* the credibility and gravity of a classical/realist tradition. His works are animated by a vigorous utilization of strong diagonals, cropped figures, and oblique spatial layerings. Typically, these compositional devices are suggestive of movement, flux, and transience. And they do, indeed, occasion this kind of activity on the part of the *viewer*. But the figures and objects in Berndt’s paintings are arrested in moments of harmoniously balanced activity more commonly encountered in work descending from a classical/realist tradition. Once again, we get the best of two worlds usually regarded as mutually exclusive.

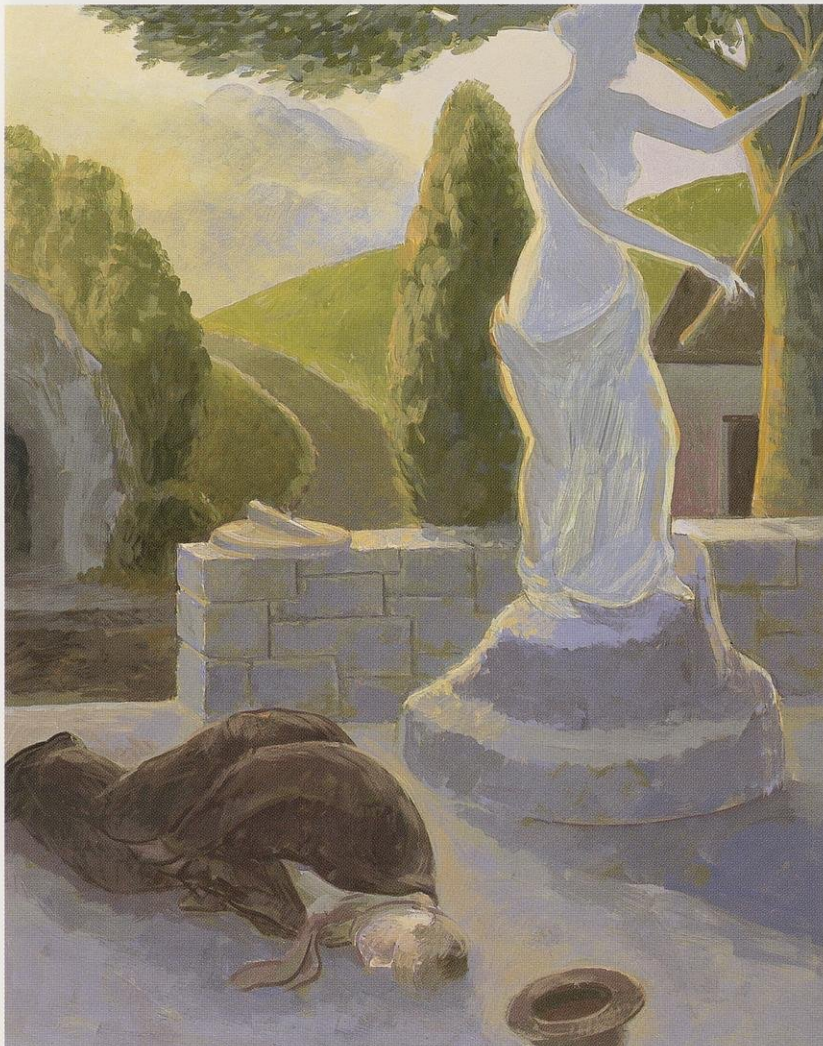


Berndt states that the central problem of his creative process is “how to convert internal images into images that work in paintings and that can be shared with viewers whose own internal pictures are quite different.” Because we are an increasingly urban society, most of his likely viewers will almost certainly bring to his work very different “internal pictures.” But I don’t think this inexorable demographic reality need concern him too much.

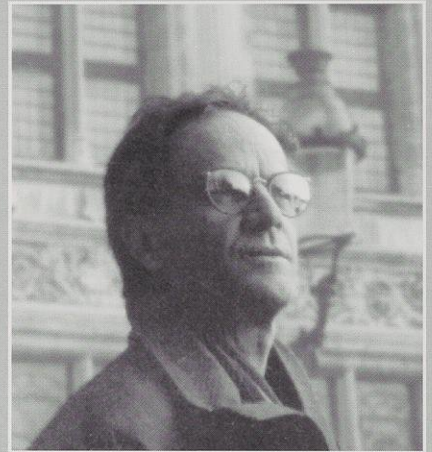
Like Berndt, I too spring from a rural background. And although I am a few years older, we are both more or less children of the fifties. But, alas, we don’t have the same attitude toward our similar internal pictures. From a tender age, my chief ambition was to escape the farm. I do not carry in my head (or soul, or heart, or whatever) the warm memories of rural life that so obviously motivate the work of Randall Berndt. And in the decades since my escape from rustic existence, I have successfully suppressed any temptation to go tromping about in the hinterland. Nonetheless, I am obliged to admit that Randall’s work has the power to draw me into a world for which I have little enthusiasm or empathy. Much of its appeal for me is in its seductiveness. I think his power to break down resistance such as mine derives from the fact that whatever the subject, and whatever the twist he gives to it (sometimes ironic, frequently paradoxical, often humorous), his work is always positive, life enhancing, and wholesome in a gratifying and nonpreachy way. Integrity mediated by beautiful, lovingly conceived and executed paintings is hard to resist . . . and hard to beat. In the cacophonous and frequently gaudy carnival of contemporary art and life, Randall Berndt is a “still small [but irresistible and powerful] voice.” Bless him. 🍂

*Close your bodily eye so that you may see your picture first
with the spiritual eye. Then bring to the light of day that
which you have seen in the darkness so that it may react
upon others from the outside inwards.*

— Caspar David Friedrich
(1774–1840)



Force of Destiny. Acrylic/Panel, 14 x 11 inches, 1996.



Randall Berndt grew up on a farm near Markesan, Wisconsin, and holds an M.F.A. degree in painting from the University of Wisconsin–Madison. His work has been exhibited in many museum and gallery shows, both juried and invitational. These include, in recent years, the Butler Institute of American Art in Youngstown, Ohio (where he received the Juror's Choice Award), the Sioux City Art Center in Sioux City, Iowa, the Grace Chosy Gallery in Madison, and Edgewood Orchard Galleries in Fish Creek. He is the recipient of a 1996 Wisconsin Arts Board Fellowship Award and the 1997 Mayor's Purchase Award from the Madison CitiARTS Commission. Berndt is director of the Wisconsin Academy Gallery, where he has curated two special exhibitions: "Maps of Encounter: The French in Seventeenth-Century Wisconsin" (1995) and "Rebirth of the Prairie: Aldo Leopold and Ecological Restoration" (1999).

Though mainly an urban dweller now, Randall has a continuing connection with the family farm in the rolling woodlands and fields of southwestern Green Lake County. There he gardens, plants prairies, and wanders with his three-year-old son amongst the pine trees that his father planted. Childhood ramblings in those woods and fields formed an attachment to nature and a feeling for her mysteries that continue to surface in his paintings. Later travels to European art centers have added cultural layers and other kinds of mysteries to the images he creates.



The Sculptor. Acrylic/Panel, 11 x 14 inches, 1997. Collection of the city of Madison.



The Farmer and the Wind. Acrylic/Panel, 11 x 14 inches, 1996. Private collection.



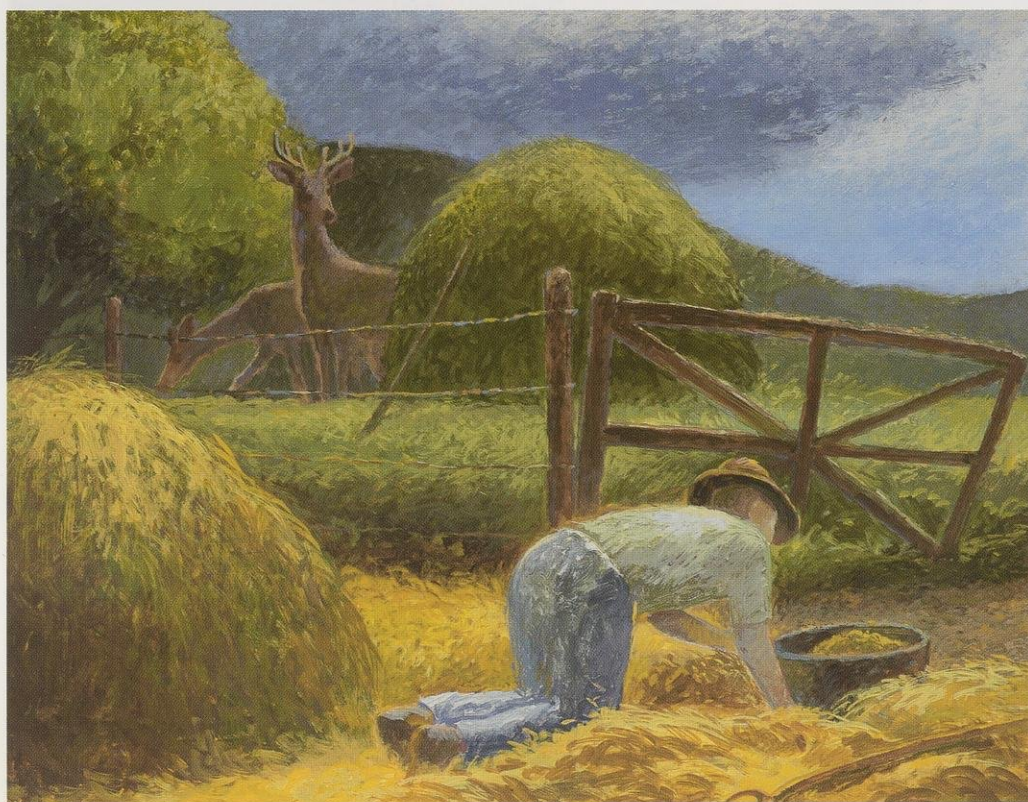
Workshop of Manifold Properties. Acrylic/Panel, 16 x 20 inches, 1998–99.



Scarecrow's Twilight. Acrylic/Panel, 16 x 20 inches, 1997. Collection of Jim and Liz Hanson.



Night Fire. Acrylic/Panel,
16 x 20 inches, 1999.



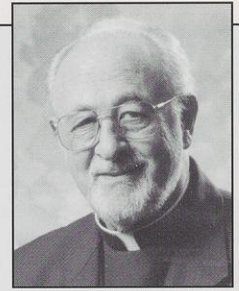
Gathering Up before the
Storm. Acrylic/Panel, 11 x 14
inches, 1998. Courtesy Grace
Chosy Gallery, Madison.



Moonlight Watcher. Acrylic on paper, 13 1/2 x 17 3/4 inches, 1999. Collection of Rolf and Judith Mjaanes.

The Religious Landscape of Wisconsin: From Steeples to the Unknown

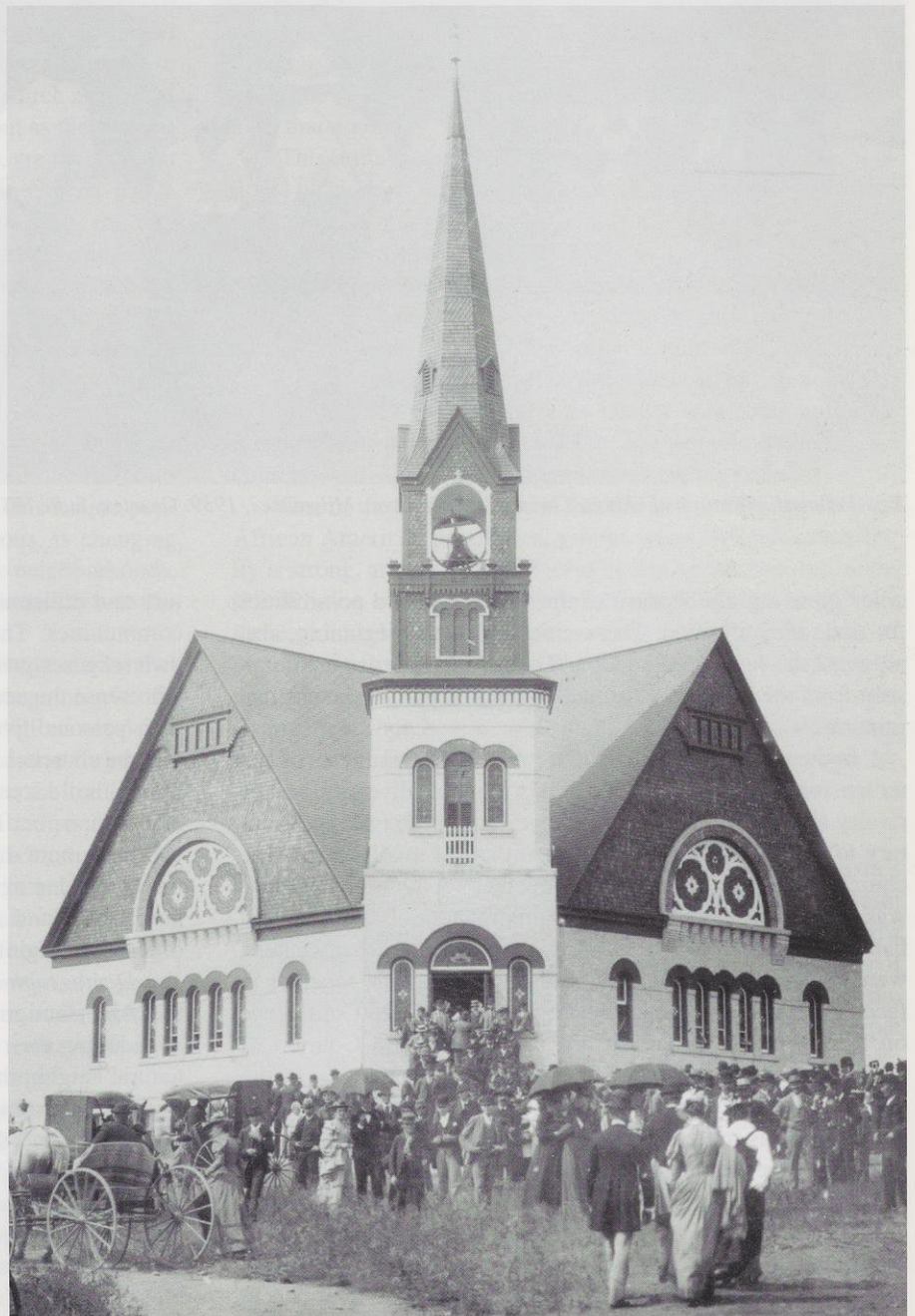
by Rembert G. Weakland



When visiting Wisconsin at the turn of this millennium, one of the first impressions casual tourists receive is that of a landscape full of church steeples. From the bleak and barren modern highways, tourists watch steeple after steeple pass by—these tall thin columns pointing toward heaven, mostly cream colored, some trimmed in red or even topped with crosses of gold. Driving through the countryside, the tourist is again struck by the beauty of so many small stone churches, often standing alone with only the manse to balance the rising spires. Neatly plowed fields dotted with silos and trim farmhouses surround small isolated complexes of churches and graveyards.

Most of these churches are still Lutheran or Roman Catholic, depending on the area of the city or the farm country one visits. The Lutherans came out of Germany, Norway, and Sweden, and their churches always look so inviting, breathing warmth when covered by winter snows or affording cool shelter when baked by sweltering summer heat. One should not forget the Moravians and the Mennonites and their role in bringing symmetry to the landscape.

Many of the city spires belong to Roman Catholic congregations, having been built first by immigrant Germans, Poles, or Irish, and later by Italians, Slovaks, and Lithuanians. In addition, in the cities one finds every traditional mainline Protestant church: the United Church of Christ, the Presbyterians, the Congregationalists, the Methodists, the Episcopalians, the Baptists, and many others. Greeks, Serbs, and Armenians added their churches to the landscape. These churches exist because the land attracted families from all national groups to come here and to build their homes, while the



Church in Stoughton. Courtesy State Historical Society of Wisconsin.

WHL(x3)36826, S. O. STEPHENS.



WMH821/123 CF8423

New Fellowship Church of God in Christ, North 8th Ave., Milwaukee, 1939. Courtesy State Historical Society of Wisconsin.

cities grew rapidly because of the waterways and possibilities for trade they afforded. These cities, from the beginning, also attracted the Jewish population. Their synagogues, usually not seen from the highways, formed an integral part of the original mixture.

In the nineteenth century there were many moments of bitter tension in the state because of this religious diversity, but the rivalry and the competitiveness gave way in the twentieth century to more mutual respect and joint social involvement. The churches realized that working together for a common cause was more important than fighting among themselves. In the last half of this century, the churches, especially in urban centers, were spurred on by rising civil disorders to come together to face new social problems. The Greater Milwaukee Conference on Religion and Urban Affairs, the Wisconsin Council of Churches, and the Wisconsin Catholic Conference are the results of these cooperative efforts. One is obliged, however, at the turn of this millennium, to ask, What will the next century look like? Are the steeples going to disappear?



The second half of the century we are leaving behind already posed new challenges to the churches. How they respond to those challenges will determine the landscape of the next cen-

tury and millennium. The steeples are but signs of worshiping communities. They are present in the landscape not for their own sake as signs of beauty, but as places of worship for people who sense the need for the presence of the transcendent both in their personal lives and in the whole of society. The challenge that the churches in Wisconsin will face in the future will not be how to build steeples, but how to form communities of believers. Four specific challenges will make the mission of the churches more difficult, perhaps even painful, as they face the unknown: demographic changes, the demise of the family farm, new ethnic and racial mixes, and changing attitudes toward organized religion.

Demographic changes. Beginning in the 1950s, many of the older immigrant families began to move out to the suburbs, abandoning their steeples in the cities. There they had formed natural neighborhoods around their old and inspiring churches. Even their participation in the political realm was often accomplished through their churches. Their pastors had been, for the most part, strong personalities with their own deep convictions about what a just society should look like. The Polish in particular were led by such strong and forthright pastors. Most of these church members, Lutheran or Roman Catholic, were blue-collar workers, strong and outspoken members of labor unions. They had formed their own credit unions and built their

own life securities around their faith communities. They abandoned these associations when they moved to what they thought were the safer suburbs. There they found themselves having to build new churches or to travel sizeable distances to worship. Most of all, the sense of neighborhood was gone; the church-complex ceased to be the center of their social and religious lives.

The demise of the family farm. The farm crisis has already begun to affect the religious landscape as more and more people are giving up farming and moving to the city. Entering the next millennium one wonders, Will people still be living in those farming areas, or will the little stone church and its steeple become more isolated than ever before? As people are forced for economic reasons to abandon their farms, suburban sprawl will take on new meaning for them. Life will be organized so differently for those who traditionally saw the church not just as one of the many buildings on their landscape, but as the pivot of their social and moral existence. Now they, too, are being thrust into the anonymity of the city.

New ethnic and racial mixes. In the meantime, the city landscape is rapidly changing. New groups are being added to the list of churches and faiths represented, many of which are less comfortable in the ecumenical mix created in the past. In Protestantism the rise of more Evangelical and Pentecostal churches challenges some of the social and political positions previously taken, and these churches are often less responsive to ecumenical alliances. The Catholic population is changing rapidly with the arrival of new Latino immigrants and the competitive rivalry for evangelizing among them. This Latino population, as it becomes more and more numerous, is changing and will continue to change the makeup of city neighborhoods, that is, those ethnic enclaves with the old churches where the Polish or Germans first made their homes.

The African American population in Wisconsin is also going to continue to come into its own in the beginning of the next century with its specific contribution to religious sensitivities, experiences, and expressions. Nor should one forget the Asian population in our midst. Some belong to the traditional Christian denominations and will swell these numbers in urban settings, but the influence of their national spiritual practices will also be felt, both within the traditional Christian denominations and in their own right. The Moslem population must also be seen as a potentially strong influence in the future of the religious makeup of the state. Traditionally isolationist, this group shows signs of becoming a more active partner in the kind of cooperation that has characterized the Jewish community and all the Christian churches at the end of this century.

Changing attitudes toward organized religion. But the most important trend touches all the religious groups, especially the Roman Catholics and the mainline churches, and it might begin to touch the new immigrants as they blend into the melting pot. Within the general culture of our society, a trend toward secularization has already begun. No state is an island;

Wisconsin is buffeted by national trends and cannot avoid these chilling winds. Surveys show that most Americans, including Wisconsinites, are still very religious: we pray; we tend to make our important life decisions from religious motivations; we find the source of our spiritual strength in the religious beliefs we were taught as children.

But these surveys could well make the traditional churches too complacent. People may be religious as they enter the new millennium, but one major component of that religiosity is disturbing and could affect the landscape's steeples. Today, many see religion as only a private affair, affecting only their personal relationship to God. They avoid religious beliefs as being but human constructs. For them the compelling distinction is between spirituality and religion. Religion means organized religion, and organized religion—as many college students will say these days—is of no interest to them. It is personal spirituality that counts.

This attitude, accepted by the media as the common “wisdom” of our age, makes church steeples useless. Not only does it imply that places of worship are unnecessary, but it also expunges from society the possibility of a religious community made up of people acting together out of faith convictions, of people who want—as the Jewish community is accustomed to say—to “heal this world.” This privatization of religion in our culture is what could in the next century or millennium ultimately tear down our steeples as useless ornaments no longer meaningful to personal spiritual life. To meet this challenge, the churches will have a difficult and never-ending task.

One of the signs of hope is that the new immigrants and the African American population, groups whose religious sensitivity is strong, are not as yet affected by this secularism nor by the privatization of religion. Whether they will be able to maintain these socio-religious traditions remains to be seen. The role of organized religions must be to strengthen such traditions, so that these groups will not fall into an isolationist mode, as the Evangelical churches are wont to do, with some charitable outlets but little incentive to challenge the culture and push for social change.



Since the foundation of the state, the strength of Wisconsin's churches has rested on their members' conviction that faith communities could help make the state a better and more just place in which to live and work. The steeples were reminders of such communities. As the religious landscape with its spires rising to heaven changes in the new millennium, it will be the role of the churches to keep alive this striving to build such faith communities that work together. All churches must now move from building steeples to confronting the unknown with courage.

My Rosary

First Decade

Pulling the bedroom drapes, closing off the good view of Quail Hill, Turtle Rock, the lit windows, I stop.

Around the home-covered hill hangs a presence I can feel too sharply to ignore. And I watch, unreasonably, long

enough to convince myself I am being visited by a large mass of awareness restless to land in me, take hold of

my fidgety days and change what I live. It feels like all of our lives out there, I think as I yank the cord,

the white panels blocking it out, and the landscape too. Which becomes all the landscapes I've ever seen, every

last view from a window: the cowpastures of West Virginia, Miami's vast beach, the midnight gleam of Lake Anna from

my mother's apartment. I am the person whose mother woke her when the wind blew hard, who found herself too close

to herself, waiting on the last basement step for a storm, her family's voices coming from mouths she could not see.

To call that little girl "I" fits nothing I do morning after dull morning, like most, trying once again. She is nothing

I am anymore. Yet, when I open these drapes, there it is, telling me she's still there, groping towards Everyone's Child.

Second Decade

With so little to say, it was easy to listen as well as I did to the small troubles of the girls standing

in the halls of my high school, easy to join their enthusiasm for making fun of the one who walked home

alone and had raw sores over her legs or the one whose sweaters were black and too tight. What I could

not do was announce that I had a cousin I admired who squeezed her large breasts into the same kind of clothes,

who told me stories about her job at the bar where she defended herself against pinches and taunts and learned

how to spot more quickly than I a dishonest woman or man. Nor could I say that the tie-pin attached to the side

of my purse was left over on our coffee table by mistake, no sweet boyfriend's token of love. The girl with the sores

disgusted me too. She was thin and petite and I thought her unclean, though her first name, Ann, sounded pure.

If I could talk to them now I would do little more than promise out loud never to deny the kinship I feel toward

liars, the repulsive, and self-conscious girls who wish to be loved even while hating the best of themselves.

Third Decade

Cleveland, in the long, beautiful parlor of their living space, I sat sipping tea with women who'd given up choices

they might have made, played down their looks, for their God. Horror of choosing drove me from the ad to their door, left me

begging for refuge that may have been there, with people who were drawn in, swept away in the struggle to give and to love

without the reward intimacy is, heroines of the air, ghosts. And I never did choose, just stayed, outside, removed, able

to blame my not going for this incessant ache after somebody, some place. Those were the same days of drinking and dance,

one man and another. Energy and sweat, late and lonely hours by the lakeside with our music, our band. Under some fully

grown tree, with someone, in the dark, I lived external to whatever I knew. Reaching after everyone with all my might

I lived that common way, believing they were selves I could do this for, do that. There would be no end and there was.

All the moves more final than I dreamed, they would tighten around my shoulders like the man I didn't know, holding me

through the song, his face sweating against mine in the humid Ohio air. And he never said a word, that man, not one word.

Fourth Decade

Moving west stopped us in our tracks. We sit under propane heat on the back porch of the Laguna Hotel with something not

easy on our minds. This far away and Catalina, the next dry land projects into the January twilight to make us wish too

hard we were past its peaks, looking so far west we see our own backs leaning out of the way. The trap mobility always

becomes says my body is out of control, let loose upon walkways that force it to follow some good idea into the dark.

Stirring the warm Irish drink I think how this great ball of a world clings to our flesh until nothing is left but the bone.

Your father dies in the Midwest, your mother does, one by one by one. And Distance becomes something brand new: would have

died anyway and I will and you. It's the tense of the thing that makes for the only difference worth battling about, this

when that's so close we don't see it as well as we do that island's hills still visible after the light goes. We once saw

buffalo there, pacing the grounds above the docked boats. Two of a busload, we could protect ourselves from the wild herd, observe from assigned seats. Pulling ourselves closer to this artificial heat, we talk about going back in, making room.

Fifth Decade

The betrayal of a way there that would have worked if I'd done one thing, sunk myself, embarked on the next day as if it were the future, changed how I look at my death and hers. Now, we are not one, America not one country. Otherwise, neither of us would, with both feet placed firmly on the cement of the Dorothy Chandler, think of that one night dawdling around the fountain at the Met, tired and excited, waiting to file in for Ludwig and Levine.

That I composed a prayer to want what I have, to want to be where I am, forces a structure on me, a house made of pleas, its roof keeping all of them from going out or up, where I intend. The strength of those whispered and memorized words lies, I see now, in their tendency to turn back. And so I say them constantly now, morning and night, kneeling by the window, watching the quarter-moon as if it could help me to recognize the sound pure want makes when it crosses that line between the place I could have been, could be, and any room in this house where I sit, stand, pace, locate the loss. There are two of us now: the woman who refuses to budge from that step and the woman who denies she is stuck back there.

Barbara Wuest

What's Become of Politics?

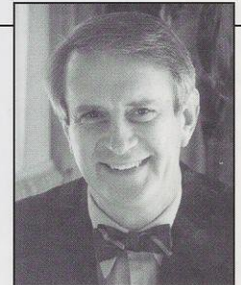
by Anthony S. Earl

During the twentieth century, Wisconsin enjoyed a reputation for a political process which has been at one and the same time lively, progressive, quirky, independent, and often contrarian. Wisconsin voters have participated in the electoral process in greater numbers and with far greater enthusiasm than their counterparts in most of the rest of the country. Political races, although often intensely competitive, have seldom been as vitriolic and destructive as those in other states. As important as all of the above, Wisconsin politics has always enjoyed a reputation for being "clean."

I believe this has been the case because politics in Wisconsin has been broadly participatory. Voters have not limited themselves to casting ballots on election day. Whether Progressives, Republicans, or Democrats, voters have cared deeply about their party and their candidates. The hallmarks of our political campaigns have been lots of speeches, political debates, yard signs, car-top signboards, bumper stickers, and lapel pins. Candidates frequented county fairs, factory gates, church picnics, and service club gatherings, and almost all engaged in the hallowed tradition of door-to-door campaigning.

Sadly, all that seems to be passing. The Wisconsin political scene is beginning to look more and more like what takes place in the rest of the nation. The trend is increasingly to turn politics in general and campaigning in particular over to "the professionals." These professionals rely on frequent polling, focus groups, opposition research, and numerous television advertisements. Personal contact between the candidate and the voters has become less and less important. Indeed, the amount of money a candidate can raise has become more important than the number of volunteers he or she can rally to the cause. I think it is a shame.

Politics was more fun when Bill Proxmire was walking the state and holding forth at the flower show at the State Fair (while, incidentally, spending hardly anything to run for public office); when Lee Dreyfus with his red vest and ragtag band toured the state and upset the entire political establishment, both Republican and Democratic. As recently as 1992, Wisconsin enjoyed a roller-coaster race when Russ Feingold painted his platform on his garage door and went on to defeat both his primary opponents and an incumbent U.S. senator with a lively, grassroots campaign.



This kind of politics was not only more enjoyable, but I believe it was substantively better. It was better because we used to have far more contested races. As a rule, statewide elections were seldom won by more than a few percentage points, and we had far higher voter participation. Perhaps most important, people were considerably less cynical about politics and politicians.

My wish for the twenty-first century is that we can recapture some of that spirit of participatory politics. It will only happen, however, if more and more of us care enough about government and about the political process to get personally involved. That personal involvement can run the gamut from writing a letter to the editor about an upcoming campaign, to putting on a bumper sticker, to volunteering to work in a campaign office answering phones or stuffing envelopes, up to and including running for office.

I think good citizenship involves being an *active* participant in our political process. We have to shun the passive role that political professionals have in mind for us—that is, just sitting there being inundated by endless television ads. We should keep well informed, and, when moved, get involved, whether it be a school board referendum, county board race, or state legislative race. If we are unhappy with the political parties, we should join groups such as Common Cause or the League of Women Voters. In any event, more of us have to become active participants in the political process. The rewards are a great sense of satisfaction and the knowledge that Wisconsin will be a better place. 🍷

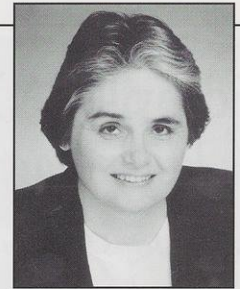


William Proxmire wins special election of August 1957 following death of Senator Joseph McCarthy. Courtesy State Historical Society of Wisconsin.

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Universities and the New Millennium

by Katharine C. Lyall



Contemplating the new millennium, my mind turns to thoughts of permanence and change. These themes interact in a kind of creative tension as we create, build, evolve, destroy, and re-create the institutions that mark our existence. It has been said that there are fifty institutions in the world that have lasted a thousand years; twelve of them are universities. The compulsion to know, to understand, to seek, and to conserve knowledge transcends the struggles of politics and principalities, survives economic boom and bust, and even outlives the hegemonies of great religions.

We often hear these days that universities are too slow to change. This criticism ignores the fact that universities are inherently *conservative* institutions—deliberately designed to question, test, and conserve knowledge for future generations. From the Dark Ages to the present, political and religious regimes have sought to define “truth.” While buffeted by these same winds, universities have stood as the repositories of “the difficult question” and “the awkward fact.” I believe that universities, more than any other modern institution, also embody the processes of teaching and apprenticeship, of knowing and learning, as supremely *human* quests that are part science, part method, and part serendipity. This seems a great and permanent truth: that humans will always ask questions, look for answers, and argue about the evidence.

And yet, our means of doing this are changing dramatically. In the new millennium, I anticipate many interesting changes in the way we seek and disseminate knowledge.



Distance learning technologies developed in the twentieth century will accelerate and expand access to learning in the twenty-first century. Unlike some critics of these methods, I believe asynchronous learning technologies that deliver information in ways designed to overcome the barriers of time and place will enhance, not diminish, the value of traditional on-campus undergraduate education. Students on campus will undoubtedly take some of their coursework on-line for scheduling convenience, and faculty will learn which kinds of materials are mastered better on-line than in traditional lectures.

At the same time, the maturing, life-changing experience of “going to college,” mixing with diverse classmates, learning to challenge and defend opinions, will be increasingly important and valued.

Faculty will shift their priorities from drilling and testing to developing more challenging applications and interesting materials. The international networks that have proved so valuable

to researchers will soon invigorate teaching materials. But I predict the greatest impact of education technologies will occur in serving working adults struggling to maintain professional licenses and acquire the credentials for future career steps.

Demographers project a rapidly aging population and growing labor shortages in all economically developed nations well into the next century. In less than ten years, continuous upgrading of skills will be an accepted and permanent feature of life in the workforce. Universities will be joined in meeting this need by a wide range of institutes, academies, programs, and other structures. Indeed, it seems likely that universities will continue to have a comparative advantage in providing traditional, face-to-face education and in training future scholars for research and scientific inquiry.

In the last decade of the twentieth century, most universities in the United States have become more diverse, ethnically and racially. Women now make up more than half of the student body. These trends will accelerate as minority populations increase in relation to the majority. These same changes will transform the composition of our faculties and university administrations, as well.

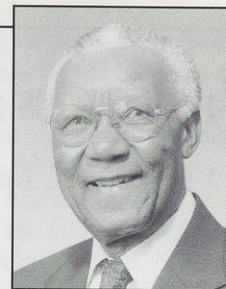
Finally, the educational “system,” which today is linear—moving students from elementary to secondary to higher education—will become more nuanced. Students seeking admission to a university will be likely to present a much more varied set of credentials: some earned in traditional ways in neighborhood schools; some earned on-line; some acquired abroad, at professional institutes and other kinds of organizations, or on the job. Frequent interspersing of work throughout the educational process will be commonplace, not just as semesters of internship or work-study, but as periods of fully professional employment. Learners will have a more direct hand in customizing their educational programs to meet their career goals.



All these trends point to increasing tension for universities as both anchors of permanence and agents of change. Universities are historically robust and, at the same time, very adaptable institutions of civilization. The populations they serve, the way they deliver their services, the intellectual freedom they enjoy, and the way they are supported financially will all determine how they preserve and deliver knowledge in the third millennium. To me, the future looks bright and exciting for those committed to the pursuit and transmission of learning. ■

Edenville: A Fragment from *Taking My Children Home: A Pilgrimage to South Africa* (A Work in Progress)

by Daniel P. Kunene



In preparation for our departure, in particular to prepare my children's minds as to what they might expect during our forthcoming three-week sojourn in South Africa, I had put together an itinerary in which I gave them as accurate a description as I could of the South Africa I knew before I departed with my wife and two oldest children in 1963: I told them about Edenville, my birth town; Kroonstad, where I went to high school; Odendaalsrus, where my older brother had lived and taught school while his wife pursued her nursing career. I told them about Cape Town, where I obtained my master's and doctoral degrees from the University of Cape Town and was a lecturer till our departure; where my wife practiced her nursing and midwifery; where our first child was born and died in infancy.

I told them about distances, climates, weather eccentricities; where we should go at certain points of time in our visit—for example, Cape Town at New Year's was a must, what with the minstrel show of colorful costumes, umbrellas that bob up and down to music with a beat so fast that the minstrels often trot rather than walk its rhythms. And of course the southeast wind that cascades down the rugged cliffs of Table Mountain toward the sea and drapes the white cloud, the "table cloth," in massive folds over the top and the slopes of the mountain. There was also the cable car that we could ride to the top of Table Mountain for a commanding view of the city, the suburbs, the sea and beyond to the faraway mountain ranges on their long journey north.

I hoped and prayed that Edenville and Odendaalsrus and Kroonstad and Beaufort West and Cape Town still existed as they had been when I last saw them. That the wineries of Stellenbosch, Paarl, and Constantia still spread their bounty over the landscape. It would, of course, be no major tragedy if some of these things were not as I recalled them. Or maybe not even there any more! Just a slight embarrassment that daddy's or grandpa's memory hadn't been so reliable after all.

By the time this trip was planned, my daughter and first-born, Liziwe, lived in Novato, north of San Francisco, with her husband Fritz and their two teenage sons, Somori and Thiyane; one son, Siphos, was in New York; and my two other sons, Luyanda with his wife Linda, and Wandile, my last-born, lived in Los Angeles. We were all going to meet in London and then fly together to Johannesburg.

One looks back. There's always that looking back. There's always the inevitable evaluation of the choices one has made. Of those other choices one could have made. Or, more accu-

ately, the chances that tantalizingly presented themselves, then withdrew the promise without an explanation; indeed the dreams, the opportunities one hoped for, but which always turned out to be castles in the air stubbornly defying the power of gravity. There is the speculation as to how one's future might have unfolded if that choice or that other one over there had been made, rather than this one. I sometimes tease my children. I say: "You know, none of you would be here, would exist, if I had made that choice or that other one, and not this one."

For example, if the American Negro Bishop of the African Methodist Episcopal Church, or the A.M.E., visiting Dr. and Mrs. A. B. Xuma from Louisiana in the middle 1940s, had followed up on his promise to obtain a music scholarship for me on his return to the United States. The Xumas, who lived in Sophiatown, Johannesburg, had invited me to their house to entertain the bishop and his wife with my double quartet choir. I had written a piece specifically for the visitors, and they were highly impressed. But alas, the bishop never got back to me, even when, in desperation, I wrote to remind him of our conversation, in which he and Dr. Xuma had actually discussed how best to obtain traveling papers for me in light of apartheid's restriction on freedom of movement by Blacks. Had I gotten the scholarship I would, without any doubt, have married someone other than my children's mother. We laugh and shiver at the thought, and declare that we would not have wished that particular future, or any other, over the one that has brought us all together.

Or I could have gone to England in the early 1940s, urged and encouraged as I was by an Anglican priest, one Brother Giles, to further my education there. I was then working in Johannesburg after my high school education was brought to an abrupt halt by lack of money for school fees and books. When Brother Giles made his proposal, I was engaged in private study, which I squeezed into my spare time, to complete my matriculation, a university entrance requirement. The very thought of studying in England excited me: best education, no color prejudice. But this Utopia was, so to speak, torpedoed by the fact that World War II was at the height of its fury and the high seas were not a very safe place to be.

But again we say the future we are now living is the best future, for it has brought us all together. And now here we were, all of us, in 1996, about to embark on a family pilgrimage to my origins, the place that molded me and my future that had brought us all together.

My past was not an easy one. It never was for a black person in South Africa, economically and socially, with all that that entails: terrible schools with their terrible facilities. In fact, in Edenville *Location*, no schools, no facilities; things taken for granted in Edenville *Town*, the white half, just a stone's throw away. Churches served as school buildings during the week. And that pulpit was always towering over you, looking at you. God was always hovering around and frightening the wits out of you



what with hell so easy to attain and heaven so difficult. What could you do to escape the everlasting fire waiting to engulf you, the wailings and the gnashing of teeth? I know I personally cringed at the very thought of gnashing my teeth. Come to think of it, I did not know what gnashing meant. It just sounded too terrible for any reasonable person to wish to experience, like grinding your teeth with your mouth full of sand.

Schools?! Without free books?! With compulsory school fees?! Uniforms too?! Without any of which you were barred from attending?! Schools? With no libraries? I did not know the word "library." Not even in high school. You read your school-books, passed your exams (or failed them or dropped out of school), and that was the extent of your reading. Except, of course, the Bible, which you read for school and listened to being quoted and elaborated upon in loud clichés by the preacher on Sunday.

We, my children and I, were going back to *these* roots. The future was going to meet its past. Face to face.



I do not believe in futures that never come, that are always tomorrow, next month, next year. Futures that outlive their owners. For me, there is no question who is boss between me and my future. I own my future. It wouldn't be there except for me. That is why I want it to come and let's sit down and have a friendly chat. For instance, I would like to ask it why it took one direction when I was desperately trying to coax it in another. I want to tell it whether or not I'm satisfied with the way it has turned out, the way it has served me. So, when I say today is my future, that statement makes perfect sense to me. It also makes

sense that futures realized beget new futures yet to be striven for. In other words, the future that has arrived is not static, but is no sooner here than it generates new vistas, new fields to explore. It is like reaching the summit of a hill you have been clambering up with hope and great expectations. You no sooner reach the top than new horizons beckon you from far away, challenging you to climb new hills, head for new summits. And it is in one's striving toward the new challenge, the new future, that one is actually living it. We are living the next millennium right now in our anxieties, our doubts, our fears, and our nail-biting anticipation. So fiercely are we engrossed in our fantasies of this "coming," that we might be so tired we'll oversleep on January 1, 2000! Yet it is precisely in this moment of embracing that which is yet to be that we acknowledge that the ever-flitting futures whizzing past us are constantly opening new vistas for us. Otherwise the realized future is no more than a cul de sac, a trap from which there is no escape. It defines death as nothing else can.



So here, before a tottering red-brick house, the house that breathes the countless stories of my childhood, we stand, here in Edenville *Location*, living one of my endless futures, my desire to bring my children home, for them to see the sun rise and set where I used to see it rise and set when I was a child.

Earlier today, shortly after we arrived at Edenville, Fritz had "sneaked out" with his video camera to record spots and sweeping panoramas of where we are, comment on what he sees, capture moods. I only become aware of this later. For my part, at this time, I was being celebrated simply yet completely

by my sister, my nieces, my nephews, and all the little ones who were intoxicated with the pleasure and the pride of the arrival of their relatives from America. There was music playing in an almost exhibitionist fashion on the stereo. It is the type of music, it seems to me, that has grown out of the years of struggle, of violence, of confrontation of youth and children with police, of torture and mutilation, of death. Of a strange mixture of hope and despair. Its breathless rhythms are often combined with words and phrases normally associated with the slow, lilting, melancholy tunes of sad hymns that long for heaven; but now loud, lively, almost violent, taunting you to get up and dance. All these elements are blended together into new idioms, new statements, all the more powerful and intriguing because of the contradictory elements straining against each other. As if heaven and hell were dancing a lively tango.

It is euphoric, this music. And it is a challenge to the powers that have been, that are, and that shall be, to recognize the patient, hopeful, waiting for a new future to arise. The future begotten by the demise of apartheid, the future now striven for in South Africa is that of a liberation translated into visibly improved living conditions, a movement in the direction of a new life; of a more fair distribution of the good things of life; some sense that a victory has been won; some sense as to who

won it, and to what end. Feelings of this sort find a suitable vehicle in this type of music. For, let it be acknowledged, there is a sense of transience in the new South Africa, that things are yet to be defined, true and meaningful destinations yet to be reached. The present is but a picnic at a roadside stop, with a long journey yet ahead.

I am seated at a table with one or two of my nephews. The music seems to energize the young women and children moving back and forth preparing refreshments and food. The sounds of conversation, laughter, calling someone, clanking of pots and pans and dishes, water running or splashing, these all mingle with the music, and the effect is more than uplifting, it is slightly intoxicating. I am awakened from this state of semi-hypnosis by Fritz's voice as he walks in and repeats several times: "Humble beginnings, Dad, humble beginnings!" He had located the red-brick house, photographed it and its surroundings with his inimitable commentaries. The rascal couldn't even wait to be properly introduced, I say to myself.

Humble beginnings! An eloquent phrase, those two words, whose effect was to join a piece of my past, and the realized future being currently celebrated, into a larger meaning. WE HAVE ARRIVED. EDENVILLE IS THE TRUE ARRIVAL, AND TIME IS STANDING STILL

Global Governance

by Carol Edler Baumann

During the past millennium, the context of human relations around the globe has virtually transformed itself; it is bound to evolve even more significantly over the next thousand years. Within my own field of international relations, mankind has witnessed revolutionary changes in military power from gunpowder to nuclear weapons and outer-space missiles, in communication from handwritten missives to electronic mail, and in economic organization from isolated feudal fiefdoms to a worldwide economy. But in the specific area of international *political* affairs, I have been most struck by the extensive transformations in global governance that have taken place in the latter half of this millennium. I am equally intrigued by the likely changes yet to come.



In the past two centuries alone, we have witnessed the demise of Europe as the center of world affairs and the ascension of the United States into a role of global preeminence. Although the nation state remains one of the primary actors in international affairs, it is certainly no longer the only one. Regional supranational groupings have emerged to rival and contest the powers of the "state," not only in economic affairs but also in the security/defense arena. Thus, the European Union (EU) determines the trade policies of its members, increasingly affects their monetary and fiscal policies, and acts on their behalf in such international organizations as the International Monetary Fund and the World Trade Organization. In the security field, NATO has become the primary actor in the stabilization of peace in northern and central Europe and (one hopes) in the Balkans. The United Nations casts its blessings on the peacekeeping

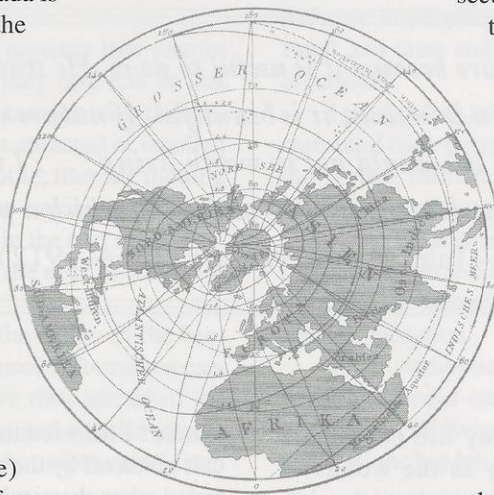
activities of its members, but has neither the automatic support of those members nor its own independent clout to enforce a truly global regime.

Meanwhile, subnational regions have raised their heads to challenge and resist the dominant authority of the state in such day-to-day affairs as education, culture, and local governance. Bavaria sends its own representatives to Brussels and to Strasbourg to lobby the various commission directorates and parliamentary committees that create and enforce the EU rules affecting the Bavarian economy. Tibet stubbornly refuses to submit to total Chinese control, the Basques continue to try to expand the boundaries of their autonomy, African countries are beset by tribal rivalries, Canada is plagued by Quebecois separatism, and the United Kingdom faces "devolution" not only in Northern Ireland, but in the growing assertiveness of both Scottish and Welsh parliaments.

What the European Union calls "subsidiarity" is the catch phrase of the day: governing powers should reside as close to the people as possible. In the case of the EU, subsidiarity means that only those functions which require or benefit from European-wide regulation and control (i.e., trade and commerce, economic monetary affairs, and possibly defense) should be overseen by the EU; all other functions should remain the province of the individual members. What is happening increasingly, however, is that regional and local authorities *within* the nation states are now arguing the same principle: only those functions which require national regulation and control should be the prerogatives of the nation state; all else should devolve to the regions or cities for local attention and decision making. In the parlance of the United States, it is an issue of "states' rights."



The evolution of the modern nation state is not the subject of this essay. But it is relevant to note that the need for governance on a large scale was gradually recognized at the end of the Middle Ages in Europe, as trade and commerce began to spread beyond local fiefdoms to ever greater distances. At the same time the unifying ties of the Catholic Church were weakened and ultimately sundered as national territorial sovereigns challenged its secular powers. Governance gradually moved upward from feudal estates and downward from the "universal" church to reside at the level of the nation state. This process took place on different continents at different times, but similar patterns emerged: either local leaders joined together in voluntary economic groupings or in military alliances that evolved into governing structures, or a conquering power from within or from outside the region unified several territories by force of arms.



Now, as we enter both the twenty-first century and a new millennium, we can discern two new major, simultaneous trends emerging in the area of global governance.

On the one hand, the truism that the world has become a "global village" is evident in the growth of both worldwide and regional organizations and agreements. The United Nations and many of its agencies were created in response to such global problems as insecurity, disease, and pollution. At the same time, both NATO and the European Union attest to the fact that there are also regional problems and interests that require attention at a level intermediate between the nation and the world. The

nation state by itself cannot guarantee either the security or the welfare of its citizens; it must turn to and rely upon both global and regional organizations to do so.

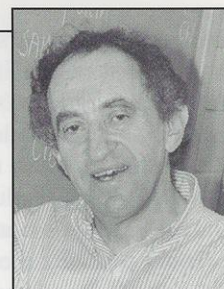
On the other hand, people everywhere have become increasingly alienated from decision making at a distance. The concept of subsidiarity itself was developed as a palliative to those Europeans who distrusted the Eurocrats of Brussels, and the term has become a handy slogan to use against the national bureaucrats of Berlin, Beijing, Madrid, London, Ottawa, Moscow, or Washington. Local autonomy in such areas as education and culture is hardly a global norm, but it does exist to a certain degree in several countries around the world. The question now arises: in which other areas of governance can or should subnational authorities assume responsibility and control, in the same way that global and regional authorities have assumed greater responsibility for the functions of security and economic well-being?



Is the nation state gradually becoming extinct as its powers are subsumed by both supranational and subnational authorities? Probably not. Just as the evolution of the nation state took half a millennium to occur, its demise will be gradual and sporadic over the next. In some regions of the world nationalism has only recently taken root, and the "nations" which have emerged are jealous of their newly acquired powers. In other regions, such as Europe, many nation states have come to recognize that they are no longer capable of fully providing for the needs and demands of their citizens. Their authority will continue to be challenged as their powers are increasingly shared, both upward and downward, in the millennium ahead. "Global governance" will become not a neat and tidy institution of world government, but a hodgepodge mixture of local, national, regional, and global authorities, both competing for and sharing with each other the complex job of governing this unruly planet of ours.

All Because of a Butterfly

by Julius Adler



The scientist does not study nature because it is useful to do so. He studies it because he takes pleasure in it; and he takes pleasure in it because it is beautiful. If nature were not beautiful, it would not be worth knowing and life would not be worth living . . . I mean the intimate beauty which comes from the harmonious order of its parts and which a pure intelligence can grasp.

— Jules Henri Poincaré (1854–1912)

One of the earliest memories of my life is seeing a European swallowtail butterfly in the woods of Germany. I was five years old. Every weekend the children of our village, accompanied by adults, hiked through the meadows and forest.

When I came to the United States in 1938, at the age of eight, my mother and father and sister Helen and I settled in Grand Forks, North Dakota, where, in 1880, our relatives had been among the first nonnatives to arrive. Mother and father, having been butchers in Germany, opened a small neighborhood grocery store, which they maintained for thirty years.

My interest in butterflies continued and grew. I acquired a large collection of local and other American species, as well as many tropical and Asian ones. I remember the “cat lady” of our neighborhood telling me how terrible it is to kill a butterfly, but I remained unconvinced until the age of thirty-five. (Now my collection sits in our attic, eaten up by beetle larvae; it is waiting for me to throw it out.)

Ultimately not only butterflies, but all other insects, and all other animals, and flowers, became the center of my interests, second only to my wife Hilde and children David and Jean.

My fascination with living things was originally an aesthetic one, but it later evolved into a curiosity about their behavior. Once I had studied organic chemistry, biochemistry, and genetics, my interest turned to the question of how the behavior of all creatures, including humans, is accomplished.

For example, what makes the monarch butterfly choose to deposit its eggs on milkweed plants? And what makes the monarch caterpillar stay on the milkweed to feed until it is

mature? I believed that the butterfly must smell volatile chemicals given off by the milkweed, and that the caterpillar probably tasted other chemicals. What are these chemicals? How are they sensed? How are they acted upon? In short, what are the mechanisms? And how do those mechanisms relate to the behavior of organisms in general?

After earning a bachelor’s degree at Harvard University in 1952 and a Ph.D. with Henry Lardy at the University of Wisconsin–Madison in 1957, I took a course in microbiology with C. B. van Niel at the Hopkins Marine Station in Pacific Grove, California. There I found a huge library with books that dated back into the eighteenth century. I learned that in 1880 Wilhelm Pfeffer, a famous German botanist, had used motile bacteria to study attraction and repulsion by various plant and animal extracts and by the few chemicals known at that time. I decided that was the way to go! By this time so very much more was known about the chemistry of thousands of natural compounds, and the biochemistry and genetics of a commonly used bacterium were familiar and available for use. I decided to study the behavior of bacteria and then ultimately to broaden out to the behavior of other organisms.

To acquaint myself further with biochemistry and genetics, I did postdoctoral studies with Arthur Kornberg and Dale Kaiser at Washington University and then at Stanford University. After that, in 1960, I accepted an offer from the Departments of Biochemistry and Genetics at the University of Wisconsin–Madison to become a professor, and I have been here ever since.



For the past forty years I have been working on the behavior of bacteria—the genetics and the biochemistry of it. How do bacteria sense the world around them? Do they do it the way we do, with sensory receptors for taste and smell and vision and touch and temperature? Or do stimuli simply speed up or slow down the various processes that take place inside them so that they congregate where conditions are good and avoid places where toxic things occur?

I showed that bacteria do indeed have external sensory receptors. Some chemicals are excellent attractants even though they are not used by the bacteria or cannot even penetrate them (like something we smell without its getting inside of us). Other chemicals are not attractants even though the bacteria can use them perfectly well for food.

Then my colleagues and I isolated mutants that cannot respond to this or that attractant because they lack this or that receptor (like people who can't smell or taste certain things). Next we isolated other mutants that are not attracted or repelled by anything at all, though they are fully motile; they are missing the pathway from sensory receptors to the organs of locomotion—the flagella (like a person defective in the part of the nervous system that carries information from the nose or tongue to the legs).

The questions now became: What is the nature of the bacterial sensory receptors, and how is the sensed information carried from the receptors to the flagella? We then identified the sensory receptors as specialized structures, and we also identified some of the components that carry the information from these structures to the flagella.

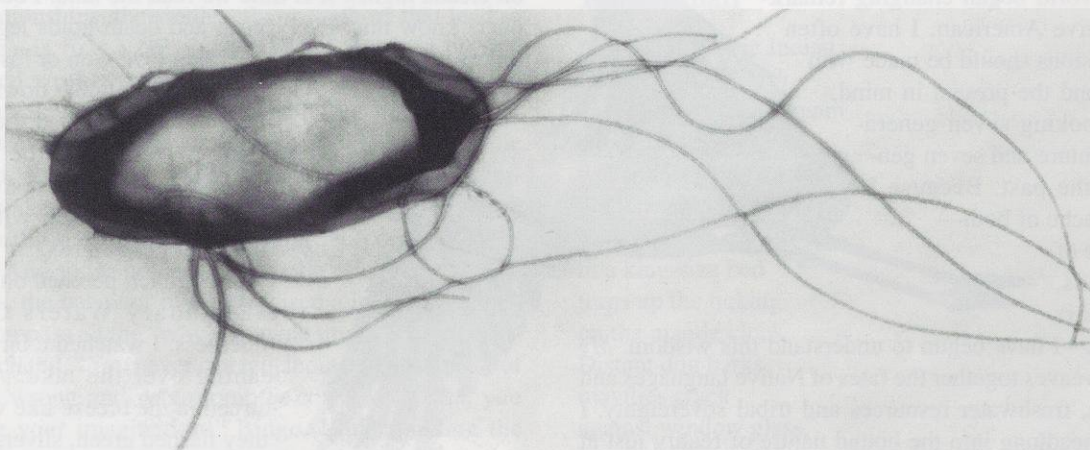
Soon this research program attracted many biochemists and geneticists and molecular biologists and neurobiologists and mathematicians and physicists from all over the world. These people carried the project much, much farther. Consequently we have today a very good picture of how it all happens, though the story is still far from complete.



Does anything of what has been found out about sensory reception and behavior in bacteria carry over to higher organisms? Much the same story has now been found in higher single-celled creatures such as yeast and algae and fungi, and also in plants. But it has not yet been found in butterflies, in other animals, or in people; we are trying to learn now if it applies to smell and taste and other ways of sensing chemicals in these organisms.

I predict that in the twenty-first century, applications of the research I have described here will be found for these groups. If the system turns out to be universal in occurrence, then the work may well lead to understanding and treatment of diseases involving defects in sensory receptors, nerves, muscles, and behavior. Even if it does not, the results will be useful for fighting diseases caused by pathogens that do have this system of sensory reception.

What started out as a fascination with the beauty of a butterfly has turned into a lifelong pursuit of the mechanisms of behavior in all living things—a pursuit that promises practical applications but has been driven by the joy of discovery. ♡



Bacterium with flagella

Julius Adler

Relativity

by Kimberly M. Blaeser



To adapt is not the same as to assimilate.

To survive is to continue.

— Joseph Bruchac III,
“The Eighth Generation”

My infant daughter moves in her sleep. In changing position she rocks the bassinet which sets the dream catcher in motion. I wonder at her dreaming life, at the tiny sounds she mouths in sleep, at her familiar resting posture. Her posture in sleep mirrors that of my now deceased mother, the child's grandmother dead just one year before her birth. This child, a bridge in my life between youth and age, bearing as gift a mark from the past generation. Now her life will span the millennia.

With the birth of my children—Gavin, now three and a half, and Amber Dawn, six months—my vision of the world began changing remarkably. As a Native American, I have often heard that decisions should be made with both the past and the present in mind, by carefully looking seven generations into the future and seven generations into the past. Because I now carry the ache of both—stories and love of past generations, hopes and fears for future lives—I have begun to understand this wisdom. My dreaming life weaves together the fates of Native languages and sandhill cranes, freshwater resources and tribal sovereignty. I have plunged headlong into the bound nature of reality just at the moment that all the world is expecting a wide chasm to open between 1999 and 2000.

For me, there is no great distance between a new-voiced toddler who searches for stories with “no naughty people” in them, for videos without scary parts, for Velcro shoes without fighting action figures, and the Wisconsin Department of Natural Resources which faces pressure to reinstate hunting of

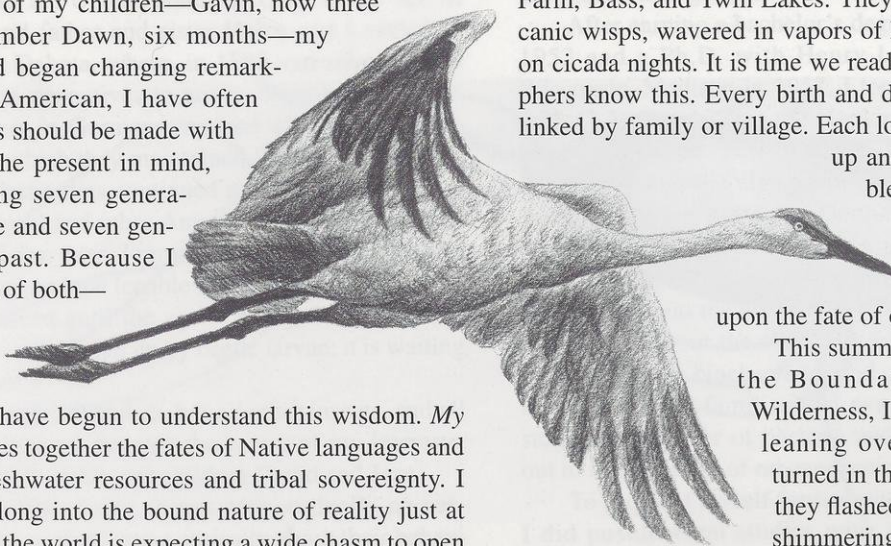
the once endangered sandhill crane. If this view is simplistic, it is also realistic. Our fate and our fictions are inextricably bound together. We are made of the histories we carry; we become the stories we tell. And perhaps it is time we grounded ourselves with stories that engender respect.



Every minstrel, bard, and raconteur, attend. The earth itself breathes stories. I've seen them rise like mist over Hudson, Farm, Bass, and Twin Lakes. They have puffed out white volcanic wisps, wavered in vapors of heat, and vibrated like elms on cicada nights. It is time we read the land. Poets and biographers know this. Every birth and death holds legend for those linked by family or village. Each love won or lost. The saddle-up and tumble down. Idyll, parable, or ballad. Let us return in story to the simple small gestures of life. They bear with great force upon the fate of our spirits.

This summer, perched on ledge rock in the Boundary Waters Canoe Area Wilderness, I watched a birch with limbs leaning over the lake. As its leaves turned in the breeze like waving hands, they flashed green, silver, white, green, shimmering, reflecting light. I could not

then have told you the color of birch leaves, I could not have told you if they cast the sun's light on water or if the water's reflection lighted them. Likewise our lives mingle past, present, and future, shimmer on the verge of an unknown light. We must take our groundings of reality from the relationships, the overlapping motions of existence.



We take them through understanding not our individuality, but our continuance of a long epic tradition. Nothing delights my son more than family anecdotes. Even at three and a half, he “remembers” and tells them as if they were his own—which of course they are or have become. “Mama, remember when we was at Grandma’s when the storm scared her and she fell on the floor—*Aaayyy*—and said the lightning had hitted her?” Everyone he knows must have some story by which he can claim them into his world, and we progress through a litany: “Mama, tell one about Uncle Robert. . . . Tell me a story about Auntie Aunt when she was little and got an owie. . . . Tell about Tawny and the skunk.” Together these silly family stories form a map of remembrance that Gavin can both retrace and extend in time and scope.

Ultimately, family history overlaps cultural history. The knowledge and experience of cultural history is what determines cultural survival. The story of Gavin’s great-uncle Bill, for example, inevitably includes his experience of Indian boarding school and the account of his running away and returning home to the reservation. It tells a *tribal* tale of hardship, colonization, and resistance. Embedded but perhaps unspoken in the account is the fact of survival, celebrated by the very existence of the story and the storyteller. Gavin’s identification with his uncle’s story weds him to the cultural history of the Indian people. And this seeing and telling of connections nurtures the mythic vision, the imaginative power to bridge from self to other, from experience to possibility. The mythic vision allows us to unearth in stories truths for our lives.

Mythic reality exists outside of time in the same way as does much of childhood experience. Indeed, most good stories have a child’s understanding of time. For Gavin, a “weally long time ago” might be last week or it might be the era of the dinosaur movie *The Land before Time*, because in the most important ways they are the same. The ability to see this sameness—the relationships, the similes, the metaphors that lead to understanding—is first a child’s art. Today, inspired by this movie (featured week after week on our VCR), we were discussing earthquakes. Once we had established that the earth cracking open was called an earthquake, Gavin imitated the cracking open, showing me with enviable flexibility a gymnast’s butterfly position and explained, “The earthquake opens up like a butterfly’s wings.” Astonished at the poetry, I could not but agree. And so we proceeded with the usual rapid transition to T-rexes, the behavior of which raised a lot of questions. Trying to encompass all the “whys” in what might be a satisfactory ploy, I declared, “You never can tell about T-rexes!” But, of course, I was wrong and was promptly corrected: “Yes, you can. By using your imagination!” Bingo. Understanding the dinosaur era, the pre-contact era of North America, our grandparents’ era, our children’s future and their children’s, Y2K and the next millennium, seven generations and seven generations, requires nothing more than imagination, the use of simile, and a little faith in continuance and connection.

And here we can take a lesson from Native storytellers. As Laguna author Leslie Silko does in *Ceremony*, tribal writers

presuppose a connection between mythic accounts and contemporary experience, between the history of our people and our own stories, between storytelling and the living of our lives. She writes in that novel of “the pattern, the way all the stories fit together—the old stories, the war stories, their stories—to become the story that was still being told.” She writes of seeing and hearing the world “as it always was: no boundaries, only transitions through all distances and time.” As we approach the media-hyped, arbitrary numerical boundary of the year 2000, in the inevitable celebrations of antipodal realities, we might do well to remember our connections: to place, to community, and to story. Perhaps the alienation between people and the supposed alienation between humans and the natural world might be healed little by little if we “re-membered” the stories, if in our thinking and our telling we put things back together—our fate and the fate of the sandhill crane, the recognition of tribal sovereignty and U.S. postures in international relations.

Just so, I must re-member my babies and the “stories in their blood.” At Amber’s birth I am motherless, twelve hours from home country and my Indian relatives, and twenty years past the safety of youth’s optimism. I wonder what sort of cultural grounding my current world will offer her. I worry at the physical and philosophical distances that I imagine separate Amber from our Anishinaabe heritage, from an Indian identity. She is, after all, the child of a college professor and an electrical engineer, living an upper-middle-class life. Hardly the quintessential Indian story. For these fears of discontinuity I find reassurance in the works of fellow Native writers. I claim these connections by literally re-speaking lines from their writings in my own, weaving the two together in a symbolic multi-voiced poem celebrating cultural survival amidst change:

Y2K Indian

Another absentee Indian
outside White Earth
hand reaches from dream
curves toward paddle
wakes touches absence.
4 A.M. loneliness
settles beside me
in a king-size bed
turns up the ticking
on the mantle clock.
Distant dog barks,
mayflies crack
against window glass.
I wait for dawn light.

Long nights
sifting memories
sinking spent into morning.
Recall what you said
the old man said

*Indian people were not
meant to live in
cities, and none do.
Some reside there
but none live there.*

Another absentee Indian
calling myself home.
Do I begin with the songs
whose words I've lost
forgotten
or shoved into drawers
of my past
like so many green stamps?
Or the give-away fabric
small yellow flowers
waiting to be sewn
into garments
for children not yet born?

*One finds the way by heart,
you say.*
Humbled
I begin
shucking
layers of easy Indian-ness
dig under
at last
uncover
the wound beneath the flesh
that might be all that remains.
It pulses, flutters, throbs with something
I refuse to name.

Remembrance wakens.
I smell the wind for my ancestors.
They have not gone.
I follow the pine scent of their passing
find their images
reflected in the car mirror
the splattered window glass
the bank teller's eye
know they are following me
follow the trickroutes.
They move with me
easily passing
between wilderness and civilization
the university and the pow-wow circuit
the church pew and the cedar smoke circle.

Finding their reflections
harbor mine
I become comfortable
with the story of doubleness
learn *survival this way.*
Another Y2K Indian
writing the circle
of return.

Passing into the next millennium, I have my guideposts intact. My past and my future regard me daily, steadily, out of the same pair of baby's eyes. My grandmother's eyes, my mother's eyes, mine, now my child's eyes open unto the same world, see the same stories recast, must learn the same lessons. Wisdom is timeless as the amber dawn, ageless as the orb of memory. When this circle comes round again in 2000, it will carry on the wind of its turning the invocations of our ancestors for survival, its return will find us still on their ancient migratory paths.

In Anishinaabeg culture, members of the crane clan are the orators of our people. It seems tellingly symbolic that the historic hunting of several crane species to near extinction coincided with attempts to silence if not exterminate Indian people. Now the fate of the sandhill cranes which survived the onslaught is again being legislated; the sovereignty of Native nations is being questioned.

Justification for these actions has come through proclamations of biological superiority (over certain people or over animals), national myths of manifest destiny, protestations of the greater good—the postures, the fictions, that foster a belief in isolate destinies. But if we read the planet's texts with the vision of seven generations, we discover a different reality. Whether considering the extinction of a species or the unjust treatment of any nation's people, history records each backlash: imbalance in natural populations, moral scars on a nation's conscience, decreased sensitivity to violence in each succeeding generation. The concept dubbed the "butterfly effect" in the supposedly new physics really explains an ancient understanding of the world which declares that all things are connected. This is where our stories should start: And even the small motion of the butterfly's wings releases an energy that causes a chain reaction as energy impinges upon energy. *All my relations.* ♣

Our courage is our memory.— Marilou Awiakta,
Selu: Seeking the Corn-Mother's Wisdom

Four Great Wisconsin Ideas

by Philip M. Farrell

Knowledge of history is a precondition for effective planning.—P. M. Farrell

PART TWO : IMPLICATIONS AND CHALLENGES FOR THE TWENTY-FIRST CENTURY

Introduction: Evolution of a Great University with Great Challenges

In part one (*Wisconsin Academy Review*, Fall 1999) I described four great Wisconsin ideas and explained how their implementation played a pivotal role in the University of Wisconsin–Madison’s ascendancy to world-class status in the twentieth century. Those ideas are: *The Wisconsin Idea* (linkage between the state and the university); *Comprehensive Excellence* (commitment to a full spectrum of top-quality colleges); *Shared/Faculty Governance* (engagement of faculty at all administrative levels); and *WARF/Graduate School* (integration of research with career development).

Despite decades of progress, the turn of the twenty-first century for the University of Wisconsin–Madison can be considered, to use the phrase of Charles Dickens, “the best of times and the worst of times.” The opportunities are perhaps the best ever, but in recent years they have not been matched with sufficient resources for the university to reach its potential. Challenges during the past decade have ranged from aging facilities and fiscal constraints to faculty shortages and misconduct. This is the perfect time to convert problems into opportunities as we plan for the coming century.

The 1999–2000 academic year is a critical crossover period, following the reinvigorating sesquicentennial celebration and the reaccreditation process that led to a ten-year approval by the North Central Association of Colleges and Schools (NCA). The university is also much better prepared as a result of the Madison Initiative advanced by Chancellor David Ward and President Katharine Lyall and recently approved by the legislature and the governor (see table below). Indeed, converging forces now position the Madison campus to enter the twenty-first century with optimism and enthusiasm. If we build on existing strengths with a spirit of change, while respecting traditions, we can propel the

University of Wisconsin–Madison forward to greater achievements. In doing so, it would be ideal, in my judgment, to take advantage of the four great ideas to reach higher levels of interdisciplinary excellence. In this article, I discuss how each of these ideas can be implemented more effectively.

Vision of the Twenty-first Century

Planning for the next century must be done not only with a knowledge of history, but also with an understanding of the relevant external forces that affect the university. Higher education must prepare students for future challenges, even if we are not sure what they will be. What can be predicted with certainty is that the population of Wisconsin and the United States—and consequently the makeup of both the university student body and the workforce—will be older and more diverse. Projections indicate that by 2025 the segment of the population sixty-five and older will increase by 50% and that there will be striking increases in specific minority groups. The future workforce will also consist of a higher percentage of women and of “knowledge workers.” Students and workers will benefit from even greater advances in information technology, but as people become used to communicating electronically, they may have a more difficult time dealing with each other face-to-face.

The Wisconsin Idea

As I explained in part one, The Wisconsin Idea has served both the university and the state very well throughout the twentieth century; we can increase those benefits in the coming century. As practical problems of everyday life are brought to the attention of University of Wisconsin–Madison faculty members, they will be able to conduct research that is not only more utilitarian but also more invigorated. The Wisconsin Idea, however,

needs to evolve in both scope and methodology. During the twentieth century, projects in many disciplines have regularly extended beyond the boundaries of the state—indeed, even to outer space with the Hubble Telescope. It will be important in the twenty-first century for the University of Wisconsin–Madison to enhance its international preeminence—a challenge that can best be met by capitalizing on new technologies. Both statewide and international distance education will serve as the cornerstone in building a new, electronic version of The Wisconsin Idea that will reach beyond the borders of the state and the nation.

An international emphasis should not come at the expense of local concerns, however. Extending The Wisconsin Idea to residents of all counties in the state will require new types of collaboration and communication. Partnerships with regional or local organizations will help to meet this challenge, and information technology may ultimately become the most effective tool. WHA led the way with radio in the first half of the twentieth century and then with televised public service programs in recent decades; in the future, augmented electronic dissemination of knowledge with interactive capability will become the most efficient method to reach everyone in the state. It will be important not only to transfer information but to provide guidance on how to use that information.

One of the challenges for University of Wisconsin–Madison faculty and staff will be to create new partnerships and sustained, collaborative relationships with other University of Wisconsin System campuses. Precious few individuals have taken advantage of the possibilities for statewide academic initiatives. The System was created in 1971 as a federation to serve regional needs and better coordinate statewide higher-education activities. As the regional campuses have improved and fostered themes that reflect their local values, each has developed unique characteristics. All the campuses share a common teaching mission, and some have potentially synergistic research programs; yet rather than bonding through partnerships, System campuses have often functioned in an isolated, provincial, and competitive manner. The Wisconsin Idea could be advanced better statewide if faculty developed more person-to-person and/or unit-to-unit collaborations that took advantage of local strengths. More links could be formed, for example, between the University of Wisconsin–Madison School of Education and the education programs on other System campuses, or among different nursing and medical programs. Ideally, we would transcend the differences and competitive inclinations between System campuses and build on common strengths.

Innovative Faculty Recruitment Programs

PROGRAM

GOALS

The Madison Plan^a

Recruit underrepresented minorities with full funding of new faculty positions

Strategic Hiring Initiative^b

Minority Faculty ^c	Recruit underrepresented minorities (also includes Anna Julia Cooper Post-Doctoral Fellowships)
Dual Career Couple	Facilitate hiring of the spouse/partner of a new faculty member with support for a faculty, academic staff, or classified staff position
Women in Science	Hire women in the physical and biological sciences, engineering, and mathematics

Interdisciplinary Hiring Initiatives^d

Cluster	Recruit twelve faculty in targeted areas selected by the chancellor and provost in campus-wide competition (funded from reallocations to address vision priorities)
Bioscience	Recruit eight faculty in the biosciences from new state funds arising from the governor's "budget adjustment bill" of 1998
Sesquicentennial ("Madison Initiative")	At least 100 new hires during 1999–2003 selected from campus-wide proposals to appoint interdepartmental clusters of 2–5 faculty in new/emerging/critical disciplines or hiring of 2–5 faculty for a department/program where it is necessary to address reputational needs and/or specific programmatic opportunities

^aImplemented by Chancellor Donna Shalala and used from 1989 to 1993 to recruit 86 new minority faculty members.

^bProvides special financial assistance up to \$200,000 over three years.

^cTargeted minorities currently are American Indian, African American, Mexican American, Puerto Rican, and Southwestern Asian Americans.

^dOverall goal is to address concerns about disciplinary barriers as documented in "A Vision for the Future" strategic plan and thereby enhance horizontal cross-college interactions in teaching and research; encourage strategic planning for growth of academic fields that extend beyond traditional departmental boundaries; and stimulate hiring along multi-departmental lines.

Comprehensive Excellence

The philosophy of comprehensive excellence originally advanced by President Charles Van Hise has been reinvigorated by new mechanisms such as strategic hiring and interdisciplinary program development, developed under the leadership of Chancellor David Ward and Provost John Wiley. Ward and Wiley have clarified the Madison campus mission, built a consensus for a bold vision, and supported strategic planning and management. Their approach is rooted in the reaccreditation of 1989, which produced a report titled "Future Directions." Successful implementation of the recommendations in that document led to an updated plan, "A Vision for the Future: Priorities for University of Wisconsin–Madison in the Next Decade" (1995). These plans laid forth clear proposals for redefining the boundaries between disciplines, while extending them beyond the walls of our institution.

A cultural transformation is currently underway that takes advantage of inter-departmental and cross-college collegiality to create interdisciplinary programs bridging the sciences, arts, and humanities. Such ventures, however, will require more than collaboration. One of the barriers to interdisciplinary programs is the custom of distributing funds along department lines. To reward effective collaborations, we will need to adjust resource allocation mechanisms and faculty promotion policies.

Fiscal constraints have led to tensions across the entire Madison campus. One of the continuing challenges will be resolving conflicts between mission and money. All programs depend upon sufficient revenue, but fiscal maldistributions and excessive entrepreneurship for the sake of generating revenue can limit intellectual creativity. To counterbalance these forces and sustain excellence, it will be necessary to generate revenue streams linked directly to specific academic programs. The Madison Initiative (see table) will contribute significantly to that important objective by using matching funds to augment state funds for faculty recruitment and assuring support for strategic priorities. This innovative program devised by Chancellor Ward combines state, WARF (Wisconsin Alumni Research Foundation), and University of Wisconsin Foundation funds to produce new, sorely needed faculty positions. It has the potential to greatly benefit the arts and humanities and to overcome faculty shortages that have especially plagued the College of Letters and Science.

Several special programs during the past decade have enhanced faculty hiring processes and procedures. Focused initiatives with specific targets have become the rule rather than the exception, beginning with the Madison Plan implemented in 1989 under the leadership of Chancellor Donna Shalala (see table). The 1990s have been pivotal in changing faculty recruitment mechanisms from exclusively department-driven (which tends to result in self-replication and predominant appointment of white males) to university-mandated, thus better addressing strategic priorities, diversifying the faculty, and changing the intellectual landscape with new programs. Precursors such as

Ruth H. Bleier

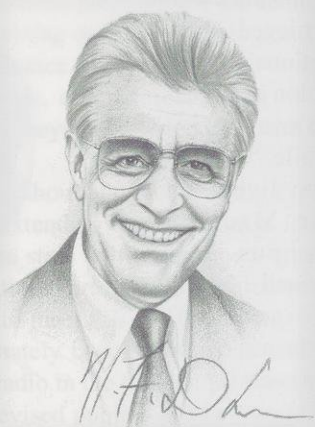
Ruth Bleier was a pioneer faculty member who achieved international recognition as a neuroanatomist while "leading two lives" on the Madison campus. Her second life had a significant influence on the University of Wisconsin–Madison and beyond when she helped develop the



Women's Studies Program in 1975. Bleier was a graduate of the Women's Medical College of Pennsylvania. After practicing medicine in Baltimore for eight years, she changed her career, training at Johns Hopkins University to become a neuroanatomist. She joined the faculty of the University of Wisconsin–Madison in 1967 and worked at both the Waisman Center and the Primate Center—leading her to develop an interdisciplinary orientation. While achieving fame for her studies of the mammalian hypothalamus, she also worked throughout her career in the area of political and social bias in science. Bleier's research with the Department of Neurophysiology led her to recognize gender-related brain structures, and she became an authority on the organization of the mammalian hypothalamus. After establishing great credibility as a "hard-core" scientist, she became a revered leader in the field of feminist approaches to the sociology of scientific knowledge. Ultimately, Professor Bleier was a pioneer not only in neuroscience but in developing a model for cross-college interdisciplinary programs that facilitated career development. Her research and leadership extended to the classroom, laboratory, and beyond, thereby enhancing The Wisconsin Idea and promoting comprehensive excellence. In helping found the Women's Studies Program, Bleier (who died in 1988) raised the stature of women faculty and created a magnet for recruiting as well as a center for networking. As Chancellor Donna Shalala said, "Ruth made Wisconsin a better place than it wanted to be." Her lively wit, leadership ability, and advocacy for women's rights and opportunities serve as her memorial.

Hector DeLuca

Biochemist Hector DeLuca has clearly possessed the Midas touch in relationship to the Wisconsin Alumni Research Foundation: WARF has earned royalties of nearly \$100 million on the more than 150 patents it has filed on his many discoveries relating to vitamin D. Hundreds of researchers have benefited, as the foundation annually allocates a large percentage of the royalties to the Graduate School. It was natural for DeLuca to turn to WARF to manage the intellectual property arising from his innovative science. His mentor, Harry Steenbock, was the visionary force behind the establishment of WARF in 1925. As an honors chemistry student, DeLuca was recruited to University of Wisconsin–Madison in 1952 from his home state of Colorado with the tantalizing offer of an assistantship with the legendary Steenbock, who had found a way to fortify milk with vitamin D. Professor DeLuca developed his own research program, resulting in international fame and innumerable awards. He discovered the vitamin D hormonal system and found that it controls calcium metabolism. Pharmaceutical companies including Hoffmann-LaRoche Inc., Abbott Laboratories, and Chugai licensed the findings and produced dozens of drugs to treat osteoporosis and other bone diseases. The work has also helped launch three small Madison companies: Tetrionics, Bone Care International, and Kendricks Laboratories. In the last few years, DeLuca's team has been studying the hormone's anti-cancer properties and has learned that in mice vitamin D analogs block manifestations of a disease similar to multiple sclerosis. DeLuca continues to be one of WARF's biggest supporters. He's convinced that by allowing researchers to do what they do best—and not worry about patents—WARF has helped make the University of Wisconsin–Madison an outstanding institution where “science can support science” and “strong basic science underpins all the professions.”



the Women's Studies Program have demonstrated the importance of vision combined with a critical mass of faculty. In addition, bold and effective leadership of the type exhibited by Ruth Bleier is essential if change is to occur (see accompanying mini-biography). Before the Women's Studies Program was created in 1975, female faculty members had few organized networking or mentoring opportunities. Many successes for women in the past decade can be attributed to this cross-college program. It is already clear that cluster and bioscience hiring along with sesquicentennial hiring through the Madison Initiative will be of great importance in the future. If they work properly, these mechanisms will attract more underrepresented minorities to enrich the Madison campus and overcome one of our most severe deficiencies.

Shared/Faculty Governance

Shared governance over the years has been a great advantage for the Madison campus by advancing democracy over bureaucracy in such a way as to foster intellectual creativity and entrepreneurship. On the other hand, aligning people with programs has sometimes seemed like an impossible mission. This was highlighted dramatically in the NCA site visit report, which referred to “the dark side of the university's tradition of strong individual (especially faculty) initiative and small-unit (e.g., departmental) autonomy.” When further implemented, the university's strategic plan, “A Vision of the Future,” should help remedy this problem. The plan recommended “rethinking our organization” and “encouraging collaboration” as priorities to foster cooperation rather than collision. The only way to accomplish this goal is through leadership of the type described in part one, with “academically credible leaders who bring a style of consensus building, who emphasize communication and trust, and who prefer to facilitate rather than to dominate.”

As shared governance evolves in the next century, leadership will be even more important. One of the challenges that needs to be resolved soon is how to give governance roles to academic staff employees, as mandated by Section 36.09(4m) of the Wisconsin Statutes. Currently, the ratio of academic staff to tenure-track faculty is 2.6:1 (5,057 to 1,957). There are now 1,246 full-time academic staff members who devote most of their time to teaching; this group has clearly assumed an increasing responsibility for the teaching workload. The other 3,811 academic staff play important roles in administration and research, generating millions of dollars in grant support annually. Academic staff members have voiced complaints over issues of opportunity, equity, and recognition. Improving the situation and expanding shared governance will require strong leadership combined with mechanisms to identify and resolve legitimate concerns.

WARF/Graduate School

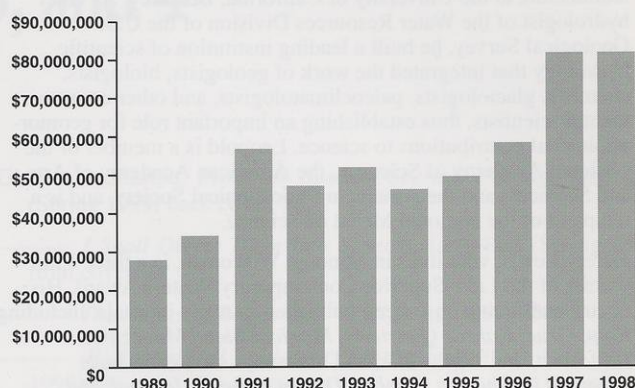
In part one, we saw that the annual transfer of research funds from WARF to the university had increased five-fold during the last quarter of the twentieth century. Continuation of such support is essential. The combination of WARF and the Graduate School provides the entire Madison campus with a great competitive advantage and the opportunity for creative young graduate students to pursue original investigations while receiving guidance, mentorship, and essential resources. We can expect many more innovations from WARF in the next century, including important partnerships with industry that are fueled by technology transfer. WARF must remain flexible, however, as public/private partnerships become even more prominent. It is likely that more scientists will develop careers in the public/private mode in the same manner as has Hector DeLuca (see accompanying mini-biography).

Creative programs are also needed to use the annual WARF gift wisely as an investment for the future. A good example is the Wisconsin Distinguished Graduate Fellowship Program, created in 1997 by Graduate School Dean Virginia Hinshaw, which further strengthens the fourth great Wisconsin idea of intertwining graduate education with research. In this program, which has a goal of generating a \$200 million endowment to attract the most talented students to pursue graduate studies at the University of Wisconsin–Madison, WARF supplements the interest earned from each donation. Currently, eight schools and colleges have joined with the Graduate School in creating seventy-seven Wisconsin Distinguished Graduate Fellowships.

Increasing the Endowment through the University of Wisconsin Foundation

During the twenty-first century, other non-state fiscal resources will become increasingly important for Madison faculty, staff, and students. Although the university's endowment, totaling about \$2 billion, seems impressive for a state university, it is modest in comparison to that of peer institutions and must increase if the University of Wisconsin–Madison is to maintain its level of excellence. The University of Wisconsin Foundation has already become a pivotal partner in the growth of the University of Wisconsin–Madison. Established in 1945, it is the official fundraising and gift-receiving agency for the university and the primary source of funds from individual donors. The foundation's assertion that "philanthropy will mean the difference between the maintenance of a great university and the evolution of an extraordinary one" has stimulated many donors. More than 80,000 stepped forward in 1998 alone, contributing in excess of \$100 million. Since its inception, the foundation has paid out nearly \$721 million to or for the university (see graph). Assets under management at the foundation now exceed \$1 billion. In large measure, the foundation fuels both the expansion of campus facilities and implementation of The Wisconsin Idea. Ever-widening circles of support are redefining

Payments to or for the University of Wisconsin
by the University of Wisconsin Foundation



the university's place within the state and the world. Programs such as the Madison Initiative give evidence of the university's expansive boundaries and will ensure its preeminence in the next century.

Conclusion

The University of Wisconsin–Madison needs to preserve the four great Wisconsin ideas even as it continues to transform. Despite their compatibility, these ideas occasionally come into conflict with each other as new programs develop. Fortunately, the tradition of "sifting and winnowing" (as proclaimed by the Board of Regents in 1894) can generally resolve these issues. As we head into a new century, we need to continue to connect across disciplines, to Wisconsin citizens, and to the world; to recruit diverse and distinguished faculty and staff; to promote interdisciplinary programs, even if they supplant individualism; and to nurture effective leadership, an essential element for accomplishing significant organizational changes. The sense of community conveyed by The Wisconsin Idea needs to be strengthened in the twenty-first century.

When the distinguished writer Robert E. Gard joined the faculty in 1948, he was captivated by the grassroots momentum of The Wisconsin Idea. He said it reminded him of the wind moving across the fields and prairies of his native Kansas. In his forty years on the faculty, he saw it become "more powerful than wind, more like deep roots put down to support century oaks." Gard was right. The roots are deep and the four primary branches of our huge oak, now 150 years old, are spread out in wonderful growth. 🌳

The author greatly appreciates the contributions of Maury Cotter, Carl Gulbrandsen, Dian Land, and Mark Lefebvre. He also wishes to acknowledge and thank President Katharine Lyall for sharing her perspectives on the University of Wisconsin System and views about the interrelationship of the University of Wisconsin–Madison to the System.

Drawings by Rick Nass.

Contributors

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- ▶ Luna B. Leopold is emeritus professor of geology and landscape architecture at the University of California, Berkeley. As chief hydrologist of the Water Resources Division of the U.S. Geological Survey, he built a leading institution of scientific hydrology that integrated the work of geologists, biologists, chemists, glaciologists, paleoclimatologists, and other environmental scientists, thus establishing an important role for geomorphological contributions to science. Leopold is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Society, and is a recipient of the National Medal of Science.
- ▶ Jeffery Lewis, who lives in Minong, Wisconsin, is a three-time winner of the Lake Superior Contemporary Writers Award. His poetry and fiction have been published in many journals, including *Eotu*, *Grue*, *Kansas Quarterly*, *Magical Blend Magazine*, *Samasara*, and *Yellow Silk*, and his essays on dreams have appeared in *Dharma Combat*, *Dream Network Journal*, and *Heaven Bone*. He is a contributing editor to *Dream Network Journal* and poetry editor for *Staying Same*.
- ▶ Richard Long has taught for many years in the Art Department at the University of Wisconsin–Madison, where, “to the chagrin of most of his colleagues and the university authorities, he shamelessly and serenely defends the Good, the True, and the Beautiful.”
- ▶ Katharine C. Lyall is the fifth president of the University of Wisconsin System and its first woman president. Before being appointed president in 1992, she served as vice president for academic affairs and executive vice president of the University of Wisconsin System and as director of the graduate program in public policy at Johns Hopkins University. She has held faculty appointments at Syracuse University, Cornell University, and Johns Hopkins University and served as deputy assistant secretary for public policy and research at the U.S. Department of Housing and Urban Development. She is currently a professor of economics at the University of Wisconsin–Madison and continues to write and publish in the areas of public finance, urban issues, welfare reform, and housing policy.
- ▶ Rick Nass received his B.S. in art from the University of Wisconsin–Madison in 1972 and has since worked as an illustrator creating art for editorial, advertising, and corporate clients nationwide. He and his wife Rhonda, a botanical artist, established Ampersand, an illustration studio, in 1976; they live and work in the hills west of Madison.
- ▶ Henry S. Reuss served in the U.S. Congress (D, WI) from 1955 until his retirement in 1983. He chaired the House Committee on Banking, Finance, and Urban Affairs (1975–81) and the Joint Economic Committee (1981–83) and was legislative author of the Peace Corps, the Federal Reserve Reform Act, and the Mass Transit Research Act. Reuss was born in Milwaukee, where he practiced law after graduating from Harvard Law School in 1936. Reuss is author of several books, including *The Critical Decade: An Economic Policy for America and the Free World* and *On the Trail of the Ice Age*. Since retiring from Congress, he has served as director of the Committee on the Constitutional System, the Enterprise Foundation, the Ice Age Park and Trail Foundation, and the Committee to Develop American Capitalism. He is a fellow of the Wisconsin Academy.
- ▶ Ben Sidran is host of National Public Radio’s jazz series *Jazz Alive*, which received a Peabody Award, and of VH–1 television’s *New Visions* series, which received the Ace Award for best music series. A pianist, producer, singer, and composer, he has recorded over twenty solo albums for major labels. He composed the soundtrack for the film *Hoop Dreams* and scored the documentary *Vietnam: Long Time Coming*, which won the audience award at the 1998 Aspen Film Festival and an Emmy award. He is author of two books on jazz, *Black Talk* and *Talking Jazz*. Sidran grew up in Racine, received a doctorate in American Studies from Sussex University, and now lives in Madison. He is a fellow of the Wisconsin Academy. His next recording, to be released in December 1999, is “The Concert for Lorca,” a tribute to the Spanish poet recorded live in Granada, Spain.
- ▶ Leonard L. Tews was raised on a dairy farm near Ripon and taught biology for thirty-five years at the University of Wisconsin–Oshkosh. He now lives in Seattle, and his poems have been published in *Fox Cry*, *PoetsWest*, and *Point Counter Point*. His paternal grandfather, the subject of “Grandpa,” came to the United States from Pomerania in East Prussia in the 1870s.
- ▶ Tommy G. Thompson, the longest-serving governor in the nation, was elected in 1998 to a fourth term as governor of Wisconsin. During his thirteen years in office, Thompson has focused on welfare and education reform, economic development, job creation, crime reduction, and tax reduction. In the area of education, Thompson has expanded school choice and charter schools, abolished social promotion, and established a high school graduation test. Thompson has B.S. and J.D. degrees from the University of Wisconsin–Madison and was a member of the Wisconsin Assembly from 1966 to 1986.
- ▶ William H. Tishler grew up in northern Door County. After graduating from the University of Wisconsin–Madison he worked as an urban designer, then completed graduate studies at Harvard University before becoming a faculty member in the Department of Landscape Architecture at the University of Wisconsin–Madison. Tishler is a fellow of the American Society of Landscape Architects and has received numerous awards for his work, including the master plan for Old World Wisconsin and a documentary film about the landscape architect Jens Jensen. He has lectured widely in the U.S., Europe, and Asia, is author of over 140 publications, and has been honored for teaching excellence.
- ▶ Yi-Fu Tuan, recently retired, was the John K. Wright and Vilas Professor of Geography at the University of Wisconsin–Madison. He was born in Tientsin, China, and did his graduate studies at Oxford University and the University of California, Berkeley. He has published more than a dozen books, the two most recent of which are *Cosmos and Hearth* (1996) and *Escapism* (1998). His autobiography, *Who Am I?*, has just been published by the University of Wisconsin Press.
- ▶ Rembert G. Weakland was appointed archbishop of Milwaukee by Pope Paul VI in 1977. He is the metropolitan of the province of Milwaukee, which includes the entire state of Wisconsin. Weakland grew up in Pennsylvania, became a Benedictine novice at St. Vincent Archabbey in Latrobe, Pennsylvania, in 1945, and studied theology in Latrobe and in Rome. After being ordained a priest in Subiaco, Italy, in 1951, he studied music in Europe and at the Juilliard School of Music and has written several articles on music and the liturgy. He has served as chancellor and chairman of the board of directors of St. Vincent College, Abbot Primate of the International Benedictine Confederation, and member of the Council of Superiors General, and is currently vice president of the Interfaith Conference of Greater Milwaukee.
- ▶ Barbara Wuest directs the Creative Writing Program at Cardinal Stritch University in Milwaukee. She has an M.F.A. from the University of California, Irvine, and has received a Billee Murray Denny Poetry award, third place. Her poetry has been published in *Paris Review*, *Cape Rock*, *Laurel Review*, *Turnstile*, and others. She is currently working on a creative nonfiction piece, *Becoming Motherless*.



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Jen Holderman is a member of the Academy staff.

In Memoriam: Ira Baldwin

Ira L. Baldwin, founder and director emeritus of the Wisconsin Academy Foundation, died this past August at the age of 104. Baldwin was born on an Indiana farm in 1895. He began teaching bacteriology at the University of Wisconsin, where he had done his doctoral work, in 1927, and a few years later moved into what became a long career in administration. He held positions as chair of the Department of Bacteriology, dean of the Graduate School, dean and director of the College of Agriculture, university vice president for academic affairs, and special assistant to the president. He was also involved in programs for agricultural development both in the United States and abroad. In 1974–75, he recorded a series of interviews with Donna Taylor Hartshorne for the University of Wisconsin–Madison Archives Oral History Project.

During the summer of 1917, Baldwin came to the University of Wisconsin to work on a cooperative pickle project with the Heinz Company and the Agricultural Experiment Station. We reprint here his memories of that summer (the interviewer's words are in italics):

Well, I came up that summer. We had always raised cucumbers at home, but the idea of growing them on a commercial scale . . . was something totally new and a responsibility I felt very heavy on me.

I didn't know much about it, but I planted pickles and I cultivated pickles and I sprayed pickles and I picked pickles and I salted pickles. At that time the amount of salt you had to keep—the concentration—was a great secret. They had their own instruments that they gave you that were just marked in their own code, and you were to keep it at a certain mark. Whenever it got below that you added more salt to keep it at the proper place. They didn't let you know what it was in absolute terms.

I even learned how to cooper barrels. Do you know how to cooper a barrel?

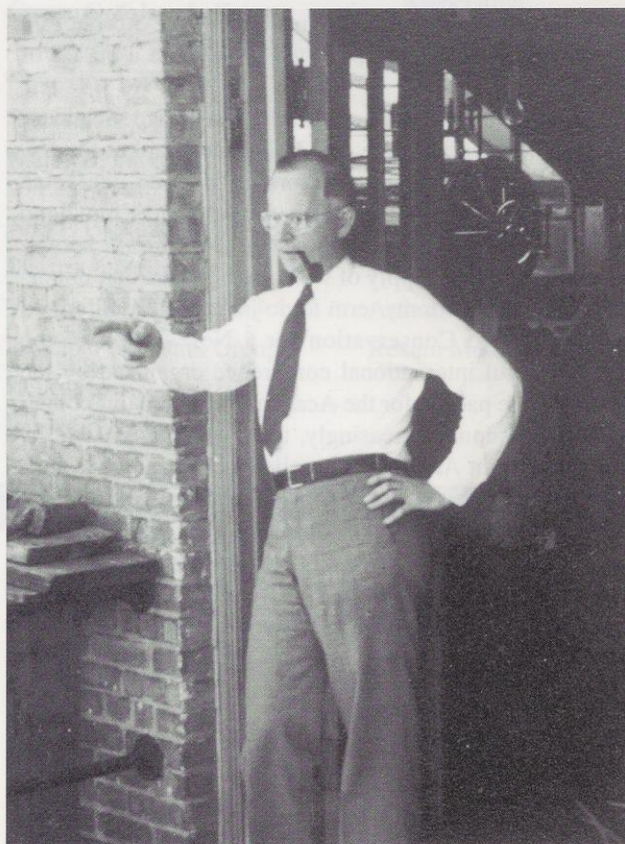
No.

Do you know what flag a barrel means?

No. [laughter] *I'm quite ignorant about these things.*

Well, you take the top hoop off of a barrel, if it's leaking, and you go out and get some cattail leaves and you put a cattail leaf in between the two staves wherever the leak is, and then you put the steel hoop back on again and try it again and see if it leaks. If you get the leak stopped, why fine. And that's "flagging" a barrel or "coopering" a barrel.

This was a great experience for me because I worked with graduate students who were working towards their doctor's degrees



Ira Baldwin in front of University of Wisconsin greenhouse, 1930. Courtesy University of Wisconsin–Madison Archives.

in entomology and plant pathology. . . . Some of those people I remained friends with as long as they lived. . . . We lived in the same house; they sort of took me in. It was a home where they were living, right next to the campus, and they found a room for me in the same place. So I got to know many of them very well, and I suspect that had as much influence in my deciding to go ahead and do graduate work as anything that ever happened.

From Ira L. Baldwin, My Half Century at the University of Wisconsin, adapted from an oral history interview by Donna Taylor Hartshorne (privately published by Ira L. Baldwin, printed by Omnipress, Madison, Wisconsin, 1995), pages 18–19. Reprinted with permission from the University of Wisconsin–Madison Oral History Project.

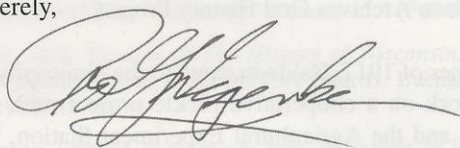
Dear Friends of the Academy,

As I conclude my term as president of the Academy, I am struck that these past two years were a period of beginnings.

Beginnings may seem a contradiction as the Academy approaches the venerable age of 130, but as I said at the fellows' induction, "A wealth of information is no guarantee against a poverty of thought." The Academy has remained ever new by taking as its mission not just to *transmit* knowledge, but to *add* to the supply of wisdom. I believe that important steps were taken in my term to do just that. "Building on Leopold's Legacy: Conservation for a New Century," the hugely successful international conference organized by the Academy, set the pattern for the Academy to add to our collective store of wisdom. Increasingly, the Academy will be *the* place to foster what Art Hove has called a civil and civic conversation on issues cutting across sciences, arts, and letters. I suspect that one hundred years from now we will look back and say, "It began here." It would be counter to the nature of the Academy (and counter to the truth) to claim that I had done these new things alone. I want to thank George Parker, president of the Academy Foundation, the Council and the Board,

the past presidents, the fellows, the members, and the staff, who have supported me in the renewal of the Academy. I particularly want to single out Carol Toussaint for her leadership as interim executive director. Carol exemplifies the essence of the Academy. Her fundamental decency and respect for the dignity and worth of all individuals and of all points of view not only served the Academy well in a time of transition but also taught all of us how this great conversation must and will go forward within the Academy. I know Mary Lynne Donohue will do a splendid job as the new president, as will Bob Lange as the new executive director. I know, too, that other beginnings under their leadership will keep the Academy ever new.

Sincerely,



Rolf Wegenke
President, Wisconsin Academy Council



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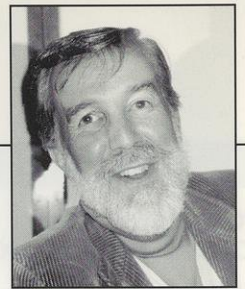
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Since I arrived on the job August 30, 1999, not a day has gone by when I have not been forcefully reminded of the rich intellectual heritage that is at the core of what makes Wisconsin so extraordinary. The honor of working for the Wisconsin Academy of Sciences, Arts and Letters and for you, the members, is becoming one of the highlights of both my personal and professional life. Please indulge me in a word of heartfelt personal thanks to the leaders, patrons, and members of the Wisconsin Academy, as well as the gifted and kind Academy staff, for making me feel so welcome.

I had no plans to leave a meaningful position with the University of Wisconsin Foundation, where I worked on behalf of one of the world's truly distinguished universities. However, what attracted me to the Wisconsin Academy was the sheer vitality of its intellectual life and its potential to be a leading advocate for continuing excellence and achievement in the sciences, arts, and letters.

This issue of the *Wisconsin Academy Review* is a stellar reminder of precisely why Wisconsin has consistently been recognized as one of this nation's laboratories for new and innovative thinking. A sampling of a few of our important programs underscores this point:

- The *Wisconsin Academy Review* itself, serving our readers as one of the best renaissance periodicals of our day;
- Our unique art gallery, which features a different Wisconsin artist every month;
- The WASDI and FIRST teacher education programs, which have so improved scientific education in many of Wisconsin's secondary schools;
- Our presentation of ground-breaking conferences of national significance, such as the October 1999 "Building on Leopold's Legacy: Conservation for a New Century."

The Wisconsin Academy has established a singular record of achievement over the many decades of its existence, and I see numerous opportunities ahead for us. The Academy is the natural home for those people living within our beautiful state's boundaries (or residing in exile elsewhere in the world) who care passionately about matters of the intellect and understand the power of individual and collective thought to address and solve those issues which so bedevil us today.

Joyce Carol Oates, whom I claim to be one of Wisconsin's own because she is an alumna of our University of Wisconsin-Madison, declared in a recent speech in Madison that "Art is at the pinnacle of human achievement." I find her statement to be true but incomplete. I would go one step further and substitute "knowledge" for "art." The Wisconsin Academy's commitment to knowledge was stated clearly and unambiguously in the special act of the 1870 session of the Wisconsin Legislature that created the Wisconsin Academy:

The Academy's mission is to encourage the investigation and dissemination of KNOWLEDGE in the sciences, arts and letters. [my emphasis]

How do we fulfill this mission? That is the question I have been mulling over these past few weeks. What is clear to me is that, however we choose to meet our mandate, we will do so in a fashion that will increase the power of intellectual life in Wisconsin. We can work together to secure those resources—of commitment, of support, of intellect—so essential to the Academy's productive presence in Wisconsin.

I will be using this space in each issue to focus attention on those concerns and questions that strike me as worthy of your consideration, review, and critique. I welcome your comments and suggestions: contact me by e-mail (rglange@facstaff.wisc.edu), by phone (608/263-1692, ext. 12), or by U.S. mail (1922 University Avenue, Madison, WI 53705).

Again, it is a privilege for me to be in touch with people like you. Thank you for giving me this opportunity to work with and for you on behalf of knowledge and culture in Wisconsin.

All the best,

A handwritten signature in dark ink, appearing to read "Bob", with a long, sweeping horizontal line extending to the right.

Robert G. Lange
Executive Director



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