My Humanities

Essays for Arizona Humanities (2012-2013)

Thomas H. Wilson

2015

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First Footsteps

Introduction

Thomas H. Wilson

Each of us has significant experiences in the humanities. Not just those who dedicate great portions of their lives to the humanities, but everyone. Those who daily practice the humanities might reflect upon the impact of the humanities upon their everyday lives, or over the course of their lifetimes. Others might think explicitly less often about the humanities, but nevertheless the humanities are important in their lives. In either case, the humanities are significant to each of us.

These essays explore how the humanities influence my life. The purpose is to illustrate how the humanities may impact individuals and to encourage reflection upon the humanities in each of our lives. An implicit assumption is that one can lead a more full life if one consciously explores the impact of the humanities on individuals and on society.

The meaning of the humanities is a personal and lifelong journey. A threshold question is what is, or are, the humanities? At its most basic, the humanities are what make us human, the stories of individuals and the histories of societies. The humanities live within individuals, and are carried mutually as part of our shared cultures.

When the United States Congress, recognizing that "democracy demands wisdom and vision in its citizens," established the National Endowment for the Humanities in 1965, it defined the humanities by discipline: literature, history, philosophy, ethics, languages, linguistics, jurisprudence, archaeology, comparative religion, and those aspects of the social sciences that employ historical or philosophical approaches. Also, the humanities include the study of the human environment with particular attention to reflecting our diverse heritage, traditions, and history, and the relevance of the humanities to the current conditions of national life.

In these essays I discuss aspects of my own engagement with the humanities. The theme of the first Arizona Humanities Festival in October, 2011 was Stories of Us. Sometimes, at the most elemental level, our engagement with the humanities comes down to stories, so I shall begin with one, the story of how I became an archaeologist.

I invite you to recall the first book you ever read or the first poem you ever learned. I have those memories. But I can also recall the exact moment when I began my path to become a professional archaeologist. My uncle and aunt owned a ranch at the southern end of the Sacramento Mountains in southern New Mexico, about 18,000 acres of pine forests and juniper and piñon woodland. The ranch house and corrals were nestled near where a small spring provided cool, fresh water.

One day at the ranch when I was about six, I was looking for something to do. Members of my family suggested that I cross the canyon next to the house and look for arrowheads. They described an arrowhead, and by the time I was half way up the other side of the canyon, I found one. Today we would discourage this kind of plunder, but this find fired my imagination about the first Americans, who they were, how and when they arrived in the canyon, how they lived and what happened to them. It was almost magical, how this prehistoric object, made by a human being and lost at some unknown time in the past, now rested in my hand. These questions, first stirred in my heart before I was in first grade, have never left me. Later, I realized that I could turn an interest into a profession in the humanities, and I became an archaeologist. I investigated those kinds of issues in the American Southwest, in Mexico and Central America, and East Africa. My work in museums took me to northwest Russia and southwest China.

Those first footsteps in the mountains of New Mexico started my journey and professional life in the humanities. Like all of us, I have multiple less formal interactions in the humanities that have made a profound difference in my life. In these essays, written and electronically published for Arizona Humanities mostly between 2012 and 2013, I explore some of these relationships. Meanwhile, I encourage you to reflect upon your own engagements with the humanities – your own stories of us.

Thomas H. Wilson is Director of the Arizona Museum of Natural History and was Chair of Arizona Humanities (2011-2013)

My Humanities

Adventures on the Journey of Death

Thomas H. Wilson

I have always loved history. I am not sure how this interest began, but I have an idea. When I was a little boy, my mother, a single parent working as a secretary to support us, subscribed to an historical book club for young readers for me. Every month another book would arrive, often written by well-known historians, on some historical subject. I read about the Civil War, Napoleon, the American West, the Middle Ages, and many more places and times. I received these books for about three years, and read nearly all of them. Later I passed them on to my son. My thirst for history was wetted, and remains unquenched. Give the gift of history to someone you love.

In 2000, as director of the Museum of New Mexico, I had the opportunity to actively engage history. We were planning a new state history museum to adjoin the Palace of the Governors in Santa Fe, and a new state monument near the Rio Grande south of Socorro, the El Camino Real International Heritage Center. In an effort to raise statewide support for these projects, Mike Romero Taylor and I contemplated walking the Jornada del Muerto. We wished to enhance our knowledge of the history of the Camino Real in New Mexico and to experience the kinds of challenges faced by those who previously used the trail for exploration, war or settlement.

The El Camino Real was the great royal road or king's highway that connected Mexico City with Santa Fe. The Jornada del Muerto is that section of the Camino Real that abandons the route along the Rio Grande near Las Cruces, crosses 90 miles of barren desert, and rejoins the river south of Socorro, New Mexico. Juan de Oñate blazed the trail, based upon earlier Native American routes, on his way to settle northern New Mexico in 1598. Lack of water and Apache raiding habitually made the journey perilous. The Jornada del Muerto is named for an incident in 1670, when a German trader was killed at a location still called Alemán. How can one resist exploring a trail loosely translated as the Journey of Death?

After considerable planning and training, we set off at daybreak on October 17, 2000, from near Las Cruces. We joined the Camino Real near Paraje San Diego and headed north for Point of Rocks,

The Jornada del Muerto near Alemán.
Vegetation here defines the ancient Camino Real.

which looked close but required half a day to reach. At Point of Rocks, we discovered an extensive petroglyph site, ominously featuring an image of a large rattlesnake. We pushed on and made camp on the desert floor 16.5 miles into the journey. Coyotes serenaded us that night.

The next day we were off again at dawn. We carried enough food for the whole trip, but we had to make special arrangements for water. Water weighs about eight pounds a gallon, and carrying enough for a four-day trip was more than we could manage. Before starting, we stashed water at the end of the second day's journey.

As we walked, we saw evidence of the historic El Camino Real at various locations, outlined by differential vegetation. Sections of the ancient trail are clearly visible from air photos.

As the miles and hours passed, we thought of the history of the Camino Real. In the seventeenth century, the Spanish ran caravans to Santa Fe and back every three years. From Mexico came manufactured goods, horses, musical instruments, clothing, tools and chocolate. Out of New Mexico went hides, wheat, corn, raw wool, salt and piñon nuts. Following the Pueblo Revolt of 1680, the Spanish fled down the Camino Real out of New Mexico; they returned under De Vargas the same way during the reconquest of 1692.

During the Civil War, Confederate units from Texas invaded New Mexico and engaged Union forces in February 1862 at the Battle of Valverde near Fort Craig at the north end of the Jornada del Muerto. A tactical victory allowed the Confederates to proceed to their doom at the Battle of Glorieta Pass near Santa Fe on March 28. The rebels fled down the Camino Real. Texans are still under-appreciated in New Mexico.

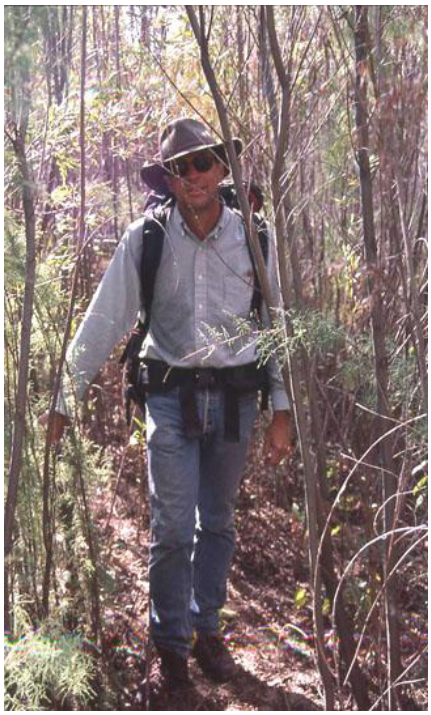
The arrows identify the Camino Real south of Engle.
Solid dark line is the railroad; solid light line is a road.

Such thoughts were in our minds as we struggled exhaustedly into Engle, having logged 24 miles on day two. Here we met Tom Waddell, overseer of the land we would cross the next day, 358,000 acres of the old Spanish Armendariz land grants now owned by Ted Turner. We set off the next morning to cross the old land grant. Turner runs about 1,500 head of bison on the range, and Waddell had warned us that there was an oryx out of control on our path, which we never encountered, and that a large mountain lion was stalking bird-watchers at Bosque del Apache. Walking along daydreaming of history has its perils: we nearly stepped on a rattlesnake on the trail right in front of us. That evening, after 23 miles, we reached Lava Camp.

History teaches that things don't always go as planned, as we discovered on day four. We arose before dawn and were on the trail before first light. We planned the day well, knowing we faced challenges ahead. We had to intersect and cross the Rio Grande, and our goal was to emerge at the site of the future El Camino Real International Heritage Center. We consulted air photos and topographical maps to find a suitable place to cross the thickets on both sides of the river, avoid the flooded upper reaches of Elephant Butte Lake, and make it across the overflow channels of the river.

At about 8:00 a.m. we plunged into the bush on the east side of the Rio Grande near Paraje Fray Cristóbal, an historic place of rest on the journey named for a padre who died on the trek with Oñate. We tried to follow cattle trails to the river, but this proved impossible, all the while trying to avoid snakes in the ankle-deep vegetation and thick foliage. After about an hour of labor, using the sun and compass to maintain our direction, we reached the Rio Grande. Near the banks the bottom was mud churned up by cattle, but farther out there was soft sandy bottom, and we crossed the water without incident.

On the west side, we turned upriver again and walked along the embankment for another hour, looking for a break in the vegetation to advance to higher ground. Finally we found a channel that looked promising. After about a hundred meters, we encountered ankle-deep water. High reeds, tules (Sp. carrizo), flanked the channel. As the water deepened to thigh-level, we moved up onto the tules, pushing them down ahead of us as we went. They were sharp and taller than a person, and the labor was hard. Finally we saw blue sky ahead and thought we might emerge from the vegetation. Instead, we found ourselves confronting an overflow channel of the Rio Grande.



Mike Romero Taylor fighting the thicket on the east side of the Rio Grande.

Mike Romero Taylor coming out of the overflow channel on the west side of the river.

I removed my belt and pack, held them aloft, and waded into the water. In about three paces, the water was up to my chest, and with the next step, over my head. I lunged and kicked for a sandbar and finally managed to clamber up the side, in the process dunking my camera and losing the Bowie knife that I carried all my years in the field in Africa. Mike crossed the channel without difficulty, and we pushed into the shallow water on the other side of the sandbar. Then we were in the reeds again. Finally we emerged into a belt of salt cedars and then passed through dense, thorny mesquite. Suddenly, we were out of the thickets, and soon rendezvoused with staff from the Museum of New Mexico and BLM at the site of the future heritage center. We went to the Owl Bar in San Antonio for lunch, and I offered a soggy bill in payment. "What happened to you?" asked the waitress, "You look like you fell in the river!"

We came away from our experience with greater appreciation for and understanding of our predecessors' travails on the Jornada del Muerto, and with an enhanced sense of historical imagination.
Engage history! Who knows what adventure awaits.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Cultural Encounters at the Perilous Frontiers of Linguistics

Thomas H. Wilson

"I flunked my Spanish examination," I confessed to George Foster, one of the senior professors in the Department of Anthropology at the University of California, Berkeley. Not just any test, this examination was a requirement for the Ph.D. "That's okay," Foster replied, "Robert Lowie flunked me the first time I took it too," referring to one of the founders of the department and a well-known figure in the history of anthropology. Thus reassured, I redoubled my efforts and the next time, confronted with the translation of an essay in Spanish on Tzotzil Maya linguistics, passed, whether with flying colors or not I shall never know.

Languages and linguistics are disciplines of the humanities. To earn a degree in anthropology, I had to take classes in linguistics, the study of languages in their historical and comparative dimensions. I lack facility in foreign languages. In high school I studied Latin and in college Spanish and a little German. I well remember professor Hibben saying one day to the class, "You struggle with French and German. Wait until you have to learn a Bantu language or Chinese." As if he foretold my future, I later spent seven years in Bantu-speaking communities in East Africa and worked in minority nationalities areas of Yunnan, Southwest China. Chinese and the great majority of Bantu languages are tonal, which means that inflection of pronunciation gives words different meanings. Tonal languages are notoriously difficult to learn for those whose native languages are not tonal.

My first job out of graduate school was Lecturer (Assistant Professor in the British tradition) in the Department of History at the University of Nairobi, in Kenya, East Africa. In addition to teaching classes on African archaeology, my job was to help set up an archaeology program. Fieldwork is a critical element of an archaeology curriculum, and what better place to conduct excavations than the homeland of humankind, eastern Africa. I took students on safari (a word whose root is Arabic, but well-known from Swahili, from which it passed into English) to the Great Rift Valley, across the Serengeti Plain, around Mt. Kilimanjaro and into Ngorongoro Crater. At Olduvai Gorge, Mary Leakey showed us the early hominid sites that she and her husband Lewis discovered, excavated and made famous.

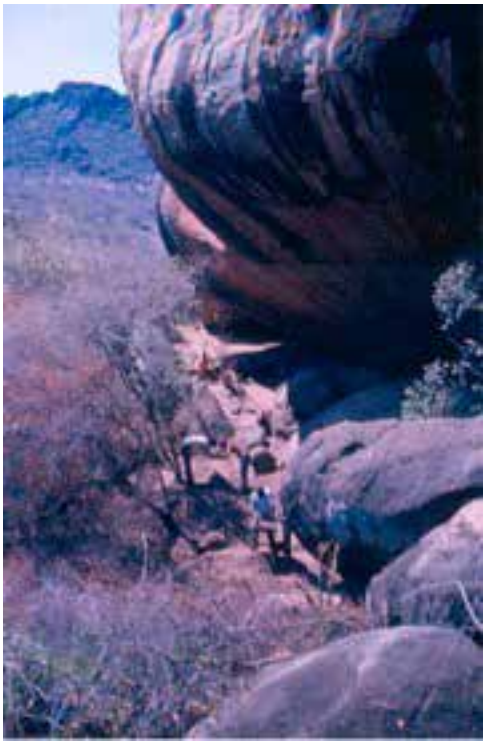
East Africa is a great crossroads of incredible linguistic diversity. Each of the four great language families of Africa is represented in East Africa, and three occur in Kenya. Bantu languages are spoken in the central highlands of Kenya, in the southeast and a sprinkling in the west. Three of the major Bantu languages are Kikuyu, Kamba and Swahili. Cushitic languages are spoken in the northeast, including Somali, Rendille and Oromo. Nilotic languages occur in the west, including Luo, Kalenjin, Turkana and Maasai. President Obama's relatives are Luo, from the Lake Victoria area. Over 60 languages are traditionally spoken in Kenya. Khoisan speakers in northeastern Tanzania, particularly the Sandawe and Hadza, may be survivals from when Khoisan-speaking peoples were more widely distributed along the highland savanna belt from eastern to southern Africa, during the Late Stone Age.

The Chalbi Desert

Mapping at Ele Bor

One summer, David Phillipson, then deputy director of the British Institute in Eastern Africa, invited a team from the University of Nairobi to form a joint expedition in search of the origins of the pastoral Neolithic in the arid areas of northern Kenya. From Nairobi we headed north to Isiolo, Archer's Post, and Marsabit, thence northwest to the Chalbi Desert and our destination, the rock outcrops of Ele Bor. Site A was under a large rock overhang with dense vegetation around the front. We mapped the rockshelter, set out excavation trenches and began our search for evidence of the transition from Late Stone Age hunter and gatherers to the beginnings of animal pastoralism.

On our day off a few weeks into the dig, we went to the site to look around. Suddenly out of the vegetation around the front of the area came a half dozen men armed with rifles. We were defenseless. These were raiders from Ethiopia, probably Oromo speakers, in Kenya looking for camels and weapons. Luckily, we possessed neither. They eyed our excavations, and no one spoke. They knew no Swahili, and we spoke no Cushitic language. After a few minutes, they turned and left through the bush without a word. After waiting a respectable time, we ascended the rocks and looked after them. Several dozen armed bandits, with camels, were heading back to Ethiopia, only a few miles distant.



Excavations at Ele Bor Site A

View from Ele Bor

They could have shot us and no one would have been the wiser for weeks. We were scores of miles from any assistance. On our next trip for water, we alerted the authorities, and two truckloads of the Kenya military arrived, by that time to no avail. The Kenya Army and Kenya Police considered the Northern Frontier District an "operational area," which to me meant shoot-to-kill. Later we heard that raiders killed a number of persons at Moyale to the northeast, and I always wondered if the perpetrators were the same bandits that visited us. Apparently some in Arizona today think you are only safe if you are armed. Had we possessed weapons at Ele Bor, likely we would be dead.

About a year later, Richard Leakey hired me to be Coast Archaeologist for the Kenya National Museums, and I was posted to the north Kenya coast at Lamu, now a World Heritage Site. You always remember where you were when dramatic events unfold. My team was excavating at Kiunga, just below the Somalia frontier on the Indian Ocean, when the Voice of Kenya announced that Jomo Kenyatta, the first president of Kenya, was dead. There was a special unit within the Kenya Police whose job it was to make sure the vice president, Daniel arap Moi, did not succeed the late president. Moi happened to be in Mombasa at the time, and the provincial commissioner at the coast, who was the same ethnic group as many of the conspirators, nevertheless protected the vice president and he became president. But things were not over.

After seven years in Kenya, including five years with the National Museums of Kenya, it was time for me to return home. Just before I was to leave, elements of the Kenya Air Force attempted a coup. The main action was in Nairobi, and the coast remained calm. I had to go to Nairobi to make final preparations to depart. I stayed at the national museum, which is on a hill near downtown. One evening for dinner I walked the short distance to the Norfolk Hotel, which a few years later was the site of a major terrorist bombing. After dinner, while it was still light, I started to walk back to the museum. I had to pass the Voice of Kenya, the government radio station, which had been a prime target of the rebels and was now secured by the military.

"Simama!" Someone shouted at me. A young, nervous private in the Kenya Army guarding the radio station pointed his rifle at me and commanded me to stop. No other soldiers were around. He wanted to know what I was doing, but he spoke no English and my Swahili was best at discussing ruins, tombs and potsherds. I did not possess, at least in the heat of the moment, the language skills in Swahili to explain why I was not a threat to him or the government of Kenya. He was clearly edgy, and we reached an impasse. Finally I took a deep breath, turned my back and walked away. I could hear him shoulder his gun, but I did not look back. He decided not to shoot, and I kept going.

My disarmingly simple take away from these encounters: don't discuss matters of life and death in a language in which you are less than fluent. Sometimes, silence is truly golden.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

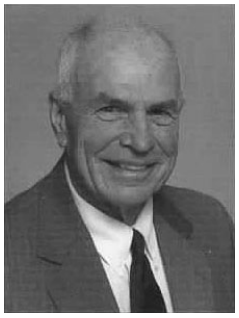
Homage to Teachers and Professors

Thomas H. Wilson

Consider how we come to have knowledge of the humanities. We learn to read on the laps of our caregivers. We hear our first languages from those around us, and absorb cultural traditions from hearing stories at the feet of our elders and by participating in the events of our families and societies. We imbibe poetry, songs and oral histories, and register the visual icons across cultures and through time from books, public art and a plethora of electronic formats. We have the beginnings of knowledge that will flower into the humanities by the time we enter elementary school.

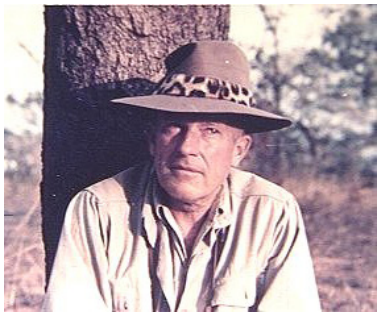
These and other sources continue to influence us throughout life. Simultaneously, educators in formal settings—schools, colleges, universities and similar institutions—help us channel our interests and broaden our horizons. Teachers and professors introduce us to the formal study of the humanities. They help us develop the skills and tools to pursue our own interests and educate ourselves about subjects that ignite our intellectual passions or form the great debates of our day.

I wish to acknowledge some of the teachers and professors who influenced my thinking about the humanities and to whom I owe a profound debt of gratitude for the guidance and insights they offered, and for the passion for their subjects that they demonstrated daily. Such enthusiasm is infectious, and I caught the humanities bug. It turned out to be a chronic condition, this love of the humanities.



David H. Townsend
New Mexico State University

David Townsend was my secondary school history teacher. Somehow he managed to paint a picture of the unification of Italy and the leading characters in that drama – Count Camillo Cavour, Mazzini and Garibaldi – that I still carry around in my head. It is nothing short of miraculous to make the unification of Italy interesting to a secondary school student. He explained, probably better than all my later reading on the subject, the inexplicable beginnings of the First World War. Mr. Townsend, who is very proud of his service in the Marine Corps, subsequently earned his Ph.D. in history, was elected to the New Mexico legislature, helped redraft the New Mexico constitution, and coauthored a centennial history of our town. He is most beloved by his students, and has played a significant role in the civic life of his town and state.



Frank Hibben
University of New Mexico

Frank Hibben was one of the most popular professors at the University of New Mexico. He taught the famous Anthropology 101, physical anthropology and archaeology, and his classes were packed with hundreds of students. He was an inspiring speaker who sprinkled his lectures with captivating stories of the people and places about which he spoke. Hibben possessed the gift of storytelling, a wonderful knack to share the humanities. He came to the university out of Harvard in the late 1930s and stayed for the rest of his career to help build the department and the museum of anthropology. He gave the money for a major research building at UNM, and established a well-funded trust to support graduate students. Frank Hibben is why I became an archaeologist, and when I teach or lecture I try to emulate his skills.

Florence Hawley Ellis came to UNM in 1934 from the University of Arizona, after earning her Ph.D. from the University of Chicago for research on the archaeology of Chetro Ketl in Chaco Canyon. She taught the Southwestern archaeology and ethnology classes, and ran the field school that I attended at the large prehistoric pueblo site of Sapawe in the Chama drainage in northern New Mexico. Every day at lunch in the field at Sapawe, Dr. Ellis would lecture on the archaeology of the Southwest, and then in the evenings after dinner we worked in the laboratory or studied in the library at Ghost Ranch until all hours of the night. Now, the museum at Ghost Ranch is named in honor of this "Daughter of the Desert."

Florence Hawley at Chaco Canyon
University of New Mexico

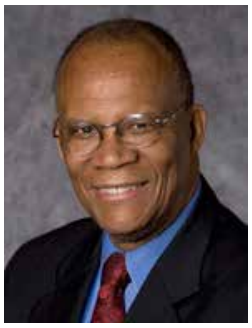
Sherwood Washburn
University of California, Berkeley

J. Desmond Clark
University of California, Berkeley

At the University of California, Berkeley, Sherwood Washburn taught physical anthropology—primate evolution and behavior, and J. Desmond Clark lectured in African prehistory. Washburn, Harvard educated and lured from the University of Chicago to Berkeley, was named University Professor because of his stellar teaching ability. I was his teaching assistant for two years, and it was a joy to participate as he inspired hundreds of undergraduates in biological anthropology. Clark was a graduate of Cambridge University, and was recognized by all as the doyen of African prehistoric studies. He was remarkable for the breadth and depth of his knowledge, and you left his lectures with writer's cramp from trying to capture his knowledge and ideas. I was with him in 1995 in Zimbabwe and Zambia, where at the Livingstone Museum scores of young students in their school uniforms respectfully mobbed the famous former director of their museum. You have accomplished a certain measure of success when elementary students treat you like a rock star.

Michael Milleman
University of Maryland
School of Law

Judge Ellen Heller
Baltimore City Circuit
Court



Larry Gibson
University of Maryland
School of Law

Later I attended law school at the University of Maryland, where the passionate and articulate Michael Millemann teaches constitutional law. "When all else fails," he suggested, "argue Magna Carta," which is still the law of the original 13 colonies because at independence they incorporated English common law. Millemann may have been telling us literally to argue Magna Carta, but he was also encouraging us to think beyond the obvious and to be creative in analysis and argument. Judge Ellen Heller taught the law and education seminar, and Larry Gibson, one of the teachers of civil procedure, once won his case by singing his summation in court. You have to be pretty confident to sing your closing argument in a court of law. Their biographies reveal how much they have contributed to our society and others, far above the daily responsibilities of their jobs.

These teachers and professors influenced my education in the humanities and beyond. Not only did they impart the facts and theories of their disciplines, they demonstrated how to approach problems, to analyze critically, and to seek creative solutions. You too probably had teachers in the formal system of education, and most likely professors influenced your intellectual development. Perhaps you have a personal hall of fame in which you enshrine those teachers and professors who have been most influential in your development. These humanists showed us the way to think independently, forge our own ways of reasoning, write well and explore the enriching power of the humanities. We are in great debt to our teachers and professors.

Frank Hibben, Florence Hawley Ellis, Sherwood Washburn and Desmond Clark have, to use two of Hibben's favorite phrases, "shuffled off this mortal coil" and "been gathered to their primate ancestors." They did so before I told them how much I appreciate their teaching and guidance, and how much their work in the humanities influenced mine. Teachers and professors change our lives. Let them know what their lives mean to you.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Appreciating Mandela

Thomas H. Wilson

Nelson Mandela

I met Nelson Mandela briefly on June 22, 1990 in New York, shortly after he was released from prison but before he was elected President of South Africa. I well remember the extraordinary scenes on February 11, 1990, when the South African authorities released Mandela from 27 years of incarceration, and he addressed the nation and the world. Four months later, he visited the United States as a private citizen. The New York and federal authorities treated him like the head of state he would become, and security was extremely tight. He came to the Council on Foreign Relations, next door to the Center for African Art, where I worked. We asked if we could present him one of our publications, and officials agreed. Our building was swept by security, and there were snipers on the roofs. The streets were cleared of vehicle and pedestrian traffic. We made a sign saluting Nelson and Winnie Mandela, and when his limo stopped in front of the museum, we presented him our Yoruba catalogue. He was gracious to all.

Following Nelson Mandela's death on December 5, 2013, the world has mourned his passing and celebrated his accomplishments. His achievements are now well known and widely appreciated. Mandela's impact extends far beyond South Africa, and it is appropriate that Mandela is remembered along with Gandhi (himself a South African lawyer before he returned to India), and Martin Luther King. Another way of appreciating Mandela's accomplishments and placing him in the context of his times is to examine two other African leaders, Jomo Kenyatta of Kenya and Robert Mugabe of Zimbabwe, who had somewhat similar early experiences but who in the end fell short of Mandela's moral authority, unrelenting honesty, inclusive ideals, and political skills.

Jomo Kenyatta became the first President of Kenya in 1964, following a short stint as prime minister, after Kenya's independence from Great Britain in 1963. Kenyatta was a Kikuyu, the dominant ethnic group in Kenya's central highlands, born about 1894. His early education was in local schools, followed by a series of modest jobs. By the early 1920s he was interested in politics, and he visited Britain to advocate for Kikuyu land claims. He furthered his studies there and in the Soviet Union before returning to England to study social anthropology under Bronislaw Malinowski at the

London School of Economics. His first book was *Facing Mount Kenya*, the anthropology of the Kikuyu (1938). Kenyatta was already involved in pan-African and anti-colonialist causes and participated in these intellectual circles.

Upon returning to Kenya in 1946, Kenyatta became principal of Kenya Teachers College, and, in the following year, president of the Kenya African Union, a political party that sought independence through peaceful means. In 1952 Kenya declared a state of emergency as a result of the Mau Mau uprising, centered in the Kikuyu homelands. Kenyatta and five other nationalist leaders, the Kapenguria Six, were tried for Mau Mau activities and sentenced to seven years in prison at hard labor and then detention. While in detention, he was elected president of the Kenya African National Union (KANU), and public pressure for his freedom greatly increased. He was released in 1961, and was influential in drafting Kenya's independence constitution. KANU won the elections of 1963, and Kenyatta became prime minister, and then president of Kenya in 1964. He was re-elected in 1966, 1970, and 1974. He published his autobiography, *Suffering Without Bitterness*, in 1968. Kenyatta was popularly known both fondly and cynically as *Mzee*, Swahili for "respected elder."

I was excavating with the National Museums of Kenya at Kiunga on the coast near the Somalia frontier on August 22, 1978, when Kenyatta died. We did not normally listen to the radio in the field, but that day for some reason we had on the Voice of Kenya, when suddenly the radio started playing somber music and then the announcement in Swahili, that Jomo Kenyatta, the first President of Kenya, was dead. Even for an expatriate resident, it was quite impactful.

Kenyatta accomplished much to establish Kenya as a relatively peaceful, stable, democratic, multi-racial state based upon capitalist economic principles within the Western sphere of influence. Compared to its neighbors, Kenya is relatively prosperous, although poverty remains widespread. But there were substantial negatives to Kenyatta's leadership. He consolidated power in his hands,

Jomo Kenyatta

quashed political opposition, silenced dissent, outlawed opposition parties, and, although elected, was functionally president for life. Major opposition figures, such as Tom Mboya and J. M. Kariuki, were assassinated during his stewardship. To this day, ethnic tensions, particularly in the political arena, have not been completely resolved, as demonstrated by the murderous violence surrounding elections of 2007-2008. Kenyatta's administrations set the stage for corruption, land acquisition, and amassing wealth for government officials and those close to the inner circle. His wife, Mama Ngina Kenyatta, was widely thought to be involved in the illicit ivory trade. For all the good things Kenyatta accomplished, these are serious blemishes on his legacy.

Robert Mugabe was born near Salisbury, Southern Rhodesia, now Zimbabwe, in 1924. His early education was in Roman Catholic schools, and he later earned a BA in 1951 from the University of Fort Hare in South Africa. He was a teacher in Northern Rhodesia (Zambia) and Ghana, where he was influenced by Kwame Nkrumah. Upon returning to Southern Rhodesia, Mugabe entered politics and became a leader of the Zimbabwe African National Union (ZANU), whose main strength came from Shona speakers in the north, in competition with Joshua Nkomo's Zimbabwe

African Peoples Union (ZAPU), centered amongst the Ndebele in the south. When violence occurred between the two groups, the parties were banned in 1964 and the leaders detained. During the course of his career, including while in prison, Mugabe earned degrees in economics, education, law and administration through external programs from the University of London and the University of South Africa. He was released from prison in 1974.

Robert Mugabe

In 1965, after negotiations for independence failed, Southern Rhodesia's prime minister Ian Smith's government unilaterally declared independence (UDI) from Great Britain. From then through the 1970s Smith fought the revolutionary forces. Finally, in 1979, negotiations for a transition to majority rule succeeded, and Robert Mugabe became prime minister of the Republic of Zimbabwe. Although there was some effort to merge ZAPU with ZANU, ultimately Mugabe fired Nkomo from the cabinet and forcefully crushed Ndebele resistance in the south with significant loss of life. Since 1987, Mugabe has been President of Zimbabwe.

In order to remain in power, Mugabe has sometimes used intimidation, fraud and violence during Zimbabwean presidential elections. Land reform and redistribution also has a checkered history. In 2000, mobs overran many white farms, with considerable violence, apparently with the connivance of the government. At various times, the British Commonwealth, European Union, and United States have imposed sanctions on Zimbabwe, and restricted travel on Mugabe, for governmental misdeeds and financial mismanagement.

It is very difficult to create a democratic, multi-racial, equitable society after years of institutional racism, inequality and even terrorism. African leaders come from cultural groups with their own support structures and traditional ways of governance. It is either natural to carry these associations into national governance, or at least difficult to resist such cultural pressures in trying to modernize a national state. Comrades in the struggle for freedom want shares of the benefits of independence. When whites colonized Africa, they often took the best farming lands for themselves. After independence, naturally there were pressures for land reform and redistribution, and the speed of these processes led to tensions. In Zimbabwe, this included intimidation and violence. Sometimes, associates of the powerful wound up with the land, rather than those most needing it. These are just examples of some of the pressures for change that African leaders faced after independence. Kenyatta negotiated the issues reasonably well, Mugabe notoriously poorly.

The history of countries in the belt from Ethiopia to South Africa illustrates the difficulties of transition from colonialism to independence. Population, resources including land, economic development, poverty, transportation, education, ethnic and religious strife and quality of governance are chronic problems. Ethiopia is stable today, but suffered from East-West rivalries, and fought wars with two of its neighbors. In Sudan, Islamists in the north fought Christians in the south for years, and now newly independent South Sudan is experiencing ethnic-based violence. Clan rivalries and Islamic extremism have sundered Somalia, the only single ethnic group country in sub-Saharan Africa. Uganda, once considered the "jewel of Africa," suffered under Idi Amin. Rwanda had its genocide, and eastern DR Congo has been a mess for years. Tanzania got a solid start under its founding president, Julius Nyerere (known as *Mwalimu*, teacher), but grapples with poverty.

Nelson Mandela

Zambia, Malawi and Botswana have had relatively peaceful histories, but they struggle with many of the issues affecting the region. Mozambique was enveloped for years in the wars that plagued the southern part of the continent. AIDS has ravaged many countries in the region, including South Africa. The evidence suggests that is very difficult to create solid political, governance and economic structures when facing these significant challenges. Some of the countries have been doing much better recently.

This survey of the neighborhood illustrates why we should revere Nelson Mandela. At the end of apartheid, tensions were in place for a much different outcome. Mandela showed a way that all factions in South Africa could follow. South Africa's economy is more like a European nation than like its neighbors, but poverty is still a major issue. South African elections have been orderly and constitutional, but the African National Congress dominates and there are ruling elites. Nevertheless, South Africa seems to be working through its problems, and to a great extent the success of the model is due to the integrity and moral force of Nelson Mandela. It is appropriate to appreciate Mandela as the father of modern South Africa.

In 1947, Louis and Mary Leakey convened in Nairobi the first Panafrican Congress of Prehistory and Quaternary Studies, the premier international organization to study human origins and cultural development in Africa. I helped their son, Richard Leakey, plan the eighth congress, held again in Nairobi in 1977. The tenth congress met at the University of Zimbabwe in Harare, Zimbabwe in 1995. It was the first meeting since South Africa was freed of apartheid and all the boycotts were dropped. The foreign minister of Zimbabwe opened the congress and welcomed the South Africans, white and black, back into the community of nations. It was a poignant moment. In thousands of ways like this, big and small, Nelson Mandela has had an impact on individuals, South Africa, the rest of the continent, and the world.

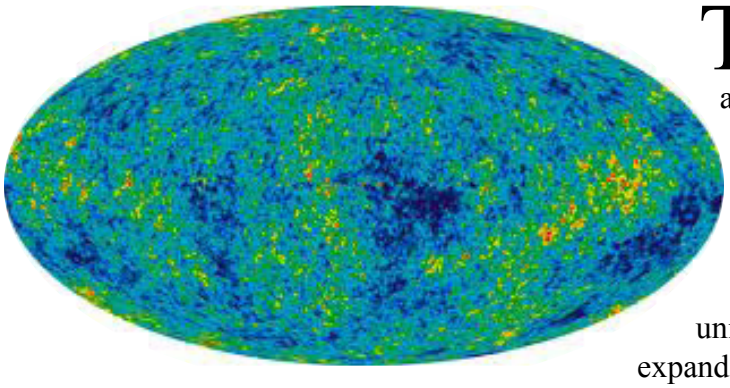
Thomas H. Wilson is past Chair of Arizona Humanities

Origins and Extinctions

My Humanities

Humanities and Cosmos

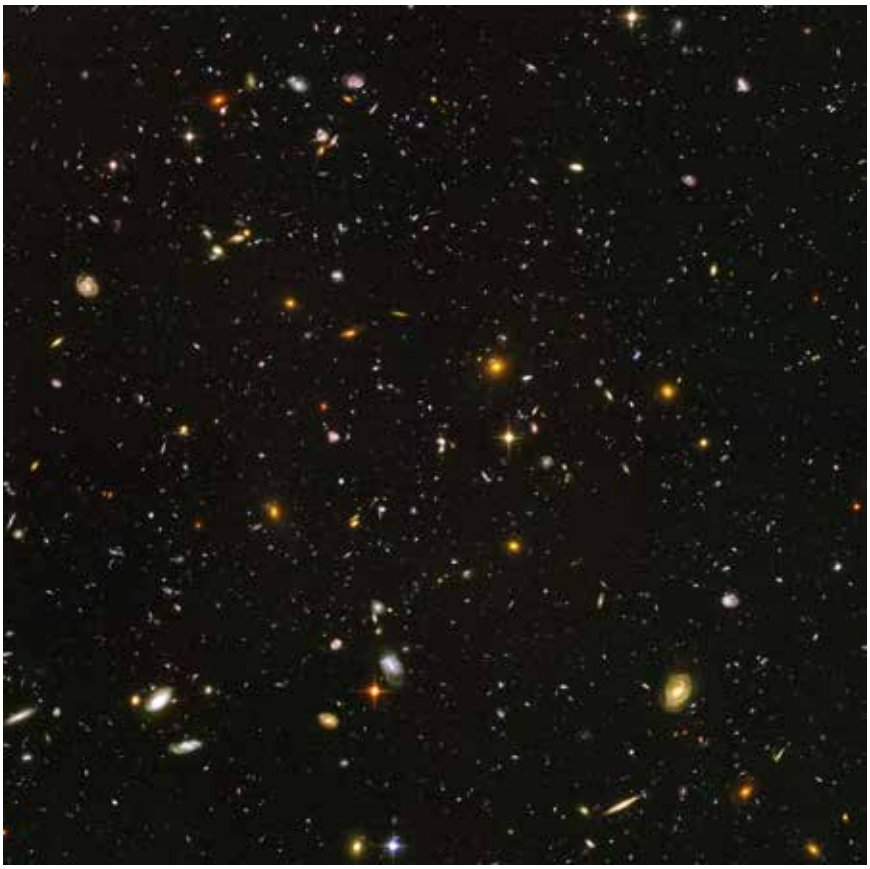
Thomas H. Wilson



Cosmic Microwave Background Radiation. This thermal energy is a product of the Big Bang, the origin of the universe.

The Arizona Museum of Natural History presents an exhibition called *Origins*. The first image in the exhibition is labeled Cosmic Microwave Background, 13 billion years ago. There is no further information. Most visitors are not going to recognize immediately that cosmic microwave background radiation is the thermal energy uniformly filling the space of the universe and expanding since shortly after the "Big Bang," of which cosmic microwave background radiation is evidence. Curators of the exhibition do not expect the average viewer to know this, but rather they wish to encourage the curious to seek out the answer on smart phones or other electronic devices.

We now have theoretical frameworks and observational data that greatly enhance our understanding of the universe. If Einstein's Theory of Relativity provides one of the theoretical pillars to understand the cosmos, devices like the Hubble Space Telescope give us the tools to see and measure the universe. The Hubble Ultra Deep Field project allows us to peer through the slimmest sliver of space and see light that has been traveling from celestial entities towards Earth since as early as 400 million years after the origin of the universe, or Big Bang, about 13.76 billion years ago. Put another way, light traveling at 186,282 miles per second has taken over 13 thousand million years to reach Earth from its place of origin.



Hubble Ultra Deep Field photograph shows as many as 10,000 galaxies, some of which might date to as early as 400 million years after the Big Bang. NASA/ESA/S. Beckwith (STScI) and The HUDF Team.

Andromeda Galaxy. Our nearest neighbor spiral galaxy, 2.5 million light years away, contains about a trillion stars. NASA photo.

As we know, Earth is in a solar system, planets orbiting around a star, the Sun, towards the edge of the Milky Way Galaxy. The Milky Way is 100,000 or more light years across and may have 200-400 million stars and an equal number of planets. Andromeda, our nearest neighbor spiral galaxy, is 2.5 million light years away and contains about a trillion stars (10^{12}). For some perspective, it takes light from the Sun about 8 minutes and 19 seconds to travel the 93 million miles to reach the Earth.

The universe may be about 93 billion light years in diameter, and the observable universe may contain as many as 100 billion galaxies. These galaxies may contain as many as 300 sextillion (3×10^{23}) stars. That is a lot of stars, with presumably a lot of planets. I don't pretend to know the underlying physics or mathematics, but multiple life forms elsewhere in the universe seem a good bet. Almost certainly, we are not alone. We just haven't yet met our neighbors. This possibility might warrant rethinking the place of humans in the cosmos, and among other life forms here on Earth.

These are aspects of our state of knowledge about the universe today. Yet for the great swath of human history, we knew none of this. Humans have a deep interest in observing and understanding their surroundings, and these characteristics of the species hold considerable adaptive value. We have applied this interest to the heavens from our earliest days. Many cultures developed strong interests in astronomy, such as the ancient Egyptians, Maya, ancestral Pueblo peoples, Arabs and others who developed deep knowledge of the heavens based upon decades of systematic observation of the skies.

Before the advent of optical instruments in the early 17th century, celestial observations were essentially by naked eye. In the western tradition, ancient Greek astronomers grappled with evidence and logic whether the Earth revolves around the Sun (heliocentrism) or the Sun around the Earth (geocentrism). It is plausible, although erroneous, based upon daily observation, to conclude that the Sun circles the Earth. Every day we observe the Sun "come up" in the East and "set" in the West. This comforting view placed our world at the center of everything.

No less authorities than Aristotle (384-322 BC) and Ptolemy (c. AD 90-168) promoted versions of the geocentric model, not without considerable, if flawed, underlying logic, thus laying the groundwork for Earth- and human-centered philosophical and religious systems that have endured for hundreds of years.

There were contrary opinions. Aristarchus of Samos (c. 310-230 BC) articulated a heliocentric theory in classical Greece, and he had a few followers. Not until eighteen centuries later did Copernicus (AD 1473-1543) publish his monumental work on the Sun and planetary movements that established the heliocentric model and began the scientific revolution named after him. Nevertheless, Aristotelian and Ptolemaic ideas still dominated European thinking, and the Copernican Revolution was slow to take off.

By the early 17th century the Catholic Church banned Copernicus' monograph and proclaimed his heliocentric hypothesis "false" and "contrary to Holy Scripture." Galileo (AD 1564-1642), the great mathematician, astronomer and physicist, tried to forestall this result. For his support of the Copernican view that the Earth orbited the Sun, Galileo was tried by the Inquisition in 1633, threatened with torture, found "vehemently suspect of heresy," required to "abjure, curse and detest" those opinions, sentenced to house arrest for life, and forbidden publication of his works. Thus was the Church's response to freedom of inquiry, and in this case, broad truth.

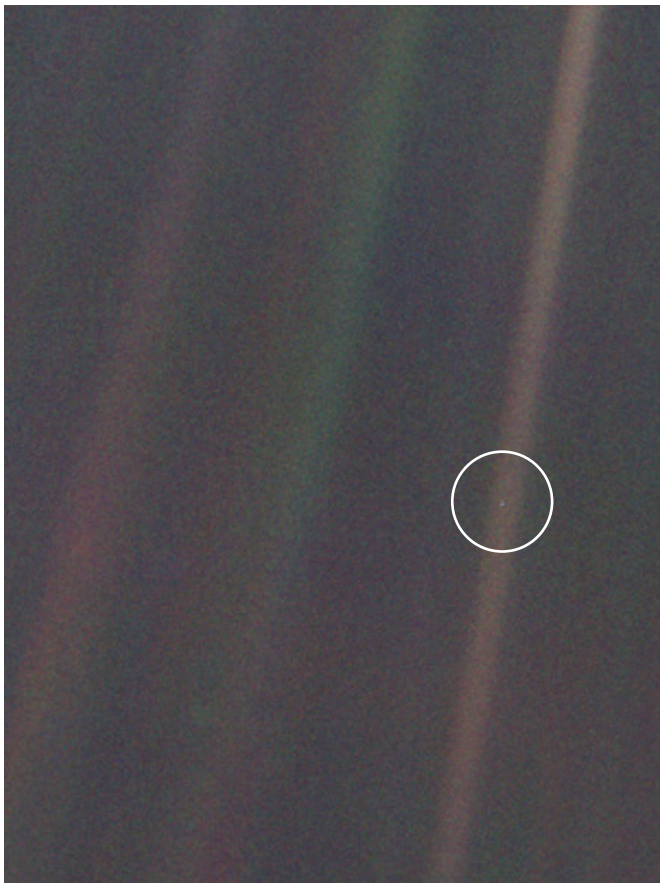
That the Earth orbits the Sun is today settled science. The larger issue, the place of humans in the cosmos, is much contested, indirectly if not directly. The origin stories of some religious systems promote humans as the spiritually superior life form and the Earth as the human domain and spiritual if not physical center of the universe. We may reject the geocentric view of the solar system in favor of heliocentric actuality, but we have not rejected the systems of belief that place humans at the pinnacle of life and center of everything. The geocentric view lives on in spirit.

The order of scientific discovery is crucial to the way we view and interpret phenomena. If Greek and Middle Eastern astronomers,

Earth from Space.

philosophers and religious leaders of 2,500 years ago had knowledge of the universe as we do today, we would doubtless be operating under different religious and philosophical systems. These early ways of thinking reflected the observers' efforts, sometimes quite creative and logical, to explain the world around them. Through time, we have been able to tweak, correct or reverse errors and misconceptions of scientifically testable phenomena. Systems based upon belief, often pre-scientific, may or may not be susceptible to similar adjustment.

A problem of the modern age is when science clashes with ignorance, anti-intellectualism or faith. Fact is, in the ancient world, it did not matter much in practice whether the Earth orbited the Sun or vice versa. Today, it does matter whether climate change is occurring or not, and the degree to which humans play a role in this drama. Decision-making based upon understanding of the scientific method, of replicative testing of hypotheses, versus acting on positions unsupported by scientific conclusion, now has the potential to cause grievous, perhaps fatal, harm to us and to the planet.



The Pale Blue Dot. Voyager 1 photographed Earth from 3.7 billion miles away in 1990, as the spacecraft approached the edge of the solar system. The photo underscores our place in the vastness of the cosmos, and suggests the vulnerability of the planet.

Certainly, we need better science education, in this country and abroad. In the United States, there seems to be a growing consensus that better science education is necessary for our economic future. A scientifically literate populace is also necessary for the great debates upon which the future of the Earth depends. Science education is only part of the solution. We also need better capacity for dialogue and problem-solving. The humanities can play a crucial role in establishing the systems and structures to assist us civilly to confront the crucial issues of our day. Disciplines dedicated to understanding what makes us human, like philosophy, literature, rhetoric, comparative religions, history, archaeology and elements of the social sciences applying philosophical or historical approaches provide ways to bridge gaps between science, public discourse and policy. The humanities offer perspectives and contexts to frame the discussions as we decide our collective future.

When an individual looks out from a mountaintop or flies across the ocean, the world looks almost infinite. It is hard to imagine that we can seriously damage the planet, or if we do, the Earth seems big enough to sustain and recover from our depredations. Now, we can measure the effects of our actions on the planet, calculate consequences, and suggest solutions. We are responsible for our own future. For the first time ever, we can look at the Earth from space. Suddenly, our home looks exposed. From the perspective of Voyager 1, as the spacecraft approached the edge of the solar system, almost four billion miles from Earth, the Pale Blue Dot looks a little lonely, a little fragile, a little more vulnerable. We should use all our considerable resources in the sciences and humanities to save it.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

The Humanities of Origins

Thomas H. Wilson

Domestic dog, *Canis lupis familiaris.*

Peter, a 100+ pound German Shepherd, shares our home. King of the urban jungle, right? Wrong, more love-bucket than fierce fighter. Still, Peter would probably take a dim view of an intruder, especially teamed up with his mate, Haley, another German Shepherd. Normally, Peter sleeps at night on his bed on the floor next to my place in bed. Unless, that is, it storms, the wind blows, it rains, or the house creaks. Then this mighty canid hops on the bed, curls up comfortably next to a convenient human, and seeks protection from whatever evil lurks.

Some courageous, or perhaps just inordinately hungry, ancestor of Peter crossed the line of light thrown by prehistoric campfires from outside in the shadows and cold to inside its light and warmth perhaps 15,000 years ago and began the transition from wolf to the current lineage of domestic dogs. Earlier versions of dogs may appear in archaeological deposits slightly over twice that age. DNA sequencing indicates that the molecular distance between wolves and dogs may be 100,000 years, and that German Shepherds may be a little closer genetically to wolves than other dog lines. Whether the earliest domesticated dogs date from around 33,000 years ago based upon the earliest archaeological evidence, or were more widely domesticated by 15,000 years ago, dogs and humans have linked their fortunes for thousands of years.

Dogs are mammals, and, like the primate lineages that include humans, both Carnivora and Primates experienced success during the adaptive radiation of mammals. A study in the journal *Science* in February 2013 reports that scientists compared 4541anatomical and genetic characters from 86 living and extinct species to posit that the last common ancestor of all placental mammals lived shortly after the end of the Cretaceous Period about 65 million years ago. Within two to three million years later, many of the current mammalian orders were established. Although mammals predated the end of the Cretaceous, and some studies based on molecular data indicate an earlier common ancestor, in either case it seems that the extinction of dinosaurs at the end of the Cretaceous was a necessary precondition for the adaptive radiation of the mammals.

The earliest primate, the order to which the modern prosimians, monkeys, apes and humans belong, may be the fossil *Purgatorius*, a little mouse-like guy who lived about 65 million years ago, with the primate lineage established by about 55-58 million years ago. The earliest members of the Order Carnivora appear about the same time, which includes the canids, or dogs and their ancestors. The first clearly identifiable member of the dog family appeared about 40 million years ago.

Purgatorius unio, from the Late Paleocene of North America, believed to be the earliest primate, pencil drawing, digital coloring, by Nobu Tomura, 2008.

Peter the German Shepherd and I probably shared a common ancestor shortly after the extinction of the dinosaurs. That sounds like, and is, a considerable period of time. But we get a different perspective when we consider our common lineage before our two lines split.

The Earth is 4.5 billion years old. Earliest Earth did not present the conditions necessary for first life. By 3.6 billion years ago, there were single celled life forms (Prokaryotes). By 2.6 billion years ago, complex cells (Eukaryotes) evolved, and multicellular life emerged by 1 billion years ago. The earliest vertebrates evolved about 525 million years ago.

Put another way, from the dawn of simple single celled life on earth 3.6 billion years ago, until Peter's and my last common ancestor about 65 million years ago, we shared a common ancestral lineage for 3,535,000,000 years, or 98% of the time until now. From the time of the earliest vertebrates, Peter and I shared a common lineage for 460,000,000 years, or 88% of the time. Differentiation between species and degree of separation depends a good deal upon your reference points. If your reference point is first life on Earth, dogs and humans look like brothers and sisters; if your perspective is from the earliest vertebrates, we still look like first cousins.

Traditions in the history of thought often hundreds or thousands of years old emphasize the uniqueness of humans and the distinctiveness of *Homo sapiens* from all other life. This rather unbalanced view arises from a number of reasons. One is simply because we are the ones originating the comparisons. The history of the world is full of examples of one group of people thinking it is superior to the others next door. Every society on Earth has explanatory stories about how people and other life forms came to be. Originators of these stories did the best they could to explain the world around them. The notion of the supremacy of humans over all other forms of life is another example, certainly characteristic of western thought. These traditions, mostly pre-scientific, have come down to us before we had firm knowledge of deep time and understanding of the origins and complexity of life.

Archbishop Ussher (AD 1581-1656) famously calculated that God created the Earth on a Sunday in October 4004 BC. To be fair, he was using information most familiar to him, and in AD 1650, 4004 BC sounded like a long time ago. Sometimes one still hears literalists claim the Earth is 6,000 years old. Not until about the 1830s had our geological

40 million years of canid evolution in action.

knowledge advanced sufficiently that scientists suspected that the Earth might be many magnitudes older, and only in the last half century radiometric dating has allowed us to calculate the ages of the Earth with considerable accuracy. Similarly, Darwin published *On the Origin of Species* in 1859 and established the idea of evolution of life through processes of natural selection. After Darwin, biology moved from a descriptive to an explanatory science. There is no going back now: science has established deep time and the evolution of life as firmly as our certainty that the Earth orbits the Sun. These scientific realities exist in parallel to the earlier explanatory models based on pre-scientific precepts.

The zoologist and paleontologist Stephen Jay Gould made the argument that we might consider bacteria the most successful of Earth's life forms. Bacteria are among the simplest and earliest organisms. They exist in multiple habitats. Trillions occupy the human gut, making our lives possible.

Stromatolites are concretions developed around cyanobacteria (blue-green algae), and were a common occurrence from about 3.5 billion years ago. Their photosynthesis probably increased the volume of oxygen on Earth, facilitating the evolution of more complex life. Stromatolites growing in Hamelin Pool Marine Nature Reserve, Shark Bay, Western Australia. Photo by Paul Harrison, 2005.

They exist in earth and water, about as deep as we can drill underground, in exceedingly hot (600+ F) deep sea vent fissures, in a lake a half-mile underground in Antarctica, and in many other contexts. The total biomass of bacteria may exceed that of all plants and animals on Earth. People love to claim that humans are the most successful organisms in the world. Before we crow too loudly, we should wait to see how we fare against bacteria over time.

Dinosaurs arose about 230 million years ago from a group of archosaurs, the dominant tetrapod land vertebrates in the early Triassic. There are two great clades of dinosaurs, saurischian (lizard-hipped) and orinithischian (bird-hipped). The latter includes animals like stegosaurus and triceratops. The former includes sauropods, the massive plant eating beasts with long necks and small heads of the Jurassic; the theropods, the great bipedal carnivores of the Cretaceous, including the tyrannosaurids; and birds. Birds are the only exception to the extinction of the dinosaurs at the end of the Cretaceous, 65 million years ago. That little birdie on the telephone line had a common ancestor with the great theropod dinosaurs of the Cretaceous, like *Tyrannosaurus rex*.

These mighty creatures ruled the Earth for over 150 million years, yet often popular opinion considers them evolutionary failures. If we stretch the definition a little, humans arose about three million years ago. Is anyone betting that the human family will be around another 147 million years, to make us as successful as dinosaurs?

Coelophysis, a late Triassic saurischian predatory dinosaur, about three metres long, common in the Southwest about 216-203 million years ago. Detail of *Triassic Landscape* by Karen Carr.

We might think of our place in nature with a little more humility and a little less hubris. Peter has many skills that humans do not possess. His sense of smell gives him knowledge of the past—what has just happened, even though it might be out of sight, and the future—what is invisible in the trees or around the corner and about to happen. That is one reason why his kind makes such good soldiers and security officers. Bacteria have mammals beaten in number of organisms, the diverse ecosystems that they inhabit, gross biomass, longevity on the planet, and prospects for the future. Non-avian dinosaurs were successful for 29% of total time vertebrates have existed. Humans with their paltry three million years hardly register on the same scale.

When we think about decision-making processes, it is useful to distinguish between systems of belief and systems of knowledge. Systems of belief are carried by cultures, and help members of those groups define their places in their milieu and distinguish them from others. It is perfectly fine to believe as part of your worldview that the Earth resides on the back of a turtle. On the other hand, when making decisions about our common future, it might be a better adaptive strategy to rely on systems of knowledge, such as the fact that the ratio of carbon dioxide to oxygen, or the amount of methane in the atmosphere, matters to our future as a species. It might also help to think of humans not as manufactures of celestial intervention or even as an inevitable result of evolutionary progress, but rather as animals lucky enough to share the Earth with all other life forms, over which we hold extraordinary powers of destruction.

Ardipithecus ramidus, adult female, 3'11" tall, 4.4 million years ago. Middle Awash Valley, Ethiopia. © Julius T. Csotonyi, www.csotonyi.com.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

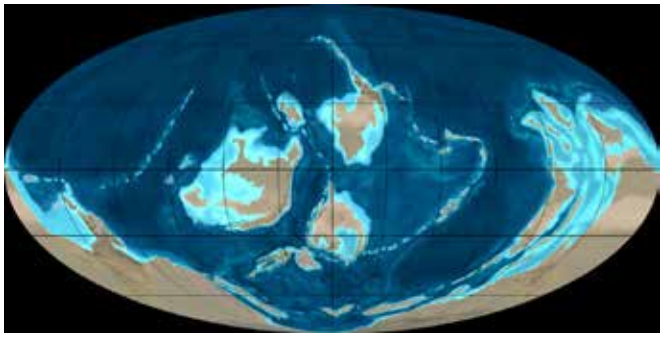
The Sixth Extinction

Thomas H. Wilson

Extinction is a way of life. It is always occurring. Something like 98% of all species that have ever lived are extinct. Scientists estimate that species last for about 1-10 million years before they become extinct, the background or normal extinction rate. Five times in the Earth's history, there have been major spikes in extinction rates, or mass extinctions. There is considerable evidence that we are currently in the midst of a sixth mass extinction, this one mostly caused by us. What can the previous mass extinctions tell us about the causes of mass extinctions, and what may we learn about where we are headed in the current crisis?

The causes of mass extinctions are difficult to gather and interpret because of the vast time scales involved, the difficulties of precise dating so many years ago, finding the geological deposits at the times of the extinctions, counting the fossils involved, and determining causes. For brevity, complex issues of the mass extinctions are necessarily simplified.

Ordovician Extinction (447-443 million years ago)



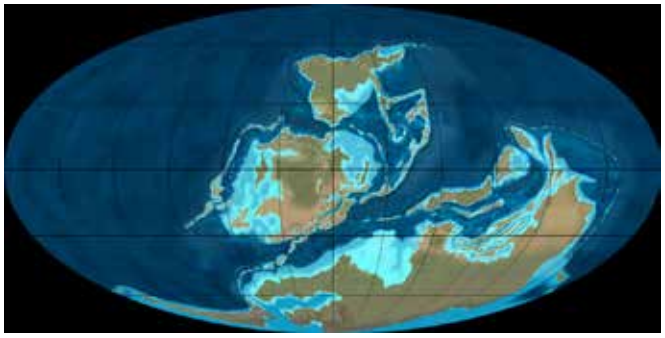
Late Ordovician, 450 Million Years Ago (Ma), Mollewide (oval globe) projection, © Ron Blakey, Northern Arizona University Geology.

Ordovician Fauna, © Fritz Geller-Grimm, National Museum of Natural History, 2004.

Much of the Ordovician Period (485-443 Ma) saw high sea levels and warm temperatures. The continent Gondwana started the period in equatorial waters, but migrated towards the South Pole towards its end. The world at this time had no terrestrial floras or faunas. Multicellular life existed exclusively in the seas. Marine faunas included molluscs such as cephalopods (nautiloids, ammonites, now octopuses and squid), bivalves and gastropods (snails and slugs); corals, bryozoans (aquatic invertebrate filter feeders, mostly colonial), crinoids (sea lilies and feather stars), and graptolites (fossil colonial animals).

Major volcanism in the Late Ordovician increased CO_2 and heated Earth, but CO_2 levels fell again before extinction time. Towards the end of the Ordovician, Gondwana's migration to the South Pole caused widespread glaciation, which cooled the Earth and caused lowered sea levels, reducing marine ecological niches, especially along continental shelves. Hard hit were planktonic forms (animals in the water column that flow with ocean currents), bryozoans, brachiopods, some trilobites and cephalopods. This was the second most devastating extinction in Earth's history, when 49% of genera, and more than 60% of marine invertebrates died. In general, fluctuation of greenhouse gases, changes in sea levels, and climate change were the main causes of the Ordovician extinction.

Devonian Extinction (375-359 million years ago)

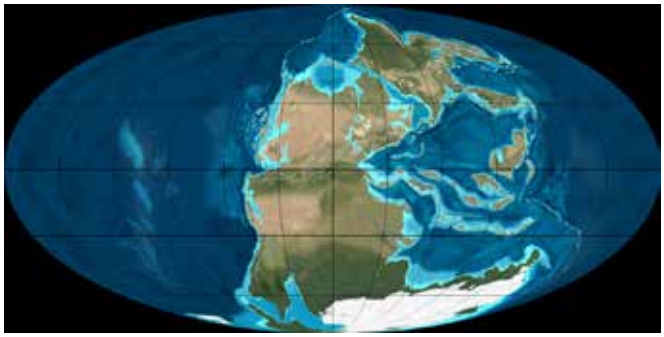


Late Devonian, 370 Ma, © Ron Blakey, NAU.

Devonian Fauna, 370 million years ago. GEO86500_125d, Field Museum of Natural History.

The Devonian Period (419-359 Ma) saw the rise of vascular land plants on the two super continents of Gondwana and Euramerica, the first forests, amphibians and insects on land, the rise of sharks and bony fishes in the seas, reef-building with corals and stromatoporpoids (reef-builders of laminated calcareous skeletons, related to sponges). The causes of the Devonian extinction were possibly similar to the earlier Ordovician events: glaciation and cooling temperatures, and lowered sea levels. In addition, there was depletion of oceanic oxygen levels. The extinctions involved mostly marine faunas: reef-builders, brachiopods, trilobites, conodonts (eel-like creatures), jawless fish and armored fish. There seems to have been little impact on terrestrial floras. There were probably a number of extinction events, with two extinction spikes, one about 375 million years ago and the other at the end of the Devonian. The events caused the extinction of 22% of families, 57% of genera and 75% of species of marine animals, mostly invertebrates.

Permian Extinction (252 million years ago)



Late Permian, 260 Ma, © Ron Blakey, NAU.

Inostrancevia belongs to the group of mammal-like reptiles known as therapsids. Permian Period, c. 255 million years ago, Russia. Arizona Museum of Natural History.

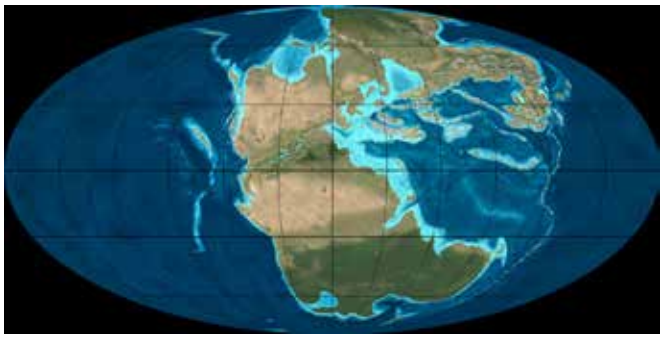
The extinction that closed the Permian Period (299-252 million years ago) is known as the Great Dying. Perhaps 96% of all marine species and 70% of all terrestrial vertebrate species became extinct. The end Permian not only marked the change to the Triassic Period, but also the boundary between the Paleozoic and Mesozoic Eras.
The super continent Pangea had great conifer forests, well stocked with large and complex terrestrial faunas, including amphibians, reptiles and therapsids (mammal-like reptiles). The end of the Permian saw the extinction of about 87% of genera of marine invertebrates, like foraminifera (amoeboid protozoans with calcium carbonate tests, or shells, living in seafloor sediment, or as floaters), corals, reefs, sea anemones, brachiopods, bivalves, gastropods and ammonites, among others.

On land, among terrestrial invertebrates, the end Permian featured the greatest insect die-off ever, the only known insect mass extinction. Continental deposits in South Africa (Karoo) and Russia reveal tremendous diversity of terrestrial vertebrates at the end of the Permian. 36 of 48 (75%) families of tetrapods died out, animals representing great diversity of size and life style, from small insect eaters to large herbivores and carnivores.

What caused the extinction of maybe 90% of life on Earth, over the course of perhaps 500,000 years? It might have been climate change caused by massive volcanism of the Siberian Traps, which emitted up to three million cubic kilometres of lava, releasing CO2 and other emissions, leading to global warming, perhaps exacerbated by release of methane. Oceans were warmer and shallow coastal waters saw a reduction of oxygen.

Life on Earth was slow to recover after the Great Dying. The tetrapod survivor *Lystrosaurus* accounted for the great majority of the post-extinction faunas of the early Triassic, in contrast to the biological and ecological diversity preceding the event. It required perhaps 4-6 million years for ecosystem recovery, and ultimately the extinction of the mammal-like reptiles made way for the rise of dinosaurs.

Triassic Extinction (201 million years ago)



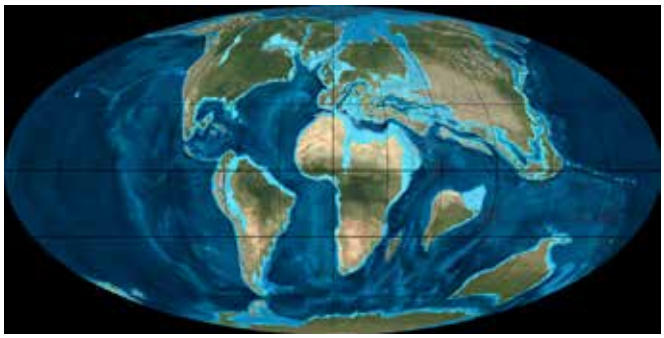
Late Triassic, 220 Ma, © Ron Blakey, NAU.

Postosuchus (left), a carnivore, confronts *Placerias*, a herbivore, in the Late Triassic forest of Arizona, 225 million years ago. Arizona Museum of Natural History.

The Triassic Period lasted for about 50 million years, from 252 to 201 million years. Faunas and floras of the Triassic diversified from those plants and animals that made it through the Permian extinction. In the seas were many kinds of marine reptiles, including ichthyosaurs and plesiosaurs. Archosaurs, the crown group of the clade that ultimately included dinosaurs, birds, pterosaurs (flying reptiles) and crocodiles, were the most common land vertebrates. Other land animals included scorpions, spiders, snakes and millipedes.

Most of the Triassic was hot and dry. Towards the end of the period the supercontinent Pangea broke apart. As a result, over a period of perhaps 40,000 years, from Nova Scotia to Brazil and West Africa there were volcanic eruptions, perhaps extruding two million cubic kilometres of lava, spewing CO_2, sulfur, and methane, leading to greenhouse gas effects and acid rain. This caused the extinction of non-dinosaurian archosaurs, large amphibians, 20% of marine families, half of marine genera, including conodonts and ammonoids, brachiopods, gastropods and marine reptiles. Ultimately, this clearing of terrestrial faunas opened ecological niches for the spread of dinosaurs, and the early lineages of mammals.

Cretaceous Extinction (65 million years ago)



End Cretaceous, 65 Ma, © Ron Blakey, NAU.

Mosasaurs are not closely related to other marine reptiles but are gigantic lizards that returned to the sea from the land. Fragmentary remains have been found in the Cretaceous seas covering northeastern Arizona 100 million years ago. Arizona Museum of Natural History.

The end of the Cretaceous Period (145-65 million years ago) is well known for the extinction of the non-avian dinosaurs. By the end of the Cretaceous, the continents and oceans were taking their positions similar to today. It was also a time of high sea levels, with a seaway separating eastern and western North America. On land, the Cretaceous is significant for the appearance and spread of flowering plants. Dinosaurs were the dominant land animals, and mammals were still relatively small.

An asteroid struck the Earth about 65.5 million years ago, the evidence for which is the Chicxlub impact crater in Yucatan, a worldwide iridium layer at the top of the Cretaceous stratigraphic column, melted basalt droplets and shocked quartz from the impact, and a fern spike. The climate may already have been changing from volcanic activity from the Deccan Traps in India.

Diverse plant and animal species suffered declines and extinction. Life forms affected included foraminifera, colonial corals in warm shallow seas, cephalopods (including ammonoids), echinoderms and bivalves, plesiosaurs (marine reptiles with long necks, thick bodies and flippers) and mosasaurs (apex predator large marine reptiles), insects, mass extinction of plants, 50% of crocodilian families, the last of the flying reptile pterosaurs, and all the non-avian dinosaurs, including giants such as *Tyrannosaurus rex*. Mammalian lineages suffered but came across the extinction event. Birds are the only dinosaurs to survive extinction.

Any time marine or terrestrial plants or animals become extinct, particularly in large numbers, opportunities arise for the evolution and diversification of new forms. After the end of the Cretaceous, which is also the boundary between the Mesozoic and Cenozoic Eras, the opportunity arose for the adaptive radiation of mammals.

The Sixth Extinction

There is evidence that we have already entered Earth's sixth mass extinction. Absent a true cataclysmic event, like the asteroid that struck Earth and ended the Cretaceous, it is somewhat difficult to date the beginning and ending of mass extinction events. A convenient place to set the beginning of the sixth extinction might be the peopling of the Americas, which occurred about the time of the extinction of the great native megafaunas. As this happened about the time of the end of the last Ice Age, there is some debate about whether humans or climate change caused the extinctions. More broadly, there is fairly strong correlation between the arrival of humans

and extinctions in Australia, the Pacific Islands and North America. In the Americas, the lost faunas include: mammoth and mastodon, various kinds of sloths, American lion, dire wolf, camel, tapir, horse and other species.

Other large mammalian faunas are currently threatened. These include polar bears, pandas, lions, leopards, tigers, rhinos and others. It is hard to foresee the survival of our closest primate relatives, the great apes. Many amphibians are now dying off, with a third of all amphibians at risk. 21% of reptiles may be endangered. Bees, which evolved along with the flowering plants in the early Cretaceous, are facing hard times. The Zoological Society of London recently estimated that 20% of the world's invertebrates may be headed for extinction. 12% of birds worldwide are at risk. Coral reefs are greatly threatened, and 21% of all fish species studied globally are at risk for extinction. The rates of extinction now may be higher than any time in the past.

Causes of the previous five mass extinctions include global warming from greenhouse gas effects from CO_2, SO_2, methane and other emissions, from volcanism and rise of sea temperature. Global cooling from continental drift, glaciation and falling sea levels caused ecosystem loss in shallow seas. Anoxia, oxygen deprivation in shallow seas also contributed to catastrophic effects. Asteroid strikes can cause cataclysmic devastation to ecosystems and marine and terrestrial floras and faunas. Some of these issues face us today.

The reasons for the sixth extinction are reasonably well known. Loss of habitat is a major factor. Often, increasing human population stresses habitats in various ways, such as deforestation or agriculture. Invasive exotics choke off native species. Pollutants, such as chemical fertilizers or poisons, ruin land and water environments. Air is polluted. Naturally occurring greenhouse gases contributed to extinction events in Earth's history. Now, human activities, such as burning fossil fuels, are the main contributors to increasing greenhouse gases. Climate change and changes in sea levels and temperatures were major factors in previous extinctions, and we ignore this knowledge at our peril.

We do not know when or how the sixth extinction will end. We do know that this time, we are the cause. The speed of extinction is accelerating, and so far there is little motivation to do anything about it. It is a colossal mistake to believe that humans are immune from extinction processes. Every day that we do nothing about it, we bring that result closer.

The next time you swat that little scorpion, enjoy your victory. Scorpions were among the first animals to inhabit the land, from the Silurian Period, about 430 million years ago. As species, scorpions have a much better likelihood than humans of surviving the sixth extinction.

Thomas H. Wilson is Chair of the Arizona Humanities Council

The Rise and Fall of Complex Cultures

My Humanities

The Rise of Civilization

Thomas H. Wilson

Archaeologists retrieve and study the remains of cultures to understand their rise, development and decline. We can trace human lineages and our relatives millions of years into the past. For vast portions of human history, peoples lived variations of hunting and gathering ways of life. Then, in various places in the world, humans learned to cultivate plants and practice animal husbandry, and the agricultural revolution was born. Agriculture developed independently in diverse areas of the globe: Mesopotamia and the Levant by 11,000 Before Present, China along the Yangtze and Yellow Rivers about 9,000 B.P., the Indus Valley and New Guinea about 7,000 B.P., and in the Americas in central Mexico and northern South America and areas of the Amazon probably before 7,000 B.P.

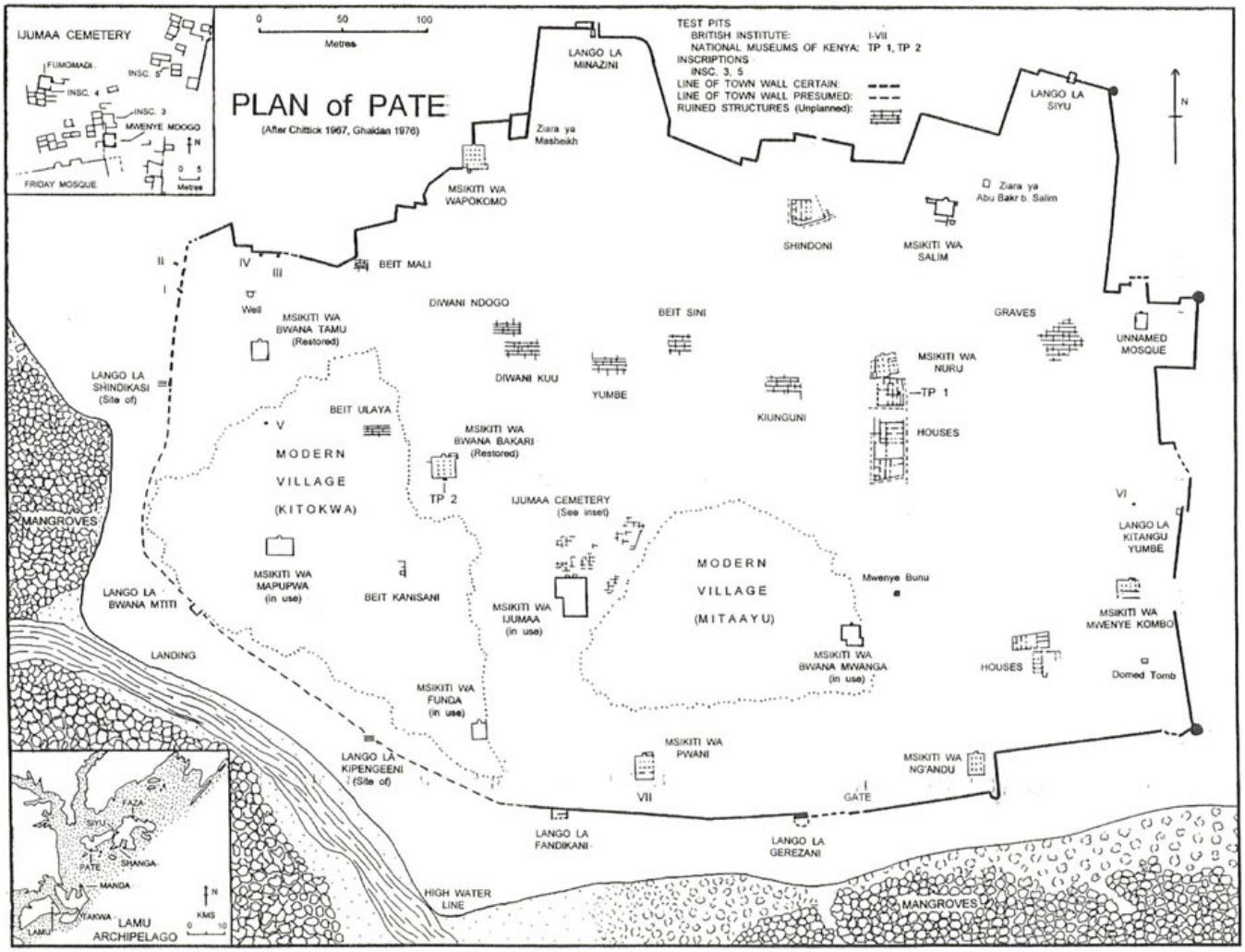
V. Gordon Childe was one of the first scholars to define the characteristics of the rise of civilization. With agriculture came the ability for farmers to produce more than what was necessary to feed just those in the immediate family. Food surpluses allowed for greater population densities and the rise of urbanism. In cities, people freed from the daily search for food could specialize their labor and diversify production. Long-range trade was possible. Public urban architecture became characteristic of cities, including centers of political activity such as palaces or religious activities like temples. Societies developed class structures, and occupational specialization might include political, religious and military leaders and a great variety of traders and artisans. Management of inventories, trade, diplomacy, religion and astronomy led to the invention of writing systems and mathematics.

My experience in investigating the rise of a complex culture came in eastern Africa. The Swahili are a people that today inhabit the littoral of eastern Africa from about Mogadishu in Somalia to northern Mozambique, a distance of about 3,000 kilometres, and offshore islands, such as Pemba and Zanzibar. The Swahili are an Islamic society, speaking an African Bantu language. From their strategic position along the coast, the Swahili were intermediaries between peoples of the African interior and those in the circum-Indian Ocean realm from the Red Sea and Persian Gulf areas to the reaches of the Far East.

How did such a civilization arise, perched as it is between two worlds? How did Iron Age or pastoral Neolithic African peoples become seafarers and how did traders from the Islamic world come to inhabit the coast of eastern Africa? What forces and processes created the Swahili, and when? The site of Pate in the Lamu Archipelago of the north Kenya coast offered the possibility of answering some of these questions. Pate today is a large site of about 70 acres with two contemporary villages within the ruin field of the older remains.

The ruins of Pate, with contemporary village in background.

The site is located adjacent to a harbor on the south side of Pate Island. Within the old town wall are the ruins of mosques, opulent houses, and tombs. Pate is not mentioned in the early Arabic sources, but after the arrival of the Portuguese in 1498, Pate played a robust role in the history of the coast. Pate is one of the few coastal communities that has its own indigenous history, the Pate Chronicle, which exists in several versions that have been difficult to reconcile. The Pate Chronicle begins the history of Pate at A.H. 600/A.D. 1204, a date that was hitherto not confirmed by archaeology.



Neville Chittick of the British Institute in Eastern Africa conducted the first systematic field research at Pate in 1966. He surveyed and mapped the site, and sank seven test trenches. The first four excavations investigated the town wall in northwest Pate. The other three were on the west, east and south sides of the site. The excavations produced some evidence of fourteenth century occupation, but most of the finds were fifteenth century and later. There was, therefore, a disjunction between the archaeological and historical evidence regarding the time of the earliest days of Pate.

Later, the National Museums of Kenya conducted archaeological investigations at Pate. We had recently rediscovered the tombstone of Sultan Muhammad, Fumomadi, of Pate, and retranslated it. We found that the date of his death on the monument was exactly that given in the Pate Chronicle. We also believed that Pate might be considerably older than previously shown.

As part of our work at Pate, we carefully selected the locations for two further text excavations. Unlike the earlier work at the site, where test trenches were located generally close to the peripheries of the site, we wanted to place ours in central locations with deep stratigraphy. We excavated Test Pit 1 to a depth of 4.2 metres in a house in east-central Pate. The excavation revealed a complex stratigraphy of successive structures and associated construction and destruction debris. Ceramics from the basal levels of the excavation indicate a late thirteenth or fourteenth century date, but two sherds from the lowermost levels suggested possible earlier occupation elsewhere at Pate.

Test Pit 2 was in west-central Pate about 275 metres from TP 1, adjacent to the south wall of the Bwana Bakari Mosque. From the surface to almost 2.5 metres deep, the deposits reflected the building, use and deterioration of the mosque, probably between the seventeenth and nineteenth

Msikiti wa Nuru (Mosque of Light) with large house in background, site of Test Pit 1.

Test Pit 1. Jimbi Katana, left, Tom Wilson, right, and Athman Lali Omar, all of the National Museums of Kenya. Katana studied conservation at Rome, and Athman read archaeology at the University of London, Yale University and University of Florida.

centuries. When we broke through the lowest compacted surface associated with construction of the mosque, the nature of the deposit changed abruptly. We encountered few features and no walls or floors in the lowest three metres of deposit. These lower strata yielded a sequence of almost five hundred years of the early history of Pate.

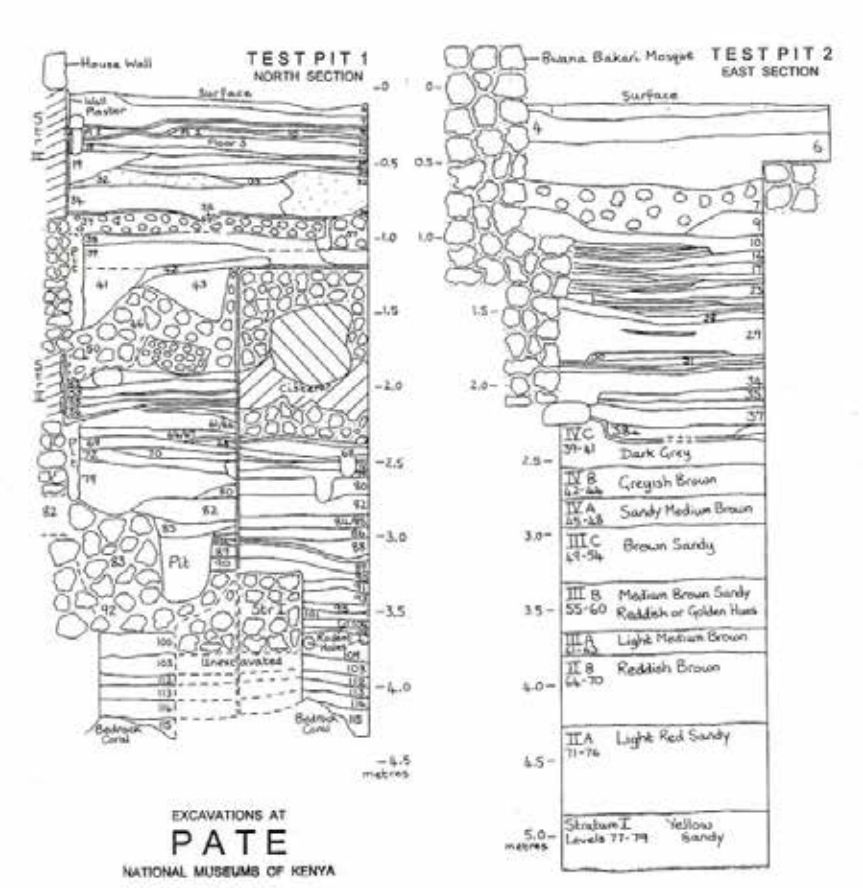
When we broke through the lowermost layer associated with the building of the mosque in perhaps the seventeenth century, we were immediately transported to deposits of the mid-twelfth to the mid-thirteenth centuries. Thereafter, as we progressed downwards, we found a classic ceramic sequence of Islamic *sgraffiato,* Chinese celadons, tin-glazed wares, Far Eastern stonewares and Sasanian-Islamic ceramics, along with a full sequence of local wares, to basal beach deposits dating from the late-eighth or early ninth centuries. In this single stroke, Pate joined Shanga, Manda and Kilwa among the earliest Swahili sites.

What, then, of the rise of Swahili civilization? How do trade items from the Far East and the Islamic world come to be in the earliest deposits at sites along the coast of eastern Africa? We know from the *Periplus of the Erythraean Sea*, a mid-first century document written in Greek, probably in Alexandria, that traders and seafarers

Bwana Bakari Mosque, site of Test Pit 2, at lower left. The people of Pate have subsequently rebuilt and use the mosque.

Test Pit 2, 5.2 metres (17 feet) deep. The dark deposits at a depth of 2.25 metres and lower revealed a sequence of strata from the mid-thirteenth to the late eighth centuries.

Stratigraphic profiles of Test Pits 1 & 2.



were visiting named coastal sites south of the Horn of Africa at that time. We also know that Bantu-speaking Iron Age peoples inhabited areas of Kenya and Tanzania in the first half of the first millennium, and that their pottery bears features resembling some of the earliest local ceramics of the Swahili sites. Other work has emphasized resemblances to pastoral Neolithic ceramics from central Kenya and the Rift Valley.

Whether the earliest inhabitants of Pate came from farming or pastoralist roots, they obtained their main animal protein from fish and turtles and were thus adept at exploiting marine resources of the Indian Ocean. Cattle, goats and chickens only arrived about A.D. 1000, and camels a few centuries later. We did not recover direct evidence of grain agriculture, such as sorghum or millet, or tree crops such as bananas or coconuts, but these were certainly important later in the Swahili diet. From early times, the people participated in industrial activities such as iron smelting, bead grinding and burning coral to make lime. From almost the beginning they were engaged in long distance trade, and perhaps exported ivory, worked iron, cowries and tortoise shell. Other potential exports were skins, mangrove poles and hard woods, agricultural produce, cloth and goods such as coir, ambergris, gum-copal, beeswax, rhino horn and other products. From these modest and diversified beginnings, Pate grew into one of the largest Swahili sites on the coast of eastern Africa and participated in the development of an urbane, complex culture that persists to this day.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

The Find

Thomas H. Wilson

A Frenchman, in an apparent fit of bonhomie, once said to Lord Palmerston, British Foreign Secretary and Prime Minister in the mid-19th Century, "Were I not a Frenchman, I should wish to be an Englishman." He thought he was paying a compliment. Palmerston coolly replied, "Were I not an Englishman, I too should wish to be an Englishman." The story reveals something of Palmerston but also perhaps something of British attitudes in the imperial period. Archaeologists often hear similar comments: "Oh, were I not a _____ (brain surgeon, lawyer, plumber), I always wanted to be an archaeologist." I stifle the urge to give a Palmerstonian response.

The inevitable question that invariably follows is: "What is your most exciting find?" Your interlocutor expects you to recount discovering golden pharaohs or chests of doubloons, guarded by nests of cobras. In the field I have encountered lions, buffalo, elephants, puff adders, green mambas, cobras and bandits, but never guarding treasure. The real reasons archaeologists conduct excavations is to use material culture to discover the behaviors of past peoples. All the objects in the excavation and their contexts when fully analyzed give meaning to the study and answer the hypotheses of the research. From sad experience, the archaeologist knows this real answer will leave the expectant interviewer crestfallen, his or her dreams of a second career as Indiana Jones dashed on the rocks of reality. Having experienced this a few times, the archaeologist accordingly revises the answer better to meet the expectations of the questioner. Here is my find.

Richard Leakey appointed me coast archaeologist for the National Museums of Kenya. The subject area was the Swahili coast, which stretches about 3000 kilometres from Mogadishu in Somalia to southern Mozambique, including the adjacent islands and parts of northern Madagascar. The Swahili are an Islamic people, speaking a Bantu language. Swahili culture goes back at least twelve centuries and still flourishes. Stationed on the north Kenya coast at Lamu Island, now a World Heritage Site, I conducted archaeological survey of the entire Kenya coast from the Somalia frontier to the Tanzania border. I investigated the archaeological remains of the earlier manifestations of Swahili civilization.

A typical Swahili site might have one or more ruined mosques, sometimes with complex floor plans and highly decorated elements, a number of ruined houses, and perhaps some monumental tombs. Construction of the more substantial structures was of coral rag masonry set in lime and sand mortar. The homes of people of more modest means characteristically were built of mud and thatch and located on the peripheries of settlements. Hundreds of Swahili sites line the Indian Ocean coast of Eastern Africa. Artifacts from the excavations come from the African interior, the circum-Indian Ocean area, the Far East, and even Europe after 1498.

Inscriptions on mosques and tombstones written in Arabic or Swahili in Arabic script attest to a degree of literacy in the past. Some of the larger communities, such as Kilwa in southern Tanzania or Lamu and Pate in the Lamu Archipelago had their own chronicles, or local histories. Various persons recorded several versions of the Pate Chronicle, the interpretation of which has caused historians no end of grief. The Pate Chronicle is esentially a list of the sultans of Pate and other leaders of the community, and accounts of major events of their reigns, but as sometimes happens when oral history is written, repetition of genealogies can occur. The problem is compounded with common Muslim names, such as Abu Bakr or Muhammad.

In 1913 a British colonial officer, Captain Stigand, in his book *The Land of Zinj*, recorded at Pate the tombstone of a Sultan Muhammad, also known as Fumomadi in the Pate Chronicle. The inscription listed the deceased, his father and grandfather, all sultans of Pate. Stigand read the date as A.H.

(years from the Hegira) 1024, or A.D. 1616. These three sultans figure prominently in the Pate Chronicle. The problem is that the date in the Pate Chronicle for the death of Sultan Muhammad is much later, confounding historical interpretation. Is a tombstone a more accurate source than a written history? Did Stigand record and interpret the inscription correctly? Does this inconsistency cast doubt on the reliability of the Pate Chronicle? The tombstone of Sultan Muhammad was probably attached to its tomb at Pate when Captain Stigand read the inscription in 1911. Thereafter, it disappeared and was unavailable for archaeologists and historians to verify the reading.

The tombstone of Sultan Muhammad was lost to history, until we found it in the District Commissioner's office at Lamu in 1980. We were able to determine that one Maawaiya bin Muhammad brought the carving from Pate to Lamu sometime before his death in 1928, and that it remained with the family until, after negotiations, they donated it to the Lamu Museum in 1981. It is a small monument of *porites* coral, with the background cut away to leave the script raised. The discovery allowed us to study the monument, retranslate the inscription and correct the reading of the date. The superscript across the top is the *basmalah*, or invocation to Allah, followed by the five registers of the geneology and dates.

There is no God but God, Muhammad is the Messenger of God; God bless Him and grant him peace

In the year one thousand two hundred twenty-four of the Hegira of the Prophet Muhammad, God bless Him

This is the grave of Sultan Muhammad bin Sultan

Abu Bakr bin Sultan Bwana Mkuu

Al-Nabahani, al-Batawi, forgive him and have mercy on him

His death was Wednesday, 22 Jumada al-Ukhra

Upon examination of the inscription, readers will immediately spot the mistake Captain Stigand made in deciphering the first line below the *basmalah*. The date is written out and not expressed numerically. Stigand read across the top of the line, "one thousand twenty-four," but missed the subscript of the interlacing Arabic, "two hundred." Hence, you will clearly recognize that Sultan Muhammad, Fumomadi, died on A.H. 1224 and not 1024, or August 4, 1809, which is the exact date recorded in the Pate Chronicle.

There is much of interest in this inscription. Sultan Fumomadi's grandfather's name is Bwana Mkuu, a title or honorific that in Swahili means "great man." *Bwana* means mister or sir, perhaps worthy person or dignitary, and the term connotes respect. Here, *bwana* is modified by *mkuu*, which means great and implies authority or preeminence. Sultan Bwana Mkuu was a prominent person indeed. Al-Nabahani identifies Bwana Mkuu as a member of the powerful Pate family of that name. Some have suggested that al-Batawi means "person of Pate," but this is supposition.

So when someone tells me that he or she always wanted to be an archaeologist, and then asks about my favorite find, I tell the story of the tombstone of Sultan Fumomadi. It is a work of art, a treasure lost and found, the key to an historical mystery, a challenge of translation and interpretation, a biographical document, and a memorial to three men important in the northern Swahili world. The humanities just don't get any better

Tombstone of Sultan Fumomadi of Pate. Scale in centimetres.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Cultural Collapse

Thomas H. Wilson

Cultures rise and fall. The collapse of civilization is as captivating as its rise. Where are the ancient Egyptians, Assyrians, Romans and Greeks? What happened to the great caliphates and the ancient civilizations of Peru? Historians, archaeologists and other scholars study the decline and fall of civilizations as avidly as their rise. Are there circumstances and pressures shared by civilizations in decline? If so, how and to what extent are they relevant to us today? Does study of the collapse of civilizations suggest ways that we might avoid it? Do we ignore the reasons of collapse at our peril?

I have worked in three areas where abandonment of sites and regions or full cultural collapse occurred: the ancestral pueblo and Hohokam areas of the American Southwest, the ancient Maya of Mexico and Central America, and the Swahili of the coast of eastern Africa. Each of these sheds light on the causes and mechanisms of collapse and perhaps provides clues to avoid a similar fate.

Pueblo Bonito, Chaco Culture National Historic Park, San Juan Basin, northwestern New Mexico. Intense drought beginning about 1130 on the Colorado Plateau caused construction at Chaco Canyon to cease and depopulation by 1180.

Prehistoric Southwest

My earliest work as an archaeologist was in the ancestral pueblo areas of the American Southwest. Puebloan peoples today inhabit the Hopi mesas in Arizona, and the Zuni area and the Rio Grande Valley in New Mexico. Previously, peoples in the ancestral puebloan traditions lived in the Four Corners region of the Colorado Plateau and adjacent areas, such as at Mesa Verde and Chaco Canyon. Chaco Canyon suffered drought beginning in 1130 and its inhabitants left by about 1200. Severe drought visited the San Juan and Little Colorado River drainages 1276-1299. The puebloan peoples abandoned Mesa Verde and hundreds of other sites, and the region was largely uninhabited by 1300. In the Sonoran Desert areas of Arizona and along the Salt and middle Gila Rivers, the Hohokam civilization, based upon major irrigation networks, flourished contemporaneously with the prehistoric pueblos. The Hohokam experienced great population growth between about 1100 and 1300, which made use of all available water and stressed their irrigation system. Between about 1400-1450 the Hohokam ceased canal building and abandoned their great sites such as Pueblo Grande, Mesa Grande, Casa Grande and many more.

What happened? Short-term severe climate fluctuation was a factor as the dates suggest, but the problems the pueblo and Hohokam peoples experienced were much more complex than single factor explanations. Archaeologists cite competition for or depletion of resources, failure of water control systems, warfare, stressed social systems, population aggregation, interrupted trade networks, disease, and other factors to explain the abandonment of these prehistoric cultural areas.

Keet Seel, Navajo National Monument, northeastern Arizona. Keet Seel was inhabited about 1250, construction ceased about 1286, and the cliff dwelling was abandoned shortly thereafter.

Temple I and the Central Acropolis from the North Acropolis at Tikal. The pyramid is the funerary monument to Jasaw Chan K'awil, who was buried in 734. The final monumental inscription at Tikal was 10.2.0.0.0, A.D. 869.

Ancient Maya

Ancient Maya civilization arose in northern Guatemala, southern Mexico and western Honduras beginning around 1500 BCE. In the beginning, these were small farming communities raising maize, beans and squash and collecting from wild animal and plant communities. Well before A.D. 300, the Maya were developing the elements that would define ancient Maya civilization: monumental architecture, dated inscriptions with historical information carved on stele, and polychrome ceramic traditions. Maya leaders or "kings" arose from prominent lineages and reinforced their authority through ritual and arms. The inscriptions tell us that intercity warfare and conquest were characteristic of ancient Maya society. For over 600 years, from 300-900, Classic Maya civilization flourished at urban centers such as Tikal and Uaxactún in the Guatemalan Peten lowlands, at Altar de Sacrificios and Seibal on the Pasión River, at Yaxchilán and Piedras Negras on the Usumacinta, at Palenque in the west, at Copan and Quiriguá in the southeast and at hundreds of other sites.

Temple of the Inscriptions at Palenque, Chiapas, the funerary building of King Pacal, who died in 683. Carving monumental inscriptions at Palenque ceased a century later and there was no new elite construction after 800.

Then, something happened to extinguish ancient Maya civilization. The cessation of erecting dated stele poignantly tells the story. From west to east the cities fell. The last dated inscription at Palenque was at 9.17.13.0.7 (A.D. 783), at Piedras Negras at 9.18.5.0.0 (795), and at Yaxchilán at 9.19.0.0.0 (810). At Copan in the southeast, carving monumental inscriptions ceased at 9.19.11.14.5 (822). In the central Maya area, dated inscriptions ended at great Tikal at 10.2.0.0.0 (869), and at Uaxactún at 10.3.0.0.0 (889). The inscriptions record a geographical implosion of Classic Maya culture.

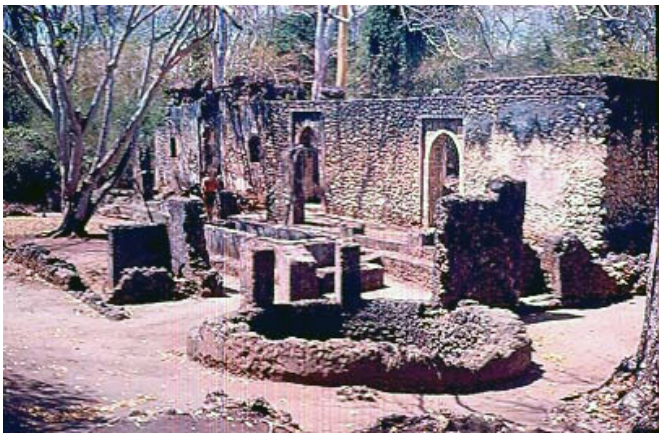
Scholars have investigated for decades what happened to the ancient Maya. In the western areas, fine paste ceramics replaced Classic Maya polychromes, and at Seibal the late sculptures depict non-Maya peoples and elements (790-830). If this does not suggest invasion, it at least indicates significant cultural change on the western peripheries and up the rivers of the Maya heartland. After considerable population increase in the Late Classic, significant population decline accompanied the collapse. Overuse of resources, such as deforestation, undoubtedly strained sustainability. Drought, such as occurred in the 3rd and 9th centuries, might have played a part. There may have been trade disruption, and over time internecine warfare might have led to social disruption. As in the Anasazi area, such stresses and strains might have led the general population to question the efficacy of ritual and leadership, and undercut popular support for social and political structures. Whatever the causes of the Maya collapse, the effects were catastrophic.

Swahili

In 1497, Vasco da Gama rounded the Cape of Good Hope and arrived on the coast of eastern Africa in early 1498. There he found a thriving Swahili culture, then 700 years old, from northern Mozambique to southern Somalia. Thus began a colonial power struggle in the western Indian Ocean that disrupted traditional Swahili social, cultural and trading structures. Swahili society did not collapse, but there was major impact all along the coast. Scores of sites, like Kilwa in southern Tanzania and Gedi on the central Kenya coast, were abandoned or greatly reduced in influence. Later, there was Omani presence in eastern Africa, and then the European powers divided the areas into

Portuguese, German, British and Italian colonies. Little wonder there were significant transformations of Swahili society.

There are indications that other factors operated in the abandonment of some Swahili communities. Many of the wells in the northern Swahili world are now salty, suggesting that possible overuse led to contamination of the fresh water by nearby seawater. Neighboring peoples, such as the Orma and Somali, were sometimes hostile to the Swahili and caused relocation. Swahili communities themselves were not always friendly towards each other, and the colonial powers sometimes allied themselves with one community against another. Swahili culture is strong and thriving in many areas today. In the last 500 years the Swahili have weathered many challenges.



The Great Mosque at Gedi National Monument, central Kenya coast. Gedi flourished from the early 13th through the 16th centuries and was then abandoned.

Collapse

Jared Diamond, in his book *Collapse: How Societies Choose to Fail or Succeed* (2005), studied the fall of cultures from different places and times throughout the world. Based upon his cross-cultural study, Diamond identified five causes, any one or all of which might contribute to cultural collapse: environmental change (such as deforestation, soil and water problems, overuse of resources), climate change, hostile neighbors, disrupted trade, and ineffective societal response to problems. Diamond's studies make clear that collapse is not confined only to preindustrial societies. Looking forward, Diamond identifies a number of significant problems facing us: destruction of natural habitats (forests, wetlands, coral reefs); over exploitation of fisheries; biodiversity loss, and soil erosion and damage. Energy, water and the photosynthetic ceiling are existing resources that can be depleted, leaving not enough for demand. Toxic chemicals, invasive species and global warming threaten our ability to adapt. Population increase and the impact of many more people exacerbate all the other areas. Bad outcomes include war, genocide, starvation and epidemics.

Diamond makes the point that whatever challenges societies face, collapse is not inevitable. Rather, peoples usually have choices when facing their problems, and how they address their challenges determines their success or failures. We confront very serious challenges right now. Some, like climate change, threaten our very survival. Bringing to bear the perspectives of the humanities will help identify our problems and assist us to implement ways to address them successfully.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Should We Fear 13.0.0.0.0?

Thomas H. Wilson

For the first time in the 13.75 billion-year history of the universe; for the first time in the 4.54 billion-year existence of the earth; and for the first time in the 5,125 years of the ancient Maya calendar, the Maya Long Count will complete a major cycle on December 21, 2012. Doomsday prognosticators predict the cataclysmic end of the world. Where did this idea come from? Should we fear this event?

Maya Origins: The Popul Vuh

The North Acropolis, Tikal. Early Classic, AD 300-600.

All cultures, our own included, have origin stories. For those in the Christian tradition, the Genesis account explains how we got here: "In the beginning God created the heavens and the earth…." For the ancient Maya, the document that perhaps best explains Maya origins is the Popul Vuh, the sacred book of the Quiché Maya, who have lived for centuries in the western highlands of Guatemala. The Popul Vuh was copied in the mid-sixteenth century in the Quiché Maya language in Spanish script. In the beginning, the manuscript relates, "All is silent and calm. Hushed and empty is the womb of the sky" (from the translation by Allen J. Christenson, 2007).

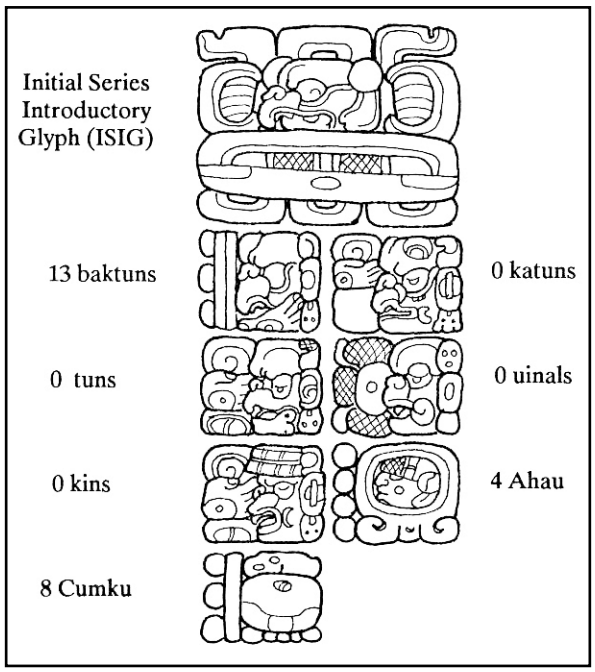
After the creation of the earth, the mountains and the valleys, there were four worldly realms. The gods first created the animals, but because they were unable to worship the divinities they were relegated to the wilds and made to serve. Next the divine couple made mud people, but these lacked substance and fell apart. The third creation was effigies of carved wood. Alas, the effigies, which looked just like people, nevertheless "still did not possess their hearts nor their minds." They did not remember their makers: "They walked without purpose." The effigies were destroyed by flood. Finally, after many tests, sacrifice and resurrection, the defeat of the lords of the underworld and the triumph of good over evil, the hero twins prevail and the current world of humans is established.

Maya Origins: The Scientific Perspective

Modern science often complements or contradicts such origin stories, or at least offers different perspectives. Archaeologists study the material remains of previous cultures to deduce past ways of life, and use scientific methods to date the subjects of study.

Tikal Temple I, funerary monument of king who ruled AD 682-734.

In regard to Maya origins, the archaeological evidence indicates that the first hunters and gatherers arrived in the Maya area of Guatemala, the Yucatán Peninsula and Chiapas in Mexico, and western Honduras about eleven thousand years ago. After about 2000 BC, small farming communities arose in the area, the farmers basing settled life on the Mesoamerican trilogy of maize, beans and squash. To the northwest, in the Gulf Coast lowlands of Veracruz and Tabasco, Mesoamerica's first civilization, the Olmec, rose and fell (c. 1500-600 BC) and imprinted its influence on all subsequent high cultures in Mexico and Central America. By the Late Preclassic (400 BC-AD 100) in the Maya area, city states arose with many of the characteristics that later defined Classic Maya civilization (AD 300-900).



13.0.0.0.0 4 Ahau 8 Cumku, from Quiriguá Stela C, referring to the zero day of August 11, 3114 BC.

The Maya Long Count

13.0.0.0.0 is a date in the Maya Long Count, the end of a great cycle of time. It corresponds to Friday, December 21, 2012 of the current era in the Western way of counting time. Each of the numbers in the sequence represents a Maya concept of time. The last number on the right is the count of kin, or days. In ascending order, the registers record the following spans of time:

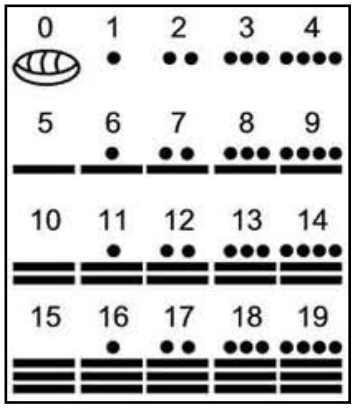
20 *kins* = 1 uninal (20 days)
18 *uninals* = 1 tun (360 days)
20 *tuns* = 1 katun (7,200 days, c. 19.7 years)
20 *katuns* = 1 baktun (144,000 days, 394.25 years)

The date 13.0.0.0.0 therefore records 13 completed cycles of 144,000 days, or 1,872,000 days since the beginning of the Maya Long Count, or about 5,125 years since the beginning of Maya time (0.0.0.0.0, or the previous period ending 13.0.0.0.0) on August 11, 3114 BC.

The Maya were accomplished mathematicians and astronomers, but it is unlikely that any Maya were around in a form that we would recognize in 3114 BC. The earliest Long Count dates of which we know occur on the peripheries of the Maya homeland, in the Olmec area to the northwest and in highland Guatemala. These early dates fall between 36 BC to AD 156, or 7.16.3.2.13 to 8.5.16.9.7 in the Long Count. The earliest clearly Maya Long Count date is 8.12.14.8.15 (AD 292) from Stela 29 at Tikal, Guatemala. It appears that functional application of the Long Count began in the 7th baktun, sometime in the second half of the first millennium BC. The much earlier zero date, the equivalent of 3114 BC, perhaps referred to something in Maya history or mythology.

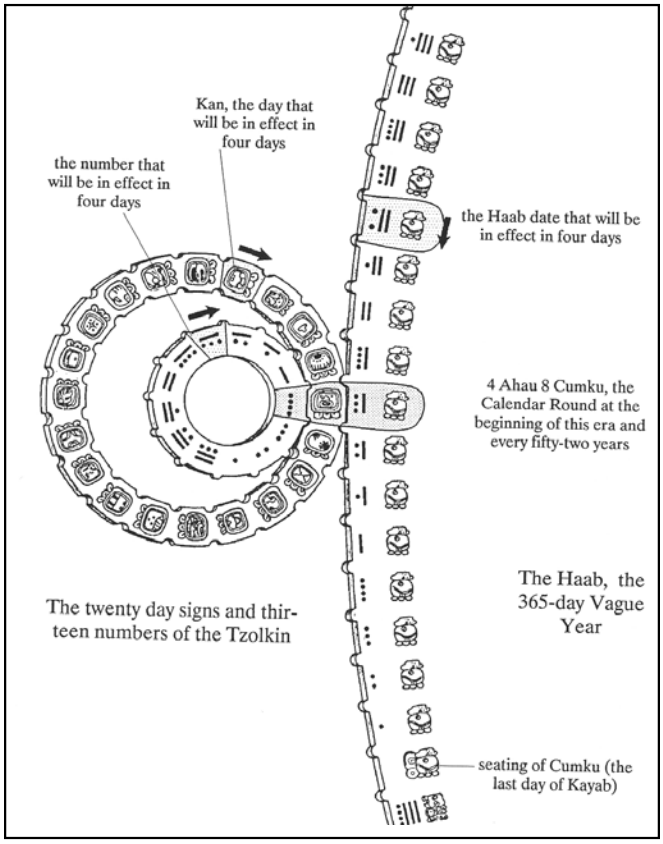
Maya Positional Mathematics

The Maya developed a positional, vigesimal numeration system. The Maya could write any number using only three symbols. A dot stands for one and two dots for two, until the count reaches five, when the symbol becomes a bar. Twelve, therefore, is two bars and two dots. The third symbol, somewhat resembling a shell, represented



Bar and Dot Numbers 1-19, with sign for zero. From *The Ancient Maya* by Sylvanus Morley and George Brainerd, 1956.

nullity or zero. Independently discovering the concept and notation of zero is an intellectual accomplishment of considerable significance. Ancient Maya mathematics were vertically positional. A dot in the lowest position is one, but one position up the dot represents 20. Similarly, a bar in the lowest position is five, but one step up it is 100 (5 x 20). Glyphs may also represent numbers up to 20. This system allowed the Maya to conduct mathematical processes, calculate, write dates, record astronomical observations, and engage in other analytical functions.



The Calendar Round, from *A Forest of Kings*, by Linda Schele and David Freidel, after National Geographic December 1975.

The Calendar Round

The ancient Maya developed intercalating systems of reckoning time. One system consisted of the continuing intersection of twenty named days with 13 numbers to create a 260 day cycle, called the *Tzolkin* calendar or Sacred Round. 4 Ahau is such a numbered, named day. Simultaneously, the Maya calculated a 365 day vague year, consisting of 18 months of 20 days (360 days) and five Uayeb days, to create a cycle approximating a solar year. 8 Cumku is an example of a Haab date, which is what the vague year is called. When the Sacred Round and the Haab year intersect at the date 4 Ahau 8 Cumku, the two systems engaging each other will not return to a 4 Ahau 8 Cumku until 18,980 days or 52 years have passed, the famous Mesoamerican Calendar Round.

The Maya inhabited a world of gods and spirits, highly interwoven with everyday life. Plant and animal life were imbued with spirits, and some, like the jaguar, were worshipped. So it was with time. Each day and date had religious or astrological meaning. Each also had a position in the lunar cycle, and each day was governed by a Lord of the Night. To propitiate the gods required not only worship but ritual, and often sacrifice. Sometimes this was at the community level, when leaders or priests might sacrifice captives taken in war from neighboring communities. Leaders and priests would also perform painful bloodletting rituals on themselves for the gods and for the good of the community. The very passage of time for the Maya brought new religious associations, responsibilities, and auguries.

Lintel 24, Yaxchilán. The ruler, Shield Jaguar, holds a torch over his consort, Lady Xoc, who performs bloodletting ritual, pulling the barbed cord through her tongue, on 9.13.17.15.12 5 Eb 15 Moc, October 28, 709.

The Katun Prophecies of the Books of Chilam Balam

The end of Classic Maya civilization is traditionally tied to the end of erecting dated stele in the southern Maya lowlands. This terminal date was 10.3.0.0.0, AD 889, when the practice ceased at Uaxactún and other sites in the central Peten. Following the collapse of the Classic Maya in the south, a vigorous new civilization arose around the site of Chichén Itzá in Yucatan, lasting until around 1200. Meanwhile, the local Maya lost use of the Long Count, but used abbreviated calendrical forms. One aspect of this was the Katun Count, which kept track of the time periods of just under 20 years each. The numbered katuns descended in this way: Katun 13 Ahau, 11 Ahau, 9, 7, and so on until the countdown started over. These are recorded in the Books of Chilam Balam (sometimes translated as Jaguar Soothsayer). The books present both chronicle, semi-historical narratives linked to the katun counts, and prophesy based on the historical information.

We are in Katun 4 Ahau, which will end on December 21. From the chronicles, "4 Ahau was the katun when their souls cried out! . . . There is mourning for water; there is mourning for bread. . . . Blood-vomit (pestilence?) is the charge of the katun." That doesn't sound too good. It is a time best left behind. To end on a happier note, in Katun 4 Ahau "The quetzal shall come, the green bird shall come." Perhaps a little relief is at hand. If we survive December 21, maybe Katun 2 Ahau will be kinder.

The Basis of Doomsday Prophesy

Two lines of thought seem to underlie the doomsday prophesies surrounding 13.0.0.0.0. The first is inherent in the Long Count itself. The completion of thirteen baktuns is a considerable milestone, but is it the end of time? Just as in our calendric system, the Maya too could project any date into the past or future that they wished. They did it only a handful of times, but such dates do occur. Also, the Maya mathematical system is vigesimal, base twenty, and an argument can be made that the end of time might be 20.0.0.0.0 instead of 13.0.0.0.0. That would stave off doomsday until the Ides of October, 4772. Whew!

Dresden Codex, page 74. Water flows from the mouth of Itzamná, the great saurian deity, with sky signs on his body. The goddess Ix Chel pours liquid out of a jar, and God L squats with darts.

The second suggestion of destruction arises from the Dresden Codex. At the time of the conquest, the Maya possessed many books written in glyphic texts painted in polychrome on a lime wash over a flattened and cured bark paper. The Spanish priests destroyed untold numbers of these books, one of the greatest acts of wanton intellectual destruction by the intolerant ever enacted. As Bishop Landa wrote of the action in 1562, "we burned them all, which they regretted to an amazing degree, and which caused them much affliction." Only three, perhaps four, well-authenticated Maya codices survive. Of these, the Dresden Codex is of paramount importance. It contains information on lunar and Venus cycles, eclipses, almanacs, astrology and ritual. Among these is page 74, which shows the great saurian god Itzamná (Itzam Na, Iguana House) flooding the earth, while God L holds darts. The idea of the final destruction of the world by water occurs in several Mesoamerican traditions. Itzamná, however, was also a giver of rain, necessary for life and sustenance. Illustrating Itzamná with water could be positive or negative.

Michael Coe, in his *Breaking the Maya Code* (1992:276), quotes the Book of Chilam Balam of Tizimin (Itzam Cab Ain is a terrestrial aspect of Itzamná):

> Then occurs
> The great flooding of the Earth
> Then arises
> The great Itzam Cab Ain.
> The ending of the word,
> The fold of the Katun:
> That is a flood
> Which will be the ending of
> the word of the Katun.

Should we fear 13.0.0.0.0?

Clearly, the Maya Long Count, and indeed the full Maya calendar, can be extended from now on, and it is somewhat unclear whether the Maya themselves thought the world would end or the calendar would simply keep going or perhaps tick over to zero again. Whatever happens the next day, reaching the milestone 13.0.0.0.0 would be a major event for the ancient Maya.

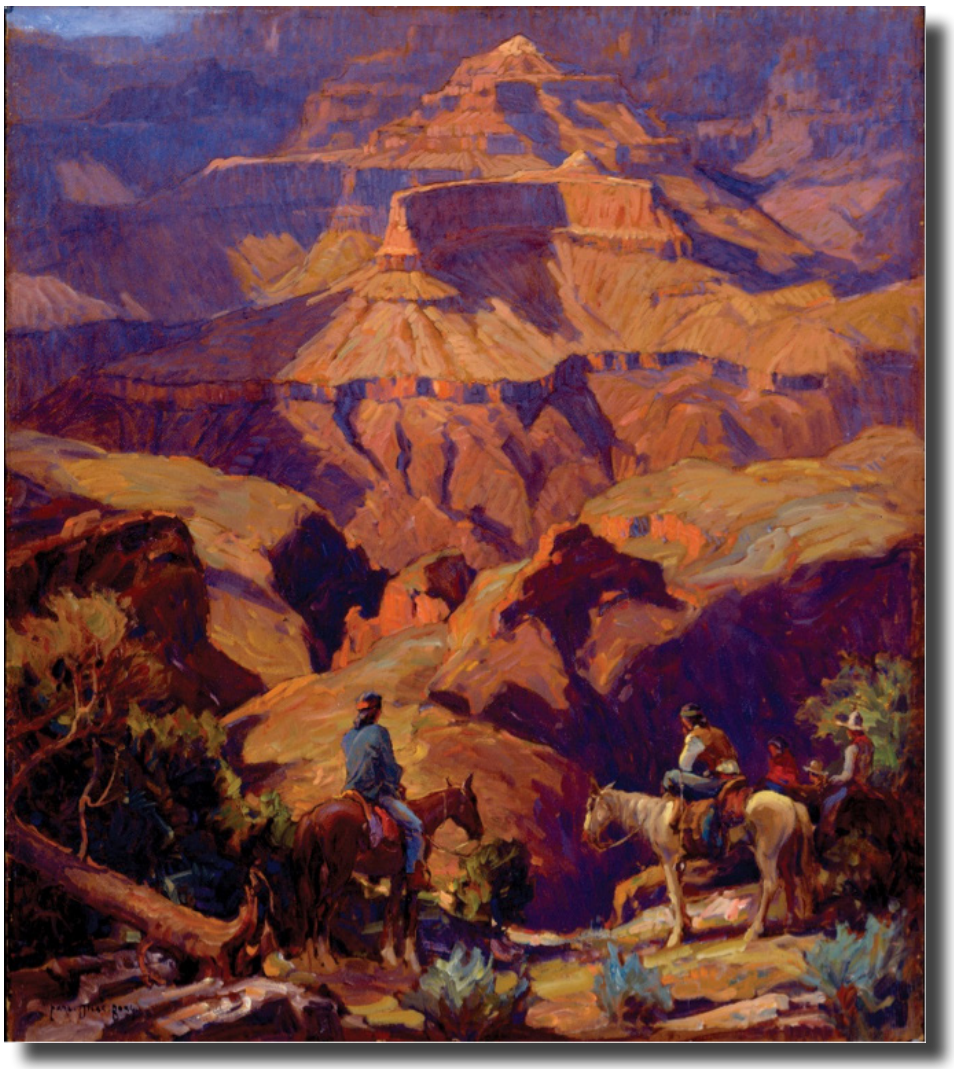
As far as we know, the earth has rotated and the sun has "come up" every day in the 4.5 billion years of the earth's existence. Experience suggests the earth will still be revolving on December 22, 2012, or 13.0.0.0.1 5 Imix 9 Cumku. Although human-caused climate change is rapidly causing the glaciers to melt and sea levels to rise, worldwide floods will not occur by December 2012. By happenstance or divine guidance, maybe the ancient Maya were onto something. Even if the world as we know it survives December 21, nevertheless humankind now faces substantial challenges that we ignore at our peril.

We have a few months to prepare for 13.0.0.0.0. As it happens, December 21 is also the winter solstice, which can only compound the angst. Assembling friends for a nice social event to discuss the end of the world might be a stimulating way to mark the event. Perhaps hard hats or water wings are in order, just in case. Personally, I do not plan to cash out my retirement funds and indulge all my whims before December 21. To each her own. I know of no serious scientist who believes a whit in the doomsday scenario. It irritates most of them. My thanks to the lunatic fringe, who gave me a subject for this essay.

The larger message is the great loss of the magnificent belief systems of the ancient Maya. We can study, understand and appreciate these ancient worlds, but we cannot inhabit them. No reconstruction brings them back. Perhaps an essence of the humanities, indeed a characteristic of being human, is not only the capacity but seemingly the need to understand the thoughts and ways of others. We make ourselves better for it.

Thomas H. Wilson is Chair of the Arizona Humanities Council
(Born 12.16.14.7.15 7 Men 18 Pop, Governed by the Second Lord of the Night)

Art and Literature



My Humanities

This I Did

Thomas H. Wilson

In 480 BC, the Persians under Xerxes invaded Greece. A small Greek army assembled at Thermopylae to oppose the Persian hordes. Plutarch records that Xerxes wrote to Leonidas, King of Sparta and leader of the Greek forces: "Lay down your arms," to which Leonidas famously replied, "Come and take them." Trying another tact, the Persian emissary to the Greeks threatened, "Our forces are so numerous, our arrows will darken the skies." In reply, Leonidas' general remarked, "Then we shall fight in the shade." The Spartans died to a man at Thermopylae. Herodotus records Simonides' commemorative epigram, inscribed at the site in ancient times:

"Go tell the Spartans, thou who passeth by,
That here, obedient to their laws, we lie."

Why do such stories so captivate us? There was high drama and a lot at stake at Thermopylae, for Leonidas personally, for the Greek army particularly, and for Greek civilization in general. Leonidas honored his commitment to stand firm, and he and his men died to protect their homeland. We know elements of the story from Plutarch (AD c. 46-120), who was one of the world's first biographers. His view that "The world of man is best captured through the lives of the men who created history" is perhaps the first expression of great man historiography. Also, Plutarch's emphasis on the moral aspects of his subjects more than biographical facts is certainly an important aspect in the history of biography.

Leonidas at Thermopylae by Jacque-Louis David, 1814. Musée du Louvre, Paris.

Why write biography or autobiography? In autobiography, the author controls the story and may introduce whatever slant he or she wishes. The autobiographer may wish to relate the story objectively, but this is difficult even with the best of intentions. Julius Caesar wrote his war commentaries on the campaigns in Gaul in the third person. This allowed Caesar to claim a greater objectivity than perhaps existed, and to praise himself more fulsomely than might be possible in a first person narrative. Bernal Díaz del Castillo, who accompanied Cortés on the conquest of Mexico, declared his objectivity and stated his motivation in telling the story of the conquest (writing c. 1568):

> That which I have myself seen and the fighting I have gone thorough, with the help of God, I will describe quite simply, as a fair eye witness without twisting events one way or another. I am now an old man, over eighty-four years of age, and I have lost my sight and hearing, and, as luck would have it, I have gained nothing of value to leave to my children and descendants but this my true story, and they will presently find out what a wonderful story it is.

Jacques Barzun suggested that the technique of outlining can be used two ways: the most common, to map out where the author wishes to go in a piece of writing; the second, outlining after you write to discover what you have written. Applying the second approach to reading revealed the areas of autobiography and biography significant to me. You can do this to explore your own intellectual history. I find that I mostly read biography and autobiography in areas of interest, study and thought that I already hold, such as history, art history and literature. Call me narrow, but it is unlikely that I will be reading about modern politicians, persons in the entertainment industry, or most sports figures (an exception: Roger Bannister's *The Four Minute Mile*).

Interest in a subject can lead to investigations through the eyes of participants, and the reverse occurs when study of a particular individual draws one into broader exploration of a field. Narrative and analytical histories of the Civil War led me to biographies of Lincoln, Grant and Sherman. In addition, Grant wrote his own memoirs of the Civil War and these are justifiably considered among the best war memoirs ever written. Similarly, three major histories of Russia, and interests in Russian fiction from about 1860-1970, suggested biographies of Peter the Great, Tolstoy and Stalin, and from the other side, Hitler and Napoleon. Villains are as captivating as saints.

Biographies of talented individuals, who, either because or in spite of significant flaws, accomplished great things, can be compelling reading. As young British scholar interested in archaeology, T. E. Lawrence (1888-1935) made a study of Crusader castles. When the First World War came, Lawrence was a natural for service in the Middle East because of his knowledge of its geography, cultures and language. His book, *Seven Pillars of Wisdom*, tells the story of the Arab revolt, which he facilitated. He writes:

> All men dream: but not equally. Those who dream by night in the dark recesses of their minds wake in the day to find that it was vanity; but the dreamers of the day are dangerous men, for they may act their dream with open eyes, to make it possible. This I did.

Colonel T. E. Lawrence by Augustus John, 1919. The Tate Gallery, London.

Lawrence was with the Arabs when they took Damascus, only to see his hopes for the revolt dashed at the peace conference. Perhaps only now, more than ninety years after the efforts of Lawrence of Arabia, and outside the penumbra of colonialism, are the true fruits of the Arab revolt ripening.

Sir Richard Francis Burton by Frederic Leighton, Baron Leighton, c. 1872-1875. National Portrait Gallery, London.

Another swashbuckling character out of British history is Captain Sir Richard Francis Burton (1821-1890). Burton explored Pakistan and India, crossed Somalia to visit Harar, searched for the source of the Nile, made the pilgrimage in stealth

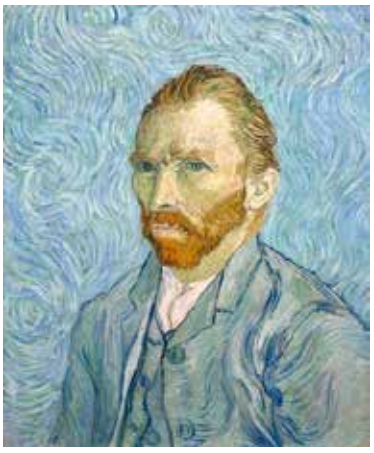
and great peril to Mecca, translated the *Arabian Nights*, and collaborated in publishing the *Kama Sutra*. Among his many close calls with death, at Berbera, Somalia, Burton had a spear thrust through his mouth during an attack by Somalis. The United States might have had better experiences with Somalia, Iraq, Pakistan and Afghanistan had policy and decision makers paid more attention to previous encounters in these areas.

Many of us inhabit professional fields. In addition to reading the academic literature of those disciplines, it is natural to want to know of the leaders and interesting characters that preceded us. My professional field is archaeology, my main geographical areas are the Southwest, Mesoamerica and Eastern Africa. No surprise, then, to read books by or about Adolph Bandelier, the great explorer of the Southwest; Richard Wetherill, who with his brothers investigated and some might say plundered the Mesa Verde area; Edgar Lee Hewett, founder of the Museum of New Mexico; Charles Lummis, great booster of Southern California, prolific writer, and founder of the Southwest Museum in Los Angeles; Neil Judd, versatile archaeologist of the Southwest with the Smithsonian Institution; Earl Morris, who worked at Aztec Ruins, New Mexico, and Chichén Itzá, Yucatán, and helped close the gap in tree-ring dating in the Southwest; and A. V. Kidder, one of the great leaders in the field of American archaeology. In Mesoamerica, Sylvanus Morley scoured the region for Mayan inscriptions, led the work of the Carnegie Institution at Chichén Itzá, and wrote a seminal book on *The Ancient Maya.* J. Eric Thompson was for years the doyen of Maya archaeology, an elegant and prolific writer on all things Maya. Earlier in my career I was lucky enough to direct the Southwest Museum and the Museum of New Mexico, and thus to follow in those positions Charles Lummis in Los Angeles and Edgar Lee Hewett and Sylvanus Morley in Santa Fe.

Sometimes reading interests simply reflect time and place. I lived for seven years in East Africa, and worked for Richard Leakey at the Kenya National Museums. Naturally I read Louis Leakey's *White African* and *By the Evidence*, Mary Leakey's *Disclosing the Past*, and Richard Leakey's *One Life*. That's a lot of Leakey autobiography, but two of them were my friends. Other rousing stories are Beryl Markham's *West with the Night* and Isak Denesen's (Karen Blixen) *Out of Africa.*

Growing up on a mountain ranch in New Mexico, the years in East Africa, and now working as director of the Arizona Museum of Natural History whetted my taste for literature of exploration, natural history and the environment. John Muir, founder of the Sierra Club and the environmental movement, loved nothing better than sojourning in the high Sierras. John Wesley Powell explored the Colorado River and influenced the United States land and water policy at the Bureau of Ethnology and the United States Geological Survey. Theodore Roosevelt set aside more than 230 million acres in National Parks, Monuments, Forests and other preserves for future generations, including the Grand Canyon and Petrified Forest among others in Arizona. Paleontologists of interest include Roy Chapman Andrews, Edward Drinker Cope and Othniel Charles Marsh.

Biographies of artists help understand their work. Giorgio Vasari, in his *Lives of the Artists*, 1550/1568, is to the artists of the Italian Renaissance what Plutarch is to the lives of the noble Greeks and Romans. European artists that interested me enough to read their biographies include Goya, Cezanne and Van Gogh; in the United States these include Church, Moran, Dixon and Borg. One recent book that takes a biographical approach to its subjects is Simon Schama's *The Power of Art*, which presents studies of Caravaggio, Bernini, David, Turner, Rembrandt, Van Gogh, Picasso and Rothko. Many works on the history of art include biographical information because of the often close relationship between an artist's life and work.



Portrait of the Artist (St. Rémy), by Vincent van Gogh, 1889. Musée d'Orsay, Paris. Self-portraits are autobiographical statements.

Agrarian Leader Zapata by Diego Rivera, 1931. Museum of Modern Art, New York.

The Third of May, 1808 by Francisco Goya, 1814. Museo del Prado, Madrid.

Two compelling biographies with very different stories come from American and Mexican history. John Marshall is perhaps America's greatest Chief Justice of the United States (served 1801-1835). In *Marbury v. Madison*, Marshall established the doctrine of judicial review of congressional action. In this and other cases, he favored a robust judiciary, supported strong federal power and made the court system a coeval branch of government. Emiliano Zapata led southern forces in the Mexican revolution. He and Villa took Mexico City in 1914, and Zapata could have established himself in power, but rather like Cincinnatus, he went home, only to take up arms again when reactionary forces usurped the revolution. He never abandoned his dream of agrarian reform, until Federal troops shot him to pieces at Chinameca plantation in 1919.

Can biographical literature change society? Biography and autobiography can greatly aid in understanding other individuals, peoples and cultures. Knowledge of the struggles of others can increase understanding, build empathy and possibly lead to action. Had more members of the majority culture in this country read the stories of individuals from minority groups, the history of those relationships might have been more positive. An earlier generation of literature exposed the experiences of blacks in America. Richard Wright's *Black Boy (American Hunger)* tells the story, shared by so many, of his boyhood in the Jim Crow South and migration to the North. "This was the culture from which I sprang," wrote Wright of the South, and "This was the terror from which I fled." In the North, he did not find the promised land that so many sought on the great migration, but rather encountered other forms of oppression and hunger both spiritual and physical. James Baldwin, Malcolm X and Eldridge Cleaver wrote passionately of racial injustice and explored diverse solutions. Baldwin saw the full extent of inequality in America, but he also saw room for hope. He offered the old slave song as prophesy, should blacks and whites fail to solve the problem of racial injustice:

> "God gave Noah the rainbow sign,
> No more water, the fire next time!"

Native American literature provides one more example. These are the words of Black Elk (1863-1950), a holy man of the Oglala Lakota, who was at the Little Big Horn as a youth and at the slaughter at Wounded Knee in 1890:

> When I look back now from this high hill of my old age, I can still see the butchered women and children lying heaped and scattered all along the crooked gulch as plain as when I saw them with eyes still young. And I can see that something else died there in the bloody mud, and was buried in the blizzard. A people's dream died there. It was a beautiful dream.

Why read autobiography or biography? These narratives allow us to share the drama, successes, tragedies and failures of heroes, blackguards, the supremely talented and the ordinary person in extraordinary circumstances. We stand with Grant during the critical hours at Shiloh, or share with him the poignancy of Appomattox. We feel the passion that led Goya to the *Disasters of War* or *The Third of May, 1808*. We are with Lawrence when Arab forces take Aquaba, with Burton when he finally reaches Lake Tanganyika, with Bernal Díaz as the Spanish enter Tenochtitlán, and with Black Elk at the Little Big Horn. We accompany Mary Leakey when she discovers *Zinjanthropus*, and soar over East Africa with Denys Finch Hatton or Beryl Markham. We share the anguish, despair and hope of Richard Wright and James Baldwin. We descend the Colorado River with John Wesley Powell, and climb the high Sierras with John Muir.

These are just some of my humanities. What are yours?

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Of Ginsberg & Catullus

Thomas H. Wilson

Gregory Corso and Allen Ginsberg, 1961

Dinner with Allen Ginsberg was memorable. The poet was coming to speak at the University of New Mexico. I was president of a large fraternity, and invited him to join us at a chapter dinner. Ginsberg came with his friend and fellow poet, Gregory Corso. The fraternity chaplain, a straight-laced fellow who later became a naval officer, asked the 75 or so present to stand for grace and bow our heads. Before he could utter a word, Ginsburg roared: "Zeus!" Corso, across the room, immediately responded, "Isis!" "Buddha," Allen thundered. "Athena," Gregory shouted. After more quick exchanges citing gods and goddesses from around the world and through time, at a pause our chaplain had the presence of mind simply to say, "Amen." It may not qualify as a Happening, but it certainly made an impression.

When I was in graduate school at Berkeley, I sometimes carried around slim volumes of T. S. Eliot. I would find a big deserted lecture hall, take a seat in the middle, and read aloud verses from *The Waste Land*, *Four Quartets*, or *Prufrock*. Somewhere I had heard a recording of Eliot dramatically reading one of these, and I tried to mimic his elocution. His words from my mouth resonated around the chamber. I still don't know if this was cool or the epitome of nerdiness.

I even managed to quote *East Coker*, second of the *Four Quartets*, in my dissertation on Maya architecture, which dealt with the rise and fall of the great site of Chichén Itzá in Yucatan:

> In my beginning is my end. In succession
> Houses rise and fall, crumble, are extended,
> Are removed, destroyed, restored, or in their place
> Is an open field, or a factory, or a by-pass.
> Old stone to new building, old timber to new fires,
> Old fires to ashes, and ashes to the earth
> Which is already flesh, fur and faeces,
> Bone of man and beast, cornstalk and leaf.
> Houses live and die: there is a time for building
> And a time for living and for generation
> And a time for the wind to break the loosened pane
> And to shake the wainscot where the field-mouse trots
> And to shake the tattered arras woven with a silent motto.
>
> . . . . In my end is my beginning.

It is hard to find in writing a better image of the rise and fall of civilizations and of physical change through time.

Everyone may treasure a favorite poem or poet. I have returned throughout my life to the works of Gaius Valerius Catullus (c. 84-54 BC). Catullus lived at a time of turmoil in the Roman world, perhaps the most climacteric century in Roman history. Traditions eroded, institutions changed, politics roiled. The Roman republic was sliding towards empire. It was the time of Caesar, Cicero, Pompey, Antony, Crassus, Lucretius and Virgil. Catullus is known for his love for and frustration with the Lady Clodia, who was wife to a Roman consul and sister to Clodius, a politically active, controversial figure. Catullus' passion for Lesbia, his pen name for Clodia, resonates across the centuries:

Catullus 5: Kisses

. . . . Then let amorous kisses dwell
On our lips, begin and tell
A thousand and a hundred score,
An hundred and a thousand more,
Till another thousand smother
That, and that wipe off another.
Thus at last when we have numbered
Many a thousand, many a hundred,
We'll confound the reckoning quite,
And lose ourselves in wild delight:
While our joys so multiply
As shall mock the envious eye.

Translation Richard Crashaw

Lesbia and Her Sparrow
Sir Edward John Poynter (1836-1919)
Oil on Canvas, 1907

But Lesbia toyed with Catullus, took other lovers, and caused him no end of frustration.

Catullus 85: Love's Unreason

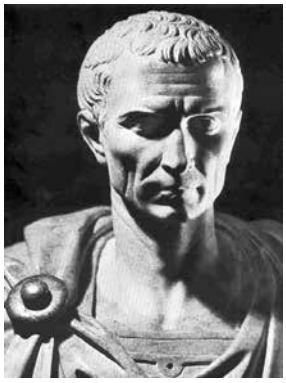
Odi et amo. Quare id faciam, fortasse requiris.
Necio, sed fieri sentio et excrucior.

I hate and love—the why I cannot tell
But by my tortures know the fact too well.

Translation Theodore Martin

Catullus' verse can be quite sharp, even towards the most powerful men in Rome, such as Julius Caesar, who apparently had a little chat with the young poet about some biting barbs aimed at him (e.g. Catullus 93: "I have no very great desire to make myself agreeable to you, Caesar/nor to know whether your complexion is light or dark.").

In one wrenching poem, a heartbroken Catullus travels to Asia Minor to visit his brother's grave. I revisit this poem at times of personal grief:



Julius Caesar

Catullus 101: On His Brother's Death (Ave atque Vale)

By ways remote and distant waters sped,
Brother to thy sad graveside am I come,
That I may give the last gifts to the dead,
And vainly parley with thine ashes dumb:
Since she who now bestows and now denies
Hath taken thee, hapless brother, from mine eyes.
But lo! These gifts, the heirlooms of past years,
Are made sad things to grace thy coffin shell;
Take them, all drenched with a brother's tears,
And, brother, for all time, Hail and Farewell!

Translation Aubrey Beardsley

There are more modern translations of Catullus, but I grew up with these. At www.negenborn.net/catullus/ you will find the original Latin of Catullus' verse, and translations into numerous languages. I enjoy comparing Catullus' poems in Spanish and German with English. At www.poemhunter.com/ you may find your favorite poem or explore new ones among almost 800,000 poems from 78,000 poets. The Poetry Foundation is another excellent resource, www.poetryfoundation.org.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

The War Poets

Thomas H. Wilson

My uncle Bill, my father's brother, was a First Lieutenant in the 15th Field Artillery of the Second Division in France during World War I. The Second Division saw action at Chateau-Thierry, Soissons, St. Mihiel, Champagne (Blanc Mont) and Argonne-Meuse. On July 14, 1918, Bill wrote home that his unit was out of the line but not out of range of German gas and explosive shells, which were passing overhead. "I had a couple of rifle shots fired at me the other day," he wrote, "but they missed. They sure sound tame after you are only used to shells coming your way." Uncle Bill perhaps did not know it when he wrote his letter, but four days later the Second Division was engaged in the great allied counter-offensive at the Second Battle of the Marne, which finally broke German offensive capability in the Great War.

Uncle Bill returned from the war safely, as did my uncle John, who fought with the 316 Infantry of the 79 Division. I have the letters uncle Bill wrote home to the family. He expressed himself in plain prose as the quote suggests. Other soldiers expressed themselves in verse. For some reason, more than in any other conflict, the young men who participated in the Great War expressed in poetry their anticipations, thoughts, fears, experiences and despair of the war. In celebration of April as poetry month, here are selections from the war poets.

When the guns of August began in 1914, many young men of all nations enlisted with patriotic enthusiasm. No one captured the sentimentality of the early months of the war better than Rupert Brooke, who penned some of the most memorable lines of the war.

1914 V: The Soldier

If I should die, think only this of me:
That there's some corner of a foreign field
That is for ever England. There shall be
In that rich earth a richer dust concealed;
A dust whom England bore, shaped, made aware,
Gave, once, her flowers to love, her ways to roam,
A body of England's, breathing English air,
Washed by the rivers, blest by suns of home.

And think, this heart, all evil shed away,
A pulse in the eternal mind no less
Gives somewhere back the thoughts by England given;
Her sights and sounds; dreams happy as her day;
And laughter, learnt of friends; and gentleness,
In hearts at peace, under an English heaven.

Rupert Brooke

Rupert Brooke
(1887-1915)

Brooke died of sepsis from infection, while on the way to Gallipoli with the British Mediterranean Expeditionary Force.

After the initial euphoria of the war's beginning wore off and the grim reality of trench warfare set in, the war poets explored themes of life in the trenches, contrasts of life and death, the horrors of war, mental peace and tranquility, thoughts of home, and many other subjects.

Canadian doctor Lieutenant Colonel John McCrae wrote *In Flanders Fields* on May 3, 1915 upon the death of a friend and former student, who was killed at the Second Battle of Ypres. Dr. McCrae died of pneumonia while commanding the Canadian General Hospital at Boulogne in 1918.

In Flanders Fields

In Flanders fields the poppies blow
Between the crosses, row on row,
That mark our place; and in the sky
The larks, still bravely singing, fly
Scarce heard amid the guns below.

We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie,
In Flanders fields.

Take up our quarrel with the foe:
To you from failing hands we throw
The torch; be yours to hold it high.
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields.

John McCrae

John McCrae
(1872-1918)

Probably all soldiers through all time wonder how they will react in battle. In *Before Action*, W. N. Hodgson, who had already won the Military Cross for bravery at the Battle of Loos, asks the Lord to make him a soldier, make him a man, and help him to die. On the first day of the Battle of the Somme, July 1, 1916, the British Army suffered 60,000 causalities, 20,000 dead and 40,000 wounded. Among the dead was W. N. Hodgson. *Before Action* was published two days before he died.

Before Action

By all the glories of the day,
And the cool evening's benison,
By that last sunset touch that lay,
Upon the hills when day was done,
By beauty lavishly outpoured,
And blessings carelessly received,
By all the days that I have lived,
Make me a soldier, Lord.

By all of man's hopes and fears,
And all the wonders poets sing,
The laughter of unclouded years,
And every sad and lovely thing;
By the romantic ages stored
With high endeavour that was his,
By all his mad catastrophes
Make me a man, O Lord.

W. N. Hodgson, MC
(1893-1916)

I, that on my unfamiliar hill
Saw with uncomprehending eyes
A hundred of thy sunsets spill
Their fresh and sanguine sacrifice,
Ere the sun swings his noonday sword
Must say good-bye to all of this;
By all delights that I shall miss,
Help me to die, O Lord.

William Noel Hodgson, MC

From the summer of 1916, Wilfred Owen, one of the best known of the war poets, served in France. He was severely wounded, suffered shell shock, and went to recover in Edinburgh where he met Siegfried Sassoon, who was also in recovery. Sassoon helped and encouraged Owen with his poetry. Wilfred Owen was killed at the Sambre Canal a week before the war ended, on November 4, 1918, and was awarded the Military Cross for gallantry. Wilfred Owen's mother received news of her son's death on the day the Armistice bells were ringing in England.

Anthem for Doomed Youth

What passing-bells for these who die as cattle?
Only the monstrous anger of the guns.
Only the stuttering rifles' rapid rattle
Can patter out their hasty orisons.
No mockeries now for them; no prayers nor bells;
Nor any voice of mourning save the choirs,
The shrill, demented choirs of wailing shells;
And bugles calling for them from sad shires.
What candles may be held to speed them all?
Not in the hands of boys, but in their eyes
Shall shine the holy glimmers of good-byes.
The pallor of girls' brows shall be their pall;
Their flowers the tenderness of patient minds,
And each slow dusk a drawing-down of blinds.

Wilfred Owen, MC

Wilfred Owen, MC
(1893-1918)

Siegfried Sassoon was already writing poetry when he enlisted in the army the day Great Britain declared war, August 4, 1914. Sassoon's brother was killed at Gallipoli in late 1915, and Siegfried did not get to the front until the spring of 1916, when he earned the sobriquet "Mad Jack" for the enthusiasm he showed going after the Germans. Sassoon was first wounded in 1917, and was shot in the head by friendly fire in 1918.

Absolution

The anguish of the earth absolves our eyes
Till beauty shines in all that we can see.
War is our scourge; yet war has made us wise,
And, fighting for our freedom, we are free.

Horror of wounds and anger at the foe,
And loss of things desired; all these must pass.
We are the happy legion, for we know
Time's but a golden wind that shakes the grass.

There was an hour when we were loth to part
From life we longed to share no less than others.
Now, having claimed this heritage of heart,
What need we more, my comrades and my brothers?

Siegfried Sassoon, MC

Siegfried Sassoon, MC
(1886-1967)

During the course of the war, Sassoon became more publicly critical of its conduct, and perhaps was only saved from military discipline by his friend Robert Graves, who convinced the authorities that Sassoon suffered from shell shock. Poems such as "The rank stench of those bodies haunts me still" from July 1916 do not sound like a recruiting tool.

Robert Graves served in the same regiment as Siegfried Sassoon. His poem *1915* expresses wistfulness for things missed at home, a longing most soldiers experience. Robert Graves was severely wounded at the Battle of the Somme.

1915

I've watched the Seasons passing slow, so slow,
In the fields between La Bassée and Bethune;
Primroses and the first warm day of Spring,
Red poppy floods of June,
August, and yellowing Autumn, so
To Winter nights knee-deep in mud or snow,
And you've been everything.
Dear, you've been everything that I most lack

In these soul-deadening trenches—pictures, books,
Music, the quiet of an English wood,
Beautiful comrade-looks,
The narrow, bouldered mountain-track,
The broad, full-bosomed ocean, green and black,
And Peace, and all that's good.

Robert Graves

Robert Graves
(1895-1985)

In his autobiography, *Good-bye to All That*, Graves wrote of what today might be Post Traumatic Stress Disorder (1960:219-20):

> I thought of going back to France, but realised the absurdity of the notion. Since 1916, the fear of gas obsessed me: any unusual smell, even a sudden strong smell of flowers in a garden, was enough to send me trembling. And I couldn't face the sound of heavy shelling now; the noise of a car back-firing would send me flat on my face, or running for cover.

After wars, veterans return home, often to great mental and physical challenges. Sometimes these are unspoken, and too often untreated. Poet Edmund Blunden, who fought at the Somme and at Ypres, looked back at 1916 from the perspective of 1921.

1916 seen from 1921

Edmund Blunden, MC
(1896-1974)

Tired with dull grief, grown old before my day,
I sit in solitude and only hear
Long silent laughters, murmurings of dismay,
The lost intensities of hope and fear;
In those old marshes yet the rifles lie,
On the thin breastwork flutter the grey rags,
The very books I read are there—and I
Dead as the men I loved, wait while life drags

Its wounded length from those sad streets of war
Into green places here, that were my own;
But now what once was mine is mine no more,
I seek such neighbours here and I find none.
With such strong gentleness and tireless will
Those ruined houses seared themselves in me,
Passionate I look for their dumb story still,
And the charred stub outspeaks the living tree.

I rise up at the singing of a bird
And scarcely knowing slink along the lane,
I dare not give a soul a look or word
Where all have homes and none's at home in vain:
Deep red the rose burned in the grim redoubt,
The self-sown wheat around was like a flood,
In the hot path the lizard lolled time out,
The saints in broken shrines were bright as blood.

Sweet Mary's shrine between the sycamores!
There we would go, my friend of friends and I,
And snatch long moments from the grudging wars,
Whose dark made light intense to see them by.
Shrewd bit the morning fog, the whining shots
Spun from the wrangling wire: then in warm swoon
The sun hushed all but the cool orchard plots,
We crept in the tall grass and slept till noon.

Edmund Blunden, MC

Isaac Rosenberg's family left Latvia to escape pogroms and emigrated to Britain. Rosenberg was a credible artist, who painted and sketched several self-portraits. In contrast to many of the other war poets, he served as a private in the war. Isaac Rosenberg's *Break of Day in the Trenches* has been called the "greatest poem of the war," and Rosenberg is listed in Westminster Abby's Poet's Corner as among the 16 Great War poets, along with Blunden, Brooke, Graves, Owen, Sassoon and others. Rosenberg was killed in action on the Somme on April 1, 1918.

Break of Day in the Trenches

The darkness crumbles away
It is the same old druid Time as ever,
Only a live thing leaps my hand,
A queer sardonic rat,
As I pull the parapet's poppy
To stick behind my ear.
Droll rat, they would shoot you if they knew
Your cosmopolitan sympathies,
Now you have touched this English hand
You will do the same to a German
Soon, no doubt, if it be your pleasure
To cross the sleeping green between.
It seems you inwardly grin as you pass
Strong eyes, fine limbs, haughty athletes,
Less chanced than you for life,
Bonds to the whims of murder,
Sprawled in the bowels of the earth,
The torn fields of France.
What do you see in our eyes
At the shrieking iron and flame
Hurled through still heavens?
What quaver—what heart aghast?
Poppies whose roots are in men's veins
Drop, and are ever dropping;
But mine in my ear is safe,
Just a little white with the dust.

Isaac Rosenberg

Isaac Rosenberg
(1890-1918)

Millions fought in the Great War, and millions died. Some of the war poets survived the war and had distinguished careers, like Siegfried Sassoon, Robert Graves and Edmund Blunden. Others perished, like Brooke, McCrae, Hodgson, Owen and Rosenberg. We will never know the human creativity the world lost due to the unspeakable carnage of war. The poets who did not come home give us some measure of that loss.

The unreturning army that was youth;
The legions who have suffered and are dust.

From *Prelude: The Troops* by Siegfried Sassoon

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Under Western Skies: The Art of Carl Oscar Borg

Thomas H. Wilson

Carl Oscar Borg first visited the land of the Hopi and the Navajo in 1916, when he was 37 years old and had reached maturity as an artist. The experience transformed him. "In its varying moods," wrote Borg, "this country seems limitless. There is no end to the light, color, form and distance, and every object seems enveloped in a haze of blue, yellow, pink, or lilac." To Borg, the country offered superb artistic opportunities and endless possibilities to explore the relationships between Native Americans and the land. Thereafter, he focused much of his artwork upon the native peoples, pueblos, canyonlands, mesas, deserts and skies of the Southwest. He became one of the greatest artists of the American West.

The Hush of Evening

Borg visited the Grand Canyon on that first trip to the Southwest in 1916, and often subsequently. *The Hush of Evening*, a painting that Borg completed about 1925, is one of his iconic images of the Grand Canyon. In it, the majesty of the great canyon is spread out before five persons, all probably Navajo, who have paused at the rim to contemplate the magnificent work of nature. One of the central figures has slung a leg over his saddle as he watches the shadows of evening envelop the canyon. Vegetation, both living and dying, surrounds the riders.

The Hush of Evening expresses some of the themes that Borg developed in his art of the Southwest: the immensity and beauty of nature, the insignificance and impermanence of humans in this landscape, the cycle of life in which humans and plants alike live and die as part of a natural rhythm, Native Americans as an integral and inseparable aspect of this world, the spirituality that links and unites land, peoples and plants, and the sense that the landscapes themselves are part of the great cycle of life and death, as natural forces create and then erase the formations.

The Hush of Evening, tempera, 34 x 30, ca. 1925
All images are from the collection of Abe and Lalla Hays of Paradise Valley, Arizona.

Carl Oscar Borg (1879-1947)

Borg's early years made him an improbable candidate to paint the Southwest. Carl Oscar Borg was born into a modest household in Dals-Grinstad, Sweden on March 3, 1879. He developed an early interest in art, but opportunities were few. Like many dreamers before and after, the lure of California as a land of opportunity eventually attracted the young and hopeful artist. Soon after arriving in Santa Monica in late September 1903, he encountered his first cowboy on horseback in the nearby hills, who appeared to Borg as "a knight from an age long past." His romantic fantasy thus fired, he later made his way to Los Angeles, where he made his living in a photography shop and painted signs, sets and scenes for the theater industry.

In his early years in southern California, a number of influential people advanced Borg's career, including art critics, gallery owners and cultural broker Charles Fletcher Lummis, who introduced Borg to southern California's social, artistic, literary, scientific and cultural elite. He met Phoebe Apperson Hearst, who collected his artwork and arranged for Borg to exhibit his work. As his patroness, she supported him financially and arranged and paid for a tour of Europe and North Africa between 1910 and 1914 to further his artistic skills. Upon return, Borg settled in San Francisco, where he lived, painted and taught art. In 1916, Phoebe Hearst arranged for Borg to visit, photograph, sketch and paint at the Hopi mesas and the Navajo lands in northern Arizona.

If Borg's experiences in North Africa and Europe were an education, his 1916 trip to the Southwest was a revelation. His experiences in the Southwest, among the Hopi and the Navajo, at the Grand Canyon, on the plateaus, among the mesas and in the deserts, redirected his life and art. In the Southwest, Borg encountered the "varying moods" of the seemingly limitless land. He romanticized the terrain as "peaceful, silent and impressive," and "by day and by night . . . always calm and majestic." He loved "the great mesas, the wind-swept plains," and found the air "so clear that it looked as though one should be able to reach the stars just by reaching up one's hands." Borg obtained intellectual and spiritual sustenance among the Hopi and the Navajo. He returned to Indian country, which he found "the most interesting [land] in the whole world," every year through 1932. These experiences gave Borg intimate knowledge and understanding of his subjects and inspired his greatest artistic achievements. There is considerable truth in Lummis' comment in 1925, "You paint finely, because you see sincerely."

From 1918 to 1924, Borg lived and worked in Santa Barbara, and he then entered a new phase of life in Hollywood, where he served as art director in a series of major movies. He returned to Sweden several times in the 1930s, and spent the war years there. Borg settled in Santa Barbara after the war, where he resumed his art career. He passed away of a heart attack on May 8, 1947 at age 68. Following his wishes, his ashes were scattered at the Grand Canyon.

Walpi, gouache, 10 x 11½, 1916

In the Pueblos

Borg conceived of the land, Native Americans and indigenous architecture of the Southwest, as parts of an organic whole. "Both the Hopi and … the Navajo," Borg wrote, "have evolved out of their surroundings and the natural phenomena of their country…." Borg wrote of "the endless mystery" of the cliff dwellings, "these spectral palaces . . . hidden in the sphinx-like silence of the desert." "All that man has forgotten," wrote Borg of the ancient ruins, "Nature seems to cherish!"

A series of washes flowing southwesterly off Black Mesa towards the Little Colorado River in north-eastern Arizona sculpted the three mesas on which are located the Hopi pueblos. Borg created some of his most memorable images of pueblos at Walpi, which occupies the southern-most tip of the narrow mesa. His 1916 gouache, *Walpi*, is a view from the very southern edge of the community looking back northeast towards the three pueblos of First Mesa. In this magisterial image, the tiered pueblo rises like a battleship's superstructure from the deck of the mesa's surface. In the foreground rise the boulders of the mesa's edge, the vertical surface of the rock face paralleling the walls of the pueblo's rooms and

reinforcing a sense that the pueblo has grown out of the stone. The shadows indicate early afternoon, and a few pueblo people go about their activities. The clouds suggest a summer day, perhaps with just the hint of a coming shower. Two eagles perch atop the highest point of the pueblo, representing the spiritual world of the Hopi.

Borg exhibits superb draftsmanship in *Hopi Houses, Walpi*. The artist makes it appear as if the crushing weight of antiquity itself were bearing down, causing the roof to sag. Borg honors the scene by offering detail: the doors, the windows and the building materials are each essential subject matter in the composition. Boxes and cans rest next to the door.

Hopi Houses, Walpi, drypoint etching, 8 x 10, 1932

Spirituality and Ceremonialism

The Hopi and the Navajo do not separate the world into sacred and secular. Rather, they consider that spirituality is inseparable from the daily life and well being of the community. For Hopi, spirituality infuses all aspects of each day's activity, and many inanimate things contain a spiritual force.

Ritual and ceremony are formal expressions addressing the spiritual world. Hopi ceremonialism assures vital equilibrium among individuals and harmony within the society. Much of Hopi ceremonialism revolves around the kiva, a rectangular underground structure entered by ladder through the roof, which serves variously as clan house, ritual center and meeting place. In several works Borg depicts Hopi kachinas, masked male dancers who help to bring well-being to the pueblo, including rain, harvests, health and peace.

The Niman Kachinas, drypoint etching, 10 x 9¾, 1920

Hopi, Snake Priest, watercolor, 11½ x 9, 1916

The Hopi snake ceremony, which culminates in the famous snake dance, takes place over a nine-day period in August. The Antelope and Snake societies conduct the ceremonies, the general purpose of which is to solicit rain for the growth of corn. The context of the watercolor *Hopi, Snake Priest* is Oraibi, the oldest and most conservative of the Hopi villages. The scene, rendered in solemn tones of brown, shows a Hopi snake priest standing on a kiva. The snake priest wears red feathers in his hair, turquoise or shell necklaces, painted white forearm and bracelet probably of shell, a turtle shell rattle on the leg, and moccasins stained red with iron oxide. The kilt is red, with two of three parallel bands shown: the middle band representing the plumed serpent and the lower band of parallel lines representing the rainbow.

The snake priest stands adjacent to the ladder, which ascends from inside the kiva and partially obscures his face. The priest is attending the *á-wa-ta-ná-tci*, which hangs across the ladders of the Antelope and Snake kivas during the Snake ceremonials. The snake chief will carry the *á-wa-ta-ná-tci* at the front of the snake dance procession.

The Niman Kachinas represents the last ceremony of the kachina cycle, the "returning home" of kachinas to the underworld, which occurs around the time of the summer solstice in June-July. Kachinas re-emerge in January or February of the next year, as the masked ceremonial cycle begins anew. The rain shower suggests a higher spiritual presence as the kachinas prepare for the ceremony. They wear spruce boughs, representing the close relationship between spruce trees, clouds and rain in Hopi cosmology. In this powerful work, Borg captured the intimacy and reverence of these various spiritual aspects without being intrusive.

Portraits

Borg's portraits of Native Americans are compelling visual likenesses that capture the individuality, personality, character and spirit of his subjects. There is little romanticism in his images of Native Americans, but rather revelations of individual character based upon deep knowledge and empathy with his subjects. He depicts them respectfully and captures their humanity. Borg's portraits always reveal the dignity of the individual and express the cares and experiences of his or her life.

Left: *Salako, Hopi,* woodblock (brown paper), 10 x 9, 1936
Right: *Harry Supela, Hopi,* drypoint etching, 6½ x 5, 1923
Bottom: *Navajo Mother,* drypoint etching, 7 x 5, 1929

Borg knew well the Supela family of Walpi. He did multiple images of the elder Harry Supela, his wife Salako and their son Harry. The woodblock portrait of Supela's wife, *Salako, Hopi*, reveals the cares and burdens of age. *Harry Supela, Hopi*, their son, shows the powerful visage of a man in the full flower of his maturity, squinting into the sun, with traditional hairstyle and headband.

Navajo Mother is a beautiful composition of a mother and her child. The mother is shown in almost full left profile, while the child turns slightly towards the viewer. The baby nestles snugly on the mother's back, held on by a cloak or blanket, the baby's cheek nuzzling the mother's hair. The subject is as much about motherhood and the universal relationship between mother and child as it is about the Navajo mother. Both appear determined as they face the world, and secure in their relationship with each other.

Land of the Navajo

Canyon de Chelly, oil, 30 x 40, 1932

Borg explored the relationships between the Hopi and the Navajo and the lands they inhabited, "the people of these limitless horizons – this wilderness of color and form. . . ." His work almost always depicts Native Americans as intimately part of the land rather than as intruders upon it. Borg's work among the Navajo emphasizes their ways of life, the striking landscapes and vast areas. In his work in the land of the Navajo, Borg placed the Native Americans directly upon the landscape. A sense of the majesty of nature is very much present in much of his art.

Canyon de Chelly (from Navajo, *Tséyi'*, "inside the rock," or "canyon") is one of the most striking features of Navajo country. The Anasazi, ancestors of contemporary pueblo peoples, abandoned Canyon de Chelly about 1200, leaving many spectacular ruins. Today the Navajo inhabit the canyons. Borg presents the canyon and its features as more than just naturalistic renderings of landscapes, but as iconic forms imbued with an awe-inspiring sense of spirituality in nature. Perhaps no painting captures the majesty of the area more than *Canyon de Chelly*. Four Navajos ride across the sandy valley floor, below a canyon wall so high that it ascends beyond the edge of the painting. The size of the riders, accurately scaled against the height of the canyon walls, makes clear the fragility and transitory nature of life compared to the canyon's stolidity and permanence. A great gap in the canyon is washed in sunshine and filled with the sky beyond. The walls of the canyon are in shadow, but their vibrant hues show the staining characteristic of the great sandstone massifs.

The Red Cliffs, watercolor, 17½ x 13, 1916

Marsh Pass (Tsegi Canyon), oil, 9 x 11¾, 1925

The soaring rock monoliths of Canyon de Chelly, bathed in Southwestern light, are the subject of *The Red Cliffs*. A great cleft in the rock creates a narrow side canyon partially enshrouded in shadow. In the foreground, also in shadow, stand two Navajo horsemen, framed by craggy rocks on the canyon floor at the base of the cliffs. A lone tree rises on the left. In both of these works, the cliffs emphasize the immensity of such works of nature and how lightly the Navajo impact the land. Even so, the Native Americans are as much a part of this natural environment as the tree. Each element is involved in a great cycle of birth, growth and sustenance from the land, which, though now mighty, will someday erode to nothingness as the cycle continues. *The Red Cliffs* gives the massive rocks a monumentality heightened by the light shining on the cliffs.

Marsh Pass is in northeastern Arizona, at the mouth of Tsegi Canyon, up which lie the great Anasazi cliff dwellings Betatakin and Keet Seel. Borg painted *Marsh Pass* with bold strokes and thick paint. The view is probably the entrance to the canyon, showing the red and buff colors of the Navajo sandstones, with the valley bottom in mid-ground. The foreground offers a sample of the piñon and juniper woodland of the area.

In *Navajos*, four riders move tall in their saddles across the endless space of the desert scene. The foreground is in shadow, with a light patch of water. A break in the storm in the distance backlights the Navajo riders, but above them the dark clouds give a sense of foreboding. The diagonals of the rain shower at right cut across the horizontal lines of the powerful composition. Borg's strong draftsmanship and his masterful use of dark and light tones create a dramatic and believable setting. Borg possessed great ability to create atmosphere and a sense of place with his art. In *Navajos*, you can almost smell the fresh cool rain on the desert.

Navajos, drypoint etching, 4 x 8½, 1932

Under Western Skies

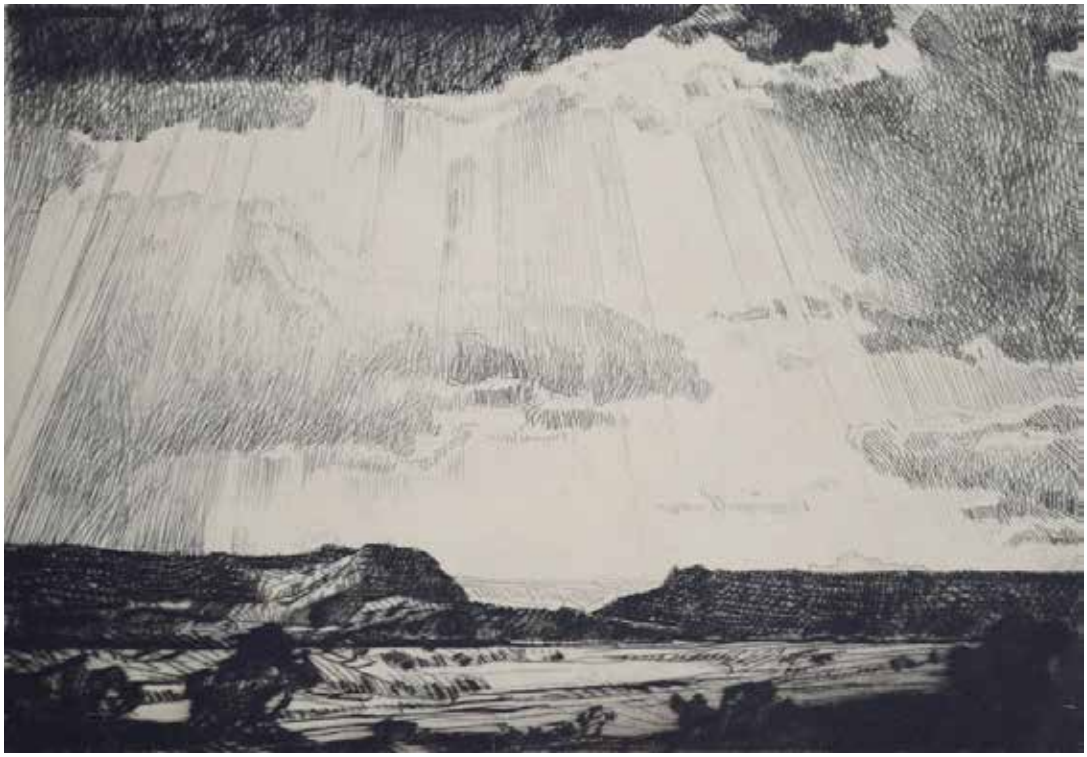
Southwestern vistas captivated Borg from his first trip to the region in 1916. He clearly considered Western landscapes more than rock and dirt. Borg's deep respect for the land and an eternal nature is evident in his works. "My desert!" Borg wrote in 1937, "Here one is nearer the creator of all. . . . Here one is so near the heart of nature, undefiled and pure as it was from the beginning of time."

On the Rim, Grand Canyon, drypoint etching, 10 x 10, 1932

Borg became one of the foremost painters of the Grand Canyon. In 1916, Thomas Moran, in the top rank of America's landscape artists and himself painter of some of the most magnificent images of the canyon, stated, upon viewing a Borg painting of the Grand Canyon, that he considered Borg its finest painter. In contrast to the sweep and splendor of the scene in *The Hush of Evening*, *On the Rim, Grand Canyon* is a study of a tree on the edge of the canyon. In the foreground, bathed in light, is the rock and earth to which the trunk precariously and tenaciously clings. The bent and broken tree leans over the edge of the canyon, still sprouting some leaves that mix with other vegetation on the left. The canyon is a distant background, its opposite rim forming a horizontal plane across the landscape. The ancient tree stands as a metaphor for the aged canyon, the composition showing the effects of natural processes on living as well as inorganic objects. The work, certainly one of Borg's finest drypoint etchings, creates a marvelous sense of place.

Colorado River Gorge presents a view of the Grand Canyon from the level of the river. The thick clouds in the overcast sky cast a gray tint over the reds and browns of the canyon walls, and lend a similar color to the churning waters of the river. The whitecaps of the current parallel a patch of white cloud and the whites and pinkish whites that emphasize the rocks. The whole composition presents a somber, almost sinister, desolate and powerful image.

Colorado River Gorge, gouache, 5 x 7, date unknown



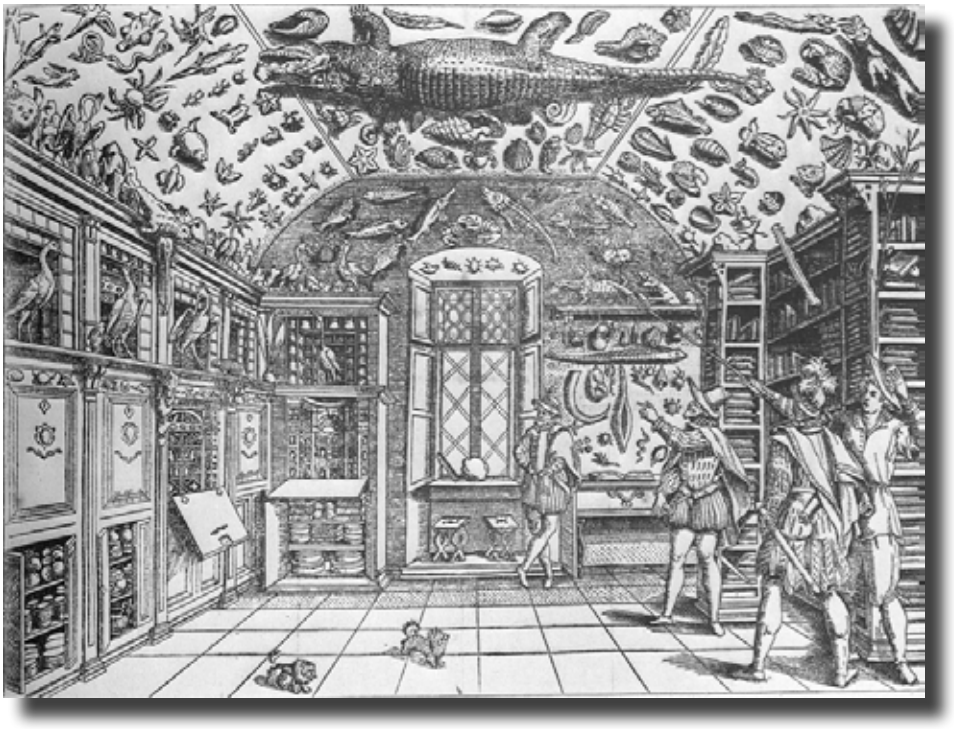
Under Western Skies, drypoint etching, 5¼ x 7½, 1934

Under Western Skies is an awe-inspiring display of the elemental forces of nature: water, earth, clouds and sun. Two mesas converge towards the center of the panorama and give breadth to the landscape. A dry wash runs from the foreground towards a gap between the mesas, and through this rent in the landscape more mesas appear in the distance. Above rises the great Western sky, and dark, menacing clouds cross the top of the scene. The sun's rays break through the storm clouds and spread across the landscape. The image offers a powerful essence, as if one is present at the creation.

The Abe and Lalla Hays collection comprises 89 works of art by Carl Oscar Borg in oil, gouache, tempera, watercolor, drypoint etching, woodblock print, lithographs and ephemera. Abe and Lalla Hays of Paradise Valley, Arizona, have graciously allowed reproductions of artwork from their collection for this essay.

Thomas H. Wilson is Chair of the Arizona Humanities Council

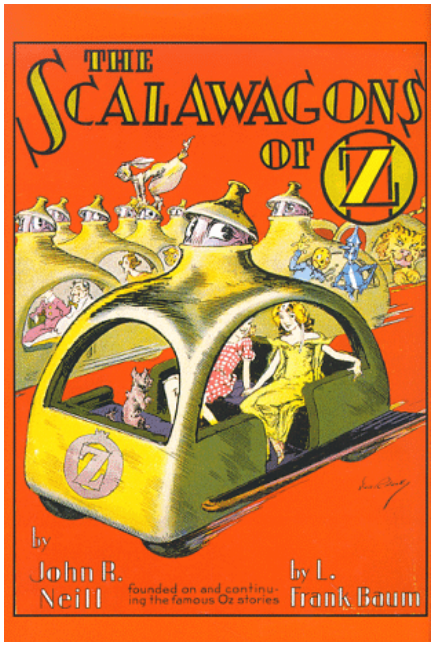
Libraries and Museums



My Humanities

Libraries at the Cutting Edge

Thomas H. Wilson



The Scalawagons of Oz (1941), by John R. Neill, based on the original stories by L. Frank Baum.

When I was a little boy, my grandmother worked at the local library. When she went to work, she took me. Our library was at the back of the community center in a small town in southern New Mexico. In one corner of the modest library were the children's books. I loved to sit and look at the books. My favorite was *The Scalawagons of Oz*, which had wonderful illustrations. I checked out the book over and over again. My grandmother wanted to weep, I made her read it to me so many times. When it was worn out, and the library withdrew the book, they gave it to me. Thus in the library began my habit of reading and my lifelong association with books.

The first day that I arrived for graduate school at the University of California, Berkeley, I stood at an entrance to campus. A sign presented the highlights of the flagship campus of the University of California. The main library had four million volumes. There were 21 branch libraries on campus. Berkeley was underscoring the relationship between the greatness of the university and the greatness of its library. The sign told me that 85 languages were taught at Berkeley, and undoubtedly many foreign language texts are in the libraries. The knowledge and intellectual diversity of the world reside in libraries.

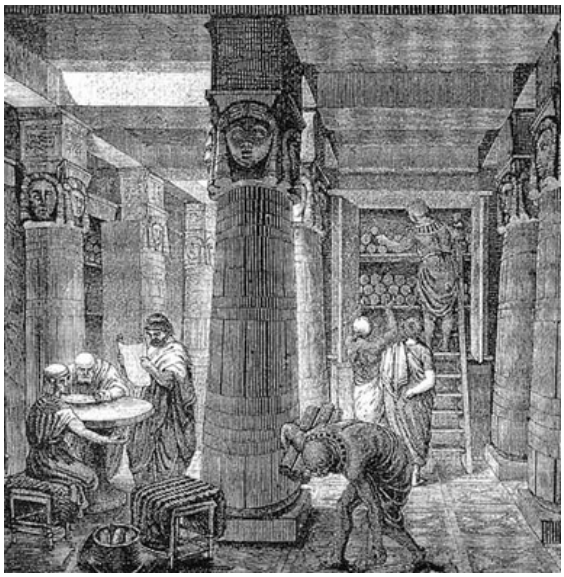
Libraries have always been at the cutting edge of knowledge and technology. They are amongst our oldest cultural institutions. Practically as soon as humans invented writing, societies created spaces to store written information and knowledge. The earliest language recorded was probably Sumerian in the ancient Near East beginning about 3400-3200 BC. Sumerians wrote in cuneiform, wedge-shaped symbols impressed by stylus on clay tablets, often accounts of things, like so many sheep, goats, or bundles of grain. The clay tablets could be dried or fired, to create permanent records. Soon, letters, laws, taxes and stories were written down, and the records were stored in palaces or temples, functionally the first libraries. Scores of early sites in Mesopotamia and the Levant yield caches of cuneiform tablets, often in public facilities. The Library of Ashurbanipal at Nineveh in the seventh century BC contained about 6,000 tablets, now in 30,000 fragments. The newest technology of the time inspired and required storage of recorded facts, knowledge, accounts, laws and opinions, and the library was born.

Cuneiform tablet from the Library of Ashurbanipal. Epic of Gilgamesh, The Flood Tablet, in Neo-Assyrian. British Museum.

The Library of Alexandria was the most famous library of the classical world. Alexander the Great founded his namesake city in 331 BC, and Ptolemy I established the library shortly thereafter. The institution was like an academy, with elements of university, museum and library, where scholars came to teach, learn and

consult documents. At its most expansive, the Library of Alexandria may have housed as many as 500,000 manuscripts, scrolls of papyrus on which the wisdom of the ancient world was recorded in inks made of mineral or vegetable dyes. Papyrus, a paper-like material made from the papyrus plant, harvested from the wetlands of Egypt and the Sudan, was a convenient format for writing and a technological advance over clay tablets. The Library of Alexandria was on the cutting edge of communications technology and learning in the ancient world.

Unfortunately, Alexandria was also strategically located, on the confluence of the western branch of the Nile Delta and the shore of the Mediterranean Sea. After the battle of Pharsalus in 48 BC, Julius Caesar arrived in Alexandria in pursuit of Pompey. In the subsequent fierce fighting in the city, Caesar felt compelled to burn his ships in the harbor, and the fire also might have burned part of the great library. When Egypt restricted export of papyrus, inventors at the Library of Pergamum in Anatolia developed parchment by curing the skins of calves, sheep or goats. Velum is a more refined version of parchment. Again, libraries benefitted from the new technology.



The Great Library of Alexandria, nineteenth century image by Otto von Corvin.

Library of Celsus at Ephesus, c. AD 120. Celsus, a consul of Rome, paid for the library, which contained 12,000 manuscripts, and was buried there.

Personal libraries were signs of prestige in the classical world, and many of the prominent citizens of Greece and Rome had private libraries. Cicero wrote that the library was “the soul” of his home. Establishment of public libraries also conferred prestige. Julius Caesar intended to build a great public library at Rome, but the Ides of March intervened. Roman emperors provided pubic spectacles and distributed grain to entertain and mollify the Roman populace, but they also provided public libraries. Augustus, Tiberius, Trajan and Hadrian were among the emperors who built public libraries. Constantine founded an imperial library at Constantinople in the AD 330s. In the classical world, the idea that public libraries were a civic responsibility and expectation had taken hold.

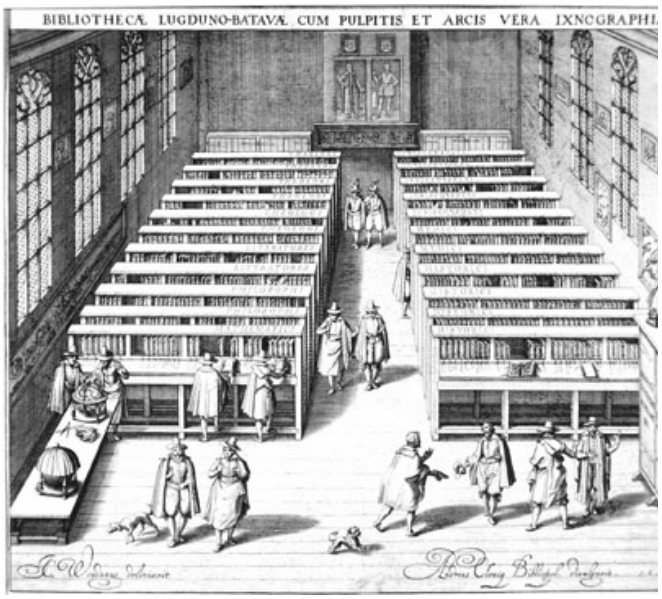
After the fall of Rome in AD 476, Europe entered the Dark Ages. The role of libraries fell to the established religious organizations. Monasteries and churches cared for, produced, and laboriously copied manuscripts. Characteristically, these religious repositories were considerably smaller than the libraries of the classical and Islamic worlds. By the beginning of the Middle Ages, the codex format, in use from Roman times or earlier, replaced the scroll as the preferred medium for manuscripts, another innovation significant for libraries.

Abbey of St. Gallen library, Switzerland. Founded in AD 719, 355 of the abbey's manuscripts older than AD 1000 are being digitized for its virtual library.

The ages were only dark in Europe. In the capitals of the great caliphates at Damascus and Bagdad, Arab scientists and scholars were inventing algebra, making great advances in astronomy, navigation, geography and medicine, and translating the classics, at the same time, as Philip Hitti writes in his *History of the Arabs*, "their contemporaries in the West, Charlemagne and his lords, were dabbling in the art of writing their names." At its height, before the eleventh century, Bagdad had as many as thirty public libraries, and rivaled Byzantium as an intellectual center. Cairo grew to prominence as a center of learning in the tenth to twelfth centuries, and numerous libraries flowered in Islamic Spain, such as the great library at Córdoba. The Muslims brought knowledge of the invention of paper from China to Europe through the Iberian Peninsula, and its manufacture and use spread to Italy by the late thirteenth century and to Germany by the early fourteenth century.

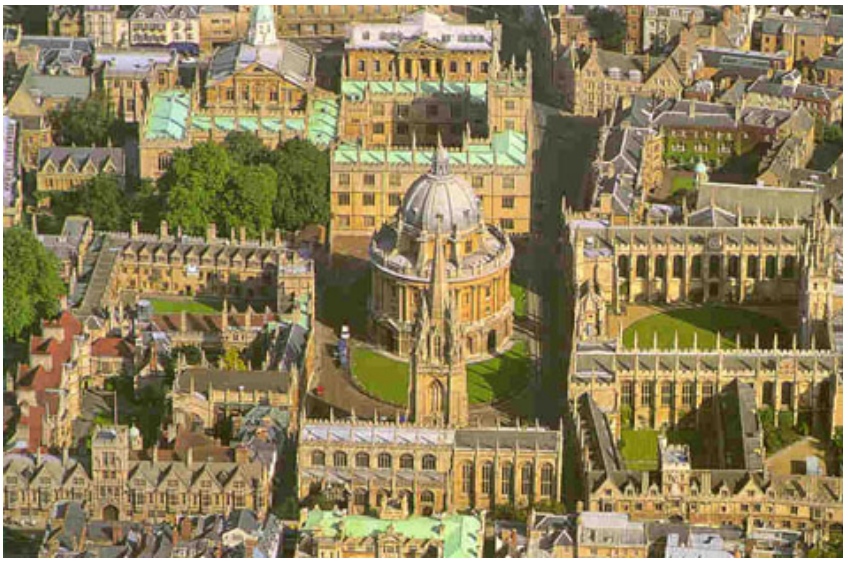
The rise of universities, the spread of paper manufacture and use, the discovery of moveable type and development of efficient ways of printing helped bring Europe out of the medieval period and into the Renaissance. Libraries contributed greatly to this florescence. In the mid-twelfth century, universities sprouted almost simultaneously at Paris, Bologna and Oxford, although significant growth of university libraries did not begin until the fourteenth century. Wealthy princes, merchants and church leaders in the later Middle Ages and Renaissance developed their own libraries, and often gifted them to public institutions.

The efficient and cheaper production of books, and growing literacy, set the stage for the more widespread growth of libraries in Western societies. Booksellers played a major role in increasing the production and distribution of books, which often found their ways into collections and ultimately libraries.



Leiden University Library, The Netherlands, by Jan Cornelius Woudanus, 1610. The university library opened in 1587, with the first printed catalogue of collections in the world. The library is significant for its role in the Enlightenment.

University libraries continued to grow after the Renaissance. National libraries were founded in France, England and other European countries, often with elements of previous royal or ecclesiastical libraries. Reading societies created subscription libraries, where members paid a fee and shared access to the volumes, such as the Library Company of Philadelphia, founded in 1731 by Benjamin Franklin. Commercial rental libraries allowed the masses to read for a small charge. Specialized libraries arose, such as those dedicated to law, medicine, history and numerous other subjects.



The Bodleian Library, Oxford University, dates from 1602, with antecedents from the fourteenth century, and holds 11 million texts.

The history of libraries reveals the human urge to write, to preserve facts and thoughts, to assemble and organize manuscripts, to collect, buy, sell and donate texts, and to create institutions to store and share knowledge. Often throughout history, benefactors have given collections of texts to public institutions, sometimes along with the money to build or maintain the buildings. More recently, governments at all levels have seen the benefits of creating and supporting public libraries. By the sixteenth century there were public libraries in Germany. In the United States, some states began to establish public lending libraries in the early nineteenth century. Andrew Carnegie gave grants to build libraries in the United States, Great Britain and elsewhere, and by 1919 Carnegie money had built nearly half of the 3,500 public libraries in the United States. In Arizona, Carnegie libraries were established at Prescott (1899), Tucson (1899), Phoenix (1902), and Yuma (1917). In Great Britain, the Public Libraries Act of 1850 gave boroughs the authority to levy taxes to support public libraries. Now, municipal libraries are a point of pride in many areas of the world, and school libraries are ubiquitous.

The development of libraries from antiquity to the present has been far from smooth. Many of the classical libraries did not survive the chaos surrounding the decline and fall of Rome. Some of the pagan or apostate emperors destroyed Christian texts, and Christian emperors destroyed contrary opinions. The emperor Justinian closed the academies at Athens and Alexandria in AD 529 for Neo-Platonist teachings. The Crusades and reconquest of Spain were damaging to Islamic repositories. Henry VIII dissolved the monasteries in 1536-40 and dispersed their libraries, some of the assets probably going to educational institutions. Wars, both international and civil, have been destructive to libraries, and numerous disasters, such as fires, have destroyed or damaged many libraries. World War II was tremendously damaging to libraries. Through time, it has proved much easier to destroy a manuscript than to kill an idea. This tenacity to protect and preserve the intellectual history of humankind is characteristic of libraries.

There has always been an intimate relationship between libraries and technology. The earliest repositories for texts developed shortly after the invention of writing and its inscription on clay tablets. Further advances in technology with great impact on libraries came with the invention of papyrus, parchment and velum, and then paper. Moveable type and the printing press, and more recent advances in typesetting, made books available to all in libraries in communities of all sizes. Cost per text diminished greatly through time.

Burton Barr Central Library, Phoenix, Arizona. Designed by Bruder DWL Architects, the library is an example of a contemporary municipal public library. The American Library Association estimates there are almost 9,000 public libraries in the United States, and over 120,000 libraries of all kinds. The majority are school libraries.

Now, the world has entered the digital age. The newest technology in publishing, communication and the dissemination of knowledge is digital and electronic. Books may now be purchased or consulted from devices that accompany the user wherever he or she may be. Encyclopedic knowledge is now available online. Much of the information that now circulates in cyberspace does so because it was preserved for decades, centuries or millennia in libraries.

How will libraries respond to the digital age? All the technological advances discussed above contributed to the ability of libraries to collect, preserve and disseminate the knowledge of the ages. For the first time in history, will major advances in communications technology threaten rather than enhance libraries? Will libraries evolve and adapt to meet these challenges? Today, libraries are reorganizing to convert space from passive to active, like creating studios or computer labs. They are emphasizing skill sets, helping people get jobs, tutoring, and creating more active participants in lifelong learning. The great mission of public libraries is still literacy, and their goal is to serve everybody.

Ironically, I wrote this essay without setting foot in a library. I used what is already in my head and what is in cyberspace, both of which ultimately came from libraries. To consult a book, Michael H. Harris' *History of Libraries in the Western World*, I downloaded it in 30 seconds. The full impact of the digitization of information on libraries remains to be seen. Nevertheless, I remember with fondness the size, weight, feel of the thick paper, unevenness of the pages, quality of the illustrations and even the scent of the book that I first experienced with *The Scalawagons of Oz* in a library so many years ago.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Chasing the Muse

Thomas H. Wilson

I cannot remember when I visited my first museum, but I remember very clearly when I had my first exhibition experience. I was three years old, and my father and I were walking in downtown Phoenix. There, in a huge display window, was a great taxidermy bear, rising to monumental height on its hind legs. I remember the store as an automobile showroom, but don't know why a bear would be there other than great visual impact. At the Arizona Museum of Natural History today we present a visual feast of dinosaur skeletons, full-body dinosaur reproductions, and yes, a taxidermy bear. Daily I see wide-eyed children responding to these images and experiencing something akin to my reaction to the bear in the window. We want their experience at the museum to be inspirational, educational and memorable.

Museums, along with school systems, libraries and institutions of higher learning, are among the world's great educational and research organizations. Like libraries, the origins of the museum idea in Western cultures may be traced to deep antiquity. Even further back in time is the evolution of aesthetic sensibility. The artistic qualities of the cave and rock paintings of Europe and Africa dating to 30,000 years ago and earlier are well known. Even some stone tools, such as the upper Acheulean hand axes dating to a third of a million years ago, may be fashioned beyond what was necessary for pure functionality. Making art and desiring to possess it are among the characteristics that make us human.

Acheulean Handaxe from St. Acheul, c. 350,000-300,000 years ago.

The word museum comes from the Greek *mouseion*, a place dedicated to the muses, the three or nine nymphs of antiquity representing literature, music and dance, or more broadly, knowledge and the arts. The cultures of the ancient Near East, Egyptians, Minoans, Greeks and Romans all produced, traded, captured, and displayed works of art. In the ancient world, the architectural repositories of this wealth were usually temples, palaces, and the homes and gardens of the wealthy. Then, as now, display of art was both personal and civic, and its accumulation was a sign both of taste and wealth. Perhaps more than other ancient civilizations, the Romans looted the wealth of conquered peoples, and ostentatiously displayed the plunder in imperial triumphs, on sculpture such as Trajan's column, and in public buildings.

Bison, Cave of Altamira, Spain. Magdalenian culture, 16,500-14,000 years ago.

The museum and library function may have come together at the Library of Alexandria, a research institute where scholars from the ancient world came to learn and teach. In addition to the library, museum functions included the study of mathematics, engineering, medicine and geography, made use of by such luminaries as Euclid, Archimedes, Eratosthenes and Hipparchus.

After the fall of the Western Roman Empire in AD 476, what museum functions there were survived primarily in religious organizations. With the collapse of much civil society in Europe, in the Middle Ages great public architecture had its expression in religious institutions. Cathedrals, churches and monasteries held and displayed paintings, tapestries, stained glass, objects of precious metals, ivory, and manuscripts for visitors and congregations.

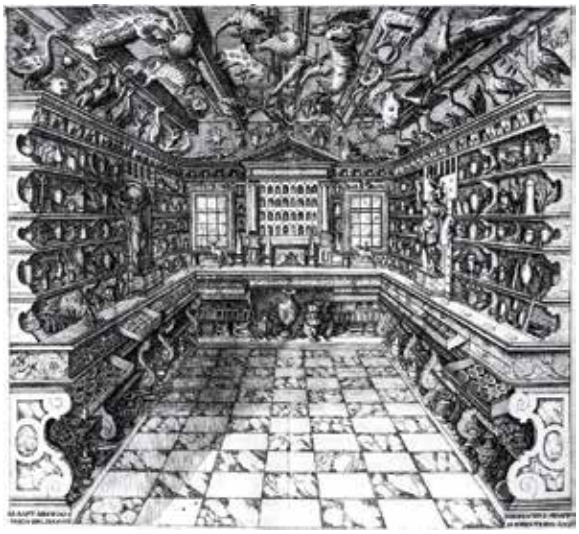
As Europe entered the Renaissance, renewed interest in the classical world was accompanied by robust economic activity. The rise of universities, better educated elites, and the accumulation of wealth created the conditions for the rise of museums. The Palazzo Medici in Florence, built by Cosimo de Medici between 1445 and 1460, displayed in its colonnaded court and salons sculpture and other works of art in various media. The Palazzo Medici has been called the first European museum.

Medici Palace, Florence.

Museums played a role in the transition from the Renaissance to the Enlightenment, with its greater emphasis on rationalism and scientific process. From Italy to northern Europe, inquisitive gentlemen of means collected, preserved, catalogued and presented objects from around the world in spaces variously called *kunstkammer*, *wunderkammer* or cabinets of curiosities. In the late sixteenth and early seventeenth centuries, Ferrante Imperator (1550-1625) in Naples, Francesco Calceolari (1522-1609) in Verona, Ferdinando Cospi (1606-1686) in Bologna, and Ole Worm (1588-1655) in Copenhagen participated in this public tradition. Although sometimes called cabinets of curiosities, actually these collectors were experimenting with classification and organizational systems, and with methods of presentation. In these and similar institutions we may see the rise of natural history and science museums.

Museums were also established at universities. Fourteen universities were founded in Europe before 1300, in Italy, England, Spain, Portugal and France. Among them was Oxford, in operation since at least 1167, and granted a papal charter in 1254. John Tradescant was gardener to some of the great houses of England in the early seventeenth century, and from his travels he assembled a collection of natural history and ethnological specimens that he exhibited at "The Ark" in Lambeth, London. His son, also John, continued in his father's profession and vocation, and ultimately the Tradescant museum and library became the foundation of the world's first university museum, the Ashmolean Museum at Oxford University (1677).

Museum of Ferrante Imperator (1550-1625), engraving from *Dell'Historia Naturale*, Naples, 1599, the first published image of a natural history collection. Imperator studied geology in the field and corresponded with other Renaissance humanists.



Museum Francesco Calceolari (1522-1609), Verona. Calceolari was an apothecary in Verona who experimented with pharmacy. The engraving of 1622 shows birds, fish, reptiles and other animals.

Kunst- und Raritäten Kammer, by Frans Francken the Younger, 1636. Kunsthistorisches Museum, Vienna.

Museum of Ferdinando Cospi (1606-1686), Bologna. Engraving of 1677. Cospi was a well-connected diplomat and politician from an old Bolognese family. He donated the museum to the senate of Bologna in 1660.

Museum of Ole Worm (1588-1655), from *Museum Wormianum,* 1655. Worm was a Danish physician and antiquary, a highly educated natural philosopher who experimented with empirical methods.

The British Museum and the Louvre are examples of the development of national museums, each with quite different routes to prominence. The core of the British Museum at its founding was the collection of Sir Hans Sloane, a prominent physician (Sloane followed Isaac Newton as president of the Royal Society) with a natural history collection of 71,000 objects. Upon his death in 1753, parliament acquired the collection for the nation and established the British Museum, which opened in 1759, the first national public museum in the world.

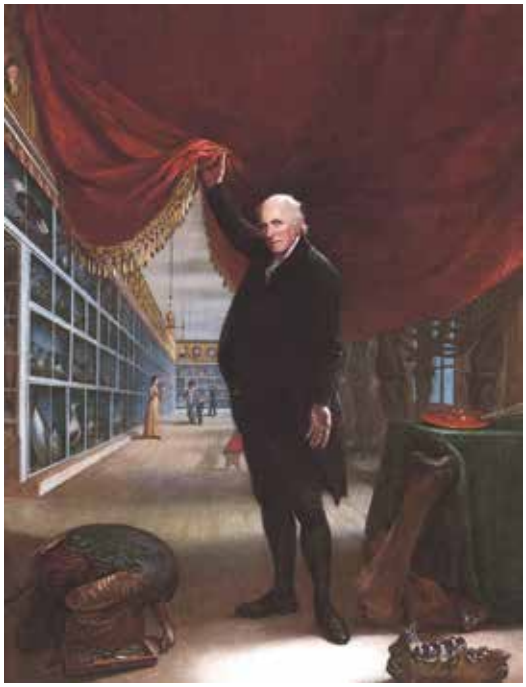
France's national museum was born of revolution. The French flirted with opening royal collections to the public before the French Revolution. Under Louis XIV, the Versailles palace and gardens were open to some, and in 1774 Louis XVI began the processes to open the Louvre as a museum. Events overcame planning. Revolutionaries nationalized French royal collections, added some works of art from church organizations, and opened the Louvre as a national museum for the people of France in 1793. The museum organized collections by French, Flemish, Italian and Dutch schools, and provided explanatory texts and catalogues. Later, Napoleon's expeditions in Italy, Egypt and elsewhere in Europe brought artistic plunder back to France. The French government organized the envoi system, whereby works of art from Paris were shared with regional museums, and works of art from Napoleon's conquests were shared throughout France.

The British Museum.

The Louvre, Apollo Gallery.

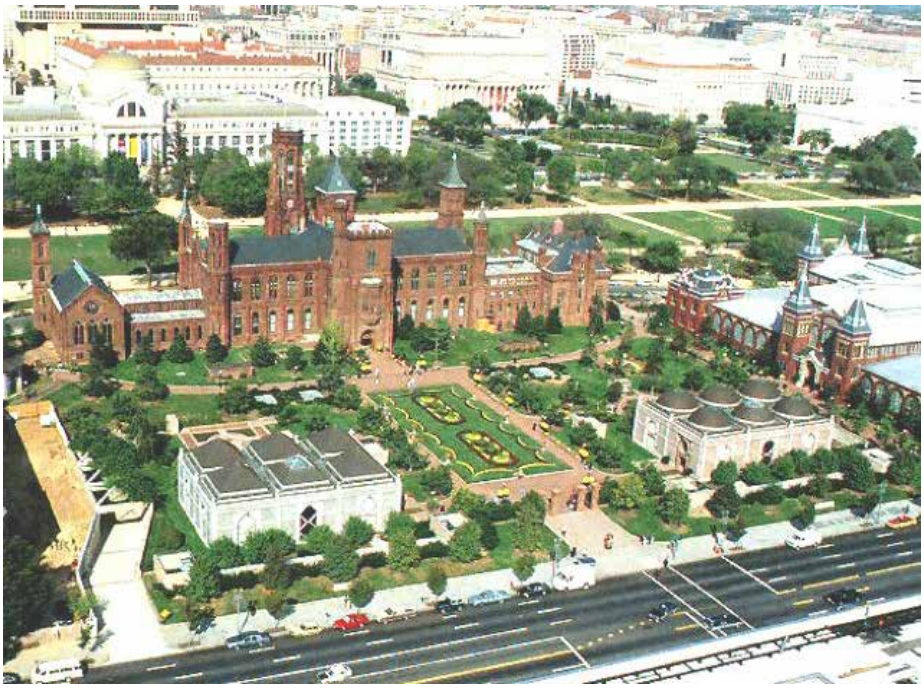
In the United States, although the Charleston Museum, which traces its origins to 1773, is America's oldest museum, the first American museums of great influence were those organized by Charles Willson Peale, in Philadelphia and Baltimore. Peale founded his Philadelphia museum, "a repository for natural curiosities," in 1786 to provide "rational amusement" and to teach natural science, art and some history. Fossils, taxidermy and portraiture were among the highlights of the Peale museums.

Ironically, the gift of a foreigner created the national museum of the United States. James Smithson, an Englishman who had never visited the United States, left a bequest in 1835 to "the United States of America, to be found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." Naturally, congress fought over how to use the money, but in 1846 chartered the Smithsonian Institution. It has now grown into one of the great national museums of the world.



The Artist in his Museum, by Charles Willson Peale, 1822.

The 1860s and 1870s were good times for the development of museums in the United States. Political, social and financial heavyweights founded the American Museum of Natural History in 1869, and President U. S. Grant laid the cornerstone in 1874. Across Central Park, in 1870, the Metropolitan Museum of Art was founded, modestly, to "gather together a more or less complete collection of objects illustrative of the history of art in all its branches, from the earliest beginnings to the present time…for the instruction and entertainment of the people." Verily, over a hundred and thirty years later, the Met is pretty much living up to its mandate. At Harvard University, in 1866 George Peabody offered to fund a museum dedicated to archaeology and ethnology, which began the tradition of universities and colleges in the United States often having one or more museums on campus.



Smithsonian Institution.

Museums are institutions that collect, preserve, exhibit and interpret objects for the benefit of the public. Today there are perhaps 17,500 museums in the United States and maybe 55,000 worldwide. Some museums are private nonprofits; others are national, state or local government entities. They are dedicated to a great number of subjects: art, history, science, natural history, anthropology and other subjects. There are historic houses, tribal museums, children's museums, ethnic museums and more. Zoos, botanical gardens and arboreta have museum elements in them. In the United States, there are about a billion visits to museums each year, more than attendance at all professional sports events combined.

Arizona is a microcosm of the national scene. There are perhaps 275 museums in Arizona. The state has national parks and monuments (Grand Canyon, Casa Grande, Tuzigoot, Navajo, Tonto and more); state museums (Arizona State Museum, Arizona Historical Society in Tucson and branches in Flagstaff, Yuma and Tempe, and the Arizona Capitol Museum); and many municipal museums. There are nine state historic parks and 120 history museums in Arizona. The state has flagship art museums in the Phoenix Art Museum, Tucson Museum of Art and Heard Museum. Some museums are dedicated to particular timeframes, like Mesa Contemporary Arts, Scottsdale Museum of Contemporary Art, and the ASU Art Museum. Others focus upon particular audiences: Phoenix Children's Museum and the i.d.e.a. Museum. The Desert Botanical Garden, Boyce Thompson Arboretum and Tucson Botanical Garden offer superb presentations of Southwestern floras.

Dinosaur Mountain, Arizona Museum of Natural History.

The Arizona Museum of Natural History, Museum of Northern Arizona and Arizona Sonora Desert Museum present the natural history of the Colorado Plateau and desert areas of the Southwest. Some museums are just gems, like the Amerind Foundation in Dragoon, the Bisbee Mining and Historical Museum, Sharlot Hall Museum in Prescott, and the Desert Caballeros Western Museum in Wickenburg. The Musical Instrument Museum is a tremendous new addition to Arizona's museum world.

"The modern museum," wrote one authority, "is a product of Renaissance humanism, eighteenth-century enlightenment and nineteenth-century democracy." The origins of museums are also deeply rooted in the civilizations of antiquity, and in timeless characteristics that make us human.

Thomas H. Wilson is Chair of the Arizona Humanities Council

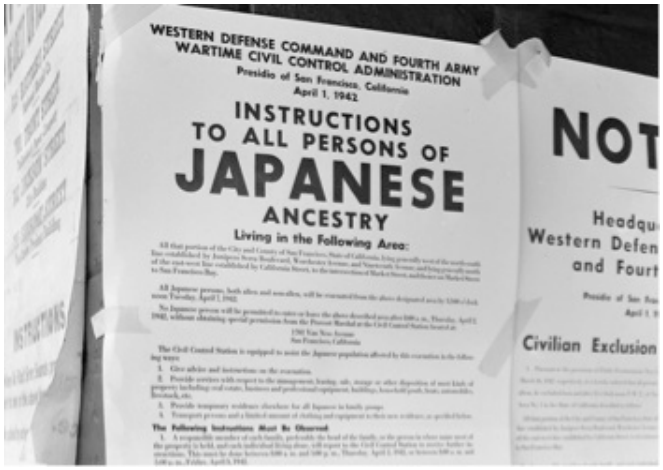
Law and Humanities

My Humanities

Reflections on Japanese Internment

Thomas H. Wilson

A Japanese lady lived near me in Berkeley when I was in graduate school. Mrs. Takahashi would have been an adult before World War II. Through neighborly chat, we learned that she raised goldfish before the war, and the whole area had previously been a Japanese neighborhood. Without her saying so, it dawned on us that she lost her little business through internment during the war. Many ethnic Japanese suffered exclusion from areas that military administrators deemed vulnerable to potential Japanese sabotage and espionage. Over 110,000 ethnic Japanese were removed to relocation centers, and as a result many permanently lost their homes and businesses. 2012 is the 70th anniversary of the government action that led to the exclusion of all persons of Japanese ancestry from areas of Pacific Coast states and southern Arizona.



Instructions for assembly and exclusion at San Francisco, April 1, 1942 (National Archives and Records Administration)

Shortly after the Japanese attack on Pearl Harbor, on February 19, 1942, President Franklin D. Roosevelt signed Executive Order 9066, which allowed the Secretary of War to create military zones "from which any or all persons may be excluded," and "to provide . . . other accommodations as may be necessary . . . to accomplish the purpose of this order." Mostly, but not exclusively, the order was applied to persons of Japanese ancestry, the great majority of whom were citizens of the United States. Many of those excluded from the military zones were relocated to internment camps, the "other accommodations" necessary to accomplish the purpose of the order.

When the military orders of exclusion for areas of Los Angeles and San Francisco were issued in the spring of 1942, heads of households and persons living alone had two days to report and receive instructions, and all persons had to be ready to leave in about a week. Evacuees could bring with them some bedding, toiletries, extra clothes, utensils, and essential personal effects, securely packaged and limited to the amount a person could carry. No pets were permitted, and no personal effects or household goods could be shipped to the assembly center.

Arizona hosted two internment camps. The Gila River War Relocation Center was located on Gila River Indian Community land, over the objections of the tribal government. Towards the end of the war it became Arizona's fourth largest community. Poston War Relocation Center was built on the Colorado River Indian Reservation, about three miles from the river in what is now La Paz County, again over the objections of the tribal government. Poston, build by Del Webb, with a population over 17,000, became the third largest settlement in Arizona at the time.

I worked in the museum program at the National Endowment for the Humanities when a fledging organization in Los Angeles was established to present to the public the history and culture of Japanese Americans. The Japanese American National Museum is now an internationally renowned institution and one of the premier museums of its kind in the United States. It was newly minted and had no track record when it first came to NEH for support. Nevertheless, there was something about the energy of the organization and the people involved that inspired confidence, and I became program officer for NEH support that was crucial in establishing the institution.

Processing in San Francisco, April 25, 1942 (NARA)

Arriving at Santa Anita Assembly Center from San Pedro, April 5,1942 (Photo Clem Albers, NARA)

One day Nancy Araki and James Hirabayashi came to talk to me in Washington about funding a project from the museum. I was in law school at the time, and after we completed our discussions about the proposal, I summoned my courage to ask a question of Dr. Hirabayashi, a distinguished professor at San Francisco State University and guest curator at the Japanese American National Museum. "I do not know," I said, "how common is the name Hirabayashi, but there is a famous Supreme Court case with that name. Is there any relation?" I told him I hoped the question was not rude.

"Gordon is my brother," replied James Hirabayashi. "He was a good boy, not trying to make trouble. He was out, forgot about the time, and failed to return before curfew." Actually, Gordon thought a lot about violating the curfew and deciding to disobey the exclusion order. With the assistance of Quaker groups in the Seattle area, he engaged in principled civil disobedience and turned himself in to the FBI. Gordon Hirabayashi admitted that he knowingly violated the curfew, a misdemeanor for which he was convicted. In *Hirabayashi v. United States* (1943), the Supreme Court held that the curfew was constitutional exercise of the war power to protect against sabotage and espionage, and that the order did not unconstitutionally discriminate against citizens of Japanese ancestry. Gordon served about six months in jail awaiting trial, and after his conviction, authorities allowed him to hitchhike to his area of incarceration near Tucson. Ironically, he served his time at a camp in an exclusion area, where he was forbidden to be.

About a year later, in *Korematsu v. United States* (1944), the Supreme Court, in a 6-3 decision, upheld the constitutionality of the exclusion order. But there were passionate disagreements. Justice Murphy dissented "from this legalization of racism. Racial discrimination in any form and in any degree has no justifiable part whatever in our democratic way of life. It is unattractive in any setting, but it is utterly revolting among a free people who have embraced the principles set forth in the Constitution of the United States. All residents of this nation are kin in some way by blood or culture to a foreign land. Yet they are primarily and necessarily a part of the new and distinct civilization

Luggage at Salinas, California Assembly Center (NARA)

Train leaving Santa Anita, California, 1942 (Photo Julian F. Fowlkes, Library of Congress)

Hiroshi Hayashida, left, with flag and family, departs Seattle for Manzanar camp, March 30, 1942 (Seattle Star)

of the United States. They must, accordingly, be treated at all times as the heirs of the American experiment, and as entitled to all the rights and freedoms guaranteed by the Constitution."

Justice Jackson, struggling with the racial issues of the case, also wrote in dissent: "Korematsu was born on our soil, of parents born in Japan. The Constitution makes him a citizen of the United States by nativity and a citizen of California by residence. No claim is made that he is not loyal to this country. [His crime] consists merely of being present in the state whereof he is a citizen, near the place where he was born, and where all his life he has lived. . . . Now, if any fundamental assumption underlies our system, it is that guilt is personal and not inheritable. Even if all of one's antecedents had been convicted of treason, the Constitution forbids its penalties to be visited upon him. . . . But here is an attempt to make an otherwise innocent act a crime merely because this prisoner is the son of parents as to whom he had no choice, and belongs to a race from which there is no way to resign."

Not long after my meeting with James Hirabayashi and Nancy Araki, I visited the National Museum of American History, where the Smithsonian Institution presented an exhibition on the Japanese American experience in World War II. Included was the story of the famous 442 Regiment, composed of Japanese American soldiers, the most decorated unit in American military history for its size and length of service. 21 members of the 442nd received the Congressional Medal of Honor for action in the European theatre, including Daniel Inouye, the United States Senator who lost an arm in the war serving his country and who was called "that little Jap" by a witness at the Watergate hearings. The exhibition also presented the internment experience. In one area, videos showed four Japanese Americans speaking of their time in the camps. To my surprise, Nancy Araki was one of the four. She spoke about what it was like to be there as a little girl. In my meetings and discussions with her, she never mentioned that she was interned. James Hirabayashi was interned with his family at Pinedale and Tule Lake, California.

Susie Ishikawa Sato came to Mesa from Los Angeles in March 1942, in response to the exclusion

A family returns home to Seattle, May 10, 1945 (AP Photo)

order. She was eight months pregnant. The line excluding ethnic Japanese from southern Arizona ran right down Main Street. The hospital in Mesa, population about 7,000 at the time, was south of Main Street, an area from which Susie was excluded. The Mesa Police contacted the FBI, and Susie was allowed to deliver her baby in the Southside Hospital. She could not buy clothes at the J.C. Penny's store on the south side of the street, but luckily the Bashas' food store was on the north side. The oil company in Mesa refused to deliver to the Sato farm, so they found a dealer in Phoenix who would sell oil and gas to Japanese Americans. Similarly, the produce market to sell the farmers' vegetables was south of the line in Phoenix and the family relied on a compassionate local broker to take their produce to market. Individual acts of kindness can ameliorate public actions of intolerance.

The peoples and governments of the United States have not always treated ethnic minorities fairly and honorably. Discrimination and violence are well documented against African Americans, Native Americans and other minorities. Occasionally, the justice system, including the Supreme Court, has colluded in this oppression. The Dred Scott decision, which held among other things that blacks were not citizens and were unprotected by the Constitution (1857), and *Plessey v. Ferguson* (1896), which upheld the separate but equal doctrine that enshrined segregation, are examples of the darkest days of the Supreme Court. Perhaps the Court in those cases and other examples was reflecting popular opinion at the time, but history has dealt harshly with the reasoning and effects of those decisions. Sometimes, the Supreme Court errs.

Public policy is made at state and national levels, but it is executed upon individuals. Policies are carried out upon our neighbors and friends, as happened to the four Japanese American internees who happened to cross my path. It is hard for us today to imagine rounding up American citizens and deporting them to internment camps with only what belongings they could carry, but this is what happened to many people still alive. In 1988, President Ronald Reagan signed federal legislation that apologized to and provided payments for those interned during World War II.

In 1987, the United States Court of Appeals for the Ninth Circuit overturned Gordon Hirabayashi's conviction. Gordon passed away on January 2, 2012. James Hirabayashi died only months after his brother, on May 23, 2012. On May 29, 2012, President Barack Obama posthumously awarded Gordon Hirabayashi the Presidential Medal of Freedom, America's highest civilian honor.

Gordon Hirabayashi (1918-2012) (UPI Photo, 1985)

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Is Creationism Extinct in Public Education?

Thomas H. Wilson

Some years ago, I spoke at the University of Virginia. In passing, I made reference to the fact that until 1967 blacks and whites could not marry in Virginia and 15 other states under penalty of criminal prosecution. That year, the United States Supreme Court, in *Loving v. Virginia*, struck down the miscegenation laws in all those states, citing the Fourteenth Amendment to the United States Constitution, holding that "There can be no doubt that restricting the freedom to marry solely because of racial classifications violates the central meaning of the [Equal Protection Clause]."

After my talk, a young black man from the audience told me that he was unaware of this history, and that he was married to a white woman. He was clearly moved to know that not so long ago it would have been illegal for him to wed his wife in Virginia.

Mildred & Richard Loving, who were jailed and ordered out of Virginia by a judge for being married. HBO aired a documentary on the subject in February 2012. Photo Grey Villet, 1965.

Decisions of the US Supreme Court impact individuals.

Jurisprudence, the study of the history and processes of law, is a humanities discipline. We all have a stake in jurisprudence. For example, few today would argue with the holding of the United States Supreme Court in *Brown v. Board of Education* (1954), which found segregation in public schools unconstitutional. In 1965, *Griswold v. Connecticut* overturned laws that made it illegal to distribute contraceptives to married couples, and established the right to privacy. Building on *Griswold*, in 1974, the court in *Roe v. Wade* overturned laws that made abortion illegal. This holding has not achieved universal acceptance. The recent *Citizens United* case (2010), which found donations from corporations and unions for electioneering protected under the Free Speech Clause of the First Amendment, unleashed consequences that are currently unfolding. Jurisprudence matters.

It is unlikely that John Scopes, when he set out upon his teaching career in rural Tennessee, ever thought that his name would be associated forever with one of the fiercest and most enduring controversies in American education. Following a clash of legal titans, William Jennings Bryan for the prosecution and Clarence Darrow for the defense,

Justice William O. Douglas, who articulated our right to privacy in *Griswold*.

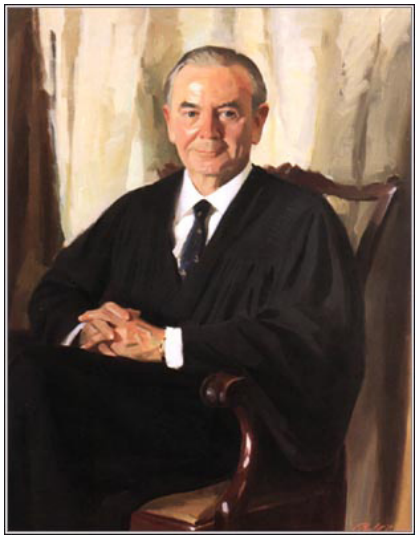
Scopes was convicted of teaching evolution contrary to statute at a sensational trial in 1925. Legally, the Scopes "Monkey Trial" is insignificant, but its issues thunder across the decades and continue to engage persons at the deepest emotional levels.

Clarence Darrow and William Jennings Bryan at the Scopes trial in 1925.

A series of decisions in federal courts over several decades have upheld the right to teach evolution in the public schools unfettered by religious dogma. Broadly, the decisions have upheld the integrity of the teaching of science in public education. In 1928, Arkansas passed a statute similar to

Tennessee's, which was not challenged in court until the mid-1960s. The United States Supreme Court, in *Epperson v. Arkansas*, (1968), held that the statute violated the Establishment Clause of the First Amendment of the U.S. Constitution ("Congress shall make no law respecting an establishment of religion…."). The court found that the proscription against state action that aids or opposes any religion is absolute, and "forbids alike the preference of a religious doctrine or the prohibition of a theory which is deemed antagonistic to a particular dogma." The Arkansas statute "cannot be defended as an act of religious neutrality." It was no longer illegal to teach evolution in the public schools of the United States.

Soon after the Epperson decision, creationists began to devise strategies to diffuse the effects of the holding and to contest the scientific basis of evolution. Fundamentalists advocated balanced treatment or equal emphasis acts that were designed to require the teaching of "scientific creationism" wherever evolution was taught. In 1981, Arkansas passed a law requiring balanced treatment for "creation-science" and "evolution-science." A federal district judge in *McLean v. Arkansas Board of Education* (1982) ruled that the act failed the purpose, effect, and entanglement prongs of the test that he applied. The judge found that a religious, not neutral, purpose underlay the act, that the effect of creation science is the advancement of religion, and that to uphold the act would excessively entangle the state in religious matters.



Justice William Brennan, one of the great jurists of the 20th Century, wrote the majority opinion in *Edwards v. Aguillard.*

Louisiana passed a similar law in 1981, the stated purpose of which was academic freedom. It too required equal treatment of "evolution-science" and "creation-science." The United States Court of Appeals for the Fifth Circuit found that the stated purpose of academic freedom was insufficient to avoid conflict with the First Amendment: "Irrespective of whether it is fully supported by scientific evidence, the theory of creation is a religious belief." The court stated that "the principle of academic freedom abjures state interference with curriculum or theory as antithetical to the search for truth. The Balanced Treatment Act is contrary to the very concept it avows."

On appeal to the United States Supreme Court, in *Edwards v. Aguillard* (1987) the court held that the Balanced Treatment Act lacked a clear secular purpose and therefore violated the Establishment Clause of the First Amendment. The court compared the actual purpose of the act with its stated purpose, and concluded that "The purpose of the Creationism Act was to restructure the science curriculum to conform with a particular religious viewpoint." Justice Scalia, joined by Chief Justice Rehnquist, wrote a blistering dissent: "what is crucial is not [the legislators'] wisdom in believing that purpose would be achieved by the bill, but their sincerity in believing it would be."

The holdings in these cases rely mostly upon the First Amendment's prohibition "respecting the establishment of religion." Another line of cases relies on the Free Exercise Clause of the First Amendment ("Congress shall make no law…prohibiting the free exercise thereof" [religion]). Generally, the cases turn on whether state action is unduly burdensome on the plaintiffs, and whether exemptions from the burden are available. When, in wartime 1943, the Supreme Court held unconstitutional a state statute requiring all students to say the pledge of allegiance, the Court wrote that "if there is any fixed star in our constitutional constellation, it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein." As much as some might like, students cannot be forced to say the pledge of allegiance. Similar exemptions or alternatives are available where evolution is taught.

In *Crowley v. Smithsonian Institution* (1980) the court found that merely visiting exhibitions on evolution would not actionably impair plaintiffs simply because they might be "confronted with exhibits which are distasteful to their religion." Another decision, *Mozert v. Hawkins County Board of Education* (1987), turned on whether requiring fundamentalist schoolchildren to read materials in science textbooks contrary to their sincerely held religious beliefs violated their free exercise rights. The U.S. Court of Appeals for the Sixth Circuit found no unconstitutional burden because the "critical element of compulsion to affirm or deny a religious belief or to engage in or refrain from engaging in a practice forbidden or required in the exercise of a plaintiff's religion" was absent in the case.

Justice Sandra Day O'Connor, often a swing vote on the Court. Charles Ommanney/Getty Photos.

The most recent decision in this line of jurisprudence again involves the Establishment Clause of the First Amendment. In 2004, the school board in the Dover Area School District in Pennsylvania initiated curriculum changes that offered Intelligent Design (ID) as an alternative to evolution in the science curriculum, and placed in classrooms a publication that supported ID as an alternative to the standard biology textbook. After a lengthy trial in federal district court, in *Kitzmiller v. Dover School District* (2005), the judge applied a test developed by Justice O'Connor. "The endorsement test recognizes that when government transgresses the limits of neutrality and acts in ways that show religious favoritism or sponsorship, it violates the Establishment Clause." Based upon extensive testimony, the judge found that Intelligent Design is "a religious view, a mere re-labeling of creationism" and therefore violated the First Amendment. He further found that ID is not science, but is based upon theology, and that the actions of the school board also violated the purpose and effect prongs of another constitutional test: "The effect of Defendants' actions in adopting the curriculum change was to impose a religious view of biological origins into the biology course, in violation of the Establishment Clause."

Is creationism extinct in public education? It seems imprudent to declare so, even though every federal court, at district, appellate or supreme court level, has found unconstitutional efforts to ban the teaching of evolution in public schools or to compel schools to teach creationism, creation-science, or intelligent design in parallel with evolution. The courts are clear that the one is theology, the other science. The governmental machinations variously struck down on Establishment Clause or Free Exercise Clause analysis under the First Amendment exhibit a sort of whack-a-mole quality to the creationists' reinventions. Too often these days, it seems, governmental bodies are willing to risk enormous costs in time and treasure on ill-founded schemes that jurisprudence suggests have little chance of passing constitutional muster. We all have a stake in the jurisprudence of our courts.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Our Lady: Anatomy of a Controversy

Thomas H. Wilson

Recently we witnessed riots and worse across the Islamic world in response to a film clip on the Internet that disparaged the Prophet Mohammed. To Western eyes, with our deeply held beliefs in and protections of freedom of expression, the reaction seemed out of proportion to the insult. Images are powerful things, eliciting deep emotional feelings in viewers. American museums for some time now have dealt with controversies arising from powerful images creating visceral responses.

I was director of the Museum of New Mexico in February 2001, when one of the museums in our system in Santa Fe, the Museum of International Folk Art, opened the exhibition *Cyber Arte: Tradition Meets Technology*. The exhibition presented computer inspired art that combined "folk" elements with state of the art technology to create a new aesthetic for the 21 century. In the words of exhibition curator, Tey Marianna Nunn, herself a native Hispanic New Mexican with a Ph.D. in Latin American art history from the University of New Mexico: "The central purpose of *Cyber Arte* is to exhibit the work of the featured artists and to showcase the manner in which they translate and recast their deeply-rooted cultural beliefs, images and history by utilizing computers to create a new type of visual art."

Our Lady by Alma López

Over two years in planning, the exhibition featured the work of four Latina artists, Theresa Archuleta-Sagel, Elena Baca and Marion Martínez from New Mexico and Alma López, from California. Among the dozen or so images by Alma López in *Cyber Arte* was the computer generated collage *Our Lady*, an image that arose from the artist's deep personal feelings. Born in Mexico and living in Los Angeles, the artist is both Hispanic and Catholic. She grew up with the Virgin of Guadalupe, and both traditional images of the Virgin and symbols derived from the image appear in her art. Inspiration for *Our Lady* arose from an essay in which the author pondered what the saints wore underneath their outer garments. The idea intrigued López, who imagined the Virgin draped in garlands of roses, symbolic of one of the original miracles of the Virgin of Guadalupe, when she revealed herself to the Indian peasant Juan Diego in 1531, and bestowed upon him a cloak of roses, out of season, to convince the Bishop of Mexico that her appearance was indeed a miracle. López' image, as portrayed by performance artist Raquel Salinas, is a Virgin with attitude. Not the demure, unassertive, head bowed Virgin of the traditional image, López' Virgin is a head-up, chin-out, hands-on-hips assertion of the power of women and womanhood. Otherwise unclothed, garlands of roses cover her breasts and hips, and a cloak of Aztec symbols surrounds her. The angel that traditionally upholds the image from below is here replaced with a bare breasted female image as symbol of the nurturing qualities of women and mothers.

Origins of the *Our Lady* Controversy

No one was prepared for what happened next. Two Santa Fe activists, Deacon Anthony Trujillo of Our Lady of Guadalupe parish and Jose Villegas Sr., a self-styled "barrio warrior," visited Museum of International Folk Art director Dr. Joyce Ice during the week of March 12 to request that the museum remove *Our Lady* from exhibition on the grounds that it is blasphemous and disrespectful of traditional images of the Virgin of Guadalupe and to the Catholic Church. On March 17, the *Albuquerque Journal* reported the story, describing the "Virgin of Guadalupe in a floral bikini, held aloft by a bare-breasted saint." This inaccurate quip contributed greatly to firing the flames of the controversy. Thereafter, print and broadcast media referred to *Our Lady* as "the bikini-clad Virgin."

On March 23, Villegas, Trujillo and 11 other protestors met, at their request, with New Mexico Officer of Cultural Affairs, Edson Way, Deputy Cultural Affairs Officer Linda Hutchison, Director of the Museum of International Folk Art Joyce Ice and me as Director of the Museum of New Mexico. While the television cameras rolled outside, the group presented a manifesto that demanded: removal of *Our Lady* from *Cyber Arte*; resignations of directors Wilson and Ice; return of Catholic sacred images in Museum of New Mexico collections to the Archdiocese of Santa Fe, return to the public of any revenues generated by the exhibition; and an apology. Thus was initiated a highly charged and very public controversy that pitted the fundamental rights of freedom of expression against the demands of religious groups to dictate what may be displayed in a public museum.

Early Crisis Management and Decision Making: The First 24 Hours

The events that immediately followed this meeting that Friday were crucial to the museum's decision to support the right of Alma López to have her artwork remain on display, the right of the museum to show it, and the right of the public to see it. Immediately after the meeting with the protestors, I convened a meeting of the senior staff of the Museum of New Mexico, including the directors of the four constituent museums and the department heads of all other divisions—about 15 leaders in all. To a person, the senior staff attending the meeting recommended leaving *Our Lady* on display. This support was critical in bolstering the decision not to remove the artwork.

Cyber Arte: Tradition Meets Technology at the Museum of International Folk Art in Santa Fe.

Also important was a call that morning to Republican Governor Gary Johnson's chief of staff, Lou Gallegos. Gallegos noted the high sensitivity to such issues in Santa Fe, observed that the museum would have its critics and defenders, and advised that museums, like universities, must enjoy learning without inhibition. He recommended getting the 7-member Museum of New Mexico Board of Regents involved to support the museum. This support from the governor's office was extremely important in the earliest hours of decision making under increasingly very heavy pressure to remove *Our Lady*.

The Crisis Escalates

As a constant barrage of news coverage elevated the level of the controversy and spread it throughout New Mexico and beyond, events over the next two weeks moved very quickly and involved some of the major institutions in the state.

On March 26, the Archbishop of Santa Fe put out a press release stating a position that was to have serious consequences inhibiting the museum's ability to negotiate a solution to the crisis. Calling the image "repulsive" and the exhibition of it

"insensitive" and "imprudent," Archbishop Michael J. Sheehan stated that "To depict the Virgin Mary in a floral bikini held aloft by a bare breasted angel is to be insulting, even sacrilegious, to the many thousands of New Mexicans who have deep religious devotion to Guadalupe." He continued, sounding themes that would recur over the course of the controversy, that "[s]uch a picture has no place in a tax supported public museum." He doubted "that the Jewish community would be patient with such a mistreatment of symbols sacred to their faith," and wished that "those who want to paint controversial art would find their own symbols to trash and leave the Catholic ones alone."

On the next day, March 27, nine members of the New Mexico Legislature, Democrats all, including the Speaker of the House and some of the most powerful figures in the legislature, wrote to Museum of New Mexico Board of Regents President Wood "Mike" Arnold, citing "the outrageous desecration of the image of Our Lady of Guadalupe" and noting the "flagrant disrespect and degradation of one of the most respected, beloved and admired saints."

On March 30, the museum received ringing support from the American Association of Museums, the Association of Art Museum Directors, and the American Civil Liberties Union, the first of many national organizations to weigh in on the controversy. The ACLU wrote to support, "without condition, the original decision of museum staff to present Ms. Lopez' artwork," further stating "our strong conviction that, as a public institution, the museum not only has the right, but the civic obligation to promote free expression, regardless of whether artwork is provocative or controversial." A week later, the ACLU was more blunt, threatening a First Amendment lawsuit against the Museum of New Mexico if the regents voted to remove the artwork.

On the same day, the Association of Art Museum Directors supported "the principles of free expression and tolerance that are the underpinnings of our democracy. We encourage those who oppose this issue to exercise their Constitutional right to peaceably and freely express their own opinions and to choose *not* to view works of art that may offend them. However, actions against the Museum of International Folk Art and the Museums of New Mexico by censorship or withdrawal of public funding are a breach of the Constitutional rights guaranteed to all American public institutions and individuals and are consistent with our democratic values." These were some of the first statements from national organizations commenting on both sides of the issue, from many university departments to the Catholic League.

Meanwhile, the war in the press increased. On March 28, I defended the museum's decision in both the *Albuquerque Journal* and the *Santa Fe New Mexican*: "We do not think one group of New Mexicans should be able to dictate to another group what they should be thinking, what they should be reading and what they should be seeing. And it is not fulfilling the mission of the museum as an educational institution to censor works of art."

The Governor of New Mexico could no longer remain above the fray. In a news conference on April 7, Governor Gary Johnson defended the museum's right to display *Our Lady* without censorship. Arguing that *Our Lady* did not violate community standards of obscenity, and that therefore the artwork should remain on exhibit, Governor Johnson noted that those who objected to the piece did not have to go see it. He further questioned what business the state would have running art museums if officials were willing to give in to those who call for censorship of works on display. The governor's support of the museum position—and his statement fairly directly told the regents, whom he had appointed, specifically where he stood—provided a welcome counterweight in state government to the letter from the legislature.

The museum received hundreds of letters expressing and exploring all aspects of the controversy, sometimes quite passionately, eloquently and thoughtfully. People in communities across New Mexico debated the issues. *The New York Times, Los Angeles Times, BBC* and other major print and broadcast media covered the story. The museum received over 60,000 postcards from a national Catholic publication calling for the removal of the image from the exhibition. There were also darker sides. Museum of International Folk Art Director Joyce Ice received a letter so vile that I considered it a threat and brought in the F.B.I. A caller from Ohio left a message asking what swamp I had crawled out from and promising to beat me. Someone threatened to burn down the artist Alma López' home.

Public Protests & Dialogues

The Museum of New Mexico planned a meeting on April 4 at the Museum of Indian Arts and Culture for the public to discuss all points of view of the controversy. On the day of the meeting the regents convened and the meeting began with about 250 persons in the building. Unfortunately, more than that also arrived outside wanting to attend, but the fire marshal stopped the overflow crowd from entering. The situation, controlled by a hefty presence of New Mexico State Police, was volatile enough that board president Mike Arnold


The New York Times

SATURDAY, MARCH 31, 2001

Santa Fe Journal

Uproar over Virgin Mary in a Two-Piece Swimsuit

The New York Times, March 31, 2001. Tom Wilson and Tey Mariana Nunn are pictured.


From Lady to Lightning Rod

'Virgin' Hearing Rescheduled as Throngs Swamp Museum

The meeting at the Museum of Indian Arts and Culture, April 4, 2001, *Albuquerque Journal*.

cancelled the meeting soon after it began, with the promise that another meeting would be held soon in a venue large enough to accommodate all members of the public. The result of this fiasco was increased bad feeling among those members of the public who wanted a quick decision to take down *Our Lady*, and mistrust of museum officials, whom they saw as purposefully orchestrating the situation for their advantage.

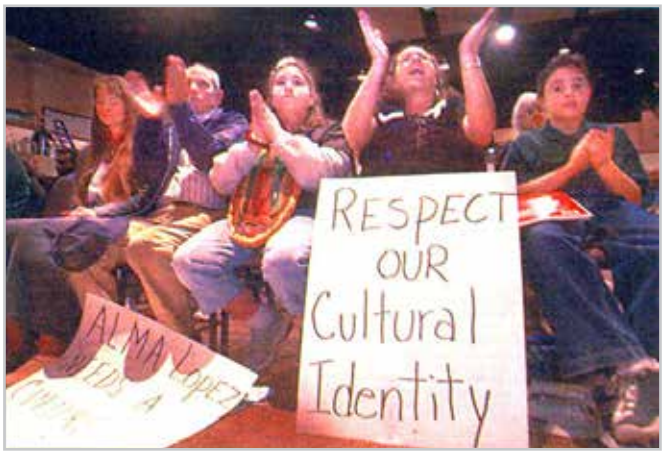
The museum and the city scheduled the next meeting for April 16 in the Sweeny Center, Santa Fe's convention center and the largest forum for assemblies in the city. Plans called for an open mike in the largest meeting space, which could hold about a thousand persons. Simultaneously, facilitators ran up to eight round table discussions, and the

forum provided facilities so that visitors could record their opinions upon paper taped to the walls.

Security was tight for the approximately 700 persons who attended. I asked the audience "to remember that we are all New Mexicans, and to treat each other, and the variety of opinions that we are about to express, with the mutual respect for the ideas of others that is the bedrock of our American, and New Mexican, democracy." Of the speakers at the open mike, which ran non-stop from about 10:30 a.m. to 6:30 p.m., probably about 70% were in favor of removing *Our Lady*. Many expressed sincere hurt at having the work on public exhibit, and there was display of devotion in many of the speakers. Many of those supporting the museum made arguments regarding freedom of speech and the freedom not to view the image if one found it offensive.

Although formally convened as a regents meeting, the board made no decision regarding *Our Lady* that day, because by then the Attorney General of New Mexico had set out a process to make decisions concerning *Our Lady*.

Press coverage of the meeting at the Sweeney Center, April 16, 2001.



Critics of *Our Lady* at the Sweeney Center, April 16, 2001, *Albuquerque Journal*.

The Decision Making Process

From the beginning it was unclear who had authority to make final decisions regarding *Our Lady*. If it were an operational issue, perhaps I had authority as director of the Museum of New Mexico; if it were a policy issue, perhaps the regents had authority. On April 6, the attorney general's office provided clarification. Citing New Mexico statutes and Museum of New Mexico collections policy, the attorney general recognized the policy making power of the board of regents, including authority over exhibitions, but not before staff of the Museum of New Mexico completed an internal process of review and decision making.

The attorney general determined that under the policy, *Our Lady* was a "culturally sensitive object," and therefore fell under the purview of the museum's committee on sensitive materials. The committee, as the attorney general interpreted the policy, must work with "concerned parties" and make a recommendation to me as director of the museum. I had to issue a written response within 30 days to any appeal of my decision. One could further appeal my decision to the board of regents, whose decision would be final.

The Committee on Sensitive Materials Recommendations

After intensive month long fact-finding and deliberations, the committee issued its findings and recommendations on May 21. Stating nine findings, the committee recommended "that all the artwork in the *Cyber Arte* exhibition remain on public view for the duration of the exhibition." By this time, MOIFA had already taken a number of steps to ameliorate the controversy, and was prepared to take more. Those steps already taken included: the panel discussion on opening day featuring the four artists; a bilingual warning label at the entrance to the exhibition; a comment book

for all visitors to sign; statements from the museum director Ice, curator Nunn, and artist López; and an invitation to a member of the Catholic clergy to write a statement concerning the Virgin of Guadalupe (declined).

In addition, the Museum of International Folk Art, "in a spirit of reconciliation," offered to close the exhibition on October 28, its original closing date but four months earlier than the date finally scheduled. At the regents meeting on September 20, the attorney general made clear to the board that, because a fundamental constitutional right under the First Amendment was involved, a knowing abridgement of the artist's right to free speech would expose the museum and the regents personally to considerable liability. Accordingly, the regents took no action, and *Our Lady* came down with the rest of the *Cyber Arte* exhibition on October 28, 2001.

Villegas and Trujillo were not willing to await this course of events to transpire. Frustrated by the administrative process, after a flurry of *Freedom of Information Act* requests, they took the museum to district court, arguing the committee on sensitive materials violated New Mexico's *Open Meetings Act*. The judge ruled that even if the museum violated the *Open Meetings Act*, the relief sought—removal of *Our Lady* from display—was not appropriate, and therefore denied relief.

Issues Arising from the *Our Lady* Controversy

The *Our Lady* controversy arose initially over a single issue: whether an image that a portion, perhaps a majority, in the local Catholic community found objectionable should be removed from a state museum. The issue aroused such passion on all sides because it represented a clash of deeply held beliefs—freedom of speech as guaranteed by our constitutional democracy, with its implications of tolerance and respect for the views of others, versus the idea that an image found offensive, blasphemous or sacrilegious by some should be removed from a public museum out of respect for those beliefs.

Very soon, however, the controversy expanded to include some of the major social issues in northern New Mexico: elites/outsiders versus locals/insiders; economic disparities between groups; the roles of women in society in general and within traditional patriarchal Hispanic northern New Mexico society in particular; loss of control of cultural heritage; Anglos versus Latinos and Catholics versus others; the roles of artists in society; the roles of museums in society; the role of art in cultural change; and the responsibilities of museums funded by public money. Some of these are deep cleavages in northern New Mexico society and far beyond the capacity of the Museum of New Mexico to resolve.

The Power of Images

Over the last few decades, a number of museum exhibitions exploded into controversies of national significance, often with implications far beyond the institutions and interest groups immediately involved. The furor surrounding an exhibition of the photographs of the artist Robert Mapplethorpe led to its controversial cancellation at the Corcoran Gallery in Washington, D.C. (1989), an impassioned

debate about public funding of the arts and a host of other issues, and ultimately a criminal indictment and trial of a museum director. At the Smithsonian Institution, there was a huge national controversy regarding whether and how the story of the *Enola Gay*, the B-25 that carried and dropped the atomic bomb on Hiroshima, would be told (1994-95). A colossal argument developed over the historiography of the war in the Pacific and the role of a

national museum in presenting the complexities of that story. The exhibition was cancelled and the director of the National Air and Space Museum lost his job. At the Brooklyn Museum, the *Sensation* exhibition contained an image of the Virgin in which the African artist Chris Ofili used elephant dung in the mixed media painting (1999). This led to a confrontation between the museum and New York Mayor Rudy Giuliani over the First Amendment rights of the museum to display the painting versus the city's right to penalize the museum for doing so. The First Amendment triumphed.

Controversies in museums are not going away. We now know some of the things that are most likely to cause controversy, some of the themes involved, and how such controversies are likely to unfold. Perceived denigration of religious symbols can lead to crisis, such as the Brooklyn Museum example, Andres Serrano's work *Piss Christ*, or in the case involving *Our Lady*. In 2011, a huge controversy arose when the National Portrait Gallery, undermassive pressure from conservatives in congress and elsewhere, removed a video, depicting ants crawling over a crucifix, from the exhibition *Hide/Seek*, which explored themes of gay and lesbian life. The recent furor in the Islamic world over the Internet video unflatteringly depicting the Prophet Mohammed falls into this category.

Powerful patriotic symbols also may evoke impassioned responses, such as the *Enola Gay* case, or the use of American flags—on the floor in the case of the School of the Art Institute of Chicago (1989) or in the toilet as at the Phoenix Art Museum (1996). Artistic treatment of political issues can cause a furor, such as the exhibition of Nazi-inspired art at the Jewish Museum (2002), or the painting of Mayor Washington in drag, again in Chicago (1988). Sexual images that offend are another, such as Mapplethorpe's homoerotic photographs.

Future Controversy

In the contested terrain of ideas and images, museums are sometimes likely to be controversial if they are doing their jobs as forums for the presentation and discussion of issues. Controversies will erupt over powerful images. Leaders of institutions in controversy cannot fear for their jobs, this inhibits freedom of action. A cool head as the controversy breaks is essential. Leaders need good legal and public relations advice. They should educate policy-making boards about the potential for controversy before it happens, and develop a plan of action. Assemble allies and keep them engaged, they will be some of your most effective spokespersons and supporters. Work with community groups, as the Museum of New Mexico did before and after *Our Lady*, this will reduce the chance of surprises and give you support if necessary. Combat self-censorship. One of our greatest fears, unrealized I hope, as a result of the *Our Lady* experience, was that our curators and directors would doubt their own judgments.

Artists push boundaries: that is what they do. They show us new ways to think about the world. Occasionally this is unsettling. America was founded upon the principle of free expression of ideas, no accident that the concept is enshrined in the *First* Amendment. Sometimes we pay the price in discomfort and more for our precious right to express ourselves freely.

Thomas H. Wilson is Chair of the Arizona Humanities Council

Living the Humanities

My Humanities

Swimming at Dawn

Thomas H. Wilson

A few years ago, I approached one of those climacteric birthdays. I resolved to be in better shape when I reached the new milestone than I was a decade earlier. Like a character in those old Russian novels, in a fit of delirium, I signed up for a triathlon.

Triathlons are those sporting events at which participants swim, bike and run certain distances, racing against fellow competitors and the clock. The most famous triathlon is the Ironman distance race at Kona, Hawaii, run in the fall each year. Ironman distance is not for the faint of heart: 2.4 mile swim, 112 mile bike race, and a marathon run of 26.2 miles. It takes the best professional athletes about eight hours to complete an Ironman. I have raced one Half-Iron triathlon, so named for distances that are exactly half that of a full Ironman. Usually, I compete at the Olympic distance: 1,500 metre (.93 mile) swim, 40 kilometre (25 miles) bike segment, and a 10 kilometre (6.2 mile) run. This takes me about 3 hours and 45 minutes; a pro can finish in a little under 2 hours. Normally, triathlons start with an open water swim at dawn.

Los Angeles Triathlon. Swim start at Venice Beach.

Is triathlon a humanities discipline? When the United States Congress established the National Endowment for the Humanities (NEH) in 1965, it defined the humanities by discipline: archaeology, languages, linguistics, history, literature, philosophy, ethics, comparative religion, jurisprudence, and history, theory and criticism of the arts. The humanities include those aspects of the social sciences that employ historical or philosophical perspectives. Today, universities are breaking down these disciplinary silos, and one may take a more broad and inclusive view of the humanities, grading into and sharing characteristics with the arts, social sciences and sciences. Most broadly, the humanities explore what it means to be human.

Although the elements of triathlon came together in France in the first decades of the twentieth century, the rise of modern triathlon dates to 1974 at San Diego, when some friends organized a race at Mission Bay with swim, bike and run elements that they called triathlon. Modern triathlon postdates the founding of NEH, and then Congress could not have added it to the disciplines of the humanities. There is a good case that triathlon is a humanities discipline.

One of the elements that characterize an academic discipline is a body of serious literature on the subject developed over a period of time. A large scientific literature exists about the three sports and about triathlon as a whole, and there is a great corpus of creative writing that certainly falls in the areas of history and literature. An important and perhaps unappreciated aspect of triathlon is the opportunity it offers to practice the humanities in your head.

Triathlon involves a significant commitment to training. Swimming, biking and running offer opportunities to think whilst honing athletic skill. I usually swim in lakes or the ocean in triathlons, but I train in the pool. I normally swim 1500-2200 metres in a pool 25 yards long, which takes about 45-75 minutes. Swimming laps allows time to formulate big thoughts, but it is difficult to sustain sequential thinking because of counting distance, maintaining technique and turning around at the end of every length.

Exiting the Pacific. 1500 metres in 46:34; 2:51/100s.

Racing along Olympic Boulevard in Los Angeles. 25 miles in 1:34:06, 15.8 mph.

Running at the Disney Center. 6.2 miles in 1:11:59, 11:37 pace.

Cycling allows some time for sustained thought, but on the bike the potential for disaster looms greater than in swimming or running. About 30 cyclists per year are killed in Arizona, so it behooves you to pay attention to what you are doing. I have crashed twice, both times by myself and going relatively slowly. Each was caused by a split-second lapse in concentration. When cycling with my bike group, we cruise 18-22 miles per hour, one rider normally about 18 inches behind the bicycle in front. You do not want to crash at those speeds in a group. The bike requires concentration and focus. After one of my accidents, I was in Los Angeles registering for a triathlon. A young woman at a registration table saw the scabs and scars on my elbow and commented, “Crash, huh? I love a man who can take a beating.”

On the run one can really get into the weeds of the humanities. Form and technique are supremely important in all three triathlon sports. One of the purposes of training is to inculcate good form into your sports activity, so that it becomes second nature. The greater ease with which you can pass through the air or water, the better you will do in your sport. Unlike in the pool, where you have to reverse course at the end of each length, or on the bike where your safety demands concentration, on the run you can often find courses that allow your body to achieve a rhythm and your mind to pursue your thoughts to their conclusion. What glory to run along thinking of Socrates or the Iliad, the rise and fall of civilizations, the cosmos, the evolution and extinction of life, Catullus and T.S. Eliot, or whatever else pops into your mind.

I confess to no patience for those who say they find exercise boring. I usually think, but normally restrain myself from saying, how boring you are, how infertile your mind. Another complaint: not enough time. I say get your priorities straight. We are blessed with a certain amount of time on the earth. How precious are those moments we can dedicate to thinking about our favorite subjects. Athletic training allows multitasking: improving the body and mind at the same time. It is easier to think creatively in a state of health. Exercise clears, quiets and focuses the mind.

Crossing the finish line at Nokia Plaza, Los Angeles in 3:38:25.

Since I began training for triathlon five and a half years ago, with some time off for a broken foot and cancer surgery, I have swum 396,688 metres (246.5 miles), cycled 8,466 miles, run 1,993 miles, and spent 157 hours strength training. I have competed in 31 triathlons, run six half marathons and cycled a number of long events, including two centuries (over 100 miles). Even accounting for some focus on safety, form and technique, this left plenty of time to think about the humanities. I composed each of these humanities essays in my head while training. You can do the humanities anywhere, you don't have to participate in an organized event, like a lecture or exhibition. Practice the humanities in the theatre of your cranium. The humanities are a state of mind.

Arizona Congresswoman Kyrsten Sinema and I did the Tempe International Triathlon this year (she beat me handily). There are other triathletes in congress. A bill to add triathlon to the disciplines of the humanities offers the opportunity for broad bipartisan support, for a great healing of the political culture of the country. Let us come together to improve our bodies and minds, and to address the great challenges that face the nation.

Thomas H. Wilson is Chair of the Arizona Humanities Council

My Humanities

Ambling in the Humanities

Thomas H. Wilson

Socrates famously said that the unexamined life is not worth living. In pursuit of the just and virtuous life, Socrates neither minced words nor retreated from his beliefs. As a sort of Athenian gadfly, he confronted the the elite with their lack of wisdom, who in turn indicted him for capital offenses ("criminal curiosity," as Socrates put it). His refusal to retreat from logic and ethics led to his conviction and date with the hemlock. It is probably imprudent to attempt to improve Socrates, but to frame his thought positively: more fulfilled is the life examined.

I began the essays in this series with a simple proposition: that everyone lives a life in the humanities. Everyone knows a poem, has read a short story or book, knows some history, has seen a painting, speaks a language or two, understands something of religion, participates in a culture, and has a sense of good and evil. Some know more of these things than others. Some turn ideas around in their head, examine them from all sides, and savor them.

In these essays, I sought to demonstrate my personal connection to the subjects of the humanities, to illustrate through my own thoughts and experiences how individuals inhabit the world of the humanities, and to suggest how life is more fulfilling if one explicitly examines these worlds. I used a traditional definition of the humanities from NEH's founding legislation, a list of humanities disciplines, to define the parameters of my explorations:

> The term 'humanities' includes, but is not limited to, the study of the following: language, both modern and classical; linguistics; literature; history; jurisprudence; philosophy; archaeology; comparative religion; ethics; the history, criticism and theory of the arts; those aspects of social sciences which have humanistic content and employ humanistic methods; and the study and application of the humanities to the human environment with particular attention to reflecting our diverse heritage, traditions, and history and to the relevance of the humanities to the current conditions of national life.

The essay is a wonderful form, allowing the author to wander amongst his or her favorite ideas or experiences. For a history essay, I wrote of my trek with a friend across the barren, 90-mile Jornada del Muerto, just as Juan de Oñate did in 1598. For languages and linguistics, I discussed the linguistic diversity of Kenya, and how I was nearly shot in two different languages. For poetry month, I recalled a personal experience with Alan Ginsberg, confessed how I used to read *The Waste Land* out loud in the cavernous lecture halls at Berkeley, and revealed my preference for Catullus. The essay is a very personal form of expression.

I was embroiled in a huge controversy over a work of art, *Our Lady* by Alma López, which protesters demanded that I remove from the Museum of New Mexico, which I refused, and which led to a clash of passions over respect for religious symbols versus freedom of speech. I wrote of libraries and museums, of the rise and fall of civilizations, and of the cosmos, evolution and extinction. I discussed creationism, Japanese internment, and whether we should fear the end of the world as predicted by the ancient Maya. I even argued that triathlon is a humanities discipline.

The humanities are like intellectual nuclear fission: ideas expand exponentially like a huge blast in your head. You experience a sort of humanities brain fever. One thought leads to another, and then to another, more like a three-dimensional network than a linear progression. I wrote an essay on biography

and autobiography, and suggested that by examining what you know or have read reveals what you don't know or haven't read. In exploring my past reading habits, I realized I had not read, which I now have, some of the classics of biography: Boswell's *Life of Samuel Johnson*, and Lytton Strachey's *Eminent Victorians*. Biographies of Caesar and Alexander the Great followed.

In my second essay on poetry, *The War Poets*, I revealed some family connections to World War I, but not one of the main reasons that led me to the subject. In East Africa I knew Hamo Sassoon, nephew of the Great War poet Siegfried Sassoon. Hamo was named for Siegfried's brother, killed at Gallipoli in 1915. Exploring the war poets led me to re-read Robert Graves' *Good-Bye to All That*, and read Sassoon's *Memoirs of an Infantry Officer* and Edmund Blunden's *Undertones of War*. Three of the foremost poets of the war left three of the greatest memoirs of the experience. Paul Fussell put the intellectual experience all together in *The Great War and Modern Memory*.

The humanities are a personal journey, unique to each one of us. I have reflected upon my personal constellation of the humanities in these essays, and each of us inhabits his or her personal humanities universe. At the same time, the humanities are part of our common heritage, carried by diverse cultures across time. Ethnic groups, language speakers, age grades, political units and geographical areas all may exhibit common cultural features. The configuration of the humanities in each of us contributes to our larger cultural milieu, which in turn informs our individual humanities experience. This is why the humanities so enrich our lives, and can collectively make us a better people. The humanities are the stories of us.

Some say there is a crisis in the humanities. This declaration seems to arise from tracking declining humanities majors at universities. There is a current and well-founded emphasis on STEM education, to which some would add the arts to create STEAM. Perhaps it is only a zero-sum game on university campuses, where the health of departments is sometimes linked to numbers of students in classes. Fact is, in the larger sense, we have a crisis in education in this country that cuts across all areas and affects both physical and intellectual well-being. That is the larger problem to solve rather than whether one majors in English or engineering.

Not long ago, I met a gentleman at a small reception after a large humanities event. He was retired, and had successfully run chemical plants all his life. I asked him his major. "English," he replied. Surprised, I asked, "How does an English major run chemical plants?" "It was the perfect study," he said, "it taught me how to think, speak, and critically analyze. All the chemical engineers worked for me." In retirement, he was re-engaging with Shakespeare. In life, follow your passion.

The authorizing legislation creating the arts and humanities endowments in 1965 found that:

> An advanced civilization must not limit its efforts to science and technology alone, but must give full value and support to the other great branches of scholarly and cultural activity in order to achieve a better understanding of the past, a better analysis of the present, and a better view of the future.
>
> Democracy demands wisdom and vision in its citizens. It must therefore foster and support a form of education, and access to the arts and the humanities, designed to make people of all backgrounds and wherever located masters of their technology and not its unthinking servants.

The Report of the Commission on the Humanities, *The Humanities in American Life*, reported in 1980:

> The humanities presume particular methods of expression and inquiry—language, dialogue, reflection, imagination, and metaphor. In the humanities the aims of these activities of mind are not geometric proof and quantitative measure, but rather insight, perspective, critical understanding, discrimination and creativity.

The issues that confront the world today are of sufficient seriousness that our very existence is at risk. We must use all the resources available to us to make rational decisions about our collective future. The humanities help us interpret our past, understand the present, and guide our future. Robust humanities are in our own best interests. We have but one life to live. Live the humanities.

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