NATIONAL ACADEMY OF SCIENCES

E D W A R D C R A I G M O R R I S 1939 – 2006

A Biographical Memoir by JOYCE MARCUS

Any opinions expressed in this memoir are those of the author and do not necessarily reflect the views of the National Academy of Sciences.

Biographical Memoir

Copyright 2007 National Academy of Sciences Washington, d.c.



aza Jan

EDWARD CRAIG MORRIS

October 7, 1939-June 14, 2006

BY JOYCE MARCUS

E dward craig morris, known as "Craig" to his many friends, was the leading Inka archaeologist of his time. His studies of governmental storage and the expansionist strategies employed by the Inka are considered classics in the field. Morris was best known for his excavations in Peru, at the archaeological sites of Huánuco Pampa (the most completely preserved highland Inka site) and La Centinela (a major coastal ruin in the Chincha Valley). There he documented the operation of the economic, social, political, and religious institutions of the Inka. Although many of his predecessors had relied exclusively on written texts (e.g., 16th-century Spanish documents), Morris sought to evaluate those documents with excavation and settlement pattern data, thereby obtaining a richer and more accurate view of the Inka empire. Morris's multiyear excavation projects supplied abundant empirical evidence to generate new models of how the Inka empire succeeded in integrating diverse ethnic groups occupying altitudinal zones from sea level to 4000 meters.

Morris was a modest and unassuming scholar who nevertheless managed to transform Andean archaeology, altering our views of Inka institutions and mode of governance. Unfailingly gracious and generous, he was the kind of person usually referred to as a gentleman scholar. As Ellen V. Futter, president of the American Museum of Natural History, told The New York Times¹, "He was a pillar of our community personally and intellectually." For many, Craig Morris was a Rock of Gibraltar, always providing encouragement, insights, and reliable solutions. In 2004, he stepped down from a decade of service as the dean of science at the American Museum, hoping, as he said, "to devote myself during the next several years to research, writing, publishing, and fieldwork; finally, I will be getting back to all the things I love."² Unfortunately, he only had a couple of years to do the things he loved.

Edward Craig Morris was born October 7, 1939, at Murray-Calloway County Hospital in Murray, Kentucky. His parents were Alwin Wybert Morris and Rubye Craig Morris. Their first child was a daughter, Emily Dale Morris (Luther), already 13 years old when her brother Craig was born. At birth Craig was found to have a serious heart condition; his doctors thought that he might not survive past childhood. They advised the family to keep him away from sports and strenuous activity, encouraging him to focus instead on reading and educational interests. His family followed this advice and Craig became an avid reader, excellent student, and ultimately a brilliant social scientist who in 1998 was elected to both the American Academy of Arts and Sciences and the National Academy of Sciences.

Morris grew up on a 170-acre farm in east Calloway County. His father grew most of the family's food, raising cattle and hogs to supply his family with enough beef and pork each year. The family garden provided the vegetables and fruits, especially strawberries and blackberries. The family also harvested apples, peaches, and pears, as well as grapes from the vines that grew along the garden fence. Craig often mentioned how much he had liked his life on the farm, especially feeding the animals. Morris's elementary school years were spent at the Murray Training School. During these years he was very active in the 4-H Club, and one of his projects was raising Black Angus steers in different weight classes. Morris won several blue ribbons during 4-H competition, and at age 14, he raised two Black Angus steers that went on to become state champions. He used to say that developing these champion steers gave him a real sense of accomplishment.

In June 1958 Morris graduated from high school, where he was both valedictorian and editor of the yearbook. In the fall of that year he entered Murray State University, which was close to home. Later he was encouraged to take entrance exams to see if he could transfer to Vanderbilt University, where he was accepted. To finance Craig's tuition at Vanderbilt, an expensive private university, Craig's parents had to sell a portion of the family farm. Morris rewarded his parents' sacrifice by graduating magna cum laude from Vanderbilt in 1961 with a major in psychology and philosophy.

Craig's next stop was the graduate anthropology program at the University of Chicago, where his career path was determined and his intellectual goals were shaped. The next three summers were exciting. In 1962 he undertook his first archaeological fieldwork in Utah; in 1963 he went with F. Clark Howell to excavate the Paleolithic sites of Torralba and Ambrona in Spain; and in 1964 he went to the highlands of Peru to work on the Inka with John V. Murra. Peru was where his research took him from then on.

Morris began an investigation of the Inka storage system as part of Murra's project, "A Study of Inka Provincial Life." This project was designed to examine Inka storage at three levels: the local community, the provincial network, and the imperial level directed from the Inka capital of Cuzco. Craig was interested in identifying both the kinds and quantities of goods stored in these different contexts, arguing that the Inka empire was made possible by an extremely successful storage technology that integrated different levels of the political hierarchy. He began in the central highlands of Peru, where he documented more than 2000 storerooms and excavated 112 of them.

In addition to Inka storage systems, Morris had become fascinated by the nature of Andean cities. He wrote, "My interest in early cities dates from graduate school courses with Robert McC. Adams, and my research on Inka cities began with my doctoral dissertation on Inka warehousing in 1967."³ After completing his doctoral dissertation in 1967, Morris was hired by Northern Illinois University, where he stayed for one year before moving on to Brandeis University (1968-1975). In 1975 he was hired as an assistant curator of anthropology at the American Museum of Natural History, where he remained for the rest of his career.

Morris's doctoral dissertation, "Storage in Tawantinsuyu," occupies a pivotal place in the study of the Inka empire, primarily because it steered the field in a new direction. Morris showed that imperial warehousing was one of the ways he could discover the Inka empire's infrastructure and logistics. He noted that storage systems had attracted the theoretical interest of substantive economist Karl Polanyi but had yet to become a major focus for Andean archaeologists.

Morris's best-known data on storage came from Huánuco Pampa, an Inka administrative center established at a previously unoccupied locale in north-central Peru, some 3800 meters above sea level. He worked at Huánuco Pampa from 1971 to 1981, spending a total of 36 months at the site. That extensive fieldwork led to the publication of his 1985 book, Huánuco Pampa: An Inka City and Its Hinterland (coauthored with Donald E. Thompson).

Much of Huánuco Pampa's food and other products had to be grown at lower elevations and transported to the site. During his research, Morris found both rectangular and circular storehouses, and he wondered whether their contrasting shapes and different hillside locations could be related to different functions. After several seasons of excavation, he was able to show that tubers (such as potatoes) were stored in rows of rectangular storehouses constructed on the lower part of the hill, while grains (such as maize) were generally found in circular structures higher up. Thus the groupings and arrangements of storehouses did indeed relate to function. Craig's work also showed that perhaps 50 percent of the storage space was devoted to highland tubers (potatoes and other root crops); roughly 5 percent to 7 percent was devoted to maize; and that at least 28 percent was available to store cloth, military equipment, and other nonsubsistence goods. He went on to show that more than 12 percent of the 4000 structures at Huánuco Pampa had originally been devoted to storage.

Looking back at Morris's Ph.D. dissertation work, we can see how key it was to our understanding of imperialism. Craig not only investigated the environmental conditions and technology that had facilitated the preservation of perishable items but he also assessed the role storage had played in the political and economic operation of an empire. Along the way he discovered the building blocks of the largest native empire of the New World and the way the Inka coordinated the multiple subject ethnic groups who produced goods for them at different altitudinal zones. This ability to see the big picture and the larger processes at work was typical of Morris's research. As further evidence we can cite a 1992 book chapter titled "Huánuco Pampa and Tunsukancha: Major and Minor Nodes in the Inka Storage Network," where he concluded that "a warehousing system such as that documented in this chapter does not emerge full-blown as the result of the command of some powerful and brilliant

ruler. The sophistication of its environmental understandings are too great and its organizational scope too vast. It can only be the product of long development processes and can only be understood in terms of the larger patterns of technology and organization from which various aspects of the storage system were drawn." This desire to document the long development processes became a blueprint for Morris's future fieldwork.

While maintaining his interest in the storage and distribution of goods, Morris began to focus on the wider range of integrative mechanisms employed by the Inka empire. After excavating a sector of Huánuco Pampa that produced thousands and thousands of beer-brewing and beer-drinking vessels, Morris turned to a series of 16th-century Spanish documents providing eyewitness accounts of the way the Inka used public hospitality (especially the serving of maize beer) to attract laborers for state-sponsored projects, such as the terracing of hillsides, the digging of irrigation canals, and the planting and harvesting of crops. He noted that in Quechua, the language of the Inka, these beer feasts were regarded as generous acts by the local ruler, even though the actual relationship of rulers to workers was exploitive and asymmetrical.

Craig explored this theme in subsequent publications, such as a 1979 book chapter titled "Maize Beer in the Economics, Politics, and Religion of the Inka Empire." He was ultimately able to show that the Inka state's involvement in the redistribution of food was limited mostly to specific feasting occasions, designed to ensure labor service on a massive scale. Huánuco Pampa, which brewed maize beer just for such purposes, was only one of the places built by the Inka in order to create a node of social, political, and economic control (a process that Morris called compulsory urbanism). He concluded that Huánuco Pampa was an artificial urban center created for political purposes. At the same time such a concept was not original with the Inka, but was an elaboration of old Andean traditions of reciprocity used to secure labor, combined with a new goal, that of controlling a politically fragmented or balkanized region.

A second phase of Morris's career began in 1983, when he started a project on Peru's south coast. Even though he loved excavating archaeological sites in the Inka heartland, that high-altitude work put a strain on his heart and endangered his life. Thus, he turned to the Chincha Valley and the coastal site of La Centinela. Morris was struck by how dramatically La Centinela differed from Huánuco Pampa. La Centinela was an administrative center predating the Inka, rather than an artificial creation of the Inka state. His excavations at La Centinela suggested that after the Inka had conquered the area, they did something unusual for them: They established a complex form of parallel rule in which the local Chincha lord was allowed to continue living in his palace while the Inka governor built his own palace next door. This kind of co-rulership had never been documented for the Inka empire until Morris excavated the dual palaces at La Centinela. The ethnohistoric record might explain this unusual co-rulership: It revealed that the Chincha ruler had maritime trade relations with the Gulf of Guayaquil (Ecuador), importing Spondylus, a shell that was highly valued by the Inka. Morris suggested that the Inka did not want to disrupt the Chincha lord's trade.

Another striking difference between the dual palaces at La Centinela and their equivalent at Huánuco Pampa was a great reduction in public space. Huánuco Pampa had served as a meeting place where many different local leaders and ethnic groups gathered, requiring ample public space. At La Centinela the critical local leadership consisted of the Inka governor and the Chincha ruler, so royal hospitality could be provided in a far smaller space. A notable feature of the La Centinela administrative complex was that the Inka palace and that of the local Chincha lord were both built of Inka-style adobe bricks, suggesting that they both had been built by Inka labor. The adjoining palaces with their paired, interlocking spaces allowed the allied leaders to interact in surroundings appropriate to both the circumstances and their rank. A public plaza was indeed part of the Inka addition to La Centinela, but unlike the huge plaza at Huánuco Pampa it was not the central element of the city plan. Finally, significant stylistic differences in ceramics confirmed the dual character of rulership in the two palaces, with one having more Inka material than the other.

Over a period of four decades, until his lifelong heart problems finally cut short his career, Morris had tackled both a highland Inka settlement at 3800 meters and a sea-level Inka settlement, allowing him to document in rich detail two contrastive datasets that continue to have theoretical implications for Andean prehistory. The two settlements he investigated were worlds apart in terms of environment, architecture, and economics, but he showed that each made sense in terms of Inka imperial strategy. Huánuco Pampa was built to consolidate and reorganize a politically fragmented region, using a newly imposed administrative capital built on neutral ground at a distance from all local population centers. There the ethnically diverse peoples of the region, acting as "guests" working part-time for the Inka state, could participate in the rich ceremonial life of the empire; the hope evidently was that they could be controlled and incorporated into the Inka state. By throwing lavish beer feasts in symbol-laden settings, providing gifts of clothing, and arranging marriages between elite local women and Inka administrators, local groups were given a way to gain prestige and positions in a complex imperial system.

In contrast, La Centinela had already existed for centuries as the capital of a coastal state. Here the Inka had to formulate a different strategy; and out of deference to a local lord with important connections, the Inka worked out a way to co-rule the area, evidently convincing the lord of Chincha that it would be to their mutual benefit (at least in the short run). In two vastly different regions, therefore, the Inka emphasis was on installing administrative and ceremonial facilities designed to redefine political, economic, and religious relationships and to create new patterns of integration. Morris saw, before anyone else, the potential of these two case studies to increase our understanding of ancient empires. Three books that demonstrate his impressive ability to analyze Andean sociopolitical evolution include Andean Ecology and Civilization in 1985 (with Shozo Masuda and Izumi Shimada), The Inka Empire and Its Andean Origins in 1993 (with Adriana von Hagen), and The Cities of the Ancient Andes in 1998 (with Adriana von Hagen).

Less well known but equally impressive was Morris's ability to design museum exhibits. Morris spent the years from 1980 to 1989 designing and installing the Andean archaeology exhibit in the South American Hall at the American Museum of Natural History. Today it is still regarded as the best Andean exhibit in the United States. Although the years he devoted to designing such exhibits kept him from writing as much as he wished, Morris's museum exhibits live on because they continue to disseminate scientific and archaeological information to both lay persons and professionals.

PERSONAL QUALITIES OF THE MAN

To his friends Craig Morris was truly a special person: a loyal and selfless friend, an exceptional fieldworker able to produce results for decades, and a social scientist who knew how to juggle multiple variables en route to elucidating longterm processes. He persevered against heavy odds, overcoming his doctors' predictions that he would not survive childhood, even working for years at 3800 meters above sea level.

It was typical of Morris that he was genuinely surprised when he was elected to the National Academy of Sciences, but once inducted he became an active and enthusiastic member. Morris never missed the annual meeting, which he explained in terms of friendship and collegiality: "Being a member of the National Academy of Sciences is a wonderful honor," he said, "but the unexpected bonus is that I get to see all my best friends every April."⁴ At the Academy meetings Morris enjoyed going out to dinner with his colleagues, and on such occasions he frequently drew on his past experience as a cattle raiser to select choice steaks. One of my most amusing memories was watching him instruct a waiter at Shula's Steakhouse about the criteria for a really good piece of beef.

One of Morris's last key contributions came as a participant in the Academy's May 2005 Sackler Symposium on Early Cities: New Perspectives on Pre-Industrial Urbanism. There he delivered a paper contrasting Inka strategies as they played out at the highland center of Huánuco Pampa and at the coastal center of La Centinela.

We will surely miss Morris at future annual meetings and symposia, not only for his wisdom but also for his modesty, warmth, humor, and kindness. His doctors may have worried about his heart, but his colleagues found it extraordinary.

MORRIS'S INTELLECTUAL LEGACY

Craig Morris expanded our knowledge of the Inka empire by focusing on its sociopolitical institutions and economic underpinnings. He found ways to get at its infrastructure, its strategies for territorial expansion, the mechanisms it used for assigning value to goods, and the way it integrated scores of ethnic groups from Ecuador to Chile. He combined archaeological excavations and documentary research to determine how the Inka took traditional Andean concepts of reciprocity and ecological complementarity and manipulated them to achieve tributary labor service to the state, the widespread resettlement of ethnic groups, and the construction of extensive agricultural terraces, roads, bridges, storehouses, and irrigation canals.

The models that Morris created included elements that had been missing from previous overviews, which often saw the Inka empire as the product of religious and military forces. He redirected a whole generation of Andean research, encouraging us to add storage systems, economic strategies, labor service, and public hospitality to extant models. His ultimate legacy was the creation of multivariate models of state bureaucracies that will guide future generations in the Andes and elsewhere.

Some of the information in this memoir was drawn from materials provided by Craig Morris's sister, Emily Morris Luther of Murray, Kentucky, and by his colleagues at the American Museum of Natural History: Robert L. Carneiro, Elsa M. Redmond, Charles Spencer, and David Hurst Thomas. I thank them all.

NOTES

- John Noble Wilford, "Craig Morris, A Towering Figure in Inca Expeditions, Dies at 66," New York Times, June 16, 2006, Sec. C, P 11
- 2. Personal Communication: Craig Morris to Joyce Marcus, December, 2004.
- Remarks at "Early Cities: New Perspectives on Pre-Industrial Urbanism." Arthur M. Sackler Colloquium, May 18-20, 2005.
- 4. Personal Communication: Craig Morris to Joyce Marcus, April, 2002.

BIOGRAPHICAL MEMOIRS

CHRONOLOGY

1939	Born October 7 in Murray, Kentucky
1958	Graduated from Murray Training School (high school)
1961	B.A. in psychology/philosophy from Vanderbilt University
1964	M.A. in anthropology from the University of Chicago
1967	Ph.D. in anthropology from the University of Chicago
1967-1968	Assistant Professor, Northern Illinois University
1968-1975	Assistant Professor, Brandeis University
1975-1980	Assistant Curator of Anthropology, American Museum of Natural History, New York
1976	Visiting Associate Professor of Anthropology, Cornell University
1977	Visiting Professor of Archaeology, Universidad Nacional Mayor de San Marcos, Lima, Peru
1977-1992	Adjunct Professor, Cornell University
1983-1990	Chair, Department of Anthropology, American
	Museum of Natural History
1986	Visiting Professor of Anthropology, City University of
	New York Graduate Center
1989-1991	Guest Curator, "Art in the Age of Exploration (Inka Section)," National Gallery of Art
1990	Co-Director of "The Andean World: A Millennium of Achievement." Summer institute for college teachers; funded by National Endowment for the Humanities. Cornell University
1992-1997	Adjunct Professor of Anthropology, Columbia University
1994-2005	Dean of Science, American Museum of Natural History
1998-2005	Vice-President, American Museum of Natural History
1980-2006	Curator of Anthropology, American Museum of Natural History
2006	Died June 14 in New York City

EDWARD CRAIG MORRIS

AWARDS AND HONORS

- 1961 Phi Beta Kappa, Vanderbilt University
- 1969 Elected to the Institute of Andean Studies
- 1976 Elected to the Institute of Andean Research
- 1977 Fulbright-Hays Lectureship in Peru
- 1998 Elected to the American Academy of Arts and Sciences
- 1998 Elected to the National Academy of Sciences

OTHER POSITIONS

1978-1980	Anthropology Screening Committee, International
	Council for the Exchange of Fulbright Scholars
1980-1981	Anthropology Panel, National Science Foundation
1980-1992	Advisory Council, The Textile Museum
1982-2006	Advisory Committee on Visual Arts, Center for Inter-
	American Relations, The Americas Society
1984, 1988	Adviser, Inter-American Development Bank,
	Peruvian Museum Projects
1983-2006	Editorial Board, Armitano Arte, Caracas, Venezuela
1984-2006	Editorial Board, Andean Past
1987-1988	Adviser, Ford Foundation, Lima
1989-1992	Editorial Advisory Board, Science Year, World
	Book, Inc.
1994	Adviser for Qorikancha Archaeological Park, UNESCO

MEMBERSHIPS

National Academy of Sciences

American Academy of Arts and Sciences

Institute of Andean Research (vice-president, 1995-2006)

American Anthropological Association (fellow)

Society for American Archaeology

Council for Museum Anthropology

American Society for Ethnohistory

Society for American Archaeology

SELECTED BIBLIOGRAPHY

1966

El Tampu Real de Tunsucancha. Cuadernos de Investigación, Antropología 1:95-107. Universidad Nacional Hermilio Valdizán, Huánuco, Peru.

1967

Storage in Tawantinsuyu. Ph.D. dissertation, Department of Anthropology, University of Chicago.

1970

With D. E. Thompson. Huánuco Viejo: An Inca administrative center. Am. Antiquity 35(3):344-362.

1972

State settlements in Tawantinsuyu: A strategy of compulsory urbanism. In Contemporary Archaeology: A Guide to Theory and Contributions, ed. M. P. Leone, pp. 393-401. Carbondale: Southern Illinois University Press.

1974

- Reconstructing patterns of non-agricultural production in the Inca economy: Archaeology and documents in institutional analysis. In *Reconstructing Complex Societies: An Archaeological Colloquium*, ed. C. B. Moore, pp. 49-60. Bull. Am. Sch. Oriental Res. 20(suppl.).
- The identification of function in Inca architecture and ceramics. Revista del Museo Nacional 37:135-144, Lima.

1976

Master design of the Inca. Nat. Hist. 85(10):58-67.

1978

The archaeological study of Andean exchange systems. In *Social Archaeology: Beyond Subsistence and Dating*, eds. C. L. Redman, M. J. Berman, E. Curtin, W. Langhorne Jr., N. Versaggi, and J. Wanser, pp. 315-327. New York: Academic Press.

1979

Maize beer in the economics, politics, and religion of the Inka empire. In *Fermented Food Beverages in Nutrition*, eds. C. F. Gastineau, W. J. Darby, and T. B. Turner, pp. 21-34. New York: Academic Press.

1980

Huánuco Pampa: Nuevas evidencias sobre urbanismo Inca. Revista del Museo Nacional 44:139-152, Lima.

1981

Tecnología y organización inca del almacenamiento de víveres en la sierra. In Runakunap Kawsayninkupaq Rurasqankunaqa: La Tecnología en el Mundo Andino, vol. 36, eds. H. Lechtman and A. M. Soldi, pp. 327-375. Mexico, D.F.: Universidad Nacional Autónoma de México.

1982

The infrastructure of Inka control in the Peruvian central highlands. In *The Inca and Aztec States, 1400-1800: Anthropology and History,* eds. G. A. Collier, R. I. Rosaldo, and J. D. Wirth, pp. 153-171. New York: Academic Press.

1985

- With D. E. Thompson. *Huánuco Pampa: An Inka City and Its Hinterland*. London: Thames and Hudson.
- With S. Masuda and I. Shimada, eds. *Andean Ecology and Civilization*. Tokyo: University of Tokyo Press.
- From principles of ecological complementarity to the organization and administration of Tawantinsuyu. In *Andean Ecology and Civilization*, eds. S. Masuda, I. Shimada, and C. Morris, pp. 477-490. Tokyo: University of Tokyo Press.

1986

Storage, supply, and redistribution in the economy of the Inka state. In *Anthropological History of Andean Polities*, eds. J. V. Murra, N. Wachtel, and J. Revel, pp. 59-68. New York: Cambridge University Press.

1987

Arquitectura y estructura del espacio en Huánuco Pampa. Cuadernos del Instituto Nacional de Antropología 12:27-45. Buenos Aires.

1988

A city fit for an Inka. Archaeology 41(5):43-49.

Más allá de las fronteras de Chincha. In *La Frontera del Estado Inca*, eds. T. Dillehay and P. Netherly, pp. 131-140. BAR International Series 442. British Archaeological Reports, Oxford, England.

1991

Signs of division, symbols of unity: Art in the Inka empire. In *Circa* 1492: Art in the Age of Exploration, ed. J. A. Levenson, pp. 521-528. Washington, D.C.: National Gallery of Art and Yale University Press.

1992

- Huánuco Pampa and Tunsukancha: Major and minor nodes in the Inka storage network. In *Inka Storage Systems*, ed. T. Y. LeVine, pp. 151-175. Norman: University of Oklahoma Press.
- The technology of highland Inka food storage. In *Inka Storage Systems*, ed. T. Y. LeVine, pp. 237-258. Norman: University of Oklahoma Press.

1993

- With A. von Hagen. *The Inka Empire and Its Andean Origins*. New York: Abbeville Press.
- The wealth of a Native American state: Value, investment, and mobilization in the Inka economy. In *Configurations of Power: Holistic Anthropology in Theory and Practice*, eds. J. S. Henderson and P. J. Netherly, pp. 36-50. Ithaca, N.Y.: Cornell University Press.

1998

- Inka strategies of incorporation and governance. In *Archaic States*, eds. G. M. Feinman and J. Marcus, pp. 293-309. Santa Fe, N.Mex: School of American Research.
- With A. von Hagen. *The Cities of the Ancient Andes.* London: Thames and Hudson.

2004

Enclosures of power: The multiple spaces of Inka administrative palaces. In *Ancient Palaces of the New World: Form, Function, and Meaning*, eds. S. T. Evans and J. Pillsbury, pp. 299-323. Washington, D.C.: Dumbarton Oaks.

2006

With R. A. Covey. The management of scale or the creation of scale: Administrative processes in two Inka provinces. In *Intermediate Elites in Pre-Columbian States and Empires*, eds. C. M. Elson and R. A. Covey, pp. 136-153. Tucson: University of Arizona Press.