

Karl W. Butzer: Interdisciplinary mentor

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As his students in geography, archaeology, geology, and Latin American, African, and Middle Eastern Studies attest, you could learn more in one day in the field with Karl Butzer than you could in a semester-long course with any other professor. Karl's fieldwork and active teaching ended May 4, 2016. Future generations of students will learn from Karl by means of his 15 books and monographs, and more than 275 journal articles and chapters in edited volumes. Blending nuanced insights of human–environment relationships on the individual and societal levels with a keen understanding of earth-shaping process, Karl will be forever known as the founder of geoarchaeology and a contemporary champion of the concept of human adaptation to the environment. Reflected in his professional life, Karl's personal life involved a difficult past, a rich present, and an optimistic eye toward the future.

Born to a Catholic family in Mülheim an der Ruhr on August 19, 1934, Karl and his brother were smuggled out of Nazi Germany in 1937, reunited with their parents in England, and settled as a family in Montreal, Canada. There Karl found solace in Thoreau-like places, even composing at age 14 a poem titled *Seven Springs*, one verse of which reads:

Hidden amidst the darkest cedars
 Through a mat of fragrant green,
 Over the golden sand and gravel
 Flows a sparkling sylvan stream.

In addition to writing at an early age, Karl was an avid reader. His favorite books were those by Zane Gray and Richard Halliburton (*Complete Book of Marvels*, in particular). It was not the adventures of gunslingers in the former that captured Karl's attention, but the vivid portrayals of western landscapes that he would later learn were accurate. As for the latter author, it was the seven chapters in *Complete Book of Marvels* on the wonders of the ancient world that captured his imagination. The makings of a scientist who understood the entangled nature of human actions and environmental processes are clear. Knowledge of soils and crops was enhanced as Karl toiled with his father cultivating a Victory Garden behind their home during the war.



Karl Butzer (on the left) demonstrating flint knapping to his student Thomas Hickson on a field trip to Mexico, taken around 1990.

After graduating with a Bachelor of Science in mathematics from McGill University in 1954, Karl traveled by ship to Germany. Being only one of three passengers, he endeared himself to the German crew from whom he picked up the rudiments of navigation and meteorology. In Germany, Karl immediately came face to face with a diversity of dialects, thereby gaining a new appreciation of linguistic complexities. There, Karl, his brother, and a cousin set out by the train to Spain and Italy, where he became enthralled with arid lands, Mediterranean agriculture, church architecture, and diverse cultures. Back in Canada, Karl returned to McGill but shifted his academic focus, completing a Master of Science in meteorology and geography in 1955. Karl considered pursuing his doctorate under the tutelage of Carl Sauer at Berkeley, but elected to return to Germany and study with famed geomorphologist Carl Troll at Universität Bonn. A winter break trip to Egypt proved seminal. While other students were exploring mosques and pyramids, Karl found

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himself hiking along dry stream beds, examining sediment sequences that differed from those read about in textbooks. He went on to complete his Doctor rerum naturalium in physical geography and ancient history in 1957, just before his 23rd birthday.

While at Bonn, Karl met Elisabeth (Lis) Schloesser, who became his wife and collaborator for 56 years. The two honeymooned on Mallorca, where they started a not-so-romantic project on paleosols and fossil beaches. Over the next five decades, Karl and Lis worked together in Egypt, Ethiopia, and South Africa. On their numerous projects in Spain and México, Karl excavated and mapped while Lis scoured archives and translated documents.

Karl accepted a position in geography at the University of Wisconsin in 1959. Not allowed to teach geomorphology but assigned to teach historical geography, and being told that good teachers cannot be good researchers, Karl turned on his creativity. "Historical" was broadened to include prehistory, and "Geography" was deepened to set human events in environmental contexts. His lecture notes became the hallmark book, *Environment and Archaeology: An Introduction to Pleistocene Geography* (1), subtitled in an extended second edition as *An Ecological Approach to Prehistory*.

The University of Chicago provided the ideal intellectual home for Karl from 1966 to 1984, and he viewed Chicago itself as a great place to live and raise four children. Karl's geoarchaeological research was much appreciated by his colleagues, with whom Karl not only collaborated, but considered lifelong friends. While in Chicago, Karl wrote such landmark books as *Desert and River in Nubia: Geomorphology and*

Prehistoric Environments at the Aswan Reservoir (with C.L. Hansen) in 1968 (2), *Early Hydraulic Civilization in Egypt: A Study in Cultural Ecology* in 1976 (3), *Geomorphology from the Earth* in 1976 (4), and *Archaeology as Human Ecology: Method and Theory for a Contextual Approach* in 1982 (5). There, he and Lis also resumed their earlier research from when in Spain, a project that would result in their looking toward Spanish activities in the New World, especially Mexico. Karl and Lis found The University of Texas at Austin, with its great Latin American library and cultural ecology-oriented geography faculty, sufficiently attractive and relocated there in 1984. Over the next three decades, Karl, Lis, and his students rewrote the environmental history of colonial Mexico.

Teaching and conducting research until a few months before his death, Karl was devoted to graduate students. He envisaged them as his intellectual offspring, and he treated them much as he did his own children: demanding but not overpowering, supportive, fully engaged, and loving. Four of Karl's students at the University of Texas at Austin received outstanding dissertation awards.

In 1980, Karl published an article titled "Adaptation to global environmental change" in *Professional Geographer* (6) followed by one in 1983 titled "Human response to environmental change in the perspective of future, global climate" in *Quaternary Research* (7), both calling attention to global warming long before it became fashionable. These articles stand as evidence that although he built an illustrious career studying the past, Karl Butzer did so because he understood that knowing the past was essential to building a future.

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- 1 Butzer KW (1964) *Environment and Archaeology: An Introduction to Pleistocene Geography* (Aldine Publishing, Chicago).
 - 2 Butzer KW, Hansen CL (1968) *Desert and River in Nubia. Geomorphology and Prehistoric Environments at the Aswan Reservoir* (Univ of Wisconsin Press, Madison).
 - 3 Butzer KW (1976) *Early Hydraulic Civilization in Egypt: A Study in Cultural Ecology* (Univ of Chicago Press, Chicago).
 - 4 Butzer KW (1976) *Geomorphology from the Earth* (Univ of Chicago Press, Chicago).
 - 5 Butzer KW (1982) *Archaeology as Human Ecology: Method and Theory for a Contextual Approach* (Cambridge Univ Press, Cambridge, UK).
 - 6 Butzer KW (1980) Adaptation to global environmental change. *Prof Geogr* 32(3):269-278.
 - 7 Butzer KW (1983) Human response to environmental change in the perspective of future, global climate. *Quaternary Res* 19(3): 279-292.