



Robert L. Carneiro

1927–2020

BIOGRAPHICAL

Memoirs

*A Biographical Memoir by
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NATIONAL ACADEMY OF SCIENCES

ROBERT LEONARD CARNEIRO

June 4, 1927–June 24, 2020

Elected to the NAS, 1999

Robert L. Carneiro lived with gusto in the world of ideas. As an anthropologist he was known for his steadfast embrace of evolutionary theory in the explanation of culture change, his influential papers on the emergence of chiefdoms and states, and his contributions to South American ethnology. His “A Theory of the Origin of the State,” a 1970 paper that most contemporary anthropologists have read at some point in their careers, focused on the condition of circumscription, whereby environmental or social barriers restrict the range of strategic options that a village might pursue in response to overpopulation or other problems, beginning a chain of events that sometimes led to the emergence of a state.



Photography by Division of Anthropology Archives, American Museum of Natural History

By Charles S. Spencer
and Elsa M. Redmond

Carneiro earned a B.A. (1949) in political science, followed by an M.A. (1952) and a Ph.D. (1957) in anthropology, all from the University of Michigan. He then went to work at the American Museum of Natural History (AMNH), where he spent the next half-century developing a body of findings and theories on South American cultures, informed by several major field expeditions.

We imagine that Anthony and Serafina Carneiro, Robert Carneiro's parents, did not expect him to become an anthropologist. Originally from Cuba, the family had lived for two generations in New York City. His grandfather and father had built a successful business that produced and sold printing presses. The company also had a publishing branch that sold magazines, books, newspapers, and catalogs.¹ An only child, Bob attended the progressive Horace Mann School, in the Riverdale section of the Bronx where the family lived. He was an avid reader. While archiving the materials left in his office, colleagues found a faded sheet of lined paper on which a list had been written in pencil in a child's hand, titled “*Books I Have Read.*”

Seventy-two works appear, starting with *Twenty Thousand [sic] Leagues Under the Sea* and proceeding through *Little Men*, *Little Women*, *El Cid*, *David Copperfield*, *A Tale of Two Cities*, *Robinson Crusoe*, *History of Mexico*, *The Call of the Wild*, *Around the World in Eighty Days*, among others, and ending with Edward Everett Hale's *The Story of Spain*.²

After earning his B.A., Bob returned to New York and began working in his father's business. It took him just five months to realize he was not suited to the business world, and in May of 1950 he finally broke the news to his father.³ Bob returned to Ann Arbor to pursue a doctorate in anthropology. There he met Gertrude "Trudie" Dole (1915–2001), a fellow graduate student in anthropology, and they married in 1952 before setting out to do dual field projects on the Kuikuru, a traditional village society in the Xingú River drainage of Brazil. She concentrated on Kuikuru kinship and social organization, complementing Bob's emphasis on subsistence economics and ecology. Doctorates freshly in hand, Bob and Trudie moved back to New York City in 1957. Bob became assistant curator of South American Ethnology at the AMNH, while Trudie joined the faculty at nearby Vassar College. They lived in Riverdale until their marriage ended in 1979.⁴

In late 1960 Bob and Trudie launched a new field project, this time in the Peruvian *montaña*, the heavily forested transitional zone between the high Andes and the Amazonian lowlands, spending a half-year in participant observation with the Amahuaca. When they returned to New York, a reporter interviewed them in Bob's office and contributed an essay titled "Back" to "The Talk of the Town" in the June 24, 1961, issue of *The New Yorker*.⁵ The natural hazards of the *montaña* and fearsome reputation of the Amahuaca notwithstanding, Bob and Trudie reported a successful expedition, coming back with their gear mostly intact as well as a sizable collection of Amahuacan artifacts. The most daunting challenge they faced in the field was neither human nor animal: it was rain. According to their rain gauge, the two-month rainy season produced 37 inches of precipitation, and during one torrential downpour the gauge overflowed. By the end of that period, Bob and Trudie had lost their entire supply of instant oatmeal to mildew. But they did not go hungry; the Amahuaca provided them with a substitute diet of monkey, tapir, peccary, and paca, which proved much tastier than the porridge.

Bob and Trudie acquired artifacts from the Amahuaca through barter, and for that purpose they brought along an array of trade items from the United States. Not all of them, as it turned out, appealed to the Amahuaca, who rejected the scores of curtain rings the anthropologists had thought would make fine nose ornaments. Nor were the

Amahuaca impressed with the dozen Sheffield steel machetes; they had better ones of their own. One success was the anthropologists' supply of back issues of *Natural History* magazine, some with photos of people the Amahuaca recognized as relatives and friends from nearby communities. The Amahuaca were also keen to trade for scissors, rubber balls, a soap-bubble blower, and lipstick.

Back in New York, the Amahuacan artifacts were added to the already substantial South American Ethnology collection at the AMNH. Bob oversaw the curation of this collection, which attracted a stream of visiting researchers, and he also was responsible for the exhibits in the ethnographic section of the Hall of South American Peoples, on the museum's second floor.

To his co-workers at the museum Bob was an affable colleague of regular habits. For over three decades, he walked each morning from his loft apartment in Tribeca to a nearby subway station where he caught the uptown train, reading throughout the ride from a paperback he kept tucked in a jacket pocket. He spent most of the day writing and reading in his fifth-floor office, surrounded by stacks of papers and books (Figure 2). Lunch was in the museum cafeteria—a hearty meal, usually, since at night he and his second wife, Barbara Bode (1933-2020), would typically “nosh” on treats picked up at a deli on the way home. Like most New Yorkers, Bob relied on public transportation and rarely drove a car. And like more than a few New Yorkers, he often escaped on weekends to a country place, taking the Amtrak train from Penn Station to coastal Rhode Island after working late on Friday.

Bob's favorite work of his own was “A Theory of the Origin of the State,” a 1970 paper (published in *Science*) that most contemporary anthropologists have read at some point in their careers.⁶ His argument focused on the condition of *circumscription*, whereby environmental or social barriers restrict the range of strategic options that a village might pursue in response to overpopulation or other problems. In essence, the more pronounced was the circumscription, the more extreme the expected response. In highly circumscribed contexts, Bob proposed, a likely consequence was intensified warfare, which could spawn multi-village polities as victorious villages annexed the losers.



Figure 2. Carneiro in his office on the museum's fifth floor, 2019. (Division of Anthropology Archives, American Museum of Natural History.)

Looking back on the development of these ideas in his book *The Checkered History of the Circumscription Theory*, Bob underscored his view that once the “critical step” of transcending individual village autonomy had been taken, “a series of developments followed which saw successively larger political units being formed until one of sufficient size and complexity had emerged to which the term ‘state’ could be applied.”⁷

Bob attributed his interest in the origin of the state to his undergraduate major in political science as well as his exposure to the evolutionary theories of Michigan anthropologist Leslie White. Yet the role that circumscription played in political evolution became clear to him only after his dissertation fieldwork among the Kuikuru. He found that their form of slash-and-burn shifting cultivation could produce much higher yields of their staple food, manioc, than some scholars had previously thought.⁸ Bob concluded that the maize agriculture of the Inca was less productive (whether measured per unit of land or unit of labor) than the manioc cultivation practiced in Amazonia. What, then, accounted for the obvious differences in political complexity between the two regions? Why did large state societies evolve in the Andes but not in Amazonia?

The answer, he proposed, lay in the more circumscribed valleys of the Andean region, starkly different from the more open environment of Amazonia. In Amazonia, he noted, villages defeated in war could simply move away to a new location with a similar environment and continue to live as before; this option was unavailable to defeated villages in the narrow Andean valleys, flanked as they were by high peaks and arid deserts.

In a series of papers and books, Bob continued to develop and refine his circumscription theory, arguing for its applicability to various cases of state formation from around the world. He summed it up with characteristic understatement: “[T]he theory has gained a certain currency in anthropology and may even be considered the leading theory among those purporting to account for the rise of the state.”⁷ Not everyone agreed with him, but Bob never took it personally. He relished the thrust and parry of intellectual debate, remarking “it adds spice to life.” To his credit, he chose to support his arguments with ethnographic, ethnohistoric, and archaeological data, spurning *ad hominem* critique even when an adversary stooped that low. He was a scholar and a gentleman, always.

Bob valued intellectual consistency and rejected faddism, yet he paid close attention to the data and arguments of other researchers and was not averse to changing his ideas. Early on, his perspective on state formation was mostly shaped by his doctoral research on village society. The emergence of multi-village polities, he thought, was the

paramount qualitative transformation in the evolution of political complexity, with all the ensuing development quantitative (gradual and additive) in nature. He was nonetheless attuned to the surge in archaeological research during the 1970s that focused on chiefdoms, those multi-village polities with centralized but non-bureaucratic—that is, not internally specialized—regional leadership.

Anthropologists came to recognize the chiefdom as a political design that could exhibit cycles of political growth and decline without necessarily leading to the rise of bureaucratic states. Researchers pondered how and why certain cycles of chiefly political growth had led to the emergence of bureaucratic governance while others had not. Bob considered the implications of these new data and new perspectives in his 1981 paper, “The Chiefdom: Precursor of the State.”⁹ He defined the chiefdom as “an autonomous political unit comprising a number of villages under the permanent control of a paramount chief.”⁹ He defined the state as a polity encompassing many communities within a larger territory and governed by a centralized administration “with the power to draft men for war or work, levy and collect taxes, and decree and enforce laws.”⁹

Chiefdoms do not typically exhibit all three of these administrative capabilities, Bob argued, but in the few cases where they develop them, “a significant threshold is crossed; a categorically stronger and more complex society arises, which we want to call a state rather than a chiefdom. Our job, then, is to specify as precisely as possible where this threshold lies and when it has been crossed.”⁹ Bob realized that the effective implementation of these three diagnostic powers would require the leadership in question to delegate partial authority to specialized administrators, who would carry out the drafting of men for war or work, the collecting of taxes, and the enforcing of laws. The threshold between chiefdom and state was the transition from non-bureaucratic to bureaucratic governance.

In the years following his 1981 paper, Bob pursued his interest in chiefdoms and wrote a series of significant papers.^{10,11,12,13,14} He modified his perspective on how chiefdoms emerge in his 1998 paper, “What Happened at the Flashpoint? Conjectures on Chiefdom Formation at the Very Moment of Conception,” acknowledging that new data and analyses had convinced him that emergent multi-village polities did not always consist of defeated villages under the victor’s control but were sometimes based on alliance formation, albeit under centralized authority when organized as a chiefdom.¹⁴ On his final day at the office in 2019, Bob told a group of colleagues who had gathered

to wish him farewell that he hoped chiefdoms would continue to be a major topic of investigation by AMNH researchers. He knew there was much more to discover.

An underlying theme of Bob's 1981 paper was the relationship between quantitative change and qualitative transformation, an enduring interest since his 1967 work, "On the Relationship between Size of Population and Complexity of Social Organization."¹⁵ In 2000, he addressed the topic directly in his *PNAS* Inaugural Paper: "The Transition from Quantity to Quality: A Neglected Causal Mechanism in Accounting for Social Evolution."¹⁶ Drawing on the work of Hegel, Marx, Engels, and more recent scholars, Bob argued that the full course of cultural evolution can fruitfully be viewed as a dynamic interplay between quantitative and qualitative change.

Notably, when a quantitative increase in a key variable reaches a certain threshold, it can give rise to a qualitative change in society. Applying this perspective to state formation, Bob argued that increasing warfare among autonomous villages could lead to multi-village chiefdoms. The further expansion of warfare could lead to ever-larger chiefdoms



Figure 3. Carneiro at the National Academy of Sciences, Washington, D.C. 2008. (Division of Anthropology Archives, American Museum of Natural History.)

until a scalar threshold was reached, beyond which a chiefdom would need to transform its political organization, crossing the bureaucratic threshold to state formation—or, failing that, cycling back to a smaller size. Bob's delight at being elected to the NAS in 1999 was matched by the genuine pleasure he took in the elections of his AMNH colleagues. Each spring he caught the train to Washington for the NAS Annual Meeting, arriving on Friday and staying through the final event on Tuesday (Figure 3).

Among Bob's outstanding accomplishments was the installation of the Hall of South American Peoples, a task that took three decades to complete. As recounted in his 2019 book, *The Making of an Exhibit Hall: Bringing to Life Amazonian Indian Culture*, the new hall replaced a long-closed hall and a temporary exhibit titled "Men of the Montaña," which was still in place when Bob started his museum career.¹⁷ The development of the new hall began in the 1960s and was envisioned as having two sections: the ethnographic exhibits were to be curated by Bob, while Junius Bird would be curator of the archaeological section. Progress was intermittent at first; the

project's funding was coming largely from New York City, and the city was in financial straits. In 1980, the necessary support was finally in place and work began in earnest, with Craig Morris curating the archaeology section that would share with ethnology the 8,000 square feet of available exhibition space. Collaborating with Laila Williamson, his longtime research assistant, Bob threw himself into the work of designing the hall's thematic layout and combing the vast collection for suitable artifacts to include in the exhibit cases.

In 1989 the Hall of South American Peoples finally opened to the public. In his remarks to some visitors at the reception, Bob puckishly listed the major wars that lasted for fewer years than had the planning and execution of the new hall. But he considered it a success, and so have his colleagues and the public at large (Figure 4). The ethnographic section is organized according to major categories of culture, such as subsistence, settlement, social organization, leadership, warfare, and religion. The display cases are replete with astonishing examples of Amazonian craftsmanship. The visitor's experience amounts to an education in Amazonian ethnology and in the anthropological view of culture.

Bob felt strongly that the AMNH has a responsibility to communicate to the public the full truth about nature and culture as revealed by the best scientific research. He rejected any sugarcoating of facts that might potentially offend some visitors. In the Hall of South American Peoples, for example, he insisted that a display be included about the shrinking of the heads of enemies killed in warfare, a documented practice of the Shuar (Jívaro). Leaving that exhibit out, he argued, would be unscientific and a misrepresentation of their culture.

Large museums tend to have lots of staff meetings, and the AMNH is no exception. Bob was ordinarily a quiet presence in these gatherings, though he was known to speak up on occasion when the debate turned to the concern of some scientists that the museum's administrative staff seemed to be growing over the long term, while the scientific staff was static or in decline. Bob would propose, a sly twinkle in his eye, that the museum leadership release a detailed organizational chart each year, so the administrative

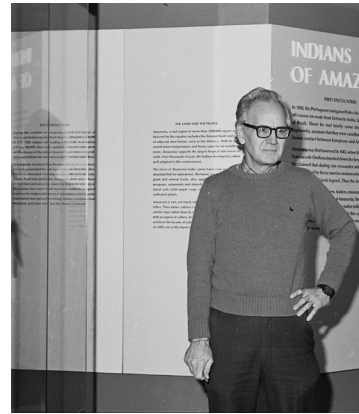


Figure 4. Carneiro at the Hall of South American Peoples, circa 1989. (Division of Anthropology Archives, American Museum of Natural History.)



Figure 5. Carneiro in Amazonia. (Division of Anthropology Archives, American Museum of Natural History).

hierarchy could be tracked over time. This would elicit stony silence from the administrators who were present, and no organizational charts were ever released.

Bob returned to Amazonia in 1975, spending time with the Kuikuru as well as the Yanomamö of southern Venezuela, where he collaborated with Napoleon Chagnon. Despite his engagement with general issues in evolutionary anthropology, Bob's professional identity was deeply rooted in Amazonian ethnology and ethnography, as exemplified by the photo he chose for his page on the Division of Anthropology website (Figure 5). An experimental study he conducted in Yanomamö territory was discussed in his 1979 paper "Tree Felling with the Stone Ax: An Experiment Carried Out Among the Yanomamö Indians of Southern Venezuela."¹⁸

Although stone axes were no longer used by the Yanomamö, Chagnon had collected some old ax heads from the region, one of which he lent to Bob for his experiment. Bob contracted with a Yanomamö man, Dobrabewä, to haft the ax and use it to cut down a tree. Bob observed the process and recorded detailed qualitative and quantitative data. He used the latter in several calculations, producing a formula and a graph that expressed the relationship between the diameter of the tree species in question and the time required to fell it with a stone ax. He then applied his formula to other cases of tree felling with stone axes and offered some general observations about the labor-time requirements of forest clearing by Neolithic agriculturalists.

At the end of the 1975 field season, Bob stopped in Caracas for a medical checkup. He was diagnosed as emaciated and advised to devote a month to rest and nourishment. He discovered two restaurants that he liked, in opposite directions but not far from his hotel. He alternated between them for his warm *comida* each afternoon. Years later, Bob remarked that he had never spent a more agreeable month.

An evolutionist through and through, Bob saw no fundamental contradiction between the Darwinian and Spencerian perspectives. The central role played by Darwinian selection was the focus of his 1992 paper "The Role of Natural Selection in the Evolution of Culture."¹⁹ At the same time, Bob highlighted the similarities among independent

developmental trajectories, which to him indicated significant directionality in the process of cultural evolution. He emphasized that the long-term trend in most cultural sequences was from small and simple to large and complex, aligning himself with Herbert Spencer's conception of evolution as an inherently progressive phenomenon. In his typically direct style, Bob explained the progressive trend in cultural evolution by linking it to selection: the emergence of increasingly large multi-village, and then multi-regional, polities will be favored by selection because larger polities have a military advantage over smaller ones, thus imparting an overall directionality to the evolutionary process—a neat synthesis of the Darwinian and Spencerian viewpoints.^{20,21,22}

Bob's intellectual curiosity and drive were boundless. Invited by AMNH astrophysicists to speak at their lunchtime seminar, he gave a presentation on what he saw as a compelling analogy between cultural evolution and stellar evolution. His astrophysicist colleagues were nonplussed and gently suggested that he abandon the argument. But Bob was undaunted. He forged ahead and published an abstract of his paper "Stellar Evolution and Social Evolution: A Study in Parallel Processes" in an astronomy journal²³ and the entire paper in two social science journals.^{24,25}

Scholarly reactions to the paper were mixed but Bob was unperturbed. He believed criticism played a key role in the evolution of scientific thought. Scientific progress is furthered, he would argue, when theorists state their propositions boldly and clearly. He was confident that empirically validated hypotheses would ultimately survive, while other ideas would fall by the wayside.

In his later years, Bob grew impatient with the often-protracted pace of mainstream academic publishing, and he turned to less conventional options, including self-publishing, for a series of books.^{7,17,26,27,28} He mentioned to colleagues that he had long been interested in the process of book publishing—a wry allusion, some thought, to his abbreviated career in his father's business—and said that he enjoyed choosing the type faces and designing the book covers himself.

Many students, colleagues, and acquaintances benefitted from Bob's generosity with his time, ideas, knowledge, advice, and data. A bulging filing cabinet in his office held more than a half-century of correspondence, now housed in the Division of Anthropology Archives. The anthropologists with whom he interacted included Robert Lowie, Leslie White, Claude Levi-Strauss, Napoleon Chagnon, Thomas Gregor, Harold Conklin,

Melville Herskovits, Lewis Binford, James Griffin, Betty Meggers, Marvin Harris, Kent Flannery, Joyce Marcus, Russell Bernard, Robert Drennan, William Balée, Michael Heckenberger, Christopher Hewlett, Nam Kim, Stephen Beckerman, and Warren DeBoer. Some other correspondents were systems theorist Ludwig von Bertalanffy, geographer William Denevan, and the biological evolutionists Niles Eldredge and John Tyler Bonner.²⁹

Bob spent his final hours at a nursing facility in New Hampshire, listening to recordings of classical music—the works of Beethoven and Mozart were among his favorites—and accompanied at the end by his devoted son Brett.

ACKNOWLEDGMENTS

We are grateful to Laila Williamson, Associate in the Division of Anthropology, AMNH, for her assistance during our preparation of this memoir. We also thank Kristen Mable, Registrar of Archives and Loans, Division of Anthropology, AMNH, who provided access to Bob's correspondence files that were cataloged by Anita Caltabiano, Anthropology Division Administrator. Mai Reitmeyer, Research Services Librarian, Research Library, AMNH, helped us peruse the library's archived photographs. Finally, we thank Brett Carneiro for sharing key information about Carneiro family history.

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