

In memoriam

Robert L. Carneiro (1927–2020)

Richard J. Chacon
Winthrop University



**Carneiro relaxing at his home in New York City.
He is holding a copy of *Chieftoms: Yesterday and Today* (2017)
Edited by R. Carneiro, L. Grinin, and A. Korotayev.
Photo taken by Richard Chacon in 2017**

Early Years. Robert L. Carneiro was a giant of anthropological theory. He was born of Cuban parents in New York City in 1927 and attended Horace Mann School for Boys in the Bronx from 1941 to 1945. After graduating, he enrolled in the University of Michigan where he declared a major in Political Science because his father wanted him to become a lawyer. His father had slated him to work at, and eventually to run, the family business. However, during his sophomore year, Carneiro signed up for an Introduction to Cultural An-

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thropology class with Leslie White, and he found the course so fascinating that he took two more Anthropology classes from White before graduating with a B.A. in Political Science in 1949.

As a graduation present, his father booked his son on a four-month, around the world trip via ocean liner. As he traveled the globe, he encountered many different ways of life, which spurred his interest in Anthropology even more. Upon his return to New York City, he dutifully assumed a fulltime job at his father's business, the A. M. Carneiro & Company, which manufactured rotary presses used to produce magazines and newspapers. However, since he had been 'bitten by the anthropology bug' as he liked to say, Carneiro also enrolled in any social science course offered at night at Columbia University and at the New School. After five months of this grueling regimen (*i.e.*, taking four evening courses while holding a full-time day job), he simply could not take it anymore; with tears in his eyes, he walked into his father's office and stated, 'I hate my life. I feel trapped and condemned.' While his father was deeply saddened by this declaration, he nonetheless accepted and supported his son's decision to quit his job and return to the University of Michigan to enroll in the Anthropology program where he became one of Leslie White's graduate students.

When asked why he chose to conduct his doctoral dissertation research in Amazonia, Carneiro responded by saying, 'I wanted to work with a relatively unacculturated group.' In order to locate such a society he sought advice from Kalervo Oberg who suggested that Carneiro work with the Kuikuru of the Upper Xingu region of Brazil. Not having traveled extensively in Brazil before, Carneiro obtained valuable advice on logistics from Robert Murphy. With Murphy's help, in 1953, he and his first wife, and fellow anthropology graduate student, Gertrude Dole managed to meet up with Orlando and Claudio Villas Boas at the Serviço de Proteção ao Índio (SPI) Post established in the Upper Xingu (see Villas Boas and Villas Boas 1968). Carneiro quickly established a good rapport with Claudio who volunteered to ferry the couple in a canoe towards the Kuikuru village they had selected for their fieldwork.

Upon their arrival to the Kuikuru area, Carneiro noted the presence of deep trenches that extended for some distance. He also noted that pre-Columbian pottery fragments were found in association with these features. He would later document the existence of a lengthy elevated causeway located nearby. For Carneiro, these findings provided evidence of largescale landscape modification by precontact Amazonian societies that most likely had been complex (more on this important discovery below).

Upon completion of their fieldwork in 1954, and before returning to the United States, the couple met with Marshall Cândido Rondon at his home in Rio de Janeiro. Rondon was a Brazilian military officer well-known for his association with the Telegraphic Commission (1890–1895) and for his exploration of the Mato Grosso. Most importantly, Rondon became the founder of Brazil's Indian Protection Service (later FUNAI) and he devoted his life to the protection of indigenous peoples (Bodley 2008; Williams 1983). Before parting ways, Rondon presented the anthropologists with an autographed copy of his seminal publication: *Os Índios Do Brasil Vol I & II* (Rondon 1946, 1953).

After returning to the United States, Carneiro began writing his dissertation, which included information on his aforementioned discovery (near the Kuikuru village) of ancient trenches that ran for over 1.6 km. Carneiro claimed that these findings suggested that complex societies had developed in the Upper Xingu region before the arrival of Europeans. In his dissertation, he notes that

[d]uring historic times the largest community size attained in the Upper Xingú Basin was about 300... However, certain archaeological evidence suggests to me that villages may at one time have been larger. The evidence follows... In the vicinity of the Kuikuru village there are two trenches which run closely parallel to each other for more than a mile [1.6 km.]... The trenches are now about 8 to 10 feet [2.4 m to 3 m] deep and 15 feet [4.6 m] across at the top, but slumping of the soil has probably reduced their original dimensions (Carneiro 1957: 210–211).

He goes on to speculate that these trenches were most likely ‘built for defense’ (Carneiro 1957: 211). Carneiro (1957: 211–212) adds that ‘[t]he building of these trenches was unquestionably a large scale enterprise. It appears to me that to excavate them would have required a higher degree of political organization and a larger labor force than the Kuikuru have had during historic times.’

Carneiro's discovery of largescale modification of prehistoric landscapes undermined Betty Megger's argument that tropical soils were too nutrient-poor to support large populations. She held that the Amazonian environment was incapable of supporting complex polities (Meggers 1971). Eventually, Carneiro's assessments were proven correct by Heckenberger and colleagues (2007) who report that

[t]he headwater region of the Xingu River, or Upper Xingu, in northeastern Mato Grosso state, Brazil, provides another

clear case of anthropogenic modification of Amazonian landscapes over the long term... The Upper Xingu is one of several areas in the southern Amazon region where densely settled complex societies flourished during the late prehistory.

While writing his dissertation, Carneiro taught at the University of Wisconsin from 1956 to 1957. He completed work on his dissertation, titled 'Subsistence and Social Structure: An Ecological Study of the Kuikuru Indians' and was awarded a Ph.D. in Anthropology from the University of Michigan in 1957.¹ In this same year, Robert Carneiro and Gertrude Dole co-authored an ethnography on the Kuikuru titled *La Cultura de los Indios Kuikurus del Brasil Central*.

American Museum of Natural History (AMNH). Upon receiving his Ph.D., Carneiro worked as an Assistant Curator of South American Ethnology at the American Museum of Natural History (AMNH) from 1957 to 1963. From 1963 to 1969, he was an Associate Curator of South American Ethnology. From 1969 to 2010, he was the Curator of South American Ethnology, and from 2010 he was Curator Emeritus of South American Ethnology until his death in 2020.

Carneiro's career flourished while at the AMNH. To begin with, he remained an active fieldworker. From 1960 to 1961, he was central to a multi-personnel Museum sponsored project, which sent several ethnographers to conduct fieldwork among designated groups of the Peruvian Montaña. One project member, Michael Harner, worked with the Conibo while Carneiro and Gertrude Dole worked together among the Amahuaca. According to Christopher Hewlett, 'during this period, Carneiro continued to develop his ideas regarding slash and burn agriculture, hunting and hunting magic, and social and political organization.' Finally, Carneiro's openness to sharing his ideas, fieldwork notes, photos, and memories about the Amahuaca has made a lasting contribution to our understanding of this particular Amazonian group. Specifically, beginning in 2009, Carneiro shared photos and other ethnographic material with me and I used this information to locate and carry out fieldwork among the same Amahuaca families with whom he and Dole had lived in the 1960s. Hewlett adds that,

this collaboration resulted in the establishment of the **Casa de Cultura Indígena** located in the native community of Nuevo San Martín where photos of the Amahuaca taken by Carneiro (along with artifacts made by the Amahuaca) are currently exhibited. This educational space provides a venue where the Amahuaca and other local Indigenous groups learn about their past and celebrate their traditions. Addi-

tionally, it is a location where visitors may learn about the rich cultural heritage of the Amahuaca.

In 1975, Carneiro returned to Amazonia, this time, with Napoleon Chagnon and archaeologist William Sanders to conduct fieldwork among the Yanomamö of Venezuela. They were accompanied by Raymond Hames, Eric Fredlund, and Kenneth Good who were Chagnon's graduate students at this time. During the field season, Carneiro conducted experimental archaeology involving Yanomamö tree felling and axe-use (Carneiro 1979a, 1979b).

Carneiro's success as museum Curator cannot be overemphasized. He spearheaded the remodeling of the Amazonian Indian Exhibit in the Hall of Native South American Peoples of the AMNH. Today, this exhibit, which was completed in 1989, exposes the general public to the cultural richness of South American native peoples. Carneiro saw to it that the beliefs and material culture of Indigenous peoples were accurately and respectfully represented in the museum's displays (see Carneiro 2019). Without a doubt, the Amazonian Indian Exhibit is a testimonial to Carneiro's vast ethnographic knowledge of the region and of the profound respect that he held for the Indigenous peoples of Amazonia.

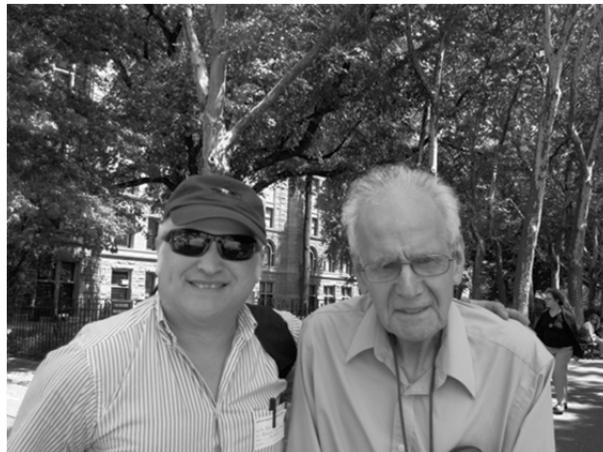


Fig. 1. Robert Carneiro with the author of the Obituary Richard Chacon outside the American Museum of Natural History in New York City. Photo taken by Yamilette Chacon in 2013.

Addressing Carneiro's contributions to anthropology is a daunting task indeed. Spatial constraints preclude an exhaustive review of his academic output, but some of his major contributions are highlighted

below. For example, Raymond Hames points out that Carneiro's quantitative work that was first published in 1961 (and republished in 1974) on Kuikuru cultivation 'decisively falsified Megger's influential claim that complex societies could not evolve in *terra firme* (non-riverine) areas of Amazonia because of limitations on crop productivity. The important lesson I extracted from his work (*i.e.*, Carneiro 1974) was that careful quantification could test the adequacy of qualitative claims.'

Carneiro's ecological approach laid the foundation for an entirely new anthropological methodology in Amazonian field research involving the recording and analysis of quantitative environmental data. The adoption of this approach produced ground breaking studies such as 'Protein Deficiency and Tribal Warfare in Amazonia: New Data' (Chagnon and Hames 1979), an article that solved the 'Great Protein Debate.'² Moreover, Carneiro's work would inspire others to apply quantitative approaches such as Optimal Foraging Theory (MacArthur and Pianka 1966) towards understanding human foraging patterns, particularly in Amazonia (see Alvard 1998; Hames and Vickers 1982; Hill *et al.* 1987). More recently, unmistakable evidence of Carneiro's quantitative ecological approach can be found in 'Conservation or Resource Maximization? Analyzing Subsistence Hunting among the Achuar (Shiwiar) of Ecuador' (Chacon 2012).

When considering Carneiro's contribution towards our understanding of the rise of social complexity, one must begin with his seminal 'A Theory of the Origin of the State' that was published in *Science*. Reflecting on the impact of this article, Timothy Earle stated:

Along with Marshall Sahlins and Eric Wolf, Robert Carneiro sculpted my theoretical gestation. I was in graduate school when Bob's 1970's *Science* article 'A Theory of the Origin of the State' broke on the scene. Set in contrast to functionalist logic of the time, his understanding of warfare became central to our thinking about the evolution of chiefdoms and states. As intellectual trends came and went, his dogged attention to warfare strongly guided social evolution. His defense of the chiefdom concept was forceful.

Once again, Raymond Hames weighs in on the importance of Carneiro's work by stating that

his theories of the origin of the state and the concepts of social and environmental circumscription were major contributions to cultural evolutionary theory and to any theory at-

tempting to explain variation in cultural complexity (e.g., Carneiro 1970). One could argue for or against his theories of state origin, but one could not consider the topic without reference to Bob's fundamental work.

According to Joyce Marcus,

Carneiro was a giant figure in the history of anthropology. He was the sociocultural anthropologist most often cited by archaeologists, primarily because he was the world's leading theorist on cultural evolution, and one of the few scholars who specified the mechanisms and variables in a series of evolutionary models. One of the key variables he isolated was warfare, which he identified as one of the dynamic catalysts in the formation, operation, and expansion of chiefdoms and states. Knowing that societies are loathe to give up self-rule, Carneiro showed that warfare was one of the powerful mechanisms that resulted in the loss of autonomy. Carneiro's publications on the origins of the state inspired social theorists and multiple generations of archaeologists to test his models. The last few decades of excavations and large-scale settlement pattern surveys have confirmed his model of state formation in different regions of the world. His early fieldwork among the Kuikuru, Amahuaca, and Yanomamö Indians of South America, combined with his ethnohistoric research on the Cauca of Colombia, led to highly influential ideas on the organization of autonomous village societies and the emergence of hierarchical chiefly societies. Carneiro also pioneered new methods of scale analysis to explain cultural differences and developed ways to link population size to village fissioning and complexity.

Carneiro was also among the first to recognize the value of consulting relevant ethnohistorical sources in order to more fully understand recorded archaeological features and current ethnographic conditions (see Carneiro 1957: 210–216). Carneiro's familiarity with de Carvajal's 1542 description of Indian settlements in the Upper Amazon, which extended for over 'eighty leagues' (Medina 1934: 198), led him to conclude that the dispersed and relatively low density populations of modern day Amazonian rainforest peoples were in fact, artifacts of Western contact. In his dissertation, Carneiro argues that,

[e]ven if one allows for a certain amount of exaggeration the picture is still one of large community size and density

of settlements. Moreover, de Carvajal repeatedly points out that these villages were federated into larger political units. By the time that White travel along the upper reaches of the Amazon became frequent, however, these concentrations of populations had largely thinned out and the level of political organization had declined to that of simple village autonomy (Carneiro 1957: 214).

Carneiro explains the reason for the depopulation of Amazonia in the following manner:

In northern South America the agents of depopulation and deculturation are easily identified: Europeans. But, assuming a decline in Upper Xingú village size from 500–600 around 1500 A.D. to 200–300 around 1900, how can we account for it? No European set foot in the basin until almost 400 years after South America was discovered. I venture to suggest that the principal cause of this presumed decline was the introduction into the region of malaria... Because of the relatively high density of population in the basin, the disease would have spread quickly. Villages would have been depleted in numbers and probably relocated in an effort to escape the disease (Carneiro 1957: 215–216).

Whether or not malaria was the main cause behind the largescale die off of native peoples of the Upper Xingu remains an open question. However, Carneiro appears to have been correct in suggesting that the dispersed and relatively low density settlement patterns of contemporary Amazonian rainforest communities is, to a great extent, a product of their encounter with European introduced disease (see Heckenberger 2005; Mann 2005).

Carneiro enhanced our understanding of the study of cultural evolution. According to Robert Graber,

his deep and broad contributions in this area may be grouped broadly as (1) historical, (2) conceptual, and (3) quantitative. Historically, he fully refuted several misrepresentations, by twentieth-century anthropology, of classical nineteenth-century evolutionism. His meticulous analysis of the writings of Spencer, Morgan, and Tylor shows that racist assumptions were by no means fundamental to their theorizing. Seen as ultimately determinative were neither racial variation nor human intentions, but objective material conditions. Nor did they consider cultural evolution as a necessary progression of

stages. The only ‘necessity’ was retrospective: being at an early stage did not guarantee advance to a later one, but being in a late stage entailed having passed through earlier ones. Conceptually, Carneiro saw construction of stage sequences as a sterile exercise in any case, unless conjoined with a consideration of process. Cultural evolution, he wrote, was a process of ‘successive equilibrations.’ He insisted, too, that Spencer’s definition of evolution as entailing not merely change, but change in the direction of greater complexity, was essential for understanding cultural evolution as such. Impressed also by Spencer’s vast vision of evolution as pervading the Cosmos, he systematically – and compellingly – compared cultural evolution with stellar evolution. Quantitatively, Carneiro pioneered application, to cultural-evolutionary data, of linear regression, scaling analysis, and computer simulation; and he relied heavily on population pressure (and resulting warfare) to account for political evolution... Carneiro’s theoretical work was supported by profound ethnographic knowledge; and his writing, like his thinking, was characterized by extraordinary lucidity. We are fortunate indeed to have his own overview of his work in the form of the 2003 volume, *Evolutionism in Cultural Anthropology*. Carneiro’s passing is a loss for anthropology, but his legacy is certain to live on; and he himself lives on in the memories of those of us fortunate enough to have known him not only as an admired colleague, but also as a true gentleman and cherished friend.

Long deserved recognition of Carneiro’s lifelong commitment to rigorous scholarly pursuits came about in 1999 when he was elected to the National Academy of Sciences. However, not being one to rest on his laurels, he continued to inspire scholars well into the present millennium. For example, several recent publications explore the salient relationship between warfare and the rise of social ranking/complexity (Arkush and Allen 2006; Chacon and Mendoza 2017; Dye 2009, 2020; Earle 2002; Kirch 2010; Ling *et al.* 2018; Roscoe *et al.* 2019).

In addition to his many academic achievements, Carneiro was known for his willingness to help others. For example, in the early 1960s, when a young Napoleon Chagnon was searching for an appropriate Amazonian group to work with for his doctoral dissertation research, Carneiro advised Chagnon to travel to Chicago to meet with an American Evangelical missionary named James P. Barker who had published articles on the Yanomamö of Venezuela (see Barker 1953,

1959). Chagnon took Carneiro's advice and briefly met with Barker who encouraged the young graduate student to work with the Yanomamö.³ Likewise, in ~1965, a young graduate student named Thomas Gregor met with Carneiro to obtain advice on how to conduct research in the Brazilian Amazon. According to Gregor, Carneiro was not only generous with his time but that he also provided extremely useful advice that greatly contributed to the success of his first Amazonian fieldwork experience.

Reflecting on Carneiro's legacy, Thomas Gregor states:

Bob Carneiro was my instructor and member of my doctoral thesis committee at Columbia University, and he served as my advisor prior to my trip to Brazil's Upper Xingu. He was an inspiring teacher and a wonderful friend, offering invaluable advice to a very green new anthropologist. I looked to Bob for his absolute grounding in anthropology as an empirical science, one in which facts and data were the hard substance of research. The linkage of this approach to an evolutionary perspective was the core of his work, and it was reflected in his brilliant ethnography of the Upper Xingu and his many theoretical papers.

Not only did Carneiro mentor individuals in his early years at the AMNH, but he continued guiding young and promising scholars throughout his entire career. For example, according to Nam Kim,

Not only was Bob a giant in our field, but he was one of the most generous human beings I have ever met. He was personally instrumental in my decision to pursue Anthropology, when he agreed to meet me and talk about the discipline. As strangers, we talked for hours during our first meeting in 2001, and he convinced me that my intellectual interests could only be served by pursuing graduate studies and a career in Anthropology. So many of us will forever remain inspired by his work and his character.

Carneiro and the *Social Evolution & History Journal*. Given the high regard that Carneiro had for his Russian colleagues, particularly for the Editors of the *Social Evolution & History Journal*: Dmitri Bondarenko, Leonid E. Grinin, and Andrey V. Korotayev, it is only fitting that I include a section that addresses this matter. To begin with, Carneiro was deeply grateful to the aforementioned Editors for organizing the 'Origin of the Early State: A Reconsideration-Special

Edition' of the *Social Evolution & History Journal* which included his 'The Circumscription Theory: A Clarification, Amplification, and Reformulation' article (Carneiro 2012). He was also very pleased at the high level of interest that this Special Issue generated. In fact, this Special Issue included a total of 22 sets of comments and/or responses to Carneiro's article (Editors 2012).

The deep respect that Carneiro felt towards these particular Russian Editors can also be found in the following anecdote: In 2014, work had been completed on a manuscript that focused on the role that status lineages played in the rise of social complexity. As a co-author, at this time I began trying to locate an appropriate entity that might accept the manuscript for consideration to publish. With this goal in mind, I asked Carneiro for advice on where we should submit the manuscript and he emphatically issued the following response: 'You should submit the manuscript to the Editors of the *Social Evolution & History Journal*. Do not waste time considering other options. I highly recommend working with these Editors. They are terrific. Those Russian scholars are doing a great work!' It goes without saying that Carneiro's advice was heeded and the manuscript on status lineages was submitted to and eventually published in the *Social Evolution & History Journal* (see Chacon *et al.* 2015). Over the years, Carneiro's respect for his Russian colleagues grew as he unequivocally declared that the *Social Evolution & History Journal* 'happens to be the best journal of its kind in the world' (Carneiro 2018: 61).

Closing Comments. Carneiro's contribution to the Amazonian ethnographic record is monumental in scale and for this, present and future generations of scholars will forever be in his debt. His innovative quantitative approach ushered in a new era of Amazonian ecological research. Likewise, his vast knowledge of the Amazonian ethnographic record has inspired scholars for generations. He was a theoretician par excellence. His aforementioned Environmental Circumscription Theory (Carneiro 1970), remains viable to this day, albeit in modified form (see Carneiro 2012). In short, his research demonstrating a relationship between warfare and socio-political evolution (Carneiro 1998) continues to spur research in this important area (see Arkush and Allen 2006; Chacon and Mendoza 2017; Chacon *et al.* 2015; Dye 2009, 2020; Earle 2002; Editors 2012; Kim 2017; Kirch 2010; Ling *et al.* 2018; Marcus and Flannery 1996; Redmond 1998; Roscoe *et al.* 2019).

Having read Carneiro's work in the early stages of my academic formation, in 2009 it was a great privilege to meet him in person. Our shared interest in Amazonia, natural resource utilization, warfare, and the rise of social complexity made for delightful conversations that would last for hours. In a short period of time, he transformed from simply being a respected colleague to a cherished friend. In 2012, he nominated me to serve as the Literary Executor of his Amazonian materials, the greatest honor of my professional career.



Fig. 2. Robert Carneiro with the author of the Obituray Richard Chacon working on their Kuikuru myths project. Photo taken by Yamilette Chacon in 2017.

Carneiro's greatest contribution was his steadfast commitment to rigorous scientific protocols. His staunch adherence to factual data has advanced anthropological inquiry and his fidelity to this stance has allowed his work to stand the test of time. His insatiable appetite for research never wavered as he remained active up to the very end of his life. We were collaborating on a project involving Kuikuru myths when he passed away. The results of our joint effort will be published posthumously by the AMNH. I plan on making use of the extensive interviews that I conducted on Carneiro over the years to write an extended article that documents his many contributions to anthropology. Robert (Bob) Carneiro will be sorely missed by all who knew him and his legacy will never be forgotten.

Robert L. Carneiro was preceded in death by his second wife Barbara Bode-Carneiro. He is survived by their son Brett Carneiro and three grandchildren.

Acknowledgements. I would like to thank my good friend and esteemed colleague Dmitri Bondarenko for inviting me to write this obituary. I also would like to thank all those who contributed their thoughts and reflections to this tribute: Timothy Earle, Thomas Gregor, Raymond Hames, Joyce Marcus, Christopher Hewlett, Robert Graber, and Nam Kim. I am most grateful to Yamilette Chacon and David Dye for their useful comments and suggestions. Special thanks go out to Kristen Mable (AMNH) and Laila Williamson (AMNH) for their assistance in helping to secure documents that were critical for the completion of this endeavor.

NOTES

¹ Carneiro's dissertation committee members were Leslie A. White (Chair), Marston Bates, Volney H. Jones, Elman R. Service, Albert C. Spaulding, and Mischa Titiev.

² See also Beckerman (1991).

³ At this time, the Yanomamö were also referred to as the Waica, Guaica, Shiriana, Guaharibo, Guajaribo, Yanoama or Shamatari.

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