



# YOU SAY YOU WANT A REVOLUTION

## A BRIEF HISTORY OF ARCHAEOLOGICAL REVOLUTIONS

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When V. Gordon Childe, at the time arguably the most famous prehistorian of the twentieth century, coined the terms “Neolithic Revolution” and “Urban Revolution” in the mid 1930s, he was likely unaware that he was inaugurating what was to become a time-honored tradition in our discipline: the archaeological revolution. Although the popular use of the term “revolution” to describe social, political, or technological turning points dates to the Enlightenment,<sup>1</sup> archaeologists were slow to adopt the term to describe processes of cultural change (though Childe alluded to prehistoric revolutions in earlier works, its first official use was in 1936). Since this time, “revolutions” have flourished within the discipline,<sup>2</sup> with archaeologists suggesting no fewer than nine revolutionary moments in prehistory.

### The Neolithic (ca. 12,000 B.P.) and Urban Revolutions (ca. 7,000 B.P.)

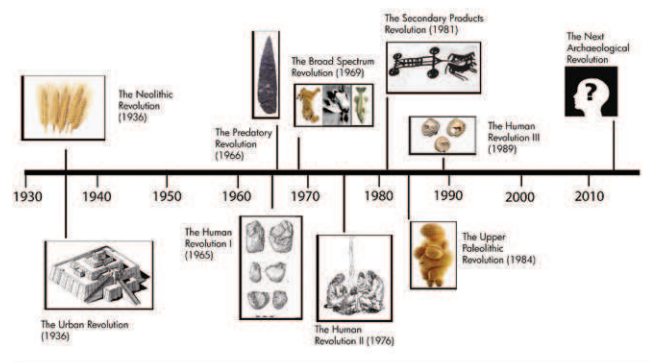
Childe was the first archaeologist to invoke the term “revolution” to explain stark discontinuities in the archaeological record as important turning points in the past, but clearly noted that “the word ‘revolution’ must not of course be taken as denoting a sudden violent catastrophe” (1950:3). Instead of reflecting the series of political revolutions that wracked Europe throughout the nineteenth and early twentieth centuries, Childe’s revolutions were modeled on the Industrial Revolution, which had brought about rapid technological and social reorganization in both Europe and the United States. Still included in virtually every Introduction to Prehistory textbook, Childe’s “Neolithic” and “Urban Revolutions” have undergone a cycle of decline and resurgence over the years, and continue to spark intellectual debate. Although he discussed the idea of prehistoric revolutions during the 1920s, it was not until the publication of *Man Makes Himself* (1936) that Childe characterized the domestication of plants and animals as the Neolithic Revolution. According to Childe, people’s ability to produce their own food *in situ*—rather than to scour the landscape for it—had enormous implications for the origins of sedentism, larger populations, and the accumulation of property. In Childe’s mind, the Neolithic Revolution also led directly to the second major cultural development of all time, the Urban

Revolution—the advent of large, organized towns and cities. In the early urban planning of Mesopotamian city-states, Childe saw all the prerequisites—the blueprint if you will—of modern civilization. For Childe, the archaeological evidence of these watershed moments was largely demographic in nature: revolutions were a “culmination of a progressive change in the economic structure and social organization of communities that causes, or was accompanied by, a dramatic increase in the population affected” (1950:3).

### The Human Revolution I (ca. 2.5 million B.P.)

Although archaeology would give birth to its first two prehistoric revolutions within a single decade, the discipline had to wait nearly another thirty years for its third. Perhaps best known for challenging the validity of the concept of biological race, paleoanthropologist Ashley Montagu published *The Human Revolution*<sup>3</sup> in 1965, in which he suggested that the production of Oldowan tools over two million years ago was “the moment when a prehuman animal became a human animal, and the human revolution began” (1965:15). First developed as a series of lectures in 1963, Montagu argued that hominid evolution from *Homo habilis* to modern humans comprised a revolutionary set of traits and behaviors: patterned tool use and production, high-

Archaeological Revolutions 1930–Present



ly organized hunting, sexual division of labor, increased linguistic and intellectual capacity, and new strategies of cultural transmission. Despite some speculative digressions regarding the evolutionary significance of several unique human behaviors, *The Human Revolution* was influential because it supported a coevolutionary model that acknowledged the interplay between cultural and genetic change in the development of social behavior. Montagu argued for a recursive gene-culture interaction unique to human groups in which “[e]very new invention, every new discovery had, as it were, a self-accelerating, autocatalytic effect upon the genetic and the cultural systems” (1965:120).

### The Predatory Revolution (ca. 30,000 B.P.)

Probably the least well-known and most misunderstood of all of archaeological revolutions to date, the next revolution was a joke—literally. Typically remembered for their substantial intellectual contributions to archaeological method and theory, in 1966 Lewis and Sally Binford unveiled the “Predatory Revolution” in the *Brief Communications* section of *American Anthropologist*. Ostensibly a serious account of the shift toward modern strategies of predation following the invention of blade-based technology in the Upper Paleolithic, the “Predatory Revolution” was actually a practical joke poking fun at Robert Braidwood’s distinction between prehistoric food-gatherers (who move people to food) and food-collectors (who move food to people),<sup>4</sup> a process that Braidwood suggested preceded the “first basic change in human life,” the Neolithic Revolution (1959:99). However, the joke was so artful that few people other than the authors and the editor recognized the tongue-in-cheek nature of the piece<sup>5</sup>—including the reviewers and many readers, who, according to Lewis Binford (Renfrew 1987:688), read the article without realizing that it was a spoof. Facetiously agreeing with Braidwood’s seemingly finicky nomenclatural distinction between “level” and “stage,” the Binfords joke: “We find this a lucid and refreshing approach, liberating us from the bondage of neo-Grecisms all too prevalent in the literature” (1966:508). Thus the “Predatory Revolution” was both a thoughtful commentary on archaeological periodization and a not-so-subtle dig at the Neolithic Revolution, in which Braidwood and a great many other archaeologists were still invested. While the “Predatory Revolution” remains the least influential archaeological revolution (and for good reason), it was notably plausible enough to be taken seriously by much of its professional audience—certainly a commentary on how easily any numbers of shifts in the archaeological record might be characterized as revolutions.



V. Gordon Childe

### The Broad Spectrum Revolution (ca. 15,000 B.P.)

Kent Flannery closed out what was the most “revolutionary” decade for archaeology to date, the 1960s, with the “Broad Spectrum Revolution” (1969). This model emerged as the first enduring, well-recognized archaeological revolution since the Neolithic and Urban Revolutions. In it, Flannery suggested that environmental amelioration during the Epipaleolithic gave rise to an unprecedented dietary breadth in human populations. Subsequent Holocene populations had greater access to the environment, and thus were better able to capitalize on a variety of resources previously unavailable. Flannery’s largely environmentally determined model of diet diversification laid the foundation for both the regional resource specialization and sedentism that appeared in the Neolithic. As with Childe’s revolutions, the Broad Spectrum Revolution led to population growth, and social change that could be tracked through “stages” of social evolution (i.e., bands, tribes, chiefdoms, and ultimately states). Although Flannery suggested economic reasons for the emergence of the Mesolithic and Neolithic, unlike Childe, he placed the primacy for change within gradual environmental shifts.

### The Human Revolution II (ca. 2.5 million—100,000 B.P.)

In 1976, archaeologist Desmond Collins suggested a second Human Revolution, stressing the human break from the animal kingdom. In his words: “Mastery of stone tool-making and a new-found success as a hunter, the emergence of family life and the development of speech were seen to have constituted...the original Human Revolution” (Collins 1976:7). Written for a popular audience and less detailed than Montagu’s Human Revolution, Collins’s volume argued that a combination of linguistic and hunting proficiencies constituted the true Human Revolution (Collins 1976:95). Although Collins’s ideas were generally in line with the perceived wisdom on the subject, the second Human Revolution was not highly influential in terms of archaeological thought.

### The Secondary Products Revolution (ca. 6000 B.P.)

There was a second rush of archaeological revolutions in the 1980s, ushered in by Andrew Sherratt’s Secondary Products Revolution in 1981. Similar to Flannery’s Broad Spectrum Revolution, the Secondary Products Revolution was connected to the Neolithic revolution *via* changes in technology and social complexity. The Secondary Products Revolution proposed that the domestication of plants and animals had consequences far

beyond basic subsistence by creating renewable, “secondary” products such as milk, wool, and animal labor. As with Neolithic and Urban innovations, these secondary products were wildly successful and socially transformative, harkening a new way of life in the Near East and Europe. Intimately linked to technological innovation and diffusion, the Secondary Products Revolution was at the time the most obvious heir to Childe’s ideas about social change.

### The Upper Paleolithic Revolution (ca. 36,000 B.P.)

In 1984, following Feustel’s (1968) article “Evolution und Revolution im Ablauf der Steinzeit” (Evolution and Revolution at the End of the Stone Age), Antonio Gilman attempted to explain what has become one of the most widely discussed archaeological revolutions of all time, the “Upper Paleolithic Revolution.” Gilman proposed that the explosion of technological changes in material culture during the Upper Paleolithic constituted a prehistoric social revolution. For archaeologists, the Upper Paleolithic Revolution typically embodies a complex set of events: the arrival of behaviorally modern humans in Europe and the rapid disappearance of Neandertals, a suite of highly complex tools made from a diverse range of materials, the widespread use of personal ornamentation and burial offerings, long-distance exchange networks, and an explosion in both mobile and parietal art. Gilman posited that the widespread improvement in technology had several outcomes: (1) it increased the capacity of humans to efficiently extract resources from the environment in a variety of regions, thus increasing overall population sizes; and (2) it led to changes in social organization directed at internal group interests as groups become more technologically efficient and independent (Gilman 1984:122–123). These changes, which accumulated gradually toward the end of the Middle Paleolithic (before 40 kya) and culminated in a qualitative shift during the Upper Paleolithic, were not tied to a specific geographic locality or genetic population but instead to a new mode of production.

### The Human Revolution III (ca. 100,000–50,000 B.P.)

The most hotly debated prehistoric revolution (although no Molotov cocktails have yet been thrown) appeared in 1989 with the publication of Paul Mellars and Christopher Stringer’s edited volume *The Human Revolution: Behavioral and Biological Perspectives on the Origins of Modern Humans*. This model quickly emerged as one of the most written about and widely discussed archaeological revolutions of all time. Like Montagu’s earlier version, Mellars and Stringer’s Human Revolution (revisited in the 2007 volume *Rethinking the Human Revolution*) interprets the dramatic social changes seen in the Late Stone Age and the Upper Paleolithic as the result of a late Middle Paleolithic gene-culture interaction among anatomically modern humans that

left them cognitively superior to earlier hominids. Although the behavioral changes associated with the Human Revolution (personal ornamentation, notational objects, color symbolism, etc.) are thought to have appeared in Africa between 100–50 kya, the symbolic efflorescence of the European Upper Paleolithic is typically pointed out as its most visible manifestation. Some versions of this model attribute this dramatic shift to a radical adaptation in behavioral and biological capacity as evidenced by new symbolic and technological behaviors (Mellars 2005), rather than to a change in the material conditions of human groups (as did the Upper Paleolithic Revolution). Other proponents of the Human Revolution consider it to be *the* seminal revolution, driven by neurological change and a fortuitous but yet to be identified genetic mutation,<sup>6</sup> without which other revolutions in human culture would not have been possible (Klein and Edgar 2002:270). Both versions attribute dramatic social change not simply to the proliferation of innovations or ideas, but to the spread of genetically and anatomically modern human populations.

### “Revolution is not a one-time event.”—Audre Lorde

Averaging about one per decade since the publication of Childe’s *Man Makes Himself*, archaeological revolutions have now proliferated to the point that just being *Homo sapiens* at all qualifies us as “revolutionaries” (ponder that the next time you feel you’ve lost your radical edge). While it is clear that prehistoric revolutions are here to stay, as consumers of these ideas we are left to wonder about the disparate nature of changes deemed deserving of the moniker “revolution,” and how best to characterize the pivotal moments—the births, deaths, and marriages if you will—of the human past. Are biological and genetic changes revolutionary in the same way that social, political, and technological ones are? Are archaeological revolutions abrupt and irreversible breaks with the past, or the culminations of long-term processes? As subtly pointed out in the Binfords’ satirical “Predatory Revolution,” what are the criteria by which we judge whether or not events in the past were revolutionary? Perhaps the only agreed upon aspect of the “archaeological revolution” is that it is a rhetorically attractive way to characterize change. New archaeological revolutions, such as Smith’s (2007:35) “quiet revolution” in which indigenous approaches constitute a response to archaeology’s colonial past, will likely embrace the idea that revolutions are ultimately as much of a disciplinary phenomenon as they are a prehistoric one. Perhaps for now the only question that remains is: what will the next archaeological revolution be?

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## Notes

1. Though “revolution” was initially popularized as an astronomical term by Copernicus at the end of the fifteenth century, by 1651 scientist Robert Boyle had used it to describe an overturning of the religious and philosophical order. In 1688, King James II of England was overthrown in what was known as the “Glorious Revolution.” It was the American and French Revolutions, however, that galvanized the separate social, technological, and political meanings into a form closely resembling the one used today. The French Revolution in turn directly influenced ideas about the rapid mechanization in Europe, and was quickly dubbed the Grande Révolution Industrielle. By 1867, Karl Marx was referring to revolutions in Europe as “the locomotives of history.” Childe’s Neolithic and Urban Revolutions were a logical extension of this concept into the archaeological past.

2. Including modern technological innovations, such as Walter Libby’s perfection of carbon-14 dating in 1949, subsequently dubbed the “Radiocarbon Revolution” by Colin Renfrew in 1973.

3. This volume is not to be confused with Desmond Collins’ 1976 volume *The Human Revolution*, or with the formalized archaeological model presented in the similarly titled 1989 volume on the origins of anatomically and behaviorally modern humans by Paul Mellars and Christopher Stringer, both of which are discussed below.

4. Ideas interestingly not dissimilar from models of residential vs. logistical mobility developed by Binford in the 1980s.

5. Similarly, Childe once facetiously suggested at a conference that Woodhenge was in fact a cheap imitation of the older, more durable Stonehenge constructed by the Neolithic nouveau riche. His opinion apparently carried so much weight that no one in the audience got the joke.

6. Potentially a mutation in the FOXP2 gene (a gene associated with speech, language, and other aspects of biological development) that appears to be roughly coeval with the emergence of anatomically modern humans, but which appears significantly earlier than widespread changes in the archaeological record associated with the advent of behavioral modernity (Enard et al. 2002; Klein and Edgar 2002).

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Historic homestead with collapsed ramada, west-central New Mexico. Structure and ramada tree-ring dated to the 1910s. Photograph: Andrew Duff.



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