Unequivocal evidence for widespread human settlement in North America dates to c. 13,000 cal BP (all dates herein are in calendar years before present unless explicitly noted), and sites are recognised by the presence of bifacial fluted Clovis-style projectile points, named after a town in eastern New Mexico where they were found in stratigraphic complex in the 1930s and after at the nearby site of Blackwater Draw (Baldurian & Cotter 1999) (Map 2.15.1). The ensuing 10,000 years of human occupation in North America, during the temporal interval from c. 13,000 to 3200 cal BP or c. 11,200–3000 14C yr BP, corresponds to what were traditionally known as the Paleoindian and Archaic stages of cultural development across much of the continent, prior to the appearance of agriculture, monumental architecture and pottery in many areas (e.g., Willey & Phillips 1958; Griffin 1967). All of these cultural developments are now known to have begun much earlier, well back into the midcontinent and the southeast, its temporal range may be greater and its beginnings possibly somewhat earlier, as suggested by dates of c. 13,500 cal BP at the Aubrey Site in Texas.
Several thousand Clovis points have been found in North America and, while the form is more prevalent in some areas than in others, particularly along the major drainages of the eastern part of the continent, it occurs as far south as northern Mexico, although the incidence drops markedly into Central America (Anderson et al. 2010) (Map 2.15.2).

Possibly related and roughly contemporaneous or perhaps slightly later basally thinned forms found in South America are characterised, in many cases, by long stems and distinctive expanding blades, and are considered morphologically sufficiently distinct from Clovis to be characterised as a separate “Fish-tail” horizon (see Chapter 2.14).

The origins of Clovis people and technology are unknown, although locations as far afield as extreme Northeast Asia, southwestern Europe, and the Nenana and nearby river valleys in central Alaska have all been proposed, with some source areas drawing greater attention and controversy than others (e.g., Goebel, Waters & O’Rourke 2008; Stanford & Bradley 2002; Straus, Meltzer & Goebel 2005). While the preponderance of linguistic, genetic and other physical anthropological/morphological evidence indicates that the Paleoindian inhabitants in the New World ultimately derived from northeastern and East Asia, Clovis technology itself may well have developed in North America, perhaps in the eastern and southeastern part of the continent or in the southern plains. Fluted points are found in large numbers in these areas, and possible precursor sites yielding biface and blade technologies up to several thousand years older have been found, such as at Gault in...
<table>
<thead>
<tr>
<th>Calendrical Period</th>
<th>Radiocarbon (cal yr BP) (uncalibrated)</th>
<th>Culture Complex</th>
<th>General Trends</th>
<th>Diagnostics</th>
<th>Climatic Event</th>
</tr>
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<tbody>
<tr>
<td>Early Woodland</td>
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<td>Dorset Culture</td>
<td>Burial mounds become widespread in east</td>
<td>Alexander</td>
<td>Sub-Arctic</td>
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<td>Sub-Boreal</td>
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<td>Poverty Point</td>
<td>Ceramics become widespread in east</td>
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<td>4500-4000</td>
<td>Late Archaic</td>
<td>Bow and arrow in northeast and subarctic?</td>
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<td>Sub-Boreal</td>
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<td></td>
<td>5500-5000</td>
<td>Old Copper/Adena</td>
<td>Ceramics appear in lower southeast</td>
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<td>Hypsithermal Ends</td>
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<tr>
<td></td>
<td>6500-6000</td>
<td>Middle Archaic</td>
<td>Earth mounds centered in Lower Mississippi Valley</td>
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<td>Plains Archaic</td>
<td>Plains mounds in northeast, lower southeast/Florida</td>
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<td>8500-8000</td>
<td>Bifurcate Horizon</td>
<td>Subaqueous cemeteries in lower southeast/Florida</td>
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<td>10,200-9000</td>
<td>Early Archaic</td>
<td>Plains Paleoindian</td>
<td>Cody</td>
<td>Boreal</td>
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<td>11,450-10,000</td>
<td>Paleoarchaic</td>
<td>Plains hunting on the plains</td>
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<td>12,450-10,900</td>
<td>Late Paleoindian</td>
<td>Cemetery in Central Mississippi Valley?</td>
<td>Clovis</td>
<td>Pleistocene</td>
</tr>
<tr>
<td></td>
<td>12,900-11,000</td>
<td>Middle Paleoindian</td>
<td>Generalized foraging adaptations?</td>
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<td>Older Dryas</td>
</tr>
<tr>
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<td>13,400-11,500</td>
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<td>Generalized foraging adaptations?</td>
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* Chart emphasizes developments in eastern and plains regions.

**FIGURE 2.15.1.** Paleoindian/Archaic timeline and cultures in North America.
Figure 2.15.2. Diagnostic Paleoindian projectile-point types in eastern North America. a. "Fluted" Dalton; b. Hardaway Dalton; c–e. Unfluted Dalton points; f. Cormier-Nicholas; g, h. Beaver Lake; i, o. Unfluted lanceolate; j. Ste. Anne-Varney; k. Bull Brook-West Athens Hill; l. Vail-Debert; m, n, u. Suwannee/Simpson; p, q. Redstone; s. Cumberland; t. Michaud-Neposet; r, v–z. Clovis; aa. Clovis Variant. (Images drawn by R. Jerald Ledbetter and William Burgess, used by permission of the artists and the Maine Archaeological Society.)
Texas, Cactus Hill in Virginia and Meadowcroft Rock Shelter in Pennsylvania, as well as several locations in Florida and Wisconsin. Small triangular to lanceolate shaped unfluted bifaces variously named the “Early Triangular”, “Miller Lanceolate”, or “Page-Ladson” types have been recovered at some of these sites (Fig. 2.15.3), as have true blades; and while in some cases the dating and associations are controversial, these point forms may ultimately prove to be an ancestor of the near-ubiquitous Clovis and post-Clovis Paleoindian bifacial technology occurring a few millennia later (Adovasio et al. 1999; Goodyear 2005; Dunbar & Hemmings 2004; Overstreet 2005; Webb 2006).

Clovis assemblages are characterised by fluted projectile points; and while there is appreciable variation due to factors of preservation and raw material, they also sometimes occur with a range of well-made stone, bone and ivory bifaces, blades and blade cores, scraping and graving tools and bone and ivory points and other tool forms. How varied Clovis adaptations may have been in various parts of the continent is not well understood at present, since comparative analyses of technological and assemblage variation among Clovis sites and artifacts are infrequent. Specialised hunting adaptations, directed to larger animals such as mastodon or mammoth, or herd animals such as caribou, may have been present in higher latitudes and on the plains in areas characterised by tundra, boreal forest and grassland environments, while more generalised adaptations are inferred in more wooded temperate and subtropical parts of the continent (Meltzer 1988, 2009).
High mobility is indicated by the widespread occurrence of tool stones up to several hundred kilometres away from quarries in many areas, indicating that the annual and lifetime group ranges of these peoples were probably quite extensive, at scales rarely seen in later prehistory, save perhaps during the immediately succeeding Younger Dryas Period on the Plains among Folsom populations, and in the same region in the historic period when the adoption of horses facilitated bison hunting over large areas. Use of high-quality lithic raw material is characteristic of Clovis assemblages in many areas, and appears to have facilitated high mobility at great distances from sources of raw material (Goodyear 1979; Kelly & Todd 1988). The elaborate stone-tool technology itself, which required great knapping skill, probably had a similar purpose, to ensure that people ranging far from raw material sources could maximise the life span and hence the utility of the stone they were carrying. The skill required to produce such points would have also probably provided a common bond or sense of shared identity between peoples thinly scattered and ranging widely over the landscape, facilitating interaction when these peoples met. Fluting technology occurred for little more than a thousand years in North America, on Clovis and a number of presumably immediately descendant forms like Folsom in the western part of the continent from roughly the Mississippi River to the eastern margins of the Great Basin and Plateau, and on a range of forms in portions of the east, including the Barnes, Bull Brook-West Athens Hill, Cumberland, Gainey, Kings Road-Whipple, Michaud-Neponset, Redstone and Vail-Debert types. The technology appears to have been abandoned first in the southeast and a few centuries later in the plains and in the upper midwestern and northeastern parts of the continent. Unfluted lanceolate, waisted, stemmed and notched point forms were adopted in many areas. Once abandoned, fluting was never adopted again in the millennia that followed, even though examples were undoubtedly found from time to time by later peoples.

In the intermontane Great Basin and far west, where fluting of any kind is rare, a contracting “Western Stemmed” biface horizon is present, identifying a “Paleoarchaic” cultural tradition that appears to have been contemporary and perhaps slightly earlier than the fluted and immediately postfluted forms found farther to the east and, occasionally, in the same area (Beck & Jones 2010; Meltzer 2009: 313–15). Thought to have developed independently of Clovis, possibly from early...
migrants along the northern Pacific rim, these peoples were adapted to the comparatively lush pluvial and upland environments present in the region during the Terminal Pleistocene and Initial Holocene. The point styles attributed to the horizon include the Cougar Mountain, Haskett, Lake Mohave, Lind Coulee, Parman, Silver Lake and Windust types. Points were typically made on fine-grained metavolcanics and obsidian, and less commonly on cherts, unlike the situation observed on Clovis points in many areas (Beck & Jones 2010: 99). Other flaked stone-tool forms associated with the tradition include crescents, drills, gravels, scrapers and spokehaws/notches, similar in many respects (save for the presence of crescents) to Clovis assemblages. Sites yielding Western Stemmed points and well dated to between c. 13,200 and 11,600 cal BP include Bonneville Estates Rock Shelter, Buhl, Conoley Cave No. 4B, Coopers Ferry, Marmes, Sentinel Gap, the Sunshine Locality, Smith Creek Cave and Wildcat Canyon (Beck & Jones 2010: 101–2). As the regional climate became drier in the Early Holocene, Western Stemmed point forms and the way of life were gradually replaced by Desert Archaic culture adaptations as represented at sites like Danger Cave, Hidden Cave and Lovelock Shelter (Jennings 1957; Graf & Schmitt 2007; Simms 2008).

Evidence about Paleoindian/Paleoarchaic group composition and organisation is limited in many parts of North America, in part because investigations have tended to focus on kill sites characterised by larger and hence better preserved and identifiable faunal remains. This is particularly true on the plains and in the southwestern portions of the continent, where moderate numbers of mammoth and bison kills have been examined (Grayson & Meltzer 2002). Evidence for structures is rare everywhere, although probable Folsom structures have been discovered recently, at the Mountaineer Site in Colorado (Stiger 2006), and structures are inferred to have been present around hearth areas at a number of sites in the middle Atlantic and northeast, such as Adkins, Debert Fifty and Vail (Gramly 1982, 1988; MacDonald 1968; Adovasio & Carr 2009). Across the continent, small, probably band-sized groups were present, occasionally and at special times or places coming together in larger numbers, as has been inferred at sites like Bull Brook in Massachusetts and Lindenmeier in Colorado (Wilmsen & Roberts 1978; Grimes 1979; Robinson et al. 2009). Such aggregation events would have facilitated intergroup information exchange, mating opportunities and ceremony and ritual, a convenient means by which widely ranging peoples could rendezvous (Anderson 1990, 1995; Meltzer 2002).

Artwork is extremely rare among Paleoindian populations in North America. Painting, pictographs and petroglyphs on caves or rock walls, common in later Archaic contexts in many areas, are unknown at present in North America. Several cobbles in a Paleoindian context at the Gault Site in Texas have engraved lines, squares and in one case an apparent plant (Collins, Hester & Headrick 1992), and while there have been engraved depictions of animals reported on portable objects of bone, ivory or shell, none to date have proved to be of Paleoindian age. In contrast, caches of well-made, sometimes oversized or hypertrophic Clovis bifaces have been found at a number of locations, primarily in the western part of the continent, and some appear to reflect deliberate grave offerings, as at the Anzik Site in Montana, or alternatively were objects cached but never recovered, as at East Wenatchee in Washington (Kilby 2008). Clovis cache deposition has been interpreted as a means of maintaining raw materials by peoples ranging widely from stone sources (Meltzer 2002), and while this undoubtedly explains some of the discoveries, ceremonial or ritual behaviour is also indicated in some cases, since in some Clovis caches objects were sprinkled with red ochre, and at the Crowfield Site in Ontario a number of fluted points were deliberately broken and burned (Deller, Ellis & Keron 2009). The production of elaborate, oversized bifaces and other tool forms occurs throughout prehistory in many parts of North America, particularly in the east, where oversized bifaces first appear in large numbers on sites of the later Paleoindian-Period Dalton Culture in the central Mississippi Valley, dating to c. 12,500 to 11,000 cal. In the “hyper- trophic” Sloan Dalton projectile points have been found singly, or in groups or caches at over thirty locations along a c. 600 km stretch of the central Mississippi Valley, from north of the American Bottom near St. Louis to northeastern Arkansas (Koldehoff & Walthall 1999; Walthall & Koldehoff 1998). At the Sloan Site in northeastern Arkansas, several hundred unused points and tools, including a number of oversized Dalton or “Sloan” points, were found in some twenty clusters of artifacts and human remains, an apparent marked cemetery given that there was no overlap of the clusters, the earliest evidence for such mortuary behaviour in the Americas (Morse 1997). While Sloan points resemble the hypertrophic bifaces found in earlier western North American Clovis caches, they differ in that they do not seem to reflect isolated and widely separated depositional episodes, but instead appear to have been fairly common items, occurring in burials and other site contexts, where they were perhaps used as status indicators or votive offerings. It has been suggested that local Dalton point-using groups were bound together by the ritual use of these objects in what has been described as a “Cult of the Long Blade” (Walthall & Koldehoff 1998: 260–1). Other examples of behaviour centred on the production of oversized artifacts are found in Benton points, banner stones/atlatl weights and ground-stone axes in portions of the later Archaic southeast, and the elaborate chert swords depicted in Mississippian artwork, and found in large numbers in the Duck River Cache in 1894 at the Link Farm Site in Tennessee (Sassaman 2005, 2009).

Paleoindian subsistence is not well documented in many areas until fairly late in the period, due to an archaeological emphasis on kill sites and the only comparatively recent adoption of recovery strategies like fine-screening and flotation. In portions of the continent, furthermore, most sites that have been found were either open-air assemblages or kills of large game animals; the use of rock shelters, where better preservation typically occurs, was uncommon in the east until post-Clovis times (Walthall 1998). While well-preserved paleoecological remains have been found in submerged settings, such as at the Page-Ladson Site in Florida (Webb 2005), systematic survey and examination for early archaeological
remains in permanently saturated settings have not been undertaken in most regions. Clovis peoples clearly targeted large game animals in many regions, yet how prevalent this activity was, and whether it contributed to the extinctions observed at the end of the Pleistocene, remains the subject of heated debate (Fiedel & Haynes 2004; Grayson 2007; Grayson & Meltzer 2002, 2003; Haynes 2002, 2009; Wolverton et al. 2009). There is no question, however, that mammoth, mastodon and bison were at least occasionally killed and butchered, particularly in the western portion of the continent, where a number of associations have been documented. Bone and ivory from these and a number of other extinct species have been found at a number of locations in Florida, which means that humans were present soon after the animals died, even if they did not kill them directly (Hemmings, Dunbar & Webb 2004). Kill sites of extinct fauna are uncommon in the east compared with the west, however, suggesting either that such animals were not hunted much or at all, or that archaeologists have not been particularly successful in finding such sites; the latter may be a possibility, given that comparatively few archaeologists in the region explore earlier Paleoindian and Archaic occupations, at least compared to the efforts directed to later periods (Sassaman 2010a: 5–7). A number of possible associations between humans and extinct fauna, specifically mammoth and mastodon, have been reported in eastern North America, including at the Hebior and Schaefer Sites in Wisconsin, Burning Tree in Ohio, Coates-Hines in Tennessee and Page-Ladson in Florida (Lepper & Funk 2006; Overstreet 2005; Webb 2006), although to date the only kill site widely accepted from east of the Mississippi is that of a Bison antiquus from the Wacissa River in Florida, which had an unhealed wound from a projectile-point fragment penetrating a sinus cavity (Webb et al. 1984).

Generalised foraging adaptations were emerging or present in many areas during the Paleoindian Era, and are documented in a number of rock shelter assemblages dating to the Terminal Pleistocene/Initial Holocene eras in eastern, southwestern and the Great Basin and Plateau areas of North America, including at Cathedral, Danger, Hidden and Homestead Caves in Utah and Nevada; Dust Cave and Stanfield Worley Bluff Shelter in Alabama; Icehouse Bottom and several other sites in eastern Tennessee; Modoc Rock Shelter and Koster in Illinois; and Rodgers Shelter in Missouri, to name just a few of the better known sites (Hollenbach 2009; Jennings 1957; Madsen 2000; Rhode, Madsen & Jones 2006; Simon 2009; Styles & Klippel 1996; Thomas 1985; Walker & Driskell 2007). In eastern North America large mammals like caribou, elk and moose were targeted in more northern areas by post-Clovis populations, while a greater array of plants and animals were taken in areas to the south, including large and small mammals, fish and birds. A similar pattern applied to many other parts of the continent, although bison were apparently a major food source throughout the Archaic Period for peoples living on the Plains, although a wide range of other foodstuffs were also utilised even in this area from the earliest times (Kornfeld 2007).

The apparently more diversified subsistence and increased diet breadth characteristic of later Paleoindian and Archaic occupations in lower and middle latitudes of North America was shaped, in part, by the great changes in species occurrence and composition that occurred at the end of the Pleistocene, including the major extinctions of large fauna that occurred, encompassing some thirty-five genera (Grayson 2007; Haynes 2009). The onset of the Younger Dryas (c. 12,850–11,650 cal BP), a cold reversal interrupting the general interglacial warming trend, is roughly coeval with the end of Clovis and the megafaunal extinctions, although the causes of this climatic episode and its effect on human and animal populations, if any, are currently the subject of much ongoing research and debate (e.g., Holliday & Meltzer 2010; Meltzer & Holliday 2010). Across much of North America, about the time of the onset of the Younger Dryas, Clovis points were replaced by a range of point styles with fluting that extends well up the blade, a so-called full-fluted horizon characterised by Folsom points in the west and the Barnes, Bull Vail-Debert, Cumberland, Gainey, Michaud/Neponset and Redstone types, among others, in the east (Andersen et al. 2010; Bradley et al. 2008; Ellis & Deller 1997; Goodyear 2010). In addition to a diversification of point forms, the immediate post-Clovis Era is characterised by a restriction in the occurrence of successor point styles, with few found widely over more than a small part of the continent, although Folsom is something of an exception, occurring widely in the west, on the plains and into eastern North America.

While fluted forms continue for roughly another millennium, nonfluted forms appear fairly quickly in many areas or were contemporaneous all along, as for example the Goshen and Midland types on the plains, coeval with Folsom, the Western Stemmed horizon in the intermontaine and far west, and a wide range of lanceolate and waisted forms in the southeast and lower Midwest, such as the Beaver Lake, Dalton, Quad, Simpson and Suwannee types. These in turn are succeeded by side- and corner-notched forms in the Early Archaic in the east; by a number of lanceolate types on the Plains during the later Paleoindian and Early Archaic, such as Agate Basin, Angostura, Alberta, Eden and Scottsbluff types (Frison 1991), and later Plains Middle Archaic notched forms like the McKeen complex types (Kornfeld & Todd 1985); and by a continuity of stemmed and notched forms in the far west. Whether these changes in point morphology are stylistic in nature or reflect significant changes in adaptation is unknown in many areas. The full fluted forms are generally thought to be much more difficult to create than Clovis points, suggesting even greater concern with knapping skill and maximising lithic raw material than during earlier times. If fluting was a reaction to uncertainty in the surrounding world, furthermore, then the initial part of the Younger Dryas may have been a period of greater subsistence stress than the centuries immediately prior to this. Range mobility appears to have decreased at this time in portions of eastern North America from Clovis to immediate post-Clovis times, as reflected in the distribution of raw materials and numbers of points and sites over the landscape (Anderson et al. 2010). This suggests that difficulty of fluting was probably not strictly linked to range extent. On the Plains, in contrast, Folsom mobility appears to have been greater than that observed for Clovis in some areas, and no decline in site
or artifact numbers over this form compared to earlier Clovis occupations is observed (Amick 2000; Labelle 2005; Meltzer & Holliday 2010). Range-extensive mobility characterised life on the Plains throughout the ensuing Archaic Period, although, as in the eastern part of the continent, more localised cultures were apparently emerging, as reflected in the more restricted occurrence of some tool forms.

The end of the Pleistocene and the onset of the Holocene are roughly coeval with the end of the Younger Dryas at about 10,000 “C yr BP or 11,500 cal yr, a date that is used in many parts of North America to arbitrarily separate the Paleoindian and Archaic periods. The Holocene is widely considered to be a time of essentially modern climate and biota over the continent, although biotic communities continued to change across North America and climate was still significantly variable, with extended as well as briefer excursions of warmer or colder temperatures (Anderson 2001, 2007). Sea levels at the start of the Holocene, while well above the c. –140 m level at the Last Glacial Maximum some 20,000 cal yr, were c. 25 m below modern conditions and continued to rise for several thousand more years, not reaching to within 1 to 2 m of the modern level until c. 5000 cal yr, with minor fluctuations thereafter. The warmest portion of the current interglacial was during the Mid-Holocene or Middle Archaic Period, from c. 8900 to 5700 cal yr, and it is not until after this era, during the Late Archaic Period, that climate and biota similar to those at present occur over much of the continent.

The concept of an Archaic stage in cultural development in North America dates to the early 1930s, with William Ritchie’s (1932) report on work at the Lamoka Lake Site in the Finger Lakes of New York, where houses, burials, stone tools and palaesubsistence remains of preceramic hunter-gatherers, now known to date to c. 5300 to 5000 cal BP, were first found in the 1920s. The Archaic Period spans some 8250 years, and probably represents half or more of the time humans were present in the Americas, at least in any numbers. To assume that human cultures over this vast interval of space and time were largely static or unchanging is unrealistic, and research in recent decades has increasingly focused on the variability in local cultures observed during this span. Archaic-age archaeological sites are, in fact, common in many parts of North America, and a wide range of societies were present, with great differences in technology, adaptation, social organisation and ceremony observed between and within areas over space and time. While increasing cultural isolation is sometimes inferred to have developed over the course of the Archaic, in actuality interaction and exchange increase in many areas. By the Middle Archaic Period artifacts of copper, shell and other materials are circulating widely over the eastern part of the continent, from the Atlantic and Gulf coasts to the upper Midwest, while by the Late Archaic Period networks comparable in scale were emerging or present in the southwest, Great Basin, and the far west, including between these areas, and between the southwest and areas farther to the south in Mesoamerica (Baugh & Ericson 1994; Wilcox 1999; Lekson 2008).

Band-level groups characterised by fluid membership and a high degree of residential mobility are inferred to have been present in many areas during the Early Archaic Period in North America. There is no evidence anywhere for social complexity, although cemetery behaviour is observed in some areas towards the end of the period, notably in the lower southeast, indicating a probable increasing concern with delimiting group ranges. A range of projectile-point forms are the primary means used to identify Early Archaic occupations, including lanceolate forms on the Plains and notched and later stemmed forms in many parts of eastern North America. The development of Archaic cultural sequences occurred in many parts of the continent in the 1940s and after, primarily through the excavation of deeply stratified floodplain, upland or rock shelter sites, in many areas complemented by more extensive excavations at single component sites, or sites occupied for briefer periods. In the east the basic Archaic projectile-point sequence was established by Coe (1964) at the floodplain Doershuck and upland Hardaway Sites along the Yadkin River in North Carolina, by Dincauze (1976) at the Neville Site on the Merrimack River in New Hampshire, and by Broyles (1966, 1971) at the St. Albans Site along the Kanawha River in West Virginia. The first extensive radiocarbon dating of the eastern Archaic sequence came in the 1970s at a number of stratified floodplain sites in eastern Tennessee (Chapman 1985). In the Midwest similar sequences were developed at deep open-air sites like Koster and rock shelter sites such as Modoc Rock Shelter in Illinois (e.g., Brown & Vierra 1983; Fowler 1959; Streuer & Holton 1979). In the southwest and Great Basin, rock shelter sites like Danger Cave, Utah, and Ventana Cave, Arizona, were instrumental in establishing the Desert Archaic sequence (e.g., Haury 1950; Jennings 1957). In the Great Plains and Far West, as in many areas but perhaps more so in these regions, the Archaic cultural sequence was established through the excavation of numerous stratified as well as more briefly occupied sites (e.g., Ames & Maschner 1999; Erlandson 1994; Frison 1991; Jones & Klar 2007; Kornfeld & Todd 1985; Matson & Coupland 1995).

The Archaic cultural sequences in each part of the continent vary appreciably from one region to the next, and they are best used in the areas where they were developed, with great care taken when extrapolating to other areas. A transition from side to corner notching is observed in many areas of the east out into the Plains, with this change in notching earliest in the southern and eastern parts of the continent where an “Early Side Notched” horizon is recognised, and somewhat later on the Plains. These notched forms are almost invariably extensively reworked, suggesting they saw a great deal of use, probably as multipurpose hunting and butchering tools. The precocious Dalton Culture in the central Mississippi Valley disappeared soon after the start of the Early Archaic, for reasons not yet understood. It is possible that population density had grown to the point where elaborate ceremony and mortuary ritual were no longer needed to bind together people formerly thinly spread over the landscape. The Holocene climate was warmer and more predictable than that during the Younger Dryas, perhaps reducing the need for more complex organisational forms.

Use of cemeteries, first observed in the late Paleoindian Dalton Culture, is again observed in eastern North America
from c. 10,000 to 7000 cal. BP, during the Early Archaic and initial Middle Archaic periods in Florida, where burials were placed in bogs and ponds, at locations like the Windover Site (Doran 2002). The occurrence of these cemeteries suggests that group territories may have been in place, although unfortunately very little is known about the sociopolitical organisation and ceremonial life of Early Holocene cultures in most parts of the continent. The association of death and burial with a watery underworld is observed in many later prehistoric and historic cultures in eastern North America. Such beliefs apparently have great antiquity, and may explain why some of the early mounds in Florida and the Lower Mississippi Valley were built on or near such settings (Hudson 1976: 131–68; Sassaman 2010a). During the ensuing Middle Archaic Period, after c. 7000 cal. BP, “wet” burial was replaced by “dry” burial in mortuary complexes associated with, and typically in or under, mounded shell and/or earth in Florida (Sassaman 2010a).

During the Middle Archaic, after c. 6500 cal. BP, recognisably complex societies are observed in southeastern North America and, a few millennia later at the end of the Archaic and after, in other parts of the continent, in the far west, southwest and northwest. In the southeast these societies, characterised above all by the use of shell or earth or both in the construction of monumental architecture, occurred first in the Lower Mississippi Valley of Louisiana and along the Atlantic and Gulf coasts of Florida and adjoining states, and by the end of the Archaic more widely (Anderson, Russo & Sassaman et al. 2007; Emerson, McElrath & Fortier 2009; Gibson & Garr 2004; Kidder & Sassaman 2009; Milner 2004; Russo 2006; Sassaman & Anderson 2004). In cases where burials have been found, status-linked patterns of body treatment are observed including the use of grave-goods, individual graves, marked cemeteries and/or mound/charnel house complexes. The exchange of materials from long distances increases in the east from this time onwards, including copper from the upper Midwest and shell from the Atlantic and Gulf coasts as well as a wide range of lithic raw materials, and these are sometimes used in the creation of specialised artifacts signalling status both in life and after as grave inclusions (Jeffries 1996, 2004). Use of elaborately crafted and in some cases hypertrophic objects like bifaces, axes and atlatl weights reappears after a hiatus of several thousand years. Hypertrophic Benton projectile points were exchanged or interred with burials in the vicinity of the upper Tombigbee, middle Tennessee and middle Cumberland Rivers of the southeast from c. 6500 to 6000 cal. BP, possibly as a means of promoting alliances between groups to help alleviate subsistence or other forms of uncertainty (Johnson & Brooks 1989; Kidder & Sassaman 2009: 676–7). The first evidence for extensive interpersonal violence is found at this time, in the form of skeletal trauma and embedded projectiles, although whether low-intensity skirmishes or more intensive warfare were occurring is unknown (Dye 2009; Smith 1996). Tribal-level or segmentary societies are thought to have emerged at this time in some areas, with a capacity for labour organisation, integration and interaction well beyond that of the band-level societies assumed to have been common previously, and that probably still continued in areas marginal to such developments (Anderson 2002, 2004; Emerson & McElrath 2009: 32–4).

In the Lower Mississippi Alluvial Valley of northeastern Louisiana, a series of earthen mound complexes were built between c. 6000 and 4800 cal. BP at sites like Watson Brake, Caney and Frenchman’s Bend, followed by an apparent hiatus in mound building for about a millennium, with a resumption of this activity at the Poverty Point Site complex between c. 3600 and 3100 cal. BP (Gibson 1996, 2000; Russo 1994; Saunders et al. 1997, 2005; Saunders 2010; Kidder 2001, 2006) (Fig. 2.15.4). While monumental architecture occurs as early, or almost as early, in a number of other parts of the region, notably U-shaped, circular, and more amorphous shell and earth midden complexes in coastal and interior areas (Fig. 2.15.5), those in northeastern Louisiana are unusual in being composed of earth rather than earth and shellfish, at least some of the latter of which was subsistence debris in most areas where it was used. Watson Brake, built between c. 5400 and 5000 cal. BP, is the largest and most elaborate of these sites, a roughly circular complex some 300 m in diameter and with eleven mounds ranging from c. 20 to more than 50 m in diameter, and from under a metre to over 7 m in height. At least seven of the mounds are on a circular ridge, with an open central area, the first mound and plaza complex observed in North America, including Mesoamerica, a site plan that remained in use in many parts of eastern North America until European contact in the 16th century. Several other single mounds and multimound complexes were built at this time in eastern Louisiana, and the larger sites are similar in layout and scale to Watson Brake, suggesting they were created using a common measurement system and plan (Clark 2004).

Poverty Point, built some two thousand years later between c. 3600 to 3200 cal. BP in the same general part of the Lower Mississippi Valley, and apparently laid out using a nearby Middle Archaic Period mound as a guide, is one of the largest mound and earthwork complexes in the Americas, encompassing c. 200 ha (Gibson 1996, 2000; Kidder 2001, 2006, 2010) (Map 2.15.3). The main mound at the site was built over a filled-in pond or swamp, measures c. 210 × 210 × 22 m in extent and contains c. 238,000 m³ of fill. While other earthen monuments were being built at this time in nearby areas, by peoples who seem to have been associated with Poverty Point in some way, the sites’ monuments are an order of magnitude larger in size than any contemporaneous earthen mound sites built at this time, and in terms of volume are second only to the construction at the late prehistoric site of Cahokia in North America north of Mexico. Poverty Point appears to have influenced cultural developments over large areas of the lower southeast during the terminal Archaic, not through the direct control of outlying groups, of which there is no evidence, but more likely by serving as an example of what could be accomplished by people working together, as well as by shaping trading networks and what goods were appropriate for use, perhaps in combination with an effective ideology and the exchange of objects materialising these beliefs. Tonnes of lithic raw materials like soapstone are found at the site that came from locations to the northwest, northeast and east,
Paleoindian and Archaic Periods in North America

While a hiatus in mound building appears to have occurred in northeastern Louisiana during the initial part of the Late Archaic after c. 4800 cal yr, and prior to the rise of Poverty Point, mounds continued to be built elsewhere in the region during this interval. Shell middens appear along and near the St. Johns River in northeastern Florida and along the lower Hudson River in New York some seven thousand years ago, and about the same time along a number of the major river systems in the lower Midwest and midsouth (Claassen 1995, 2010; Dye 1996; Marquardt & Watson 2005; Sassaman 2005, 2010a, 2010b, 2010c).

FIGURE 2.15.4. The Watson Brake Mounds, Louisiana, contours and idealised reconstruction. (Drawn by Jon L. Gibson, used with permission.)

from the Ouachita and Appalachian Mountains and from the lower Midwest (Gibson 1996, 2000).
2010b). The earliest mounded mortuary complex known from the St. Johns area comes from the Harris Creek Mound on Tick Island, where c. 175 individuals were placed in successive mortuary deposits interspersed within or capped by layers of sand, shell, earth and midden (Aten 1999; Kidder & Sassaman 2009: 674). Stable carbon and oxygen analyses indicate that most ate food obtained locally, although a few had signatures indicative of nonlocal diets and origins, suggesting that some people were moving appreciable distances over their lifetime (Quinn, Tucker & Krigbaum 2008). Coastal shell middens are characterised by a diverse array of sizes, shapes and functions (Map 2.15.4). Smaller accumulations appear to represent routine subsistence debris, house floors, platforms or burial mounds, while larger, circular and/or U-shaped structures may reflect communities centred on plaza areas, a pattern similar to that observed in the earthen mounds of northeastern Louisiana. A common architectural grammar was apparently present, and there is some suggestion that the size of the deposits in different areas of the complex was linked to feasting and status differences between the social groups involved in their construction and use (Russo 2004, 2010).

Shell middens are common features along some of the major interior rivers of the southeast, such as the Cumberland, Green, Savannah and Tennessee, and include well-known sites like Carlston Annis, Indian Knoll, Read and Stallings Island (Fig. 2.15.6). Those sites found in the midcontinent are described as belonging to the Shell Mound Archaic Culture (Marquardt & Watson 2005; Sassaman 2010a, 2010b), although their occurrence does not mirror that of shellfish itself, but appears to reflect cultural factors that are as yet unknown, perhaps the occurrence of nearby caves, thought to be portals to the underworld (Claassen 2010). Middens tend to be composed of shell, or shell and earth, and are amorphous in shape, with no evidence for the circular or U-shaped forms characteristic of some sites in coastal regions, or the mound and plaza arrangements of northeastern Louisiana (Claassen 1996, 2010; Crothers 1999, 2004; Marquardt & Watson 2005). Many of these middens have large numbers of human burials within them, and it is not currently known whether they represent mortuary complexes or an unplanned gradual accumulation from routine habitation and subsistence activity in their vicinity (cf. Claassen 1996, 2010; Milner 2004; Milner & Jeffries 1998; Thompson 2010). The peoples of these interior southeastern Shell Mound Archaic societies exhibit many other signs of complexity, including participation in long-distance exchange, a suggestion of status differentiation among burials (although with no evidence for hereditary inequality), signs of fairly intensive conflict from skeletal remains as well as indications that portions of the landscape were defended or used by distinct social groups, as indicated by the restricted distributions of objects potentially conveying ethnic identity, such as projectile points, atlatl weights, and bone pins (Kidder & Sassaman 2009; Jeffries 1996, 2004; Sassaman 2010a). Appreciable variability is evident in the size and complexity of...
southeastern later Archaic societies, and while large numbers of archaeological sites occur in many parts of the region, mounds of shell and earth are more restricted in occurrence. The distribution of these societies may be due to social factors, reflecting an Archaic political geography whose nature and causes we are just beginning to grasp. Major relocations of human population also appear to have been shaped by environmental factors, such as fluctuations in sea level or changes in vegetation communities. The creation, use, and abandonment of southeastern coastal shell-ring sites, for example, appears closely tied to fluctuations in sea level, with comparatively minor shifts of even a metre or two producing widespread changes (Sanger 2010). Likewise, the spread of pine forests in the southeastern Atlantic and Gulf Coastal plains during the Mid-Holocene appears to have led to a reduction of use of much of this area, at least compared with preceding and following periods (Anderson 1996). Similar abandonments and relocations of populations are documented or inferred throughout prehistory in eastern North America, although all should be carefully evaluated. Mid-Holocene warming was once thought to have led to a desiccation and abandonment of upland portions of the interior of the midcontinent and a restriction of human populations to major river valleys, for example, creating conditions of population density and resource intensification that helped trigger the cultural florescence that followed (e.g., Brown 1985; Brown & Vierra 1983). Increasing evidence, however, indicates upland areas were neither impoverished nor abandoned, compelling consideration of a newer perspective advocating human use of both zones (McElrath & Emerson 2009).

The domestication of a number of species of indigenous plants occurred in eastern North America during the later Archaic, after c. 5000 cal BP, and appears to have taken place in the interior midsouth and lower Midwest (Gremillion 1996, 2002; Simon 2009; Smith 1992, 2006). Locally domesticated plants comprising what has been called the Eastern Agricultural Complex included chenopodium (Chenopodium berlandieri), sunflower (Helianthus annuus), sumpweed (Iva annua), little barley (Hordeum pusillum), maygrass (Phalaris caroliniana), knotweed (Polygonum erectum) and cucurbits or gourd. Use of these species in subsistence was not apparently very important until after c. 3200 cal BP, during the Woodland Period. The spread of ceramic container technology and agricultural food production across the region occurred about the same time, after c. 3200 cal BP. While ceramic containers appeared in the lower southeast about 5000 cal BP, primarily in coastal settings, they remained limited in occurrence and use for well
over a millennium, not becoming widespread until the ensu-
ing Woodland Period (Sassaman 1993, 2010a). Late Archaic
ceramic-using cultures of the lower southeast include Orange
in Florida, Stalling Island in Georgia and South Carolina,
Thom’s Creek in South Carolina, Wheeler in northern Alabama
and Tennessee and Tchefuncte in Louisiana. These wares are
variously tempered with plant fibres, sand (Thom’s Creek) or,
in the case of Tchefuncte, untempered. Ceramics may have
facilitated the preparation and cooking of small seeds, which
themselves may have replaced subsistence resources used pre-
viously, such as shellfish (Goodyear 1988; Rice 1999). While
soapstone-container technology was also in use during the
Late Archaic Period, these vessels were nowhere near as easy
to produce as pottery, making them probably of only limited
utility for most peoples. The spread of ceramics may have
been actively inhibited by those participating in interregional
exchange, however, since this alternative technology might
have threatened the demand for soapstone vessels. Soapstone
vessels are found in large numbers at Poverty Point (Gibson
1996, 2000), and while it is somewhat counterintuitive, the col-
lapse of Archaic exchange networks may have actually facil-
tated the spread of ceramics (Kidder & Sassaman 2009: 683–4;

A number of Archaic cultures occur in the northern part
of the continent, named after distinctive artifacts or the loca-
tions in which they are found. The Maritime Archaic Culture

![Stallings Island Site Plan](image-url)
of northeastern North America occurred from roughly 7500 to 3500 cal BP along the Atlantic seaboard of Maine and Newfoundland (Bourque 1995). A small stone-covered mound at L’Anse Amour dating to c. 7500 cal BP containing a child buried face down with a number of grave-goods, including a toggling harpoon, represents the oldest such structure in North America. At the Port au Choix Site in Labrador, dating to between 6000 to 3500 cal BP, more than sixty burials, some with red ochre sprinkled over the body, were found interred with hunting and woodworking tools of ground-stone, bone and ivory (Tuck 1976). A nearby village, the Gould Site, extended over several acres and had well-preserved heathir and wood-posts-in-ground structures, and appears to be where the people who were interred in the cemetery lived. The Maritime Archaic people, sometimes called the “Red Paint” Culture after their distinctive use of ochre in burials, exploited marine mammals and fish, and are perhaps best known for their ground and polished stone industry, used to make gouges, adzes, axes and spear points, of slate and other local materials. Excavations at the Cow Point Site in New Brunswick and at the Turner Farm Site in Maine led to the recognition of a cultural florescence within this tradition of maritime hunters known as the Moorehead phase, dating from c. 4500 to 3800 cal BP, and thought to be derived from earlier peoples in New England and New York (Bourque 1995; Sanger 1973). The Maritime Archaic disappeared at the end of the Archaic Period, after c. 3000 cal BP, replaced by people of the Susquehanna Tradition moving north at the south end of their range, and probably developing into the Dorset Culture at the northern extent of its range in the eastern Arctic (Bourque 1995; Maxwell 1985). The Shield Archaic is a roughly contemporaneous terrestrial caribou- and moose-hunting and fishing culture dating from after c. 8000 cal BP found in the Sub-Arctic boreal forests on the Canadian shield south of Hudson’s Bay and north of Lake Superior (Wright 1972). Cultural continuity with the Algonkin peoples encountered in the region by European explorers is inferred, with larger warm-weather camps and dispersed populations during the winter. Most assemblages are characterised by flaked stone points, knives and scraping tools, with only limited evidence for contact with peoples in regions to the south, west and east, in the Lake Forest and Maritime Archaic cultures.

The Lake Forest Archaic of the Great Lakes has two major components, the Old Copper Culture and the Laurentian Tradition, of the western and eastern Great Lakes, respectively. The Old Copper Culture dates from c. 6000 to 3000 cal BP, and its name comes from the working of native copper from a number of locations in the Lake Superior Basin, including on Isle Royale and on the Keweenaw Peninsula of northern Michigan. Copper artifacts were created by cold working or annealing, and included awls, axes, adzes, fishhooks, harpoons, knives including women’s knives or ulus, perforators and tanged and socketed projectile points. The greatest concentration of copper artifacts is found near the source areas in northern and eastern Wisconsin, at burial sites like Oseola, Oconto and Reigh (Ritzenhaler 1957; Griffen 1961; Mason 1981). Although commonly employed for utilitarian purposes in the western Great Lakes, some objects appear to have conferred status, something accruing to most objects of this material with increasing distances from the source areas. The Laurentian Archaic consists for the most part of interior-adapted hunting-fishing-gathering peoples found in the vicinity of New York, Vermont and southern Ontario from c. 5500 to 3500 cal BP. Some intergradation in technology with the Maritime Archaic peoples in coastal areas is evident, and the relationships between these peoples are unclear. The Laurentian Tradition encompasses three sub-regional cultures, Brewerton, Vosburg and Vergennes, and includes both chipped and ground-stone tools, including the side-notched Otter Creek-like points, banner stones and fishing weights or net sinkers (Tuck 1977, 1984, 1991; Cox 1991).

The Susquehanna Tradition of the upper mid-Atlantic and northeast dates from c. 5000 to 3200 cal BP and is characterised by large, broad-bladed and typically squared stemmed projectile points, the use of steatite late in the period after c. 3800 cal BP, cremation burials and a highly diversified subsistence economy (Bourque 1995; Spiess 1992). The similarity of the material culture to that among the Stallings Culture of Georgia and South Carolina has led to the suggestion that its appearance in the Northeast reflects a movement of peoples from the lower southeast or Middle Atlantic region. While this “broadpoint” horizon was once thought to have been associated with the exploitation of anadromous fish, the evidence for this is not compelling (Sassaman 2000). A variety of local to sub-regional-scale cultures occur in the eastern Woodland during the later Archaic, each with somewhat distinctive subsistence, storage and burial practices and greater or lesser evidence for participation in long-distance exchange, monumentality and warfare.

The end of the Archaic Period is somewhat arbitrarily placed at 3200 cal BP or 3000 14C BP, although many of the once-traditional characteristics of the succeeding Woodland Period in the east and out onto the Plains, such as mound building and use, the emergence of sedentary village life and the adoption of ceramics and agriculture, are now known to have begun well back into the Archaic Period. In eastern North America the interval from c. 3200 to 2900 cal BP was characterised by a dramatic decline in long-distance exchange, and the abandonment of many centres like Poverty Point and the ring- and U-shaped shell midden complexes of the Atlantic and Gulf coasts. Some of these abandonments may have occurred well before this time, particularly of coastal ring middens (Sanger 2010). The end of the Archaic may have been tied, in part, to changes in global and regional climate regimes. In recent years, for example, the abandonment of the Poverty Point Site has been linked to changes in the course and flooding patterns of the Lower Mississippi River (Kidder 2006, 2010; Kidder & Sassaman 2009: 681–2). At the same time, the collapse of extensive interregional exchange and the abandonment of major centres like Poverty Point probably disrupted trading relationships and routes that would have probably taken centuries to reconstitute, and in the east this did not occur for almost a millennium, in Woodland Adena/Hopewell times (Anderson 2010; Kidder 2010). A pronounced social and economic collapse at the end of the Archaic is observed in many
parts of eastern North America (Anderson 2001: 164–5; Fiedel 2001; McElrath & Emerson 2009: 848–50), although a similar pattern of dramatic change is not observed in the western part of the continent.

References
Paleoindian and Archaic Periods in North America


Paleoindian and Archaic Periods in North America


