Archaeological Report No. 31

Mississippi Projectile Point Guide

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Cover Illustration:
Sequence of Mississippi projectile points.

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Acknowledgments

The data recorded in the process of producing this publication has come from a variety of sources, including primarily the private collections of individuals. The owners of private collections who have cooperated in the project are too numerous to list, and although some have contributed more than others, I do not think it appropriate to single any of them out for praise. If it were not for these people, the guide would not have been done, so it is to this group that I owe the most gratitude. Most of the projectile points that have been collected are in their possession. While the collecting procedures and standards of most amateur archaeologists or collectors do not meet the standards of the professional archaeological community, they have collected because of a curiosity about the past which is shared with professionals, and this common concern is what brings us together. I have spent countless hours in the company of non-professionals and have almost invariably been met with hospitality and an eagerness to help by sharing information with me.

I would also like to express my gratitude to the institutions that have assisted in this project by making collections available. Especially noteworthy in this category are the University of Mississippi, Mississippi State University, the Cottonlandia Museum in Greenwood, Mississippi, and the Mississippi Department of Archives and History.

Last but not least of those supporting this work have been my professional colleagues who are current or former staff members of the Mississippi Department of Archives and History: Sam Brookes, John Connaway, Joe Giliberti, Keith Baca, and Doug Sims, who, collectively, have contributed greatly to both the accumulation of data and to the editing of the manuscript.

— Samuel O. McGahey

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Introduction

The data presented in this guide to Mississippi projectile points is largely available because of the willingness of amateur archaeologists and collectors of stone artifacts to share the information they have with the rest of us. Archaeology has never had the resources required to do the investigations necessary for an adequate understanding of prehistoric cultures. Although the discoveries made about the remote past are fascinating to most of us, we have never been willing as a society to provide the necessary funding to stay ahead of the modern wave of earth moving activities which seem destined to disturb thoroughly all of the crucial areas where significant data are to be expected. There are outstanding examples of private funding of archaeological research, but unfortunately, with the notable exception of such phenomena as sunken treasure ships, archaeology doesn't yield a big return on investment. The sad result of this situation has been the destruction of much if not most of the sites necessary for an adequate understanding of the past. This is not to say, however, that the job is not worth doing. Much can be done with the resources that are left. The time, though is short.

Much of the data necessary for answering questions is owned by private individuals who store it in the form of "arrowheads" in boxes in their closets or in frames hanging from their walls. The value of these collections to science begins with their recording by archaeologists. Projectile points—a term used by archaeologists to include collectively spear points and knives as well as actual arrowheads—are what is known as diagnostic artifacts: they are indicators of certain time periods and cultures. Because of factors not thoroughly understood at present, certain kinds of tools of the prehistoric era such as pottery and projectile points changed styles periodically. These diagnostics are classified into "types" by archaeologists. The concept of type dealt with in this publication is understood ideally to represent a group of people within a certain area during a certain period. A type then is defined for our purposes by its measurable physical attributes, its time range and its geographical distribution. The geographical extent of a type is generally understood to represent the geographical distribution of a group of people with much in common. Since in many cases professional archaeologists will never be able to collect a sufficient number of specimens of a type to allow an understanding of these ancient territories, it is vitally important that they record data in the hands of laymen before the owners have sold it, forgotten where it came from, or died without having made adequate provision for the proper recording of the material.

Those private collectors who have curiosity about their collected specimens should make a special effort to record where each piece was found and to deposit the record with a public institution, because it is only with the accumulation of recorded data that many of the questions of collectors can be answered. Professionals, on the other hand, must find the people with the collections and attempt to record their collections. Site locations will not be made public because of the realization by the professional archaeologists who curate and utilize the data that many collectors do not like to share secrets with competitors or that property owners do not want to risk vandalism and damage to livestock and cultivated fields. In Mississippi, an exemption from the open records act protects the site-location data from public scrutiny.

The amateur collecting of artifacts, from an archaeological perspective, is a matter of taking something out of context. In fact the separate consideration of projectile points in itself is a matter of taking something

out of context, but there are good reasons for isolating the subject of projectile points from the rest of the archaeological context, as will hopefully become evident later in this discussion. An archaeological context, which is usually thought of as a site, consists of many objects and their relationships to each other. Archaeology is the process of understanding these relationships within the total context of the site and of other sites with which it may be associated, and attempting to reconstruct the history of the people who were responsible for the site's existence. There are commonly thousands of artifacts on a site. There may be debris resulting from the manufacture of arrowheads or projectile points, and the manufacture of each projectile point commonly results in the creation of at least hundreds of flakes. There are frequently mishaps in the tool manufacturing process, and many attempts are abandoned after a miscalculation, a slip of the hand, or because of faulty material. The use of the same tools results in their being dulled, broken, and resharpened or recycled into other tools. Eventually tools are worn out and discarded or lost. The production and use of stone tools, then, results in the accumulation of large quantities of debris. Often, however, only the tools that are considered "whole" are collected by the curious layman. Archaeology, on the other hand, considers the entire process of projectile point and other tool production and use from the quarrying or collecting of raw material or trading for it, through the discarding or loss of worn out tools. One of the objectives of this publication is to present as much of what is known of this process as possible.

The focus in this guide is on projectile points for a number of reasons, but primarily for the following: as was previously mentioned, these tools are considered diagnostic, in that they are useful as time-space indicators for prehistoric cultures. As archaeologists visit sites in the course of performing an archaeological survey, it is often the case that they miss cultural components entirely because local collectors who routinely visit the sites under ideal conditions have the surface evidence of these components in their personal possession. The validity of the conclusions of archaeological survey reports then is affected by private collecting. Hopefully this message can be communicated to both professional archaeologists and to collectors. Each group should realize a need for the input of the other.

Projectile points are not the only kind of stone tool capable of providing useful information on chronology. Unifacial tools, those made from flakes and blades with only one side worked, are also useful to a certain extent. Consideration was given to including certain types of unifaces in this guide. It was decided, however, that a later separate publication for unifaces would be preferable.

In the opinion of the writer, conclusions reached in archaeological investigations are of minimal worth unless the time-space contexts are adequately understood. While it is unrealistic at this stage of our knowledge of the pre-ceramic chronology to expect great precision, it is at least possible, through a basic understanding of the technologies involved in the projectile point manufacture-use-repair-recycle and discard cycle, to assign most relatively intact specimens to general time periods such as Early, Middle, and Late Archaic. The approach to the presentation of the various projectile point types which follows will be chronological rather than alphabetical, as has traditionally been the case with projectile point guides. While it is generally accepted that basically one projectile point type was in use at one time over large parts of the Southeast, the precise order of their occurrence has not been determined, and except for fairly localized chronologies, may never be determined. Although every projectile point type will not be pigeon-holed into an exclusive chronological niche in this publication, it is obvious that periodically there were relatively rapid and widespread general changes in point morphology. It is possible, therefore, to indicate major time periods and to subdivide those periods according to point shape. We can divide the Paleoindian into at least three sub-periods based on the general shapes of the points. The Early Archaic Period is also easily divided into three morphological traditions. The Middle Archaic Period can be subdivided into at least early and late sub-periods. Individual types within the various periods will be discussed in the general order of their

assumed age, although in many cases there may be little hard evidence for this chronological ordering, and conceivably future research may correct some of these assumptions.

Another aspect of lithic technology not usually dealt with systematically in existing projectile point guides is that of raw material and its sources. For over twenty-five years, the author, with help from other Mississippi Department of Archives and History (MDAH) archaeologists, has gathered data on early lithic technology (Paleoindian and Early Archaic). The focus has been on those eras because the material was relatively scarce compared to the later material and it was therefore a manageable project. In this recording effort, raw material and other data, such as metric, heat treating, etc., have been recorded, and on the distribution maps in this publication quantities given are distinguished as "E" (exotic) and "L" (local). Raw material use patterns differ significantly between periods and between types within periods, dramatically in some instances. There are also interesting regional statistics on this phenomenon. Raw material preferences and other useful subsets of the recorded data will be presented. Distribution maps are presented without county names, but a map of the counties is included following the References section for the interested reader (see Figure 195).

In comparison with many other areas, the state of Mississippi is at a disadvantage with respect to the availability of quality lithic material. The primary source of raw material for knapping was gravel chert, which was abundant in the Citronelle Formation of south Mississippi, the pre-loess gravels found in streams flowing out of the Loess hills, the Tuscaloosa Formation in northeast Mississippi, and to an unknown extent, gravel bars in the Mississippi River. Most of the state has no locally available gravel chert, however. Other sources of workable material were even more limited. The Tallahatta Formation yielded massive quantities of quartzite, but the workable material was largely confined to a few counties in east-central Mississippi. The Kosciusko Formation, which extends in a long, relatively narrow band through north-central Mississippi, turning into southwest Alabama, yielded quartzite that was heavily used in certain restricted areas only during certain periods, possibly only out of desperation when no other material could be obtained. Fort Payne Chert was available only in the state's northeasternmost corner in Tishomingo County. The maps accompanying each type description of the Paleoindian and Early Archaic periods indicate the numbers of specimens of each type considered to be "exotic" or "local." What is intended in this context is to emphasize material thought to have originated outside of the state. Strictly speaking, most of the state had no locally available raw material suitable for knapping.

This guide has several specific limitations. One is that data from the post-Early Archaic period has not been as thoroughly collected as the earlier material, and it will therefore not be possible to present as great a range of data for the later periods. Certain projectile point types known or believed to exist in Mississippi have not been included because of the absence of available specimens for illustration. These types constitute relatively rare occurrences within the state, however, and while their omission is regrettable, they are not considered to be of major significance.

There has traditionally been a policy of not illustrating broken specimens in this kind of guide publication. I intend to depart from that tradition because the breakage patterns per type and period are meaningful, and broken specimens are at least as important as those that have remained relatively intact. Most of the more recent publications on projectile point identification (e.g. Perino 1985) have at least attempted to illustrate a more or less full range of the life cycle of each point type, from the final preform stage if known through the more worn and even recycled specimens. I intend to make a conscientious effort in that direction, illustrating every known stage of each point type.

Each section and some sub-sections of the publication will contain an introductory statement pointing out the general technological characteristics of projectile points of the period under consideration and any

inferences that can be made regarding the culture history of the period in terms of extra-regional connections, settlement patterns, or subsistence patterns.

It is a little discussed fact that works such as this can never be complete, or the final word in projectile point identification. There are many reasons for this seemingly pessimistic outlook. Basically they revolve around a lack of data. "Types," in terms of aboriginally manufactured artifacts, are the ultimate result of mental templates held by the individual craftsmen. Since handmade objects are subject to individual variation because of the uniqueness, mental and physical, of the craftsmen and the variable quality and characteristics of the raw material, even a group that conscientiously strives to produce projectile points or other handmade tools to a very precise standard or ideal will be at least somewhat less than completely successful. There is an inherent variability in these objects even among one group at one time or within the work of an individual over a period of a day or less. Complicating the situation is the passage of time within a tradition. The mental template or ideal held by the group gradually evolves for largely unknown reasons. The type then changes in a continuum which is divided arbitrarily by modern students of ancient behavior in the process of attempting to apply dates to various parts of the continuum. The process of gaining an adequate understanding of a type is then further complicated by the fact that we can never see the whole range of variation. The type definitions used by archaeologists depend on the use of available data. Available data depends on the extent of fieldwork and the recording of the attributes of pertinent examples. A type that is useful for chronological placement purposes is ideally defined by its geographical distribution, its chronological distribution, which hopefully is not terribly long, and by its physical attributes. None of these data categories are ever going to be completely known and although they will be more completely known, with the passage of time and more accumulated data, there is the need now for a summing up of what is known, together with reasoned interpretations. It is hoped that these interpretations will spark productive discussions and revisions by those who seek to improve our understanding of prehistoric tool complexes.

Some new projectile point types are proposed in this guide, with the term "provisional" used to indicate their tentative nature. In addition to morphological attributes suggesting similarities in age to established types, geographical relationships are also considered when designating the provisional types. In other words, if distributional data of a newly recognized form are well understood, and there are obvious gaps between its distribution and that of a supposedly related, already named type, one must be careful in drawing inferences on the basis of morphology alone. A good case in point is the probably inappropriate use of the Kirk type name to label the large, serrated Middle Archaic points of southwest Mississippi and the Florida parishes of Louisiana. It appears, based on adequate evidence , that there is a considerable geographic gap between the distribution of this form, a southern type, and real Kirk points (which are actually Early Archaic) that appear to be present in Mississippi only in a fairly restricted area of northeast Mississippi but whose major distribution lies outside the state entirely to the northeast.

Actually the ideal requirements for formally naming types are rarely even approached, and many type names have been assigned to forms for which the data were (and remain) obviously incomplete, but for which there was the promise of more information in the near future, which may not ever have appeared. Indeed the author of this publication has been guilty of this in the past. Nevertheless, provisional types are included in an attempt to make this projectile point guide as comprehensive as possible, notwithstanding the admittedly scant data available. New information will continue to appear through new discoveries made by archaeologists and also by curious citizens who bring the points they find to archaeologists for identification. In this manner, we can expect to advance our knowledge, slowly but continually, of these relics and the people who made them.

Paleoindian ca. 12,000-10,000 BP

The precise date for the arrival of the earliest humans in the state of Mississippi has not been determined and in all probability never will be determined. The 12,000 BP (years Before Present) figure is probably on the conservative side. It seems entirely possible, based on some recently obtained dates on sites in other parts of the Southeast, that Clovis points were being made by 12,000 BP, and their antecedents, which were probably being made here before the development of Clovis points, have not been recognized and dated.

On some sites in Mississippi, Alabama, and a few other states there is a complex of crude, heavy stone tools that are quite primitive technologically and may represent a pre-projectile point stage of culture. It is conceivable that these artifacts represent the earliest people to inhabit this part of the country. There are no dates on this complex, however, and there are good indications that at least most of these items are merely the earlier part of the reduction sequence of Archaic period or later tools. The immediate predecessors of Clovis points, however, could not have been crude and were most likely projectile points.

The earliest generally recognized Paleoindian tool complex in Mississippi and the rest of North America, however, is Clovis. The Clovis tool kit consists primarily of Clovis points, which are generally large, well made fluted projectile points and unifaces, including end and side scrapers and gravers. At present, only about 120 Clovis points are recorded from the state. What is becoming increasingly obvious on the basis of Clovis distributions is that there were few people here in that period, and they apparently came into Mississippi from the Tennessee River Valley in north Alabama and middle Tennessee. The lithic raw material from the earlier part of the Paleoindian period in Mississippi is predominantly blue-gray Fort Payne chert and Dover chert, from north Alabama and middle Tennessee respectively. It is also well documented that both of those states have many times more early Paleoindian projectile points than does Mississippi. It seems quite possible that the fluted point tradition began there or in other areas of the eastern United States which were similarly well endowed with abundant supplies of high quality knappable raw material, then spread over the rest of North America from those locations.

At some as yet undetermined time between 12,000 and about 11,000 years ago, in Mississippi and the rest of eastern North America, there began a period of regionalization of culture. Whereas the Clovis point was widespread, being continent-wide in its distribution, its technological descendants such as the Cumberland point were much more regional in their distribution. Cumberland points seem to be associated primarily with the Tennessee River area. In Mississippi, eleven of the twelve recorded have been found in the northeastern quarter of the state or the portion nearest to the Tennessee River, the twelfth being from Panola County in northwest Mississippi. Cumberland and its presumed descendants Quad and Beaver Lake are also regionalized within the state, and Quad and Beaver Lake begin to show for the first time a pronounced trend toward being made of locally available lithic raw material such as Citronelle or Tuscaloosa gravel chert. This period, which may be appropriately termed "Middle Paleoindian" based on the regionalizing mentioned above and the increasing use of local raw material, is seen as a time of increasing adaptation to the full potential of new environments by Clovis colonizers.

The trend for local adaptation seems complete with the Late Paleoindian or Dalton period (ca.10,500,-9,900 BP), when scarcely any exotic lithic raw material was used over most of the state, and innovations such as the serrating of projectile points and the possible addition of the adze to the tool inventory have been accomplished. Regionalization appears to accelerate in the Dalton period, with several variations of Dalton points being recognized within the state. For instance, at some point near the middle longitude of the Yazoo Basin, there seems, on the basis of current evidence, to have been a cultural divide which may have begun slightly before Dalton but which in the Dalton period is recognized by distinct re-sharpening techniques on the Dalton points: the western Yazoo Basin variation is right hand beveled in the resharpening process, whereas the eastern variation is either bifacially resharpened or left hand beveled.

In addition to being apparently less mobile than the initial inhabitants of the state, the mid to late Paleoindian population seems to have grown, based on the inventory of diagnostic tools that have been recorded for these sub-periods, although these numbers never reached anything like the numbers of recorded specimens in the Missouri-Arkansas area, where Dalton culture may have seen its earliest and densest population. The numbers on which this opinion is based are felt to be inadequate, not in sample size so much as in possible biases in the way examples were recovered. Although Paleo and Early Archaic diagnostics have been recorded at MDAH for about twenty-five years, the main sources of information have been collectors who are drawn to the sites for a number of reasons, primarily the availability of productive collecting grounds such as cleared, cultivated land around large population centers. But when we considered the prospect of restricting the data collected to the results of survey done by professional archaeologists, which has provided only a minor percentage of the diagnostic artifacts recorded, the decision was obvious. Most of the available data are in private collections, and it would be foolish to ignore it. Most collectors are quite willing to share the data, and efforts are being made to encourage their participation.

Practically nothing is known for certain about subsistence patterns for the Paleoindian era in Mississippi. Paleoindians have traditionally been viewed as nomadic big-game hunters who subsisted primarily on the now extinct megafauna of the Pleistocene. Although there is evidence of abundant game in the Mississippi Pleistocene, there is no record of human exploitation of these species. There is evidence from other southeastern states that the late or terminal Paleoindian populations subsisted primarily on white-tail deer and to a lesser extent on other present-day animal species. It also seems likely that deer and other small animals constituted a major part of the diet of earlier Paleoindian populations as well. Currently, the only known subsistence data from this period in Mississippi is from the Hester site (22-Mo-569 and 22-Mo-1011) in northeast Mississippi, where floral remains have been identified, giving some indication of the kinds of vegetable food consumed.

The inventory of known, well preserved sites of the Paleoindian era in Mississippi is extremely sparse, with the Hester site being the most outstanding. Hester has deposits of up to five feet in thickness, with a virtually unbroken sequence from early Middle Archaic through Middle Paleoindian (Quad). The lower levels have yielded Clovis points and a Cumberland point in mixed contexts. The Colbert site in Clay County has apparently undisturbed deposits containing Quad, Dalton, and Early Archaic diagnostics. The Beaumont site in Perry County (22-Pe-504) has *in situ* Late Paleoindian and Early Archaic deposits. Site 22-Js-587 in Jasper county has a Dalton component, and one point was found near the bottom of the deposit at 70-80 cm. Site 22-Jo-568 in Jones County has yielded a Middle Paleo Quad-like point at the 40-50 cm. level. These sites are all in settings associated with relatively large streams, and two, Hester and Beaumont, have been severely damaged by sand and gravel mining operations. Sand and gravel mining in the river floodplains of the state may be the most severe threat to early lithic sites.

Early Paleoindian Points (12,000 BP - 11,000 BP)

Clovis (Howard 1935)

There has been a proliferation of named fluted types of projectile points over the past few years. Certain distinctions are obviously valid. There is no doubt that Cumberland and Folsom are regional types, and in the case of Folsom there is no doubt that the type is later than Clovis in the southwestern United States. Numerous other distinctions have been made in the fluted point family. To name a few: Redstone, Ross County, St. Louis, and Barnes. At present, however, we believe that there is insufficient data to attempt a formal division of the fluted specimens from Mississippi into these or similar categories, so the fluted points in our sample are considered to be either Clovis or Cumberland. As more data are collected through the excavation of stratified sites, single component sites, or through provenienced surface collections, it may be useful to subdivide the "Clovis" points formally.

For purposes of this publication the Clovis type has been subdivided into three groups. The divisions have been made arbitrarily in some cases, the idea being to seek meaningful distributions according to raw material and geographical area by forcing each specimen that was complete enough to classify into one of the categories. Groups one and two include significantly more exotic raw material than does group three.

Group I

Chronological Position: an unidentified time period between 12,000 BP and 11,000 BP. Group one points are believed to represent the earliest Clovis groups presented here.

Metric Data (80 specimens)
- *Average Length*: 66 mm
- *Range of Length*: 37-154 mm
- *Average Width*: 28 mm
- *Range of Width*: 23-40 mm
- *Average Thickness*: 7 mm
- *Range of Thickness*: 5-9 mm

Figures: 1, 2, and 3

The unifying morphological attribute of this group is the basic outline, which is essentially that of a straight-sided point with the widest part nearer the distal end than the proximal end, and a moderately to deeply concave basal cavity where the width between basal corners is generally the narrowest part of the proximal end of the point. A variety of thinning or fluting techniques is evident on these points. It is readily apparent that flutes are longer on specimens of the high quality exotic material than on native material such as Citronelle gravel chert. In some cases, primarily involving locally available gravel chert such as is seen in Figure 1A and Figure 2H, there was basal thinning, but fluting was apparently not attempted. In many other instances, one side only was well fluted and the other side was not. Grinding is usually obvious on the basal edge and extends to various lengths, at times passing the midpoint along the lateral margins. Almost invariably the points are skillfully made, with a high width to thickness ratio. On some examples, especially the smaller ones, only pressure flaking or what is thought to be pressure flaking of each face is apparent. On many, however, much of the central portion of each face exhibits larger flake scars thought to be consistent with baton flaking (see Figure 2J).

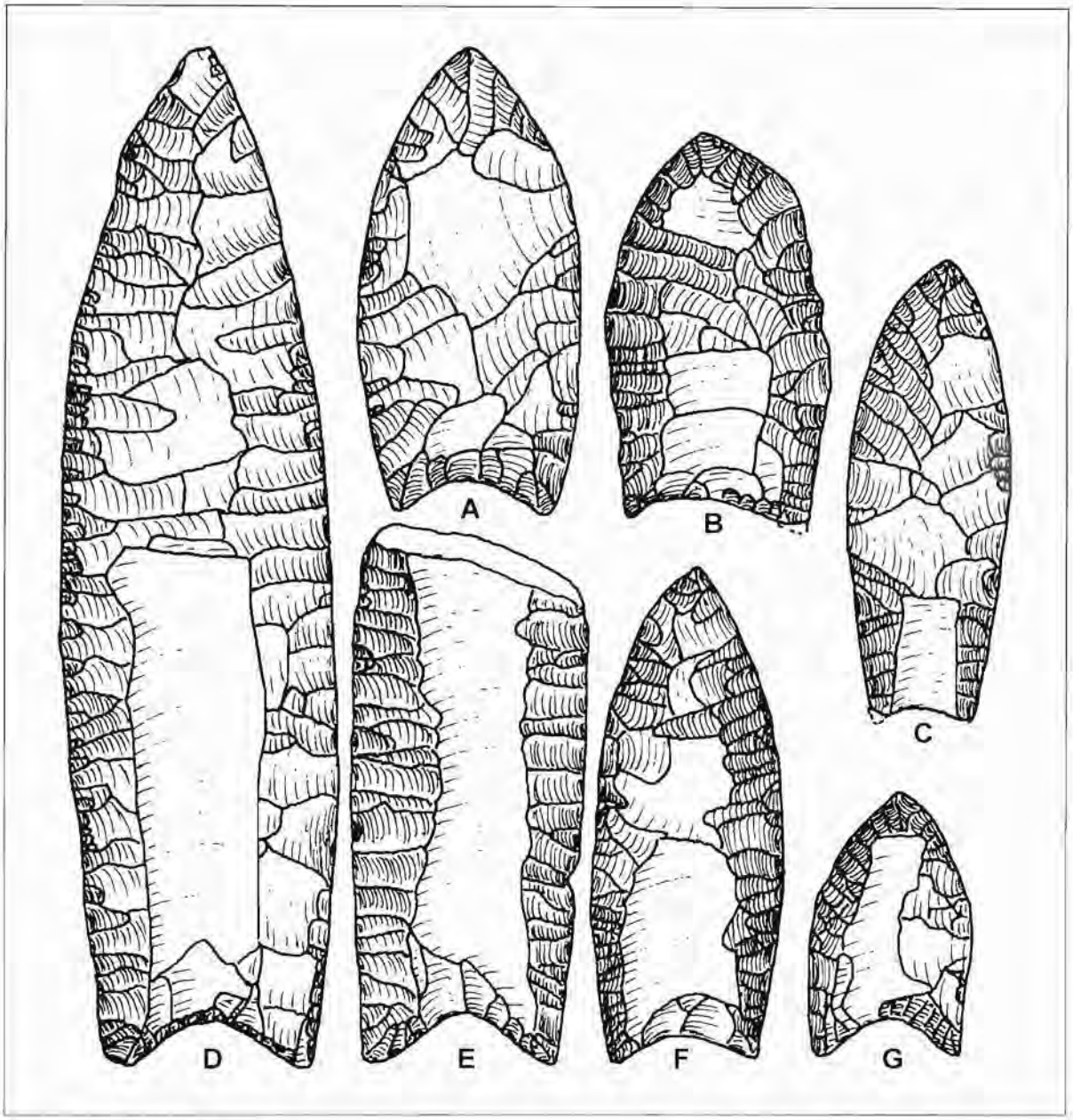

Figure 1. Clovis Group I Points.

Group one specimens, based on currently available data, are more likely than not to be made of an exotic dark flint or chert, usually gray, blue-gray, or grayish green and often heavily patinated. Most of the material so far identified came from the Tennessee River Valley to the north and east of the state of Mississippi (McGahey 1987). Blue-gray Fort Payne chert, Dover chert, and a blue-gray or blue-green high quality flint constitute most of the exotic material. It is difficult to determine heat treating on the exotic material. Most of it has a waxy or lustrous appearance, but so does much naturally occurring flint and chert. Some of the points made on gravel cherts, which are predominantly tan or some variation of tan-brown-yellow, exhibit reddened auricles and distal ends, which is considered an indication of at least one form of early heat treating.

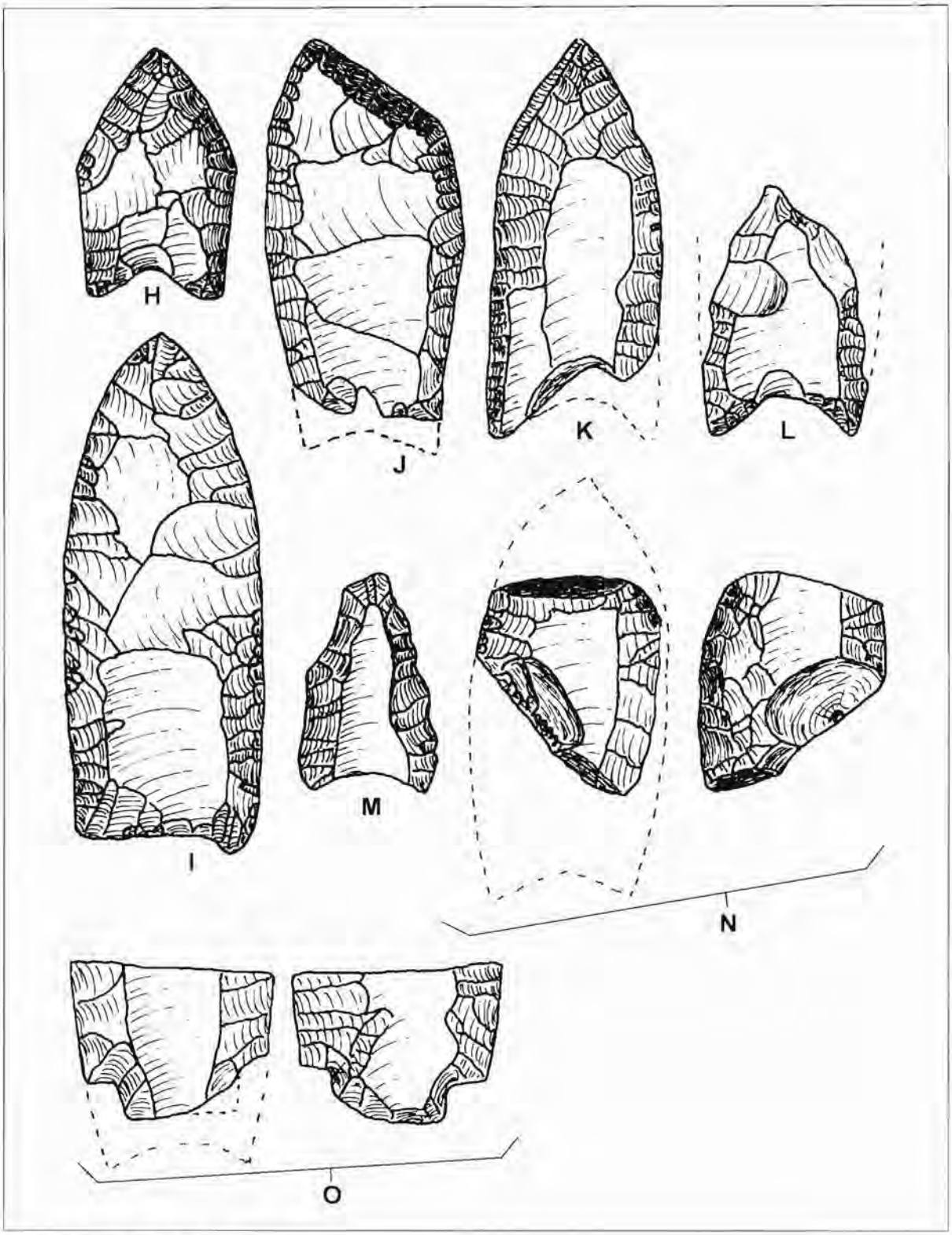

Figure 2. Clovis Group I Points.

There is considerable variation within the size range of these and other presumed Early Paleoindian projectile points. It may logically be assumed that the ideal tended to be significantly larger than that of later points in this era. The larger specimens recorded in this study, such as Figure 1D and E, are generally of non-local material such as Fort Payne chert because of inherent size limitations in the locally available material, although specimens made of locally available gravel chert are themselves considerably larger than Late or Middle Paleoindian specimens of the same material. Figure 2I is considered to be an advanced stage preform for an average sized Clovis point on native gravel chert. The repeated resharpening of later types such as Dalton or San Patrice, which substantially reduced the lengths of those types, is not thought to have been a factor in the size variation of the Clovis specimens. Based on *in situ* discoveries on sites such as Debert (MacDonald 1985:76), great variation in the size of these points as components in tool kits in use at the same time is not thought to be unusual.

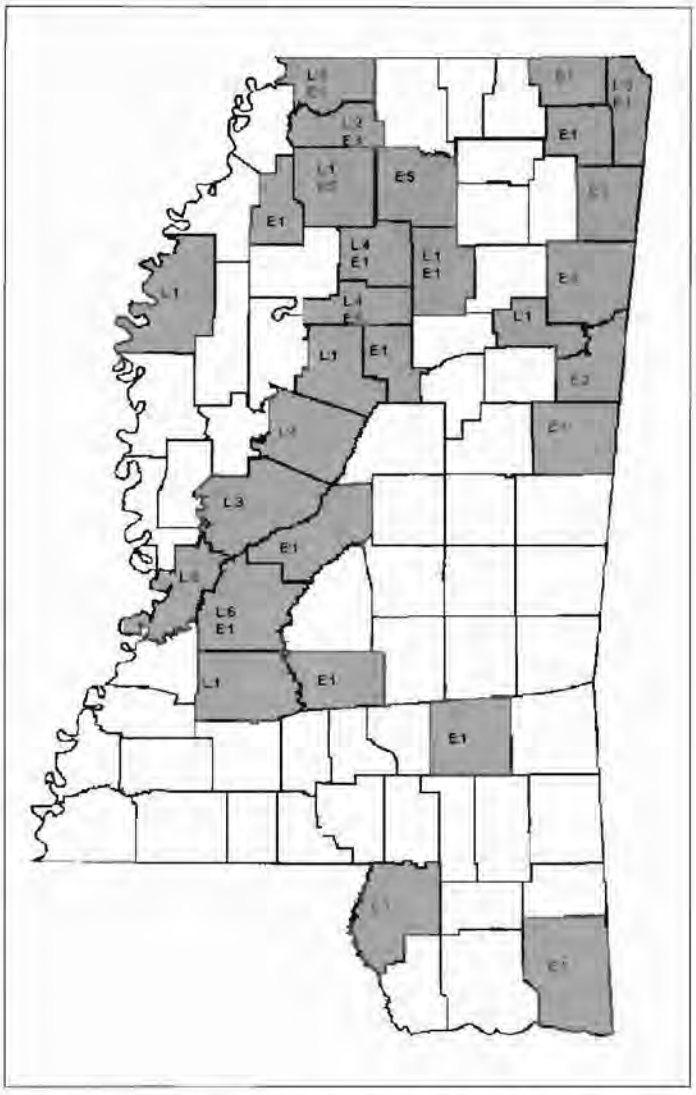

Figure 3. Known Distribution of Clovis Group I Points. L=local, E=exotic.

It is open to question as to how much of the repointing and other reworking seen on the shorter specimens such as in Figure 1G was done in later times. The recycling of Clovis points by later people is obvious in of Figure 2O, where a broad stem has been fashioned onto the proximal end of a broken Clovis point in Middle Archaic times. Bipolar impact scars on Figure 2N demonstrate its use as a wedge, possibly for splitting bone, ivory, or antler. This specimen as well as Figure 10J, a recycled Cumberland point, were found in the much later Dalton zone of the Hester site excavation (22-Mo-569). Figure 2H, which possesses the characteristic Clovis basal form, exhibits a drastic reworking of its distal portion, which resembles techniques of the later Dalton points.

Group II

Chronological Position: While believed to date between 12,000 BP and 11,000 B. P., Group II points may also date later than Group I.

Metric Data (7 specimens)

Average Length: 63 mm

Average Width: 28 mm

Range of Width: 23-35 mm

Range of Length: 52-76 mm
Average Thickness: 7 mm
Range of Thickness: 6-9 mm
Figures: 4 and 5

The group two category is being recognized here because of the suggestion that the Redstone type (Cambron and Hulse 1964:108) may exist as a valid type in Mississippi distinguishable from category one above. This is by no means certain, but the distinction is being made for now even though the distinction appears quite arbitrary with in what appears to be a continuum in form between the group one and group two points. Group two specimens are basically triangular in outline. They may assume a triangular configu-

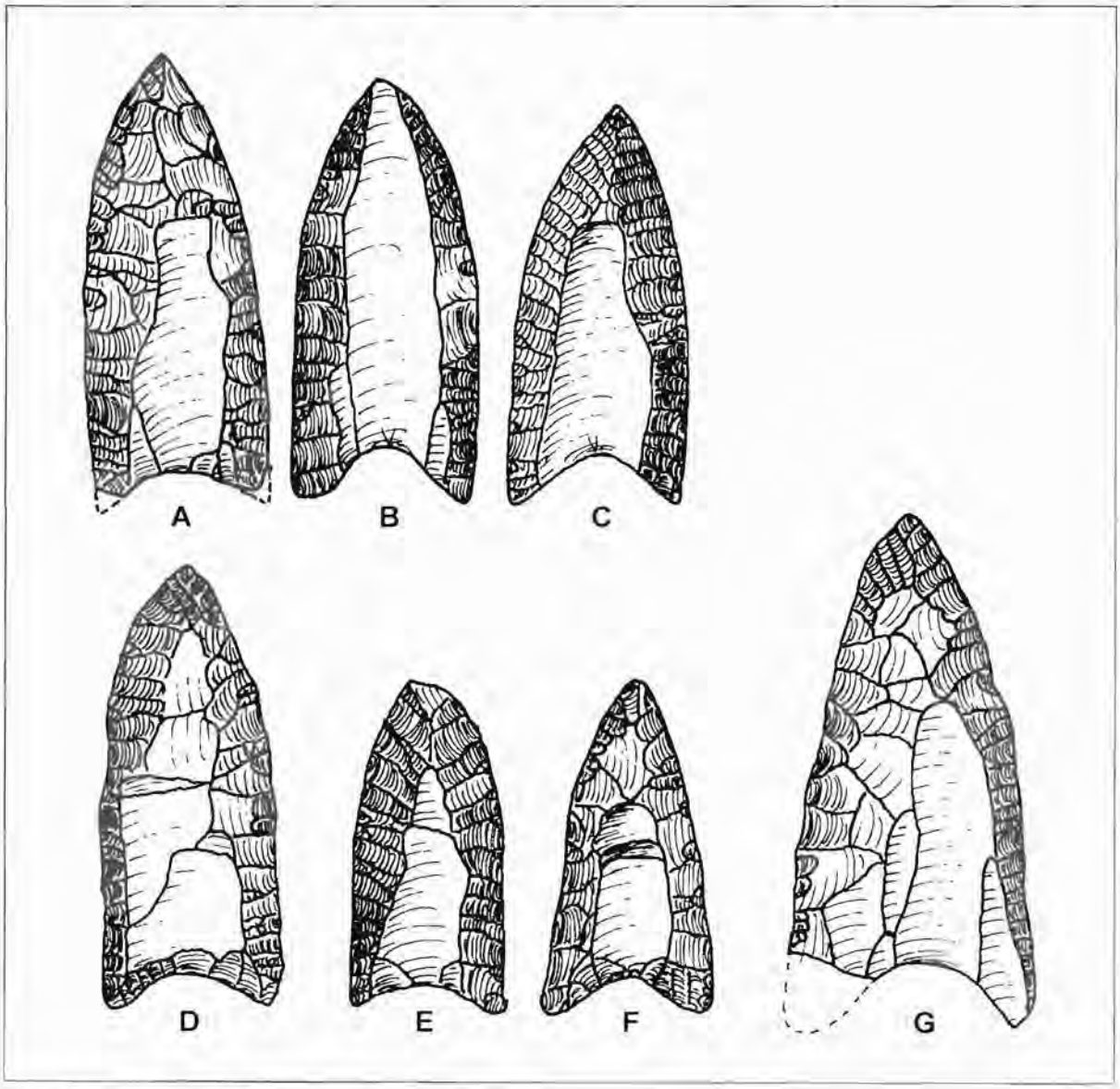

Figure 4. Clovis Group II Points.

ration after resharpening, as do group one points. These points, like all early lithic specimens, are very well made with excellent craftsmanship being exhibited. They are fluted, with deeply concave bases and with basal and lateral grinding on all recorded specimens. Raw material preference appears at this time to be somewhat different, with a slightly higher percentage of the form being of locally available material than for group one points. Since this percentage is intermediate between that of group one points and the supposedly later group three points, this may be considered an indication of their intermediate chronological position.

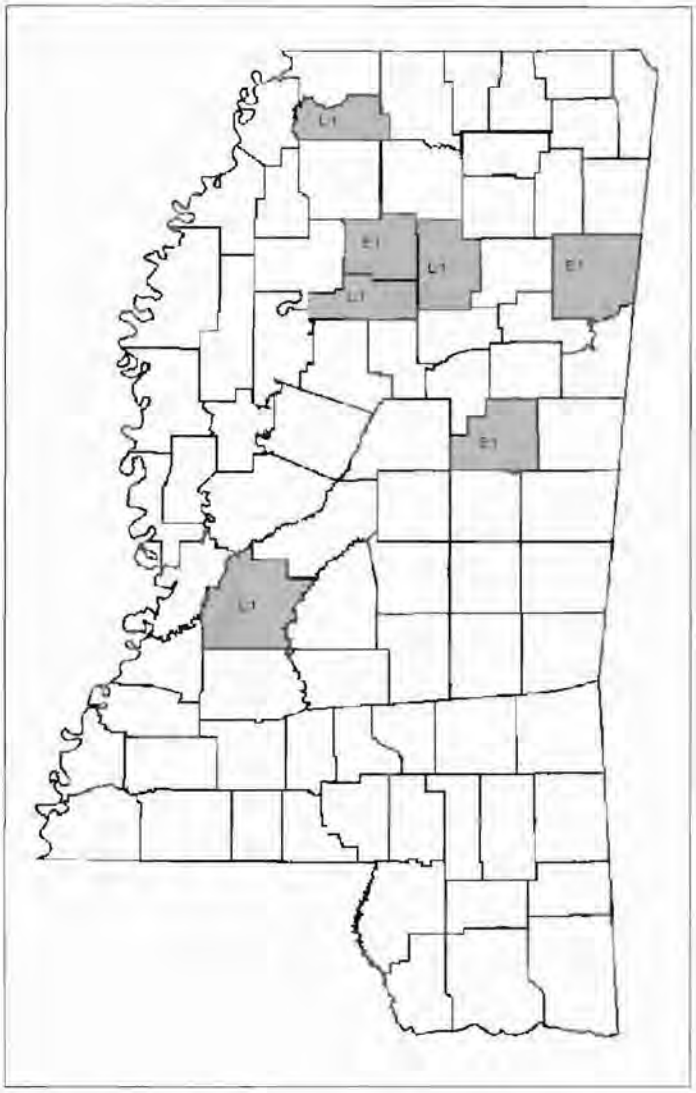

Figure 5. Known Distribution of Clovis Group II Points (Redstone). L=local, E=exotic.

Group III

Chronological Position: Although assumed to date between 12,000 BP and 11,000 BP, most Group III points probably date closer to the later figure.

Metric Data (24 specimens)
- *Average Length*: 56 mm
- *Range of Length*: 32-69 mm
- *Average Width*: 27 mm
- *Range of Width*: 18-36 mm
- *Average Thickness*: 7.0 mm
- *Range of Thickness*: 4-9 mm

Figures: 6, 7, and 8.

Group three points are waisted points with slightly to strongly concave lateral edges and concave bases. Many of the specimens resemble Ross County fluted points. Both bases and lateral edges are ground in completed specimens. These points, as with those of groups one and two, are exceptionally well made, usually with a high width to thickness ratio. They show indications of well controlled baton flaking. They are also well fluted in most cases. The percentage of locally available raw materials is noticeably higher in this form than in the presumably earlier points, suggesting that it is probably later than the other two, a hypothesis which is strengthened by the fact that it is morphologically closer to later forms with even more radical departures from what is thought to be the original basically straight sided Clovis form.

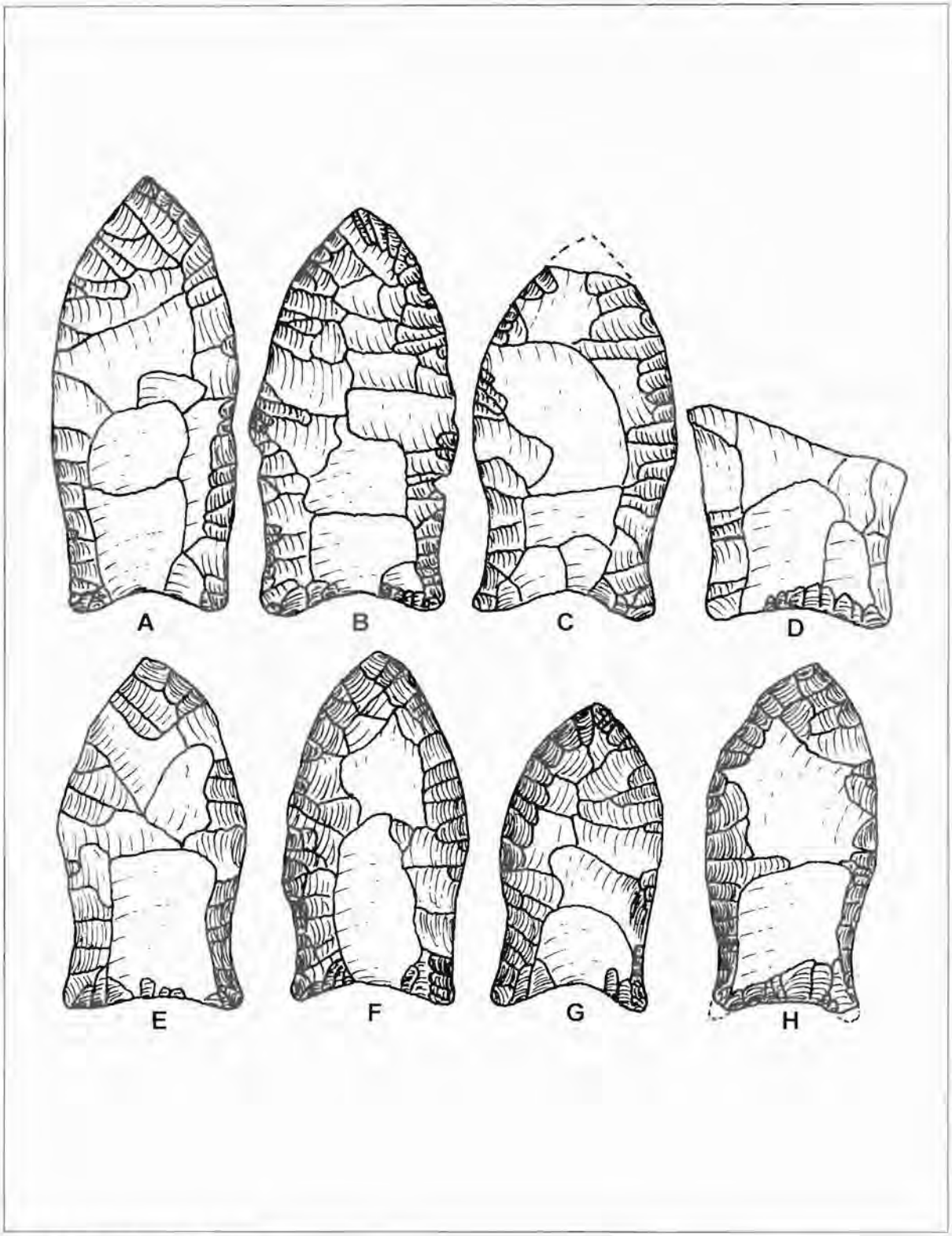

Figure 6. Clovis Group III Points.

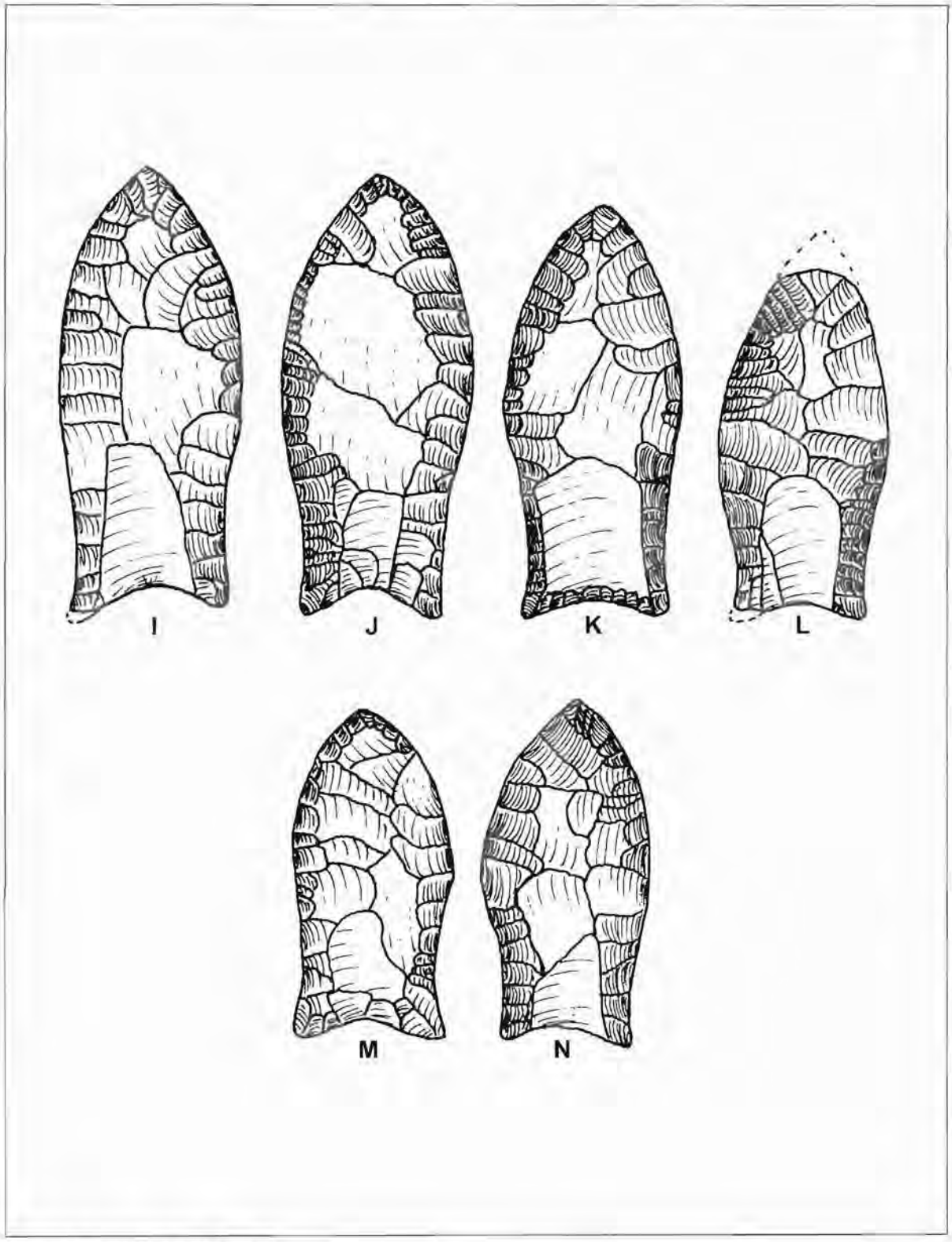

Figure 7. Clovis Group III Points.

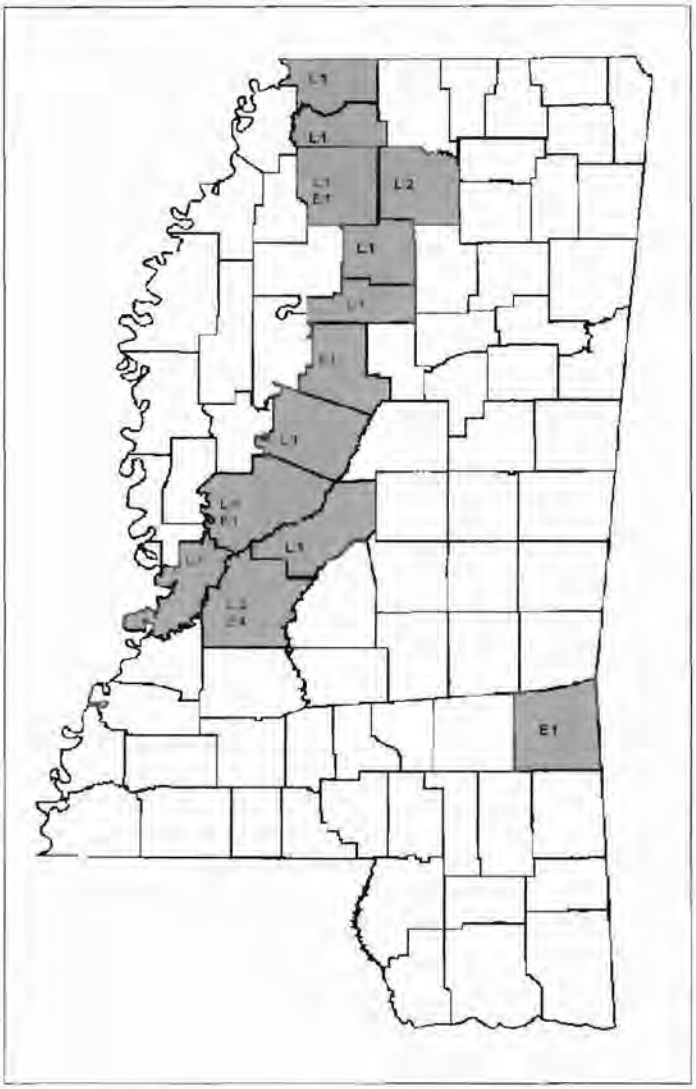

Figure 8. Known Distribution of Clovis Group III Points.L=local, E=exotic.

Cumberland (Lewis 1954)

Chronological Position: Although assumed to occur between 11,500 BP and 11,000 BP, most Cumberland points probably date closer to the latter.

Metric Data (12 specimens)
Average Length: 111 mm
Range of Length: 53-163 mm
Average Width: 26 mm
Range of Width: 12-35 mm
Average Thickness: 8 mm
Range of Thickness: 6-10 mm
Figures: 9, 10, and 11

Cumberland points seem to have evolved from the group three Clovis points discussed above. They appear to represent the earliest example in Mississippi of the regionalizing process which is thought to be a result of the continuing trend toward adapting to local environmental situations. Figure 11 reveals the distribution of those Cumberland specimens known from Mississippi to be almost exclusively from the northeast quarter of the state. The only specimen not from this northeastern sector is one from Panola County, in northwestern Mississippi. The type thus has a marked regional distribution. It is also invariably made of exotic material, usually blue-gray Fort Payne chert, Dover chert, or some other material from the Tennessee River area. Cumberland points are usually fully fluted on at least one face. They are ground on the basal and lateral edges. The original form of this type is significantly different from that of the Clovis type. It is usually a relatively long, narrow, waisted (recurvate) point with an acute distal end and occasionally exhibits fine serrations along the distal portions of the edges.The relatively greater length of flutes on the Cumberland type is probably accounted for by the deliberate choice of excellent quality raw material, a thick oval or diamond shaped cross section, and a well prepared median ridge, which effectively guided the flute toward the distal end. As is to be expected of Paleoindian projectile points, this type is exceptionally well made.

Figure 9A illustrates what is thought to be a Cumberland preform. Most of the recorded examples of Cumberland points considered in this study have been substantially altered from the original form. Two have been repointed in modern times. One of them, Figure 9D was resharpened at the distal end with a bench grinder. Figure 10G was repointed within the last few years using a more traditional percussion

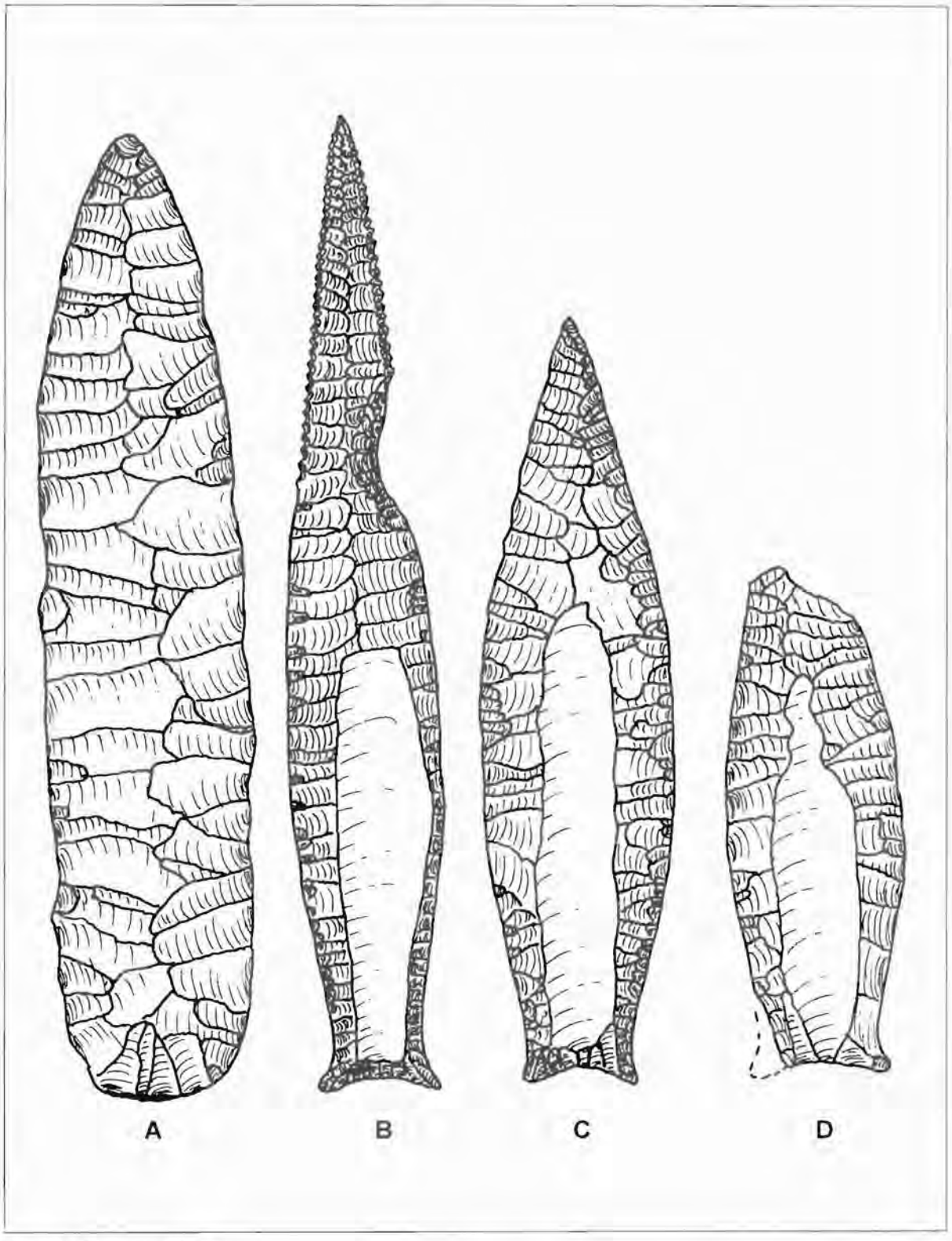

Figure 9. Cumberland Points.

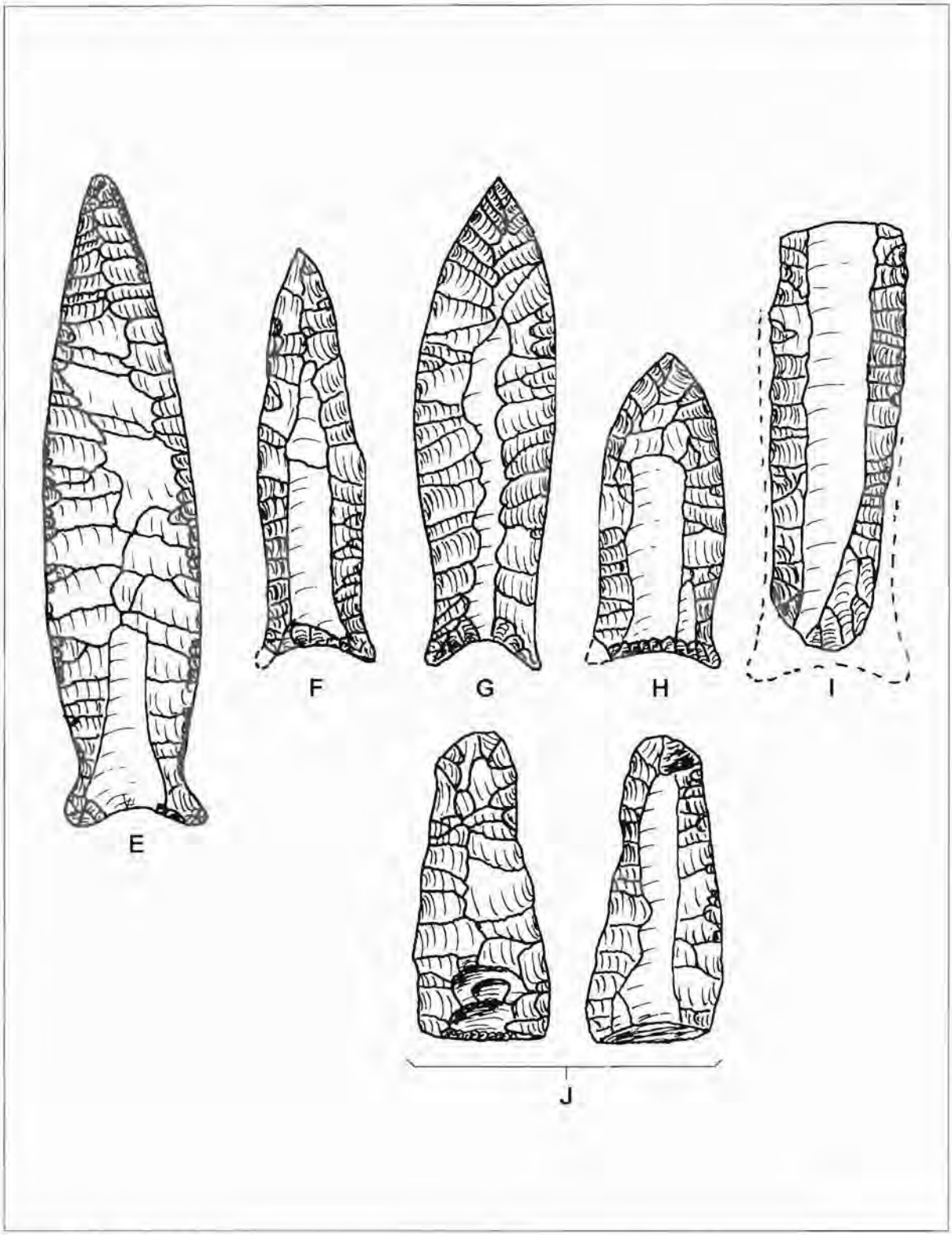

Figure 10. Cumberland Points.

flaking technique. Figure 10J has been used as a wedge, possibly in the Dalton period. Figure 10F has been subjected to use as a drill or reamer, thus narrowing the distal end. Figure 10I has been broken at near mid-point and the proximal end chipped away along with the basal and lateral grinding.

Middle Paleoindian Points (11,000-10,500 BP)

The projectile points made in this period exhibit what is thought to be evidence of a continuing adaptation to local environments. Locally available raw material is the rule and regional styles seem to have continued their proliferation. Technologically, the high standards of earlier knappers are maintained, although the fluting tradition is on the way out: basal thinning is no longer accomplished primarily by fluting. It is with this period that one begins to see a significant increase in the alteration of the original form of the projectile point as it is resharpened or recycled into another tool type such as side or end scrapers.

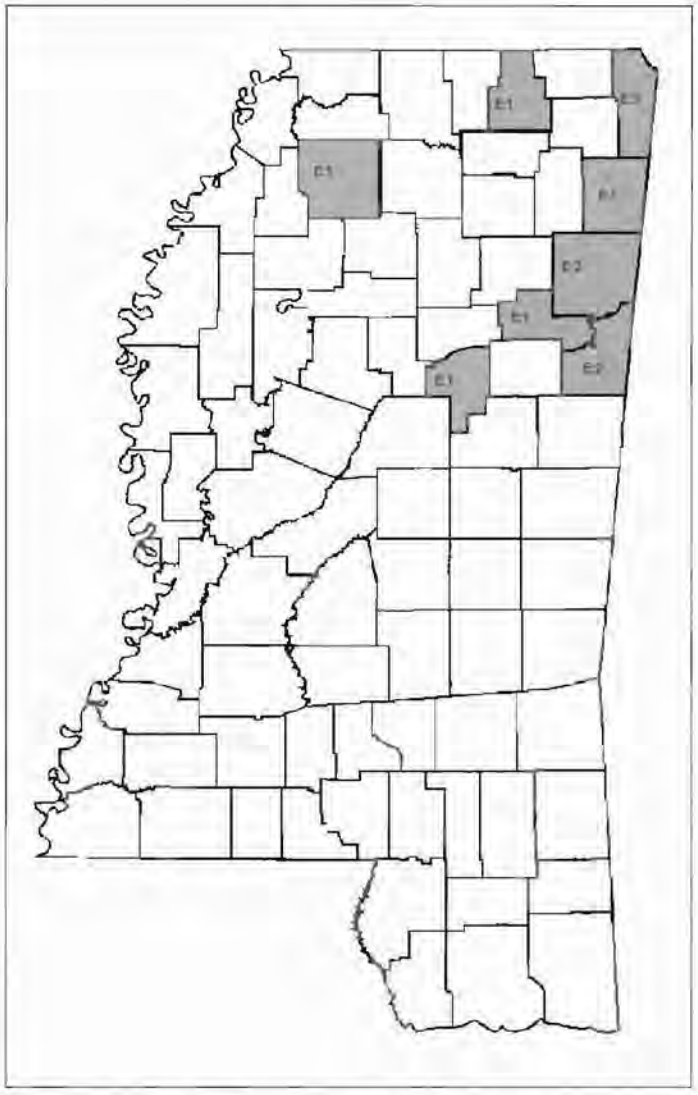

Figure 11. Known Distribution of Cumberland Points. L=local, E=exotic.

Beaver Lake (DeJarnette, Kurjack, and Cambron 1962)

Chronological Position: 11,000 BP to 10,500 BP

Metric Data (12 specimens)
- *Average Length*: 62 mm
- *Range of Length*: 37-91 mm
- *Average Width*: 26 mm
- *Range of Width*: 22-33 mm
- *Average Thickness*: 7 mm
- *Range of Thickness*: 5-10 mm

Figures: 12 and 13

This type, often thought of as an unfluted Cumberland variant, is much like the Cumberland in outline. The major difference between this type and Cumberland is that Beaver Lake is not fluted and is a

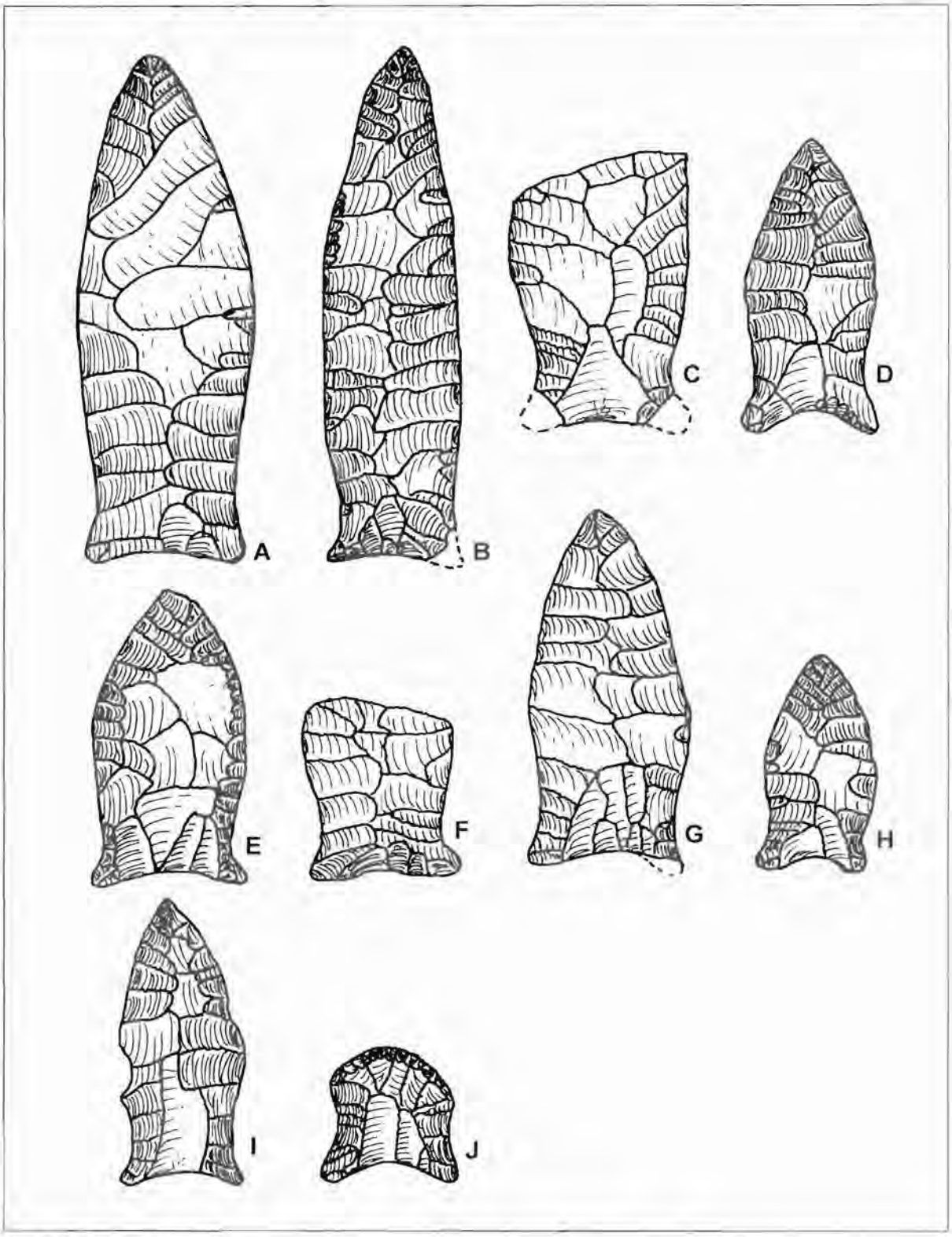

Figure 12. Beaver Lake Points.

thinner point. The type is much less likely to be made of an exotic material than is the Cumberland type. About sixty per cent of them (seven of the total of twelve) are of locally available raw material. The others are of Fort Payne chert or Dover chert. All of the recorded specimens are ground along the lateral and basal edges. They have slightly to moderately concave bases and exhibit well controlled flaking. Figure 12J illustrates an example which has been recycled into an end scraper. It seems possible that this specimen was reworked by later Early Archaic people, yet there is no differential patination on this point, which is made of Fort Payne chert and therefore could quite possibly show a contrast between worked surfaces of different ages. With one exception, the few specimens of the type recorded from Mississippi are from the northeast and north central part of the state. One specimen is from southwest Mississippi.

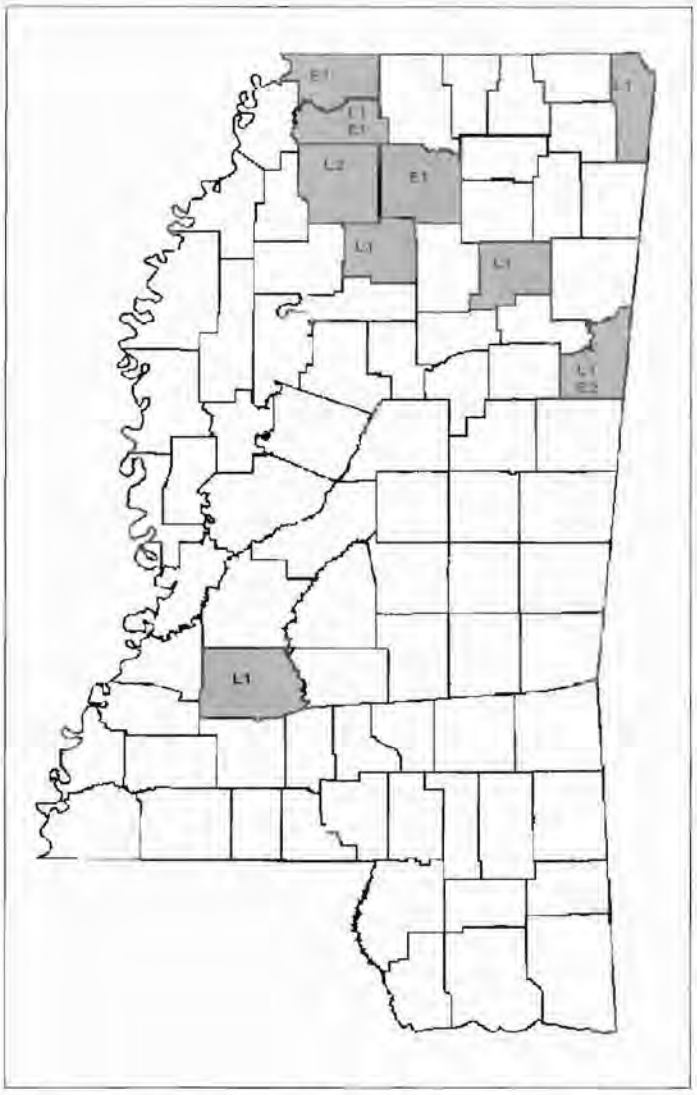

Figure 13. Known Distribution of Beaver Lake Points. L=local, E=exotic.

Quad (Soday 1954; Lewis 1960)

Chronological Position: 11,000-10,500 BP

Metric Data (78 specimens)
- *Average Length*: 50 mm
- *Range of Length*: 36-61 mm
- *Average Width*: 28 mm
- *Range of Width*: 21-34 mm
- *Average Thickness*: 6 mm
- *Range of Thickness*: 4-9 mm

Figures: 14 and 15

The Quad point is a medium sized lanceolate point which often has a strongly auriculated base which is usually deeply to moderately concave. The base and lateral margins are ground on completed specimens. The base is often the widest dimension of the point.

The Quad type in its classic form (Figure 14A-D) is well represented in that part of the Coldwater River drainage which is situated in the Loess Hills of northwest Mississippi and is also frequently seen in northeast Mississippi near the Tennessee and Tombigbee Rivers. It is recorded with much less frequency further to the south but does occasionally occur as far south as Hinds County in central Mississippi. The raw material from which these points are made is quite often blue-gray Fort Payne chert which is usually heavily

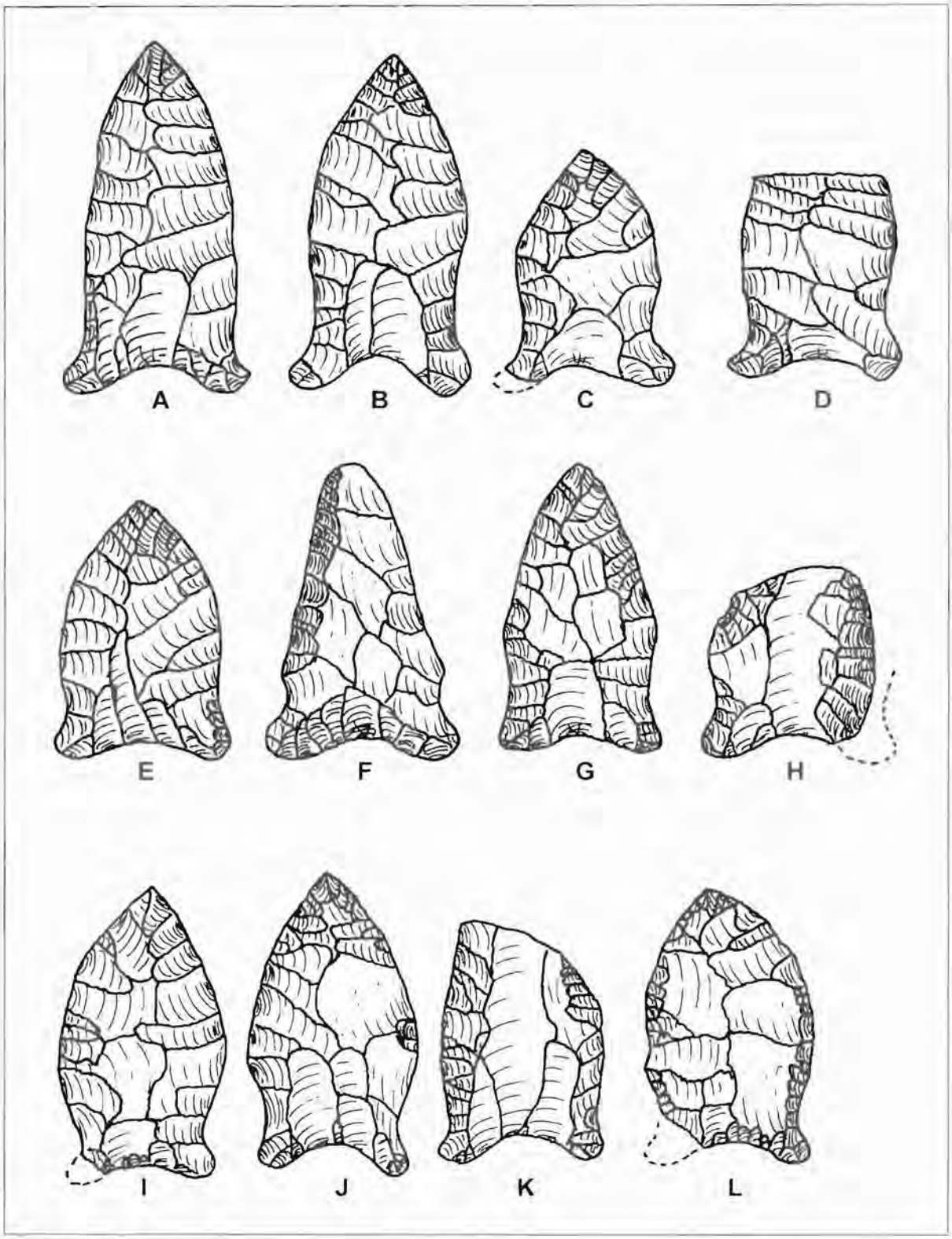

Figure 14. Quad Points.

patinated on specimens from Mississippi. The general trend is for points of exotic material such as Fort Payne chert to be found to the north and east. An exception to this general rule, however, is that of the Quad points found in the Coldwater River drainage of northwestern Mississippi. All that have been recorded there so far are of the locally available pre-loess gravel chert. This is apparently a local trend probably resulting from the abundance of the locally available material of acceptable quality.

Some specimens are fluted (Figures 14H and K). Fluted specimens are usually of Fort Payne Chert. Two specimens with beveled edges from resharpening have been recorded (Figure. 14F), and one (Figure. 14H) has been reworked into a side scraper. These alterations possibly represent the reuse of the older points by later Early Archaic individuals.

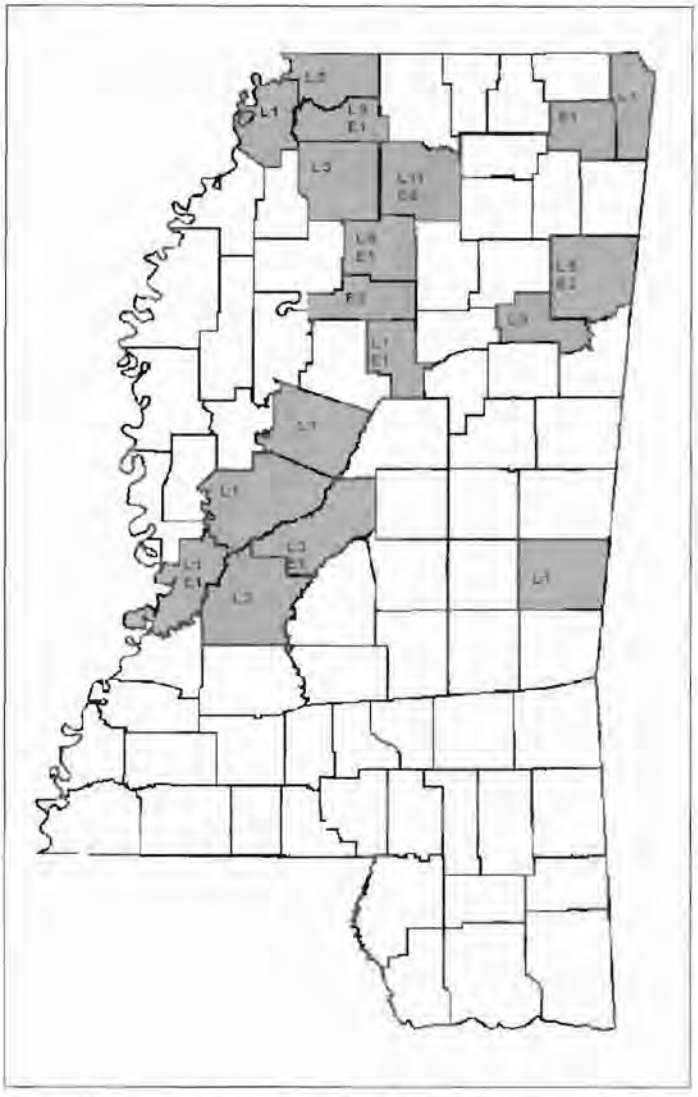

Figure 15. Known Distribution of Quad Points. L=local, E=exotic.

Coldwater (Brown 1926; McGahey 1981)

Chronological Position: 11,000-10,500 BP

Metric Data (124 specimens)
- *Average Length*: 51 mm
- *Range of Length*: 31-80 mm
- *Average Width*: 26 mm
- *Range of Width*: 20-40 mm
- *Average Thickness*: 6 mm
- *Range of Thickness*: 4-10 mm

Figures: 16, 17, and 18

Coldwater points are another example of the regionalizing of Middle and Late Paleoindian cultures. They are found primarily across northwest Mississippi and into adjacent parts of Arkansas, although they have also been recorded as far south as Hinds County in central Mississippi. Their distribution should also extend into western Tennessee, although we have no data on that at present. According to Perino (1991:52), they also have been recorded in Louisiana and Texas. With one exception, all recorded specimens from Mississippi are of locally available material, primarily of tan chert. One noteworthy example was made of dark gray, heat treated novaculite (Figure 16C). Many specimens exhibit reddened extremities such as distal ends and basal corners, a characteristic of an early form of heat treating.

Coldwater points have similarities to several other apparent Middle Paleoindian projectile point types. They are similar to Beaver Lake, Simpson, Pelican, and Hinds points. Their geographical distribution, on

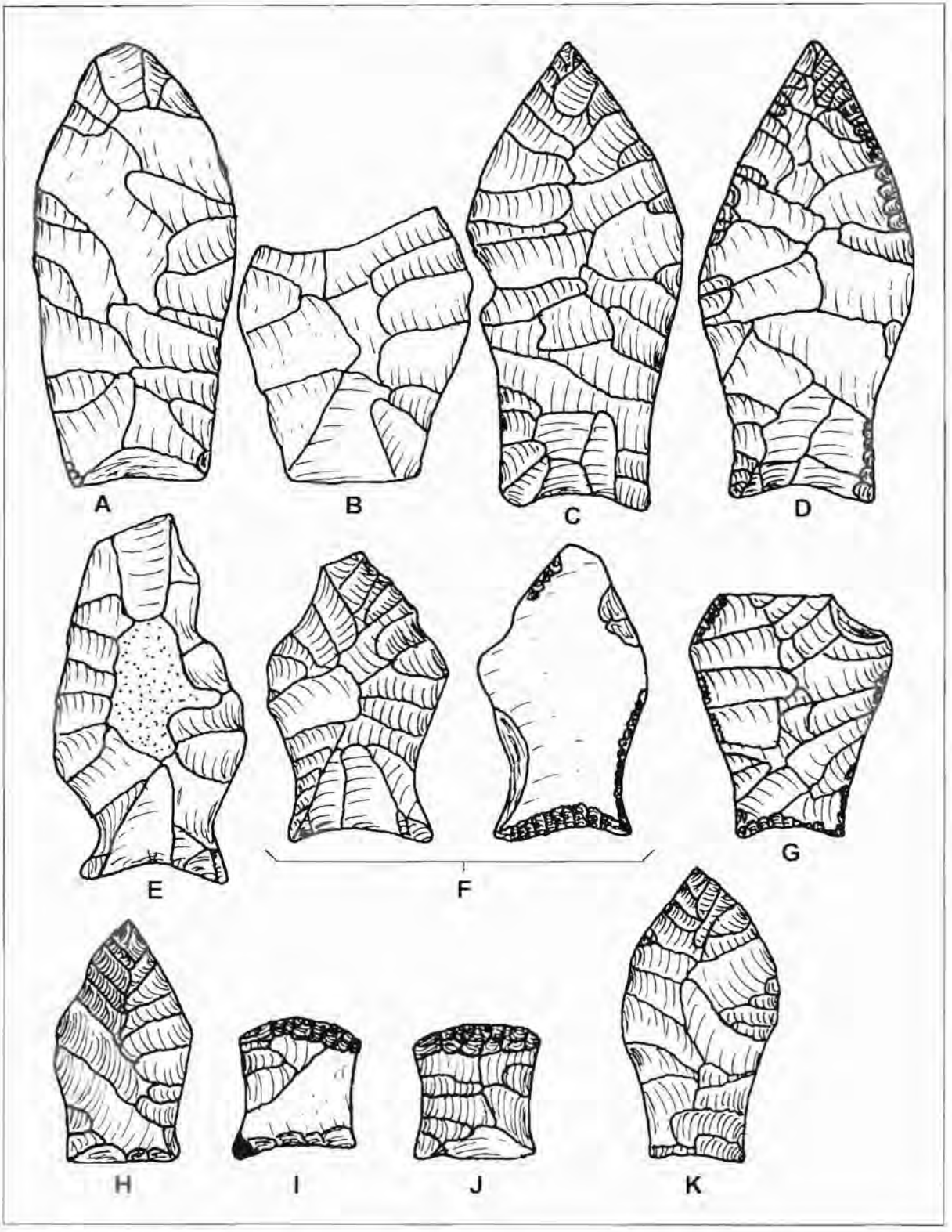

Figure 16. Coldwater Points

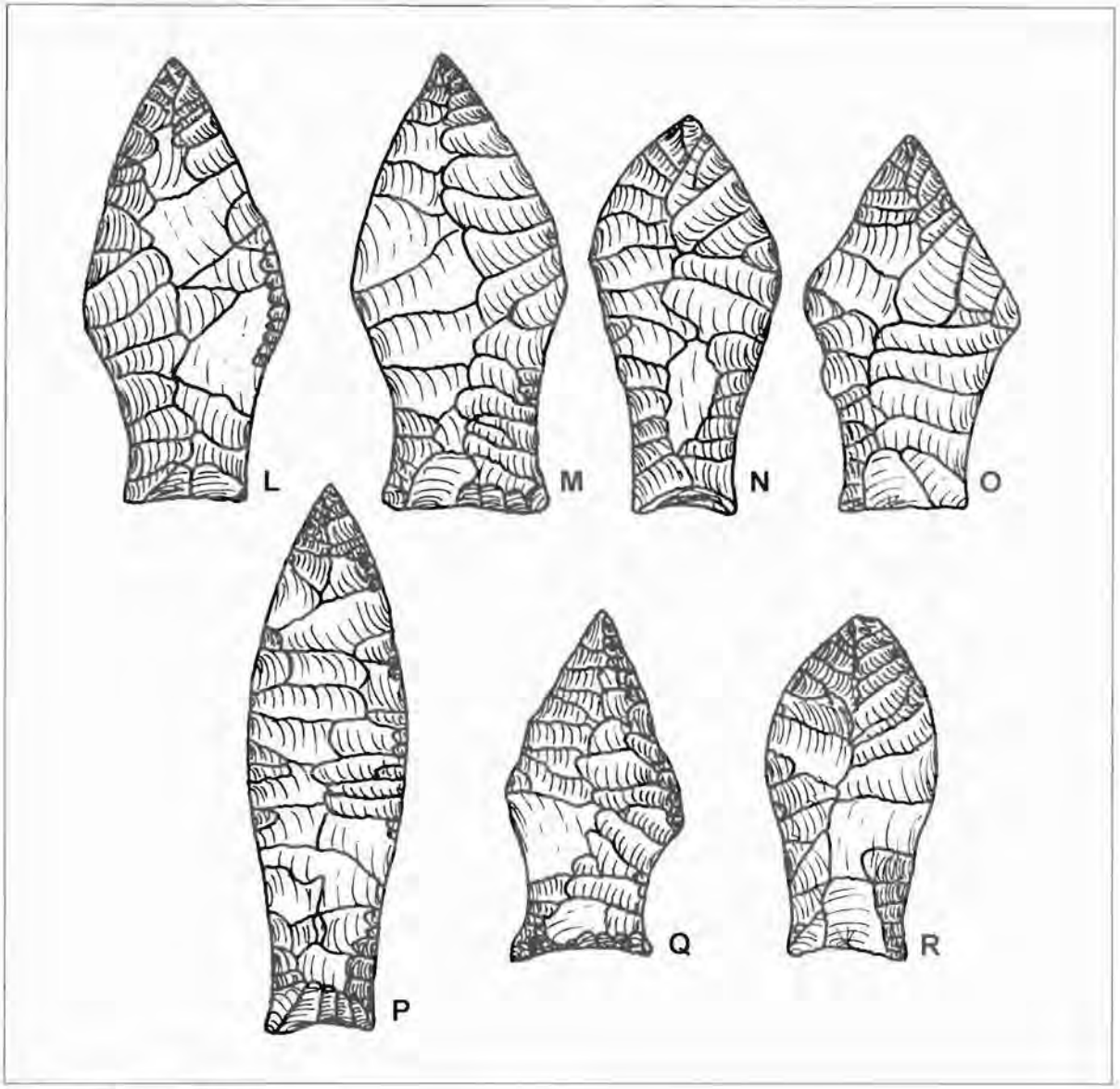

Figure 17. Coldwater Points.

the basis of currently available data, however, does not significantly overlap those of the other types. Preforms in various stages of completion are shown in Figure 16A, B, E, and F. Specimen F demonstrates that at least on some occasions these points were developed out of large flakes or blades. Specimen E (which exhibits gravel cortex), on the other hand, demonstrates that at least some of the time they may have been made from appropriately sized cobbles of river gravel where the unaltered cobble served as a core-preform. This was a commonly used technique in all subsequent periods in Mississippi. The Coldwater form is that of a fairly narrowly proportioned lanceolate point with a long hafting area which exhibits slightly concave edges. It has an acute distal end and a basal edge which may be straight but is usually slightly concave. The basal and lateral edges of the hafting area are ground. The cross section is relatively thin and flaking is usually well controlled and in many cases is parallel, apparently the result of pressure flaking. Rare ex-

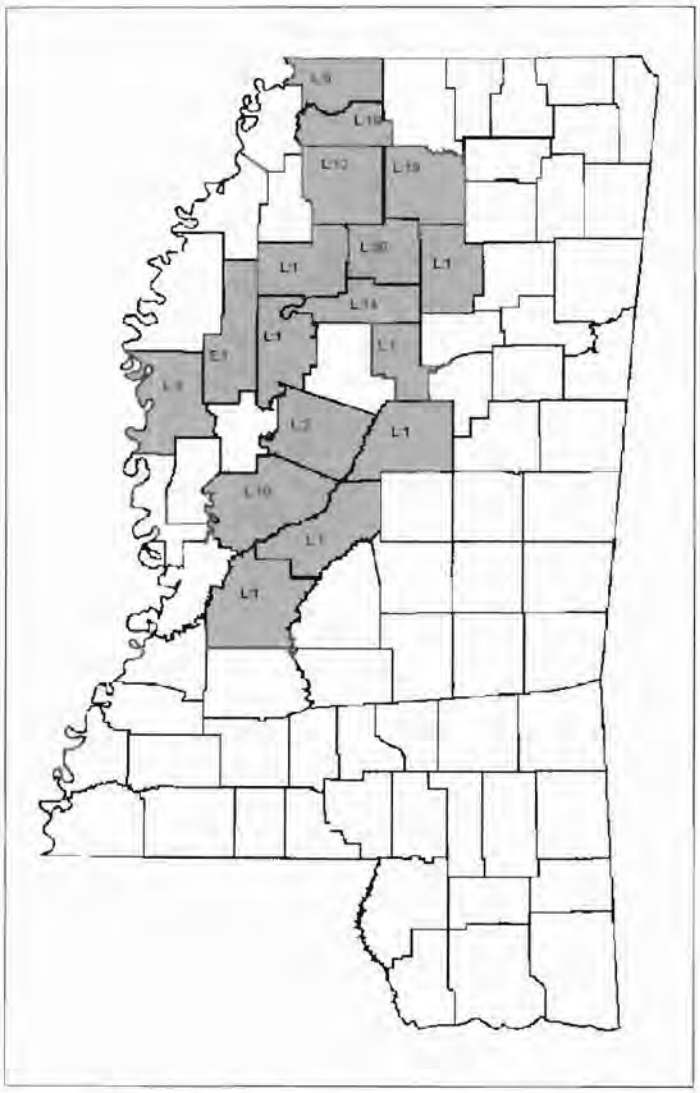

Figure 18. Known Distribution of Coldwater Points. L=local, E=exotic.

amples have been recycled into end scrapers, as is seen in Figure 16I and J. These alterations may have been done in the later Early Archaic period by individuals who found and reused the earlier points, or it may be evidence of the earliest examples of such recycling. A few supposedly later Dalton points exhibit the same type of alteration.

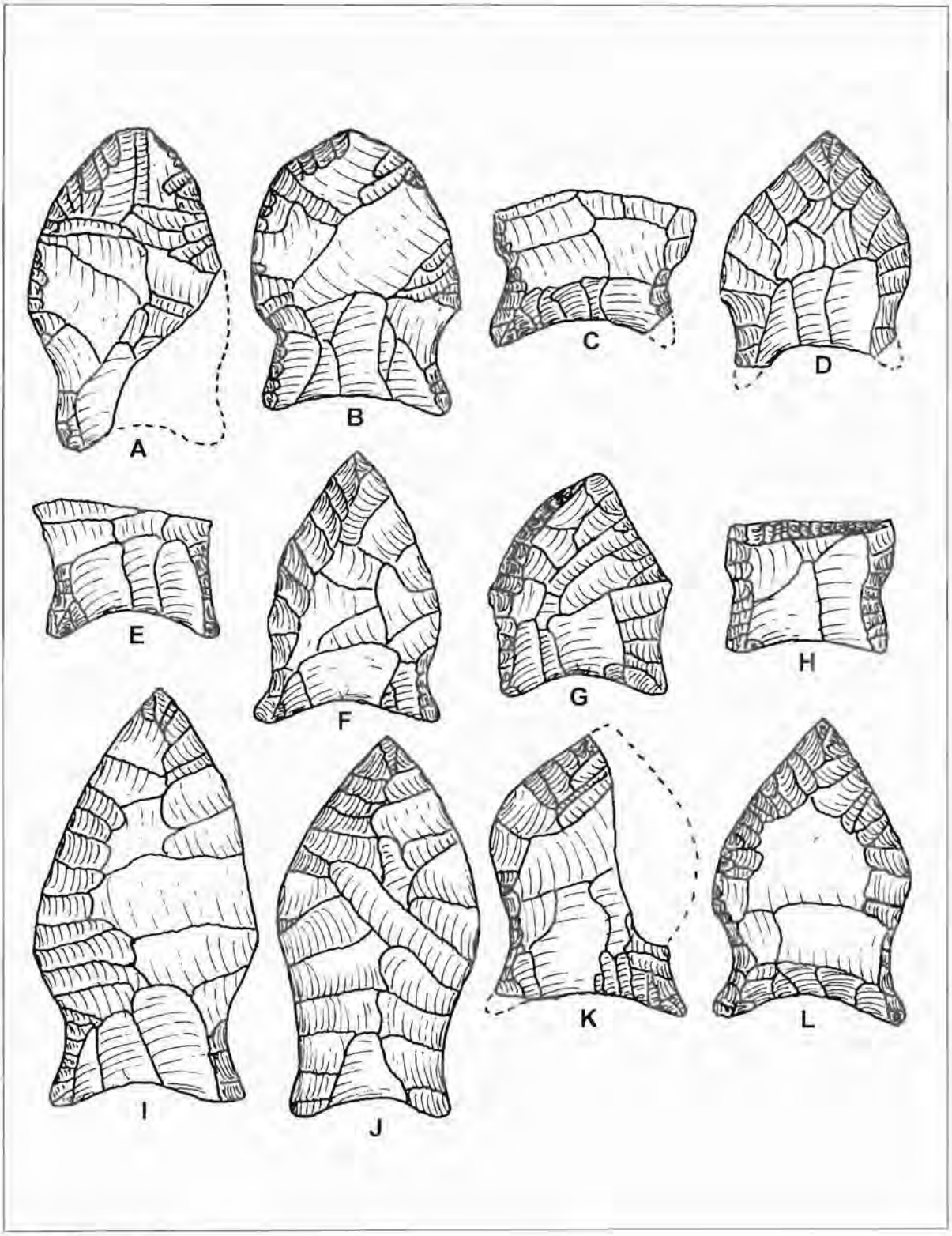

Figure 19. Hinds Points.

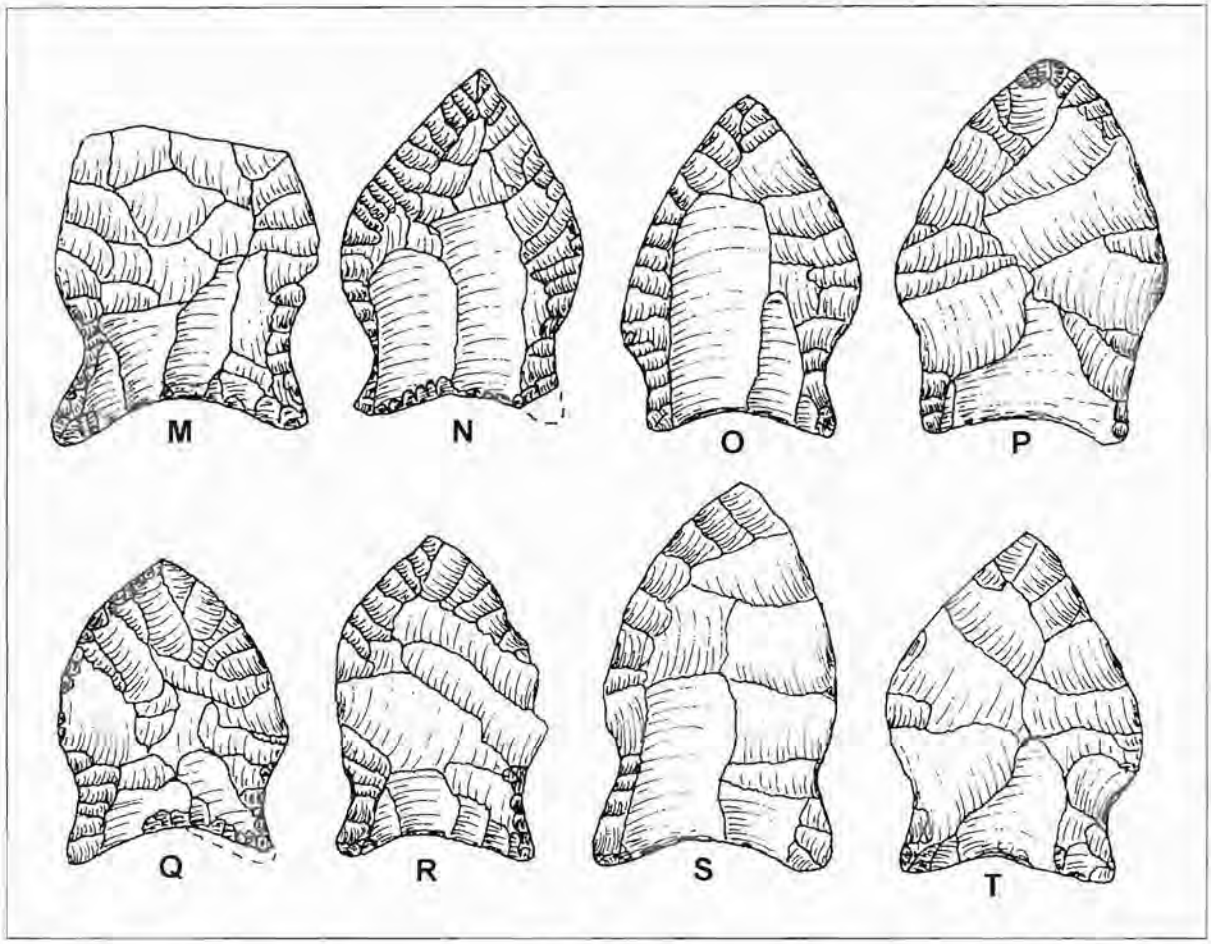

Figure 20. Hinds Points.

Hinds (McGahey 1981)

Chronological Position: 11,000-10,500 BP

Metric Data (66 specimens)
- *Average Length*: 49 mm
- *Range of Length*: 35-72 mm
- *Average Width*: 31 mm
- *Range of Width*: 23-38 mm
- *Average Thickness*: 6 mm
- *Range of thickness*: 4-8 mm

Figures: 19, 20, and 21

Hinds points are found almost exclusively in west-central and southwest Mississippi. Based on currently available data, they are made almost exclusively of locally available raw material, predominantly tan chert with one example of coastal plain agate. Many examples exhibit reddened extremities suggestive of heat treating.

Hinds points resemble Quad, Coldwater, and Pelican points, but there is very little overlap in their geographical distributions. Hinds points are generally relatively short, stubby points, which in many if not most cases appear to have been much longer originally. The original appearance of unaltered specimens is probably represented by specimens I and J of Figure 19. Specimen A of Figure 19 is an obvious late stage preform for the type. The basic point outline is lanceolate with a moderately concave base. Many have a definitely demarcated hafting area which approaches the form of a stem. (Figure 19B, C, H, and Figure 20P). All Hinds points are well made with basal grinding and lateral grinding along the hafting area margins. Some specimens, such as Figure 20N, O, and S, are fluted. All are well thinned from the base and have a high width to thickness ratio.

One specimen (Figure 19G) is beveled on one side of each face. It is not known if this resharpening was done during later Early Archaic times by an individual who found and reused an earlier tool. Another specimen (Figure 19H) exhibits evidence of use as a wedge, probably for splitting bone or antler. This use may have resulted in the small hinge flakes removed from the broken distal portion of the point.

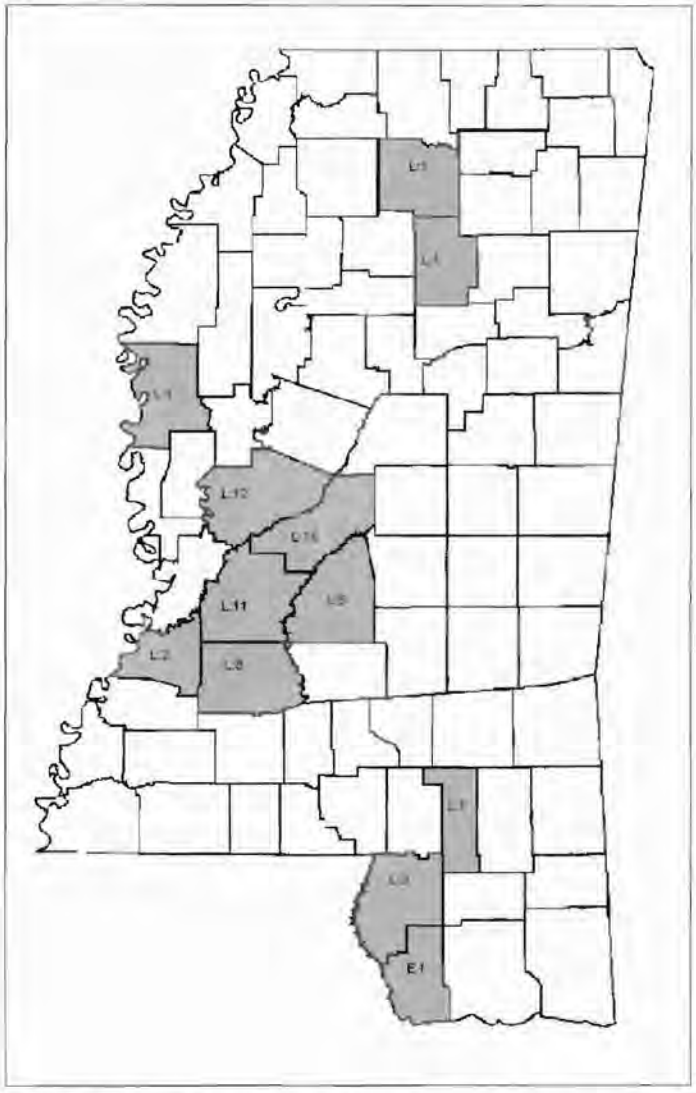

Figure 21. Known Distribution of Hinds Points. L=local, E=exotic.

Arkabutla (McGahey 1981)

Chronological Position: 11,000-10,500 BP

Metric Data (9 specimens)
Average Length: 47 mm
Range of Length: 40-60 mm
Average Width: 25 mm
Range of Width: 23-27 mm
Average Thickness: 6 mm
Range of Thickness: 5-7 mm
Figures: 22 and 23

Arkabutla points (McGahey: 1981:41) form a little known type with a recorded sample size of only nine. Their geographical distribution with one exception is northwest Mississippi. The raw material is primarily locally available gravel chert. Coincidentally, the geographical exception is also the raw material exception. One specimen found in Lamar County is made of blue-gray Fort Payne chert. It seems likely

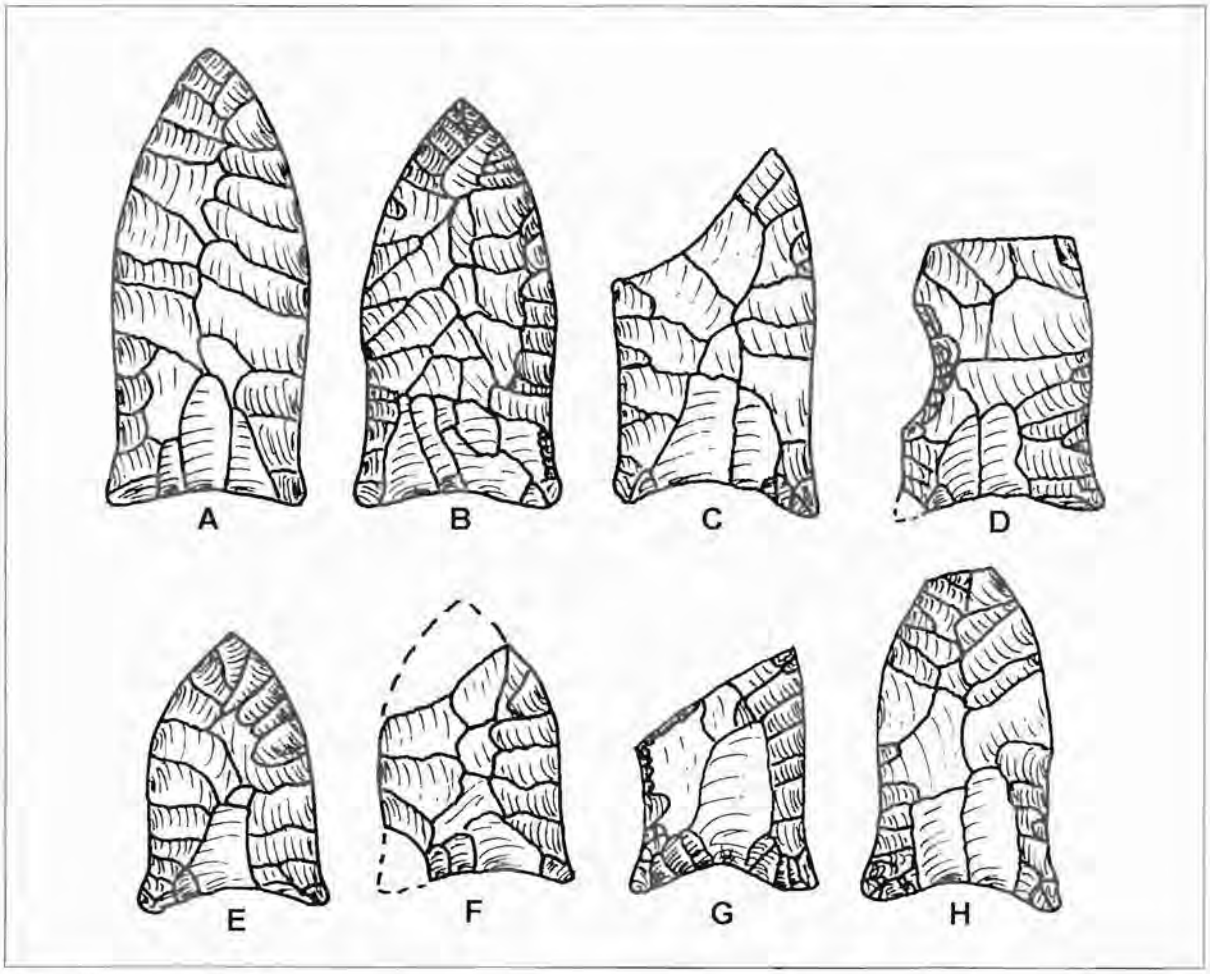

Figure 22. Arkabutla Points.

that there are other specimens of this type in western Tennessee, although we have no data at present to confirm that assumption. Arkabutla points resemble Quad points and may in fact be a variant of that type. The primary differences are that Quad points have more prominent auricles. They also generally have more deeply concave bases. Arkabutla points have similar flaking patterns and width-thickness ratios to the Quad type. The basal and lateral edges of hafting areas are ground. One specimen (Figure 22D) has one edge unifacially reworked into a "spokeshave."

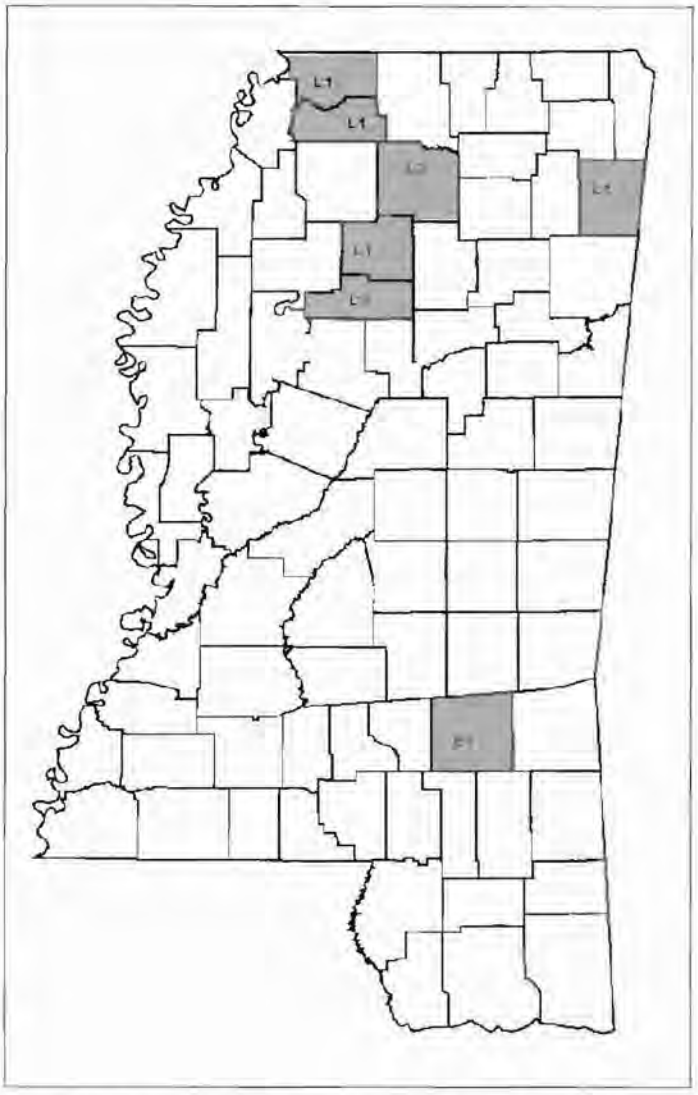

Figure 23. Known Distribution of Arkabutla Points. L=local, E=exotic.

Late Paleoindian (10,500-9,900 BP)

All diagnostic bifaces of the Late Paleoindian period that have been recorded in Mississippi are thought to be ultimately derived from the Dalton Point (Chapman: 1948). Included in this "super-category" are forms which may be variously classified as Hardaway or San Patrice. It seems apparent that Dalton, Hardaway, and San Patrice all evolved into side-notched forms and that they are regional variants of the same type. In the case of Hardaway, there has been a formal recognition of this with the naming of "Hardaway Side-notched" (Coe 1964:67). San Patrice, *varieties St. Johns* (Duffield 1963), *Keithville* (Perino 1985:339) and *Leaf River* (Giliberti 1995:75; Geiger 1980:16) are the side notched varieties of San Patrice. Within the Dalton type there has also been formal recognition of its side-notched offspring. Jeffrey Brain (1971:17) named *variety Carl*, a side-notched form. Ensor (1981:101) named a Hardaway side notched variant Hardaway *variety River Bend*. In a later paper (1985:22) he renamed the same variant the *River Bend* variety of Dalton. There has also been a formal acknowledgment of the existence of such a variant for Dalton at the Hester site (Brookes 1979:103-104). The Hester site excavation demonstrated the contemporaneity of the Dalton lanceolate and side-notched variants, at least at that site. There were several instances where both forms lay together as if left in working areas by one individual at the same time (Brookes field notes from 1978 excavation).

The major technological difference setting the late Paleoindian or Dalton period apart from earlier Paleoindian groups is the innovation of serrating the projectile point/knives. Whereas there were earlier examples of limited serrations, for instance on certain of the Cumberland points, it is believed that every

Dalton point was serrated before use. The addition of serrations would not add any known advantage to a projectile point. It would, however, enhance the efficiency of the tool as a knife. According to Goodyear (1974:26) the most likely function of the serrations was for sawing or cutting antler and bone. The serrations, haft polish from the movement of the point within a haft, and other considerations cited by Goodyear make a convincing case for the heavy use of Dalton points as knives in northeast Arkansas (1974: 26, 32 and 33). This is not, however, taken as an indication that they were not also used to tip projectiles. Impact scars are cited as evidence of their possible alternate use as projectile points (Goodyear 1974:32). End scrapers positioned on the distal ends of projectile points are seen on rare occasions in the terminal Paleoindian period (Figure 26 TT-WW). This mode of recycling, which may have begun with the probably slightly earlier Coldwater and Beaver Lake points, gains popularity in the following Early Archaic period and then mysteriously almost totally disappears in subsequent periods in Mississippi.

The addition of the smooth sided adze to the tool inventory in the Dalton period was accomplished in Arkansas, and it may have also have become a part of Dalton tool complexes in Mississippi, but there is no *in situ* evidence supporting such a conclusion at present, though there was an overall quickening of technological innovation during this period.

Lanceolate Dalton (Chapman 1948)
Chronological Position: 10,500-9,900 BP

Metric Data (293 specimens)
Average Length: 46 mm
Range of Length: 23-75 mm
Average Width: 23 mm
Range of Width: 16-33 mm
Average Thickness: 6 mm
Range of Thickness: 3-9 mm
Figures: 24, 25, 26, and 27

The Lanceolate Dalton point is a relatively thin, well made tool with a concave base and basal thinning or fluting in some instances. It exhibits ground basal and lateral edges. It is usually serrated, and all specimens may have originally been serrated, since those examples that do not exhibit serrations probably had them broken off as the tool was used. Most Dalton points of all varieties were resharpened several times before being discarded, broken, and recycled into another tool form or lost.

The lanceolate Dalton point in some form is known from all parts of the state of Mississippi. It is much more common in the northern half of the state, however. One variation, which is right-hand beveled, seems peculiarly restricted to the western, Pleistocene era braided stream surface of the Yazoo Basin and is very much like Dalton points from northeast Arkansas. Various subdivisions of the lanceolate version of the Dalton type have been made by investigators in Alabama. The Stanfield-Worley Bluff Shelter report illustrates three forms, Nuckolls, Greenbrier, and Colbert; all are given type status (DeJarnette et al.1962). Ensor, working in the Gainesville reservoir area of west-central Alabama, names another form, Dalton, *variety Cochrane* (1981:102). It is uncertain at this point if these divisions are valid in Mississippi, and while the various forms seem to be represented, they may actually represent arbitrarily selected parts of a morphological continuum. They have therefore not been considered separately.

Figure 24A-O probably represent the initial or near initial stage of Dalton points. The pre-serration form probably was Coldwater-like in many cases. As resharpening occurred, the blade widths of points

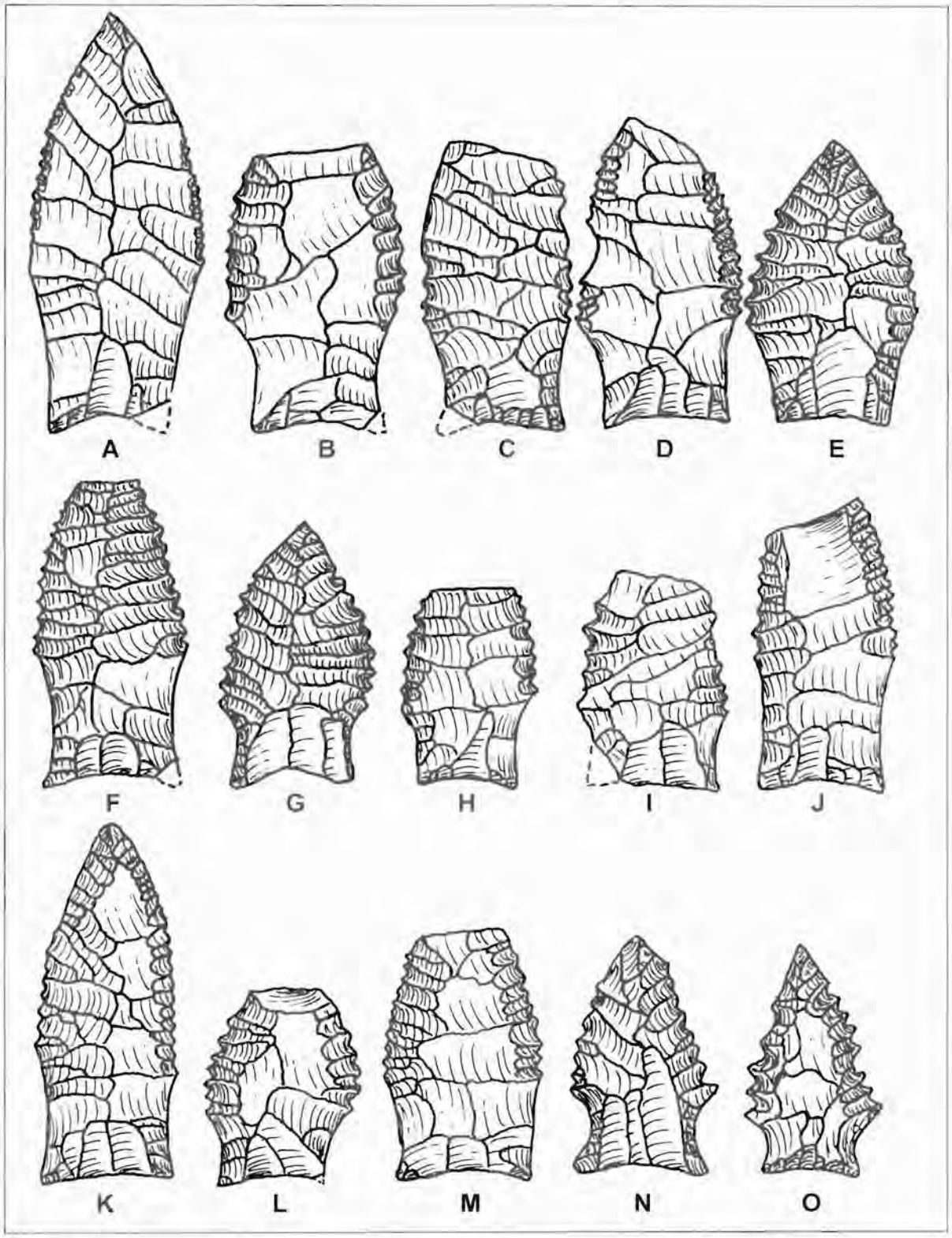

Figure 24. Lanceolate Dalton Points.

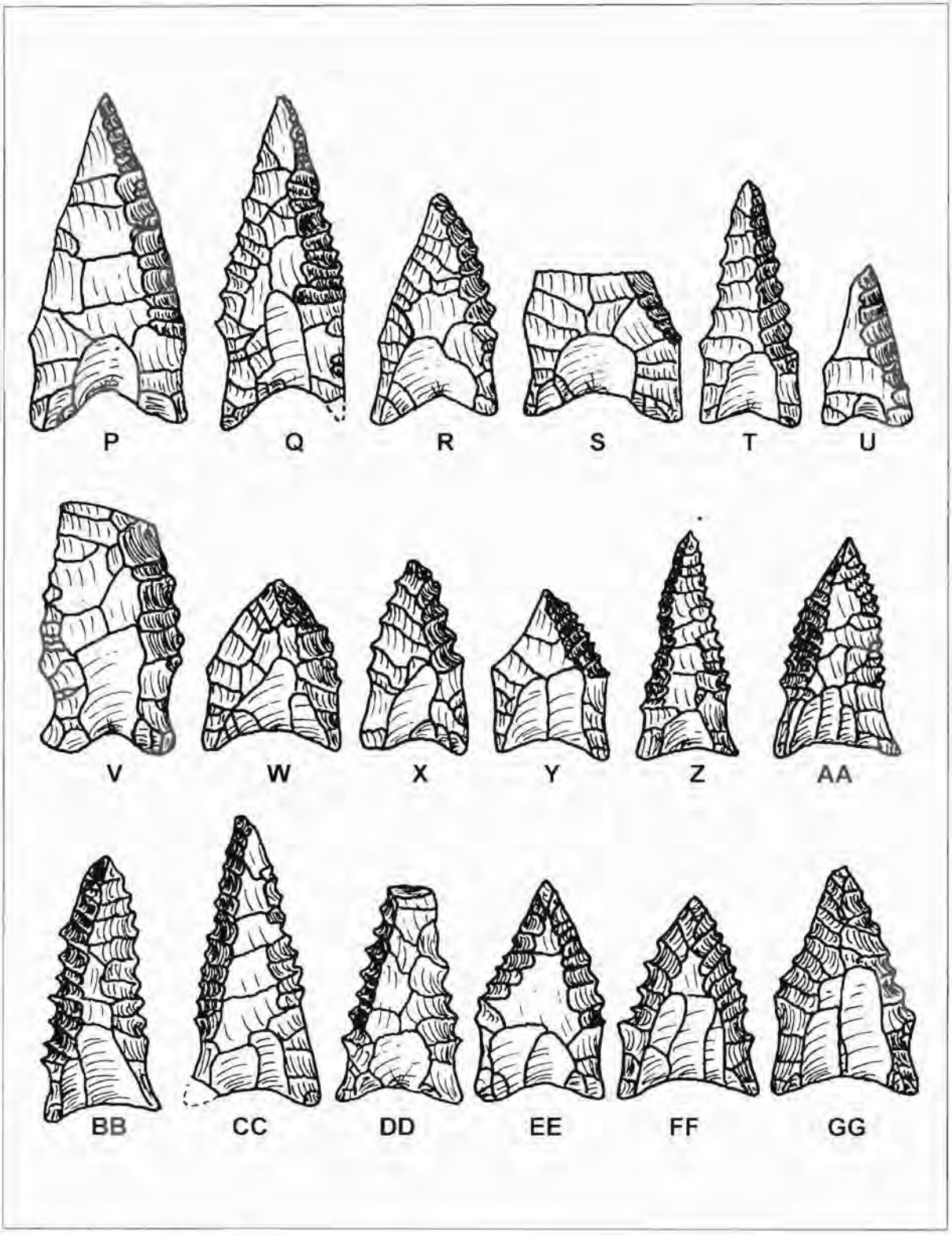

Figure 25. Lanceolate Dalton Points.

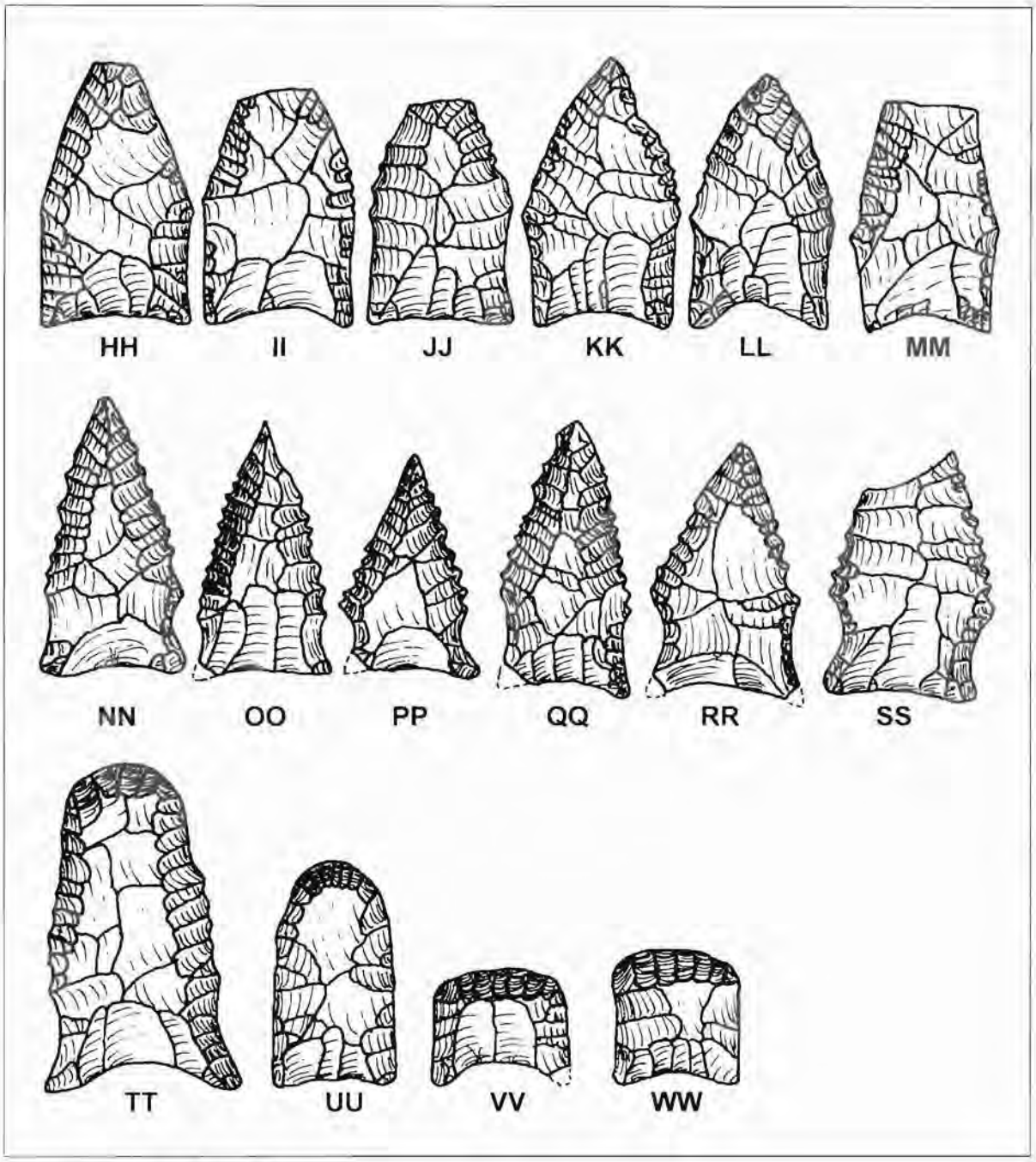

Figure 26. Lanceolate Dalton Points.

decreased. Much resharpening was done unifacially, which results in beveled edges such as are seen in Figure 25P-DD and 26OO. Other specimens were bifacially resharpened as is seen in Figure 25EE-GG and Figure 26NN and PP-TT. Dalton points are the first type on which beveling was largely used for resharpening. Dalton is the only type found in Mississippi which includes a large percentage of right-hand beveled specimens.

Raw materials used for the manufacture of Dalton points in Mississippi are predominantly local, primarily tan gravel chert. There are minorities of exotic materials such as Fort Payne chert from north Alabama and rarely such material as Pitkin chert from northwest Arkansas. There is frequent evidence of the use of heat treating at this time, the most common indication being a reddening of the tan or brown colored cherts at the basal corners or distal ends. This phenomenon is thought to be the result of attempting to retain as much of the length as possible of a preform which because of the nature of the heat treating and/or the inherent properties of the raw material, originally had a shallow red layer on its exterior. Greater care was taken as the knapper worked each end of the preform not to remove any more of its length than was absolutely necessary (Collins 1984:11).

For the first time during the Dalton period there was a type of heat treating which turned the gravel chert from tan to pink or red throughout, an innovation which rapidly became the norm in northeast Mississippi in the following Early Archaic period

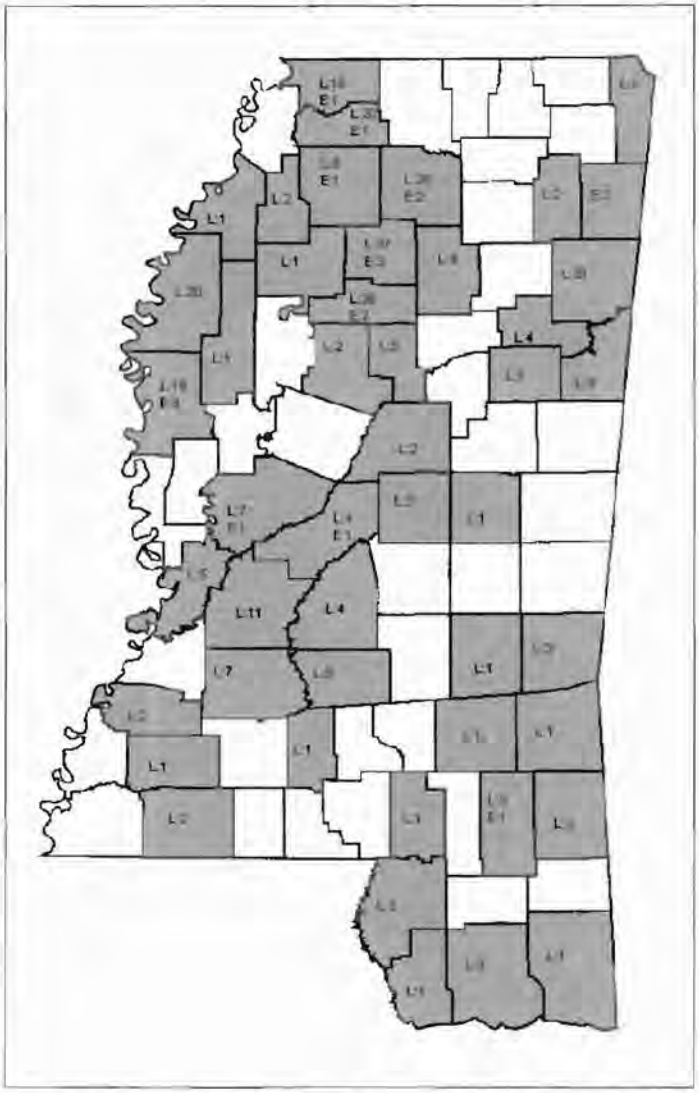

Figure 27. Known Distribution of Lanceolate Dalton Points. L=local, E=exotic.

Side-Notched Dalton

Chronological Position: 10,000-9,500 BP

Metric Data (237 specimens)

Average Length: 40 mm

Range of Length: 25-90 mm

Average Width: 25 mm

Range of Width: 20-35 mm

Average Thickness: 5 mm

Range of Thickness: 3-10 mm

Figures: 28, 29 and 30

The side-notched Dalton point, like the presumably slightly earlier lanceolate version of the type, is found over the whole state of Mississippi, but is much more common in the southern half of the state, where it together with the closely related San Patrice represent the most numerous early lithic tool form. As was stated previously, there are two formally named side-notched Dalton forms, Dalton *variety Carl*, named by Brain (1971) for specimens which he recorded in the Yazoo Basin (Figure 28A-D), and Dalton

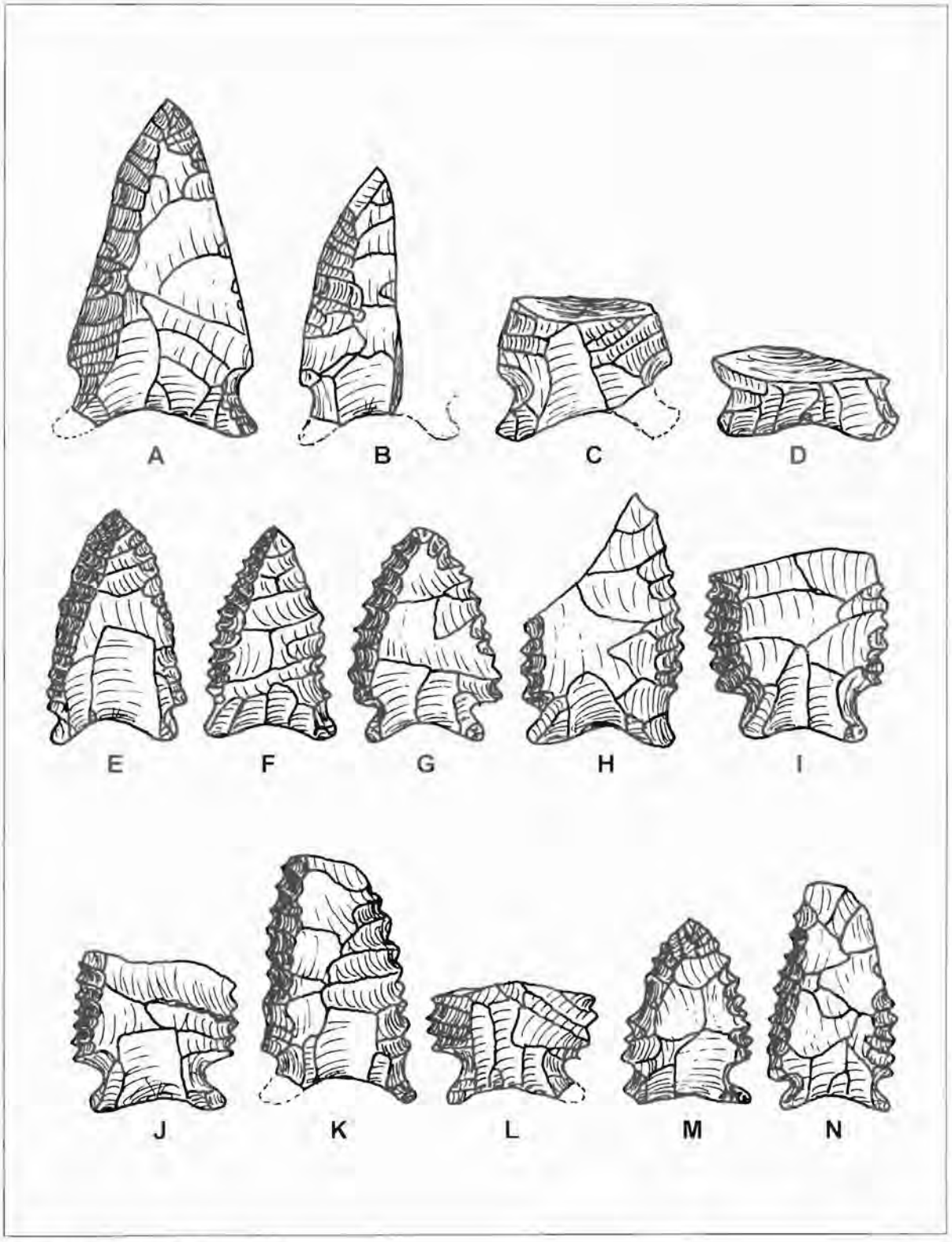

Figure 28. Side-notched Dalton Points.

variety River Bend named by Ensor (1981) from data on points in Alabama. Most of the side notched Dalton forms in Mississippi appear to be *variety River Bend* (Figure 29O-Y).

The raw material is almost exclusively of local gravel chert. It is commonly heat treated, but with the exception of a few specimens from the northeastern part of the state, the heat treating was not of the kind discussed above which resulted in a complete color change from the basic tan color of the gravel chert to reds or pinks. It is assumed that just as with the lanceolate Dalton points, the original form of the side-notched variants exhibited serrations along the blade. In many of the side-notched specimens, especially those from north Mississippi, one side of each face is steeply beveled, probably from the resharpening process. The bases and notches are generally heavily ground and well thinned or fluted.

It would appear that if numbers of projectile points can be equated in any way with the size of the human population, this period saw the heaviest human population of the Paleoindian-Early Archaic era in South Mississippi.

San Patrice (Webb 1946)

The San Patrice point was named by Clarence H. Webb (1946). There are four established varieties, *variety Hope, variety St.Johns* (Duffield 1963), *variety Keithville* (Perino 1985:339) and *variety Leaf River* (Geiger 1980:16). The specimens so far classified in Mississippi are almost always either of the *St. Johns* or *Leaf River* variety. Brain illustrates three examples of *variety Hope* (a lanceolate form) from a site in the western Yazoo Basin and classifies them as Dalton, *variety San Patrice* (1971:17). The differences between the San Patrtice and the side-notched Dalton points are slight in many cases, causing some difficulties in

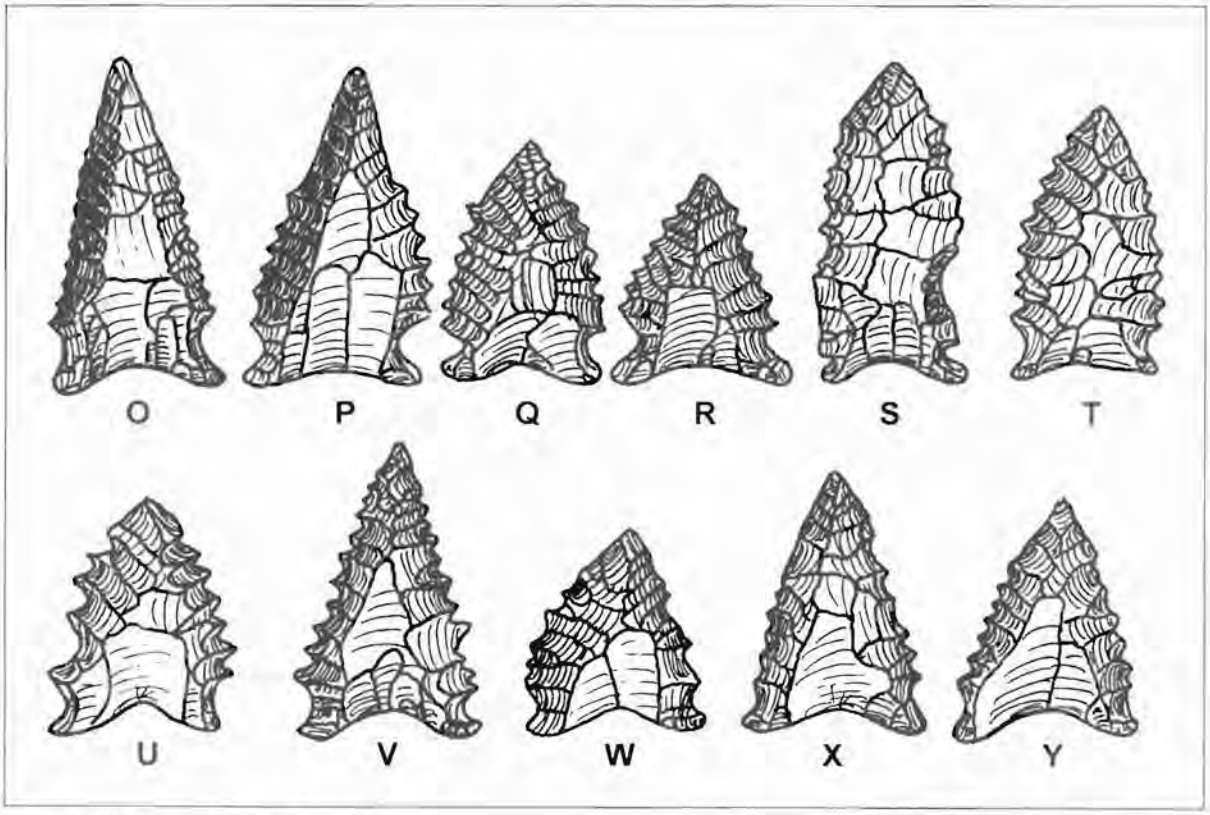

Figure 29. Side-notched Dalton Points.

sorting one type from the other. This difficulty may well indicate a merging of the Dalton and San Patrice traditions in central and south Mississippi. There are several major differences used in sorting examples considered in this study. The basal area of the San Patrice tends to have outturned auricles such as are seen on Hardaway side-notched points. They are usually widest at about mid point and seem to have a slightly greater tendency to be fluted. They are actually corner-notched in many instances, especially in the variety *Leaf River*, and frequently have bases which are narrower than the shoulder area. They also rarely if ever exhibit pronounced beveling from resharpening, while the side-notched Daltons, especially those in the northern part of the state, are frequently treated in that manner. San Patrice points are invariably made from materials which were either locally available or could be found in a nearby area. They are primarily of tan, gravel chert, commonly heat treated and as with Dalton points, the color was frequently altered to reds or pinks on either or both ends. A few, mostly in areas near the Tallahatta Formation, were made of Tallahatta Quartzite.

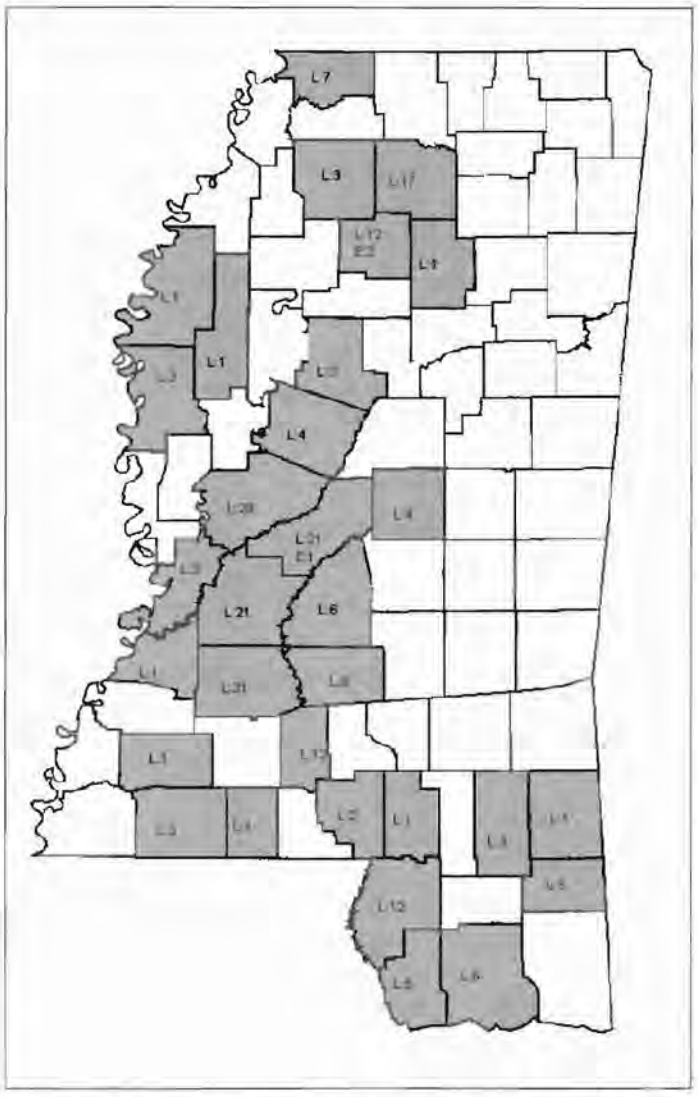

Figure 30. Known Distribution of Side-notched Dalton Points. L=local, E=exotic.

San Patrice, *var. St. Johns*
(Duffield 1963:91-95)
Chronological Position: 10,000-9,500 BP

Metric Data (95 specimens)
Average Length: 40 mm
Range of Length: 25-61 mm
Average Width: 25 mm
Range of Width: 17-32 mm
Average Thickness: 5 mm
Range of Thickness: 3-8 mm
Figures: 31 and 32

Specimens of this variety are basically small, thin, and well made. They are often fluted and in some instances fully fluted. The basal thinning, however, usually takes the form of multiple thinning flakes.

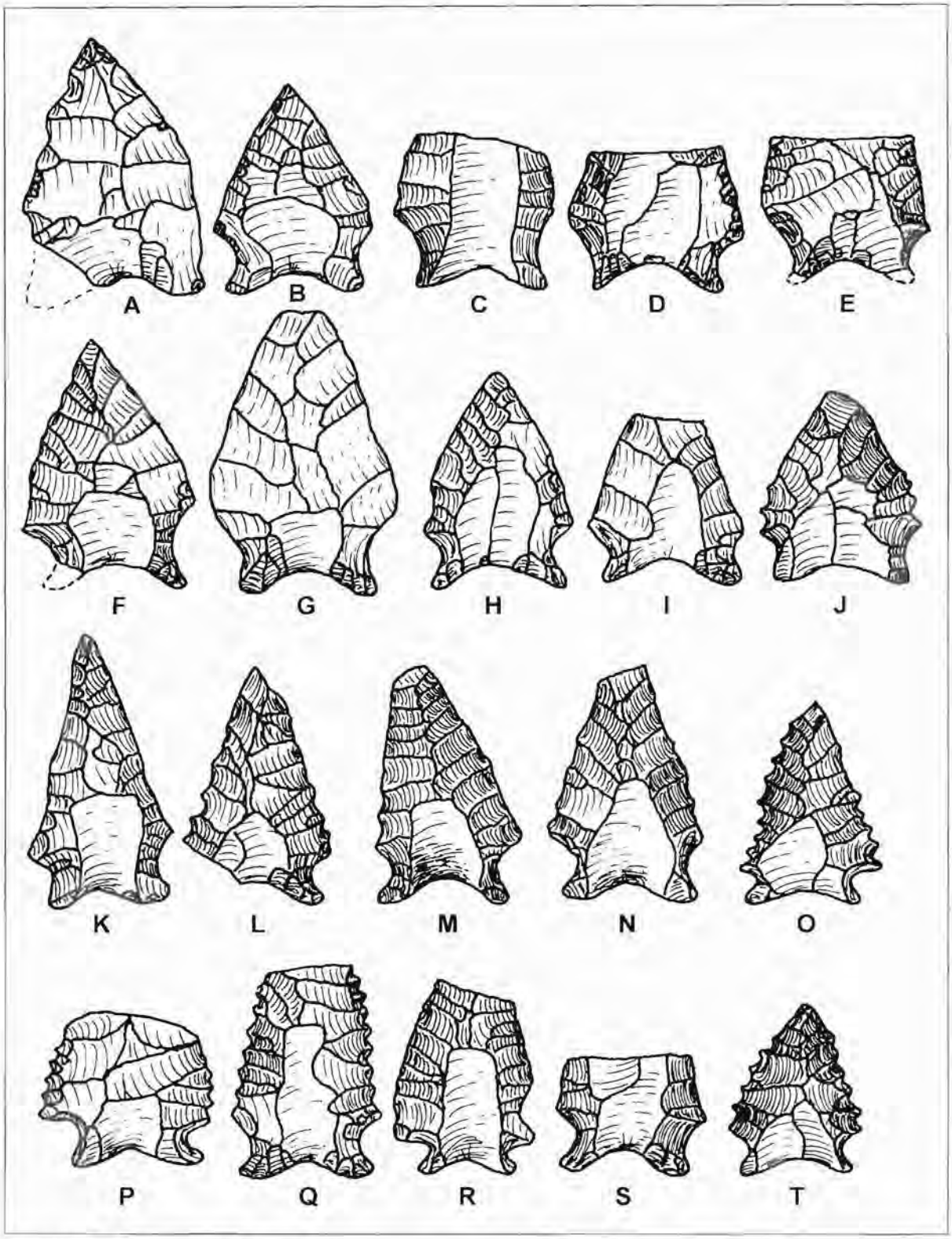

Figure 31. San Patrice, var. St. Johns *Points*

Bases are concave and basal edges and notches are ground on finished examples. Specimen A of Figure 31 is a preform. The raw material, as with the other side-notched varieties of this period, is almost always tan gravel chert from local or nearby sources.

The major difference between the *variety St. Johns* specimens recorded in Mississippi and those described and illustrated by Clarence Webb, from the John Pierce site in Louisiana (Webb et al. 1971:14) and those specimens illustrated by Perino (1985:338) is that serrations on Mississippi specimens are common, and apparently they are nonexistent in Louisiana. Examples of the type from Mississippi are primarily from the southern and southwestern part of the state.

San Patrice, *var. Leaf River* (Geiger 1980. Gililberti 1995)

Chronological Position: 10,000-9,500 BP

Metric Data (47 specimens)
- *Average Length*: 35 mm
- *Range of Length*: 25-53 mm
- *Average Width*: 22 mm
- *Range of Width*: 15-32 mm
- *Average Thickness*: 5 mm
- *Range of Thickness*: 3-8 mm

Figures: 33 and 34

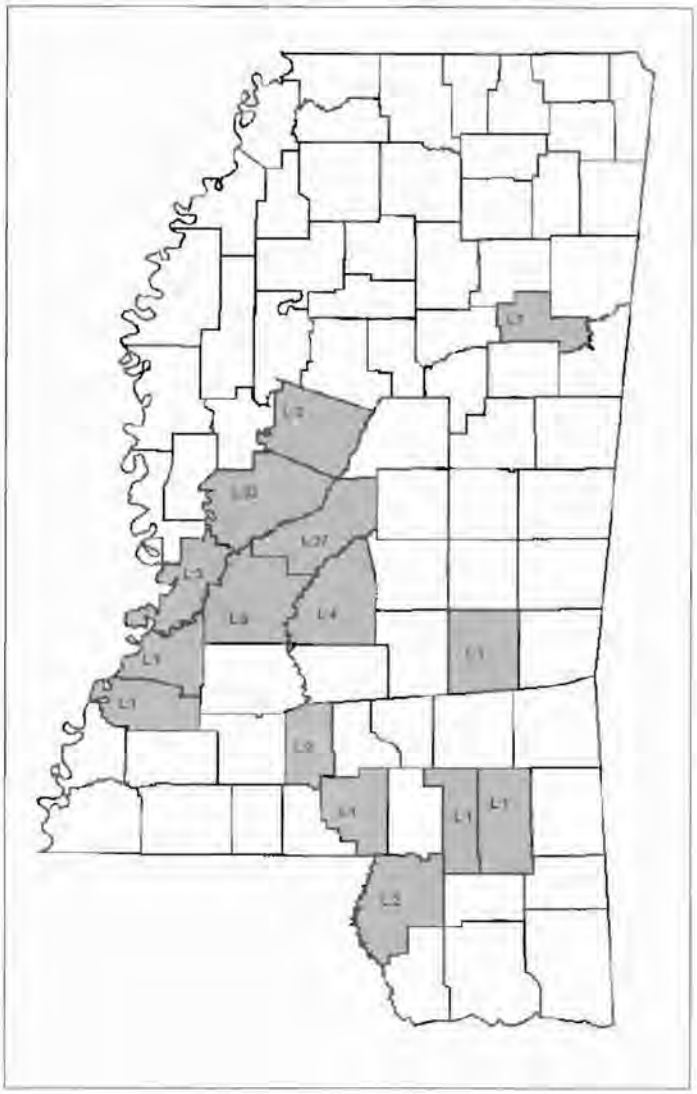

Figure 32. Known Distribution of San Patrice, var. St. Johns *Points. L=local, E=exotic.*

The *Leaf River* variety of San Patrice is a small, very thin, delicate point, frequently corner-notched as opposed to the usual side-notching in the *St. Johns* variety. It seems to have pronounced serrations in its original form (Figure 33B, C, E, and F), and extremely pronounced serrations on many of the resharpened specimens (Figure 33J and L-Q). Figure 33, specimen A is a preform which, considering the size and shape, was probably intended for eventual manufacture into a San Patrice point. The thickness of this specimen is 6.4 mm, which is an acceptable preform thickness for the exceptionally thin *Leaf River* variety points. The original form may have been corner-notched and as resharpening of dulled blade edges occurred it may have taken on a more side-notched form (Giliberti 1995:75). Specimen D of Figure 33 apparently represents a newly finished *Leaf River* point which had not yet been serrated. Specimen L of Figure 33 illustrates a point which has been used and dulled along the right margin to the extent that the serrations have vanished. The edge on the right side is well worn and smooth from use. Many examples are fluted or well thinned from the basal edge, with multiple flake removals appar-

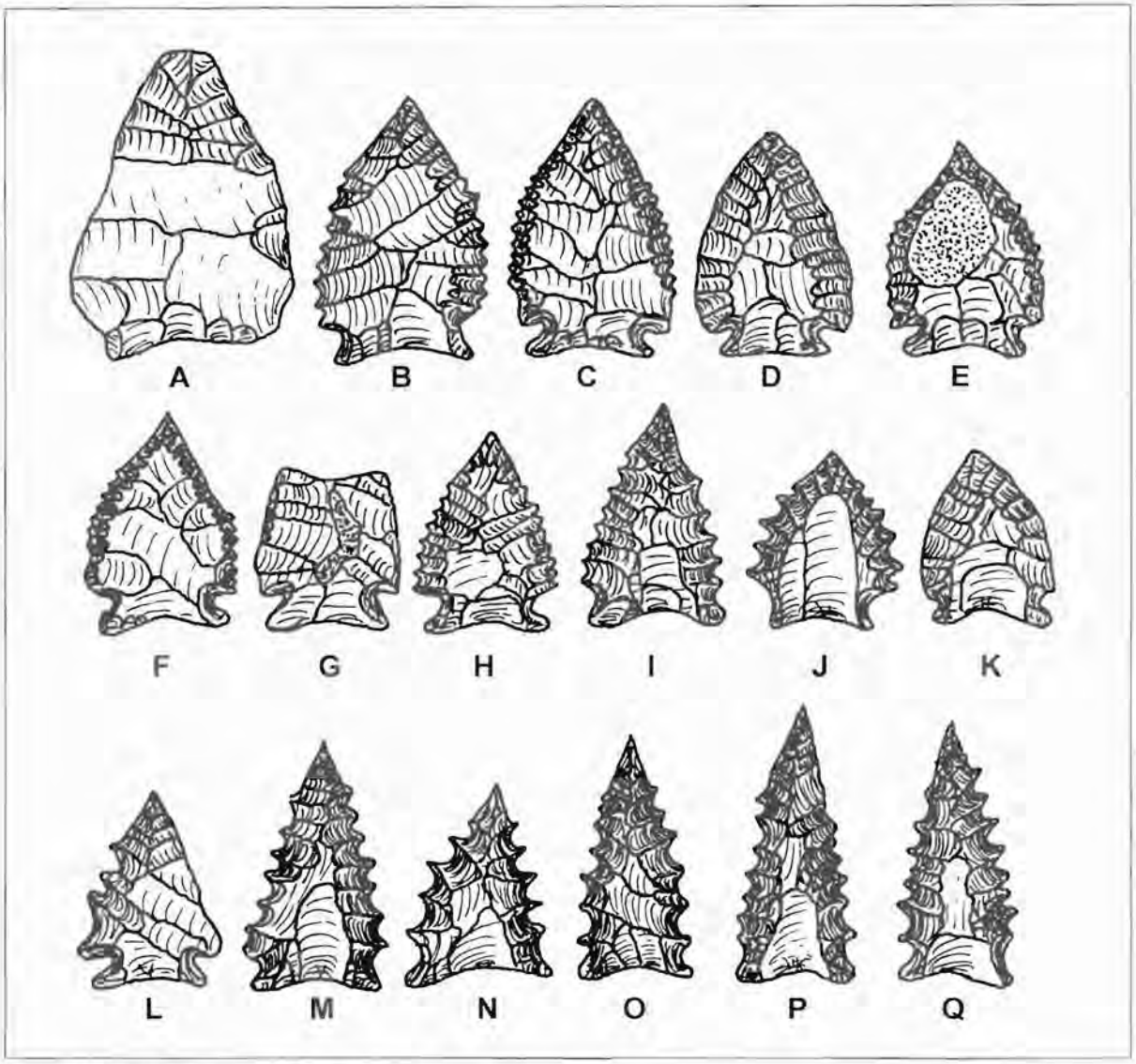

Figure 33. San Patrice, var. Leaf River *Points.*

ent. The basal edges and notches are ground on finished specimens. It is the thinnest and shortest point of the Paleoindian tradition. The diminutive nature of the variety may be more apparent than real at this time, however, since 16 of the total of 47 specimens recorded in this category are from one site, 22-Pe-504. A much larger sample of the type from the same site was measured by Giliberti (1995:219). The average thickness of the 31 specimens recorded by him is 3.6 mm as opposed to 4.7 mm for the 47 specimens in the sample under discussion here.

Raw material of the recorded sample consists entirely of local or nearly local gravel chert, which is generally heat treated, and Tallahatta Quartzite, which may or may not be locally available, depending on the location of individual sites. The chert cobbles available to prehistoric knappers in much of south Mississippi were apparently significantly smaller than in the rest of the state, a fact which resulted in generally smaller stone tools. This phenomenon is perhaps most apparent in *the variety Leaf River* points. Several specimens of

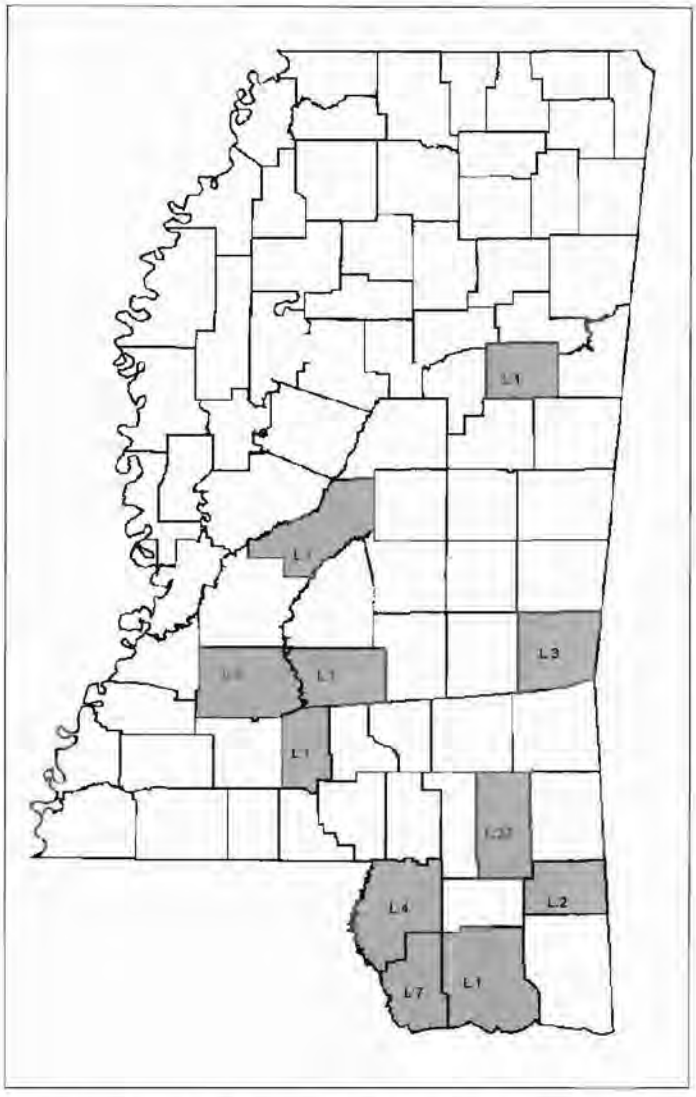

Figure 34. Known Distribution of San Patrice var. Leaf River *Points. L=local, E=exotic.*

this variety have been recorded with pebble cortex remnants on one face. Figure 33E and G illustrate such examples from the abovementioned site. It would appear that if one wanted to make San Patrice points from the locally available material, sacrifices had to be made with the usually very high standards of craftsmanship in the use of primary decortication flakes or the use of relatively thin, flat cobbles that could not be completely decorticated and still retain sufficient size for an acceptable preform. The reduced size is probably another indication of this handicap. The Leaf River variety of San Patrice would appear from the published illustrations of the River Bend Variety of Dalton to be very similar to that variety. The Leaf River variety is found almost exclusively in the southern half of the state.

Geneill (Provisional)

Chronological Position: 10,000-9,500 BP

Metric Data (8 specimens)
- *Average Length*: 48 mm
- *Range of Length*: 39-65 mm
- *Average Width*: 24 mm
- *Range of Width*: 21-28 mm
- *Average Thickness*: 4.5 mm
- *Range of Thickness*: 3.75-5 mm

Figures: 35 and 36

Geneill points were named as a provisional type by Jeffrey Brain (1971a:2). His reported sample size was 12 and the number of sites is not listed. The two sites for which Brain illustrates 5 Geneill points in *The Lower Mississippi Valley in North American Prehistory* (1971b) are located on the western braided stream surface of the Yazoo Basin. They are Geneill (22-Ws-534) and Helm (22-Ws-525). The type is described as being delicate, small to medium sized, with corner notches and concave, thinned bases. Precise metric data are not provided but the range of length is listed as from 3 to 4 cm and width at a "fairly constant 2 cm." The skill level involved in the manufacture of these points is characterized as "highly accomplished."

Geneill points illustrated in both of the above cited references exhibit considerable variation and appear to be either side-notched or corner-notched. They are thought by Brain to be derived from San Patrice points . They are also stated to be closely related to presumably later Cache River and Big Sandy points. Big Sandy and Cache River types are both definitely side-notched. There is a general assumption

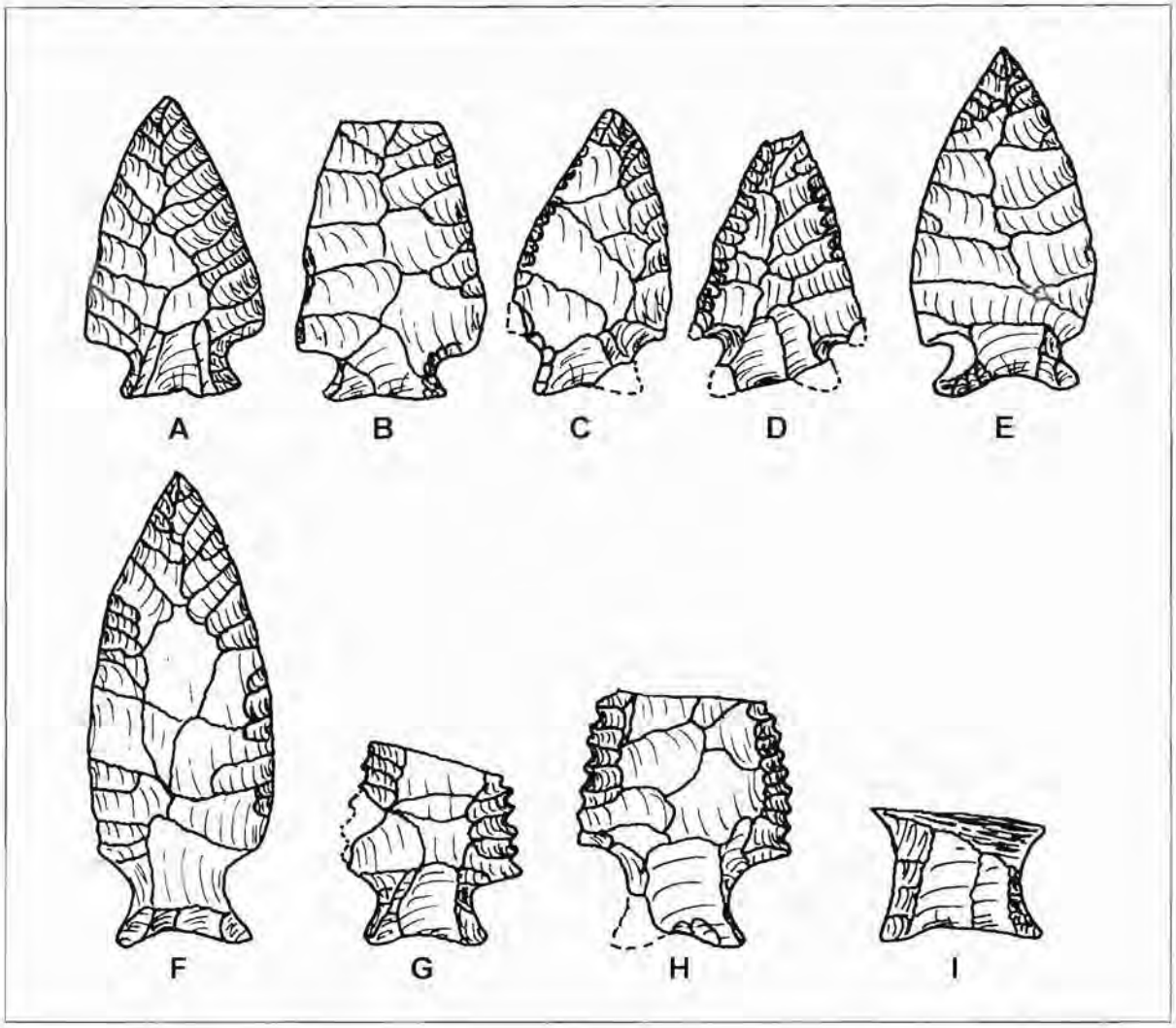

Figure 35. Geneill Points.

among archaeologists that side-notched points evolved into or were succeeded by corner-notched forms in the Eastern United States. This is an interesting question which seems to have been resolved, with the assumption confirmed at sites such as Hester in northeast Mississippi. Geneill as described by Brain may represent an exception to this general rule. As was stated previously under the discussion of San Patrice, *Leaf River* variety, some of that variety are corner-notched.

Some of the points variously classified in this study as Dalton side-notched or San Patrice are very similar to the more side-notched version of what Brain is calling Geneill. One difference is that most of those specimens are serrated or are assumed to have been serrated originally. Keeping in mind that none of the Geneill specimens are from an excavated, stratified context, it is interesting that most of them do appear to have much in common with the Dalton and San Patrice traditions in terms of being rather delicate, thin, and well made. The presumably later Early Archaic corner-notched types are generally significantly larger and not as delicately made. Some adjustments may eventually have to be made with models based on the assumption that Dalton or Dalton-like forms were succeeded by strictly side-notched

forms such as Cache River over the entire region. The Dalton or San Patrice lanceolate forms may well have evolved through a side-notched phase and into small corner-notched forms. It appears that the type may be primarily restricted to the western braided stream surface of the Yazoo Basin based on currently available data.

Brain's provisional type description listed 12 specimens as sample size. He initially (1971a) illustrated only 3 specimens, then later (1971b, Figure 5) illustrated 5 additional specimens from the western braided stream surface. Other collections from the same area as his study have yielded four other specimens which are thought to be of the same type. Additionally another specimen which Brain labels as unclassified "fish tail"(Brain 1971b:17, Figure 5Y) has been examined and is now believed to be of the same group he is calling Geneill. The illustrations provided in Brain's 1971b piece arouse curiosity regarding the unillustrated specimens, since the illustrations appear to show at least three different forms. One is inclined to ask if the missing specimens provide some unifying elements which make the sample look more like a logical grouping. We prefer to look at specimens Q, R, and Y of the group illustrated in Brain's Figure 5 as Geneill points. Specimen U is seen as a possibility, but specimens S and T appear to be of another tradition. Problems with the scale provided in Brain's Figure 5 have precluded the possibility of illustrating his specimens except for specimen Y, which we have actually recorded independently of his study. The examples illustrated in Figure 35 of this publication, if accepted as Geneill points, bring the number of recorded specimens to 20.

Figure 36. Known Distribution of Geneill Points. L=local, E=exotic.

Raw material of the recorded specimens consists primarily of tan gravel chert which was probably local or nearly locally available. One specimen of Novaculite is included, however.

Archaic ca. 10,000-2,500 BP

Early Archaic Period (10,000 BP - 8,000 BP)

The termination point of the Paleoindian period is variously defined. As a practical matter I make the division after the Dalton culture, but actually the technologies of Paleoindian and Early Archaic craftsmen seem to form a continuum. Basal and lateral grinding of projectile points continues throughout the entire Early Archaic period; same flaking techniques are practiced throughout both periods; and other tools, primarily unifacial scrapers, knives, and gravers, remain essentially unchanged except for possible raw material preferences. The only surviving evidence of an aesthetic sense among Paleoindian and Early Archaic people is the quality of the work exhibited in the stone projectile points, most of which are absolutely symmetrical and perfectly executed. It is apparent that much more time was spent on these items than was necessary to make them functional. This would suggest that there were other aesthetic expressions in perishable materials that have long ago decomposed.

The trend of regional adaptation begun in the middle Paleoindian period continued in this period, as evidenced by the increasing diversification of projectile point styles. Such point types as Bolen, LeCroy, and Scottsbluff appear to have their major distributions somewhere else but extend into parts of Mississippi. Increasing adaptation is also seen in the greater use of such lithic raw material as Kosciusko quartzite and Tallahatta quartzite. An innovation in the heat treating process in northeast Mississippi in the Dalton period was almost universally used in the Early Archaic period in that area and was widely used over the rest of the state. This new technique enabled a much more efficient manufacture of flaked stone tools. Kosciusko quartzite tools could have been extremely difficult to flake without prior heat treatment.

A major contributing factor to the development of less wide-ranging cultural groups was undoubtedly the replacement of the by now extinct Pleistocene megafauna with such species as white-tail deer, which continued to be the main meat staple of southeastern populations throughout prehistory. Deer and other surviving species are less far-ranging and could have been exploited efficiently with a less mobile life style, although current thought holds that perhaps the nomadism of Paleoindians was less than formerly assumed.

If numbers of diagnostic artifacts are an indication, the population generally continued to grow, with the exception of a decline in south Mississippi. The population seems to have exploded in the Northeast, increasing by about seven-fold over the preceding Paleoindian period. Nutting and grinding stones, presumably for the processing of vegetable foods such as seeds and nuts, are recorded for the first time in the Early Archaic levels of the Hester site in northeast Mississippi. The Dalton occupation at the Hester site, which was the earliest substantial component there, was apparently a hunting camp of fairly modest proportions, but the following Early Archaic occupations were apparently base camps with comparatively much larger populations over most of each year than during the Paleoindian period. The earliest recorded pits of sufficient size for storage purposes are reported for the Early Archaic component of the F.L. Brinkley Midden in northeast Mississippi. One of the pits contained a metate and a large cobble. Such features are certainly suggestive of more permanency.

There are more known sites with some potential to yield useful information that can be dated to the Early Archaic period than to the Paleoindian period. The previously mentioned sites with Paleo components, Hester, Beaumont, 22-Jo-568, and Colbert, all have Early Archaic occupations as well. The work in the Tennessee-Tombigbee Waterway project revealed several sites with Early Archaic components, mostly in the lower levels of midden mounds. Unfortunately the earlier components seem to have been substantially disturbed by the erosive actions of floodwaters in the early Holocene. Midden mounds of Early Archaic age may well be present in the wooded floodplains of some of the other rivers of the state. Hopefully their Early Archaic levels, if present, will be in better condition than those in the Tennessee-Tombigbee area.

Greenbrier (Lewis and Kneberg 1958)

Chronological Position: 10,000-9,000 BP

Metric Data: 59 specimens
Average Length: 56 mm
Range of Length: 41-80 mm
Average Width: 23 mm
Range of Width: 20-38 mm
Average Thickness: 7 mm
Range of Thickness: 4-8 mm
Figures: 37, 38, and 39

The Greenbrier Point seems, on the basis of currently available information, to be the earliest of the Early Archaic points. This conclusion is indicated by its stratigraphic position at the Hester site (22-Mo-569; Sam Brookes, personal communication), by its morphological characteristics, and by its mode of heat treating. Most Greenbrier points from the Hester site are completely changed in the heat treating process from tan or brown colors to pink or red. A few, however, retain their original color except for the reddish tinged or reddened auricles and/or distal ends. Points later than the Big Sandy and Greenbrier types, however, are almost invariably completely reddened by the heat treating process at the Hester site and in the northeast Mississippi area generally.

The majority of Greenbrier points are relatively thin and well made points with shallow side notches, resembling various Middle to Late Paleoindian points such as Dalton and Quad and the presumably slightly later Stilwell type. They are basically parallel sided points with fine pressure retouching along the blade edges, which usually resulted in serrations. The base is generally slightly concave but may be straight. The base and lower lateral edges are ground and the base is thinned.

Most Mississippi examples appear to be bifacially resharpened but are occasionally beveled in the resharpening process, indicating unifacial resharpening (Figure 37I and 38Q). Many Greenbrier points were recycled for use as end scrapers, as illustrated in Figure 38P, Q, and R. Others were apparently used to split resistant material such as bone or antler. The results of this use are apparent in the multiple impact flutes to the distal ends of specimens 38M, N, O, and S. Whereas the distal ends of those specimens were used to strike a hard surface repeatedly, specimen O indicates the use of the lateral edge for a similar purpose, resulting in the removal of approximately half of the thickness of the tool with one massive flake removal. The opposite face exhibits numerous hinge fractures intrusive into the original blade edge. One specimen, 38T, has had the distal end reworked into a graver (Brookes et al. 1974:6).

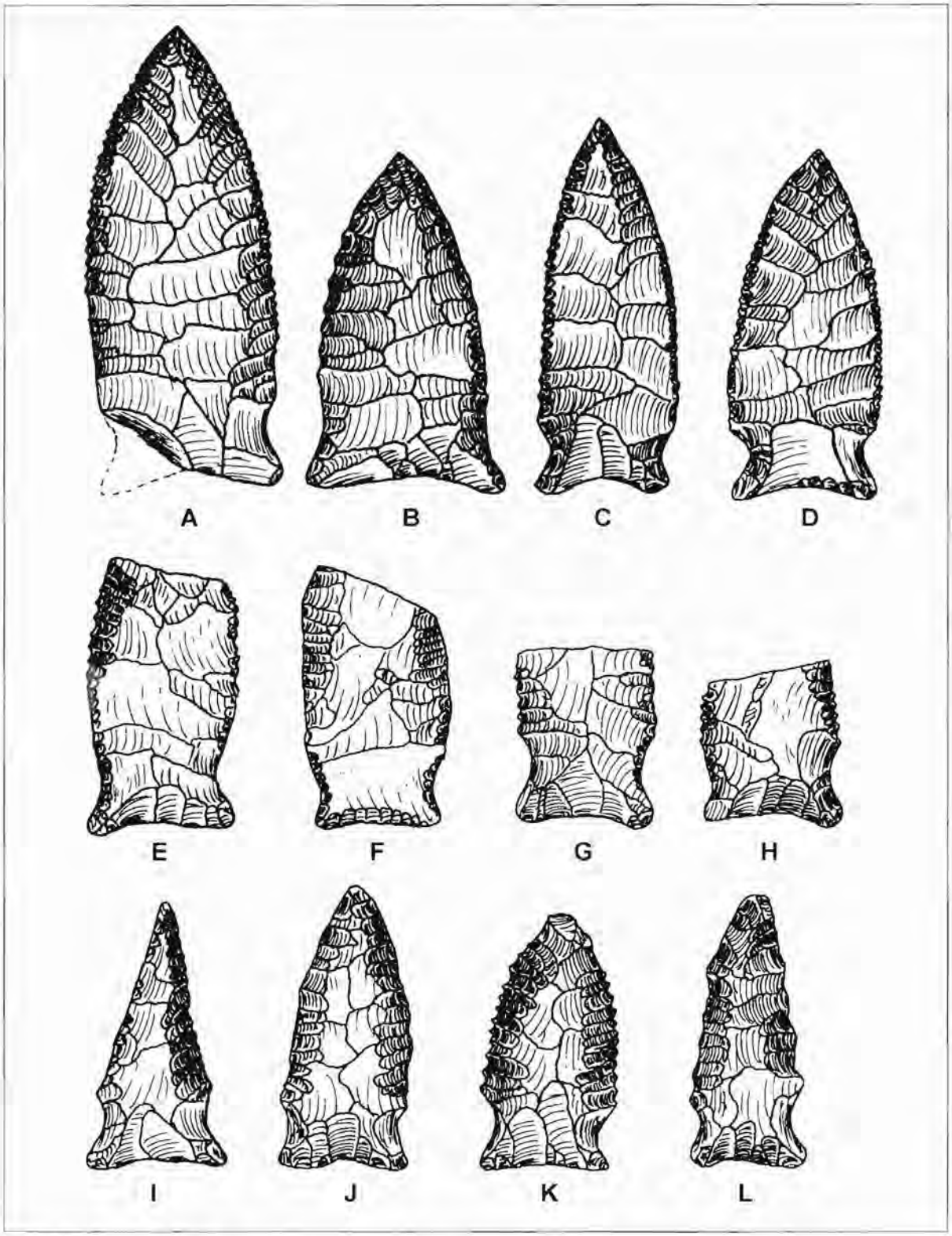

Figure 37. Greenbrier Points.

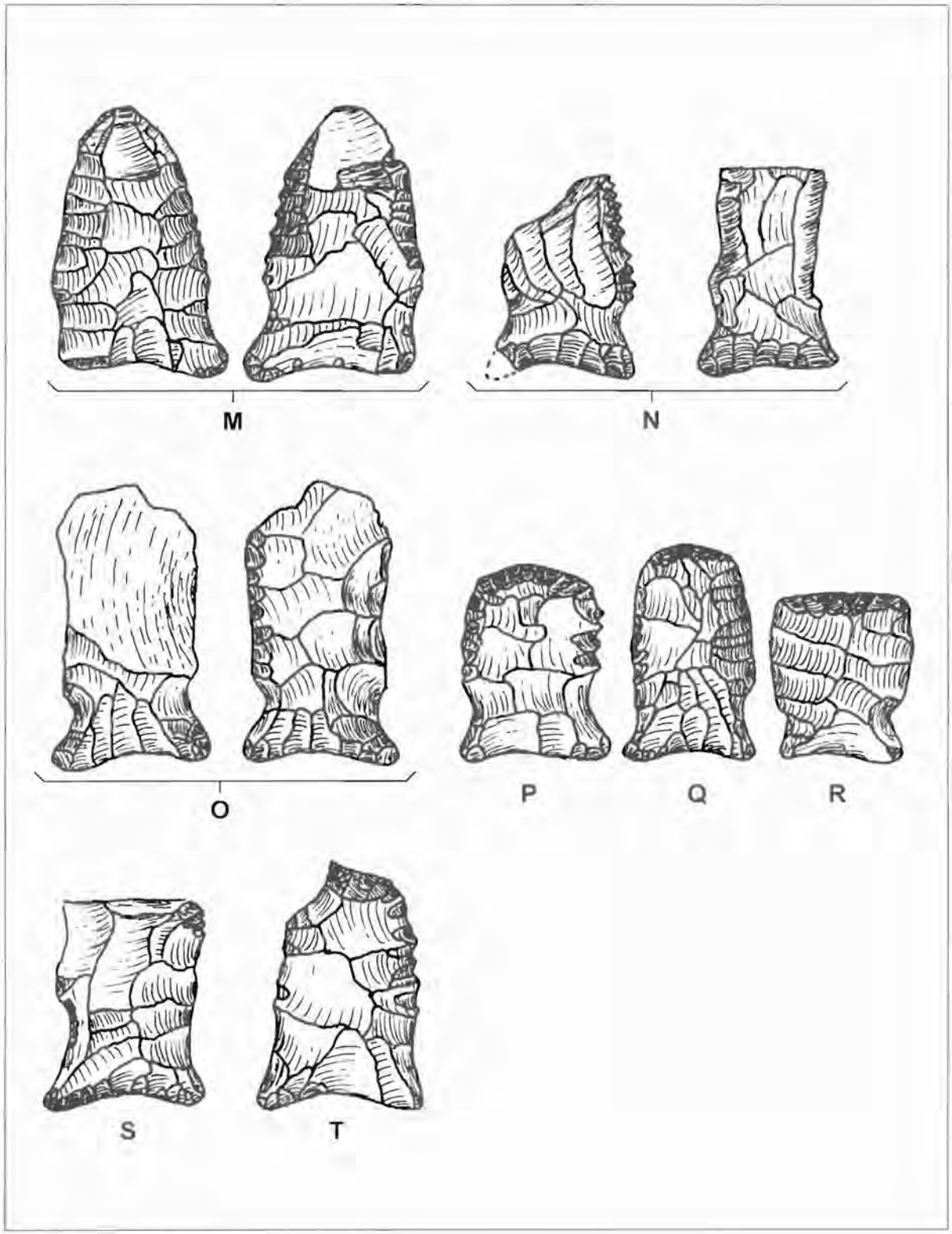

Figure 38. Greenbrier Points.

Most raw material for this type was gravel chert from the Tuscaloosa formation or from the Loess Hills to the west along the Mississippi Valley escarpment, although a respectable quantity of Fort Payne chert and Bangor chert from north Alabama was used in northeast Mississippi (see Figure 39). Based on currently available information, the type is confined to the northern half of the state.

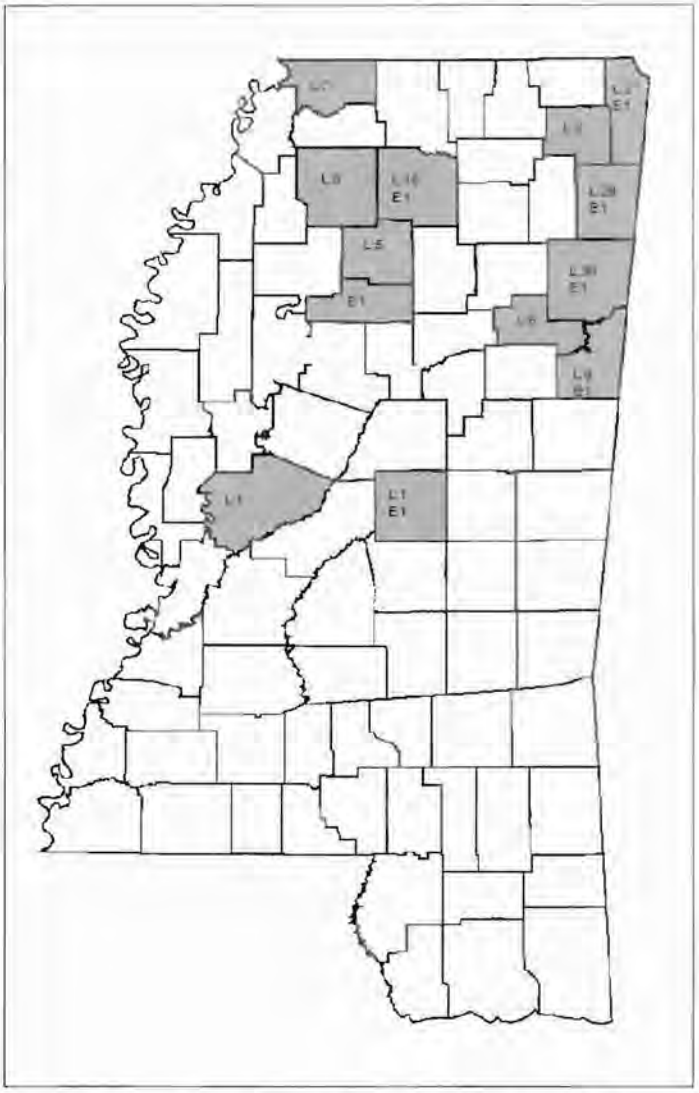

Figure 39. Known Distribution of Greenbrier Points. L=local, E=exotic.

Cache River (Cloud 1969)

Chronological Position: 9,500-9,000 BP. Although there is no currently available evidence dating the type with respect to the previously described Greenbrier type, it is suspected of being slightly later than Greenbrier because of the close morphological relationship between the Greenbrier type and indisputably earlier Dalton points.

Metric Data: 141 specimens
Average Length: 41 mm
Range of Length: 20-87 mm
Average Width: 24 mm
Range of Width:: 16-32 mm
Average Thickness: 6 mm
Range of Thickness: 3-10 mm
Figures: 40, 41, 42, and 43

Cache River points, named for examples found in northeast Arkansas, are one of a few Early Archaic side-notched projectile point types in the southeastern U.S. They closely resemble both the Big Sandy type (Kneberg 1956) and the Kessel type (Broyles 1966). For purposes of this publication, the Kessel type has been subsumed under the Cache River type. While many specimens can be classified into one type or the other, many are in between, and on numerous occasions both variants are found on the same sites together. The Cache River name is used here because Arkansas is closer to Mississippi than is West Virginia, where the Kessel type was named. Although Big Sandy is also a similar type, where in many cases individual specimens could be reasonably identified as either Cache River or Kessel, it is sufficiently different to retain a separate identity. The Big Sandy type is generally narrower in proportion and thicker, with wider notches, and it is less carefully made, in spite of the fact that the heat treated Tuscaloosa chert from which most specimens are made is generally superior in flaking qualities to the frequently unheated Citronelle and pre-loess cherts.

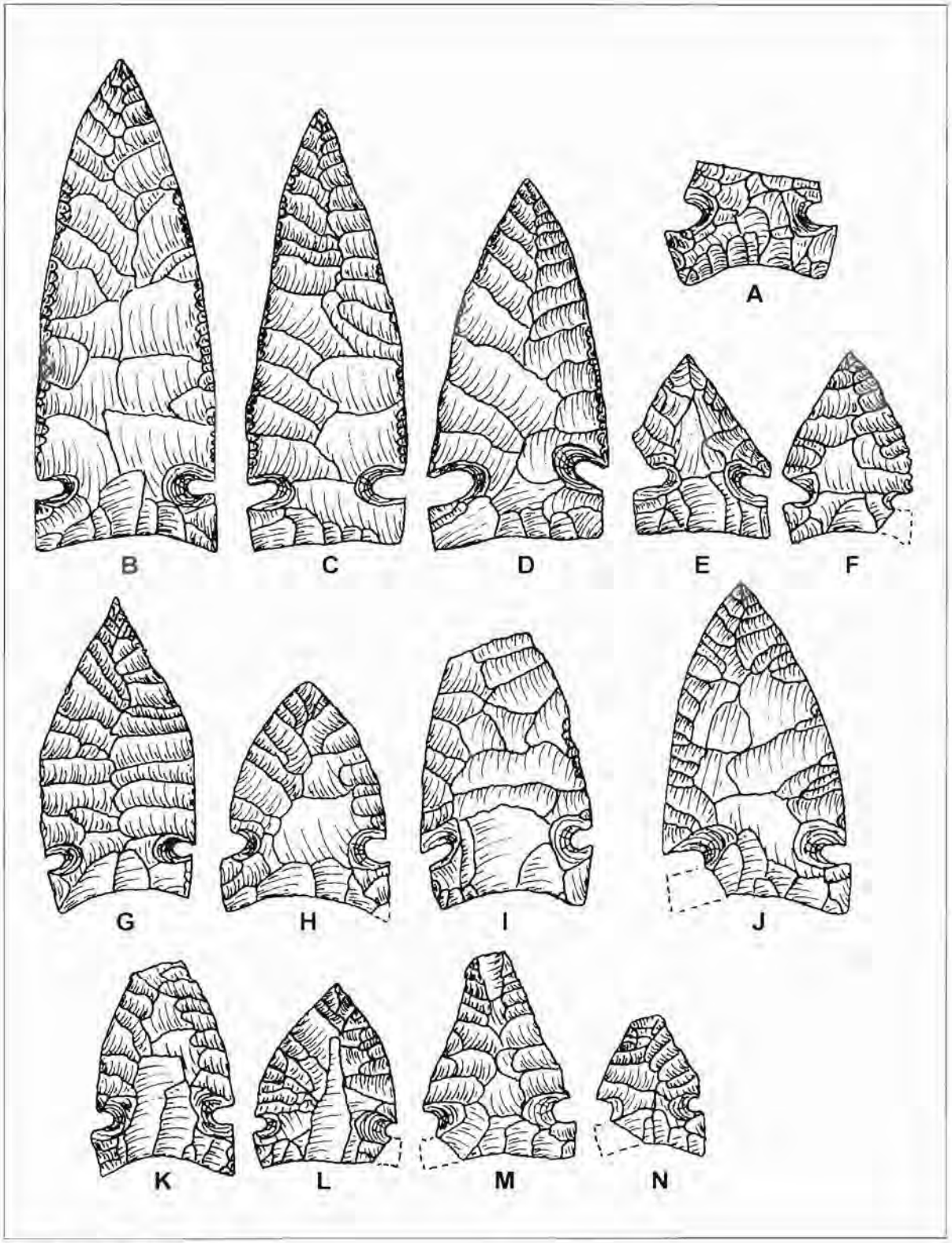

Figure 40. Cache River Points.

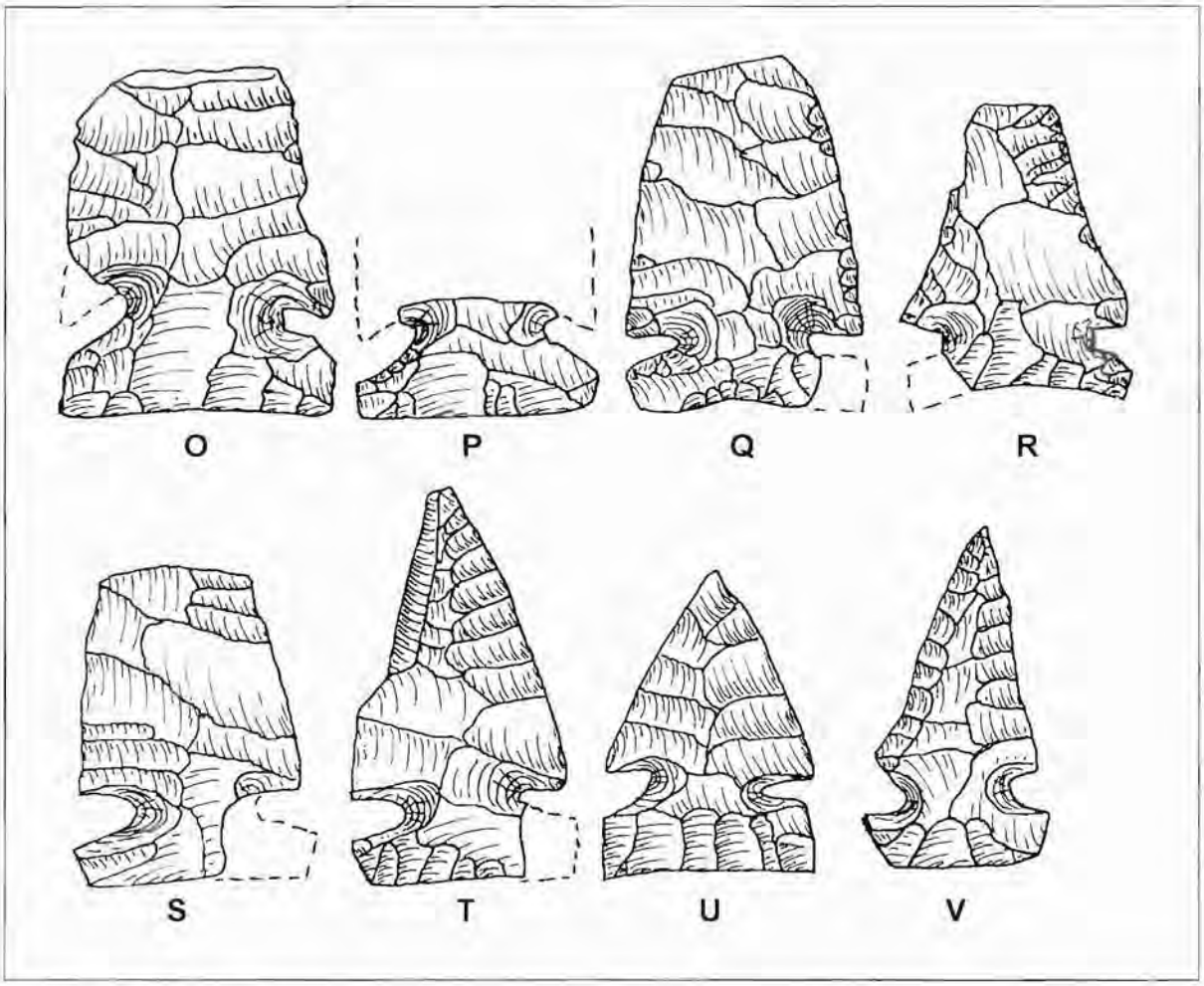

Figure 41. Cache River Points.

Cache River points are generally relatively thin and well made, with carefully made side-notches that intersect the lateral edge of the point at an approximately ninety-degree angle. Some, however, such as specimens O-U of Figure 41, have notches that intersect the edge at an angle toward the distal end. Occasional specimens such as specimen I of Figure 40 exhibit both modes of notching. The base is either straight or concave and in most cases is not ground on Mississippi specimens. The lateral margins between the notches and the base are almost invariably ground, however. The bases are usually well thinned. Most points are triangular with an acute distal end or a mucronate distal end, such as is exhibited in specimens FF-II of Figure 42.

Most points in this type are not serrated. An occasional specimen is serrated, however, such as is seen in Figure 42, specimens BB, CC, and JJ. As is the case with Big Sandy points, many Cache River points are reworked into end scrapers, as shown in Figure 42, specimens W, X, Y, and AA, where the distal portion of the point has been removed by unifacial flaking to provide a beveled edge at the distal end. An occasional specimen such as Figure 42Z has been bifacially reworked across the distal end, resulting in what might be considered a knife edge. Beveling or any other systematic resharpening or alteration of the lateral margins is rare, suggesting the possibility that most of these artifacts were used solely as projectile points and not also

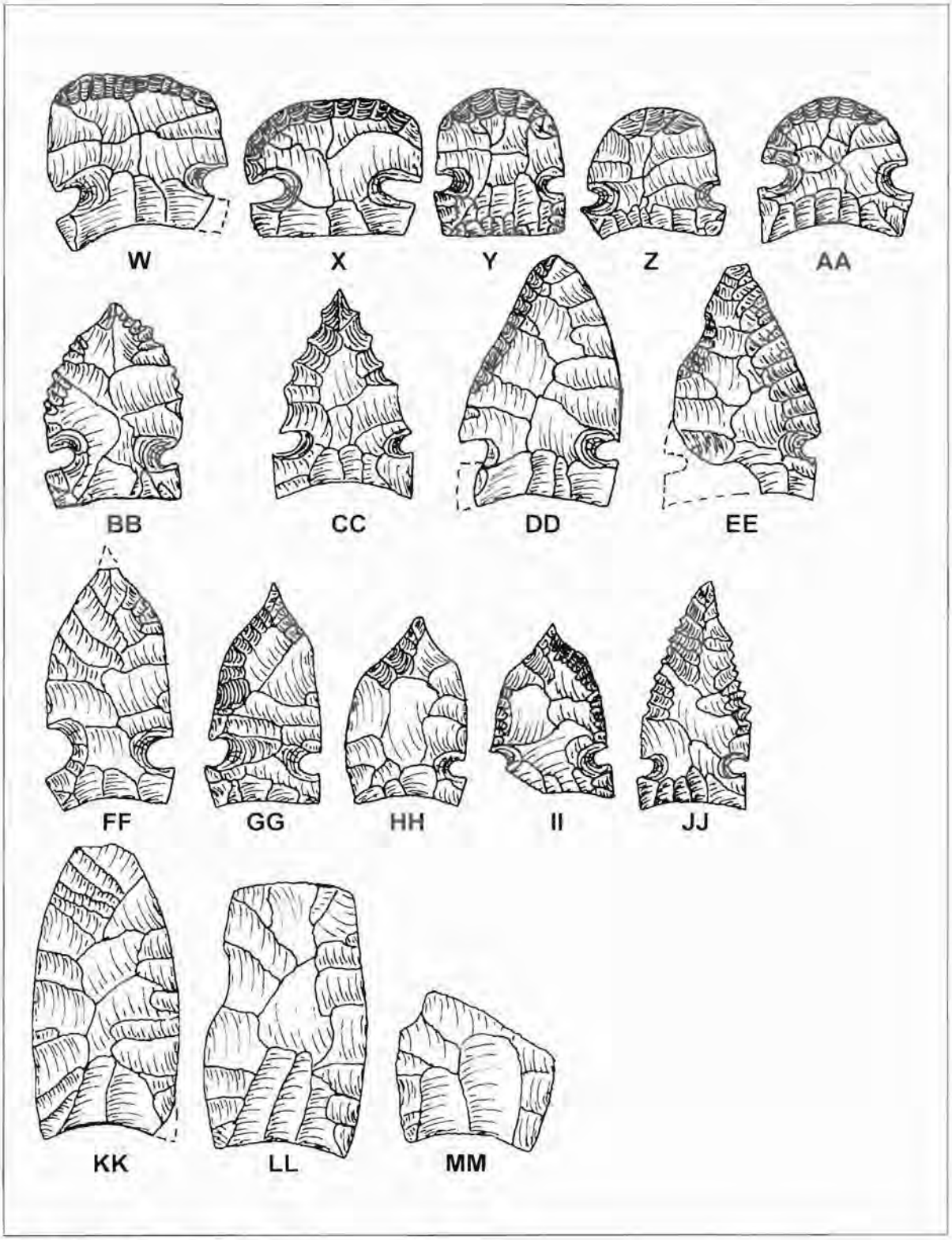

Figure 42. Cache River Points.

as knives, as were many of the later Early Archaic forms and most Dalton points. Some specimens, however, seem to suggest, as do the serrated specimens alluded to above, that there were multiple uses in some cases. These include Figure 42 specimen DD, which has one beveled edge; specimen 42EE, which has had one lateral margin reworked as a spokeshave; and specimen 40M, which appears to have had its breadth reduced systematically into what is approaching a drill-like form.

Specimens 42HH, KK, LL, and MM are thought to be Cache River preforms, the status of specimen HH being rather more obvious than that of the other three because of the single notch that has been completed. The other three were found on the surface of sites that also yielded finished Cache River points.

Most Cache River points are of tan or brown gravel chert from either the Citronelle formation in south Mississippi or the Loess Hills gravel deposits bordering the Mississippi alluvial valley in the western part of the state. Occasional specimens made of Fort Payne chert, coastal plain agate, or Tallahatta quartzite are recorded.

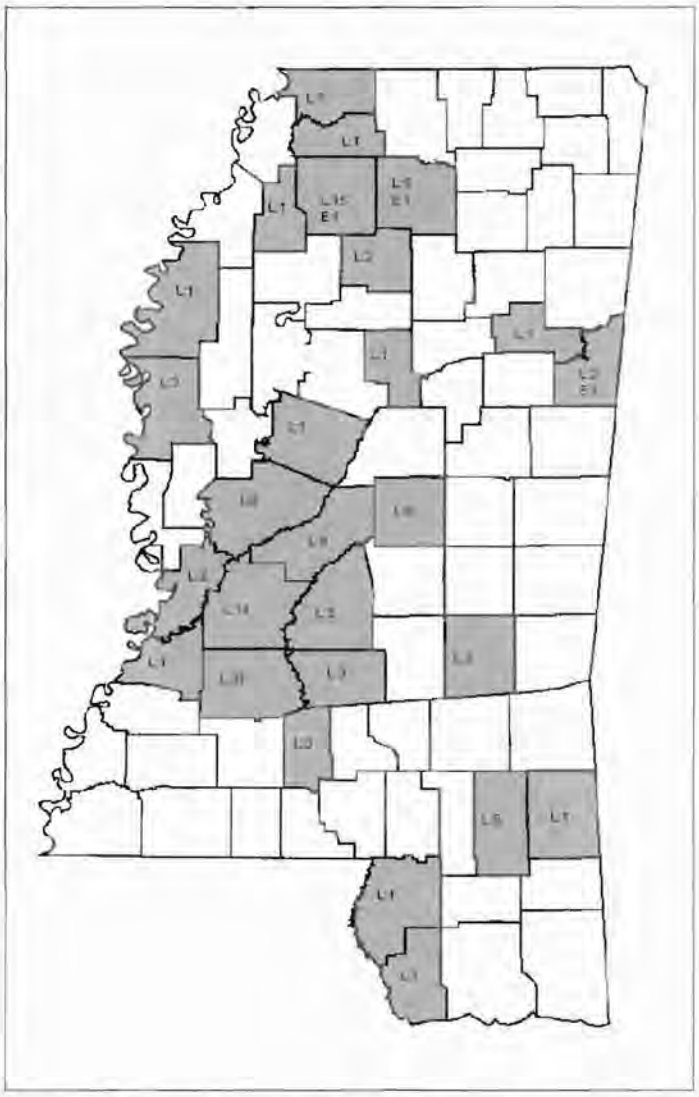

Figure 43. Known Distribution of Cache River Points. L=local, E=exotic.

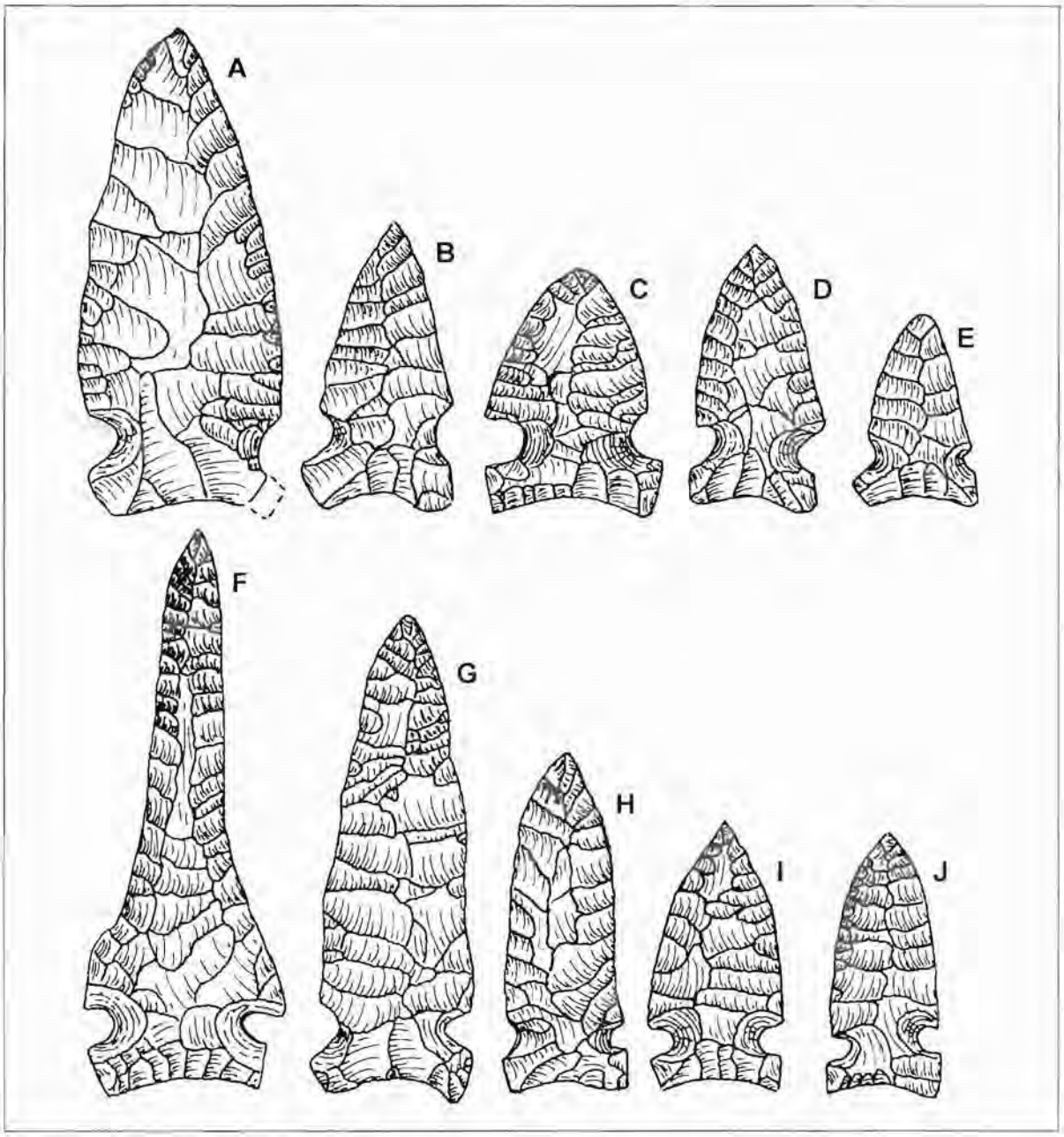

Figure 44. Big Sandy Points.

Big Sandy (Kneberg 1956)

Chronological Position: 9,500-9,000 BP

Metric Data: 59 specimens
Average Length: 45 mm
Range of Length: 29-87 mm
Average Width: 24 mm

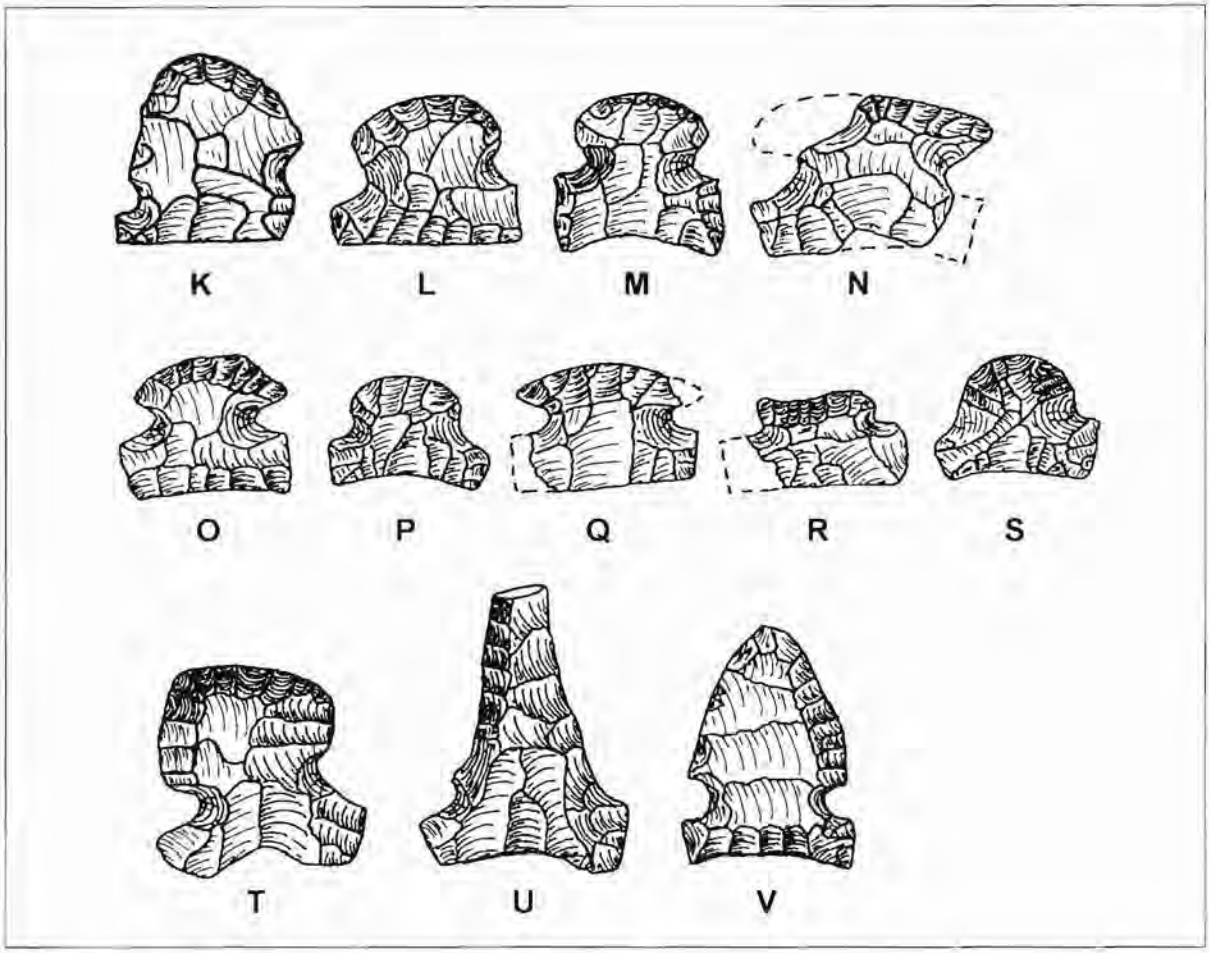

Figure 45. Big Sandy Points.

Range of Width: 17-32 mm
Average Thickness: 6 mm
Range of Thickness: 4-10 mm
Figures: 44, 45, and 46

Metric Data for Hester Site (22-Mo-569 and 22-Mo-1011): 199 specimens
Average Length: 40 mm
Range of Length: 22-70 mm
Average Width: 21 mm
Range of Width: 17-33 mm
Average Thickness: 7 mm
Range of Thickness: 4-10 mm

Big Sandy points, as previously discussed under the Cache River type, are one of several side-notched early forms in the Southeast. Apparently points of this general character are occasionally found outside of an Early Archaic context. The best example is of course that of the famous Eva site on the

Tennessee River in west central Tennessee. At the Eva site the apparent home of the Big Sandy type was in the Three Mile component and to a certain extent in the subsequent Big Sandy component, both of which are Middle Archaic components (Lewis and Kneberg 1961:37). Lewis and Kneberg seem to be somewhat puzzled about this, and allude to the situation at the Modoc Rock Shelter in Illinois, where similar points occurred in the lower levels of the site in a level dated at ca. 10,000 BP. The fact that the Eva site specimens were not basally ground and do not exhibit grinding on the lateral margins between the base and notches is thought to be significant and probably is a reason to suspect that any points found in Mississippi that also lack grinding of may be Middle Archaic specimens. As far as is known, however, Middle Archaic complexes in Mississippi do not contain any similar projectile points.

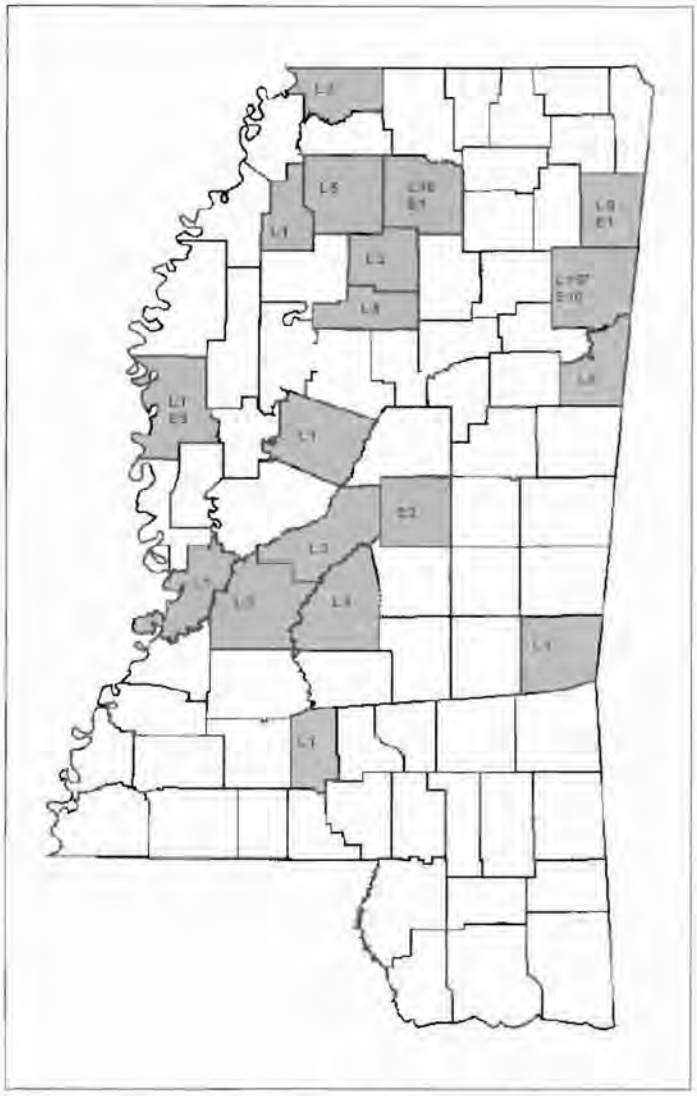

Figure 46. Known Distribution of Big Sandy Points. L=local, E=exotic.

Big Sandy points in Mississippi are generally parallel sided or triangular in configuration, with acute distal ends and concave bases. They either have basal grinding that extends onto the lateral margins and through the notches or grinding that is restricted to the lateral margins between the base and notches. This peculiar characteristic was discussed previously in connection with the Cache River type. Rare examples of Big Sandy points have been reworked by the beveling technique, as in specimens U and V of Figure 45. Another alteration, rarely seen on most Mississippi specimens, is exhibited on both specimen F of Figure 44 and specimen U of Figure 45. Both have been systematically reduced at the margins, resulting in what is usually referred to as a drill form. The most common alteration of this projectile point type is shown in specimens K through T of Figure 45. These specimens have been recycled into end scrapers. A greater percentage of Big Sandy points were altered in this manner than any other known type.

The raw material of the type is primarily Tuscaloosa gravel chert that has been altered by heat treating from what was usually a tan or brown color into a mottled red or pink that is commonly lustrous in appearance. Eighty-eight percent of the Big Sandy points of Tuscaloosa chert from the Hester site (22-Mo-569 and 22-Mo-1011) are completely color altered in this manner. The remaining twelve percent are either tan to brown and apparently not heat treated or were given the type of light heat treat-

ment that is much more commonly seen to the west. Some examples are made of pre-loess gravel chert from northwest Mississippi which is usually not completely altered into reds or pinks but may exhibit reddened extremities. Occasional specimens are of Fort Payne chert, and these are more likely to occur in northeastern Mississippi (Figure 46).

Metric data in the case of Big Sandy points are presented above in a slight departure from that of previously described types. Since most of the specimens of the type are from one site, the Hester site in Monroe County, it was thought necessary to present the data on that site separately.

Stilwell (Perino 1970:94-95)

Chronological Position: 9,500-9,000 BP

Metric Data: 45 specimens
Average Length: 66 mm
Range of Length: 42-102 mm
Average Width: 29 mm
Range of Width: 21-37 mm
Average Thickness: 6 mm
Range of Thickness: 3-8 mm
Figures: 47, 48, and 49

As is the case with most projectile points discussed in this publication, the chronological position of this type remains to be determined. Since it is apparently confined primarily to the northwestern corner of the state, it was not present in the Hester site stratigraphy. Its closest kin morphologically, however, would appear to be the Greenbrier point. This resemblance may or may not have chronological implications, but if it does, Stilwell is one of the earliest of the corner-notched Early Archaic types.

The Stilwell point is relatively thin, with a width to thickness ratio of over five, and is well made even for the Early Archaic period. It is basically corner notched with a straight or slightly concave base, which is usually well thinned. Grinding extends from the notches across the base. As with the Greenbrier, both sides of each face exhibit well-controlled baton flaking and narrow, delicate pressure retouching, which usually resulted in a finely serrated edge. Individual specimens are usually parallel sided but may be slightly recurvate or convex, and most specimens have an acute distal end. Specimens A-C of Figure 47 illustrate initial stages of manufacture of Stilwell points. Specimen A has been carefully flaked with a baton, but has received no pressure flaking. In none of the three has the notching been completed, nor have they been serrated or ground.

Most Stilwell points are made from pre-loess gravel chert, which is abundant in the Loess Hills region of northwest Mississippi. Three of the sample considered in this study were of an unidentified, presumably exotic material. One was of heat treated chert from the Tuscaloosa formation that outcrops in northeastern Mississippi.

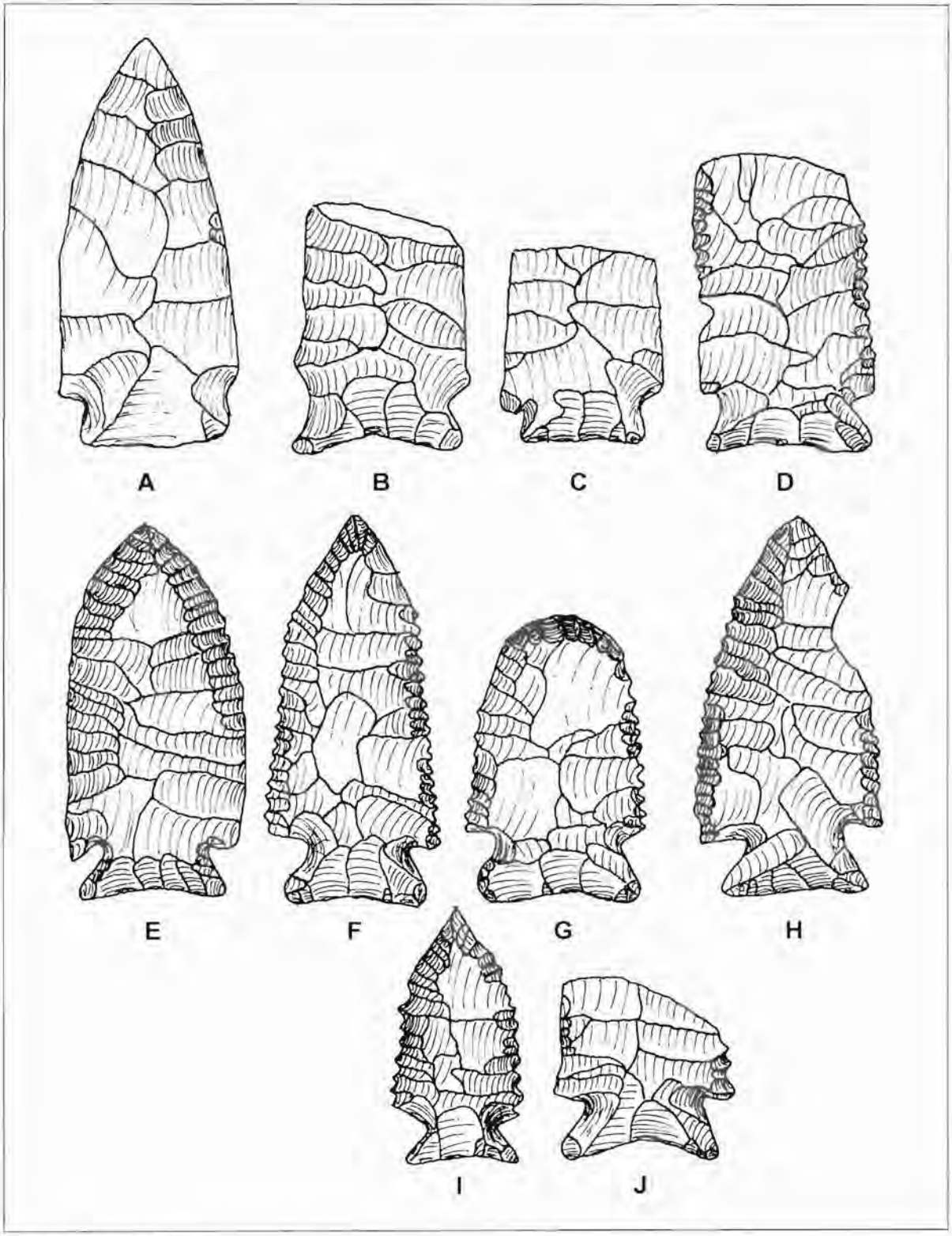

Figure 47. Stilwell Points.

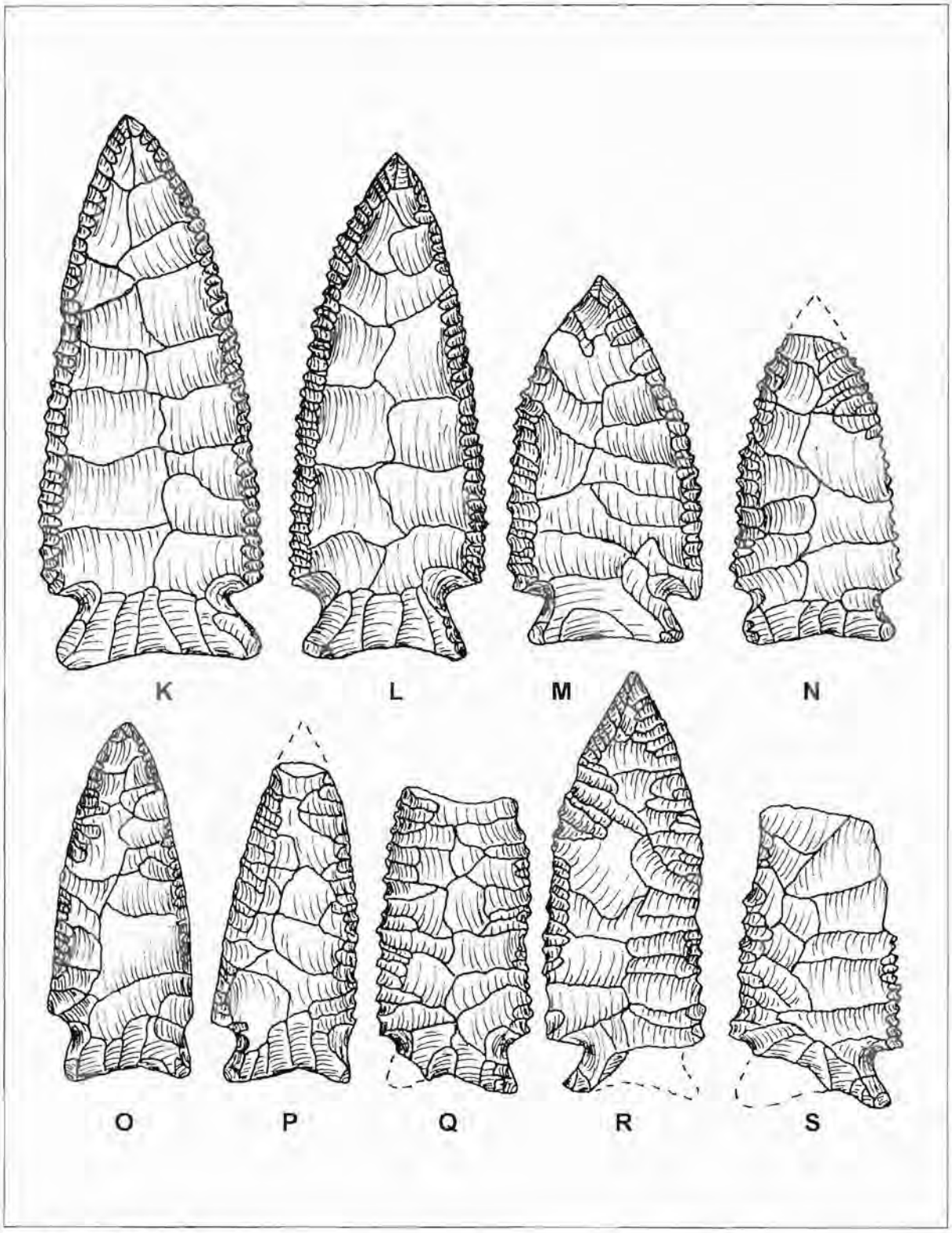

Figure 48. Stilwell Points.

Figure 49. Known Distribution of Stilwell Points. L=local, E=exotic.

Jude (Huntsville-Madison Chapter, Alabama Archaeological Society 1961:84; Cambron and Hulse 1964:52)

Chronological Position: 9,500-9,000 BP

Metric Data: 17 specimens
Average Length: 29 mm
Range of Length: 22-31 mm
Average Width: 21 mm
Range of Width: 16-28 mm
Average Thickness: 6 mm
Range of Thickness: 4-8 mm

Figures: 50 and 51

Jude points were first recognized in Mississippi by Brookes (1979:34) in analyzing the artifacts from the Hester site (22-Mo-569 and 22 Mo-1011). Brookes's classification mistakenly included Cave Springs points with the data presented for the Jude type, an easy conclusion to reach since the types are similar and may well represent a continuum. The primary difference between the two types is that the Jude point has a straight stem, while the Cave Springs type has an expanding stem. Jude points are small and are well made, in the tradition of other Early Archaic points. They have concave or straight bases that are thinned and ground smooth, and the grinding extends to include the stem edges. Blades are basically triangular and may almost disappear as repeated resharpenings occur. Although the recorded Mississippi sample is small, it would appear that the typical Jude point consists basically of a straight stem and a minuscule triangular blade, such as is seen in Figure 50H, I, K, and L. Most specimens are resharpened bifacially, although an occasional point such as specimen E of Figure 50 may be alternately beveled. One specimen, D of Figure 50, appears to have been serrated, although the serrations are almost completely worn off. It seems possible that serrations may have been present on all newly resharpened specimens.

The raw material for recorded specimens is primarily gravel chert from the Tuscaloosa formation, whose color has been completely altered to pink or red by heat treating. One specimen, from Madison County in Central Mississippi, is of tan pre-loess gravel chert, three are of Fort Payne chert, and one is of a lustrous blue-green material that resembles Bangor chert from north Alabama.

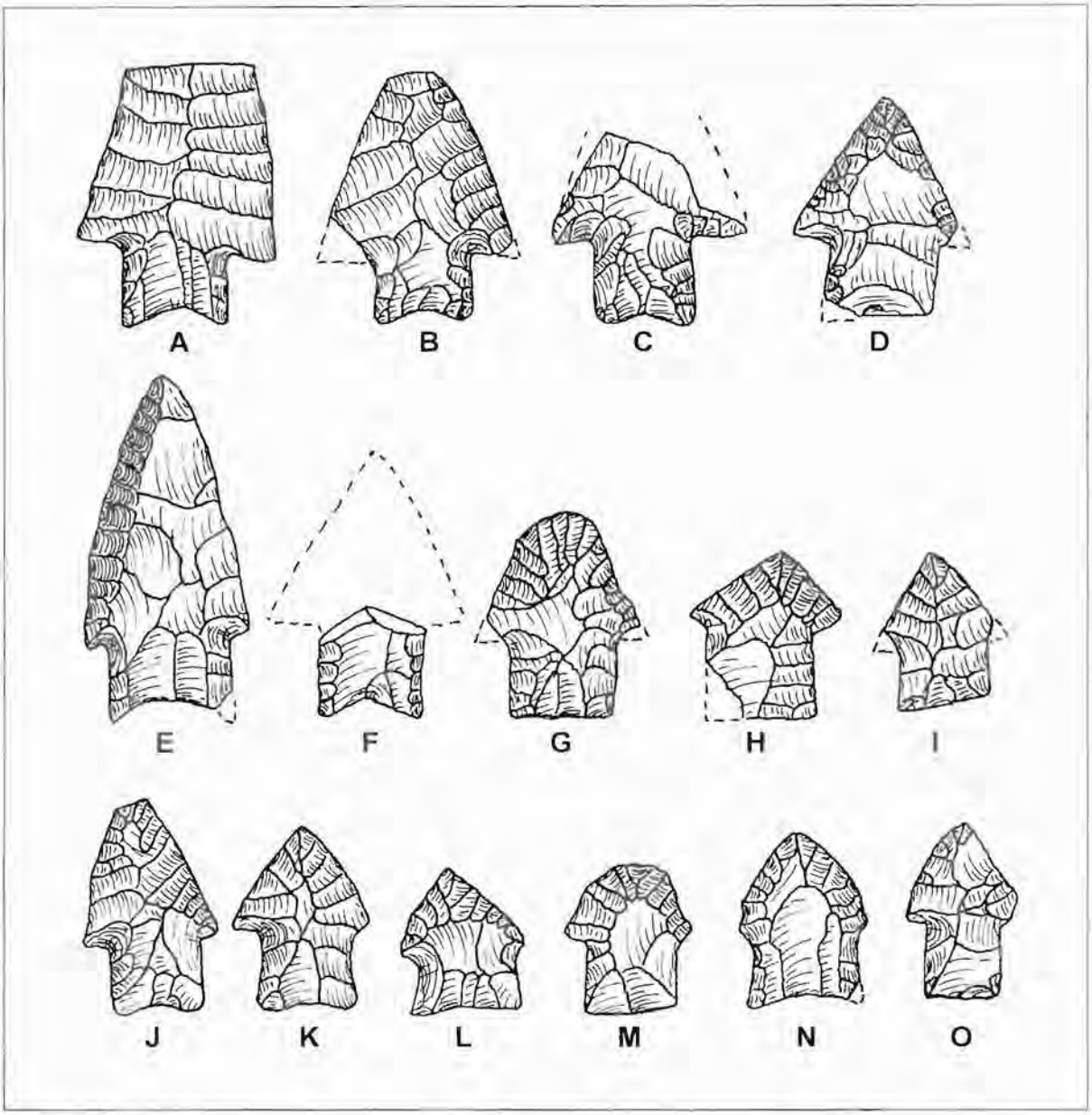

Figure 50. Jude Points.

Although the recorded sample of seventeen specimens is heavily skewed by the nine specimens from the Hester site, it is apparent that the predominant distribution of the type lies to the northeast, since only one of the points was found outside of the north Mississippi area.

If the stratigraphy of the Hester site excavation is a valid indication, Jude is one of the earlier Early Archaic types in north Mississippi. Although the sample is small, the Jude and Cave Springs points tend to be found lower in the cultural deposits than Decatur points.

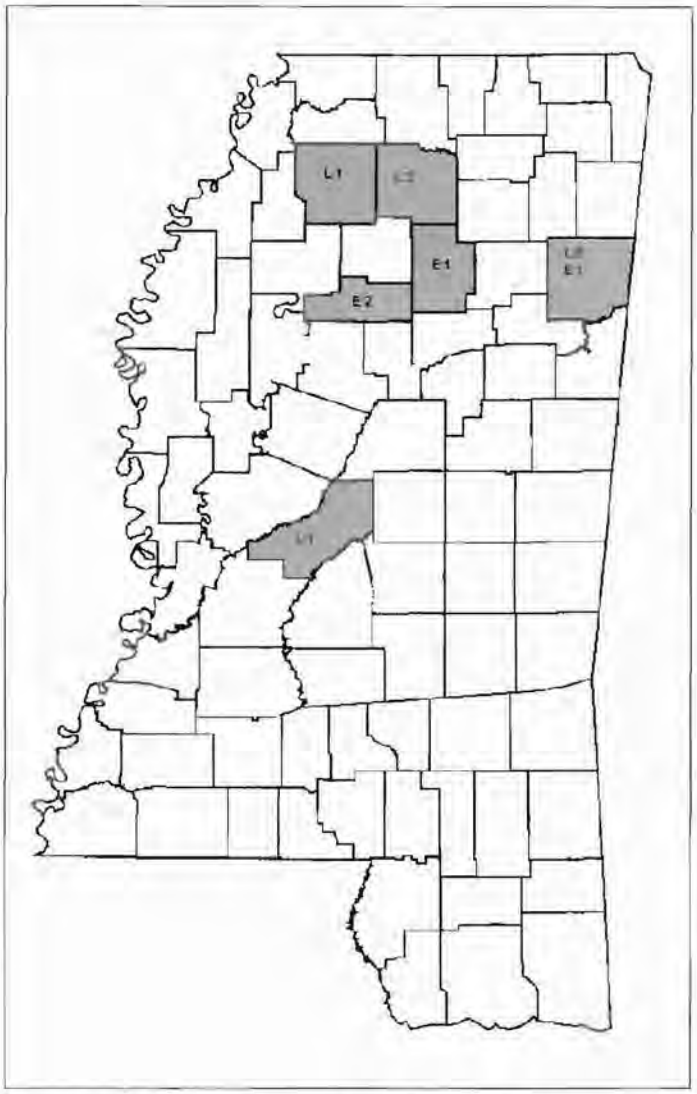

Figure 51. Known Distribution of Jude Points.L=local, E=exotic.

Cave Springs (Cambron and Hulse 1964:24)

Chronological Position: 9,500-9,000 BP

Metric data: 77 specimens
Average Length: 44 mm
Range of Length: 24-80 mm
Average Width: 27 mm
Range of Width: 16-44 mm
Average Thickness: 6 mm
Range of Thickness: 3-10 mm
Figures: 52, 53, and 54

As has been indicated above, Cave Springs points are closely related to Jude points morphologically and were found along with Jude points in the earlier Early Archaic strata at the Hester site.

A close examination of Figures 50, 52, and 53 reveals that the types are similar indeed, although the Cave Springs type exhibits considerably more variation than does Jude. This variation may be accounted for, however, by the much greater number of the Cave Springs points. The Cave Springs points are generally larger, possibly because in the sample the known Jude points have been more extensively reworked and come primarily from one site, although metric data cited by Cambron and Hulse on the two types reveals that the Alabama specimens of the two types maintain about the same size difference as those covered by this study (Cambron and Hulse 1975:24 and 71). The Cave Springs points have a basically triangular blade, although the outlines vary considerably, with some being incurvate, some excurvate, and some recurvate. Some of the blade edges are serrated, and as with the Jude type, all may at one time have been serrated before use removed the serrations. The hafting areas are the result of corner removal or corner notching, and the resulting stem is expanding with a concave base, although some specimens may be straight. The basal and stem edges are usually well ground and thinned. The relative basal widths vary from quite narrow compared to shoulder width, as is seen in specimens V and W of Figure 53, to wide, as is illustrated in specimens B and C of Figure 52. The type bears considerable resemblance to the Decatur point, but unlike Decatur is seldom beveled in the resharpening process and almost never exhibits the usual Decatur basal treatment of the diagonal removal of flakes from the basal corners toward the midline of the point, often referred to as a fracture base.

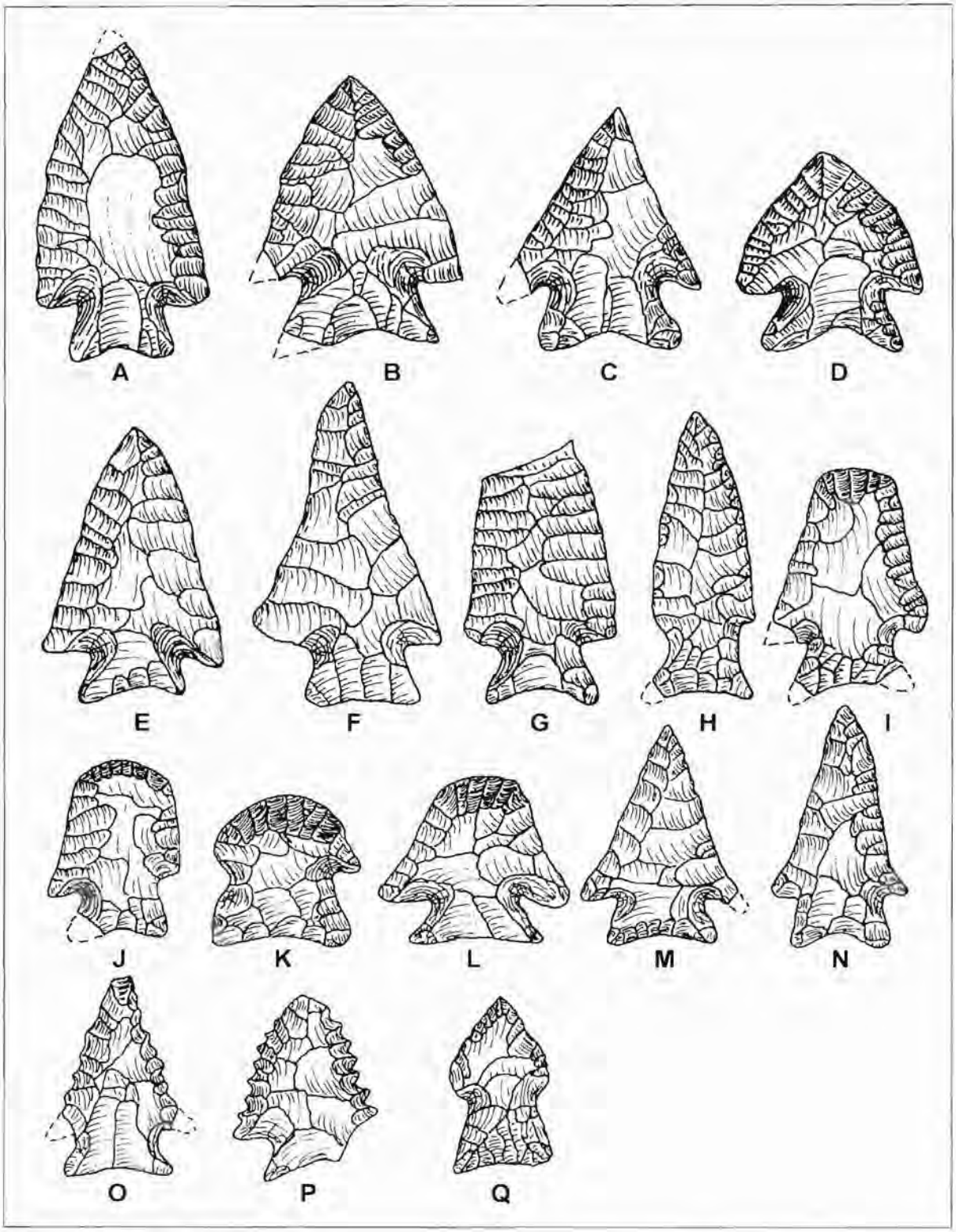

Figure 52. Cave Spring Points.

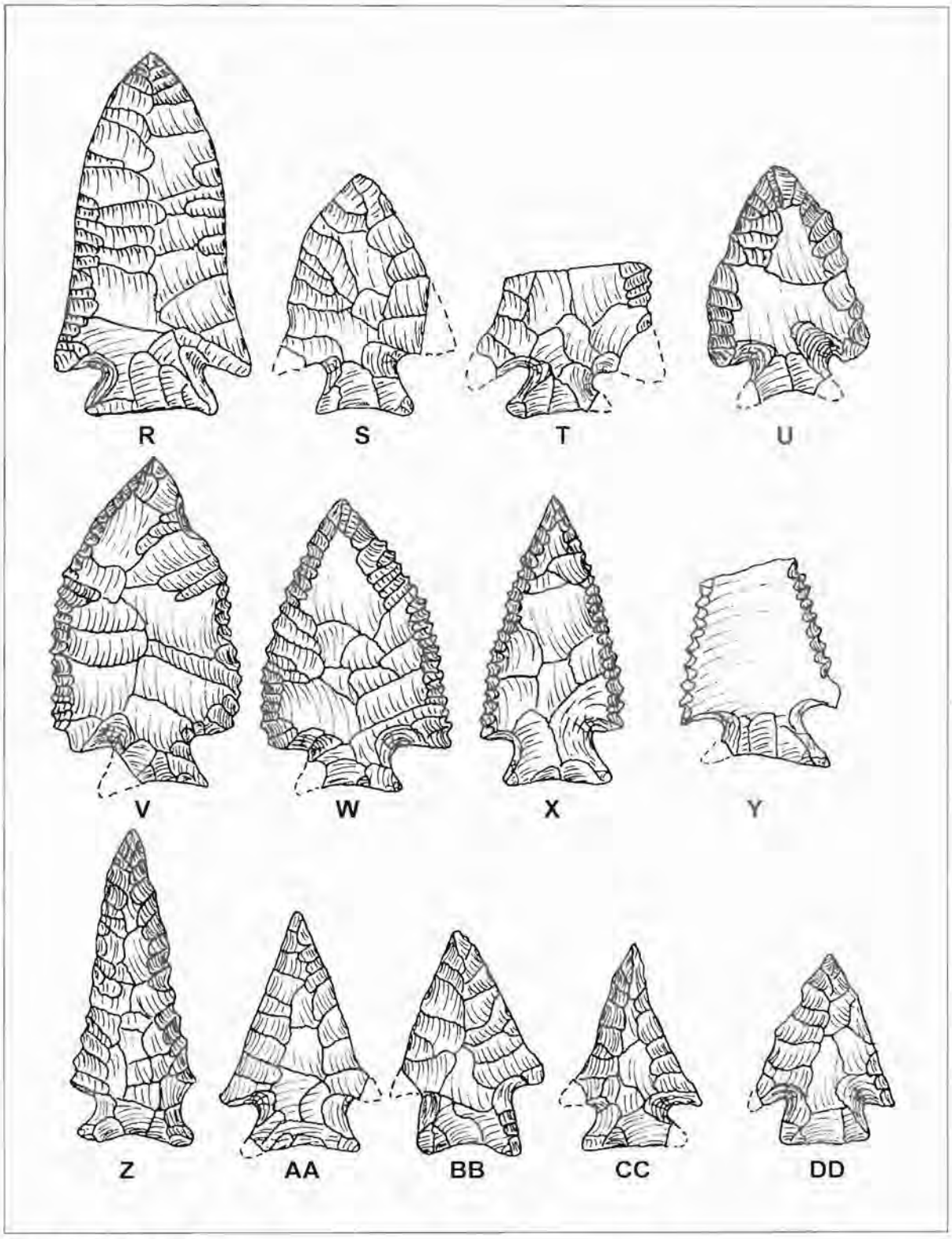

Figure 53. Cave Spring Points.

No preforms have been identified as being specifically for Cave Springs points. Most gravel-based bifacial projectile point reduction sequences appear to have used a high frequency of naturally flattened cobbles as a beginning point or core. An examination of specimen Y of Figure 53, however, points out that this is not necessarily the case, since this specimen was obviously made from a flake or unifacial blade. Specimens I, J, K, and L of Figure 52 illustrate Cave Springs points that have been recycled as end scrapers.

Most specimens of the type are made from locally available gravel chert. In northeast Mississippi they are almost invariably of heat-treated Tuscaloosa gravel, which is some shade of mottled red and/or pink. To the west the incidence of this material diminishes and is replaced with basically tan or light brown pre-loess gravel chert. Two specimens are of Fort Payne chert and two are of a blue green waxy material that is probably Bangor chert from north Alabama.

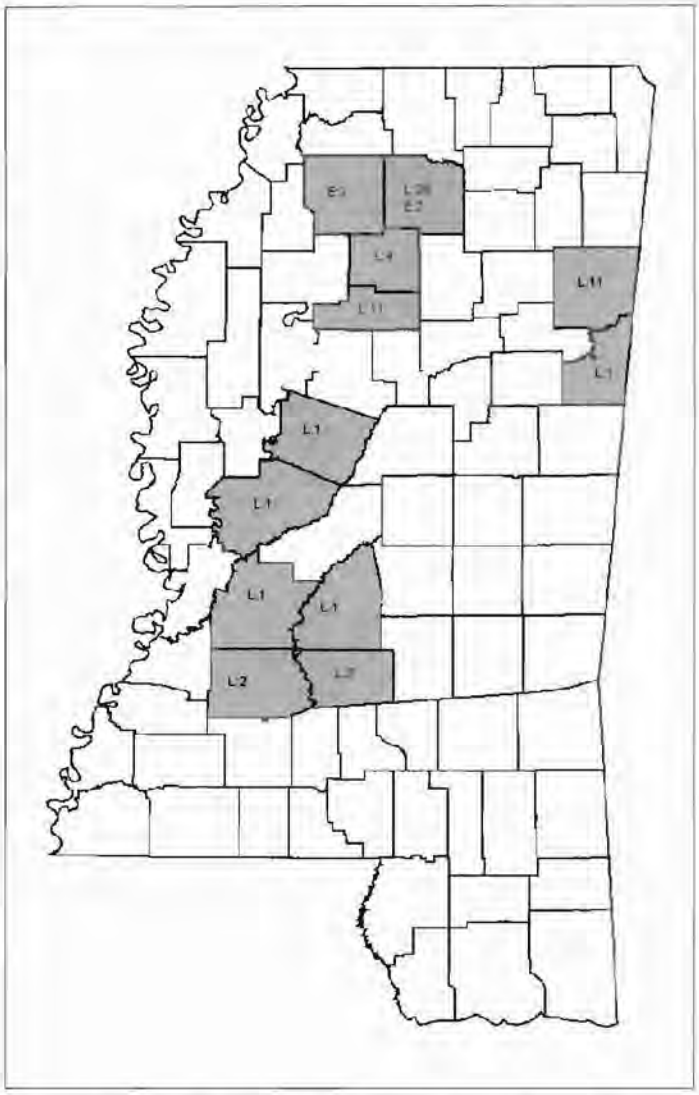

Figure 54. Known Distribution of Cave Spring Points. L=local, E=exotic.

Decatur (Cambron 1957:17)

Chronological Position: 9,500-9,000 BP

Metric Data: 210 specimens
Average length: 39 mm
Range of Length: 27-78 mm
Average Width: 25 mm
Range of Width: 18-40 mm
Average Thickness: 6 mm
Range of Thickness: 4-10 mm
Figures: 55, 56 ,57, and 58

On the basis of the Hester site stratigraphy, Decatur points appear to follow the Jude and Cave Springs types chronologically and to precede the provisional type Becker (Samuel O. Brookes, personal communication).

The specimens recorded in this study are small to medium sized, corner notched points that probably originally had excurvate or straight blades but almost invariably developed incurvate outlines with resharpening. Resharpened specimens are alternately beveled and serrated. The hafting areas of Decatur

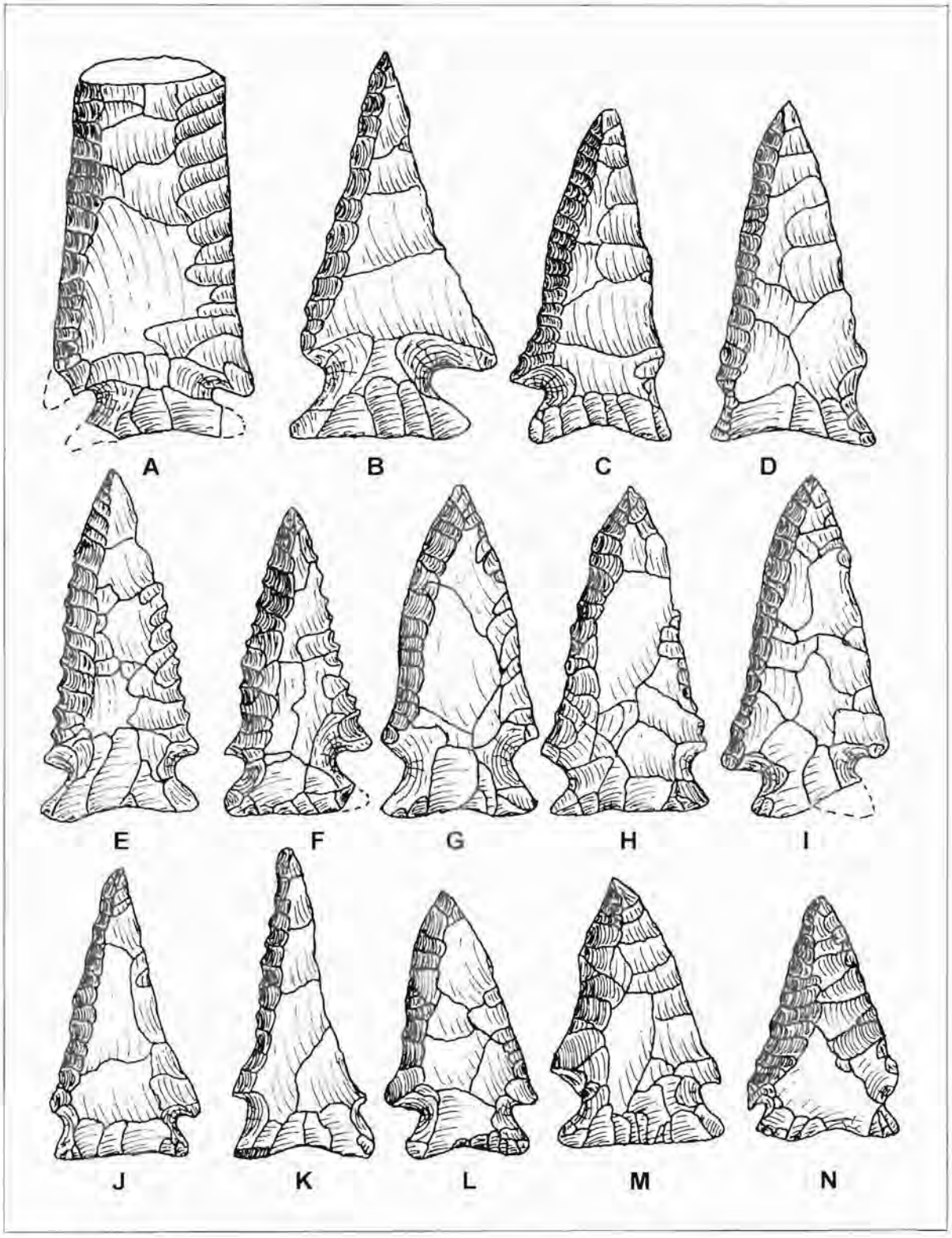

Figure 55. Decatur Points.

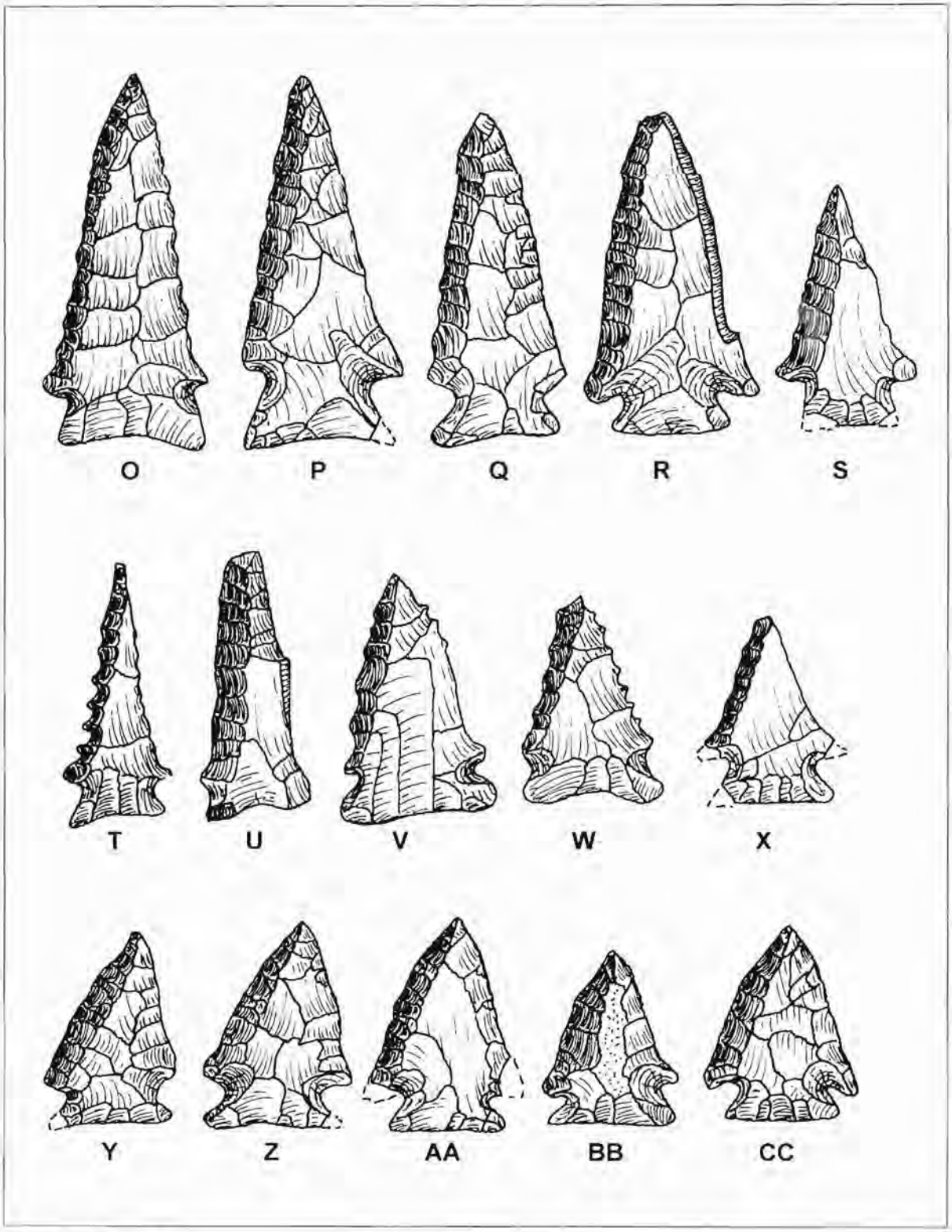

Figure 56. Decatur Points.

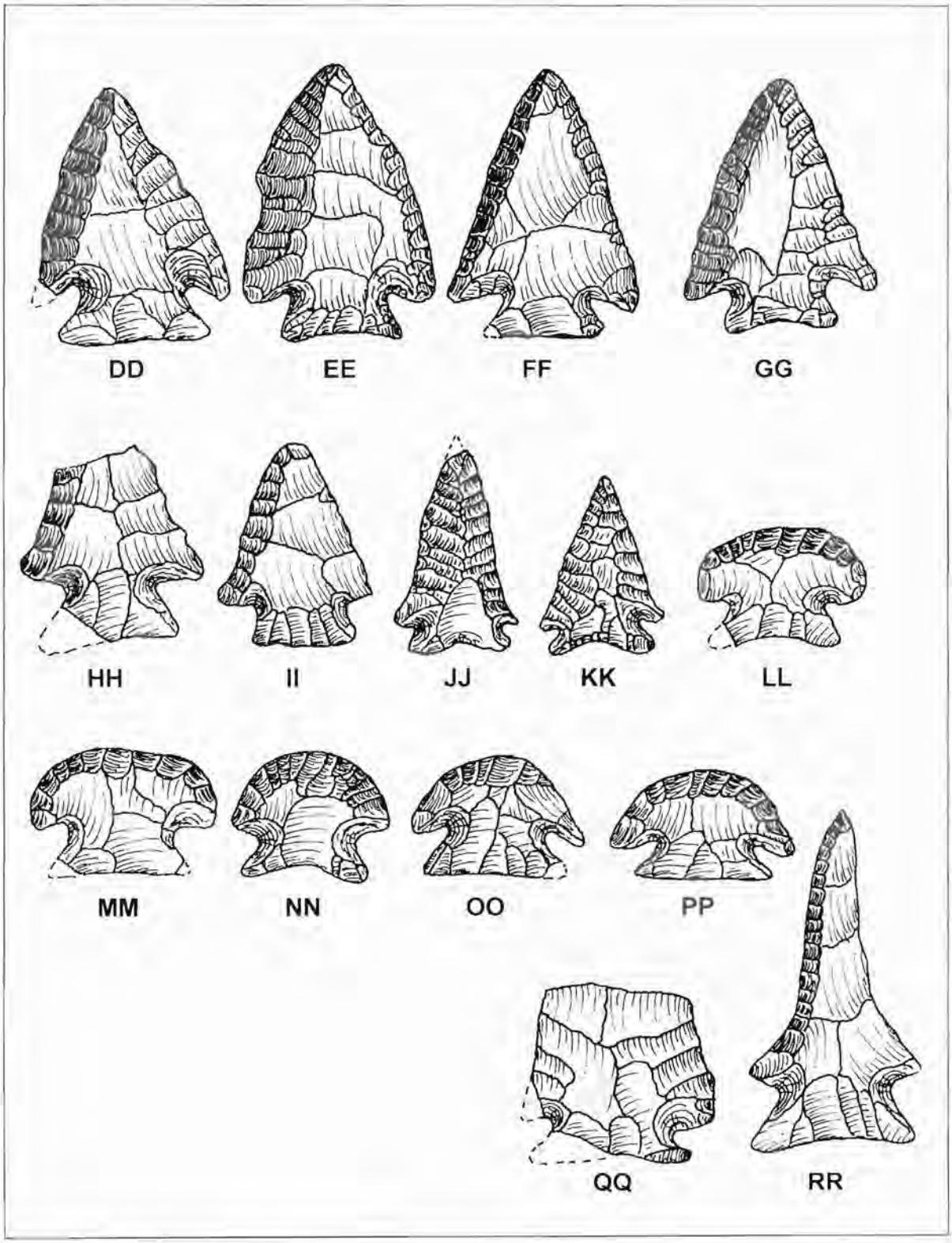

Figure 57. Decatur Points.

points are notably shorter than those of most other Early Archaic points. The usual technique for developing this shortened basal section is to remove flakes from each basal corner toward the point's midline, leaving what is known as a fracture base.

The fracture base technique in Mississippi appears, on the basis of the currently available sample, to be confined to the northeastern part of the state. Approximately half of the Decatur points from the Hester site for which data are available exhibit fracture bases. A total of 136 Decatur points was recorded at Hester. Specimens illustrated in Figures 55K, 56U, and 57QQ have fracture bases. Only one specimen with this feature has been recorded outside of the northeastern part of the state. The bases are usually well ground and thinned. Bases tend to be slightly shorter and more expanded than the similar Cave Springs point. Two specimens, Figure 56R and U, have sustained reverse impact fractures to the right hand edge. Specimen U was reworked after this fracture, as is evident on examination of the right hand margin of the point. Evidence of the fracture was not completely obscured by the repointing.

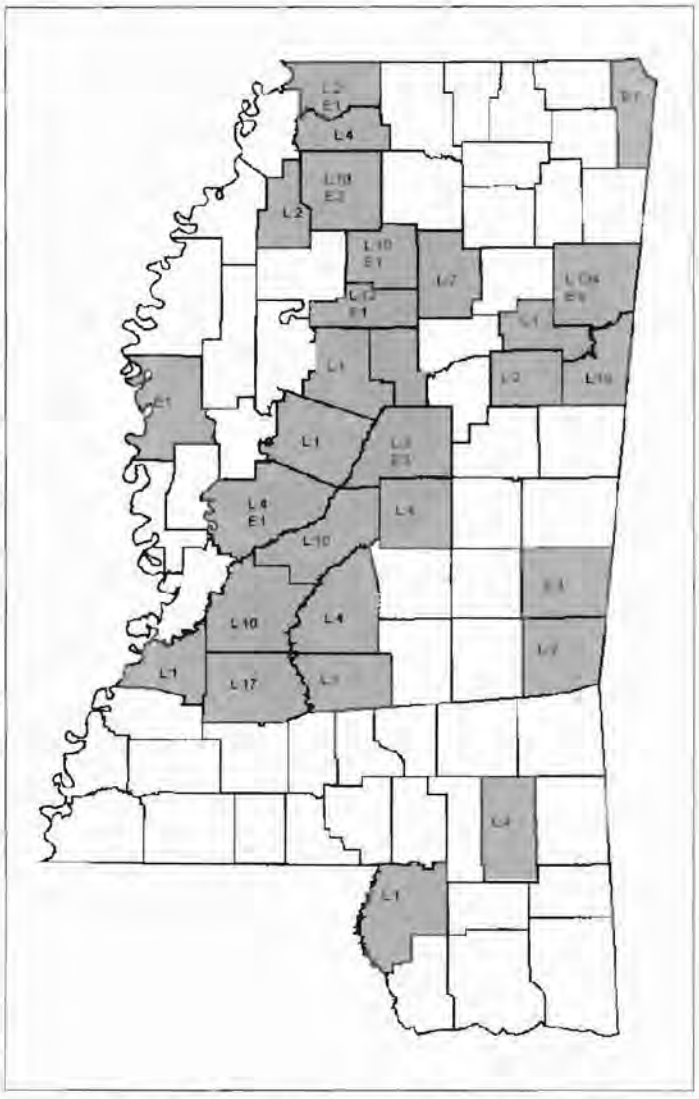

Figure 58. Known Distribution of Decatur Points. L=local, E=exotic.

The distribution of this type, as indicated by the available data, suggest that it is to be found over most of the state where land surfaces are of sufficient age. It seems likely, however, that a more thorough analysis of collections statewide will ultimately reveal that the densest concentration will be to the northeast.

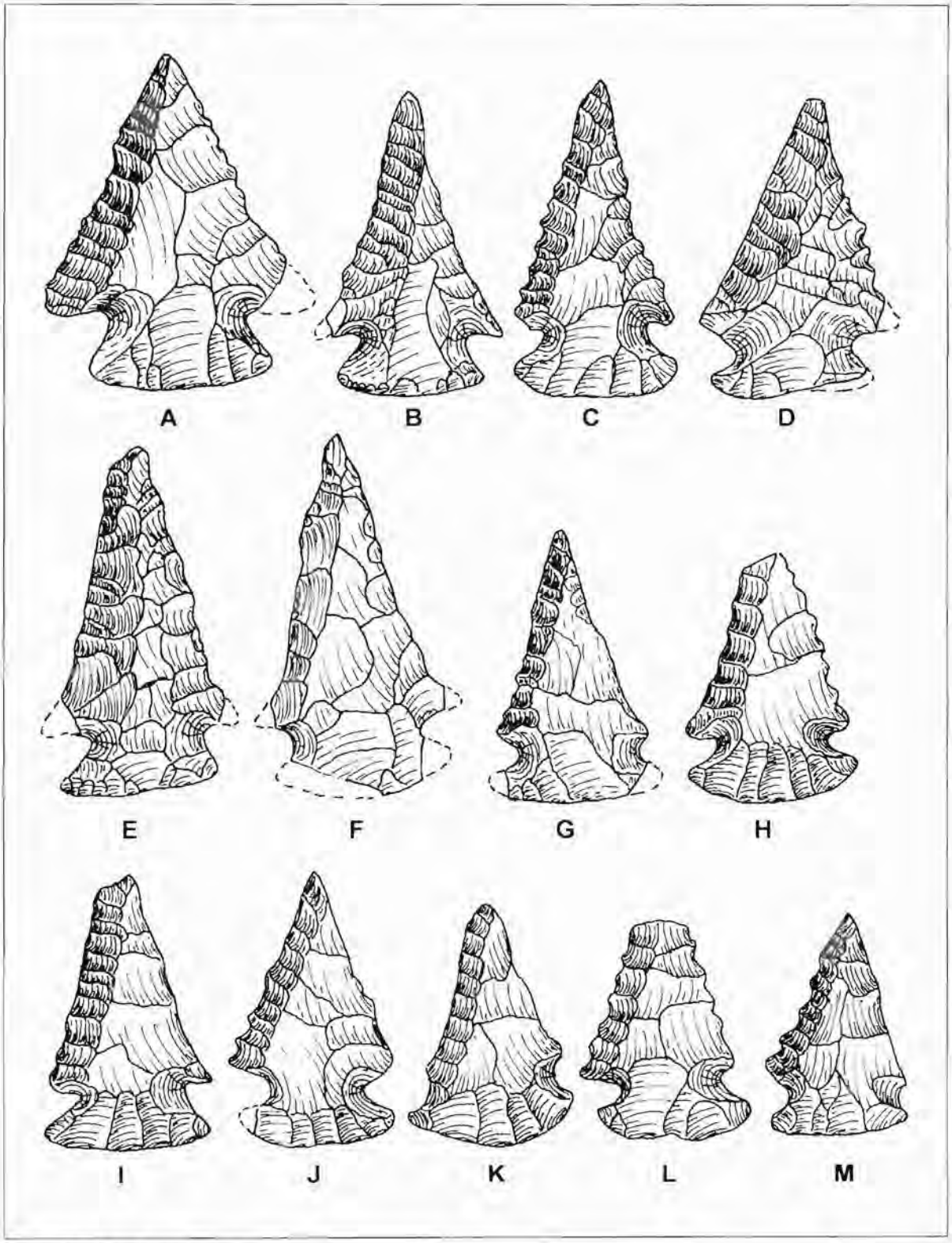

Figure 59. Becker Points.

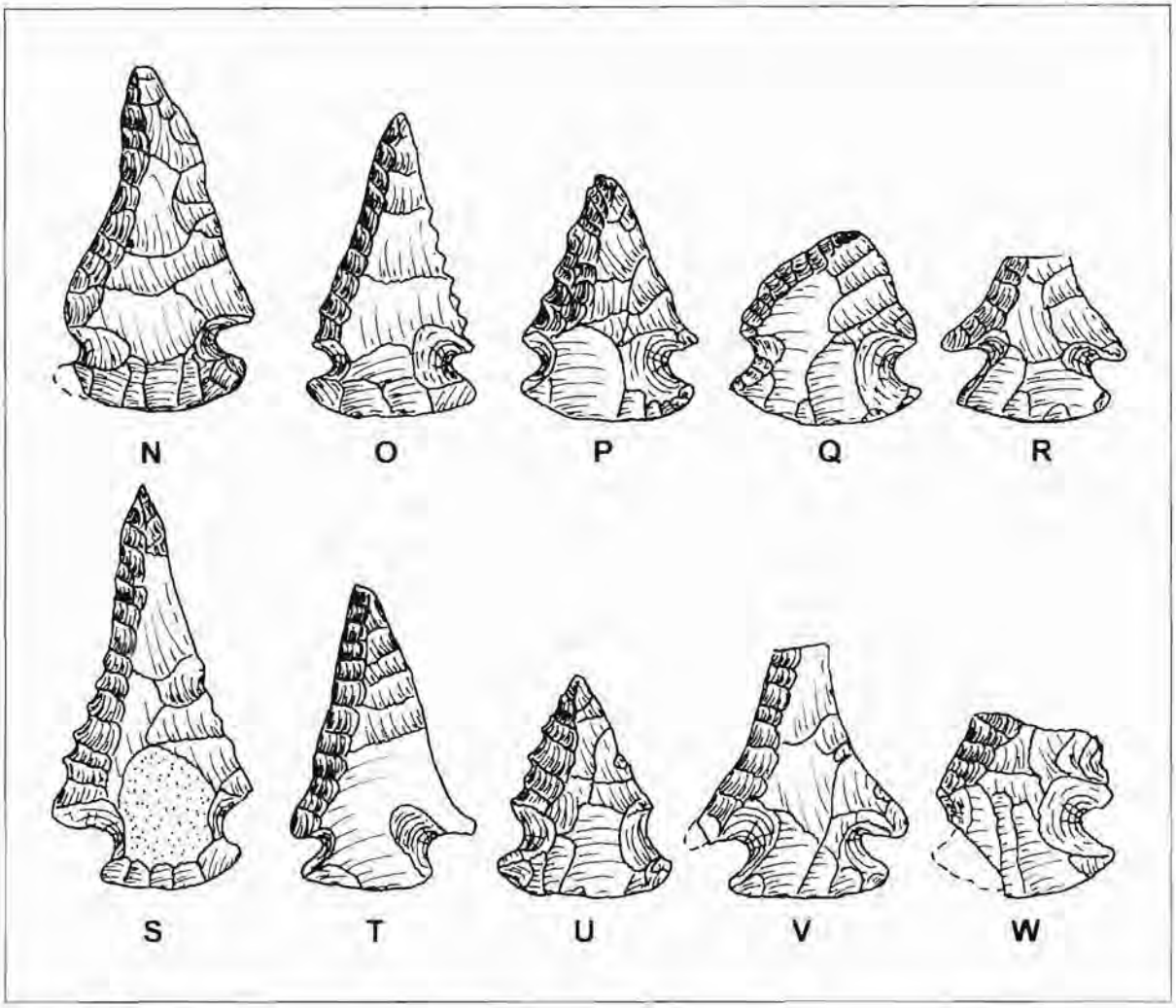

Figure 60. Becker Points.

Becker (Provisional type)

Chronological position: 9,000-8,500 BP

Metric Data: 43 specimens
Average Length: 48 mm
Range of Length: 34-61 mm
Average Width: 29 mm
Range of Width: 19-41 mm
Average Thickness: 8 mm
Range of Thickness: 6-10 mm
Figures: 59, 60, and 61

Becker points are named for a group of points excavated at the Hester site in Monroe County, northeast Mississippi (Samuel O. Brookes, personal communication). They are related to the Decatur

type but are thought on the basis of Hester site stratigraphy to be slightly later. They also seem to precede the terminal Early Archaic Lost Lake and Pine Tree types on that particular site. Becker points exhibit well thinned convex bases that are usually heavily ground, and in these basal characteristics they are virtually identical to Pine Tree points. They are corner notched and resharpened by the alternate beveling technique, leaving a rhomboidal cross section. Blade edges are straight to incurvate and are generally serrated. The raw material is generally heat treated Tuscaloosa gravel chert that has been completely color changed from the basic tans and browns into a mottled pink, red, or some variation of red-pink-orange. The type is found mostly in north Mississippi, and the predominance of the heat-treated Tuscaloosa chert suggests a northeastern origin for the type.

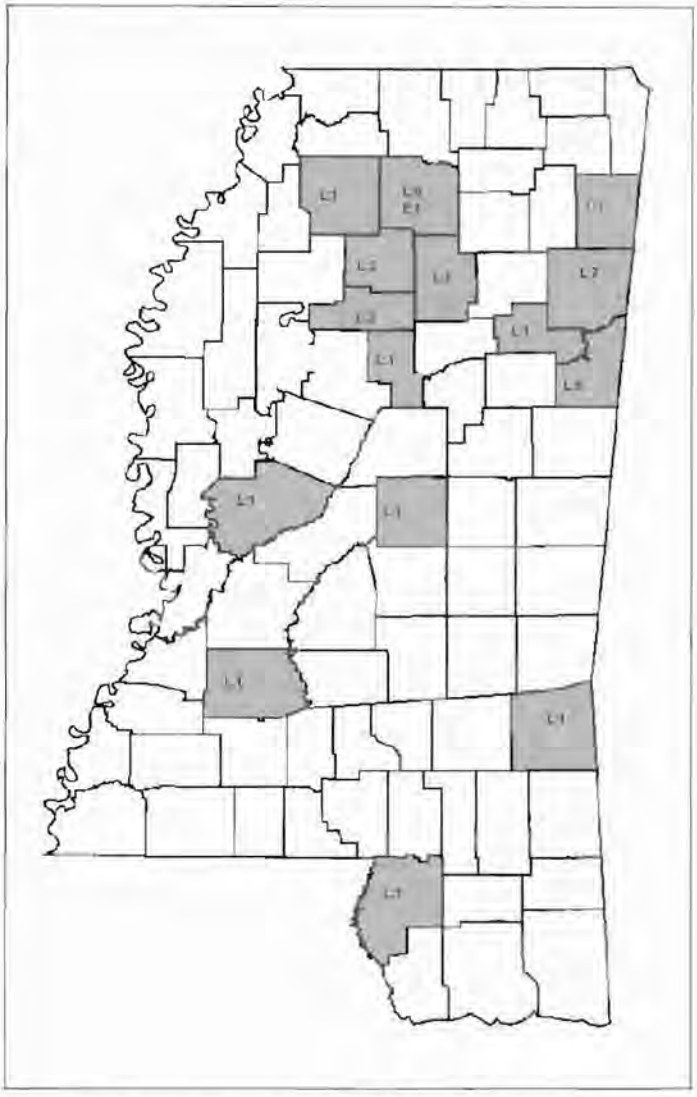

Figure 61 Known Distribution of Becker Points. L=local, E=exotic.

St. Charles (Scully 1951)

Chronological Position: 9,000-8,500 BP

Metric Data: 29 specimens
Average length: 70 mm
Range of Length: 35-142 mm
Average Width: 30 mm
Range of Width: 20-41 mm
Average Thickness: 7 mm
Range of Thickness: 5-9 mm
Figures: 62, 63, and 64

St. Charles points so far recorded in Mississippi appear to be only one of the several variations seen in the Midwest. The Mississippi St. Charles points are primarily what has been named Plevna in Alabama (Cambron and Hulse 1964:106). The known Mississippi examples are from the northern part of the state with only two exceptions and these two are from west central Mississippi (Figure 64). The raw material for this type in our recorded sample is largely exotic (44.8%), and most is Fort Payne chert, which also suggests a northern connection for the type. One specimen is of a high quality, honey colored flint with opaque whitish inclusions. The remainder are either of tan pre-loess gravel chert, if in central or northwest Mississippi, or red or pink mottled heat-treated Tuscaloosa gravel chert, if found in northeast Mississippi.

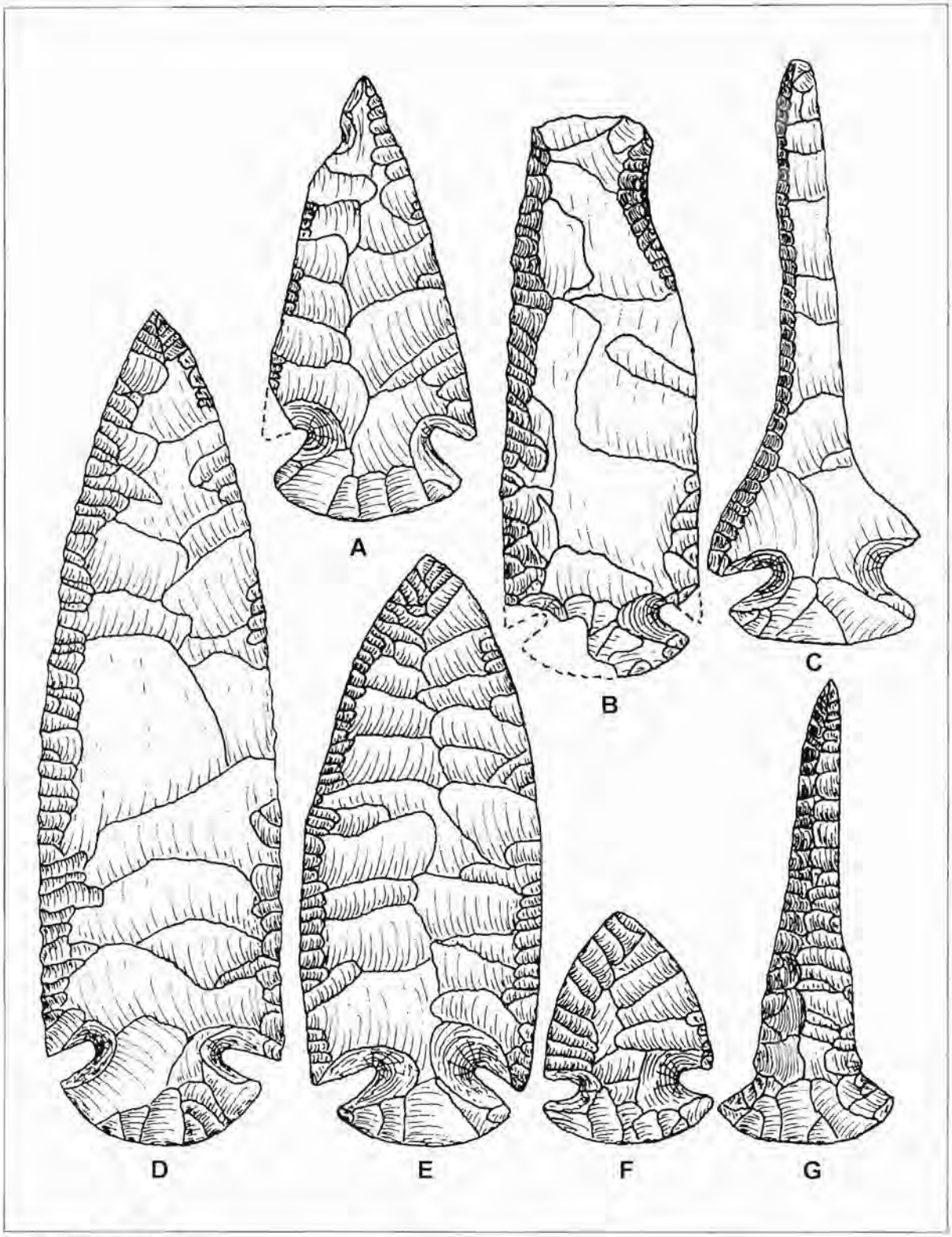

Figure 62. St. Charles Points.

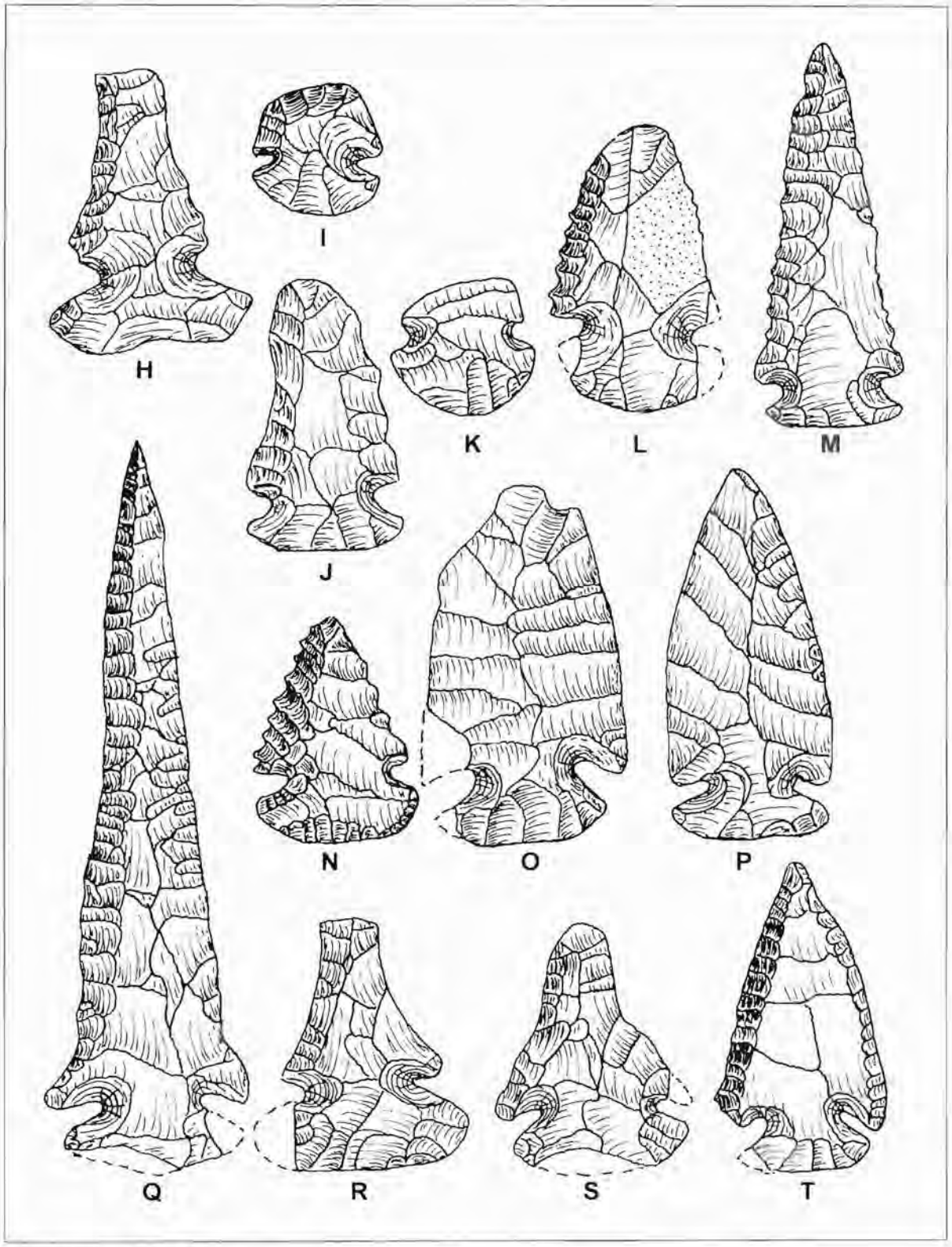

Figure 63. St. Charles Points.

Only one example from Mississippi has been excavated so far. This specimen was found in the Early Archaic deposit at the Hester site in Monroe County. The type resembles what has been described in this study as the Becker point and is probably of about the same age.

The St. Charles points under discussion here have expanding bases that are thinned, well ground, and convex. They are either side- or corner-notched. The blade section of points is triangular or parallel sided. Some specimens exhibit serrations, and most of those that have been resharpened are alternately beveled. It seems likely that most examples were serrated before being lost or discarded. Figures 62 and 63 illustrate a near complete range of the various stages of reworking, with specimen E of Figure 62 being near the original form. Specimen E in fact has not yet taken on the distinct rhomboidal cross section characteristic of frequently resharpened specimens. Occasional points have been reworked into end scrapers (Specimen I of Figure 63). Others have been repeatedly sharpened unifacially until they developed the "drill" form seen in specimens C and G of Figure 62. Specimen B of Figure 62 has a concavity on the right edge which suggests use as a spokeshave.

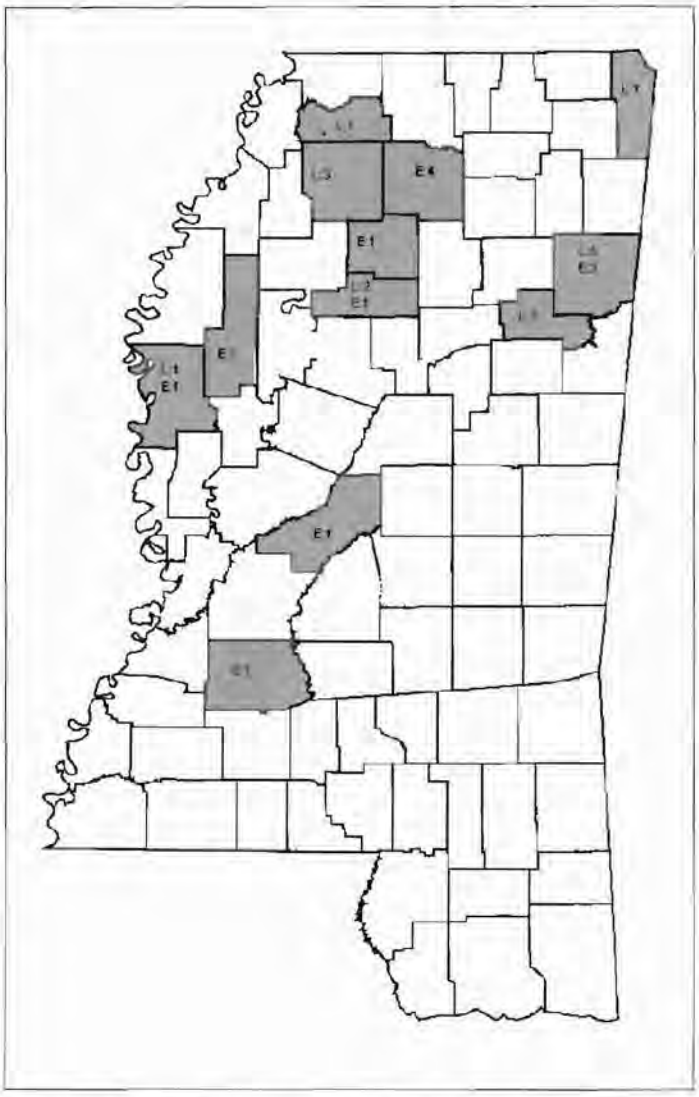

Figure 64. Known Distribution of St. Charles Points. L=local, E=exotic.

Hardin (Scully 1951:2)

Chronological Position: 9,000-8,500 BP

Metric Data: 299 specimens
Average Length: 58 mm
Range of Length: 38-114 mm
Average Width: 31 mm
Range of Width: 19-43 mm
Average Thickness: 7 mm
Range of Thickness: 5-11 mm

Figures: 65, 66, 67, 68, and 69

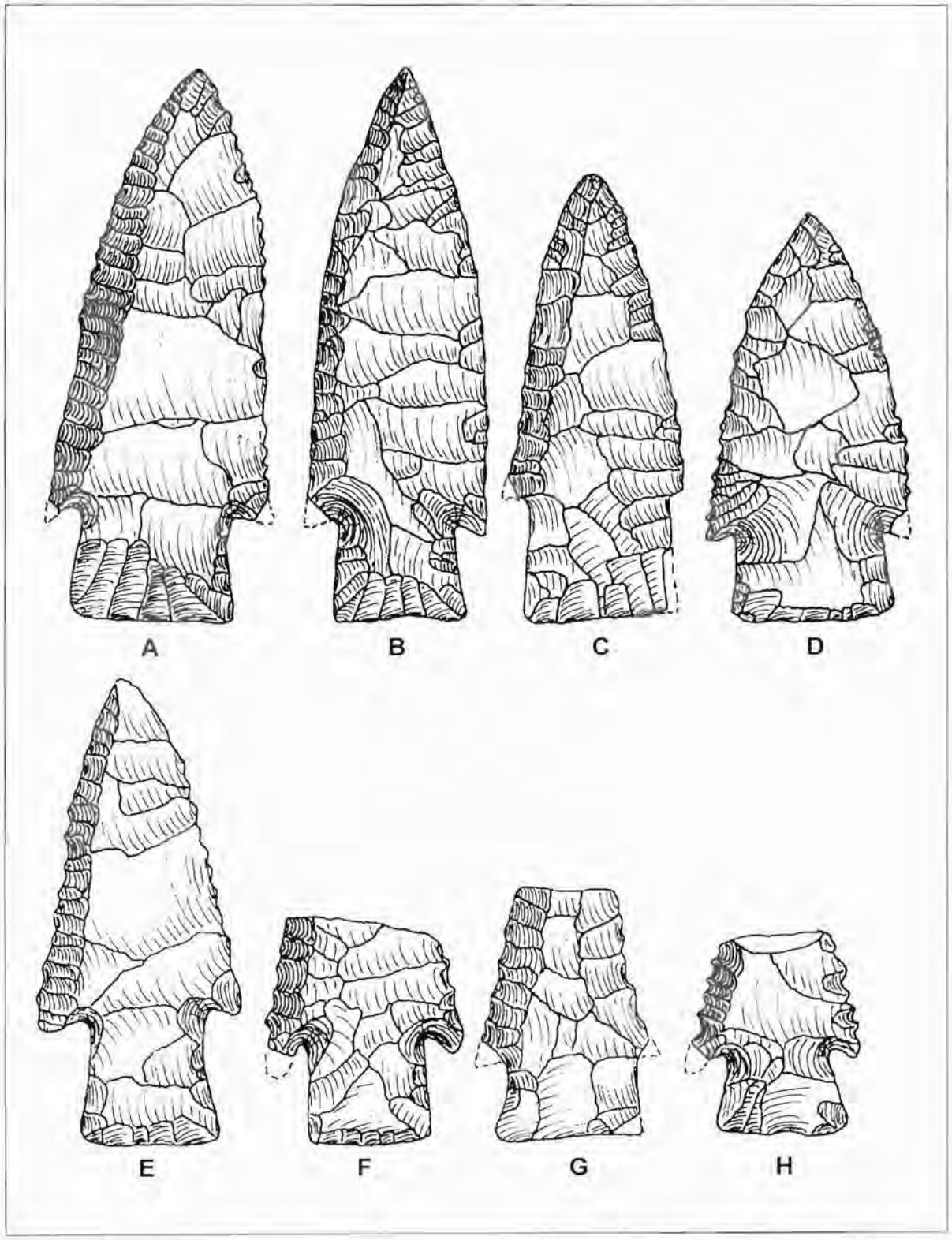

Figure 65. Hardin Points.

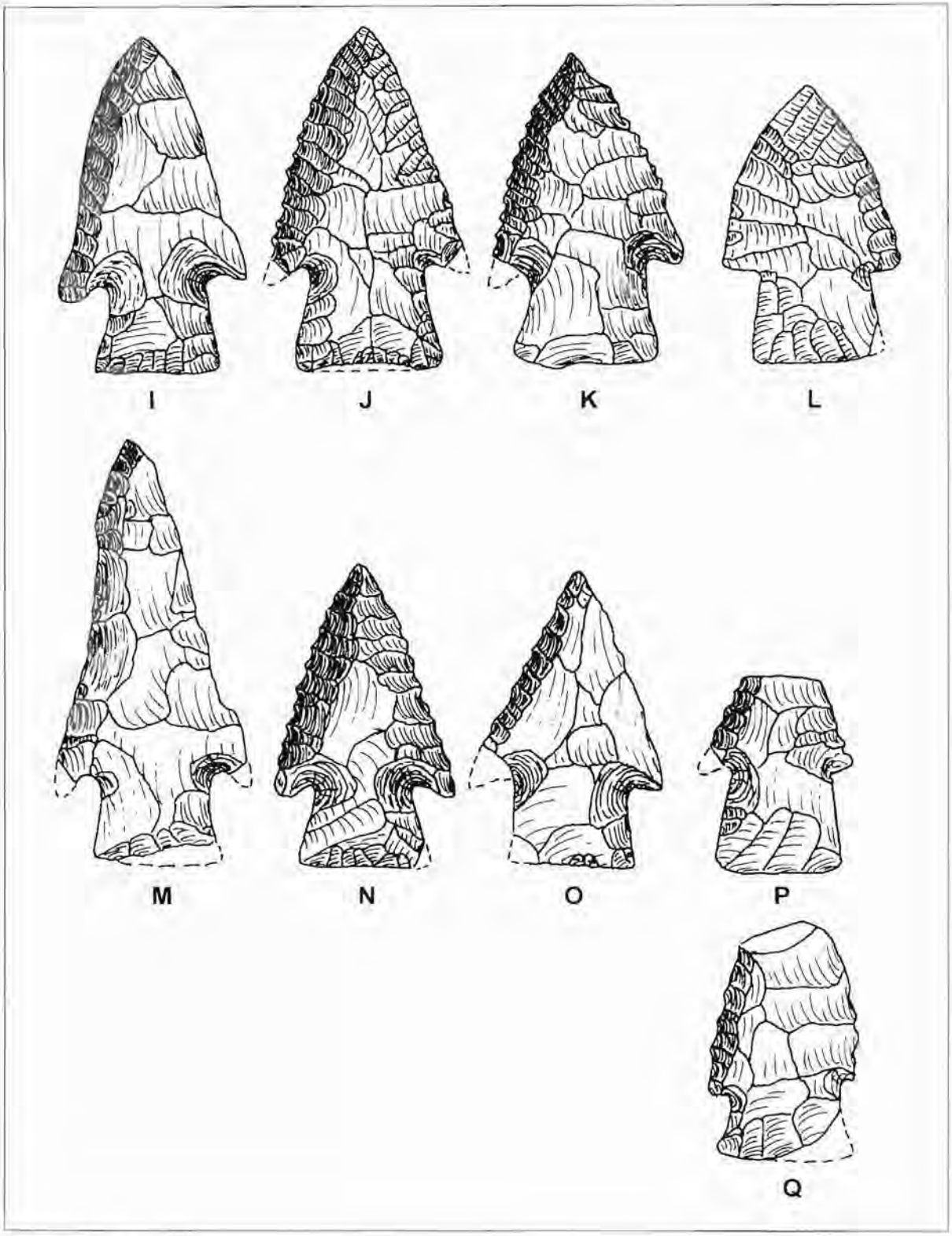

Figure 66. Hardin Points.

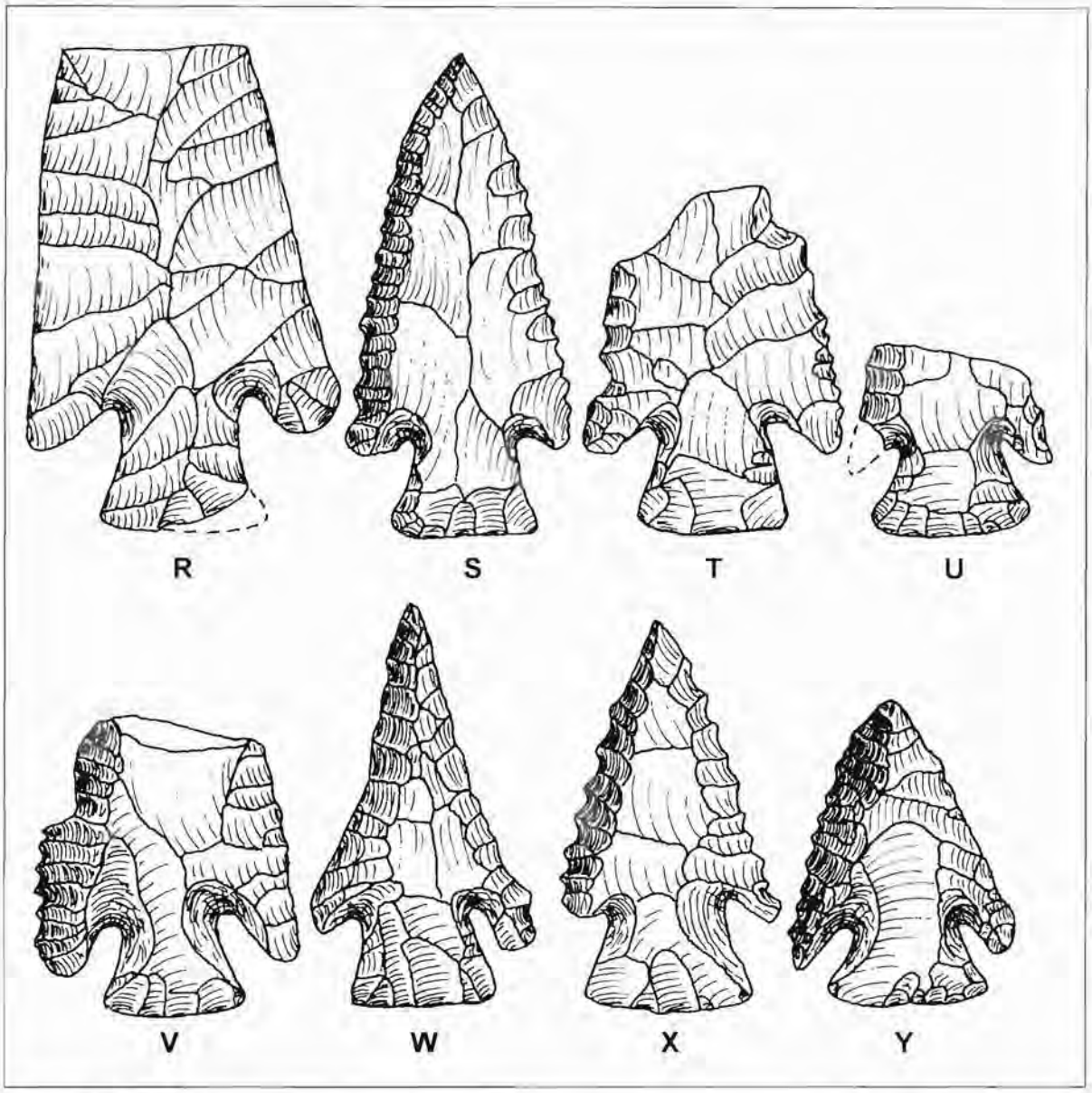

Figure 67. Hardin Points.

One of the most widespread Early Archaic point types found in Mississippi is the Hardin point (Figure 69). For purposes of this guide, the Lost Lake type (Cambron and Hulse 1975:83) has been included with the Hardin type. This procedure seems indicated by the fact that the two types include many specimens that could be classified into either category, as will be seen by an examination of Figures 65-68. The more classic Hardin type (Figures 65A-H; 66I-Q) seems to be more commonly found in northwestern Mississippi, and Lost Lake (Figure 67R-Y) is more commonly seen to the east and south. The two types seem to represent arbitrarily separated parts of a geographic-morphological continuum extending from the Plains into the Midwest and continuing into the Southeast. The Scottsbluff point is generally acknowledged as being closely related to the Hardin type (Perino 1985:170). It represents the

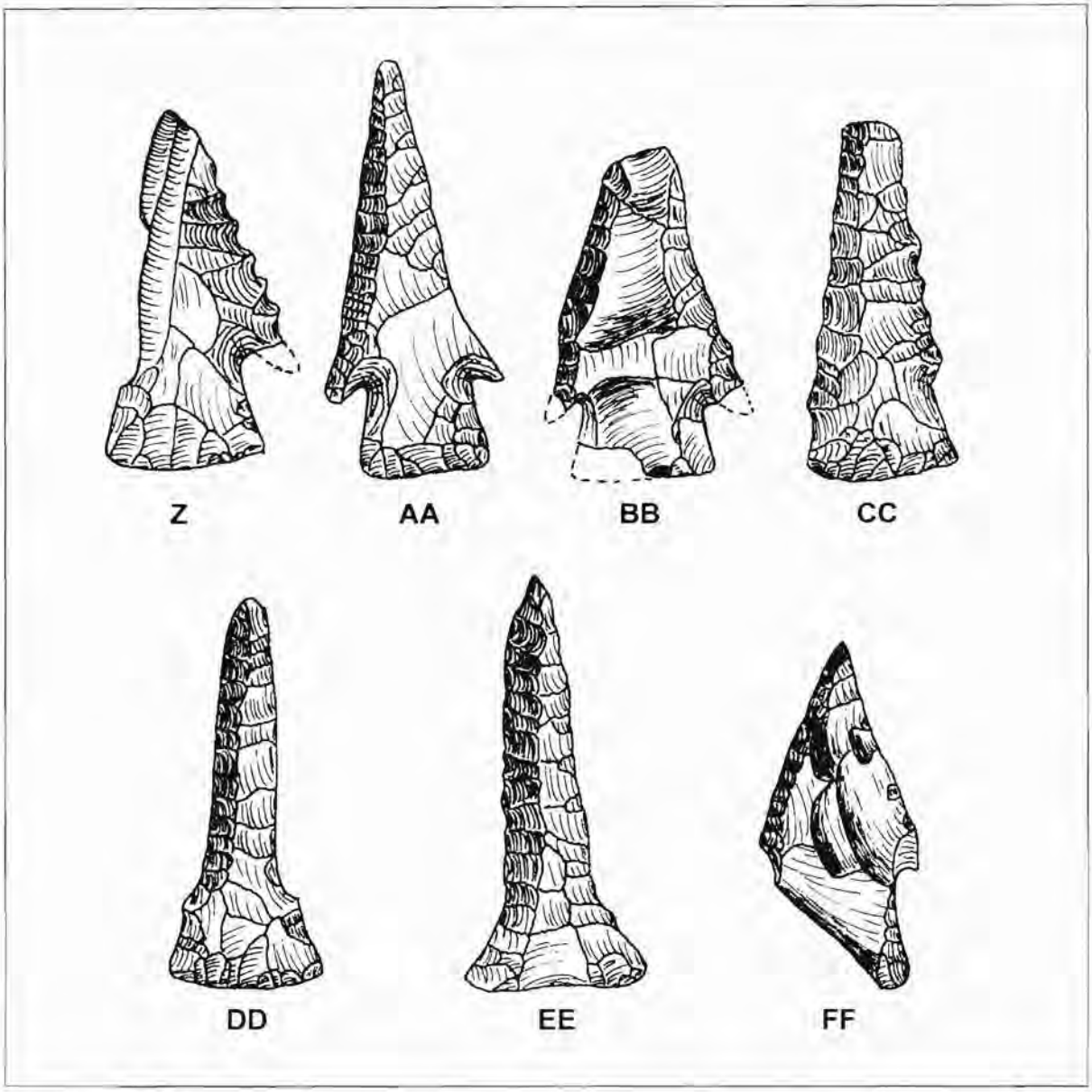

Figure 68. Hardin Points.

northwestern end of the continuum, with Hardin in the middle and Lost Lake to the Southeast. Lost Lake points in turn seem closely related to certain varieties of the Bolen point and the Ocala point from Florida (Perino 1985:277). Lost Lake points, which are considered variations of Hardin points, are thought on the basis of stratigraphic position at the Hester site to be one of the latest of the Early Archaic types.

One characteristic phase in the ordinary life cycle of Early Archaic corner-notched projectile points is conspicuously absent from the Hardin specimens recorded thus far in Mississippi: none are reworked into end-scrapers. End-scrapers are commonly seen on most other corner-notched types of this era. The usual mode of resharpening was alternate beveling of each edge, which resulted in a rhomboidal

cross-section. Many specimens are resharpened until they are reduced into "drill" forms as seen in Figure 68DD-EE. Several examples are recycled as wedges; for example, specimen 68Z exhibits broad intrusive flake scars indicative of multiple impacts to the distal end. Specimen 68BB bears evidence of the same type of use, with the same broad intrusive flake scars at both proximal and distal ends. Specimen 68FF has sustained damage to both lateral margins through the same type of wedging and hammering.

Most specimens of this category are made from either pre-loess gravel chert or Tuscaloosa gravel cherts. Most exhibit some evidence of heat treating. Usually the points made from Tuscaloosa gravel are conspicuous by their completely heat altered color, which is usually glossy and some variation of red, pink, or orange mottled. Fifty of the 299 points in this category are of some form of exotic raw material, with the largest category being Fort Payne chert.

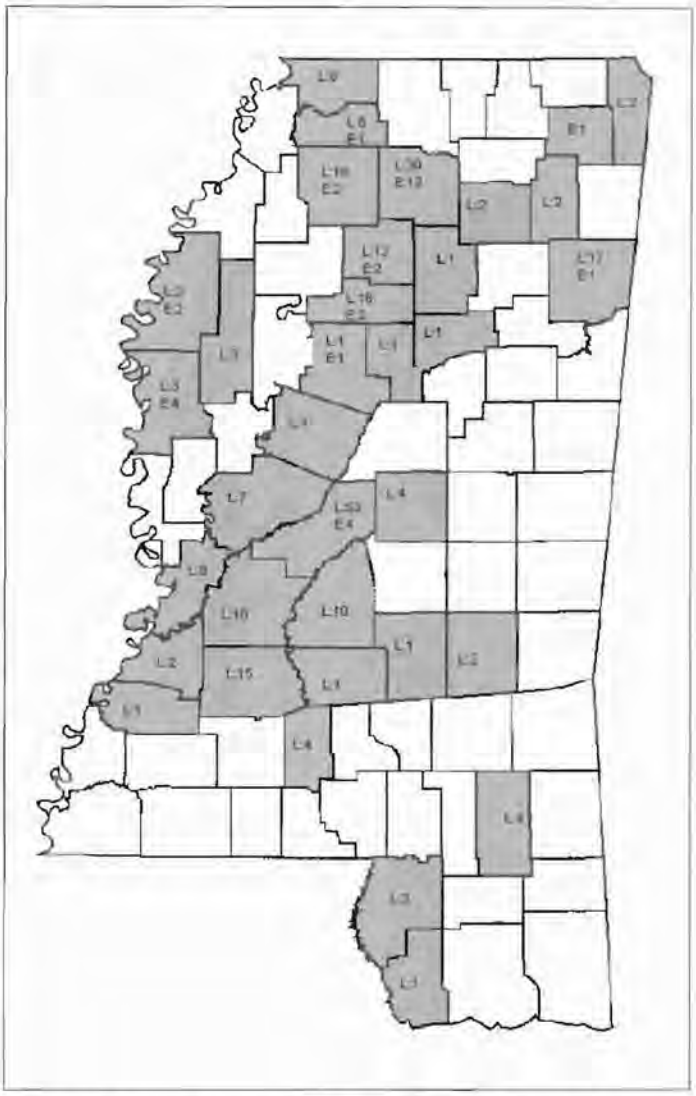

Figure 69. Known Distribution of Hardin Points. L=local, E=exotic.

Scottsbluff (Barbour and Schultz 1932)

Chronological Position: 9,000-8,500 BP

Metric Data: 4 specimens. The size range for this type is probably about the same as for the previously described Hardin type.

Figures: 70 and 71

Scottsbluff points are scarcely represented in Mississippi, with only four known specimens. Three of the four (Figure 70, specimens A, C and D) are from the westernmost braided stream surface of the Yazoo Basin (also illustrated by Brain 1971:12). All are of tan gravel chert, assumed to have been available locally or nearby. The type is much more common to the west in Arkansas and Louisiana, but appears to have an abrupt termination in western Mississippi. The fourth specimen, illustrated in Figure 70B, is from Yazoo County in west central Mississippi. Scottsbluff is primarily a Plains type. As was discussed above with regard to Hardin points, Scottsbluff is a related form and in fact seems to be part of a continuum which includes Hardin, Lost Lake, and other types.

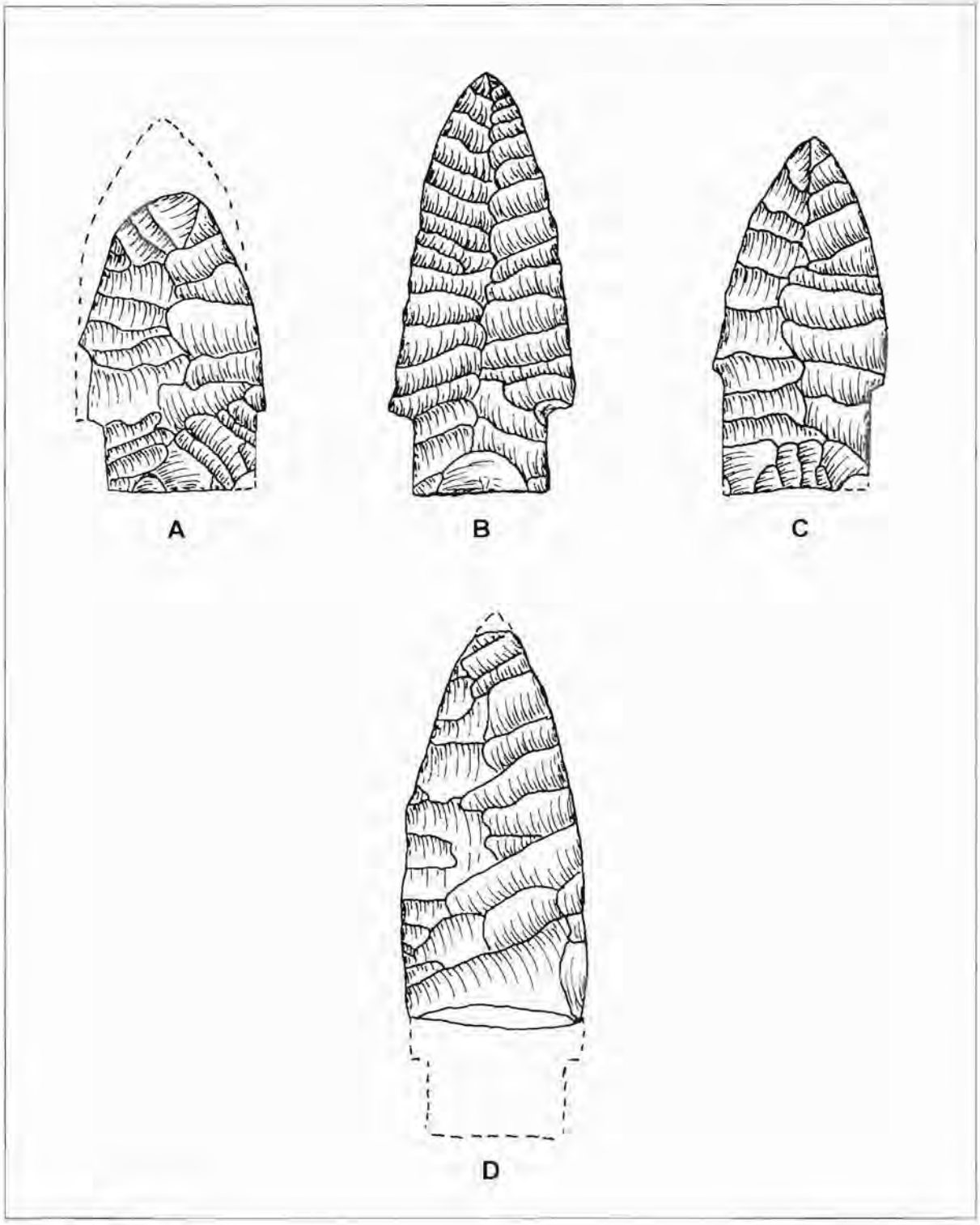

Figure 70. Scottsbluff Points.

Figure 71. Known Distribution of Scottsbluff Points. L=local, E=exotic.

The Scottsbluff points differ from the Hardin type primarily in being much more likely to exhibit parallel flake scars and in having a relatively narrower shoulder area with a correspondingly relatively broader stem.

Presenting metric data on such a limited sample seems pointless. The recorded specimens suggest a range of average dimensions comparable to that of the Hardin type.

Bolen (Neil 1963)

Chronological Position: 9,000-8,500 BP

Metric Data: 33 specimens
Average Length: 43 mm
Range of Length: 37-57 mm
Average Width: 26 mm
Range of Width: 21-35 mm
Average Thickness: 7 mm
Range of Thickness: 5-9 mm
Figures: 72 and 73

Bolen points represent only a small minority of Early Archaic projectile points found in Mississippi. Most recorded examples are in fact from one site in Perry County in southeast Mississippi (Giliberti 1995:81), and all recorded in this study are from south Mississippi (Figure 73). Bolen is most commonly found in Florida and adjacent states. Five variations of stem configuration are recognized in the core area of the distribution of the type (Perino 1985:39). The Mississippi examples are primarily of the variant with internally expanded side notches, although there are some sorting difficulties between these examples and the more expanding based version of what is being called Hardin points in this publication. Specimens A, B, E, K, and O of Figure 72 best exemplify this particular feature.

Specimen F of Figure 72 represents an unfinished example and may give some indication of the original size of the type. It is unground and retains cortex on both faces. These cortex remnants demonstrate that at least some of the time Bolen points were made using deliberately selected thin, flattened pebbles as blanks. Specimen N of Figure 72 also exhibits cortex on one face. Usually Early Archaic knappers were careful to remove all cortex remnants completely from finished points. Specimens F and N are both from site 22-Pe-504 in Perry County, and many examples of projectile points from both Late Paleoindian and Early Archaic components at that site exhibit cortex remnants. Apparently this was the result of the limited

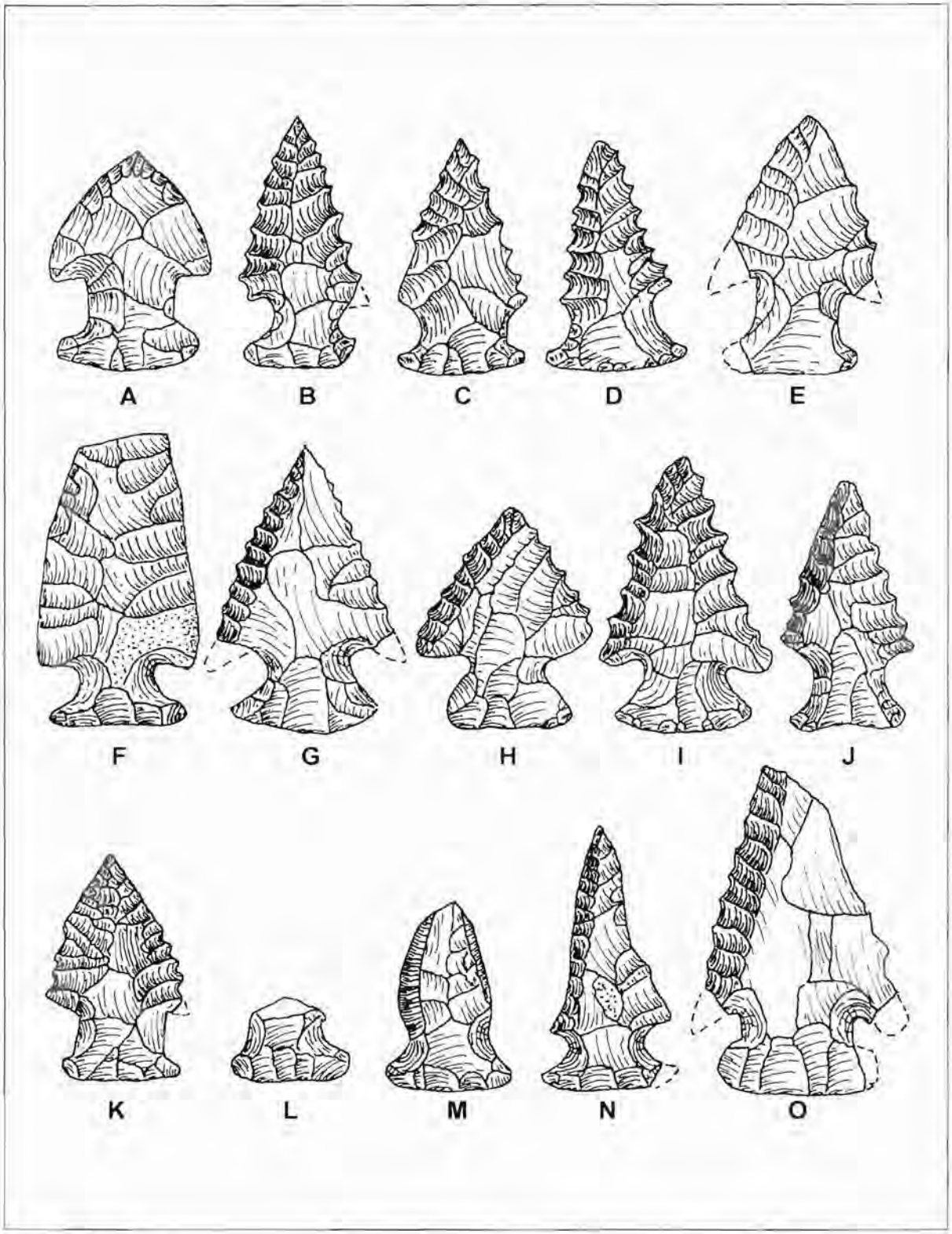

Figure 72. Bolen Points.

size of most of the available raw material, which consists primarily of gravel chert of the Citronelle formation found in local streams. Unless the craftsman was willing to accept a truly minuscule version of the ideal sized projectile point, occasionally such compromises with standards had to be made.

Most examples of the recorded Bolen points are of locally available Citronelle, pre-loess gravel chert, or Tallahatta quartzite. Although most of the recorded specimens are from one site (22-Pe-504), and the sample therefore is biased, it would appear that Tallahatta quartzite was heavily used. Ten of the total of 23 Bolen points from the site were of that material, while one was of a ferruginous quartzite thought to have come from the same geological formation (Giliberti 1995).

Most of the recorded Bolen points have a straight or convex basal edge that is usually thinned and well ground, with the grinding extending along the stem edges. They are side- or corner-notched and most specimens are alternately beveled and serrated. Blades are usually triangular with straight or incurvate edges. One specimen (Figure 72M) has been laterally snapped and two long flakes removed, one on each edge emanating from the surface created when the lateral snap occurred. This would appear to have been the result of use as a wedging tool, probably in splitting bone or antler.

Figure 73. Known Distribution of Bolen Points. L=local, E=exotic.

Unfortunately the site where the only excavated examples of this type were recovered was relatively shallow, and it was not possible to determine a chronological position with any precision. The general resemblance to the Hardin-Lost Lake category would seem to indicate a position near the end of the Early Archaic period.

Pine Tree (Cambron 1957:17)

Chronological Position: 8,500-8,000 BP

Metric data: 369 specimens
Average Length: 44 mm
Range of Length: 26-120 mm

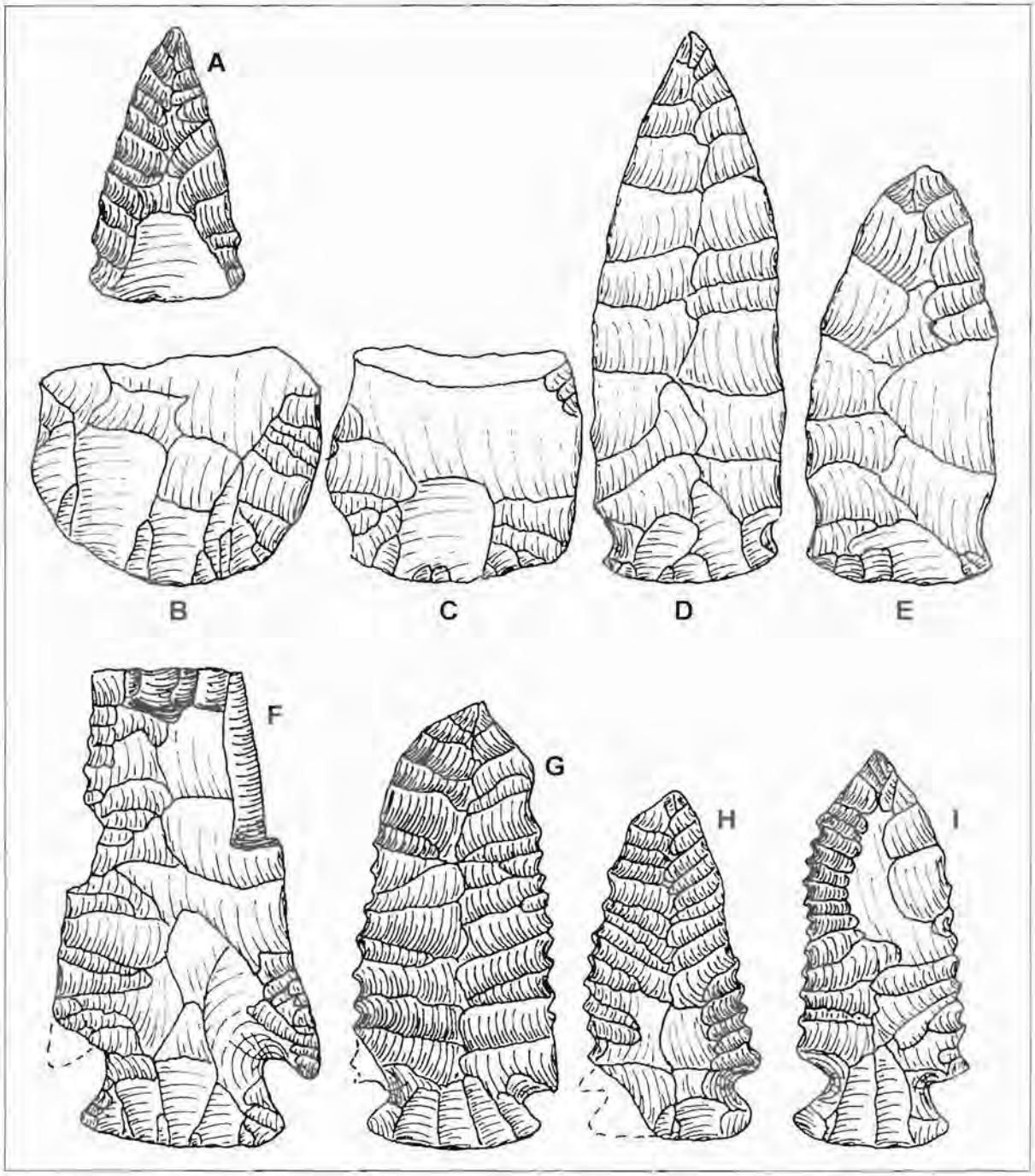

Figure 74. Pine Tree Points.

Average Width: 27 mm
Range of Width: 16-42 mm
Average Thickness: 7 mm
Range of Thickness: 4-12 mm
Figures: 74, 75, 76, and 77

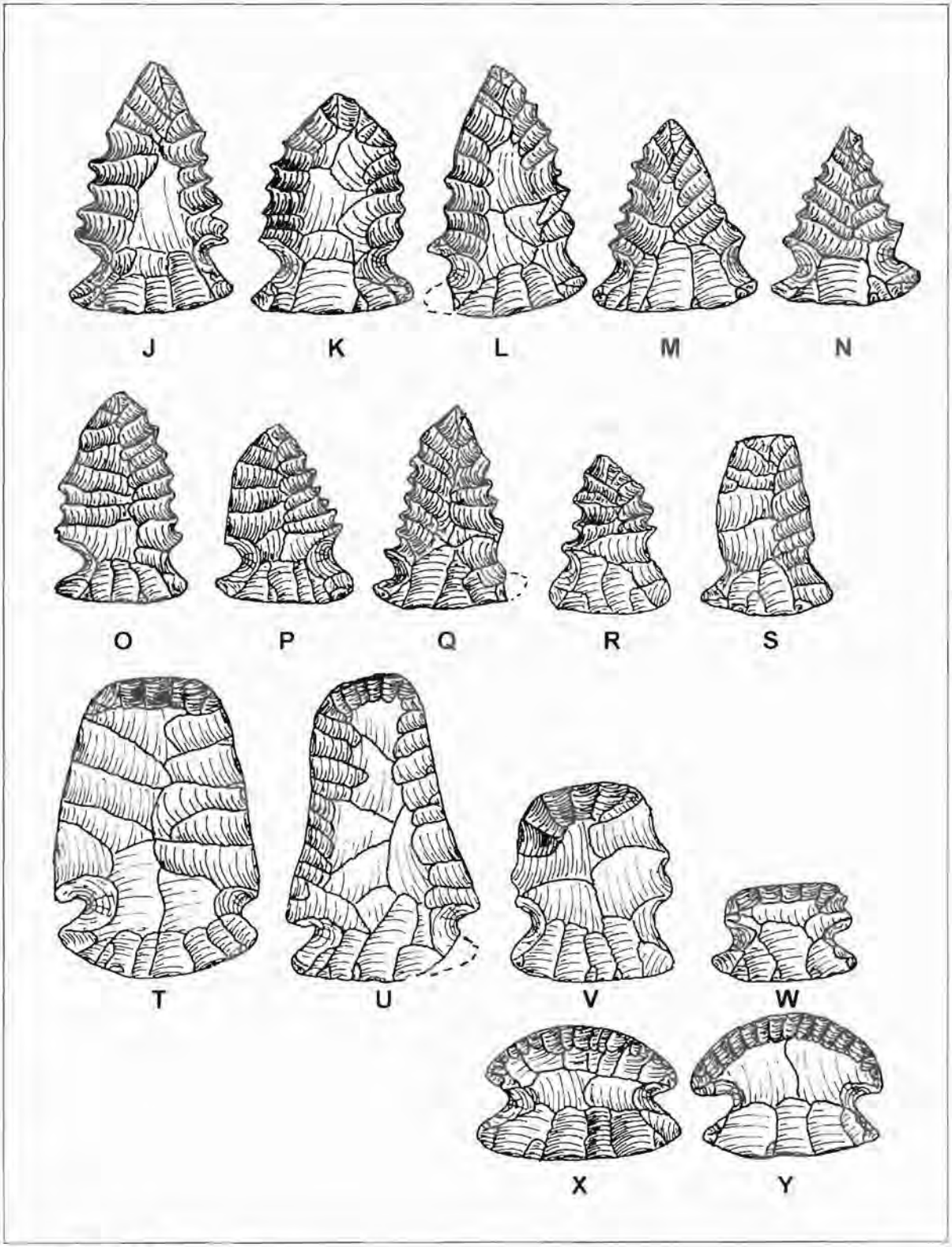

Figure 75. Pine Tree Points.

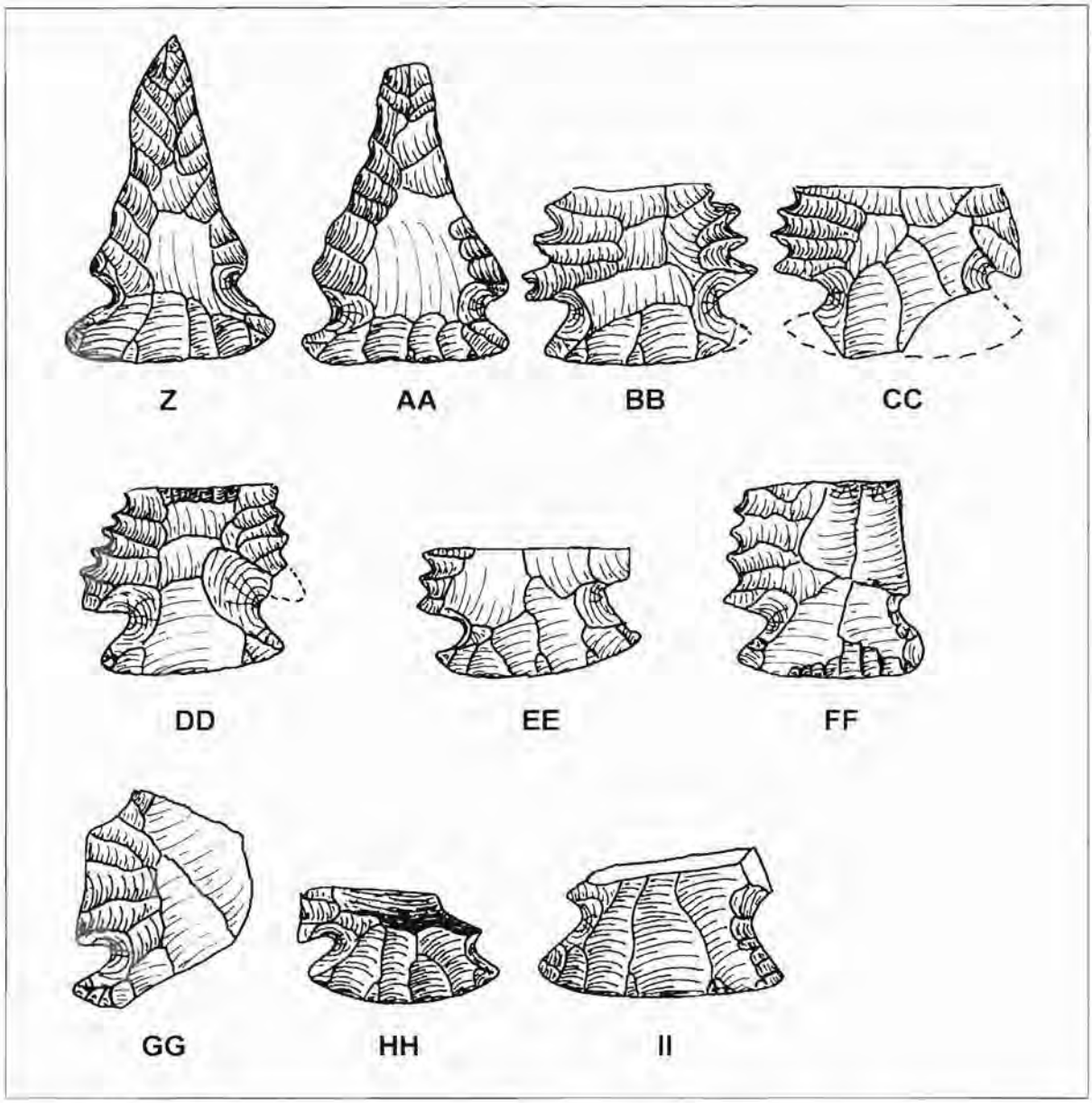

Figure 76. Pine Tree Points.

Pine Tree points would appear from available data to represent the end of the Early Archaic sequence in north Mississippi. They are found in abundance at the Hester site in Monroe County and are the latest Early Archaic point type of the many types found there, succeeding Jude, Cave Springs, Decatur, Becker, and Lost Lake in that order.

The largest collection of Pine Tree points from one site is 55 from the Hester site (22-Mo-569 and 22-Mo-1011) in Monroe County in northeastern Mississippi, and while that situation is unusual for the number of points of one type recorded for one site, it probably serves as an indication of the true geographical distribution of the type. According to Brookes (1985:28), The Pine Tree type is closely related to the earlier Charleston Corner-notched point from West Virginia. If this is true, the type

probably entered Mississippi from the northeast and spread across the state to the west, not extending very far south as a general rule, with almost ninety percent of recorded specimens having been found in north Mississippi (Figure 77).

Initial stage Pine Tree points in Mississippi were usually corner- or side-notched with straight or more commonly convex bases that were well thinned and heavily ground. Figure 74, specimens A-E, illustrate preforms for the type, while specimens G, H, and I of Figure 74 are examples of initial or near initial stage points. In outline, most specimens are parallel sided or excurvate with broad distal ends or with distal ends where each edge makes an abrupt turn toward a sharp point. They have coarse serrations that are usually heavily worn or completely removed during use. In many cases pressure flaking resulted in long, relatively narrow flake scars that meet at mid point.

Pine Tree points are the most intensively used of all of the Paleo-Early Archaic types, in many cases being worn completely to the point of exhaustion (Figure 75Q, R, and S) before being discarded or recycled into wedges (Figure 76DD, FF, GG, and II) and end scrapers (Figure 75T-Y).

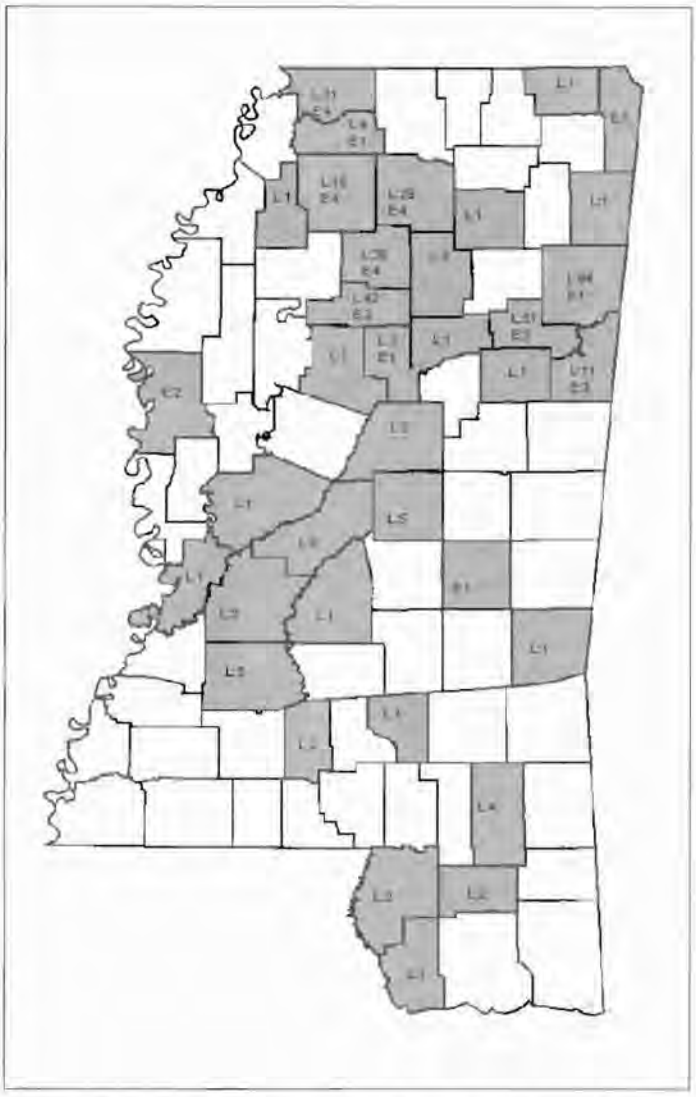

Figure 77. Known Distribution of Pine Tree Points. L=local, E=exotic.

One of the most interesting aspects of this type is the raw material selected for its manufacture. Over half of the raw material consists of non-gravel derived material, some of which is exotic but most of which is represented by Kosciusko quartzite, a hard to work material which, as far as is currently known, had to be quarried and then heat treated. This material was scrupulously avoided by all previous craftsmen in the area until the knappers of Pine Tree points apparently were forced to use it at the end of the Early Archaic period. It also saw a tremendous surge in use in the Late Woodland-Mississippian era, when it was again very much in demand by arrow point makers living near the Kosciusko outcrops in north-central Mississippi (McGahey 1999:8-9). A possible explanation for the peculiar raw material use by Pine Tree knappers is offered by Brookes and Reams (1996). In the context of discussing the climatic changes of the Hypsithermal period (6500-3000 BC) and their disruptive consequences, they suggest that much or most of the previously available gravel sources were silted over. If for some reason most gravel deposits were relatively unavailable, raw material for the manufacture of flaked stone artifacts would be in great demand, and there would be a much greater tendency for tools to be

resharpened and reworked to an extreme degree before being discarded, as is the case with this type. There would also be a tendency for rock outcrops in elevated areas such as ridge tops to be more intensively explored and exploited. The previously discussed Bolen point, which seems to have been made largely from Tallahatta quartzite, is similar to the Pine Tree type, and its tendency toward being made of that material may be attributed to the same set of circumstances. It is interesting that this degree of apparent stress comes at the end of the Early Archaic period and marks the end of a long tradition of excellence in flint knapping craftsmanship. With the beginning of the Middle Archaic period radical changes are evident in the lithic technology, with much cruder work being the norm. This change seems to have come abruptly with no transition and probably represents the radical transition necessary for a culture adapting to a drastically different situation for the sake of survival.

Bifurcate Tradition

Chronological Position: 8,500-8,000 BP

Metric Data: See the references cited. There are four types represented here, and the specimens available for measurement within each type were insufficient in number to justify the inclusion of metric data.

Figures: 78 and 79

The Bifurcate Tradition consists of four types that are closely related, coming out of the same tradition and having in common more or less bifurcated bases. All of the types were found in sequence at the St. Albans site in West Virginia, with the McCorkle Stemmed type being the oldest, followed in order by St. Albans Side Notched, LeCroy, and finally Kanawha Stemmed (Broyles 1966). Bifurcate tradition points are generally found to the north and east of Mississippi, infrequently seen in the northern part of the state, and not found at all in the rest of the state (Figure 79). These points are generally regarded as having followed the corner-notched tradition in the eastern United States. According to Chapman (1975:244), the tradition probably began in the early seventh millennium BC and continued for from 500 to 700 years. Of the four types listed above, the only one not yet reported in Mississippi is Kanawha Stemmed. Twenty-six points representing this tradition have been reported. Others are known to exist but have not yet been recorded, all of them in the northeastern part of the state. Of the total of twenty-six, nine are considered St. Albans Side Notched, nine are LeCroy, and the remainder are McCorkle Stemmed.

Bifurcate tradition points are generally small and thin with basically triangular blades which in many cases have been coarsely serrated. Pressure flake scars cover most of each face, with generally parallel flaking being angled toward the base. Most specimens give the impression of having been heavily reworked and used almost to the point of exhaustion. Of the specimens illustrated in Figure 78, specimens A through H are classified as St. Albans Side Notched and specimen I and J are LeCroy. Unfortunately, few of the McCorkle Stemmed points were available for adequate illustration. Specimen L, for which only a minimal drawing exists, is presented as a typical specimen of the McCorkle type. They tend to be larger, with expanding bases. Specimen H, a St. Albans Stemmed point, is beveled on one side of each face, as are specimens K and M, which are believed to be McCorkle Stemmed. Apparently resharpening by beveling was not usually done with Bifurcate Tradition points, as none of the literature reviewed for this publication discusses it. The three beveled specimens, however, are all of exotic raw material, which fits in with most of the other recorded specimens and except for the beveling seem to qualify for the specified types. Raw material is predominantly exotic. Six are of Fort Payne chert, two are of Dover chert, and four are of a high quality blue-green to blue-gray flint which may be either

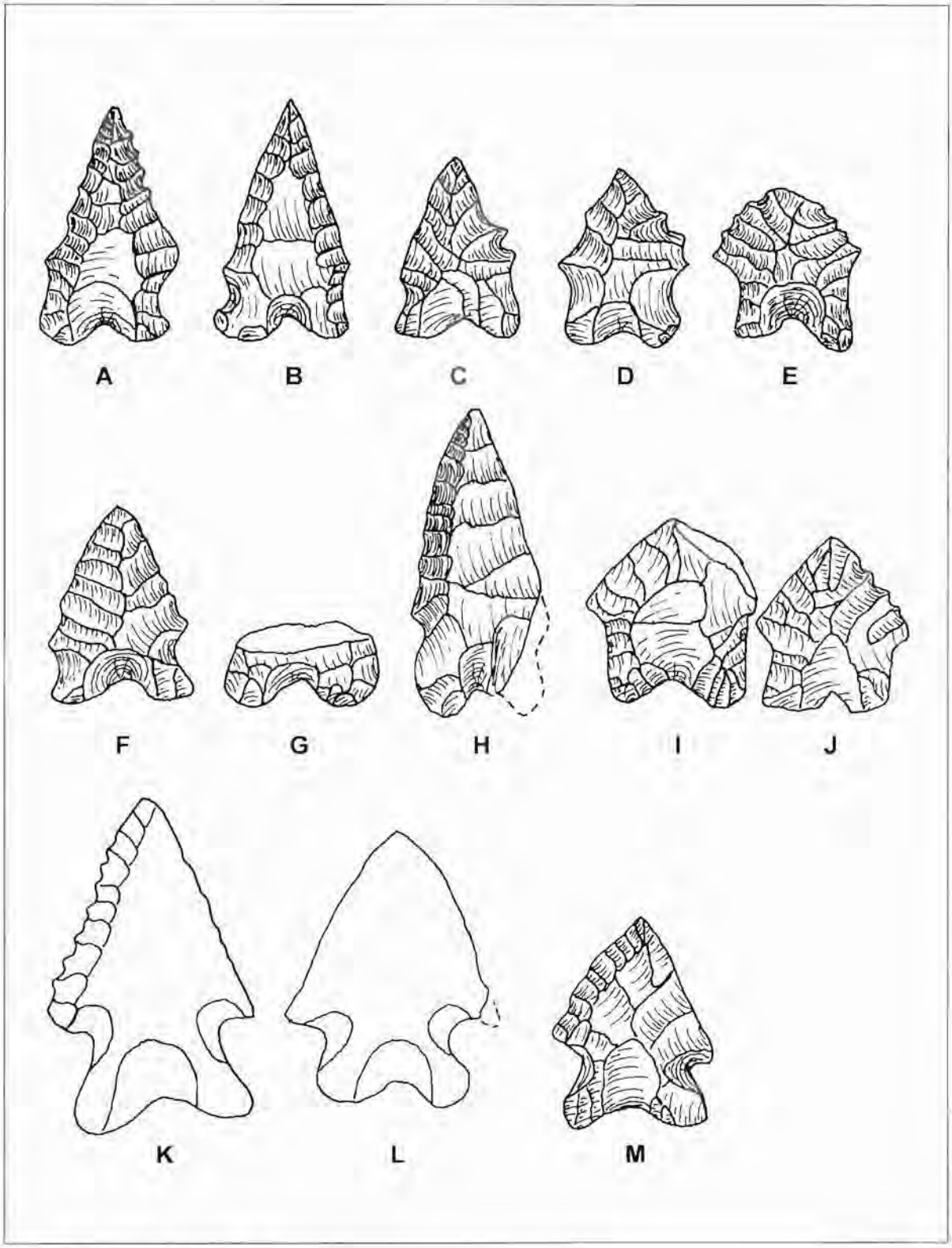

Figure 78. Bifurcate Tradition Points.

Bangor from North Alabama or may be derived from the Ohio River area of Indiana, Kentucky or Illinois. Two are of a high quality glossy black material. Five are of a glossy red-pink mottled Tuscaloosa gravel chert that has been thoroughly heat treated. The remainder of the raw material was not recorded.

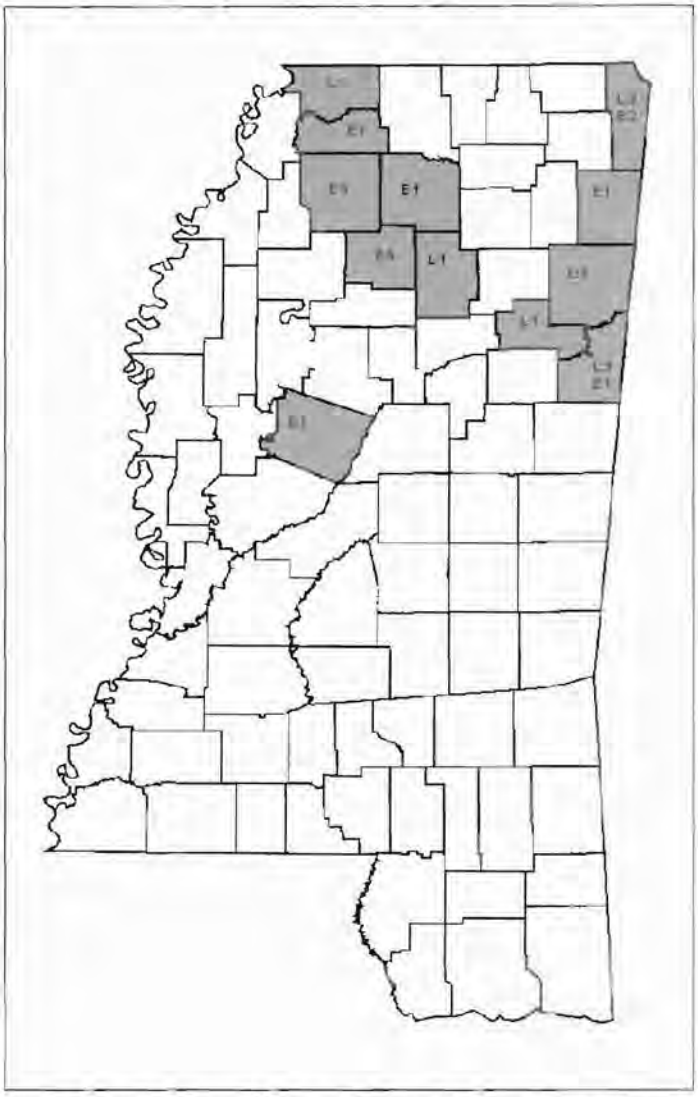

Figure 79. Known Distribution of Bifurcate Tradition Points. L=local, E=exotic.

Middle Archaic Period (8,000 BP-5,000 BP).

The appearance of the Middle Archaic in Mississippi is not seen as a smooth transition such as occurred between the Paleoindian and Early Archaic periods. The flaked stone industry shows little continuity with that of earlier periods, with tools being much more crudely made. Coinciding with this development, there was also an apparent loosening of the precision with which the mental templates governing the work of craftsmen were defined, adhered to, or visualized, with the result that many of the types have much more morphological variation than is the case with previous types, thus making the work of the classifier more difficult and tentative. This deterioration in the quality of flaked stone, especially in projectile points, can perhaps be explained by the theory that there was much less emphasis on hunting and more on fishing and the gathering of wild plant foods. More nutting and milling stones are found, and several new tools appear in the inventory. Ground and grooved stone axes furnish further evidence of adaptation to the total environment and of general technological advancement. What would appear to be the zenith of prehistoric lapidary work in the southeastern United States, if not the whole of North America, was achieved by the effigy bead carvers of the Mid-south region. Apparently drilling in hard stone was done for the first time in this period, and more effigy beads have been found in Mississippi than in any other state. The care exhibited in their manufacture as well as in the manufacture of the ground and polished axes and bannerstones suggests a tremendous investment in terms of time and labor. In the case of obvious tools such as axes, the effort probably went far beyond what was needed to produce a functional tool. The beads and possibly also the bannerstones were of questionable utilitarian value and may have been entirely for ceremonial purposes. The effort expended in lapidary work may be an indication of a greater amount of what might be termed leisure time than

was available previously, although there are other data which may lead to the conclusion that times were actually harder. The population, as evidenced by the numbers of recorded sites and diagnostic artifacts, seems to have slowed its growth or perhaps even declined in certain parts of the state for a while. Over much of the area there are few or no recognized early Middle Archaic diagnostic artifacts. This era roughly coincides with the Hypsithermal period, a time of lowered precipitation and higher temperatures. Settlement patterns seem to have been focused on the larger streams, possibly because water was scarce in many of the smaller ones. These circumstances may also have produced violent competition over scarce resources.

Possible climatic and social disruption aside, there appears to have been more permanency in settlements, with more storage pits and for the first time the possibility of houses of a substantial nature.

There are more known, well preserved sites of the Middle Archaic period than of the Paleoindian-Early Archaic period. The Denton site and the Longstreet site in the Yazoo Basin were two outstanding late Middle Archaic sites. Unfortunately, Denton is the sole survivor, since Longstreet was leveled in 1975. During the Tennessee-Tombigbee Waterway project of the 1980s, numerous midden mounds were discovered and excavated. Middle Archaic components were abundantly represented in these sites, and considerable data was collected. There is reason to expect the existence of similar midden mounds in the floodplains of other rivers within the state, although at present this is undocumented.

The beginnings of the Middle Archaic in Mississippi in terms of lithic diagnostics are relatively obscure. Perhaps the most securely dated projectile point types of the early Middle Archaic in the Mid-south area are the Eva-Morrow Mountain points, which date from around 7500 years before the present (Lewis and Lewis 1961:13; Bense 1987:68). Bense (1987:298) cites evidence from Tennessee suggesting that Eva and Morrow Mountain are actually the same type, Morrow Mountain points actually being broken or worn and reworked specimens of Eva points. Bense suggests that the Cypress Creek points recovered in the Midden Mound Project in northeast Mississippi may also be a part of such a continuum or "multi-stage" type. Bense (1987:71) also cites evidence from the Walnut site, 22-It-539, that the Cypress Creek type is stratigraphically earlier than the Eva-Morrow Mountain points. To the author's knowledge, the Cypress Creek type has not been precisely dated, but on the basis of its morphology it may be potentially one of the earliest Middle Archaic types. Another Middle Archaic type possibly earlier than Cypress Creek is the Beachum point, a provisional type designated by Brookes (1979). It is quite possible, however, that the earliest point type of this period is yet to be recognized. The types are discussed below in what is assumed to be at least their general chronological order.

Beachum (Provisional type; Brookes 1979:41)

Chronological Position: 8,000-7,500 BP

Metric Data: 5 specimens
- *Average Length:* 36 mm
- *Range of Length:* 26-40 mm
- *Average Width:* 25 mm
- *Range of Width:* 19-39 mm
- *Average Thickness:* 8 mm
- *Range of Thickness:* 7-10 mm

Figures: 80 and 81

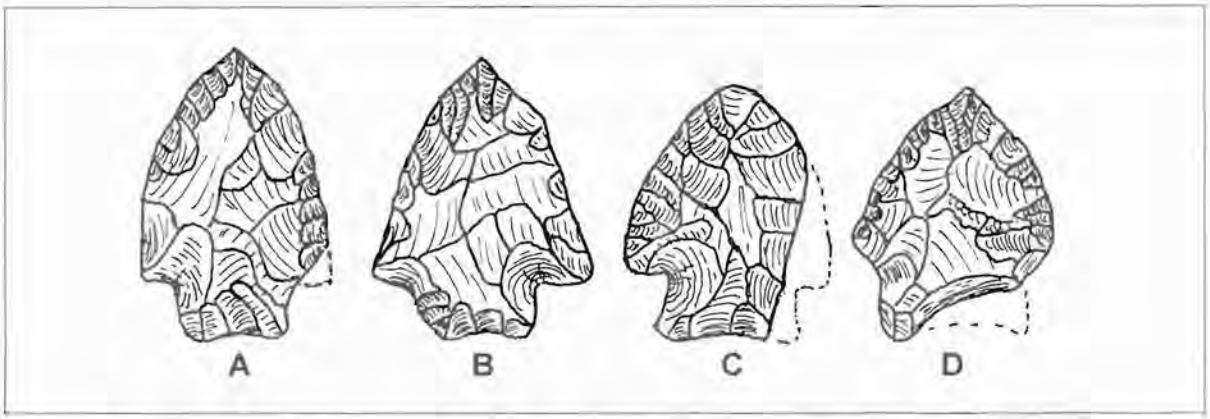

Figure 80. Beachum Points.

This provisional type was named on the basis of five specimens from the Hester site (22-Mo-569) in northeast Mississippi. These points are basically crude and carelessly made. They are characterized by Brookes (1979:41) as medium sized and short stemmed with no grinding in evidence. The stems are formed by corner removal. Basal edges are concave. Blade edges are somewhat excurvate and the distal ends are usually acute. Brookes (1979:41) sees similarities between the Beachum specimens and the Stanley point, a type which is found mostly to the northeast of Mississippi. The raw material of the specimens from the Hester site is heat treated Tuscaloosa gravel chert. A radiocarbon date of 5015 BC from the Hester site is thought to date the type. The Hester specimens of this provisional type were stratigraphically beneath the Eva-Morrow Mountain component at that site. The distribution of Beachum points as currently understood is northeast Mississippi (Figure 81), although other specimens will probably be recognized eventually in contiguous areas of Alabama and Tennessee.

Figure 81. Known distribution of Beachum Points. L=local, E=exotic.

Cypress Creek (Lewis and Kneberg 1960)

Cypress Creek I
Chronological Position: 8,000-7,500 BP

Metric Data: 18 specimens
Average Length: 60 mm
Range of Length: 45-83 mm (Note that most of the illustrated specimens are broken and the average figure for length is from unbroken specimens)
Average Width: 45 mm
Range of Width: 36-52 mm
Average Thickness: 11 mm
Range of Thickness: 9-15 mm
Figures: 82, 83, and 85

Cypress Creek II
Chronological Position: 8,000-7,500 BP

Metric Data: 8 specimens
Average Length: 45 mm
Range of Length: 32-50 mm
Average Width: 32 mm
Range of Width: 30-33 mm
Average Thickness: 8 mm
Range of Thickness: 7-10 mm
Figures: 84 and 85

Cypress Creek points are medium sized to large, corner-notched points, which in some instances bear a resemblance to earlier corner-notched types such as Hardin or Lost Lake but are thicker and less well made.

As is true of most Middle Archaic types, there is more variation within the type than in the earlier types. It would appear that the mental template for this type, as with many other Middle Archaic types, was not sharply defined. As a result, there will be instances when the choice of identification between this and other types will not be obvious. There are certain resemblances to later Middle Archaic types such as Opossum Bayou. As was previously stated, according to Bense (1987:254), the Cypress Creek type is little different technologically from the Eva-Morrow Mountain types, and may also be a part of a "multi stage" type with these two types (1987: 298). Cypress Creek specimens at the Eva site in Benton County, Tennessee were divided into a larger and a smaller variety, which were designated Cypress Creek I and Cypress Creek II respectively (Lewis and Lewis 1961:37). These subdivisions also seem to appear in Mississippi. The Cypress Creek I variation is illustrated in Figures 82A-I and 83J-R. The Cypress Creek II form is shown in Figure 84S-Z. The only apparent significant difference between the two categories seems to be their size, although sample size is a problem, with only eight of the smaller variety recorded at present. Bases are generally straight or slightly concave to slightly convex. Flaking is random, with some specimens exhibiting fine pressure retouching of blade edges. The blade edges are generally straight or excurvate and the blade shape basically triangular.

Raw materials are generally available gravel chert. The known distribution of this type is north and central Mississippi

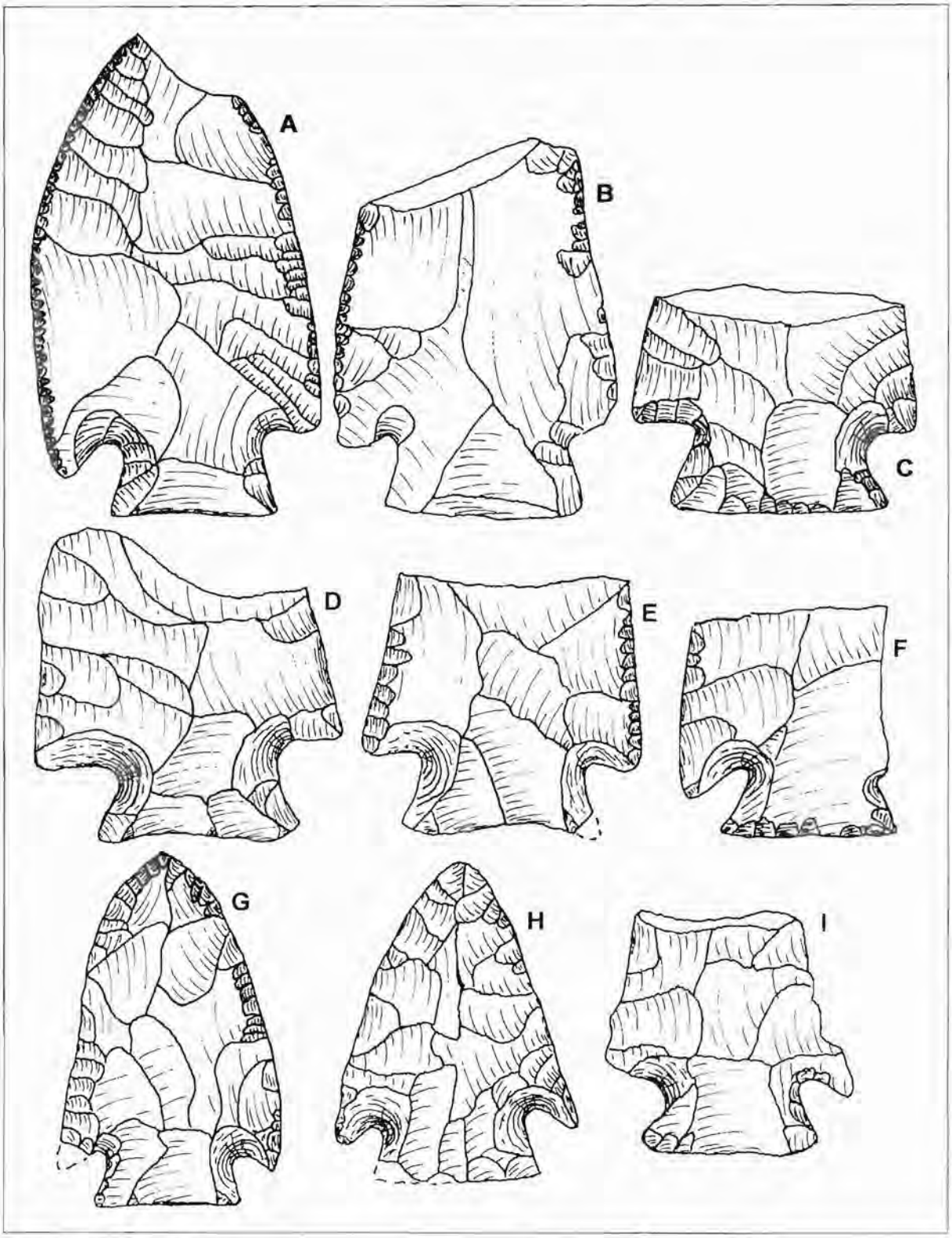

Figure 82. Cypress Creek Points.

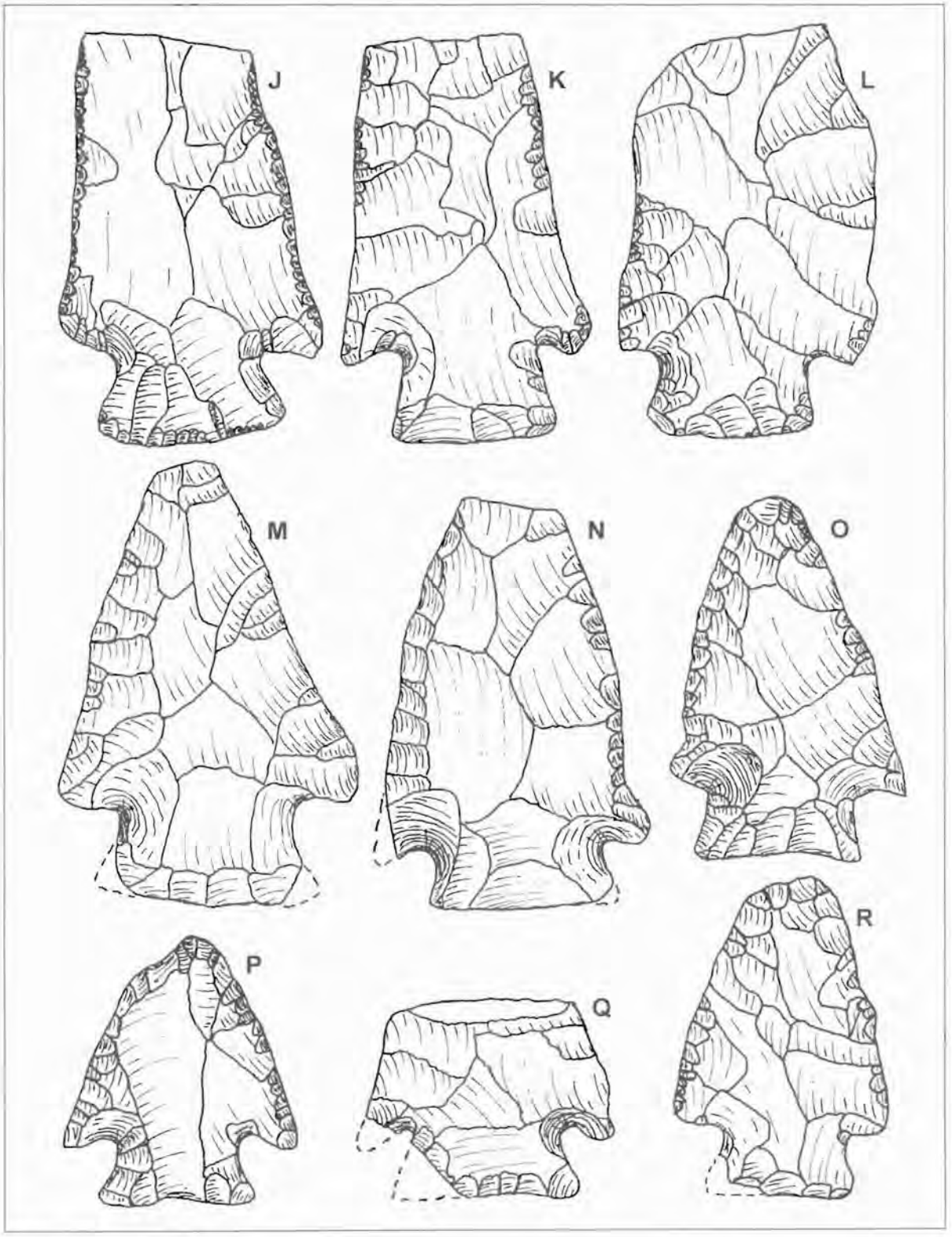

Figure 83. Cypress Creek Points.

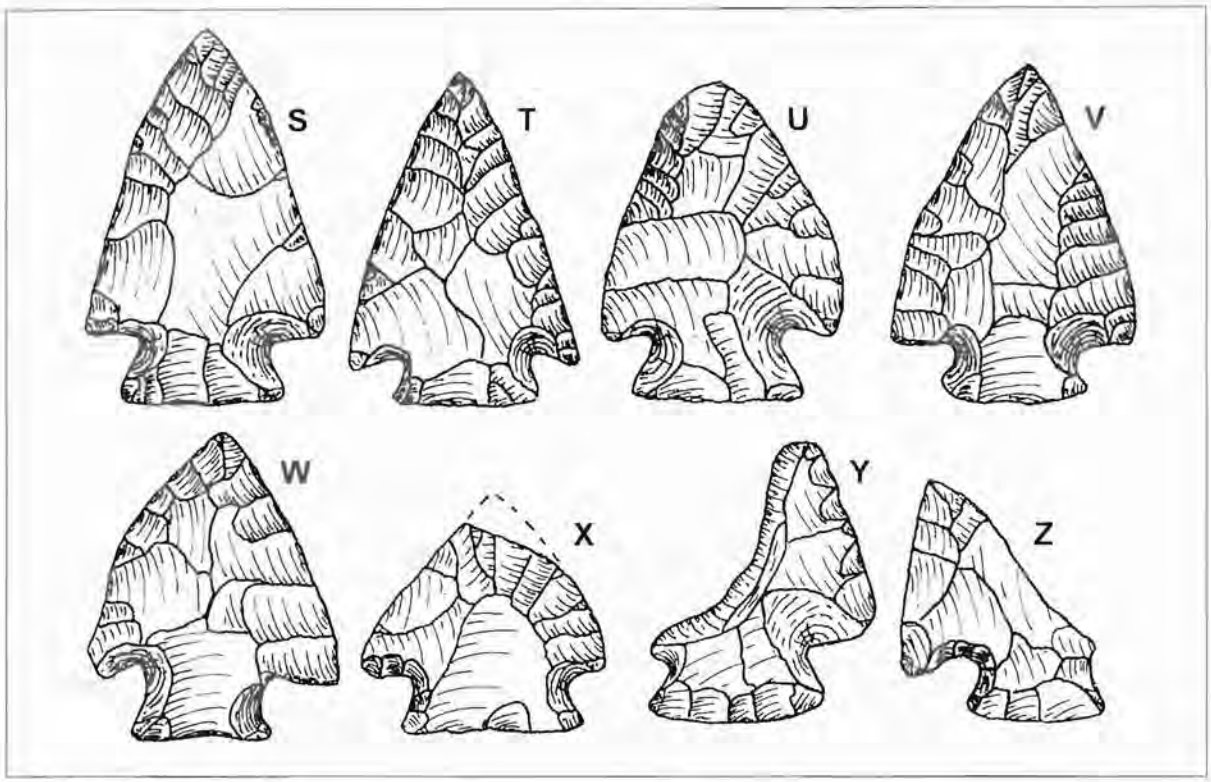

Figure 84. Cypress Creek Points.

Eva (Kneberg 1956)

Chronological Position: 7,500-7,000 BP

Metric Data: 11 specimens
Average Length: 44 mm
Range of Length: 33-53 mm
Average Width: 28 mm
Range of Width: 22-33 mm
Average Thickness: 8 mm
Range of Thickness: 7-11 mm
Figures: 86 and 87

Eva points are generally triangular, small to medium-sized points with basal notches. The few specimens examined for this study are generally very shallowly notched with a rounded base. The raw material of all of those examined is heat-treated, generally pink or red Tuscaloosa gravel chert. Specimen A of Figure 86 is an advanced stage preform.

The general chronological position of the Eva type seems fairly well established at some time over 7,000 years ago. The radiocarbon date from the Eva site in Tennes-

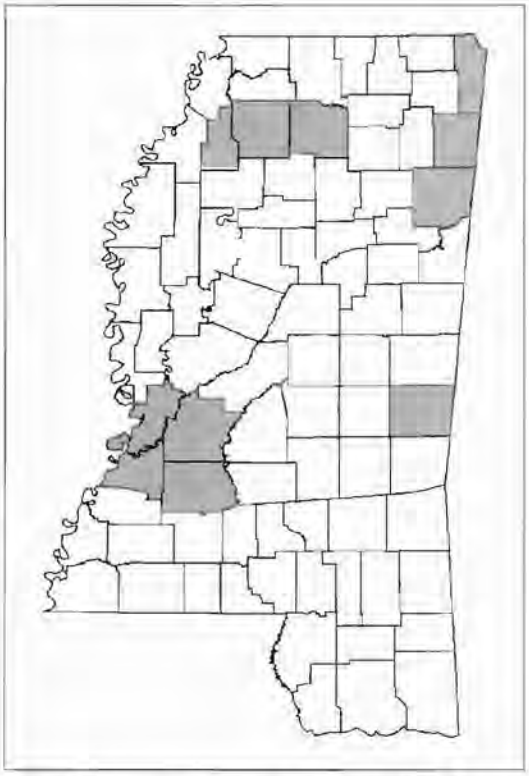

Figure 85. Known Distribution of Cypress Creek Points.

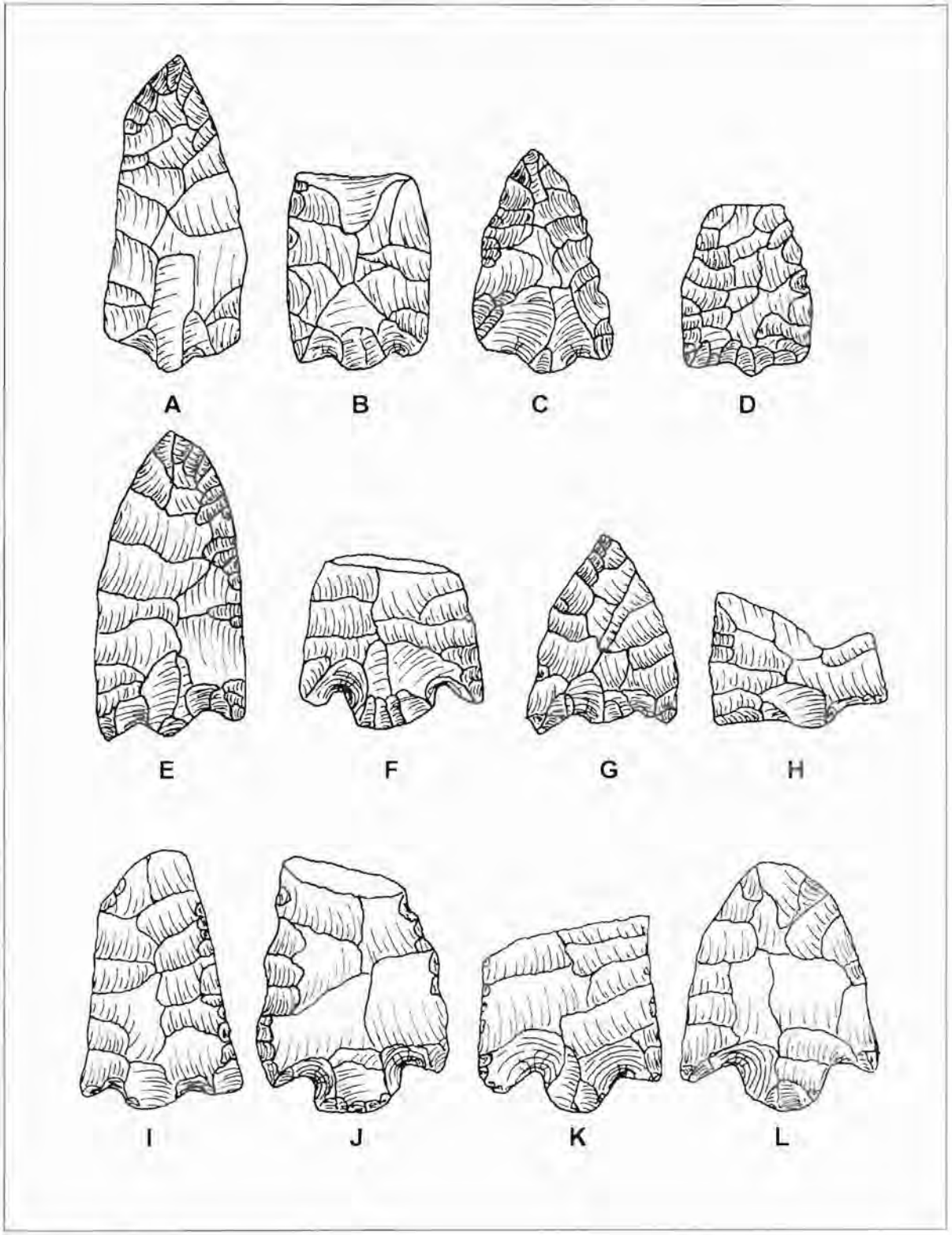

Figure 86. Eva Points.

see of 7200 years ago, which was reported by Lewis and Lewis in 1961 (Lewis and Lewis 1961:13) remains a generally well accepted date. Brookes (1979:42), excavated basically identical points at the Hester site and used the term "Eva II, Morrow Mountain I, " acknowledging the close typological connections between Morrow Mountain and Eva discussed above under the discussion of the Cypress Creek type. At the Hester site, the two types were hard to sort and were in the same stratigraphic position.

The distribution of recorded Eva points in Mississippi is north, predominantly northeast Mississippi (Figure 87).

Morrow Mountain (Coe 1964:37)

Chronological Position: 7,500-7,000 BP

Metric Data: 13 specimens
Average Length: 42 mm
Range of Length: 37-59 mm.

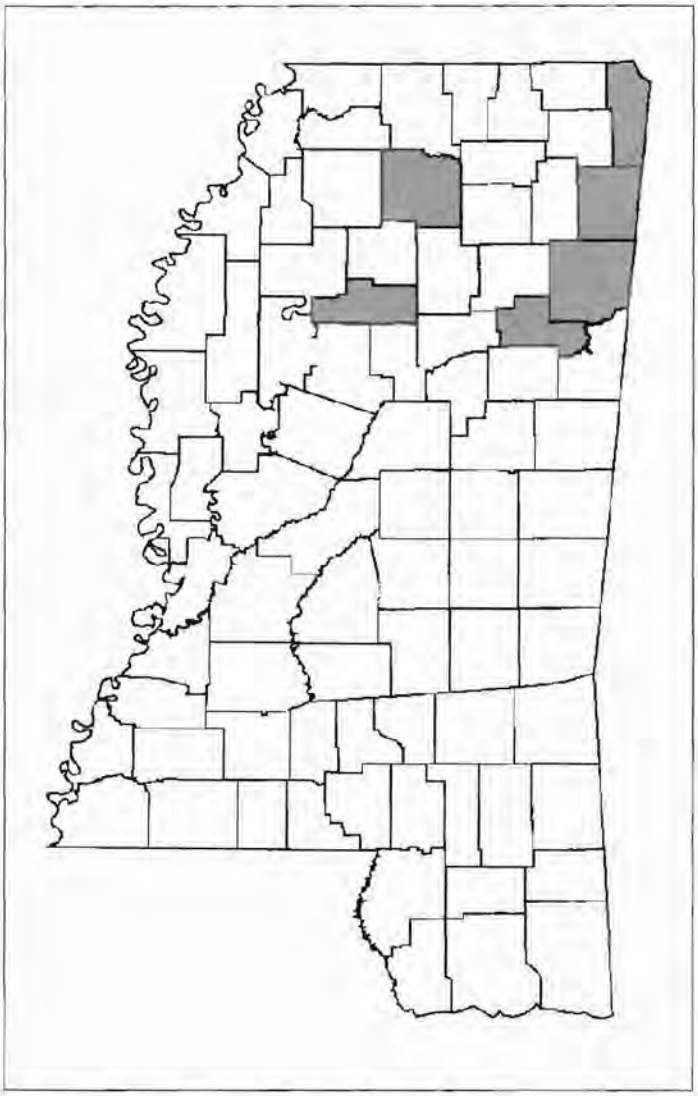

Figure 87. Known Distribution of Eva Points.

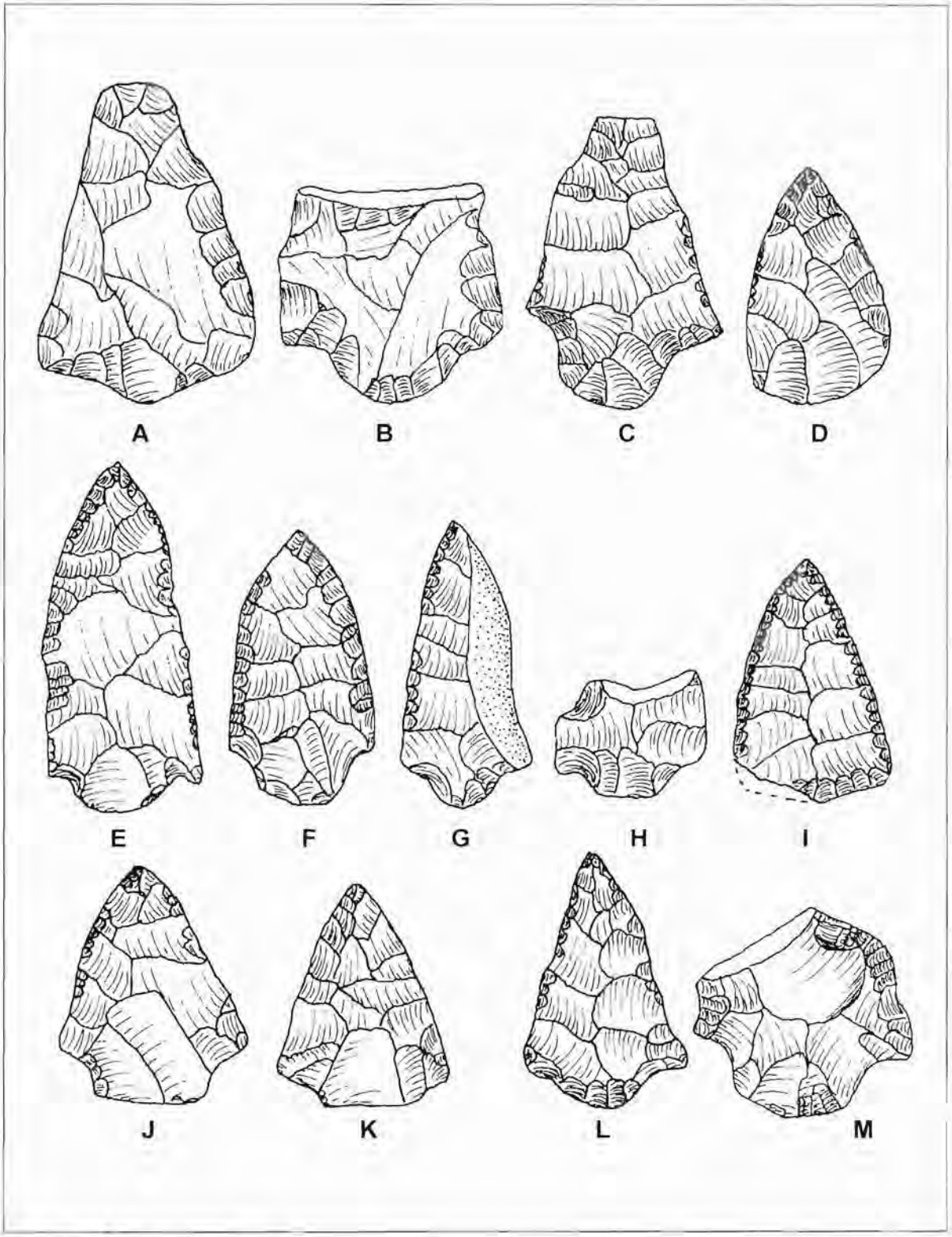

Figure 88. Morrow Mountain Points.

Average Width: 29 mm
Range of Width: 22-38 mm.
Average Thickness: 8 mm
Range of Thickness: 5-11 mm
Figures: 88 and 89.

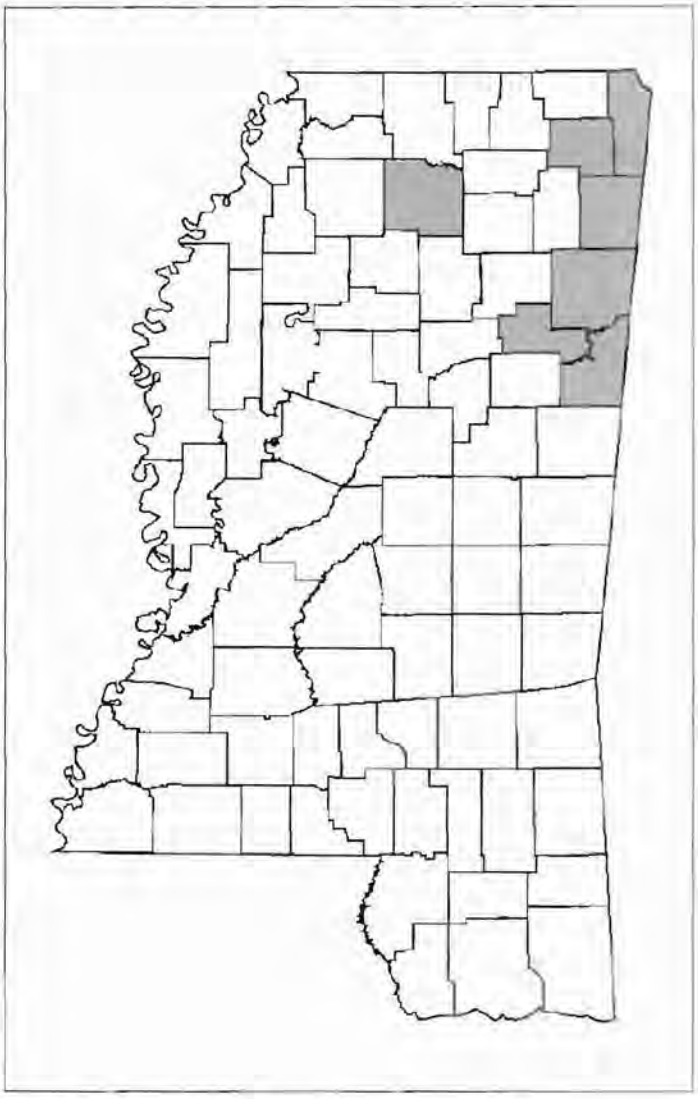

Figure 89. Known Distribution of Morrow Mountain Points.

Morrow Mountain points are very similar to the Eva type. They are small to medium, triangular points with rudimentary stems which are usually rounded to slightly pointed. Specimen A of Figure 88 is considered a preform because of the lack of secondary pressure retouching. Specimen G of Figure 88 illustrates the expedient utilization of a marginally usable piece of gravel chert for manufacture into a Morrow Mountain point. One edge of the blade area on one side exhibits a strip of cortex, probably not removed to maintain the desired size. Specimens of the type are usually of heat treated pink or red Tuscaloosa gravel chert. The chronological position is generally assumed to be slightly later than that of the Eva type, although at this time that seems debatable. Absolute proof of the function of stone tool types, including projectile points, is often hard to find. Most projectile points were probably used for a variety of functions. In the case of Morrow Mountain points, there is no doubt that they were used at least occasionally to dispatch human beings (Walthall 1980:64); this type provides some of the earliest evidence of homicide available in the region.

The distribution of the type in Mississippi appears, based on current knowledge, to be primarily northeast Mississippi with some specimens being found to the west (Figure 89).

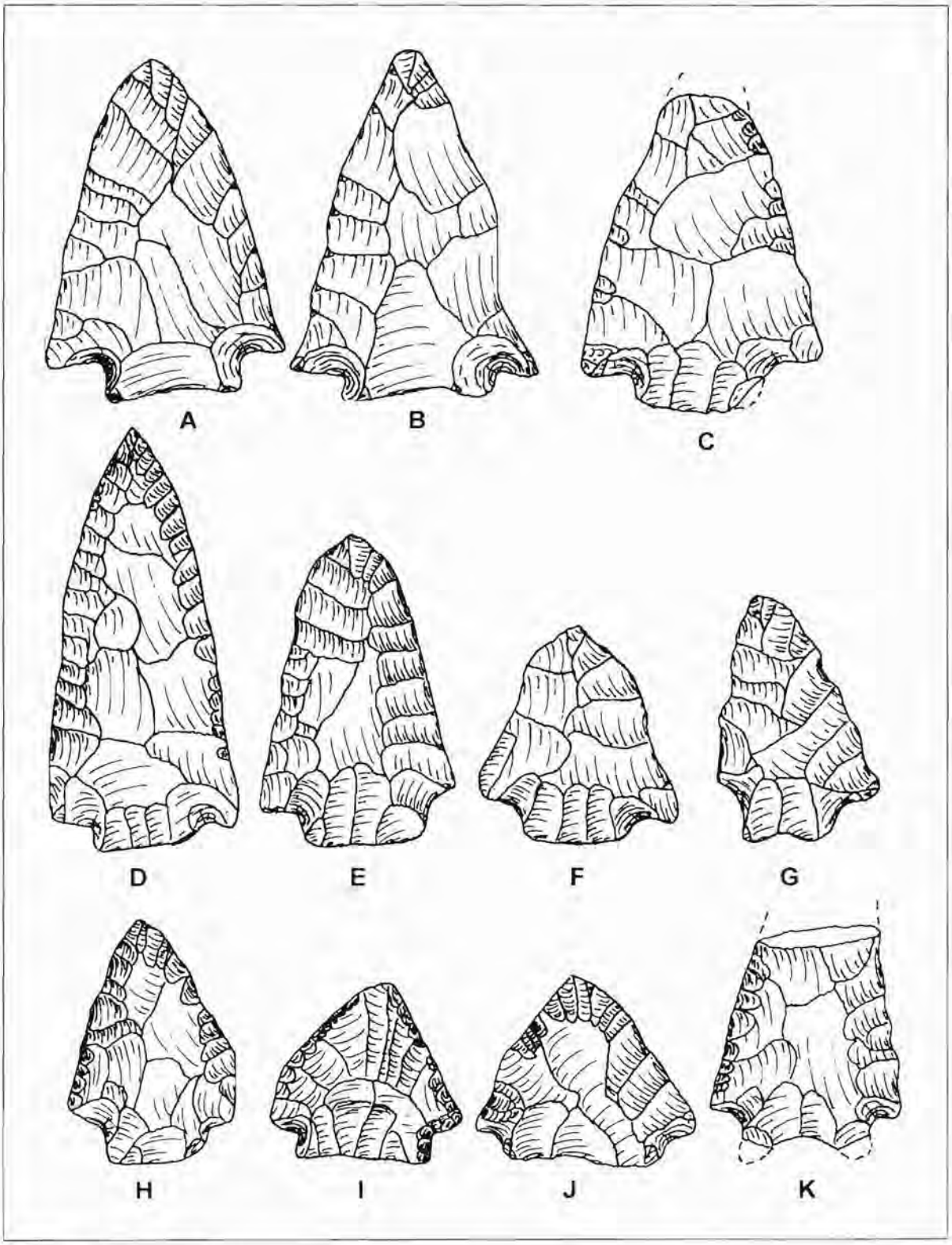

Figure 90. White Springs Points.

White Springs (DeJarnette, Kurjack, and Cambron 1962:128)

Chronological Position: 7,000-6,500 BP

Metric Data: 11 specimens
Average Length: 47 mm
Range of Length: 29-79 mm
Average Width: 34 mm
Range of Width: 29-40 mm.
Average Thickness: 9 mm
Range of Thickness: 8-13 mm.
Figures: 90 and 91

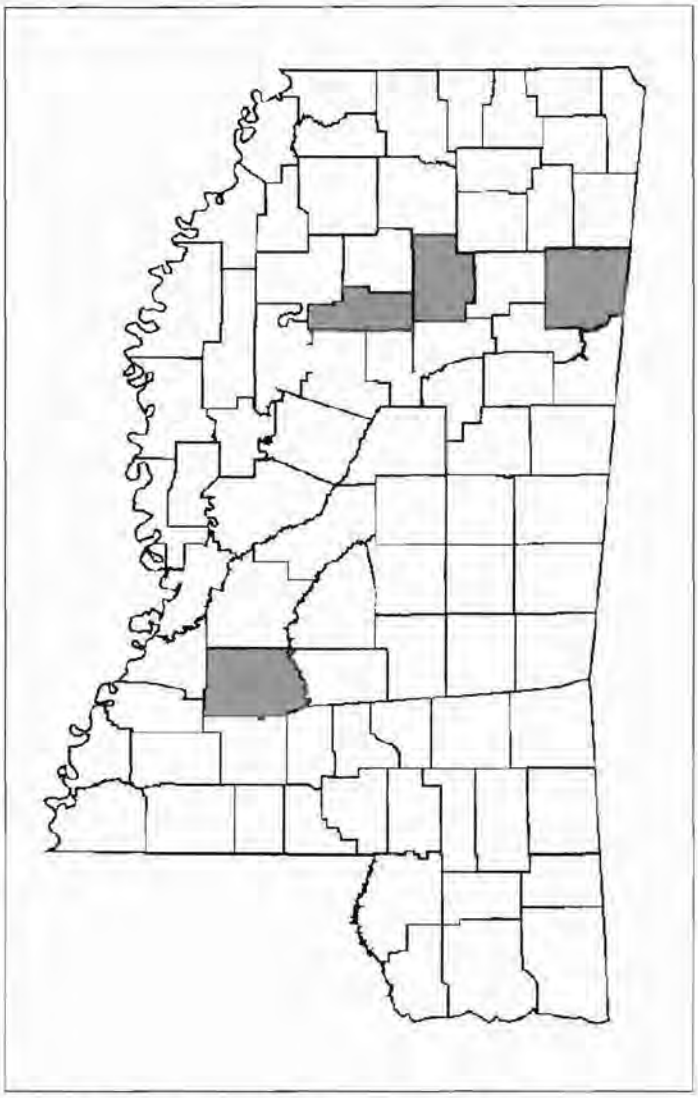

Figure 91. Known Distribution of White Springs Points.

The White Springs point appears to be part of a chronological and morphological continuum with several other types. Bense (1987:298) cites Futato (1983:124) considering White Springs as overlapping chronologically and morphologically with the Morrow Mountain type and with the presumably later Sykes type. It is indeed difficult to sort certain specimens of White Springs from the earlier or later types. Bense resolves the issue by lumping the two later types together as "Sykes-White Springs." Alexander (1983:126) takes the same position.

The primary difference is that in the White Springs type the base may be extremely short and well thinned almost to the point of disappearing, and the Sykes type, while also having a short base, is not as likely to have a thinned or extremely short base, but to have a base much more similar to the bifacially beveled Benton point. White Springs points are generally small to medium sized points with triangular blades. They are usually made of heat-treated Tuscaloosa gravel chert with occasional specimens of Fort Payne chert. They are assumed to follow Morrow Mountain points in the chronological sequence. Their known distribution in Mississippi is primarily in the northeast, with some specimens being recorded in the northwestern counties as well (Figure 91)

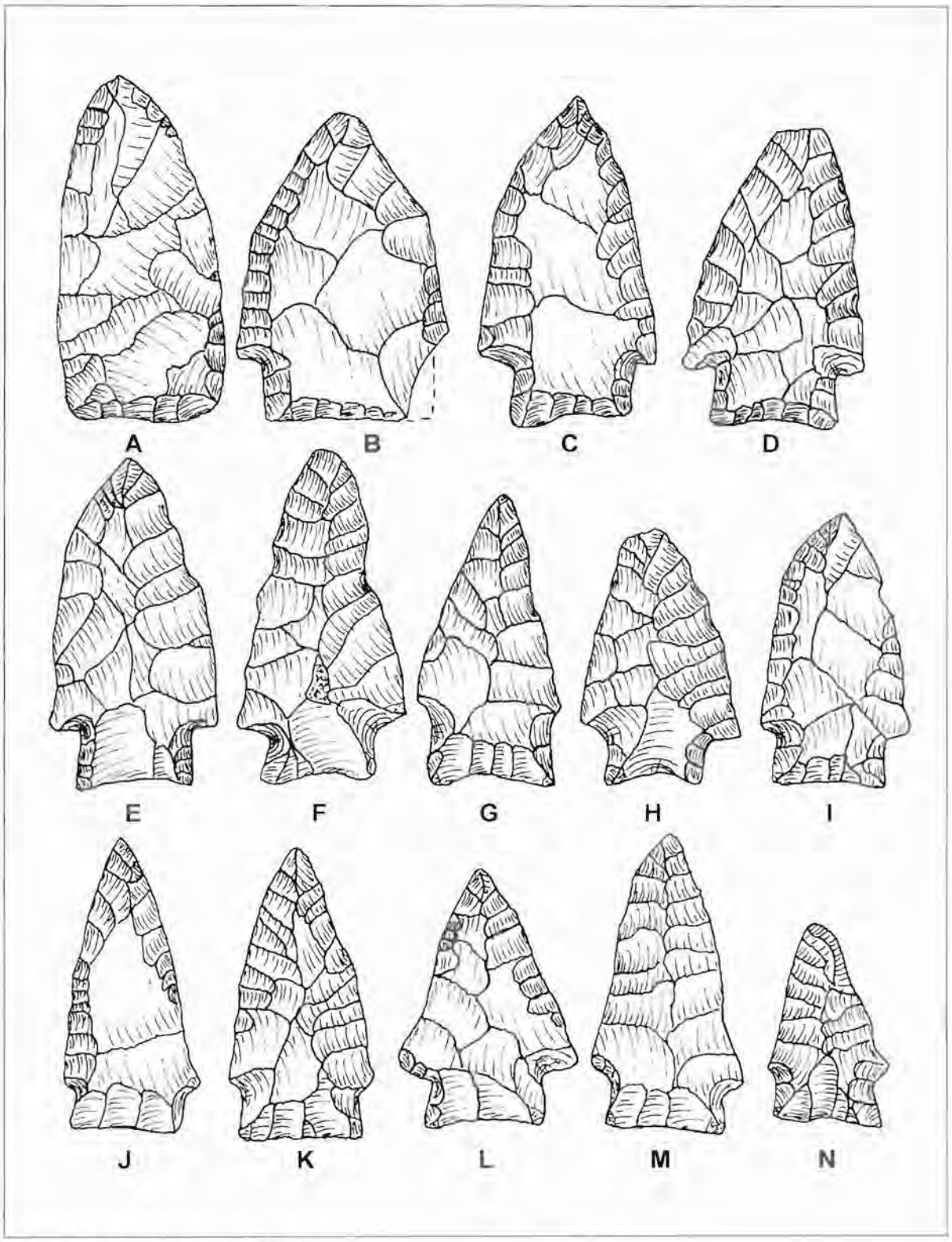

Figure 92. Sykes Points from 22-Mo-876.

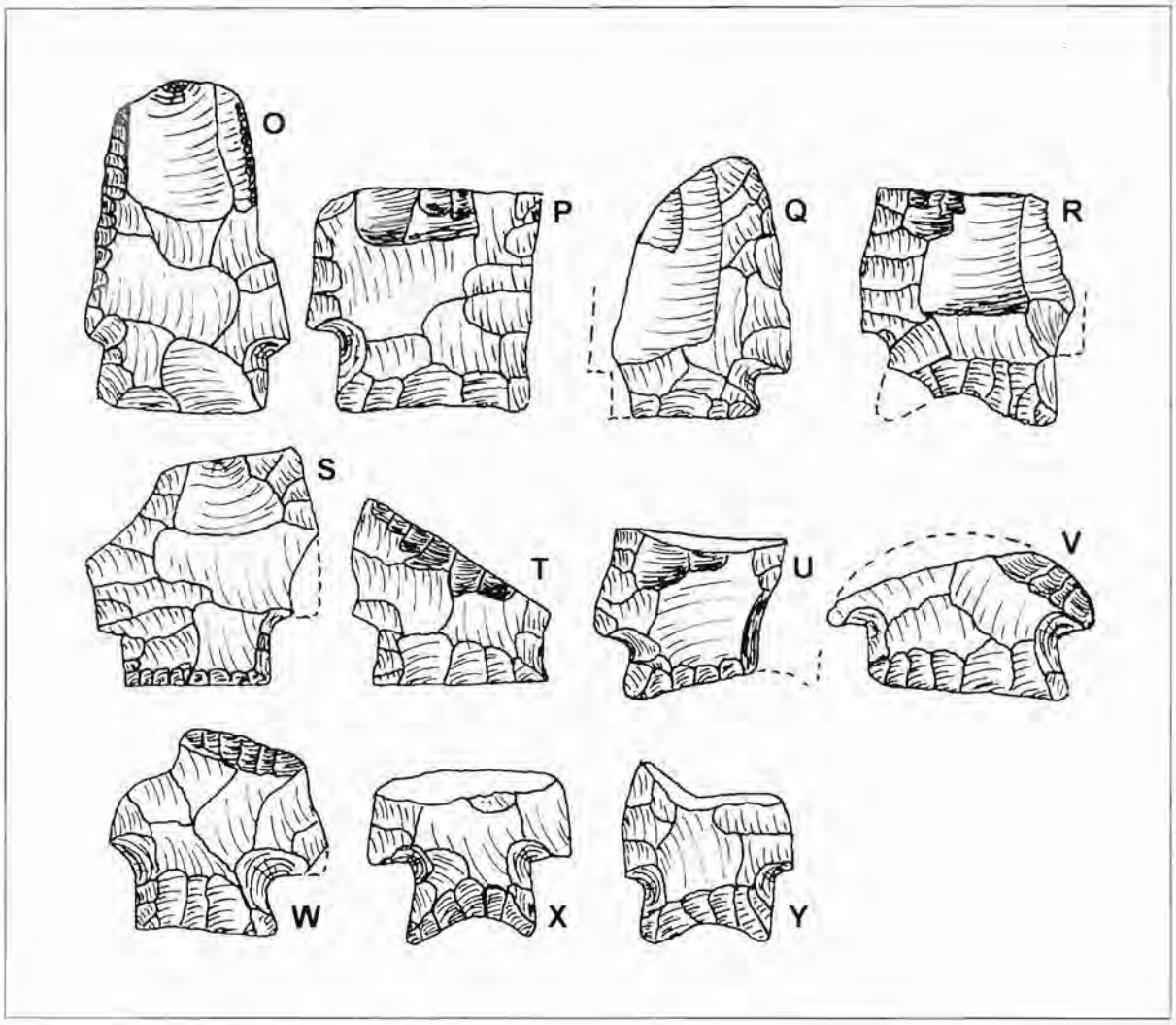

Figure 93. Sykes Points from 22-Mo-876.

Sykes (Lewis and Lewis 1961:40)

Tallant Site (22-M0-876) Collection

Chronological Position: 7,000-6,500 BP

Metric Data: 219 specimens
- *Average Length:* 49 mm
- *Range of Length:* 35-73 mm
- *Average Width:* 29 mm
- *Range of Width:* 20-38 mm.
- *Average Thickness:* 9 mm
- *Range of Thickness:* 6-13 mm

Figures: 92, 93, and 97

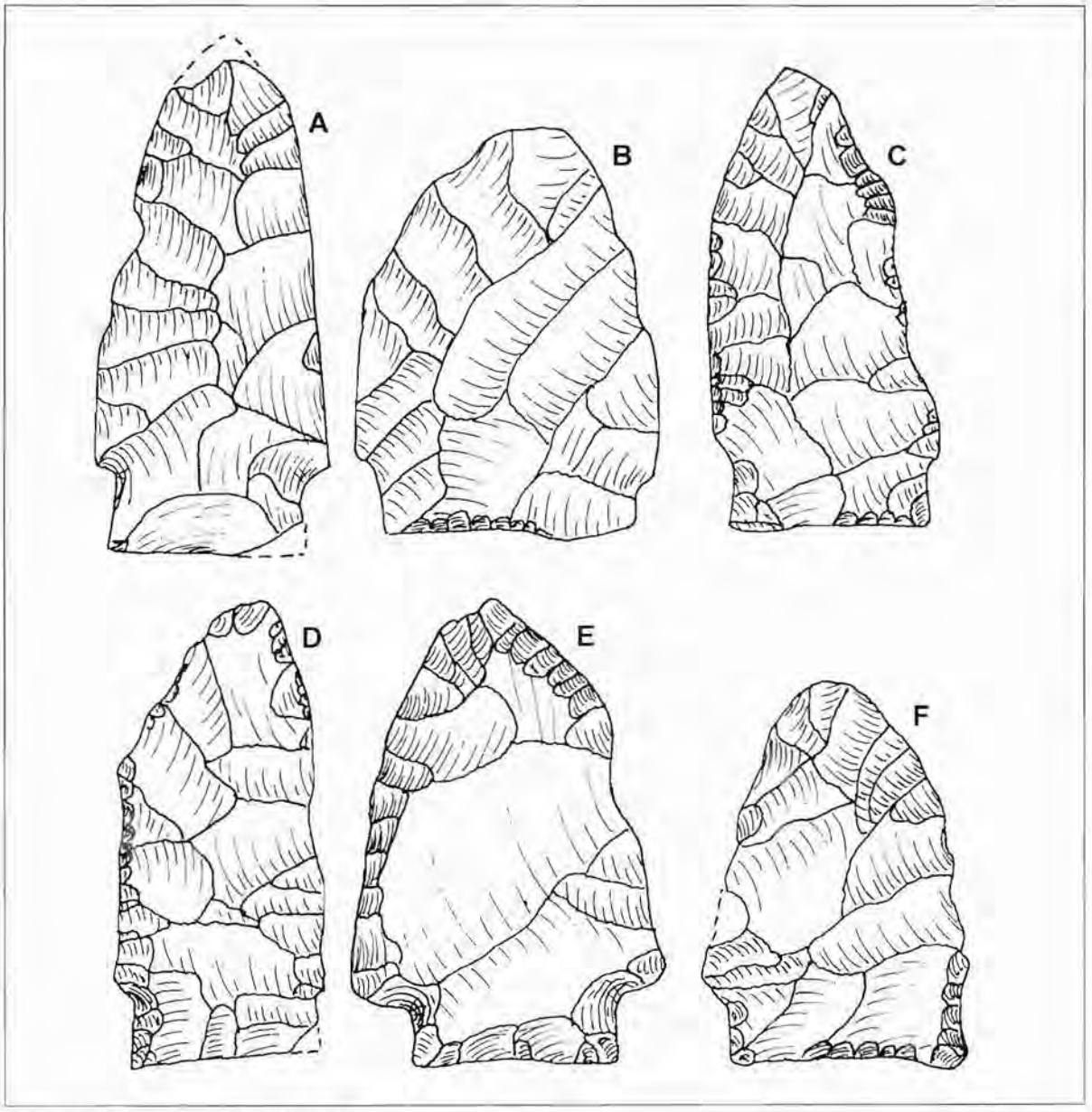

Figure 94. Sykes Points from 22-Cb-623.

22-CB-623 Collection

Chronological Position: 7,000-6,500 BP

Metric Data: 152 specimens

Average Length: 63 mm

Range of Length: 38-102 mm

Average Width: 33 mm

Range of Width: 20-42 mm

Average Thickness: 12 mm

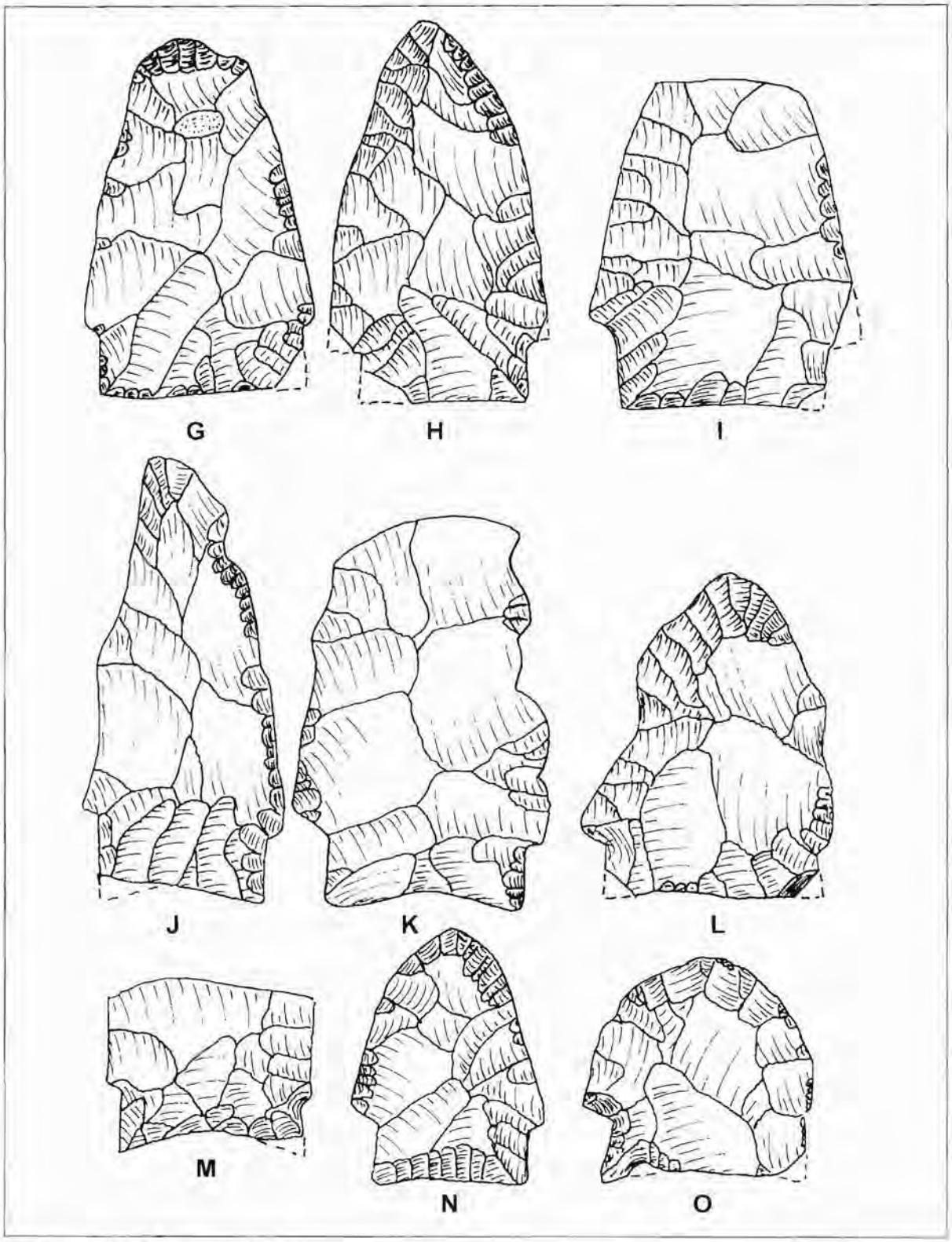

Figure 95. Sykes Points from 22-Cb-623.

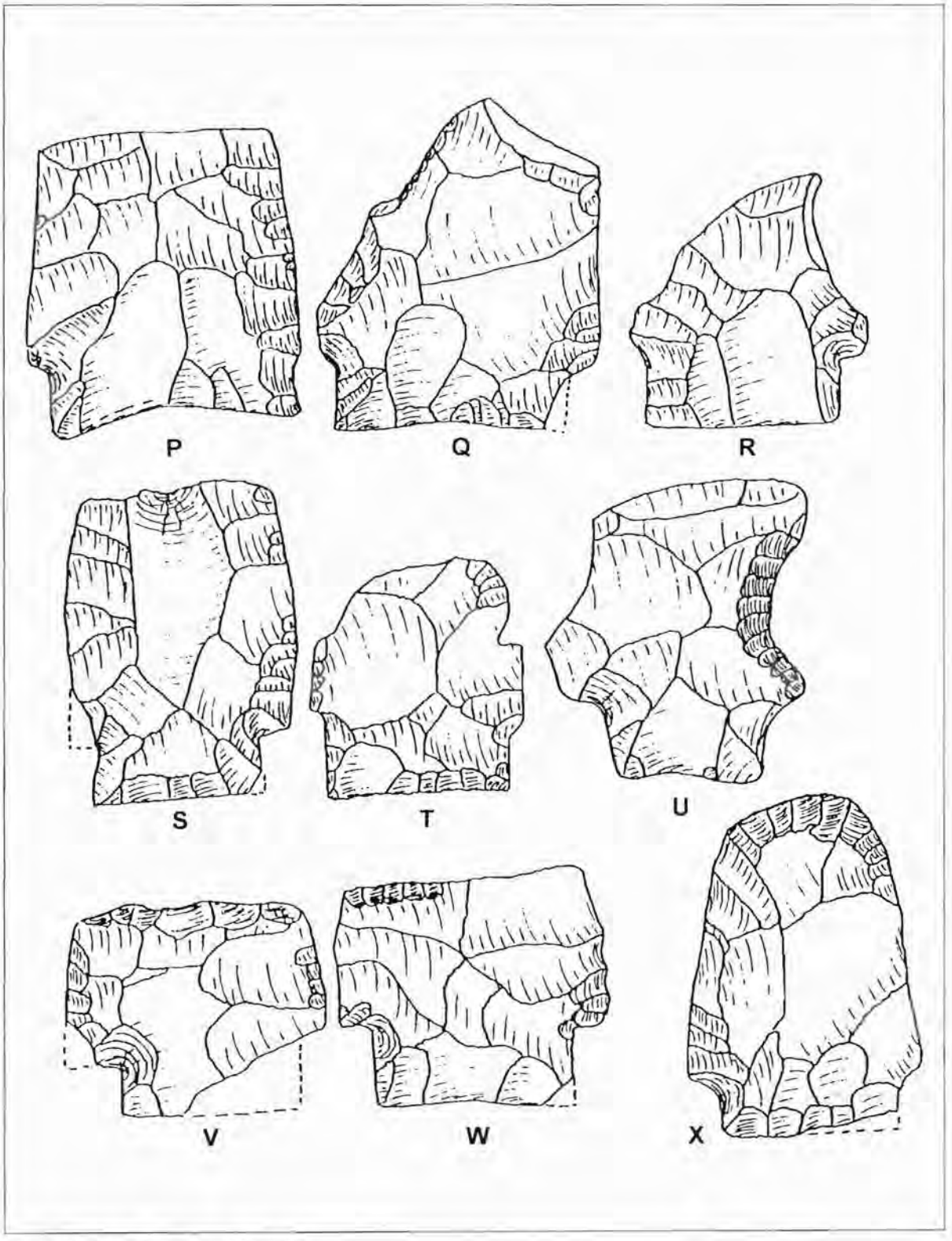

Figure 96. Sykes Points from 22-Cb-623

Sykes points in Mississippi are generally small to large sized points with short, relatively broad bases, which are often bifacially beveled in the manner of Benton points. They are generally triangular or parallel sided in the case of some of the longer specimens. The flaking is generally random. Specimens of Fort Payne chert are usually relatively thinner and better made than those of gravel chert. As is true of most Middle Archaic points in Mississippi, Sykes points have seen considerable abuse of the working surfaces, especially the distal end, where many of them are obtuse and extremely dulled and or battered (for example see Figure 94B, E, and F, and 95L, N, and O). Numerous instances of recycling have been recorded, including multiple impact scars to the distal end of the point such as may be seen in Figure 93O-R. End scrapers are relatively rare but occasionally occur, as illustrated in Figure 95G and Figure 93V and W. Two examples shown in Figure 96Q and R exhibit asymmetrical blades with lateral snaps to the distal portion of each. Specimen U of Figure 96 has a spokeshave worked into the right blade margin. Specimen A of Figure 92 represents what is thought to be a typical Sykes preform.

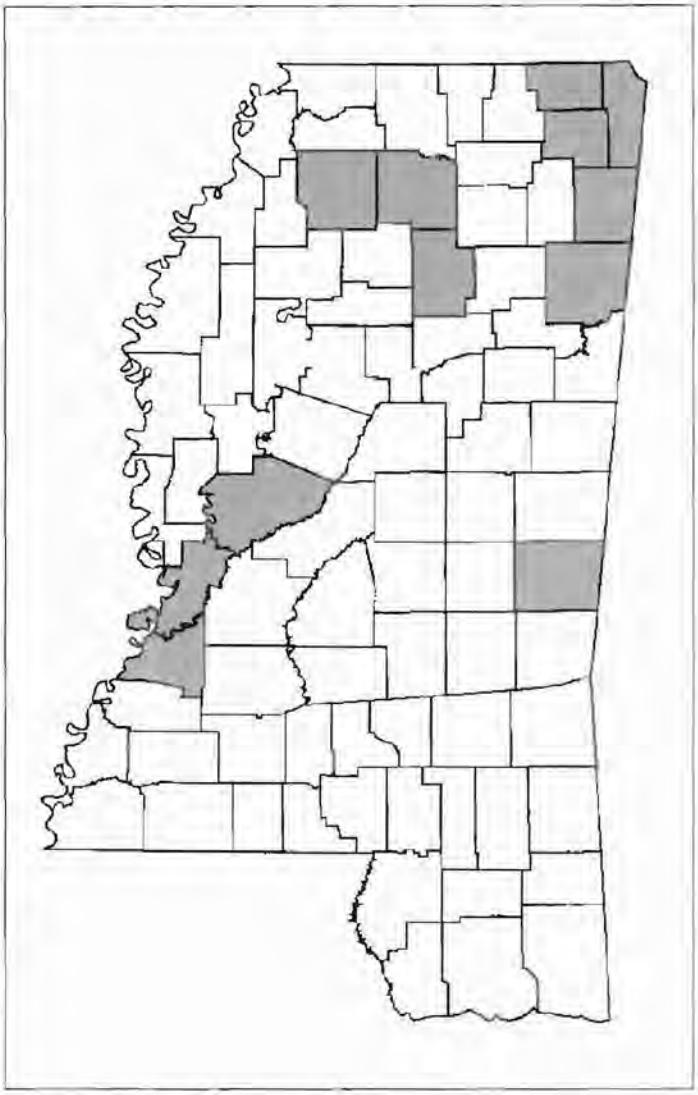

Figure 97. Known Distribution of Sykes Points.

Although no systematic effort has been made at gathering data on the type statewide, a careful analysis has been made of the specimens from two sites, 22-Mo-876 (219 specimens) and 22-Cb-623 (152 specimens). It is quite unusual to have available for analysis such large collections of Middle Archaic artifacts from one site. Separate metric data is presented above for both site collections for comparative purposes. It is noteworthy that there is a significant difference in the average size of the collections from these two sites. This can probably be accounted for by the average size of the available gravel chert raw material. Site 22-Cb-623 is situated on top of the escarpment overlooking the Mississippi River floodplain. The inhabitants may well have had ready access to supplies of large cobbles of chert from river gravel bars and from gravel-bottomed streams cutting through the loess formation. The points from site 22-Cb-623 are all of pre-loess gravel chert that may have been lightly heat-treated in some instances, except for one specimen which may be Boone chert from northwest Arkansas. The Sykes points from site 22-Mo-876 are primarily of heat treated Tuscaloosa gravel chert and are usually of a mottled

pink or reddish in color. Certain other specimens are of blue-gray Fort Payne chert and one is of Tallahatta quartzite. Recycling and repair was common on both of the sites, with points from 22-Mo-876 exhibiting all of the same forms of alteration as those illustrated from 22-Cb-623. One difference that may be significant, however, is the fact that almost none of the bifaces from 22-Cb-623 appear capable of having served as projectile points, in that the distal ends are invariably obtuse. The specimens from the Monroe County site, however, appear to have been designed originally for penetration.

Sykes points are thought to have their major distribution within the state of Mississippi in the northeast, although distributional data have not been systematically collected (Figure 97). It is, therefore, somewhat surprising to see so many from one site in southwest Mississippi, with only a few scattered specimens noted in between.

Vaughn (Atkinson 1974:132)

Chronological Position: 7,000-6,500 BP

Metric Data: 5 specimens
Average Length: 47 mm
Range of Length: 45-48 mm
Average Width: 30 mm
Range of Width: 28-36 mm
Average Thickness: 11 mm
Range of Thickness: 10-13 mm
Figures: 98 and 99

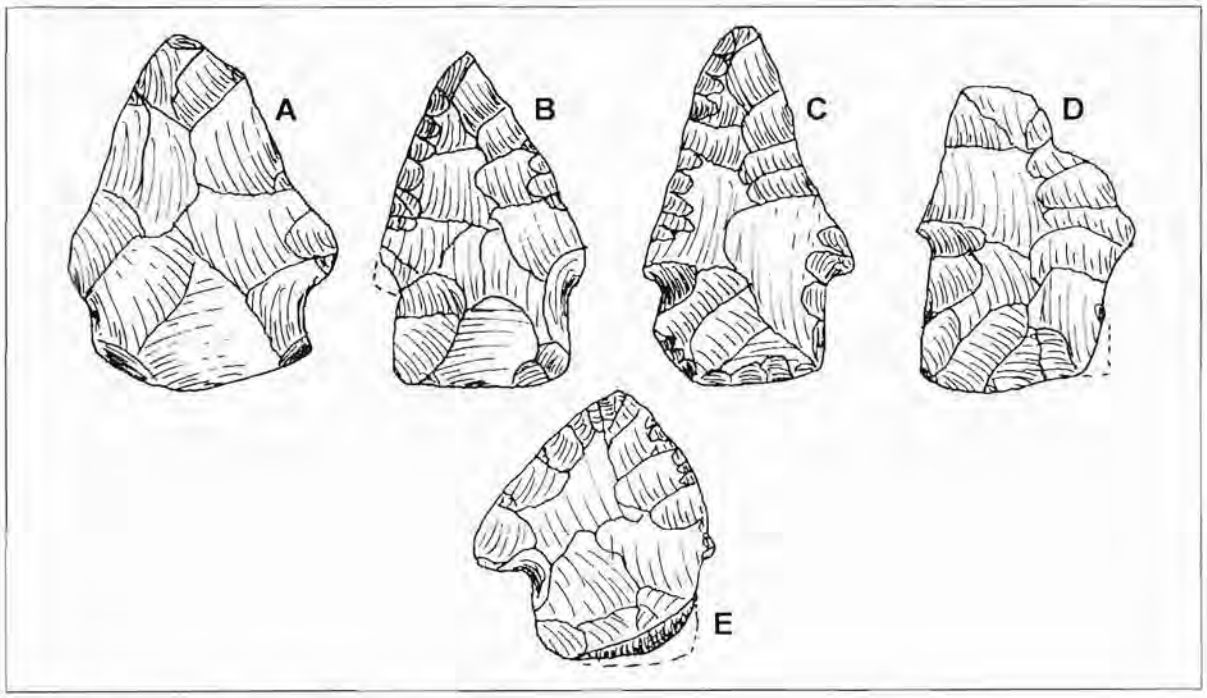

Figure 98. Vaughn Points.

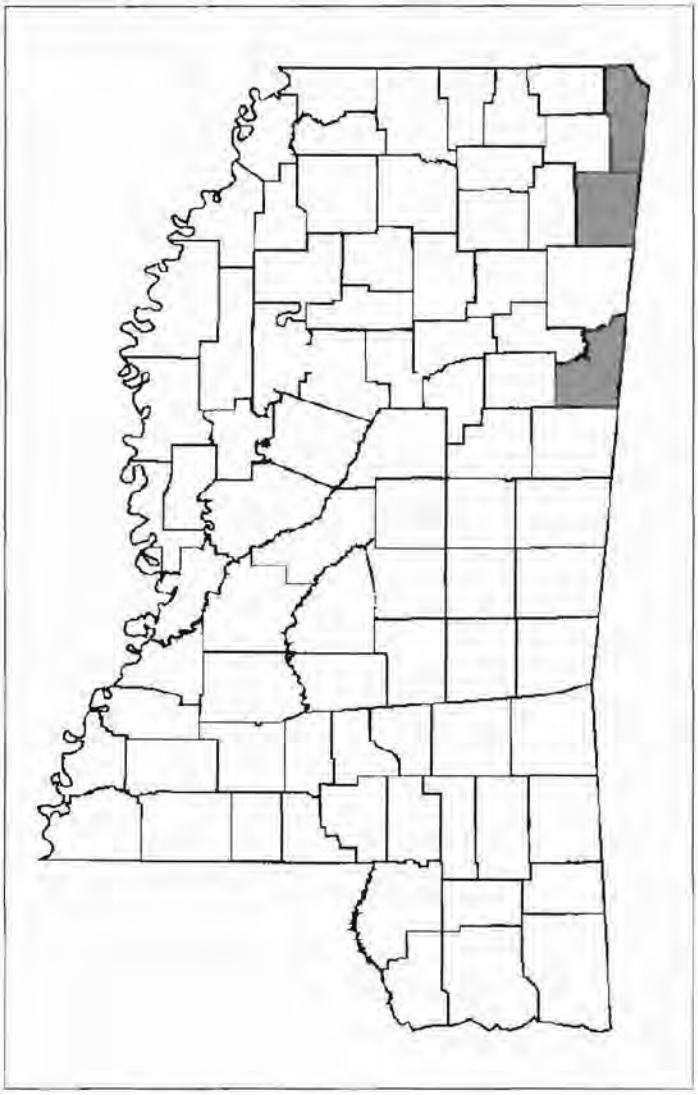

Figure 99. Known Distribution of Vaughn Points.

The Vaughn point was designated by Atkinson on the basis of one specimen excavated in the Vaughn midden mound (22-Lo-538) in Lowndes County Mississippi. The specimen illustrated in Plate 6d of his report is a thick, crudely fashioned point of Tallahatta quartzite with missing basal corners. A nearby burial was dated at 4660 BC (Atkinson 1974:132). Ensor, in the lithics analysis volume of the Gainesville Reservoir in nearby Pickens and Greene Counties, Alabama (1981:99) subsequently acknowledges Atkinson's specimen, formally naming it a type. The type is characterized by being crudely flaked, with short, broad haft elements and concave lateral haft element edges, giving the type a broad side-notched appearance. No metric data are given. Ensor assigns the Vaughn points from the Gainesville Reservoir to that he calls a Morrow Mountain-White Springs cluster. Members of this grouping are almost exclusively made of Tallahatta quartzite, a fact which leads him to see a strong coastal plain affiliation. He also notes what he considers to be a resemblance between the Vaughn points and Denton points. The specimens illustrated in Figure 98 of this publication are: A, the original specimen from the Vaughn mound (22-Lo-538); specimens B, C, and D from the Poplar site (22-It-576); and specimen E from the Ilex site (22-IT-590). The classification of specimens B through E as Vaughn points was done by personnel working on the Midden Mound Project (Bense 1987:43 and 77). They do not seem sufficiently like specimen A or the type described by Ensor to qualify as Vaughn points. They do, however, resemble short, reworked variations of Denton points. They are illustrated here with obvious reservations simply because they were the only available specimens for illustration. Three of the illustrated specimens in Figure 98 are of heat treated Tuscaloosa gravel chert; the other two are of Tallahatta quartzite. The type probably has a limited distribution in Mississippi, and based on current knowledge may be confined to northeast and perhaps to east-central Mississippi (Figure 99).

Benton (Kneberg 1956)

Chronological Position: 6,500-5,500 BP

Metric Data: 140 specimens
Average Length: 63 mm
Range of Length: 44-91 mm
Average Width: 32 mm
Range of Width: 26-38 mm
Average Thickness: 8 mm
Range of Thickness: 5-13 mm
Figures: 100, 101, and 102

Benton points are medium to large stemmed points with straight or concave bases. The stems are usually wide relative to blade width, often leaving a very narrow shoulder. Stems are occasionally ex-

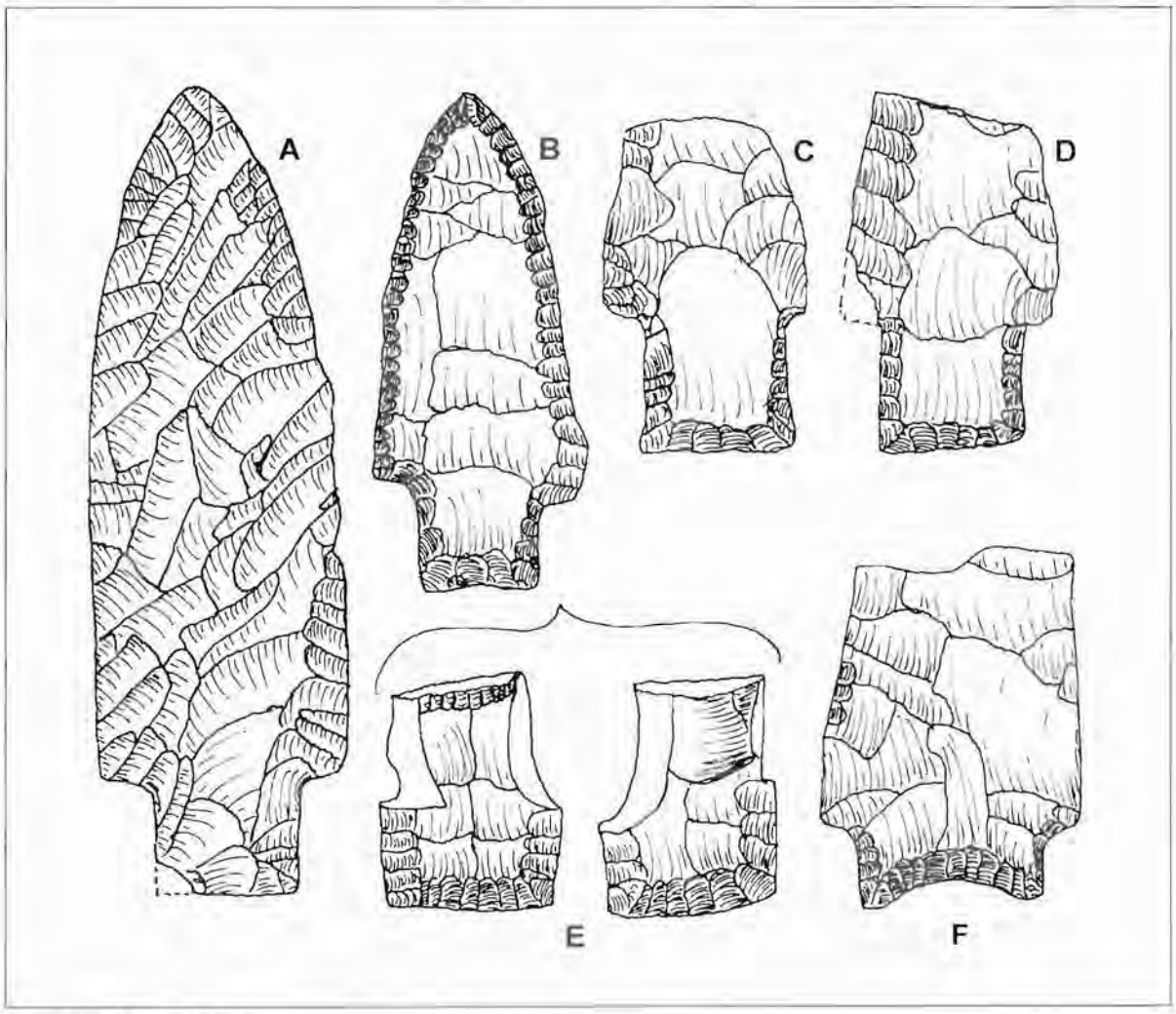

Figure 100. Benton Points.

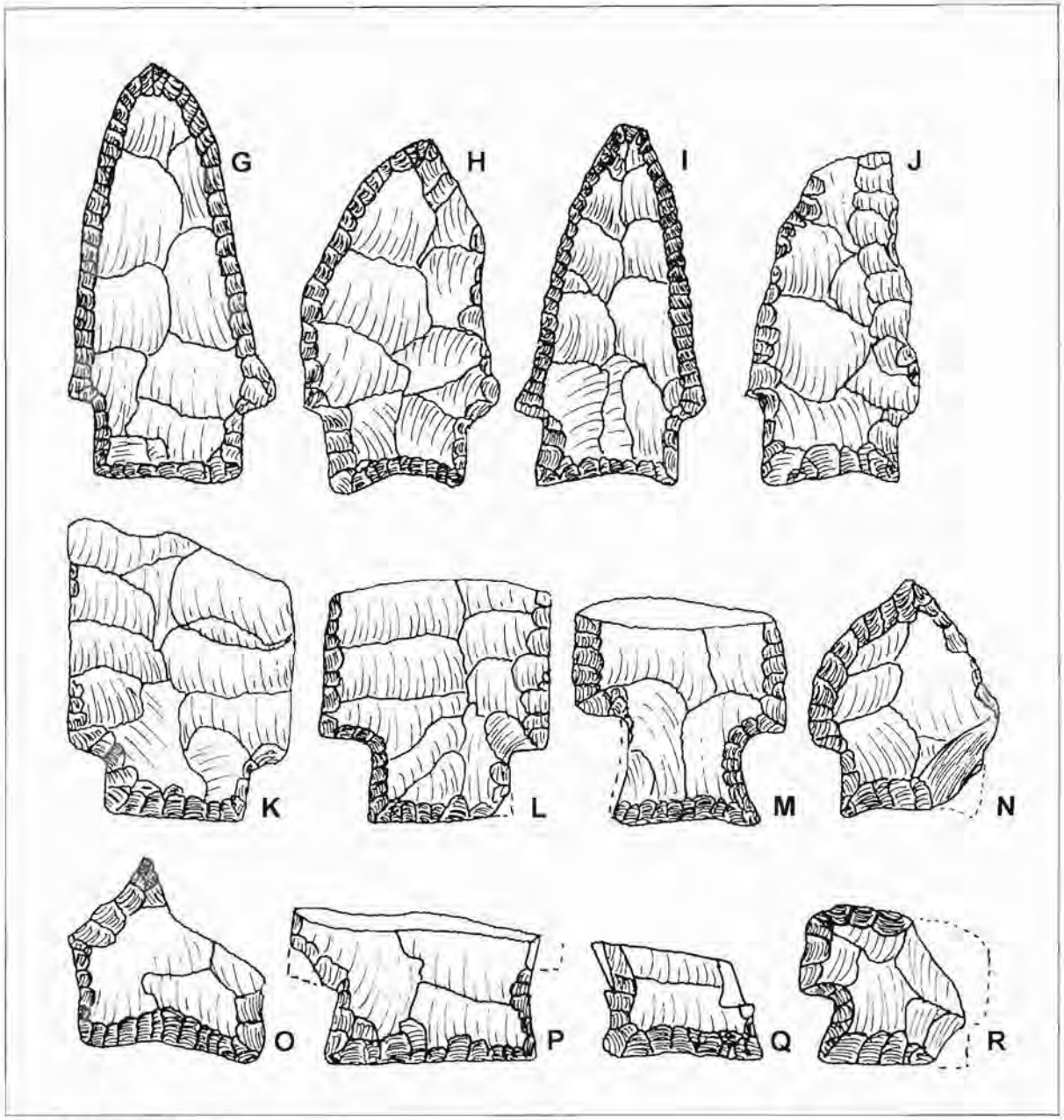

Figure 101. Benton Points.

panded but are usually straight. Perhaps their most distinctive feature is the tendency for examples to be bifacially beveled, especially around the stem edges but frequently around the entire periphery of the tool. Blades are usually excurvate or parallel sided. Most specimens made of Fort Payne Chert are flattened in cross section and are relatively thin compared to width, whereas specimens made of gravel chert are generally proportionately thicker and more crudely made. Most flaking is random, but some specimens such as the one which is illustrated in specimen A of Figure 100 may be parallel-oblique flaked. This specimen has been classified elsewhere as an Elk River point (Connaway 1977:36). It and all other Elk River points are regarded here as variants of the Benton type. Another variant of Benton

which has previously been named the Buzzard Roost Creek point (Cambron: 1958) is illustrated in Figure 100F, and Figure 101H.

Benton points, as is typical of most other Archaic points, were subjected to numerous types of alteration as they were resharpened, repointed, or altered into various functionally different forms such as end scrapers (Figure 101R), gravers (Figure 101O), or wedging tools (Figure 100E and Figure 101P and Q). Impacts to the flat surfaces of the transversally fractured specimens illustrated in Figures 100E and 101P and Q have left burin-like lateral edges. The end scraper recycling of the specimen illustrated in Figure 101R is interesting in that it represents the continuation of a tradition of such recycling that began in the Late Paleoindian period. With the end of the Early Archaic period this type of reworking of projectile points is rare in Mississippi. Specimen N, which is of Fort Payne chert, has apparently been reworked on numerous occasions, and what remains may well represent only half or less of the original length. Specimen O in Figure 2, a recycled Clovis point, appears to have been reworked by Benton point makers several thousand years after the original Clovis point was lost or discarded.

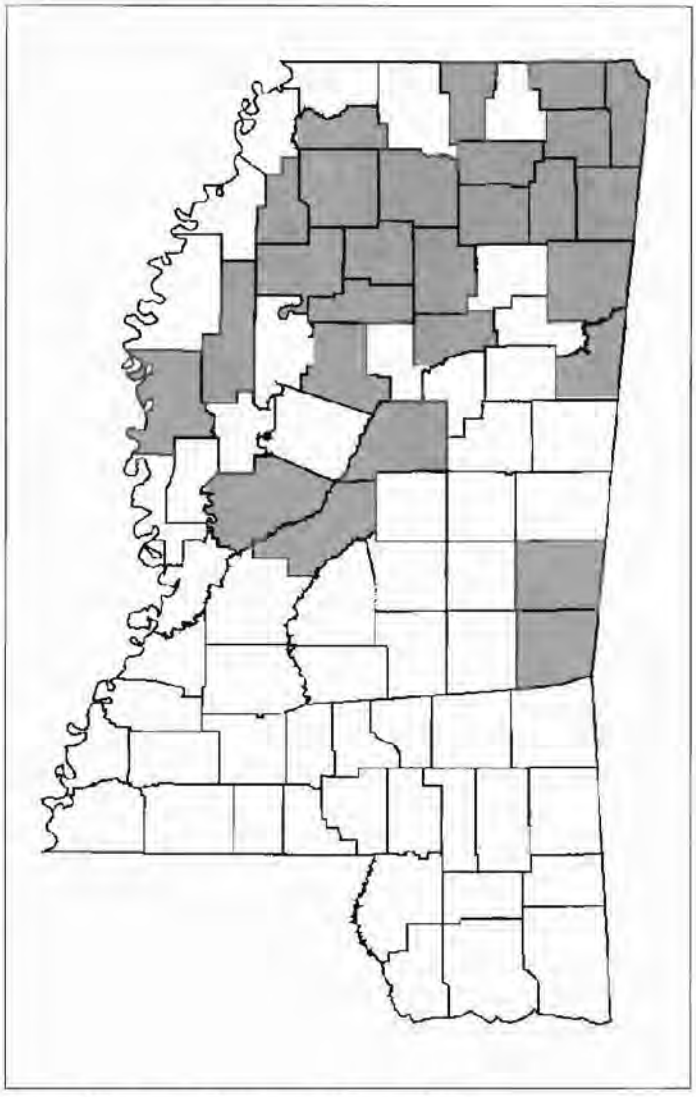

Figure 102. Known Distribution of Benton Points.

Benton points are made from a variety of materials, but the most common material is blue-gray Fort Payne chert. Other materials include Tallahatta quartzite, Novaculite, and heat treated gravel chert, primarily from the Tuscaloosa formation. The apparently strong preference for Fort Payne Chert among Benton point users across north Mississippi has been the focus of various papers and articles in recent years (Johnson and Brookes 1987, 1988, and 1989). Brookes and Reams (1996 :12), citing Bense (1987:393), discuss the possibility of major environmental disruption of the hypsithermal period as an explanation for the heavy reliance on Fort Payne chert and other quarried material such as Tallahatta quartzite. Many of the gravel deposits may have been covered with silt at that time, and if so were probably relatively inaccessible. This unfortunate situation may have led to the establishment of exchange networks between areas that had ample supplies of large accessible deposits of lithic raw material and areas that had none. A number of Benton points of novaculite have been recorded, including one cache of rather large specimens in Tallahatchie County in northwest Mississippi, a fact which sug-

gests the possibility of an exchange network between the relatively chertless northern Yazoo Basin and the Ouachita mountains to the west, much more farflung than that proposed by Johnson and Brookes limited to north Mississippi.

Peacock (1988:13) lists twenty radiocarbon dates which seem to establish the age of the Benton culture reliably as between approximately 6700 and 5850 years ago. The type is found over most of north Mississippi and occasionally into central and south Mississippi.

Data have not been systematically gathered by the writer on metric attributes of Benton points in the same way as for the Paleoindian and Early Archaic points. The metric data presented above are from Weinstein (1981:4-10) and probably adequately represent the Benton type in Mississippi, although the sample is from one site (22-Al-521) in Alcorn County.

Benton Ceremonial Cache Types

Johnson and Brookes (1987, 1988, 1989) have written a series of papers dealing with the subject of caches of Benton culture artifacts and Middle Archaic exchange. The caches discussed by them fall into eight categories of flaked stone tool types: Benton points, points of Tallahatta quartzite (usually falling into the categories of Pickwick or Ledbetter), Turkey Tails, Double Notch Turkey Tails, Double Notch Square Bases, Oversized Cache Blades, Cache Blades, and Oversized Bentons. Except for the relatively small minority of points classified as Tallahatta (quartzite) points, all of the flaked stone artifacts in these caches are either of blue-gray Fort Payne chert or what is assumed to be material from the Fort Payne formation. The caches also frequently include ground and polished objects such as bannerstones, beads, and what are thought to be large effigy projectile points. Many of the individual items in some of the caches have been ceremonially "killed" which is to say that they were deliberately broken, ostensibly because of some cultural belief having to do with proper treatment of the dead. The caches are an interesting topic for discussion but largely outside the scope of this publication.

Five of the categories falling under the rubric of ceremonial objects are discussed and described in the following section. The Tallahatta points are discussed elsewhere in this publication and the category Cache Blades, thought to be preforms for regular Benton points, are also discussed elsewhere.

Oversized Benton (Johnson and Brookes 1988)
Chronological Position : 6,500-5,500 BP

Metric Data: 8 specimens (From Johnson and Brookes 1988:57 and 1989:136)
Mean Length: 209 mm
Range of Length: 184-259 mm
Mean Width: 48 mm
Range of Width: 26-68 mm
Mean Thickness: 9 mm
Range of Thickness: 7-9 mm
Figures: 103 and 104

Oversized Bentons are substantially larger than ordinary Benton points. They are also generally more carefully made, with a greater width to thickness ratio. As was pointed out by Johnson and Brookes (1987:3), many of the specimens of Oversized Bentons and the other "ceremonial" artifacts of the caches are given a noticeable twist to the longitudinal axis in the process of producing an exceptionally thin but wide artifact. These points as well as the other ceremonial types in the Benton caches are considered non-utilitarian by Johnson and Brookes (1989:136).

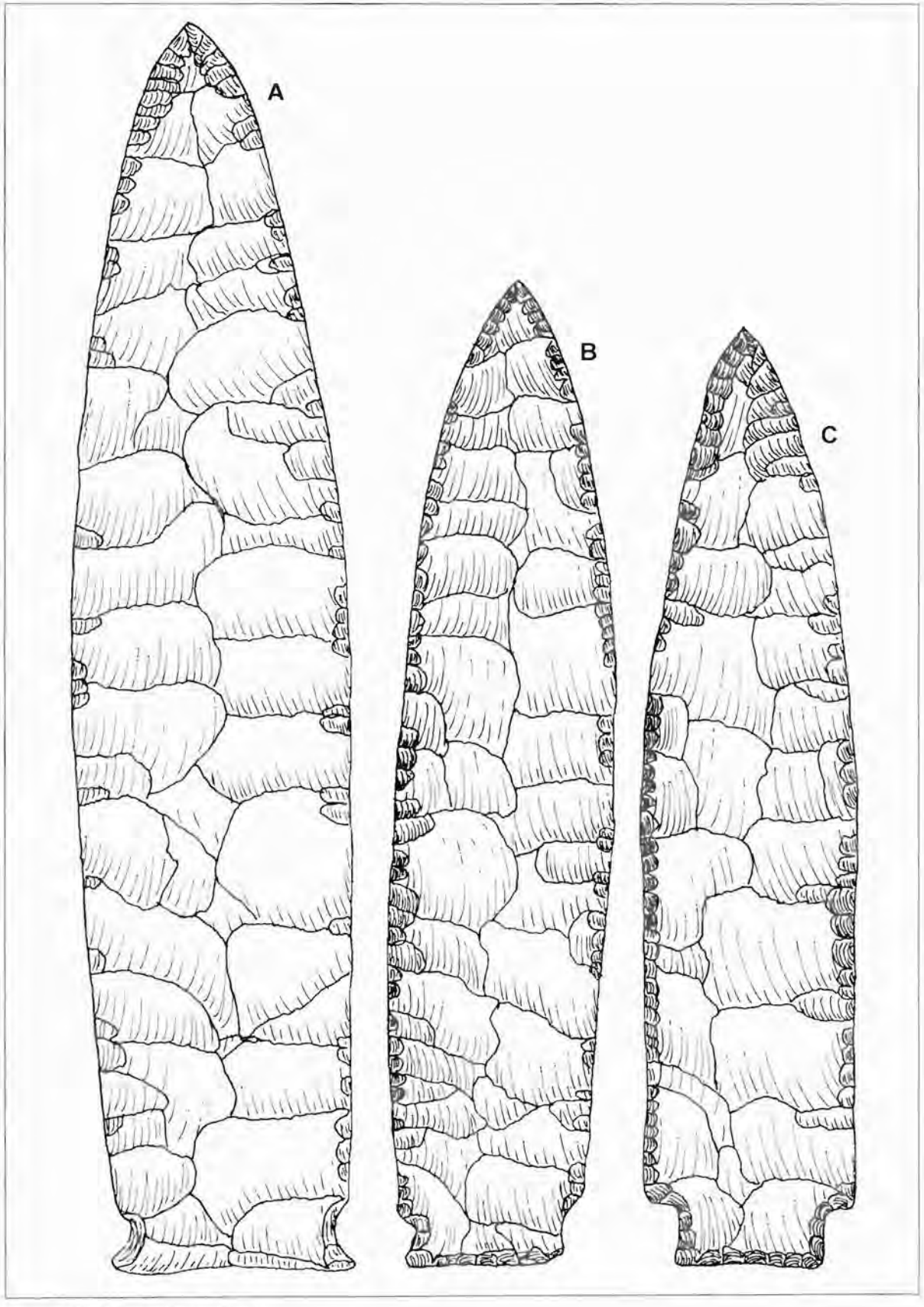

Figure 103. Oversize Benton Points.

The stems, which are relatively short considering the often great lengths of the individual points, are generally straight or occasionally expanding, with straight basal edges. Basal edges are usually bifacially beveled. The blade edges are generally parallel sided or slightly excurvate. Cross-sections are flattened. Points of this type have so far failed to indicate any reworking, repair, or even any indications of use. Raw material is predominantly blue-gray Fort Payne chert with a small minority of other material that is generally thought to be derived from the Fort Payne formation. Based on current knowledge the distribution of this type within the state of Mississippi is primarily northeast Mississippi, although caches may ultimately be found to extend westward to or into the Yazoo Basin on the west. One isolated find, however, the largest recorded Benton point in Mississippi, is from Adams County in southwest Mississippi. This specimen measures 277 mm long by 60 mm wide and 13 mm thick. The metric data cited above does not include this unusual specimen.

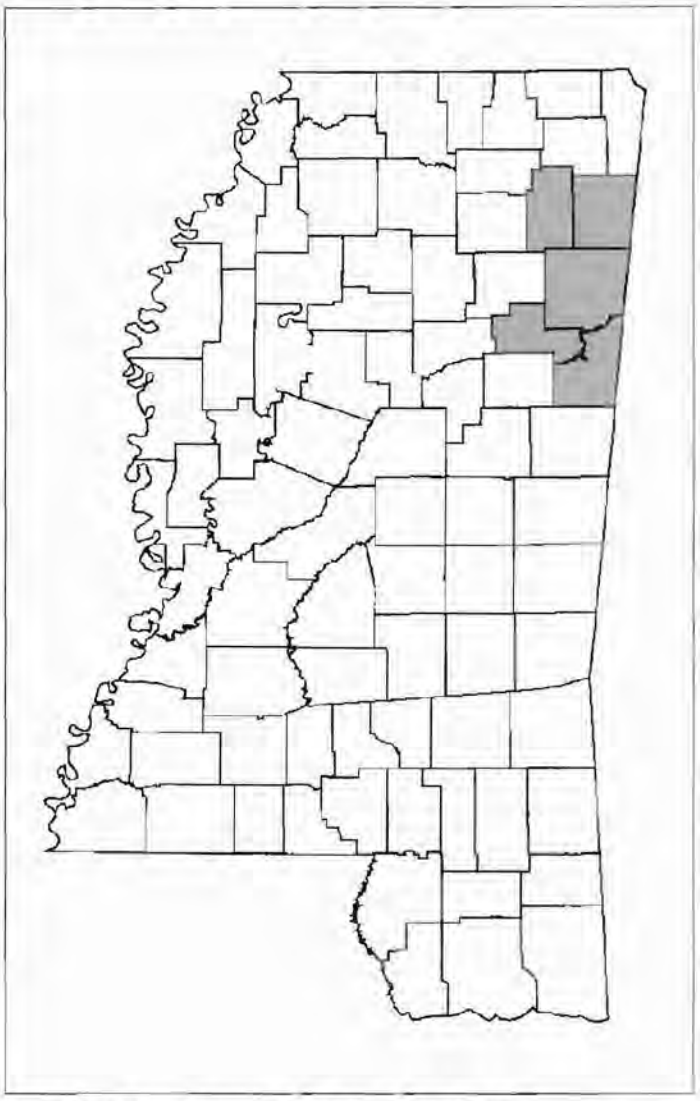

Figure 104. Known Distribution of Benton Cache Types.

Turkey Tail (Johnson and Brookes 1989)

Chronological Position: 6,500-5,500 BP

Metric Data: 7 specimens (From Johnson and Brookes 1989:136)
Mean Length: 180 mm
Range of Length: 145-243 mm
Mean Width: 44 mm
Range of Width: 40-54 mm
Mean Thickness: 8 mm
Range of Thickness: 7-9 mm

Figures: 104 and 105

There are prior references to this type. Bell (1960:90) citing Scully (1951:11), illustrates six specimens which bear only a general resemblance to the points described as Turkey Tails by Johnson and Brookes. They are smaller and relatively wider than the Benton cache items under discussion here. They are thought to be Late Archaic to Early Woodland, with a suggested date range of 2000 BC to 500 BC,

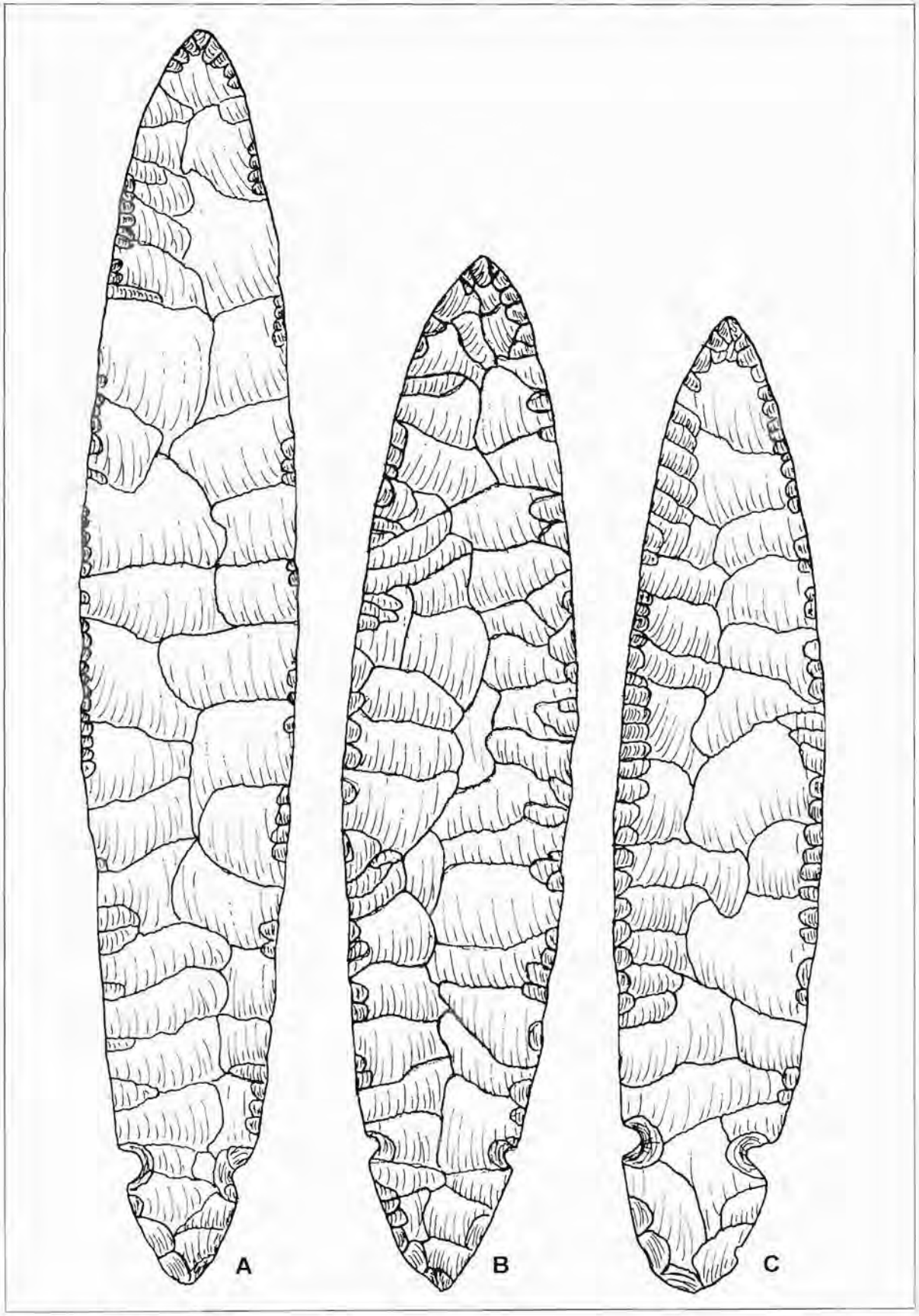

Figure 105. Turkey Tail Points.

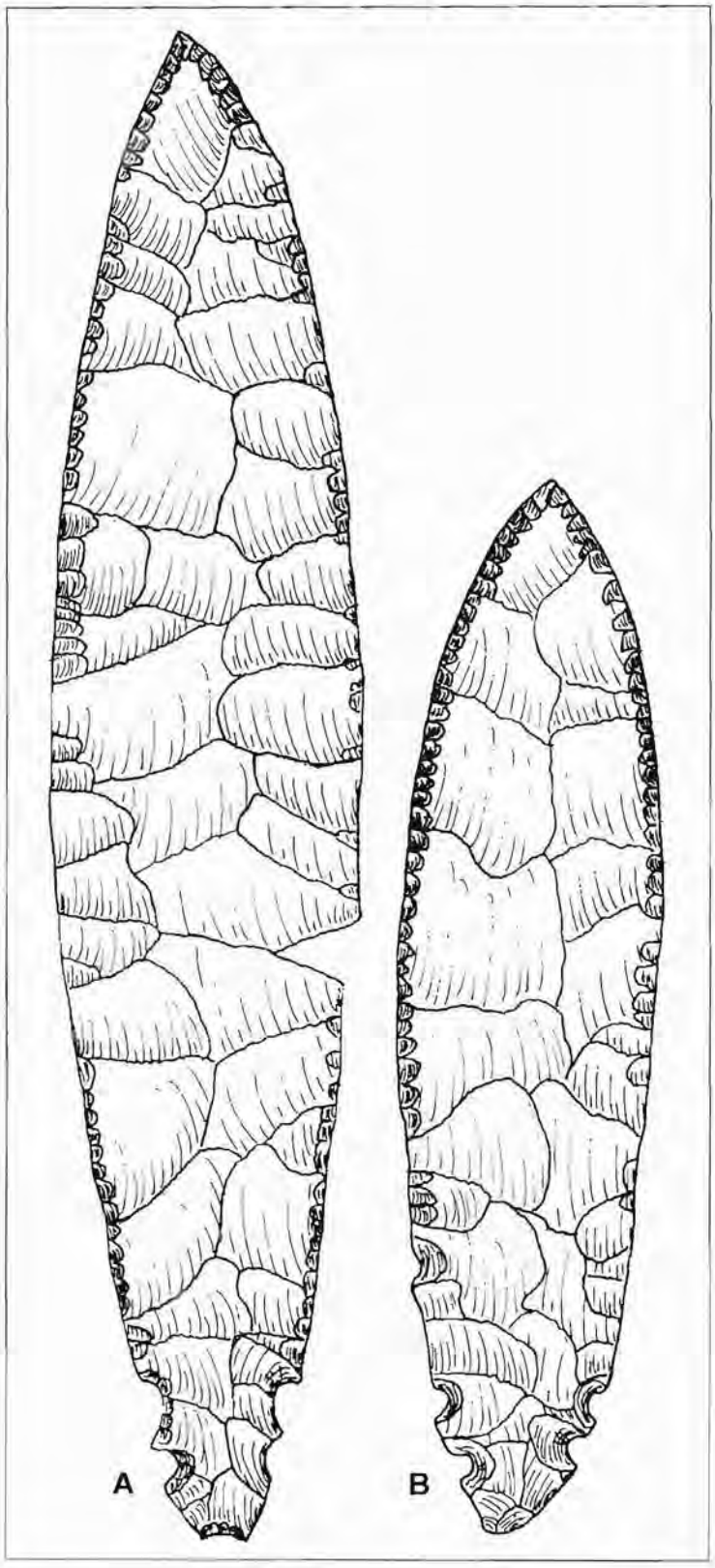

Figure 106. Double Notch Turkey Tail Points.

or considerably later than Benton. Cambron and Hulse (1975:121) illustrate a typical Benton cache Turkey Tail and cite Scully and Bell, apparently not recognizing the Alabama specimen's Middle Archaic status. Benton Cache Turkey Tails may be considered bipointed, though the notched end is slightly less pointed than the distal end. They are equipped with side notches and present an outline that may be described as an elongated oval. Cross-sections are flattened, with a width to thickness ratio of between five and six. The raw material, as is the case with the other ceremonial cache items of flaked stone, is usually of blue-gray Fort Payne chert. The known distribution in Mississippi is the northeastern part of the state (Figure 104).

Double Notch Turkey Tail (Johnson and Brookes 1989)

Chronological Position:
6,500-5,500 BP

Metric Data: 2 specimens (From Johnson and Brookes 1989;136)
Mean Length: 192 mm
Range of Length: 160-225 mm
Mean Width: 44 mm
Range of Width: 40-47 mm
Mean Thickness: 9 mm
Range of Thickness: 8-10 mm
Figures: 104 and 106

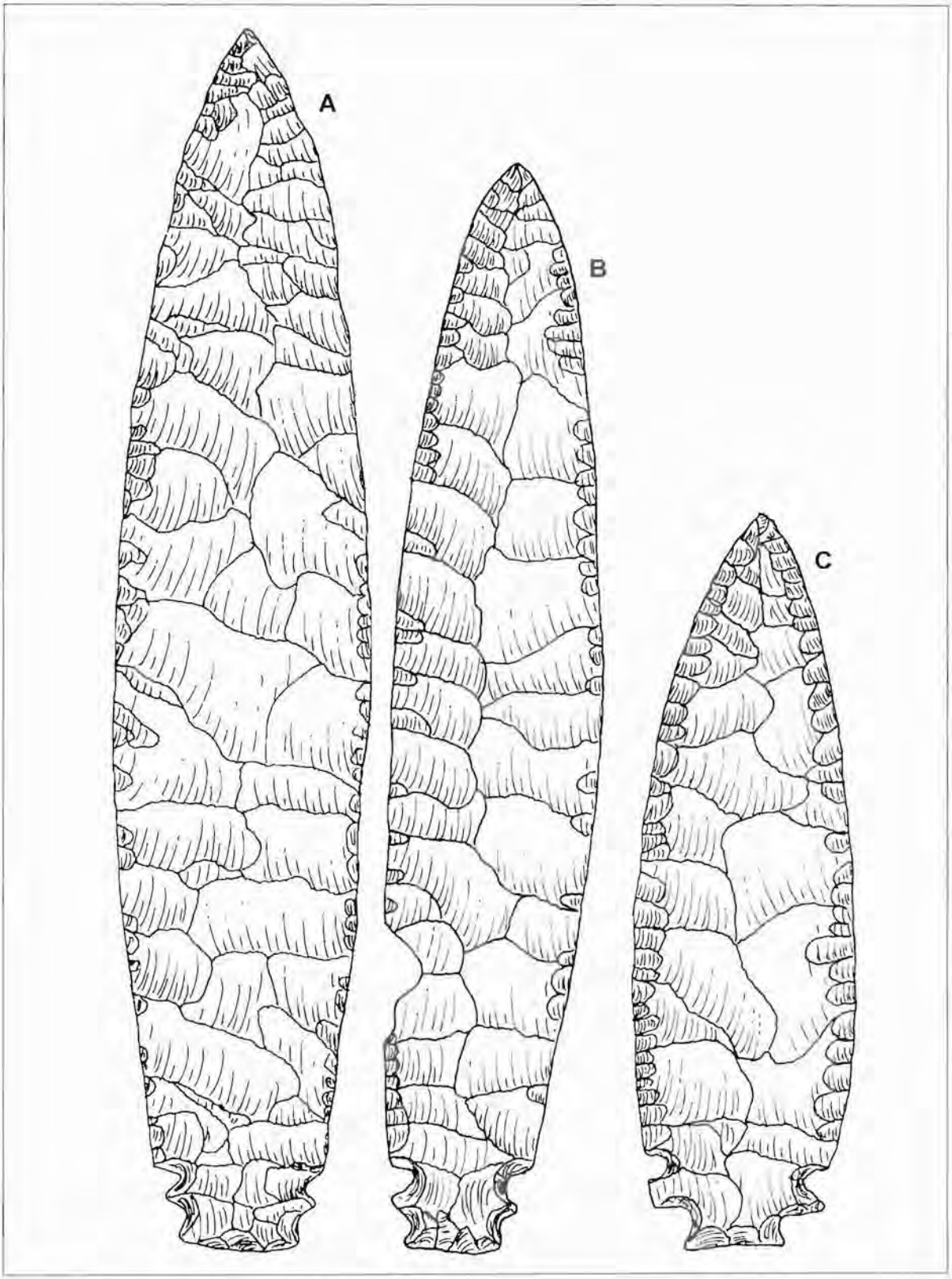

Figure 107. Double Notch Square Base Points.

Only two of these points have been recorded in Mississippi. They differ from the above described Turkey Tail points only in having two notches instead of one. The raw material is blue-gray Fort Payne chert and the distribution in Mississippi is the northeastern part of the state (Figure 104).

Double Notch Square Base (Johnson and Brookes 1989:57)

Chronological Position: 6,500-5,500 BP

Metric Data: 6 specimens (Johnson and Brookes 1989:136)
Mean Length: 194 mm
Range of Length: 135-223 mm
Mean Width: 43 mm
Range of Width: 37-47 mm
Mean Thickness: 8 mm
Range of Thickness: 6-10 mm
Figures: 104 and 107

These points resemble both of the Turkey Tail types described above as well as the Oversized Bentons. They differ from the Turkey Tails in having a relatively wider squared base. The basal edge is double beveled as in most Benton points and the stem is relatively short. The blade shape is excurvate and the cross sections are flattened and relatively thin. Raw material is blue-gray Fort Payne Chert. The known distribution in Mississippi is the northeastern part of the state (Figure 104).

Oversized Cache Blade (Johnson and Brookes 1989)

Chronological Position: 6,500-5,500 BP

Metric Data: 7 specimens (From Johnson and Brookes 1989:136)
Mean Length: 232 mm
Range of Length: 202-262 mm
Mean Width: 51 mm
Range of Width: 41-66 mm
Mean Thickness: 9 mm
Range of Thickness: 7-11 mm
Figures: 104 and 108

These items may be regarded as preforms for the other types represented in the caches. They, like the other cache types, are relatively thin with a flattened cross section. The blade form is parallel sided to excurvate, and the basal edge is straight. The raw material is blue-gray Fort Payne chert . The known distribution in Mississippi is the northeastern part of the state (Figure 104).

Furr (Provisional type)

Chronological Position: 6,000-5,000 BP

Metric Data: 2 specimens
Average Length: 151 mm

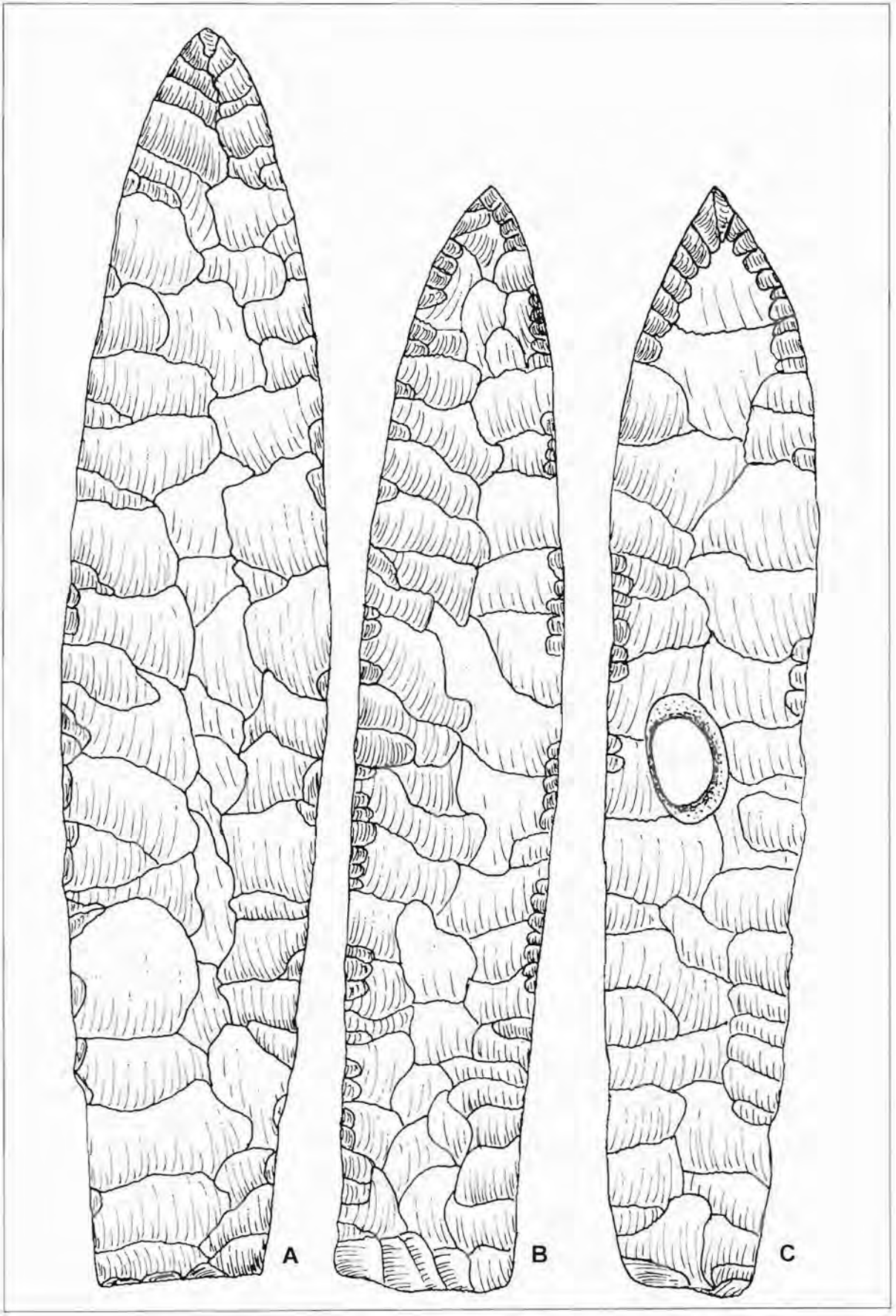

Figure 108. Oversize Cache Blades.

Range of Length: 136-165 mm
Average Width: 60 mm
Range of Width: 57-62 mm
Average Thickness: 13 mm
Range of Thickness: unknown (thickness recorded on only one specimen)
Figures: 109 and 110

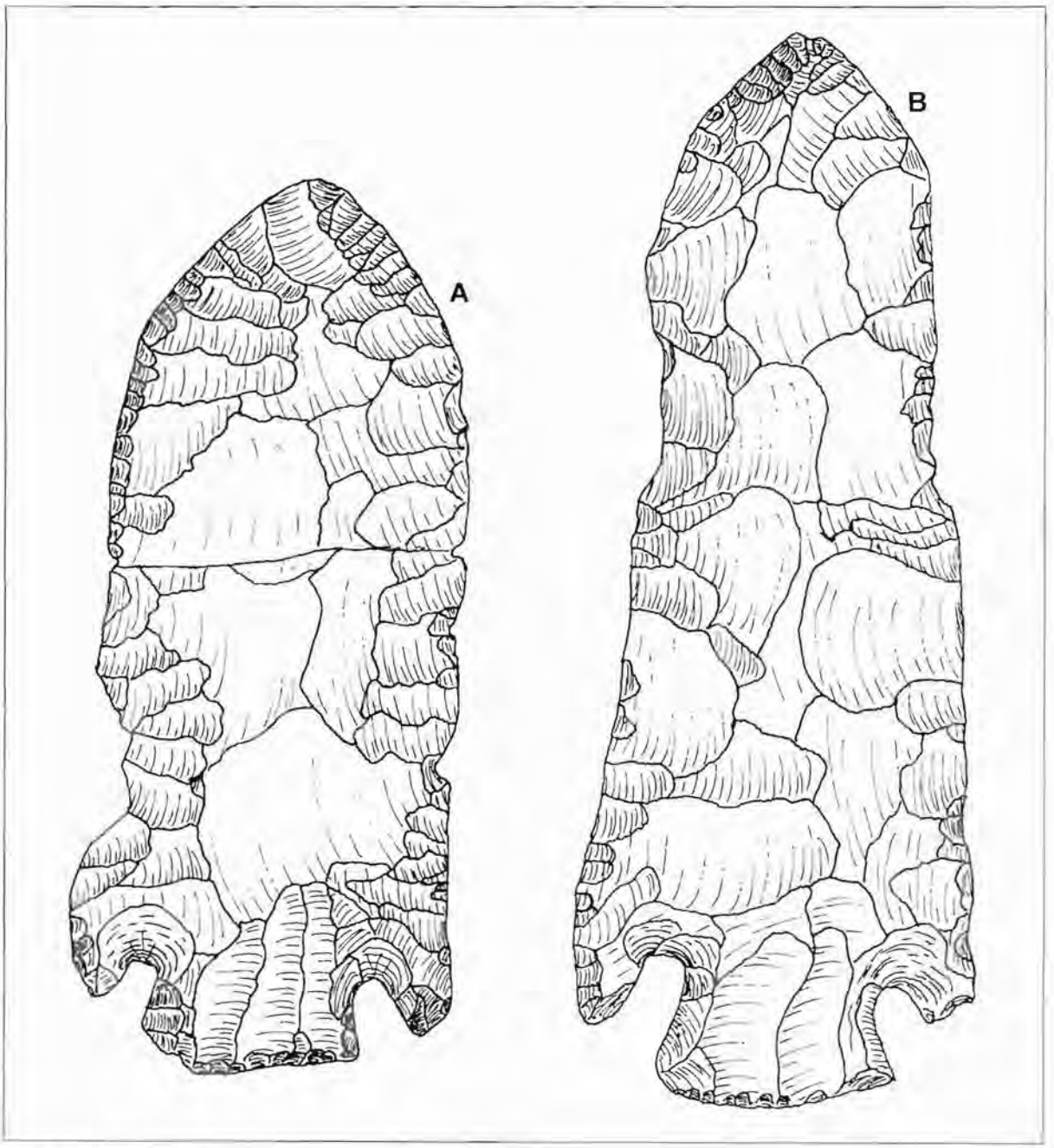

Figure 109. Furr Points.

This provisional type is presented here because of two unusual specimens from the Yazoo Basin that bear some resemblance to the Castroville type. The illustrated specimens in Figure 109 are classified as Castroville by Brookes (1996:2) in the context of a discussion dealing generally with ceremonial aspects of the Middle Archaic.

Points previously illustrated as Castroville are considerably different in size and form and are apparently concentrated mostly in central Texas (see Bell 1960:14 and Perino 1985:69).

These are exceptionally large points, proportionally broad with broad stems that are basally notched into the proximal ends of the points. The stems are straight to slightly convex. Each specimen is basally thinned and carefully made, with broad shallow flake scars covering most of the surface of each face. According to Connaway (1977:38), the edges of the shorter specimen, which was found at the Denton site in the Yazoo Basin, do not show use wear. One of the points (the shortest) is parallel sided. The other might have been parallel sided at one time, but may have been resharpened into a more triangular configuration. Both specimens exhibit a sharp turn to an abrupt point at the distal end. The raw material of the shorter specimen is an exotic dark red or maroon material that has been heat treated. Two other large pieces of apparently similar artifacts were found near the complete one seen in Figure 109A. They are of the same material. The longer of the two specimens illustrated in Figure 109B is from Leflore County, also in the Yazoo Basin. It is of petrified palmwood, which is occasionally seen in the pre-loess gravels available at the Mississippi Valley escarpment a few miles to the east of Leflore County. Considering the widespread occurrence of ceremonial caches at Middle Archaic sites in the Mid-south, by now well documented, and the documentation of two or more extremely large bifaces in near proximity at the Denton site, it seems likely that these items are ceremonial cache items similar in concept to those of the better documented Benton-Turkey Tail caches. The geographical distribution of the type, based on current knowledge, is the Yazoo Basin (Figure 110). Hopefully future investigations and discoveries will allow a more complete knowledge of this provisional type.

Figure 110. Known Distribution of Furr Points.

St. Helena (Gagliano 1979)

Chronological Position: 6,500-5,500 BP

Metric Data: 25 specimens
Average Length: 62 mm
Range of Length: 46-78 mm
Average Width: 32 mm
Range of Width: 27-40 mm
Average Thickness: 9 mm
Range of Thickness: 8-13 mm
Figures: 111, 112, and 113

The St. Helena type was proposed as a type by Sherwood Gagliano in 1979. He illustrated ten specimens from the Florida Parishes of Louisiana, which he named St. Helena, *var. St. Helena.* As noted by Gagliano, one of the most distinctive features of the type is the multiple, paired notches along the blade (Gagliano 1979:B-3). The specimens described by Gagliano had from two to four pairs of notches. Mississippi specimens recorded to this date have from seven pairs of notches to as few as one. Another distinctive feature of this type, as was stated in the original description, is the distal end, which has a screwdriver- or chisel-like shape. Only one of the Mississippi specimens with a surviving distal end (Figure 112Q) lacks such a feature. Several of the rather distinctive distal ends have been observed detached from the rest of the point. In these cases it seems safe to assume that the broken end represents a St. Helena point. Most specimens have a triangular outline and straight edges. The bases are generally straight but may occasionally be slightly concave. The stems are straight to slightly expanded. Flaking is fair to good. The unusual form of this type calls for an explanation in terms of function. Unfortunately, beyond the obvious conclusion that the distal end could have been used as a chisel, an interpretation at this time would be speculation.

The raw material recorded on Mississippi specimens thus far is local chert, either pre-loess or Citronelle gravel. Some specimens exhibit heat treating. There are no radiocarbon or other dates available for the type, but St. Helena points seem very closely related to the St. Tammany type, and each has many resemblances to Sykes points, especially specimens from south and central Mississippi. The distribution of St. Helena points is almost the same as for St. Tammany points, primarily southwest Mississippi and the Florida Parishes of Louisiana (Figure 113).

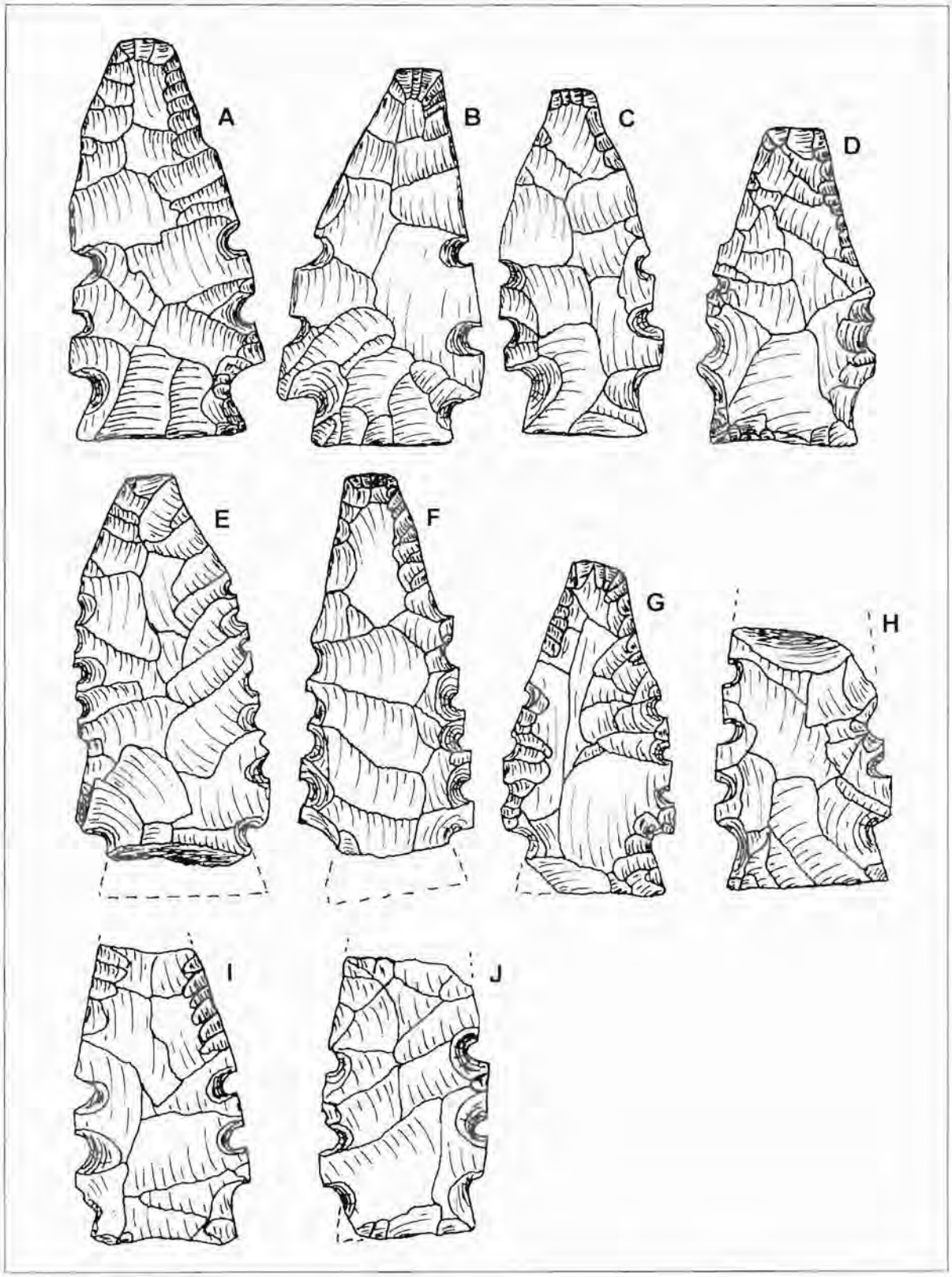

Figure 111. St. Helena Points

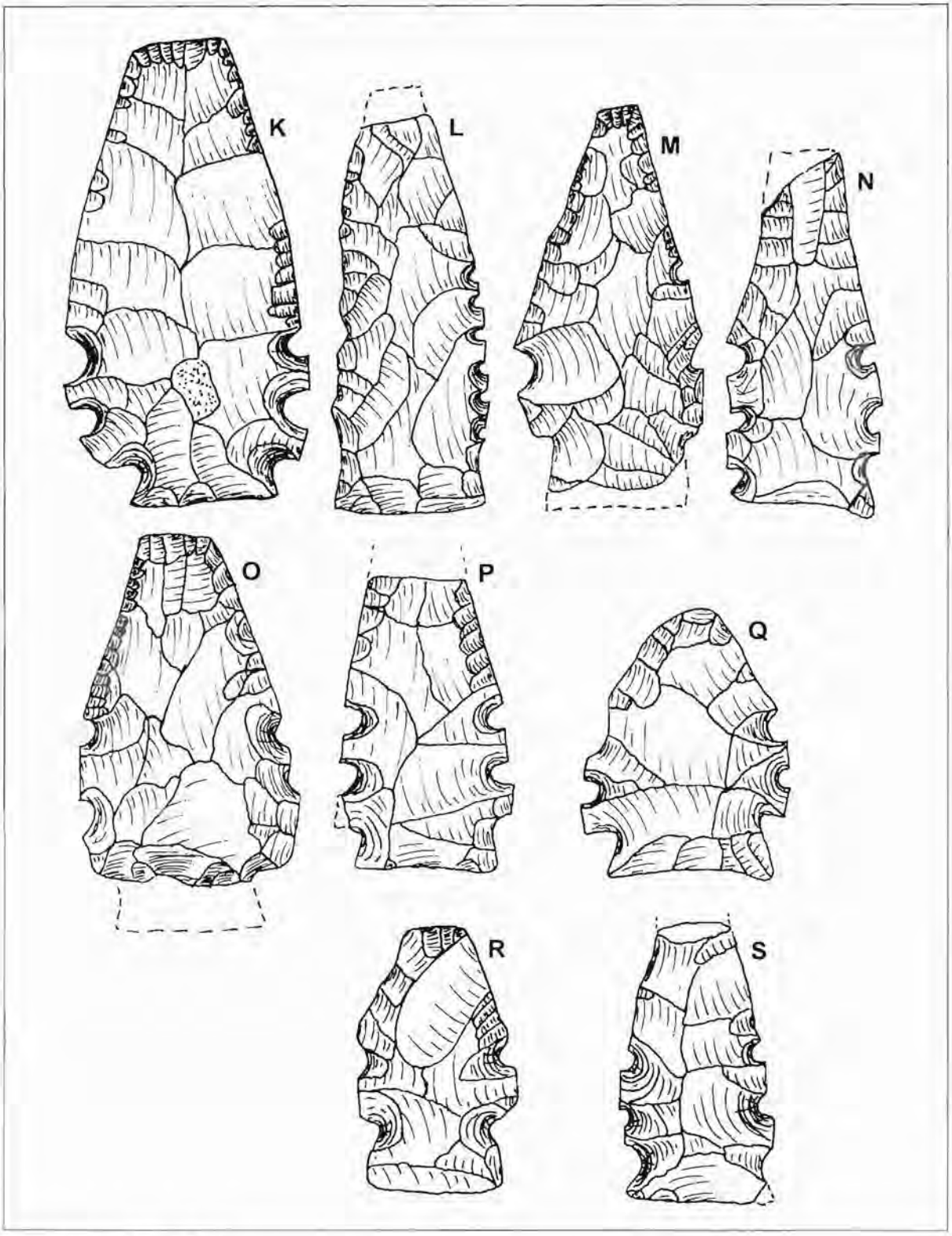

Figure 112. St. Helena Points.

St. Tammany (Gagliano 1967:3)

Chronological Position: 6,500-5,000 BP

Metric Data: 64 specimens
Average Length: 61 mm
Range of Length: 35-90 mm
Average Width: 29 mm
Range of Width: 24-51 mm
Average Thickness: 12 mm
Range of Thickness: 5-15 mm
Figures: 114, 115, 116 and 117

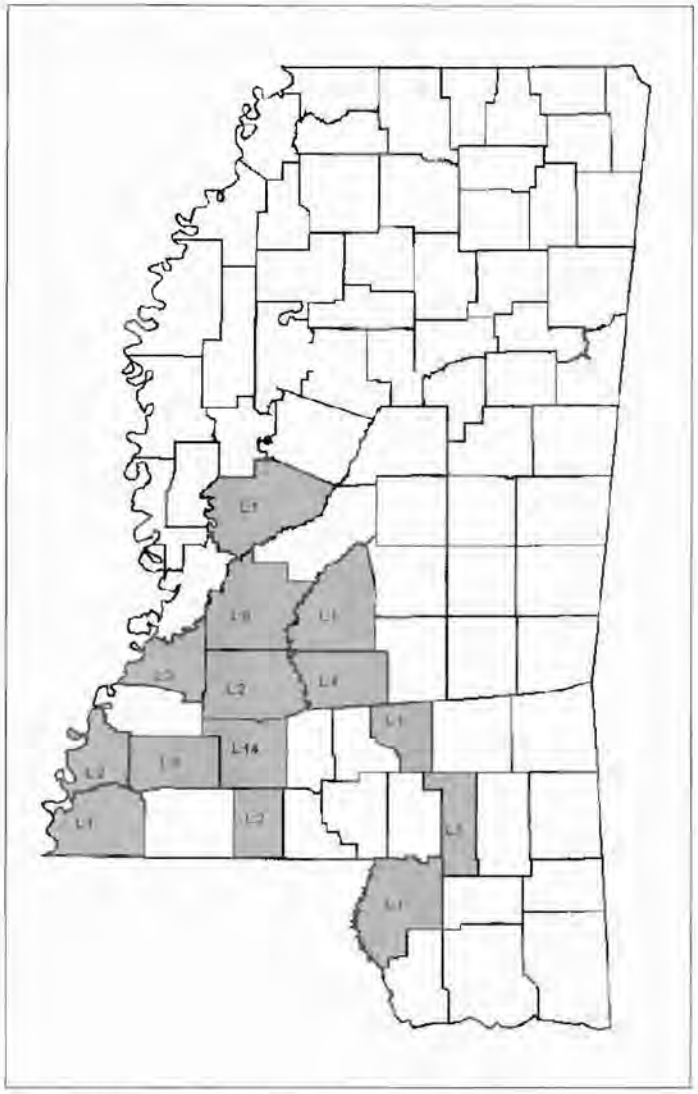

Figure 113. Known Distribution of St. Helena Points.

Sherwood Gagliano (1967) defined and described what he called Kirk Serrated, *variety St. Tammany* from a sample of 35 specimens recorded in the Florida Parishes of Louisiana and adjacent counties in southwest Mississippi. Unfortunately, we have not been able to establish links between the form presented by Gagliano and Kirk Serrated points (Coe 1964:70), which he implies are the same. Kirk Serrated points do occasionally occur in the northeasternmost part of Mississippi, but are not seen or reported anywhere between there and the area in southern Mississippi where the specimens illustrated here in Figures 114-116 and those illustrated by Gagliano occur. While there are general similarities in form and technology, there are also differences. The specimens illustrated by Coe are definitely narrower and have triangular outlines. The distal ends are acute and do not make a radical change in outline near the distal end as is the case with Gagliano's specimens and those illustrated here in our Figures 114-116.

St. Tammany points are usually parallel sided or triangular in the blade portion of the point, with a fairly abrupt angle at the point where the serrations end near the distal end. This results in a somewhat steeple-shaped outline. The distal ends were usually acute prior to sustained use and the resultant rounding and dulling. Occasional specimens such as specimens I and J of Figure 114 terminated in a chisel- or screwdriver-shaped tip. Stems are broad relative to the shoulder width and straight-sided or slightly expanding, with some specimens actually being side-notched as in specimens Q and R of Figure 115. They have either straight or slightly concave bases, frequently thinned. The blade edges were initially deeply serrated, but some specimens may retain little or no evidence of serration after extended use. Flaking is random or in some cases parallel and is very carefully done. Many of the shorter

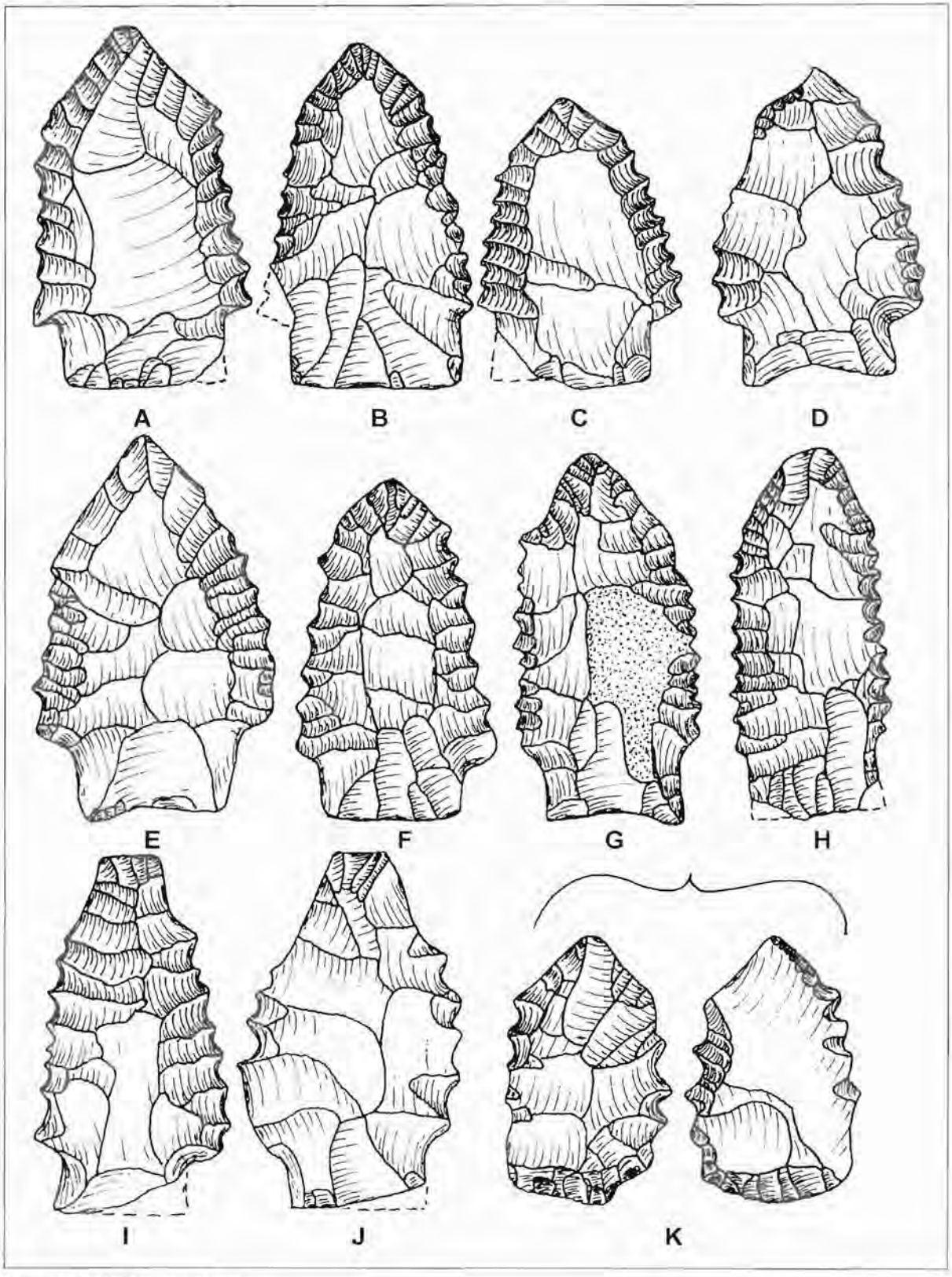

Figure 114. St. Tammany Points.

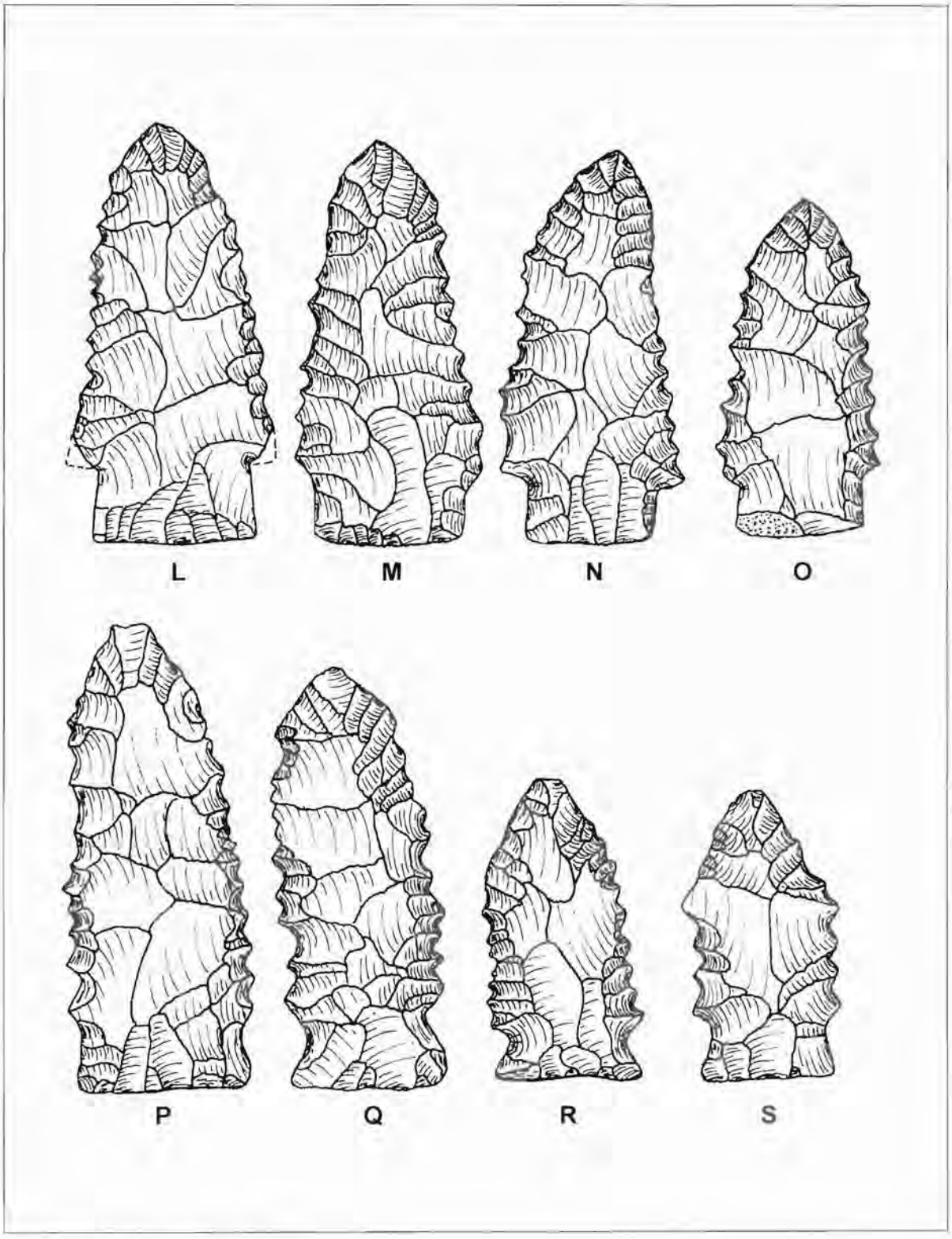

Figure 115. St. Tammany Points.

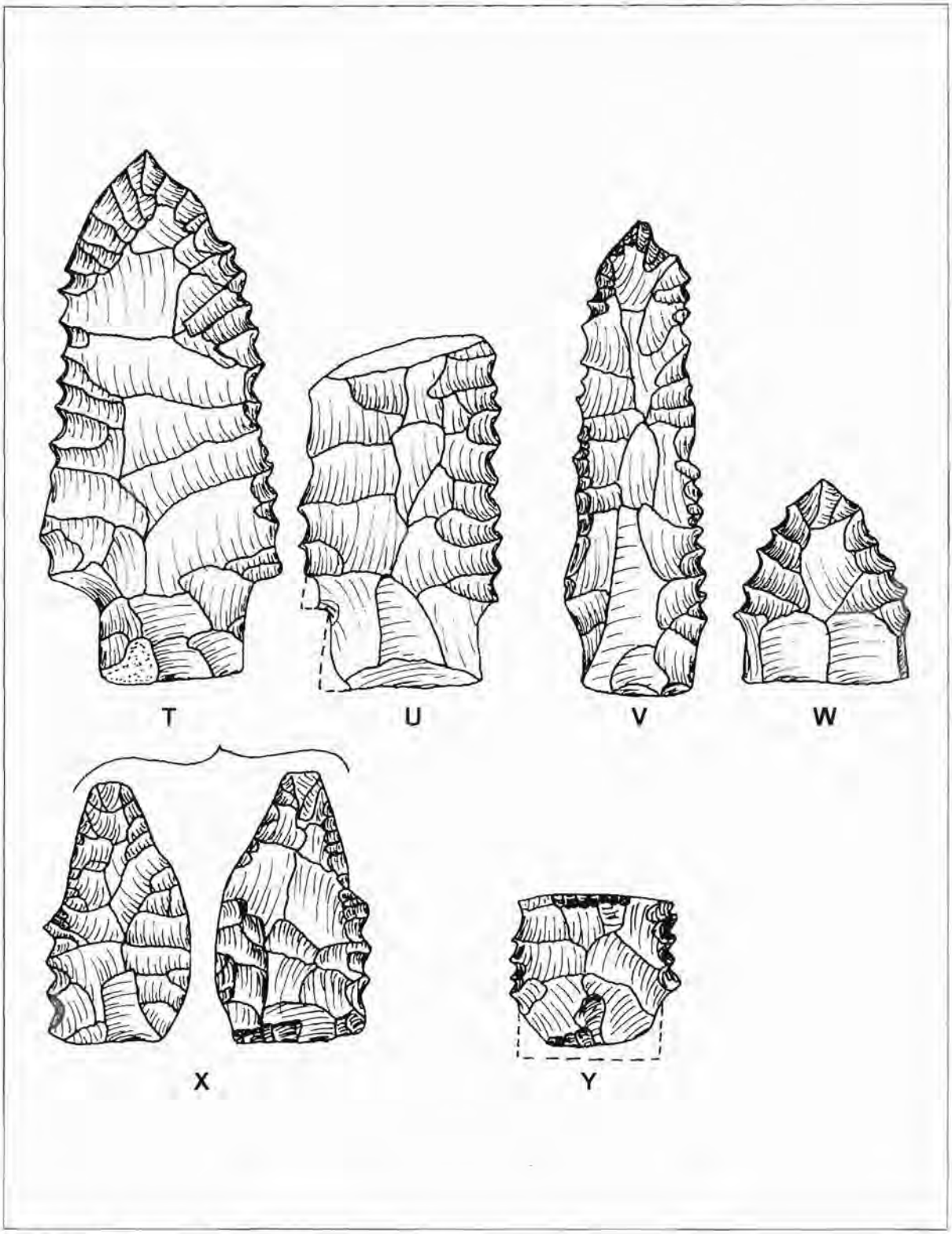

Figure 116. St. Tammany Points.

examples appear to have been extensively resharpened. Several specimens have been recycled into other tool forms. Specimen K of Figure 114 has had the stem removed and has been bifacially reworked. Specimen X of Figure 116 has been battered at both ends, perhaps in a wedging activity.

Raw material of these points is almost invariably of Citronelle or pre-loess gravel chert with some evidence of light heat treating. One specimen, from the eastern part of the state, is made of Tallahatta quartzite (Specimen A of Figure 114). Regarding the chronological position of the St. Tammany points, they are considered by the current writer to be closely related to Sykes points, described above. It seems quite possible that they and the St. Helena points are actually specialized varieties of the Sykes type. The known distribution of the type is basically the same area of southwestern Mississippi and adjacent Louisiana. (Figure 117).

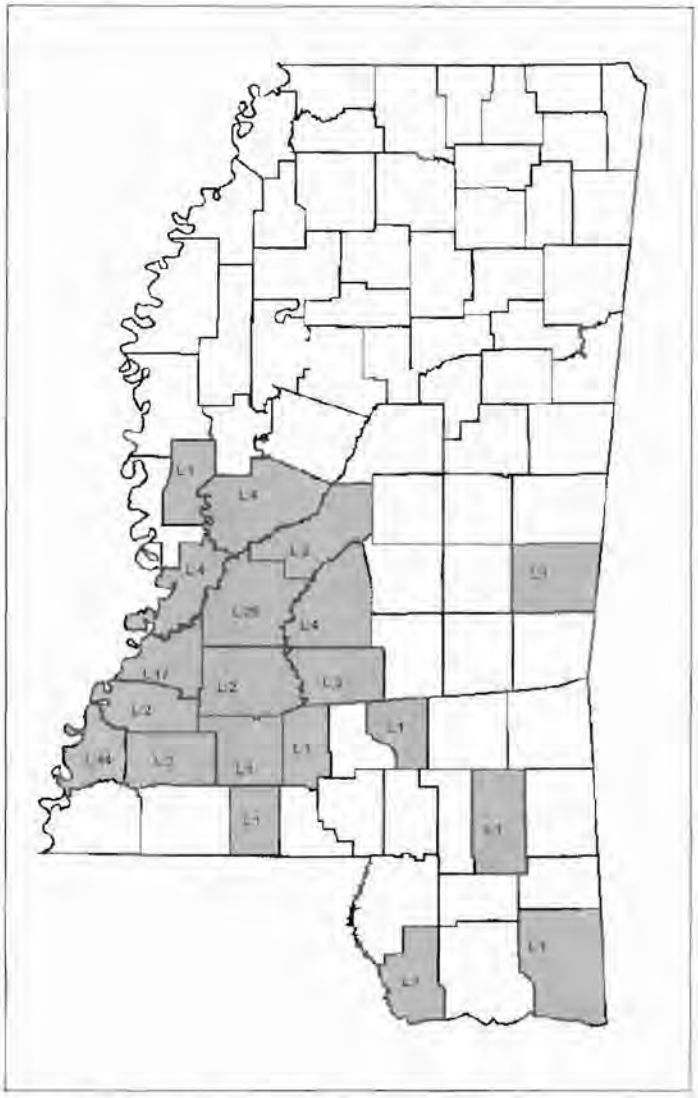

Figure 117. Known Distribution of St. Tammany Points.

Denton (Connaway 1977:24)

Chronological Position: 6,000-5,000 BP

Metric Data: 96 specimens (from Connaway 1977:24)

Average Length: 68 mm

Range of Length: 43-89 mm

Average Width: 33 mm

Range of Width: 24-50 mm

Average Thickness: 11 mm

Range of Thickness: 9-17 mm

Figures: 118, 119, 120, and 121

The Denton point is named for the Denton site, 22-Qu-522, in Quitman County, Mississippi. Individual specimens are medium sized to large and are crudely made for the most part. Blade edges may be straight, slightly excurvate, or occasionally parallel sided. Stems are usually straight -sided but may be slightly expanding. Basal edges are straight or somewhat rounded and bases may be thinned. Shoulders may be straight, rounded, or slightly barbed. They bear some general resemblance to Benton points, but have a relatively longer, narrower stem on average, are thicker and have wider shoulders. There is very little evidence of secondary retouch flaking by the pressure technique. Most specimens from

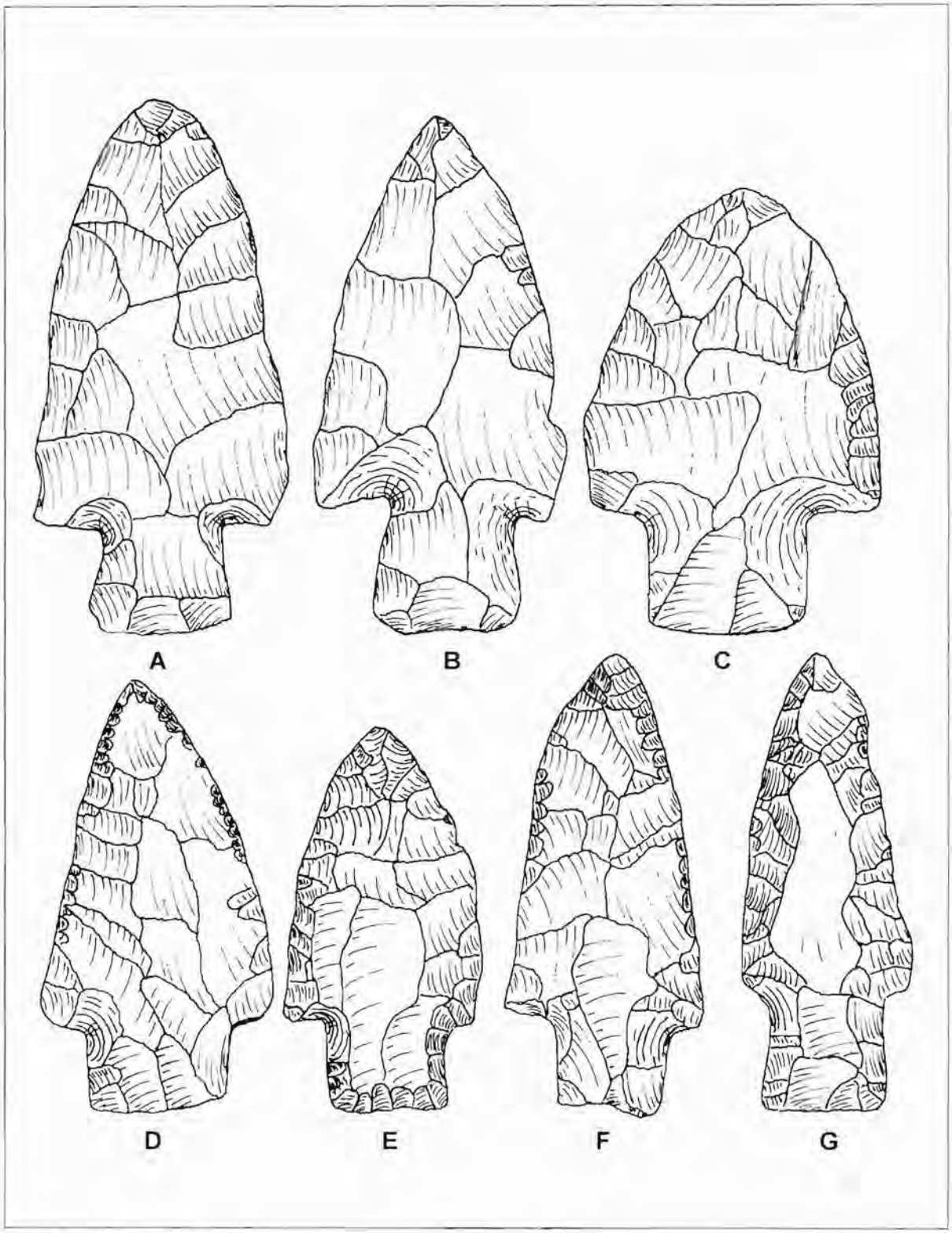

Figure 118. Denton Points.

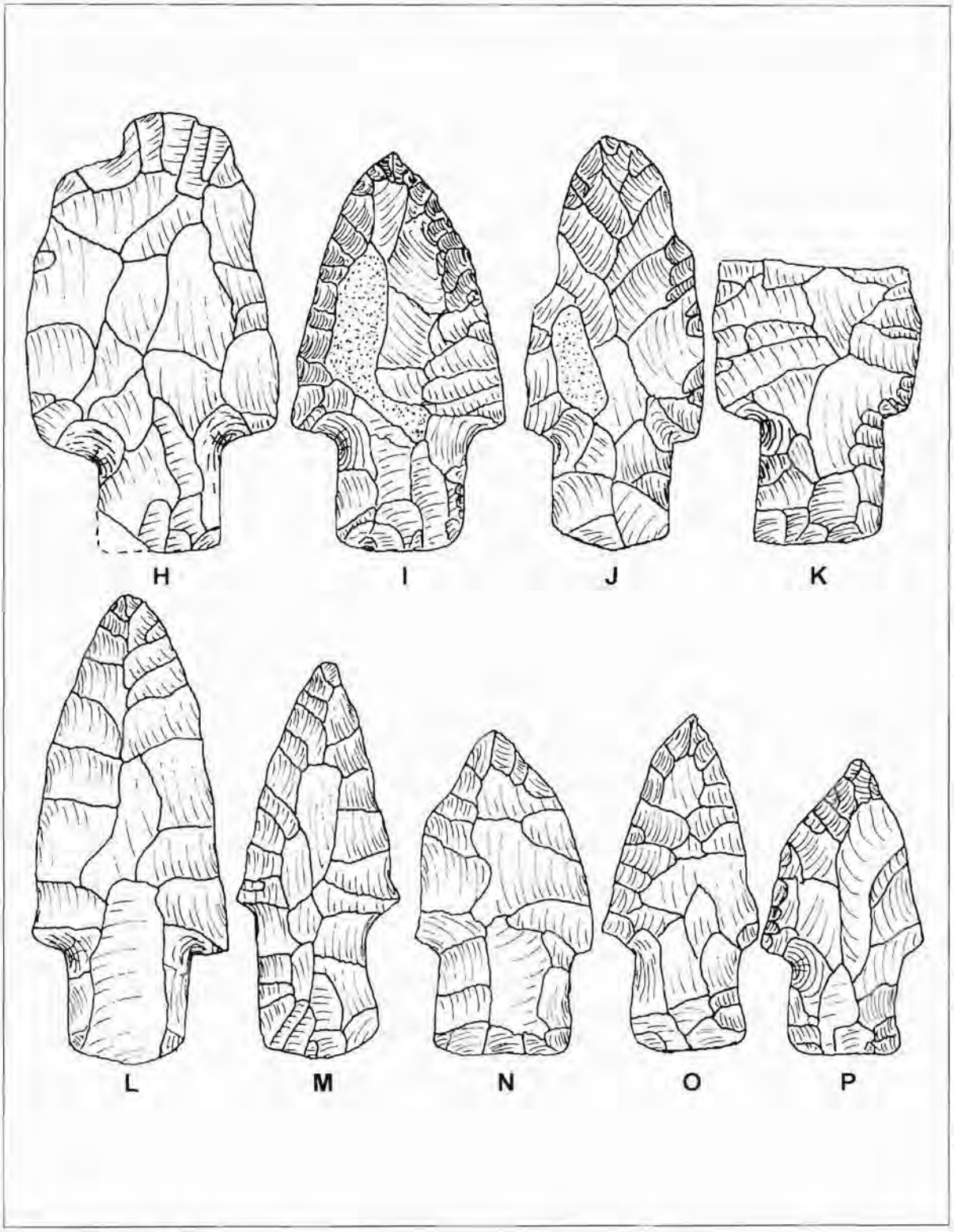

Figure 119. Denton Points.

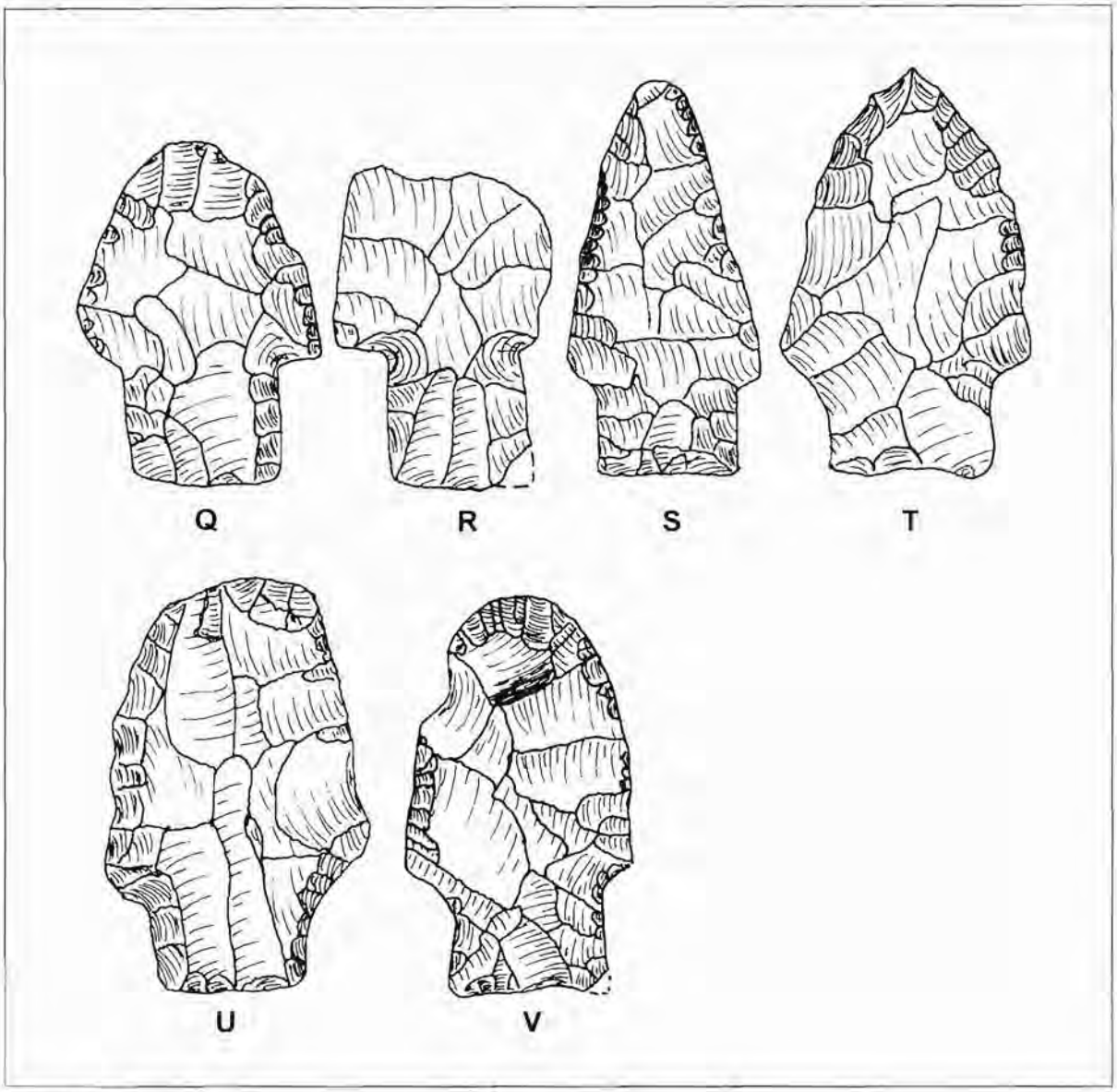

Figure 120. Denton Points.

the Denton site exhibit abundant evidence of having been roughly used. The distal ends, which may have been acute originally, exhibit considerable rounding and dulling on used and unresharpened specimens such as specimens A and C of Figure 118, specimens H-J of Figure 119, and specimens Q, U and V of Figure 120. Some specimens shown by Connaway (1977:26-27) have beveled distal ends, which seem to have been beveled in the process of reworking transversely fractured specimens. These examples are thought to resemble adzes (Connaway 1977:24).

Raw material for Denton points is primarily what is assumed to have been locally available gravel chert, taken either from the Loess Hills a few miles to the east or from gravel bars of nearby streams. Few specimens exhibit any indication of heat treating. Connaway's report (1977:24) notes that one example was of novaculite, six were of Fort Payne chert and three were of a material similar to Fort Payne chert.

The presence of Benton points of Fort Payne chert and a triple grooved axe from the Denton site undoubtedly explain the use of Fort Payne for Denton points. There were obviously contacts with groups to the northeast.

Two radiocarbon dates were obtained from the Denton midden: 3280 ± 125 BC (Uga-212, calibrated to 5886 BP, 5815 BP and 5765 BP), and 3125 ± 130 BC (Uga-284, calibrated to 5983 BP, 5975 BP and 5948 BP) (Connaway 1977:137). These dates were obtained from charcoal nearby and slightly above one of the two excavated Denton points. The other excavated specimen was found at a depth of approximately 9.5 feet below surface but unfortunately has no nearby dated material (Connaway 1977:24). It may be safely assumed that the type dates to somewhere between 6,000 BP and 5,000 BP, or perhaps somewhat later on average than the Benton type.

Denton points have been recorded on the older river meander belts of the Yazoo Basin, including sites in Panola, Quitman, Washington, and Bolivar Counties. They would seem, on the basis of current knowledge, to be primarily a Yazoo Basin type, but Denton or "Denton like" points have been recorded in Claiborne, Copiah, Forrest, Simpson, Madison, and Perry Counties (Figure 121).

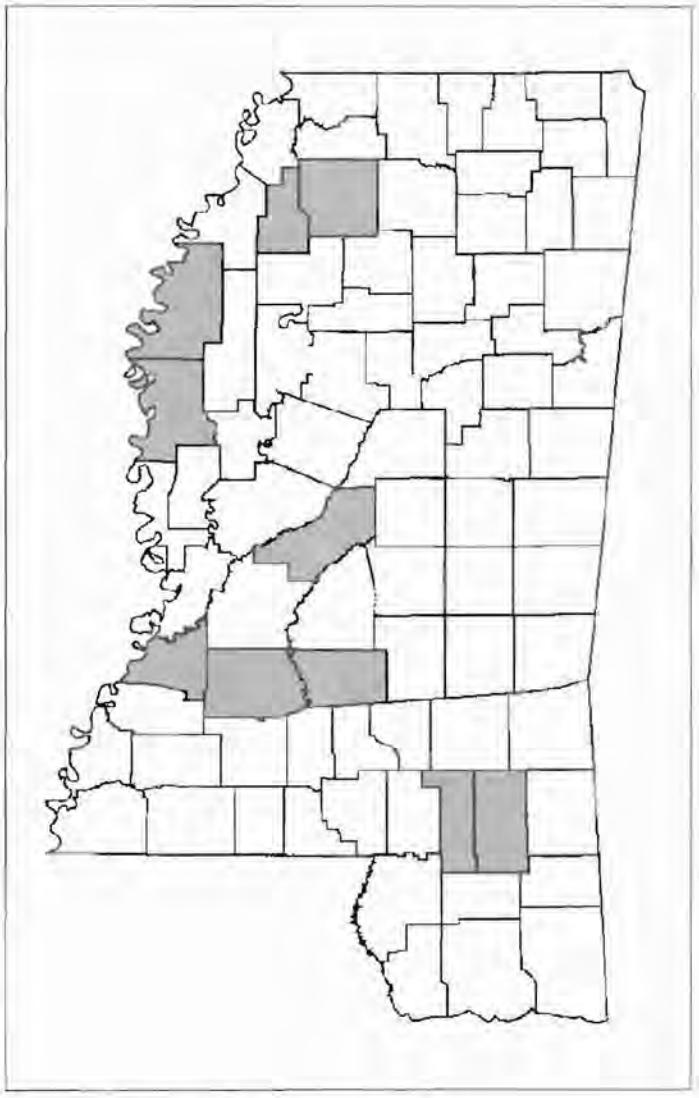

Figure 121. Known Distribution of Denton Points.

Opossum Bayou (Connaway 1977:28)

Chronological Position: 6,000-5,000 BP

Metric Data: 15 specimens;(From Connaway 1979:28)

Average Length: 59 mm
Range of Length: 38-70 mm
Average Width: 33 mm
Range of Width: 25-38 mm
Average Thickness: 10.5 mm
Range of Thickness: 6-13 mm

Figures: 122, 123, and 124

Opossum Bayou points are relatively thick and crudely flaked, with little evident secondary pressure retouch. They are usually side-notched but may occasionally be corner-notched. Bases are convex and may occasionally be thinned. Shoulders may be slightly barbed, straight, or tapered. Blade edges may be straight or excurvate. Treatment of the distal ends of these points, as with the Denton type, has been severe in many cases, with a predominance of dulled and rounded distal ends. Connaway notes some examples with beveled distal ends, also noted in connection with the Denton type. One specimen (Figure 123P) exhibits an apparent drill point worked onto the distal end. Another point (Figure 123N) has had one blade edge unifacially beveled.

Raw material on specimens observed so far has consisted of locally available gravel cherts. None have exhibited any evidence of heat treating.

Close technological similarities with the Denton type and a similar distribution suggests a similar time span to that discussed above for the Denton type. Two radiocarbon dates were secured from the midden at the Longstreet site in Quitman County (22-Qu-523). Longstreet, which was near the Denton site (22-Qu-522), yielded cultural remains similar to those at the Denton site. Both sites contained Denton and Opossum Bayou points. One Opossum Bayou point was excavated at the Longstreet site. It was situated sufficiently near the charcoal used to obtain two radiocarbon dates to warrant the assumption that the two dates obtained define at least part of the type's chronological position. The two dates were 2925 BC ± 145 (Calibrated to 5602 BP, Uga 336), and 3050 BC ± 120 (Uga 337, calibrated to 5732 BP).

Opossum Bayou points have been recorded in the Yazoo Basin in Quitman, Panola, and Washington counties, where they are apparently confined to the earlier river meander belts. They, or "Opossum Bayou like" specimens, have also been recorded in several more central counties (Figure 124).

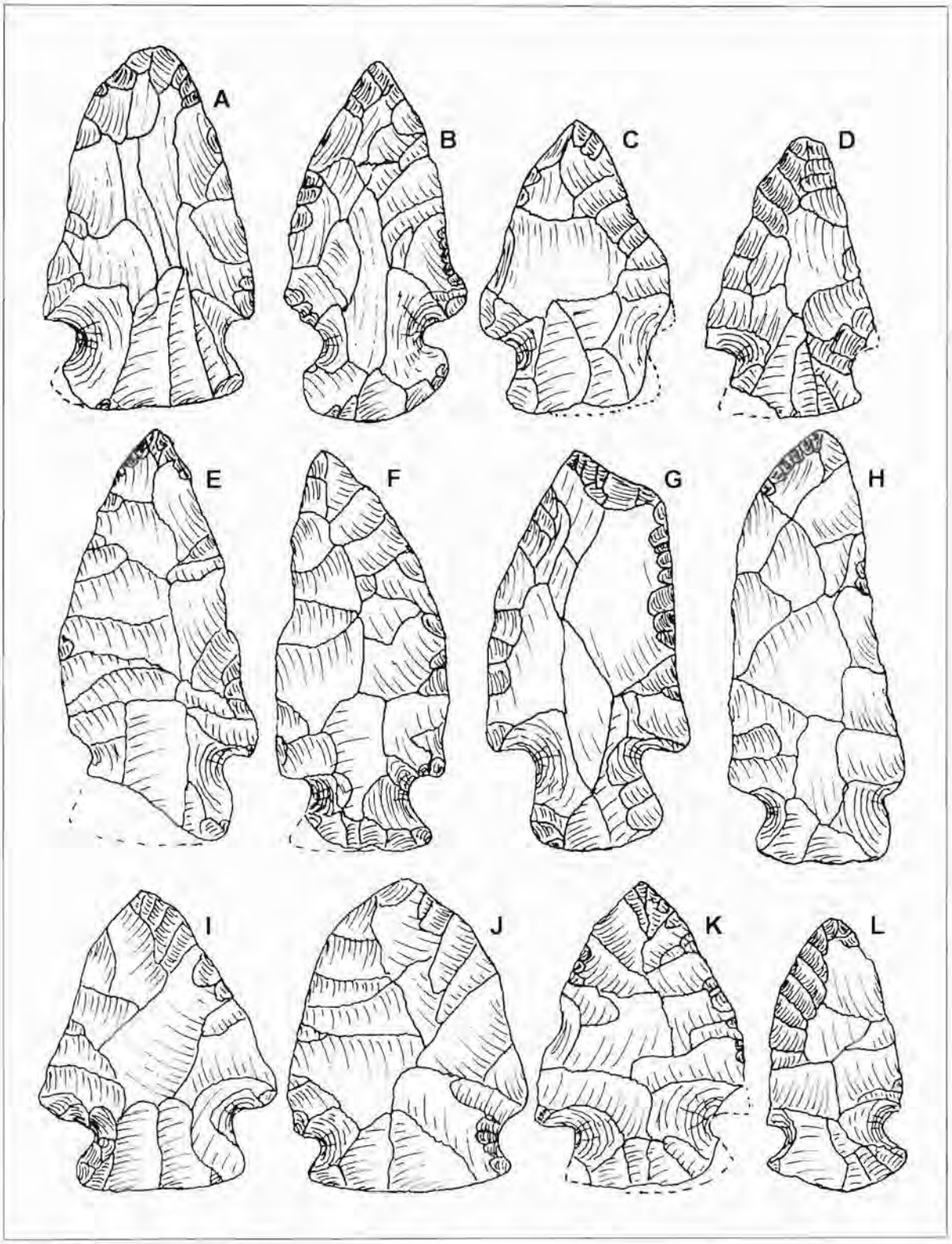

Figure 122. Opossum Bayou Points.

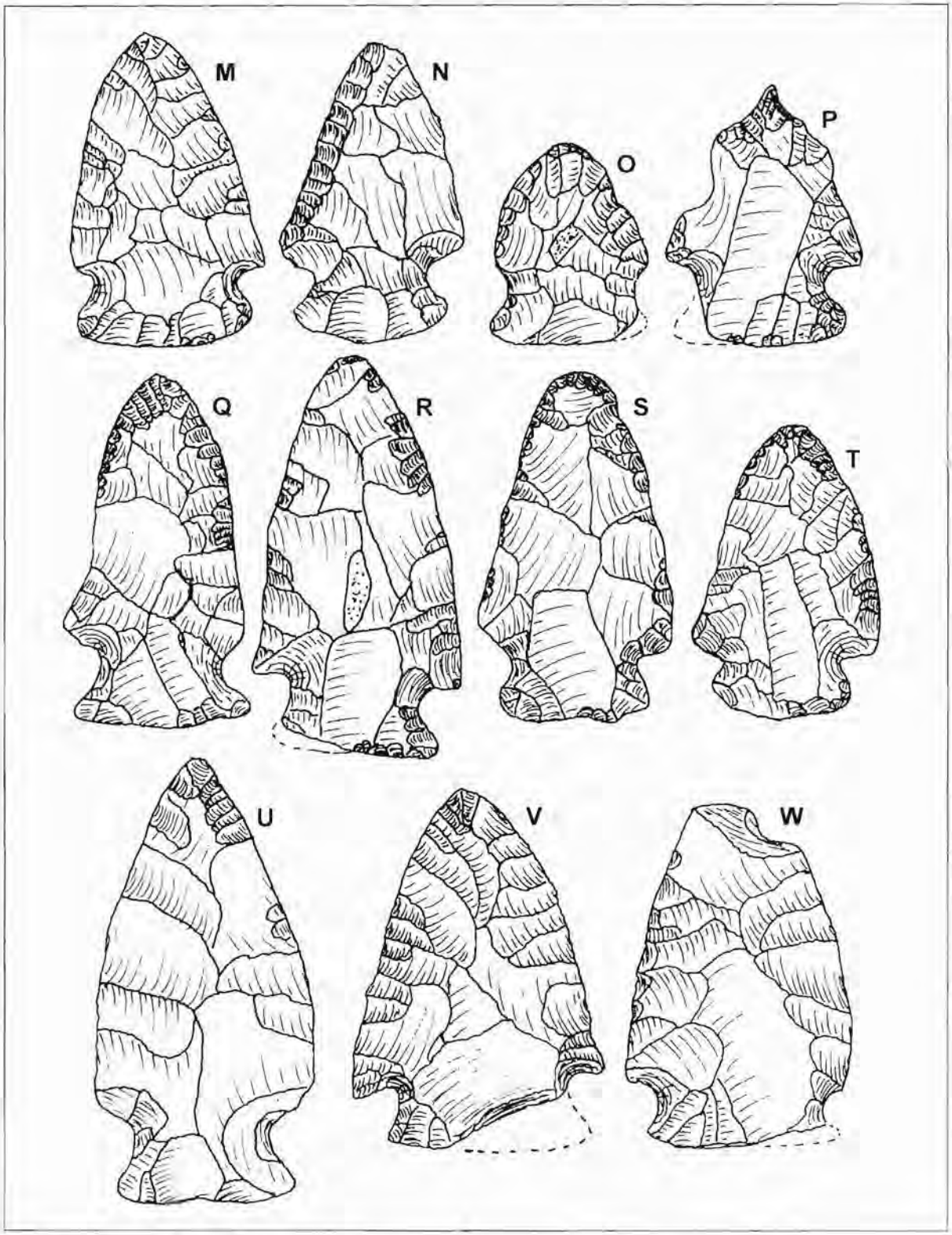

Figure 123. Opossum Bayou Points.

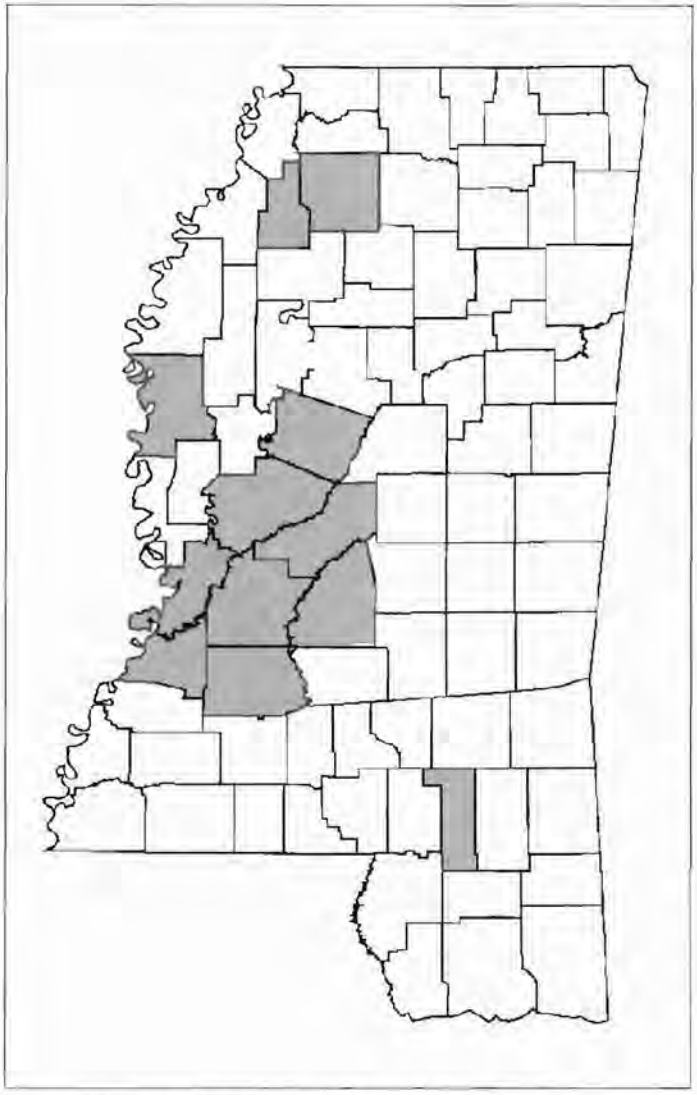

Figure 124. Known Distribution of Opossum Bayou Points.

Late Archaic-Poverty Point-Gulf Formational (5,000 BP-2,500 BP)

The Late Archaic period in the Mid-south is arbitrarily defined as beginning at 3000 BC. It is thought that by this time the environment had reached essentially modern conditions. The assumed massive disruption caused by the Hypsithermal was alleviated by modern patterns of temperature and precipitation. The population continued to adapt to the environment and reached what has been termed "Primary Forest Efficiency" (Caldwell 1958:71). At this point it seems that man had learned to exploit the natural environment as efficiently as was possible, and further increases in resource availability would have to be made through significant changes to the environment itself, primarily through agriculture. Hunting and gathering continued to be the main way of life, although tentative steps toward domestication of plants were underway and led to the increasing utilization of manipulated plant resources. The population seems to have grown during this time, increasing considerably over that of all previous periods, if the numbers of recorded sites and artifacts are indicative of such growth. Sites are also larger and are situated in more diverse types of environments. Mound building, as we have recently learned, had begun in the Middle Archaic and continued in the Late Archaic, although it was apparently not a major activity in the Mid-south area until the Middle Woodland period. Ground stone artifacts increased in popularity during this time, and lapidary items, primarily beads, continued to be well represented in Late Archaic complexes. Flaked stone technology continued to change, resulting in a greater variety of available tools.

The projectile points discussed in the following section are thought to represent various parts of the Late Archaic Period as well as the subsequent Poverty Point and Gulf Formational periods. The exact sequence of point types is not known and may never be known, although they are presented below in what is thought to be their basic order of appearance.

As is the case with the transition from Early Archaic to Middle Archaic, the transition from Middle to Late Archaic is seen in the physical characteristics of the tools. Much of the change no doubt represents stylistic change, which seems to be a universal of human behavior. Much of it is also probably

accounted for by changes in subsistence patterns brought about by changing environments. Projectile point morphology was substantially altered in the case of a typical Middle Archaic point, from relatively large and heavy with a broad stem and comparatively crude flaking, to smaller, lighter tools that seem to have been on average more carefully made. Stems were considerably narrower and there was much more attention given to edge retouching by pressure flaking.

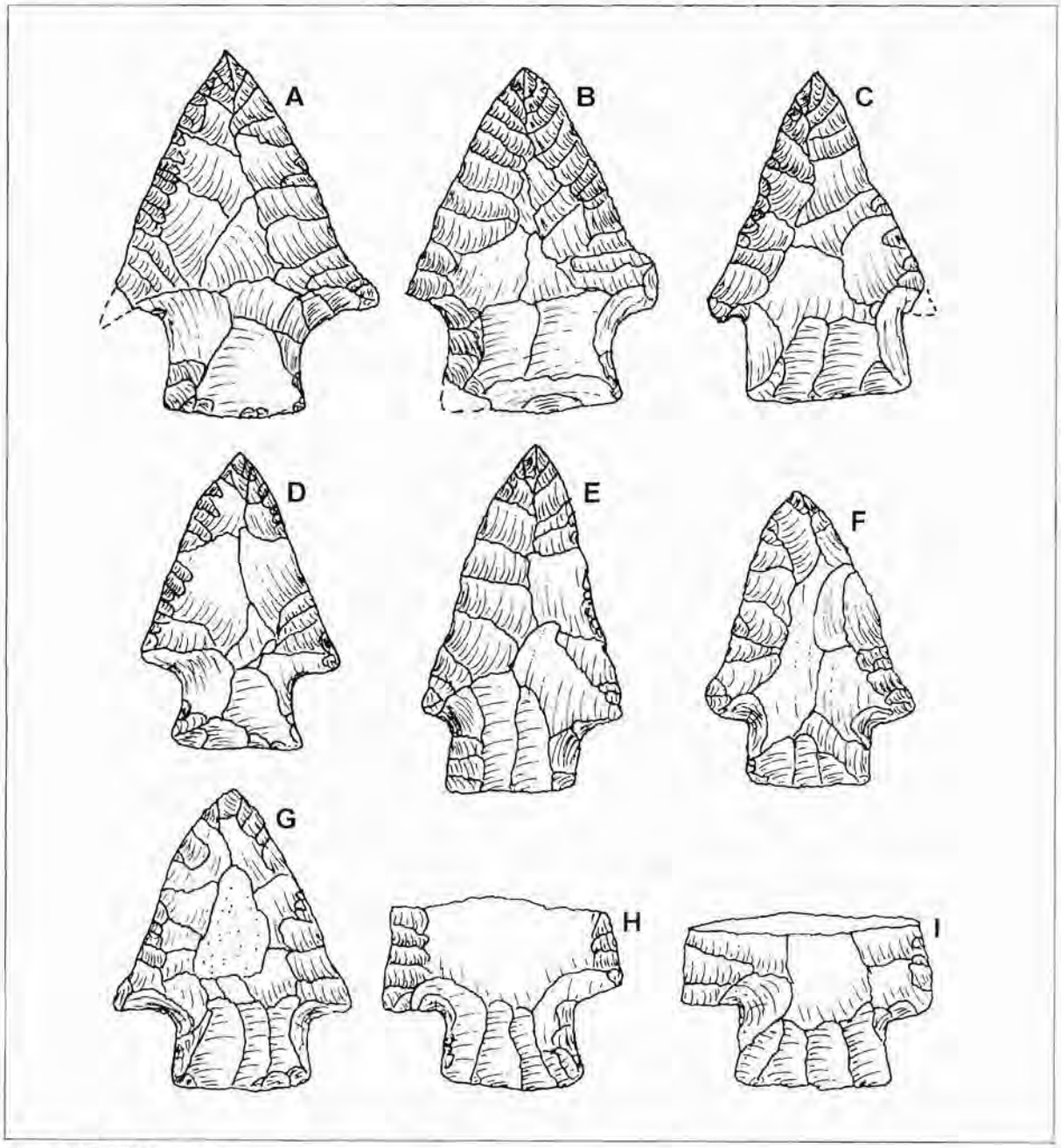

Figure 125. McIntire Points.

McIntire (Cambron and Hulse 1964:86)

Chronological Position: 5,000 BP-4,000 BP

Metric Data: 23 specimens
Average Length: 50 mm
Range of Length: 45-56 mm
Average Width: 34 mm
Range of Width: 27-40 mm
Average Thickness: 10 mm
Range of Thickness: 7-13 mm
Figures: 125, 126, and 127

McIntire points are basically medium sized triangular stemmed points with straight or excurvate blade edges. Stems are slightly expanding or straight with straight, thinned basal edges. Blade and stem edges are pressure retouched. Raw material is usually that which is closest at hand, with heat treated Tuscaloosa gravel chert being predominant in the recorded sample. One specimen of novaculite and

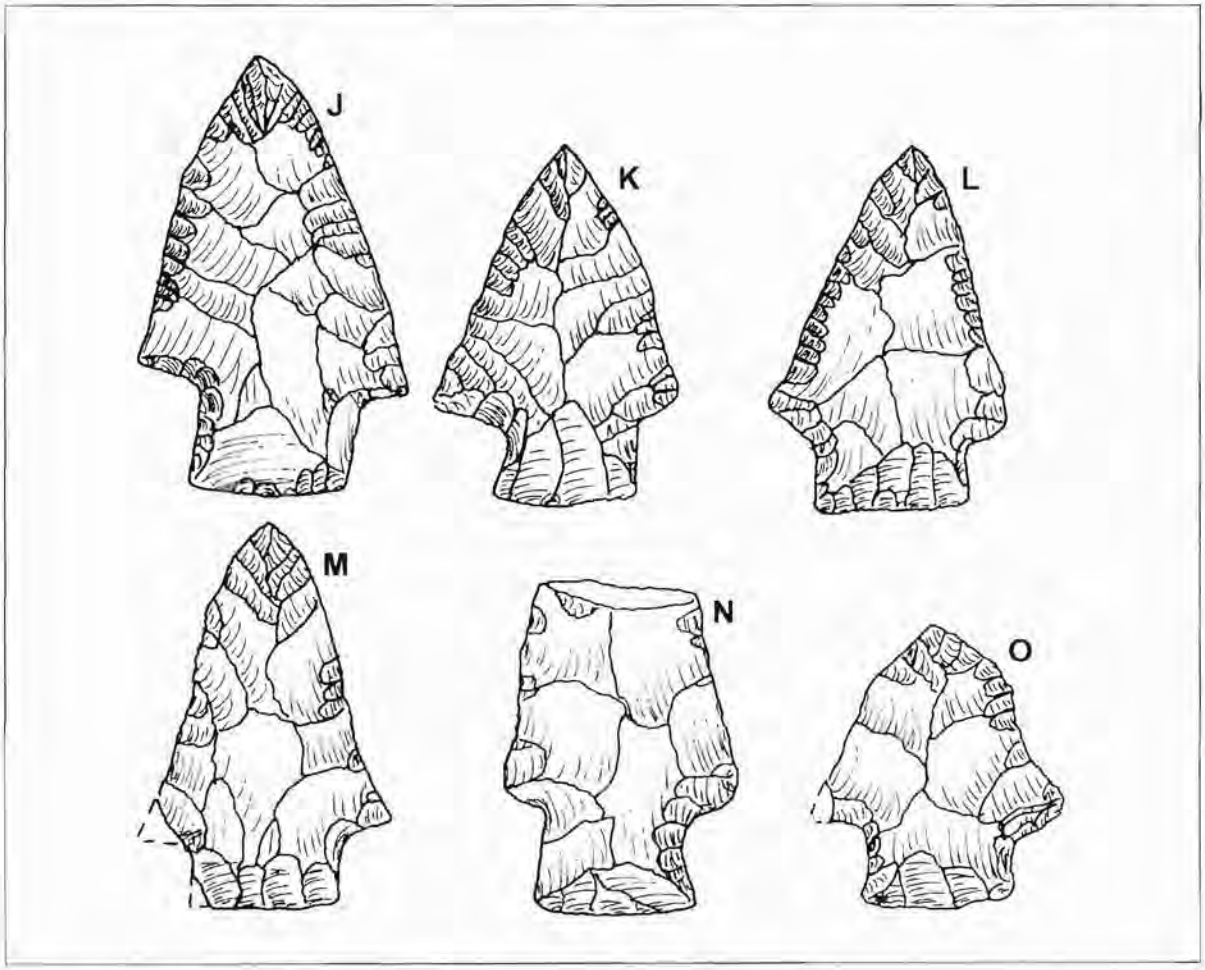

Figure 126. McIntire Points.

two of Fort Payne chert have been recorded, and specimens recorded outside of northeast Mississippi are of tan chert. McIntire points are thought by Cambron and Hulse to be a Middle to Late Archaic type. To the knowledge of the present writer, they have not been dated in Mississippi. From technological and stylistic characteristics, they would appear to be an early Late Archaic type. Specimens have come from widely-dispersed counties (Figure 127).

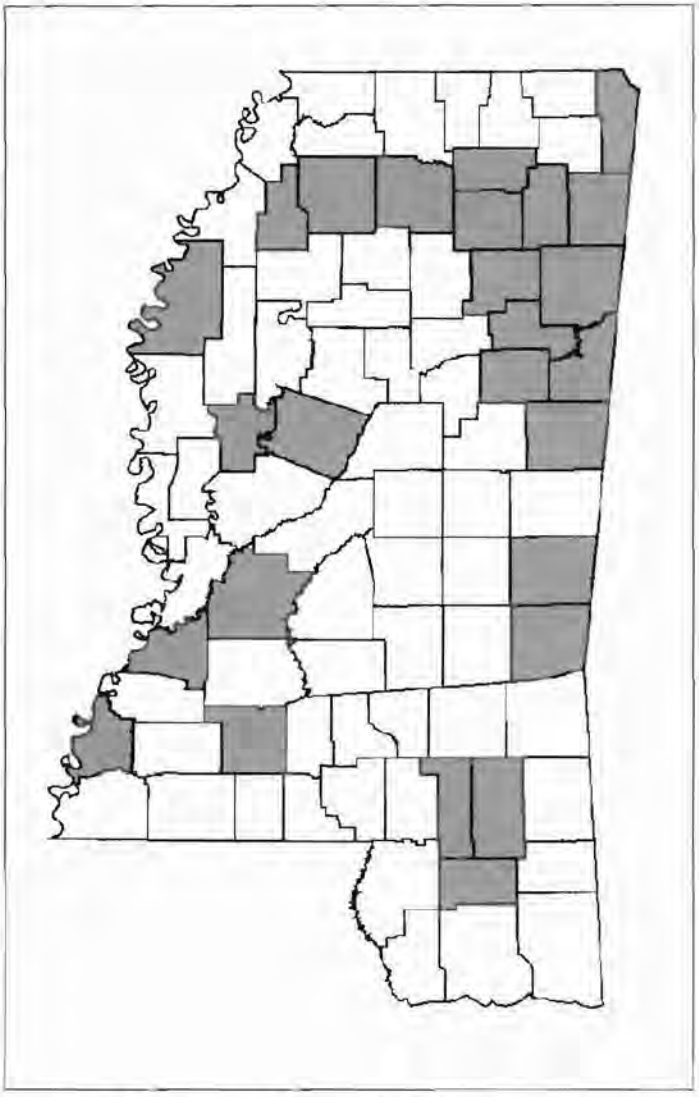

Figure 127. Known Distribution of McIntire Points.

Pickwick (DeJarnette, Kurjack, and Cambron 1962)

Chronological Position: 5,000 BP-3,500 BP

Metric Data: 11 specimens
Average Length: 65 mm
Range of Length: 53-113.5 mm
Average Width: 42 mm
Range of Width: 30-56 mm
Average Thickness: 10 mm
Range of Thickness: 8-13 mm
Figures: 128 and 129

The Pickwick point is a medium to large type which has recurved sides or blade edges and a tapered or occasionally tapered stem with tapered or horizontal shoulders. The shoulders are the widest part of each point. Flaking quality is poor to excellent, with some examples having fine pressure retouch along blade edges. Bases are straight, slightly convex, or slightly concave. Some of the concave bases are double beveled in the same manner as that of the Benton type. They resemble Ledbetter points sufficiently that they are often lumped together with that type (White 1983:73 and 223), (Bense 1987:43, 58, 77). The primary distinguishing characteristic seems to be that the blade edges of the Ledbetter tend to be asymmetrical. Two preforms for the type are illustrated in Figure 128A and B. These specimens indicate that the recurved blade edges are a feature of the initial-stage completed point instead of or in addition to edge attrition and resharpening with use.

Raw material consists of Fort Payne chert, Tallahatta quartzite, and heat treated Tuscaloosa gravel chert, with most of the larger specimens of Fort Payne and Tallahatta. The type is found in the state of Mississippi primarily in the northeastern counties. (Figure 129).

The chronological position of the type seems to range from Late Middle Archaic well into the Late Archaic. Pickwick and Ledbetter points are not adequately dated in Mississippi. Bense (1987:73) sug-

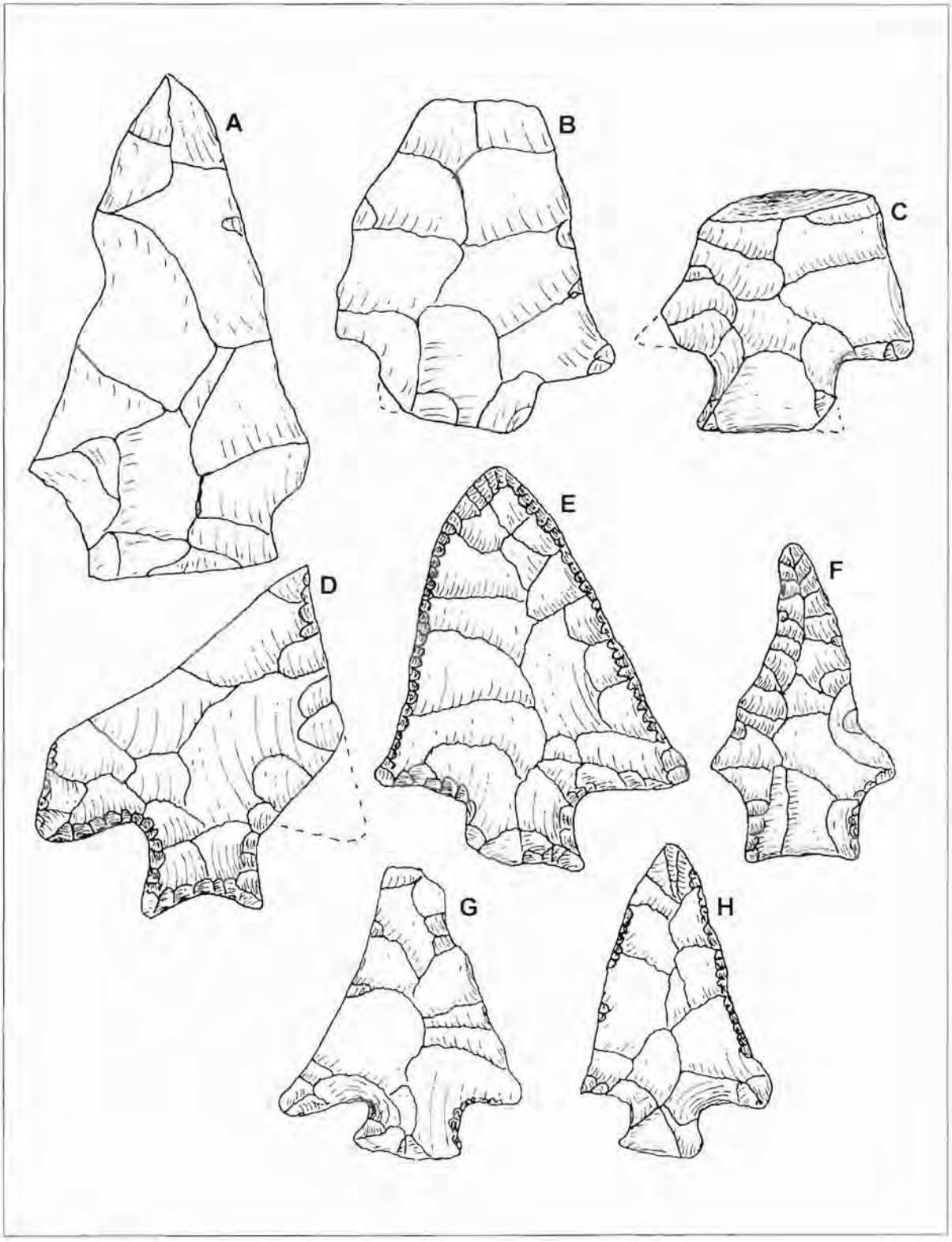

Figure 128. Pickwick Points.

gests that there was a "Ledbetter-Pickwick occupation at the Walnut site (22-It-539) from 5,000-3,500 BP." The variation in stem widths and features such as the Benton-like beveled bases on certain specimens suggests a rather lengthy span of time for this type. Specimen D of Figure 128 is from the Jaketown site (22-Hu-505), and although only a surface find, its discovery there suggests a terminal Archaic/Poverty Point age.

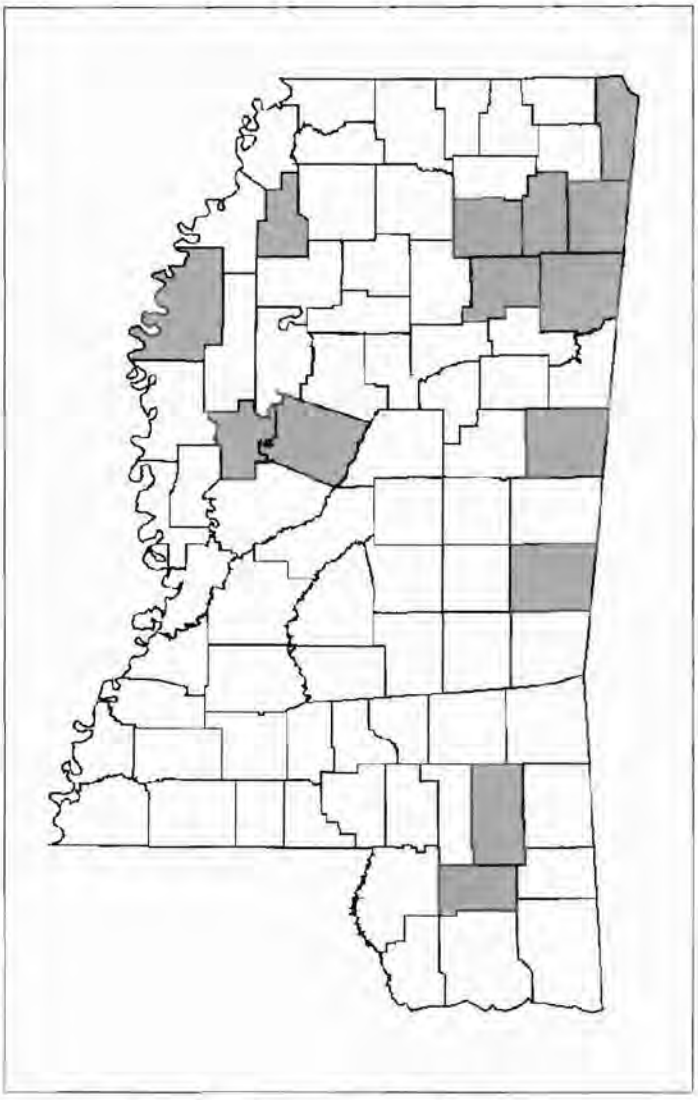

Figure 129. Known Distribution of Pickwick Points.

Ledbetter (Kneberg 1956:26)

Chronological Position: 5,000-3,500 BP

Metric Data: 7 specimens
- *Average Length:* 107 mm
- *Range of Length:* 66-191 mm
- *Average Width:* 42 mm
- *Range of Width:* 34-60 mm
- *Average Thickness:* 11 mm
- *Range of Thickness:* 9-12 mm

Figures: 130, 131, and 132

Ledbetter points are a medium to large type which characteristically has recurved sides and often one recurved side and one convex side. This leads to a somewhat asymmetrical appearance. Individual specimens have relatively short, contracting stems with straight bases. Most examples are well made, with fine pressure retouching along the blade edges. Some are finely serrated. The raw material of the recorded specimens is heat treated Tuscaloosa gravel chert, Fort Payne Chert, tan and probably pre-loess gravel chert, and Tallahatta quartzite. The type is assumed to be Late Archaic in age and probably originated sometime prior to 2000 BC, although this date is uncertain for Mississippi. Specimens have been recorded from mostly eastern counties (Figure 132).

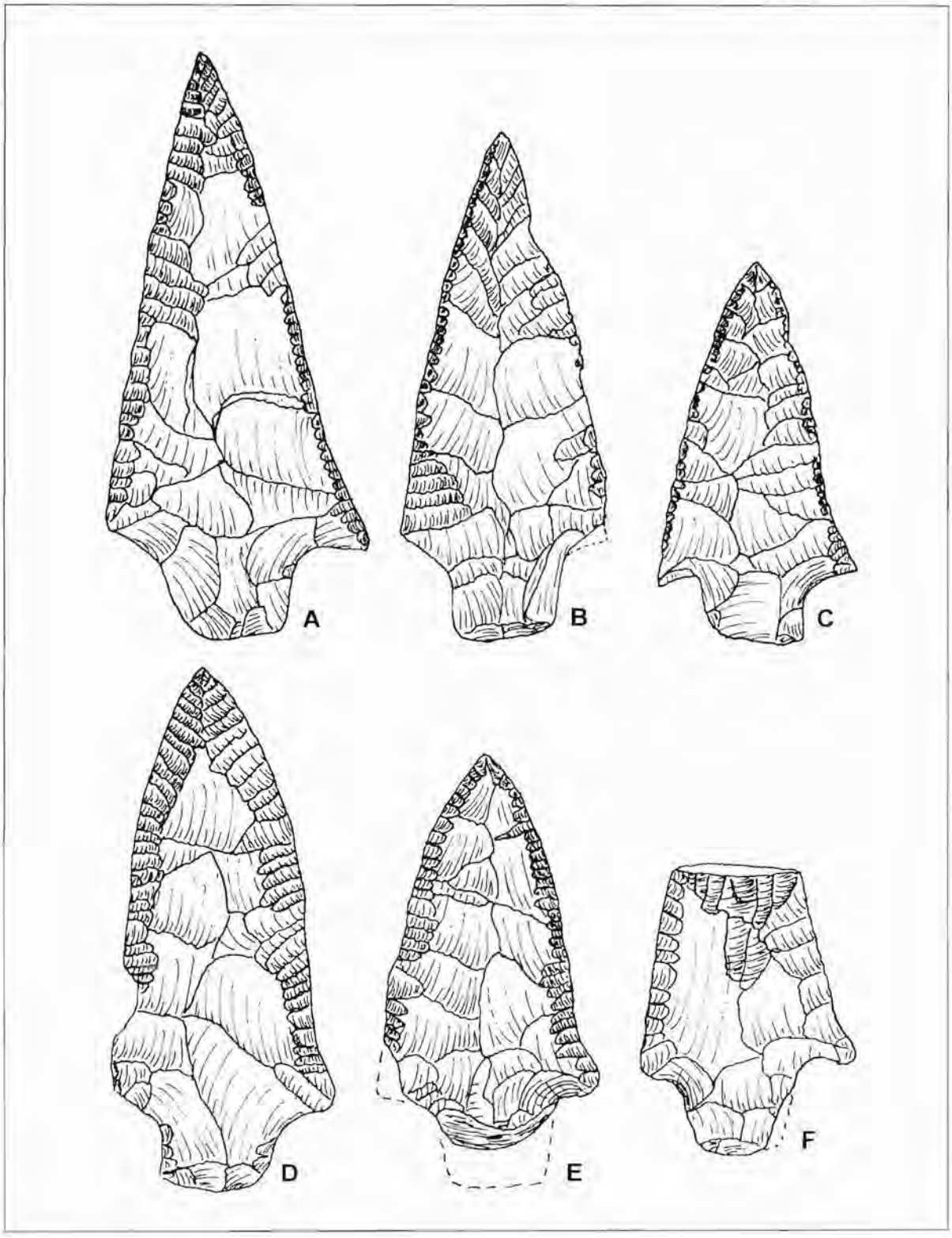

Figure 130. Ledbetter Points.

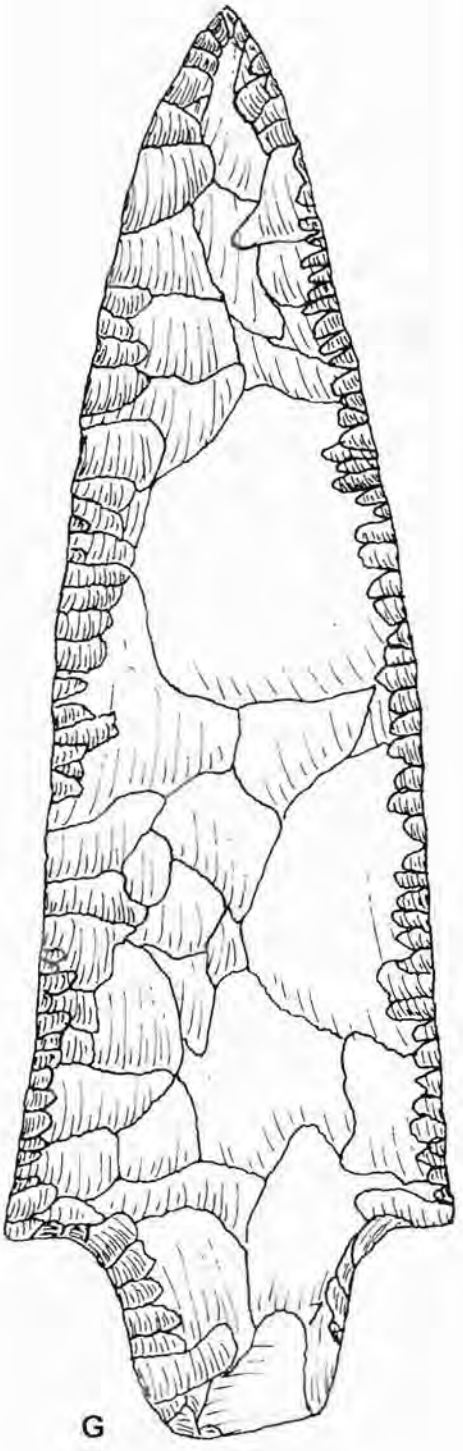

Figure 131. Ledbetter Point.

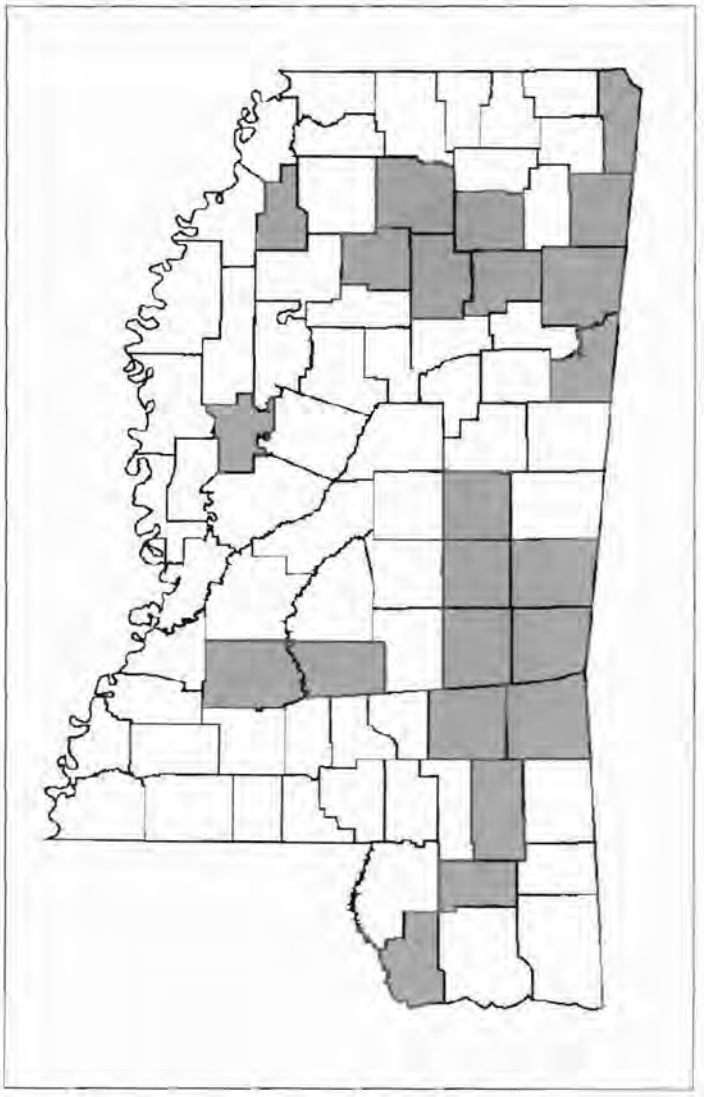

Figure 132. Known Distribution of Ledbetter Points.

Gary (Newell and Kreiger 1949: 164-165)

Chronological Position: 4,500-3,000 BP

Metric Data: 18 specimens
Average Length: 64 mm
Range of Length: 43-110 mm
Average Width: 32 mm
Range of Width: 23-52 mm
Average Thickness: 10 mm
Range of Thickness: 6-15 mm
Figures: 133, 134, 135, and 136

Blades are basically triangular with some slightly concave and some slightly convex edges. Stems are tapered, with rounded or pointed bases. Shoulders are usually tapered but occasional specimens are barbed. Flaking is random and not particularly well done. Secondary edge retouch is minimal on most examples. Raw material is usually of the nearest available chert but Late Archaic period sites frequently yield specimens made of novaculite. What are thought to be typical preforms are illustrated in Figure 133E and 134G. Examples of novaculite tend to be somewhat better made, probably because of the better quality of the material after heat treating.

Williams and Brain, in describing Gary points from the Lake George site in Yazoo County, use the variety name Maybon in connection with the Baytown component at that site (1983:233). They designate five larger specimens as Gary, *variety Gary* (1983:231). These larger points are probably there because of the proximity of the Lake George site to a nearby Poverty Point site. The specimens discussed and illustrated here are understood to be Late Archaic/Poverty Point in age. It is difficult to define the distribution of the type since it has been used traditionally as a catch-all. It is reported from north-central Alabama (Cambron and Hulse 1975:57) and west-central Alabama (Ensor 1981:96), and it is found over most of Mississippi, but it appears to be more common in the western part of the state (Figure 136).

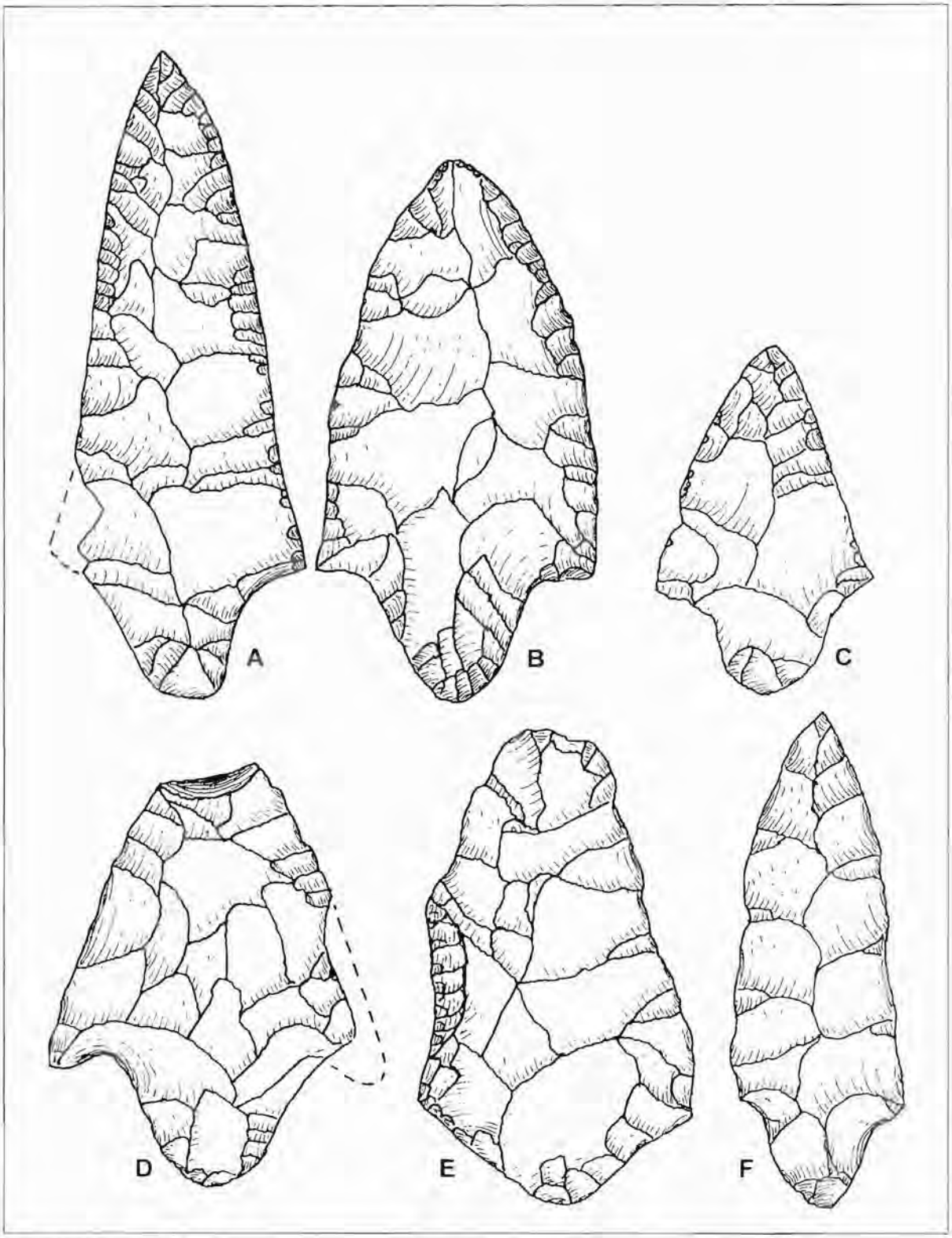

Figure 133. Gary Points.

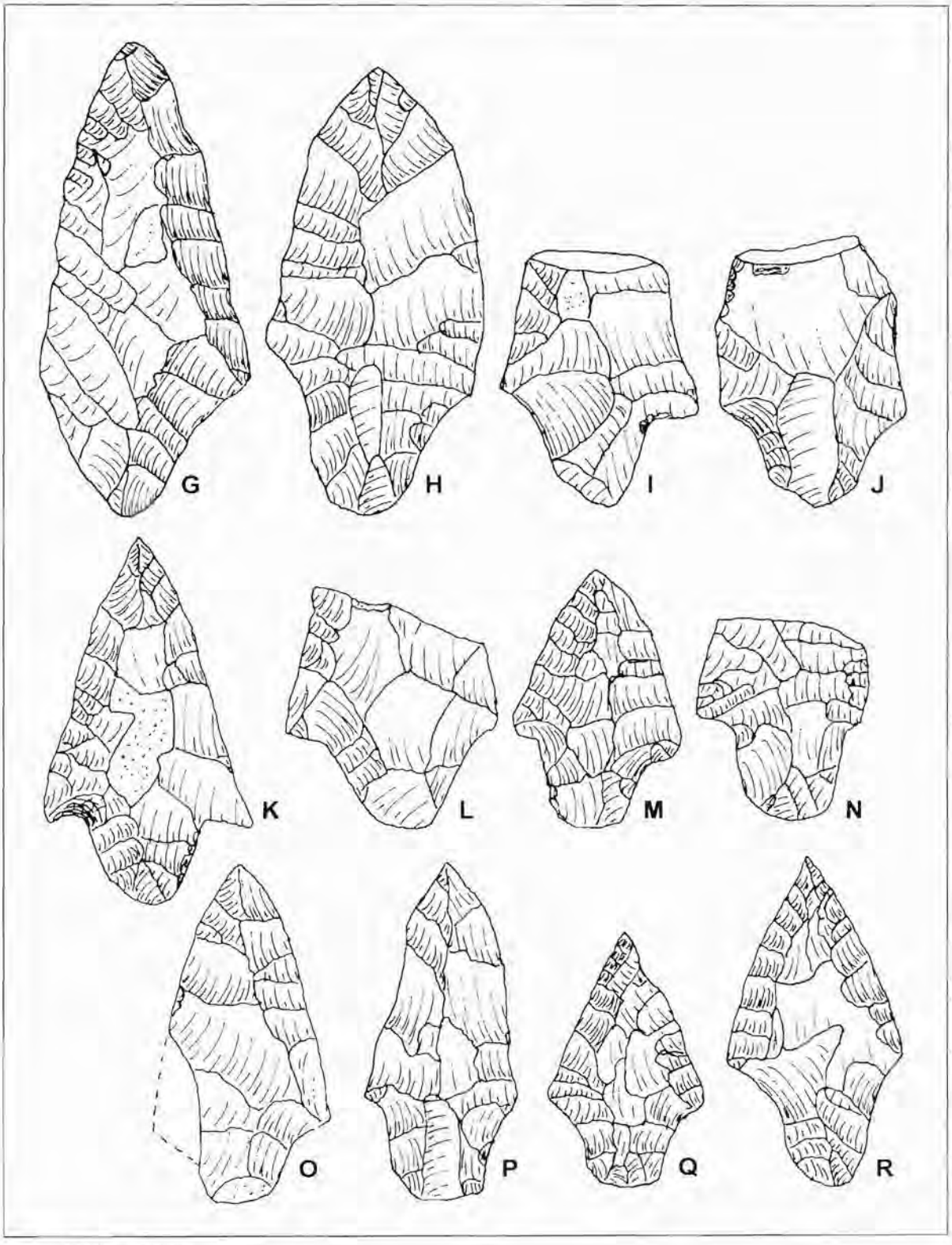

Figure 134. Gary Points.

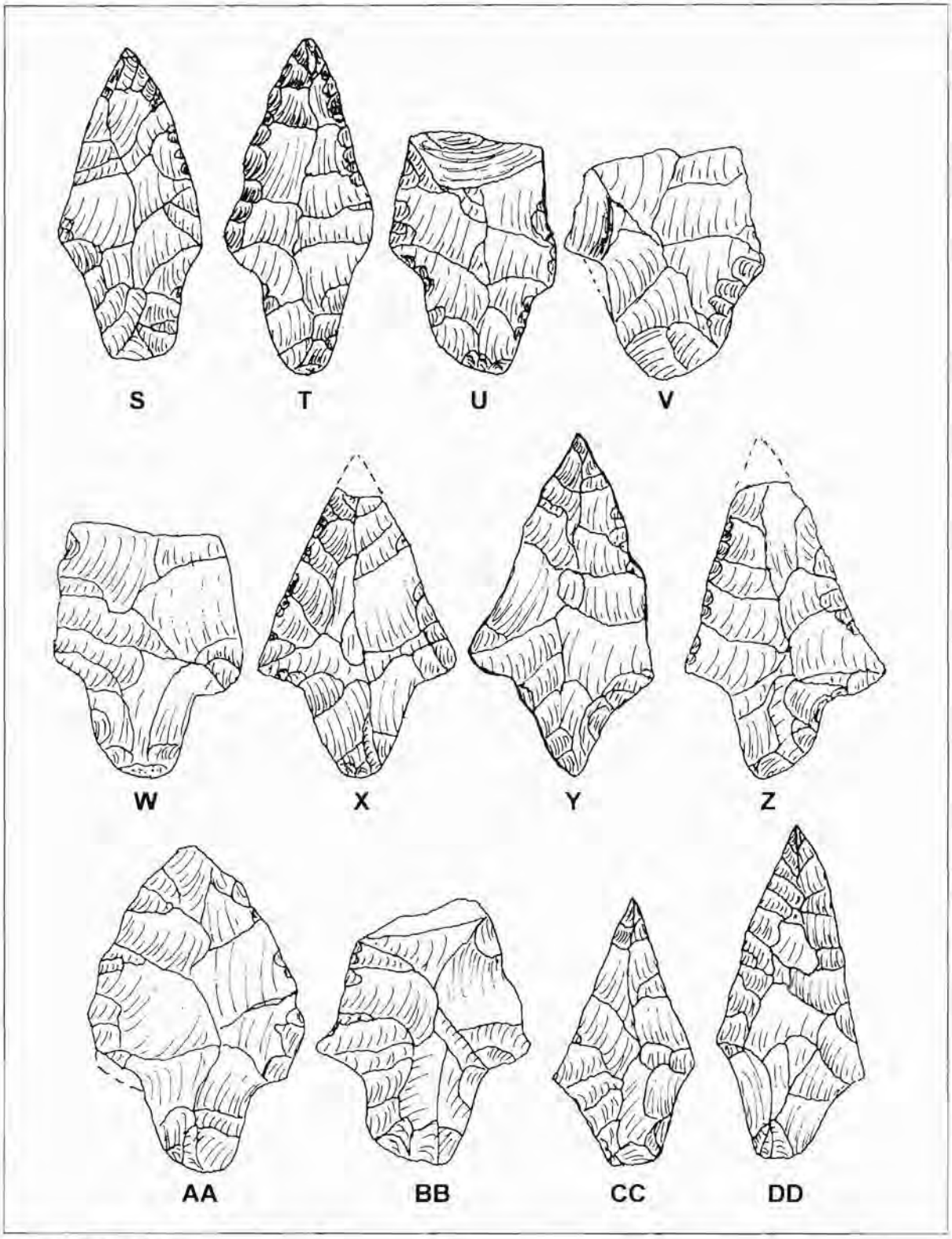

Figure 135. Gary Points.

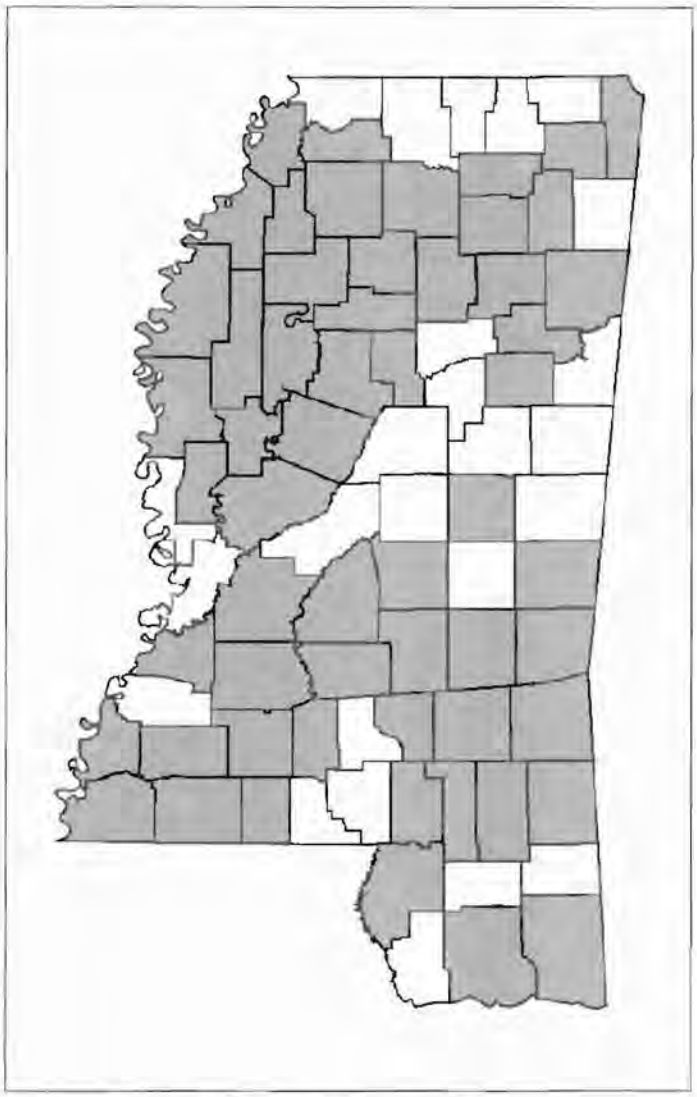

Figure 136. Known Distribution of Gary Points.

Tangipahoa (Provisional type)

Chronological Position: 4,500 BP-3,000 BP

Metric Data: 48 specimens
Average Length: 60 mm
Range of Length: 52-76 mm
Average Width: 27 mm
Range of Width: 23-35 mm
Average Thickness: 11 mm
Range of Thickness: 8-15 mm
Figures: 137, 138, 139 and 140

This provisional type has been reported in the Florida Parishes of Louisiana and adjacent parts of Mississippi, extending north to central Mississippi (Richard Weinstein, personal communication 1990). The blade edges are triangular to convex. The stems are basically straight, with some examples contracting. Basal edges are straight to rounded, but one specimen is concave. Barbs occur on two specimens from one site. Cortex remnants occur on about one fourth of the recorded sample, usually on the base. The type is relatively thick. Flaking is random, with a relatively minor amount of edge retouching by pressure. The most distinguishing characteristic of the type is the presence along the blade edges of a variable number of notches, ranging from one on each side to as many as four per side. Most have matching pairs of notches on each side or at least have the same number of notches per side. Approximately one quarter of them, however, do not have the same number of notches per side. Apparently the Louisiana specimens being considered as Tangipahoa are much more restricted in their variation in that only one notch per blade edge has been observed. All raw material recorded thus far for the type is gravel chert, some examples of which exhibit the characteristics of heat treating.

The notching of projectile point blade edges in Mississippi is a regional phenomenon which apparently had its Archaic beginnings in southwest Mississippi or the adjacent Florida Parishes of Louisiana and remained confined to that area. The previously discussed Middle Archaic St. Helena and St. Tammany types may well be the forerunners of the specimens under discussion here. There are important differences between Tangipahoa and the other two types. Perhaps the most important chronological indicator is the relatively narrower stems of the Tangipahoa specimens, in contrast to the broader stems of the St. Helena and St. Tammany types. Another distinction of importance is that the chisel or "screwdriver"

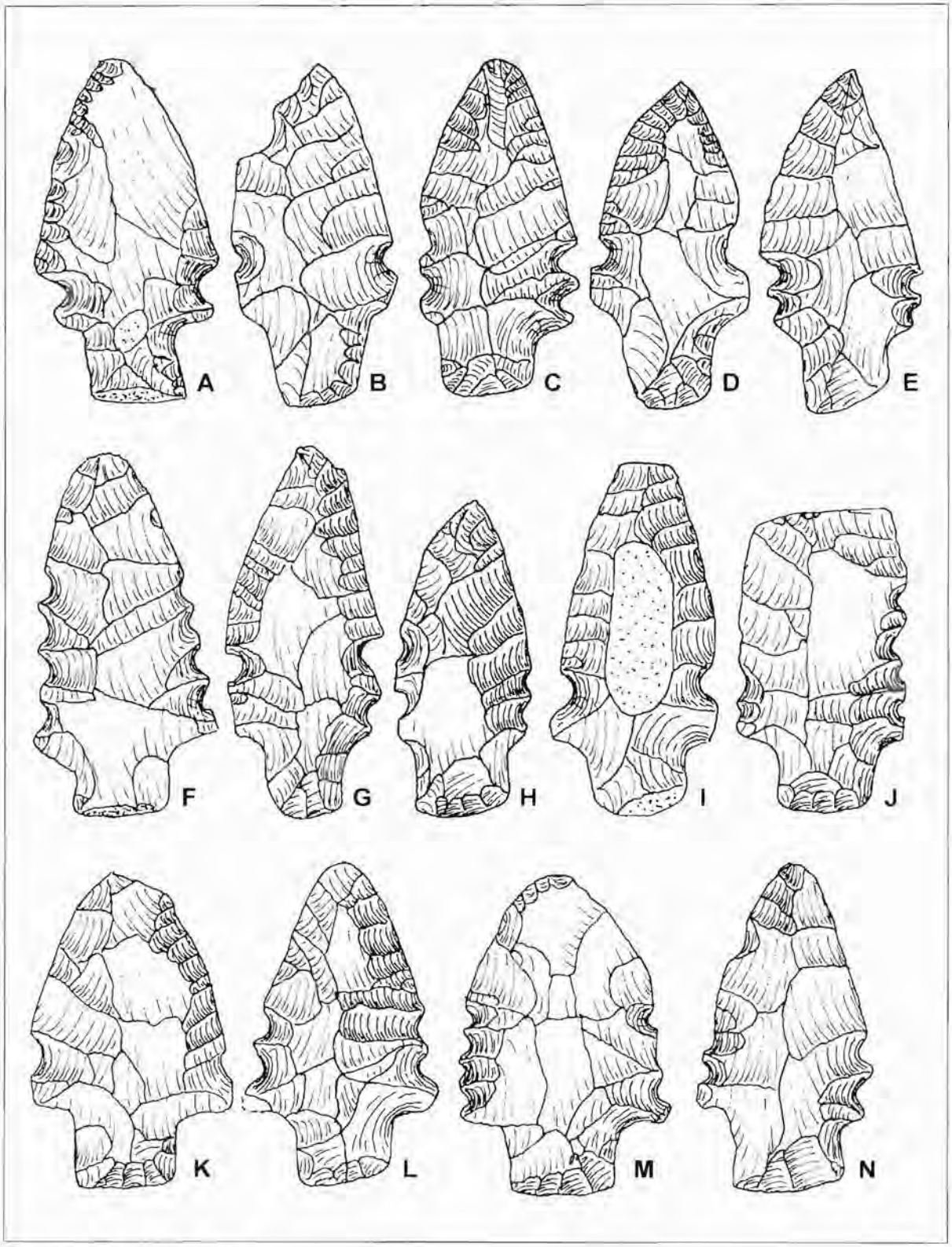

Figure 137. Tangipahoa Points.

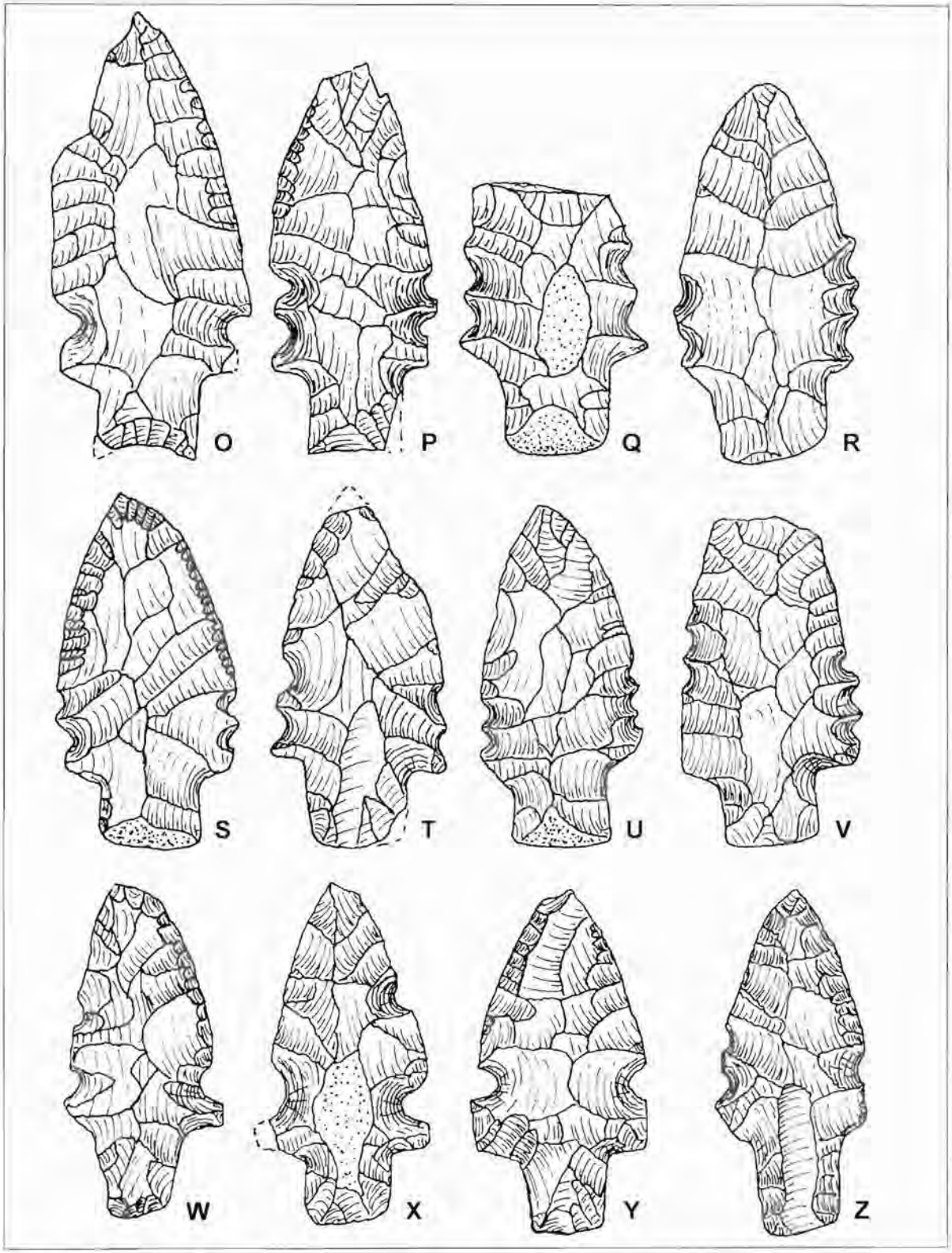

Figure 138. Tangipahoa Points.

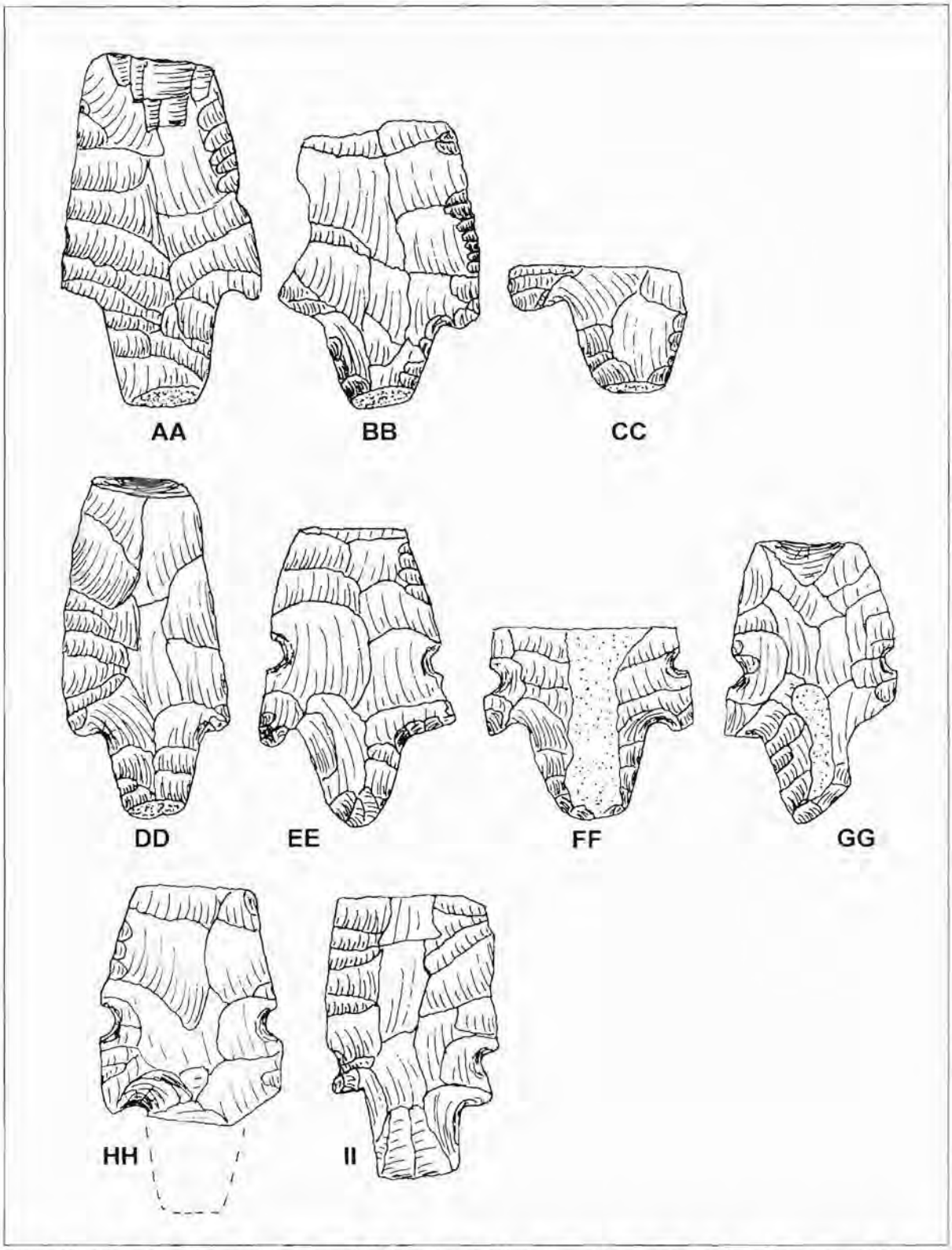

Figure 139. Tangipahoa Points. Specimens AA, BB, CC, and DD are from the same site as the others pictured, but they are not notched and therefore are not Tangipahoa points. They are probably an unnotched or pre-notched variant of the type.

tips of the St. Helena points do not occur on the later type. The apparent relationship between these types suggests that if our assumptions about the age of St. Helena and St. Tammany points is correct, the Tangipahoa points are early in the Late Archaic sequence. Mississippi specimens have been found in a central cluster of counties (Figure 140).

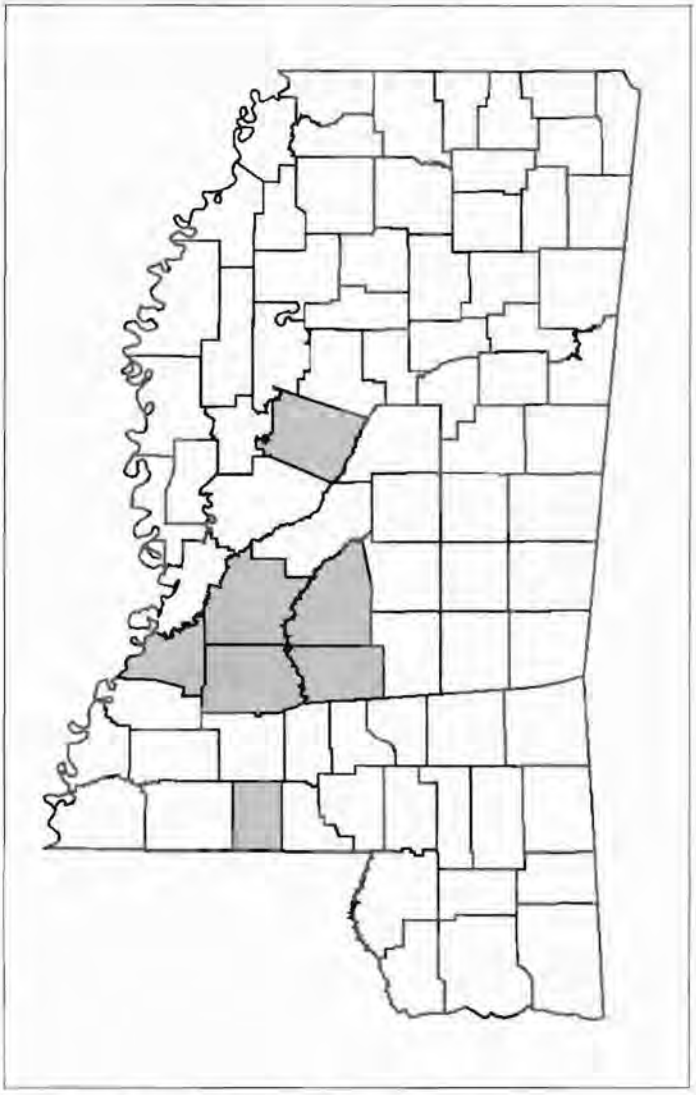

Figure 140. Known Distribution of Tangipahoa Points.

Little Bear Creek (DeJarnette, Kurjack and Cambron 1962:61)

Chronological Position: 4,500 BP-3,500 BP

Metric Data: 28 specimens
Average Length: 54 mm
Range of Length: 50-78 mm
Average Width: 28 mm
Range of Width: 21-36 mm
Average Thickness: 10 mm
Range of Thickness: 8-14 mm
Figures: 141, 142, and 143

Little Bear Creek points are small to large straight-stemmed points that are relatively thick with comparatively long stems. They are difficult to separate from Flint Creek points in some instances (Bense 1982:118; White 1983:71-72). They are well made but lack much of the edge retouch by the pressure technique that is so common on Flint Creek-Pontchartrain points. The edges are slightly excurvate. Several examples in the recorded sample exhibit reverse impact flutes (Figure 141, specimens F, J, and K), which are also common on Flint Creek-Pontchartrain points. Most recorded examples are made from heat treated Tuscaloosa gravel chert, which is usually of a mottled red or pink color. Some specimens are of Fort Payne chert or Tallahatta quartzite.

The type has been dated at 3850 BP in northeast Mississippi (Bense 1987:107), and by Wynn and Atkinson (1976:58) at 4005 and 4170 BP; it has dates of 1650 BC and 1070 BC from north Alabama (Ensor 1981:97). Within the state of Mississippi the type is widely distributed (Figure 143).

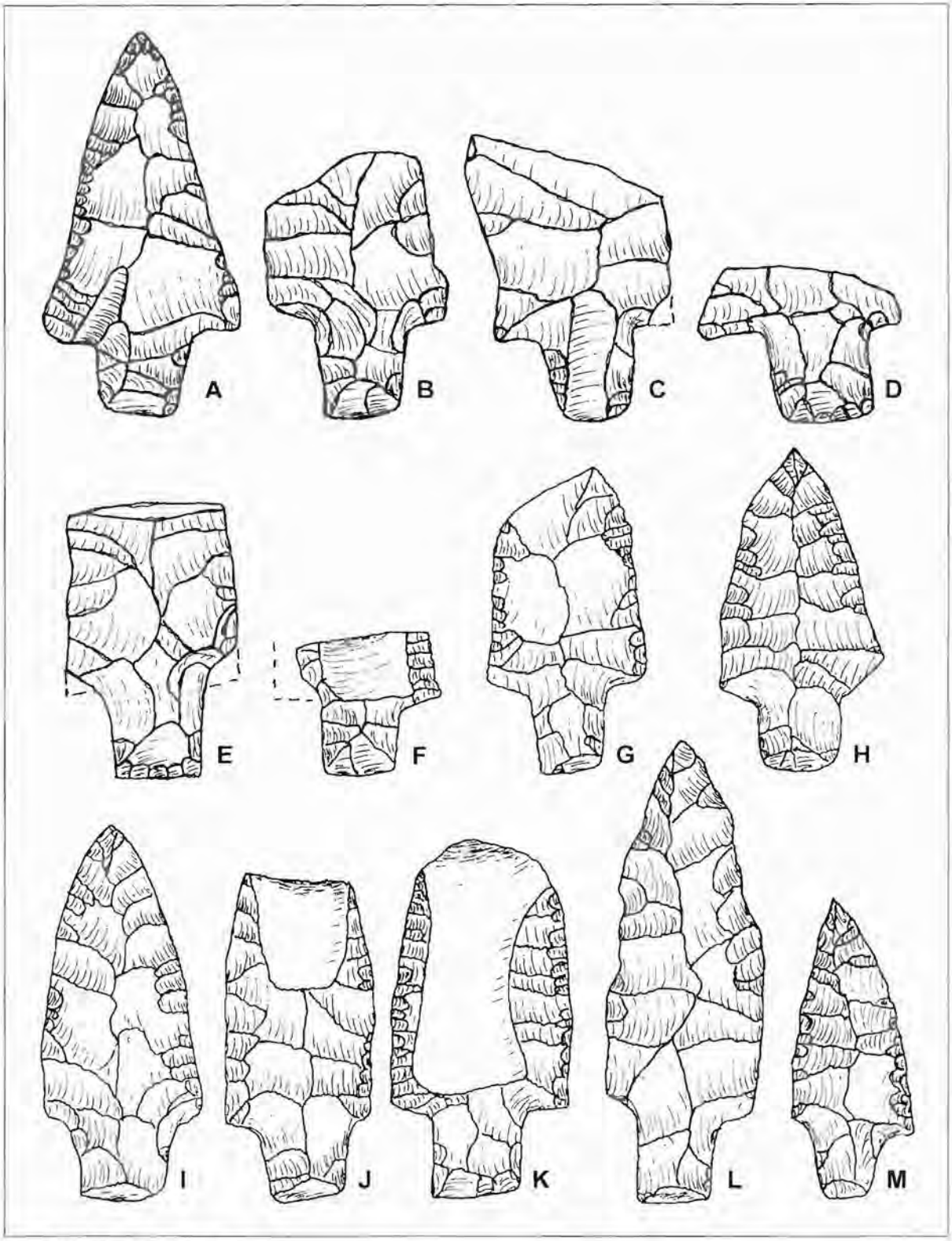

Figure 141 Little Bear Creek Points.

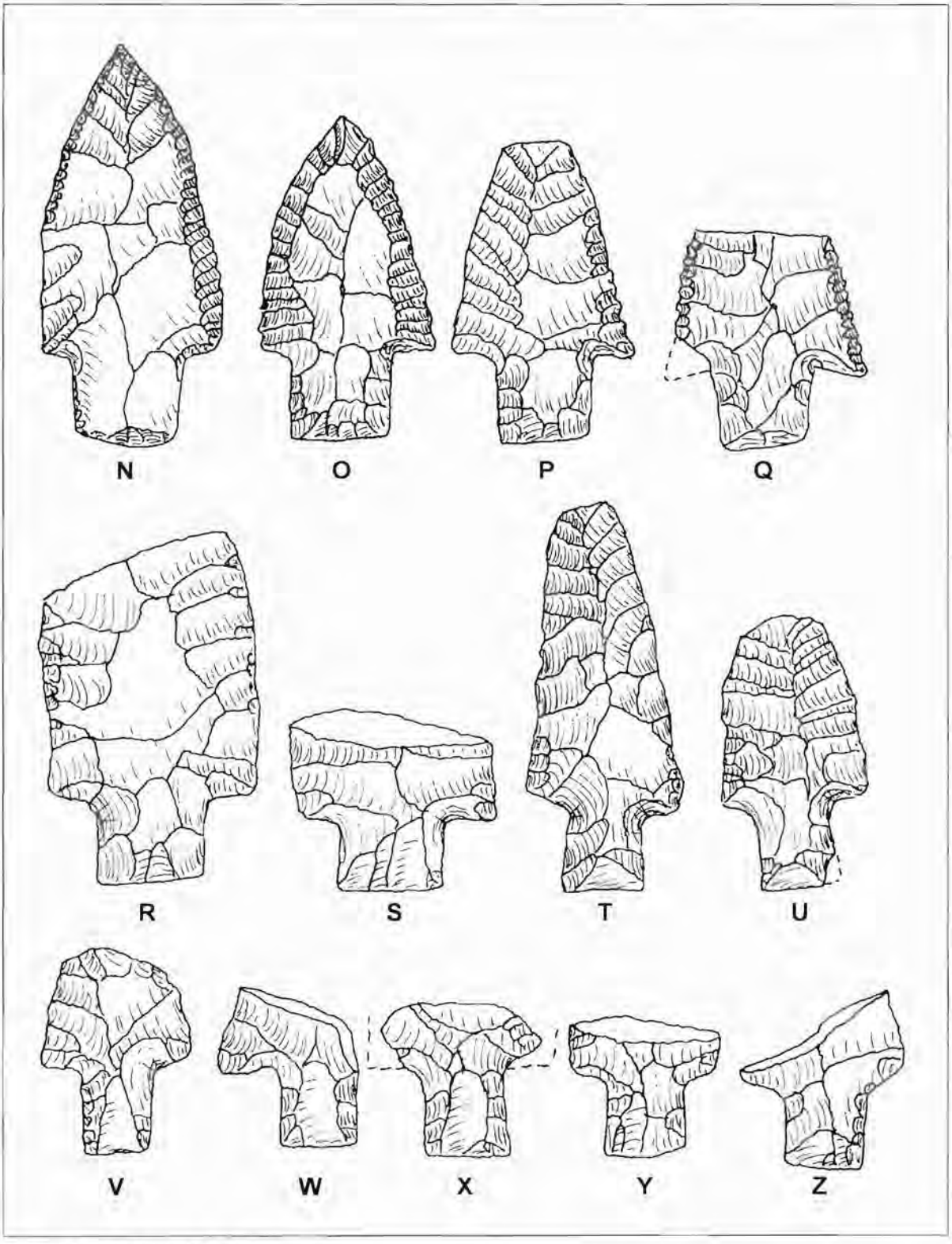

Figure 142. Little Bear Creek Points.

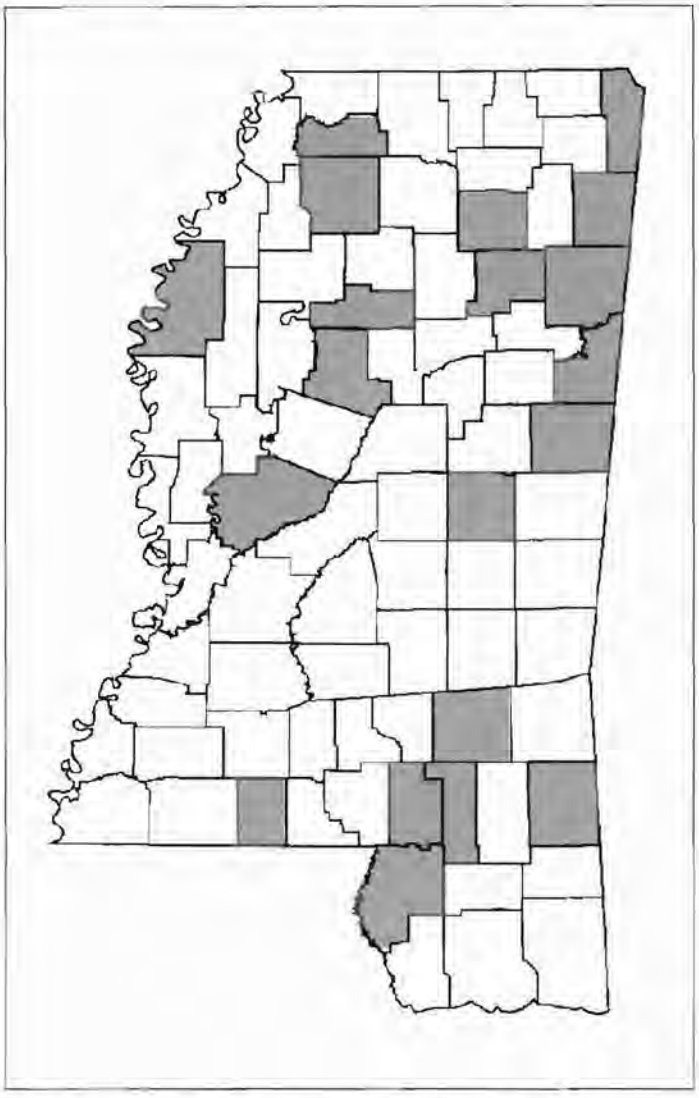

Figure 143. Known Distribution of Little Bear Creek Points.

Late Archaic Barbed (Provisional type)

One of the most numerous of the basic forms among Mississippi projectile points is a grouping of medium to large sized bifaces which bears strong resemblances to the Shumla type (Suhm, Kreiger, and Jelks 1954), but also resembles the Marshall type as illustrated and described by Webb, Ford, and Gagliano (1970:29). The Shumla label has been previously attached by Lower Mississippi Valley archaeologists to specimens with the general physical characteristics of the type as originally defined (Gagliano 1963; Gagliano and Webb 1970; Brookes and Inmon 1973; Lauro and Lehmann 1982:26). Use of the Shumla name is debatable, since the type is thought to be primarily confined to the Trans-Pecos region of Texas (Bell 1960:86; Perino 1985:353). The Marshall points from the Poverty Point site are said to have "extremely convex edges" (Webb, Ford, and Gagliano 1970:29). This contrasts them somewhat with the specimens discussed here, which have basically triangular blades with straight, slightly convex or slightly concave edges, although they do have in common with our specimens a kind of fine pressure flaked edge retouching. The Marshall points illustrated by Perino (1985:353) show no indication of this kind of edge retouching. They also appear from the illustrations to have significantly different stem and basal characteristics with much more carefully made straight stems and broad straight bases, in contrast to those examples shown by Webb, Ford, and Gagliano, which have relatively narrow stems, not as precisely formed. A much earlier set of illustrations provided by Bell (1958:45) shows points that also appear to lack the fine edge pressure retouch altogether and to have similar stem and basal characteristics to those shown by Perino, although the stems and basal areas appear to be less carefully fashioned.

Surface associations, technological attributes, and general morphology are basically like those of several other classified or formally named groups such as Pontchartrain, Flint Creek, Ledbetter, and especially Shumla and the specimens from Poverty Point site cited above. Thus this grouping is most likely a Late Archaic to Gulf Formational or Early Woodland type.

The form is generally that of a strongly to moderately barbed, straight-stemmed point that is corner-notched or basally-notched with a straight or convex base, straight or slightly contracting stem, and

a triangular blade which may have slightly convex or concave edges. In some instances the barbs extend the length of the stem. Individual specimens are generally well made, and many are relatively thin in proportion to their breadth. Fine pressure retouching is usually present along the blade edges.

In the Flint Creek-Pontchartrain grouping minorities are found that are relatively broad and thin, with a tendency to be slightly barbed (Connaway, McGahey, and Webb 1977:39). These specimens appear to be the connecting link forming a continuum with the Shumla or Marshall-like specimens. The continuum can also be expanded beyond this relationship, or perhaps simply exists there to be arbitrarily cut by archaeologists, depending on the purpose at hand. One could continue extending the continuum or observing it as the case may be, in various other directions to include such forms as Little Bear Creek or Pickwick. Such a venture, however, would probably ultimately include most Late Archaic types and many Woodland types of the southeastern United States and conceivably also many in the Southwest and Midwest. It appears that in spite of the continuities between different forms, there are logical, if somewhat arbitrary dividing points. The following two varieties are presented in the hope that future research in the form of excavation of stratified sites and more comprehensive distributional studies will shed additional light on the geographical and chronological parameters of the type (Figure 147).

Late Archaic Barbed, *variety Rounded Base*

Chronological Position: 4,000 BP-2,500 BP

Metric Data: 71 specimens
Average Length: 56 mm
Range of Length: 40-86 mm
Average Width: 38 mm
Range of Width: 24-49 mm
Average Thickness: 8 mm
Range of Thickness: 7-11 mm
Figures: 144 and 147

The basic form is that of a triangular point with a rounded base and with stem edges that are straight or slightly to strongly contracting. The blade edges are usually somewhat convex, but many are essentially straight or incurvate. Flaking over most of the blade surface is usually random or in some cases, such as is seen in specimen F of Figure 144, somewhat parallel. They are basally-notched or corner-notched, but in most cases the barbs do not extend for the length of the stem. Most examples exhibit fine pressure retouch along the blade edges. Typical preforms are illustrated in Figure 144A-D. Specimen C of Figure 144 was partially notched before it was discarded, apparently after suffering a transverse fracture.

All specimens recorded thus far are of local or near local chert. Of the total inventory of this provisional type in the southern half of Mississippi, 64.4% are of the round base variety, while 35.6% are of the straight base variety

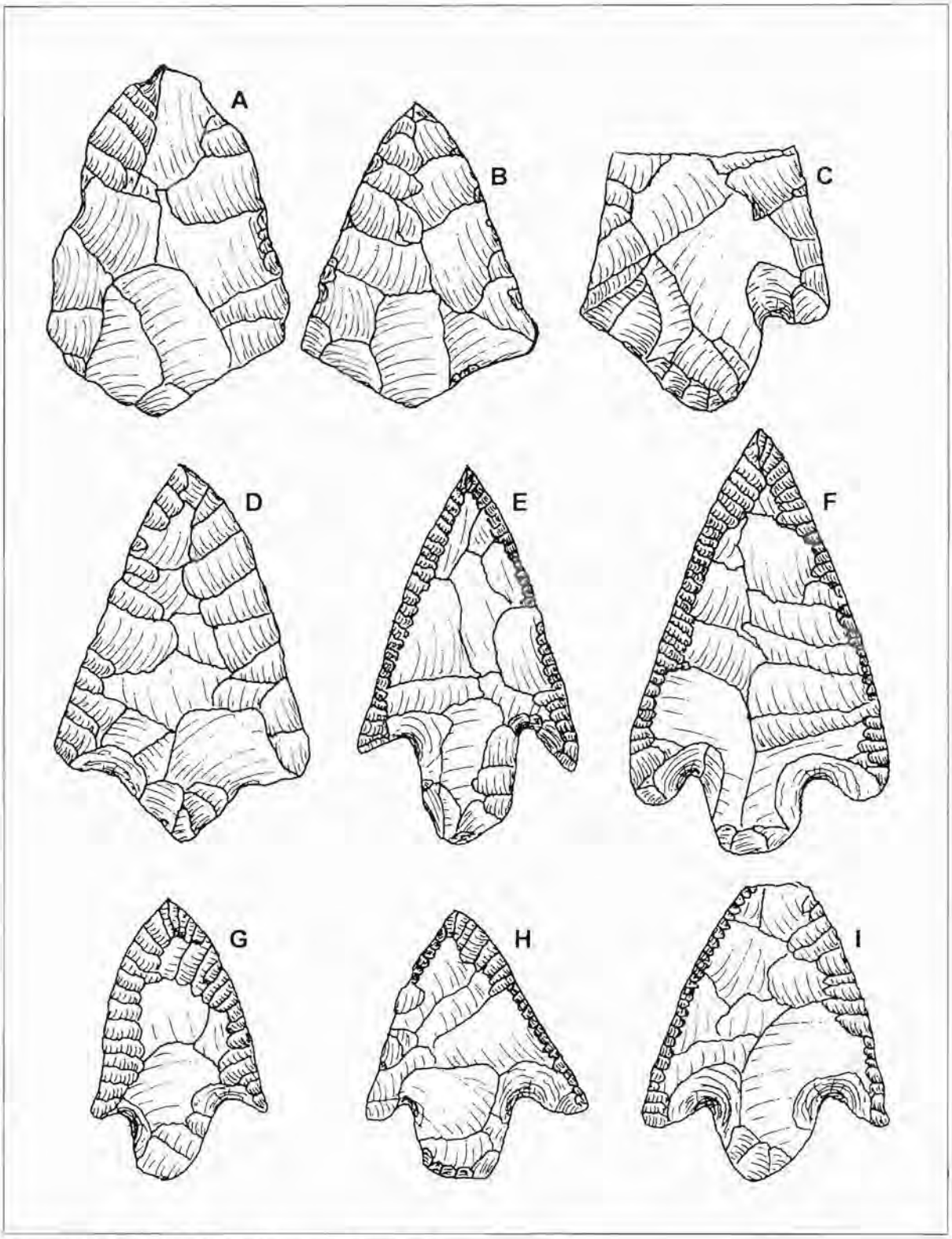

Figure 144. Late Archaic Barbed Points, var Rounded Base.

Late Archaic Barbed, *variety Straight Base*

Chronological Position: 4,000 BP-2,500 BP

Metric Data: 57 specimens
Average Length: 52 mm
Range of Length: 44-82 mm
Average Width: 38 mm
Range of Width: 25-44 mm
Average Thickness: 8 mm
Range of Thickness: 5-12 mm
Figures: 145, 146, and 147

The straight-based variety, consisting of specimens having a straight or slightly convex base, includes certain specimens (Figure 145M, and 146P and Y) that bear significant resemblances to the points illustrated by Webb, Ford, and Gagliano (1970: Figure 11 A-E). They seem to have longer barbs than the round base variety, but otherwise physical characteristics are similar to that variety. Preforms for the straight base variety have not been noted. Most examples are of gravel chert from the nearest possible source. One example, from a Poverty Point site in Quitman County (22-Qu-567), is of a blue-gray exotic flint. Of the specimens of this provisional type from the northern half of Mississippi, 63.4% are of the straight base variety, while 35.6% are of the round base variety.

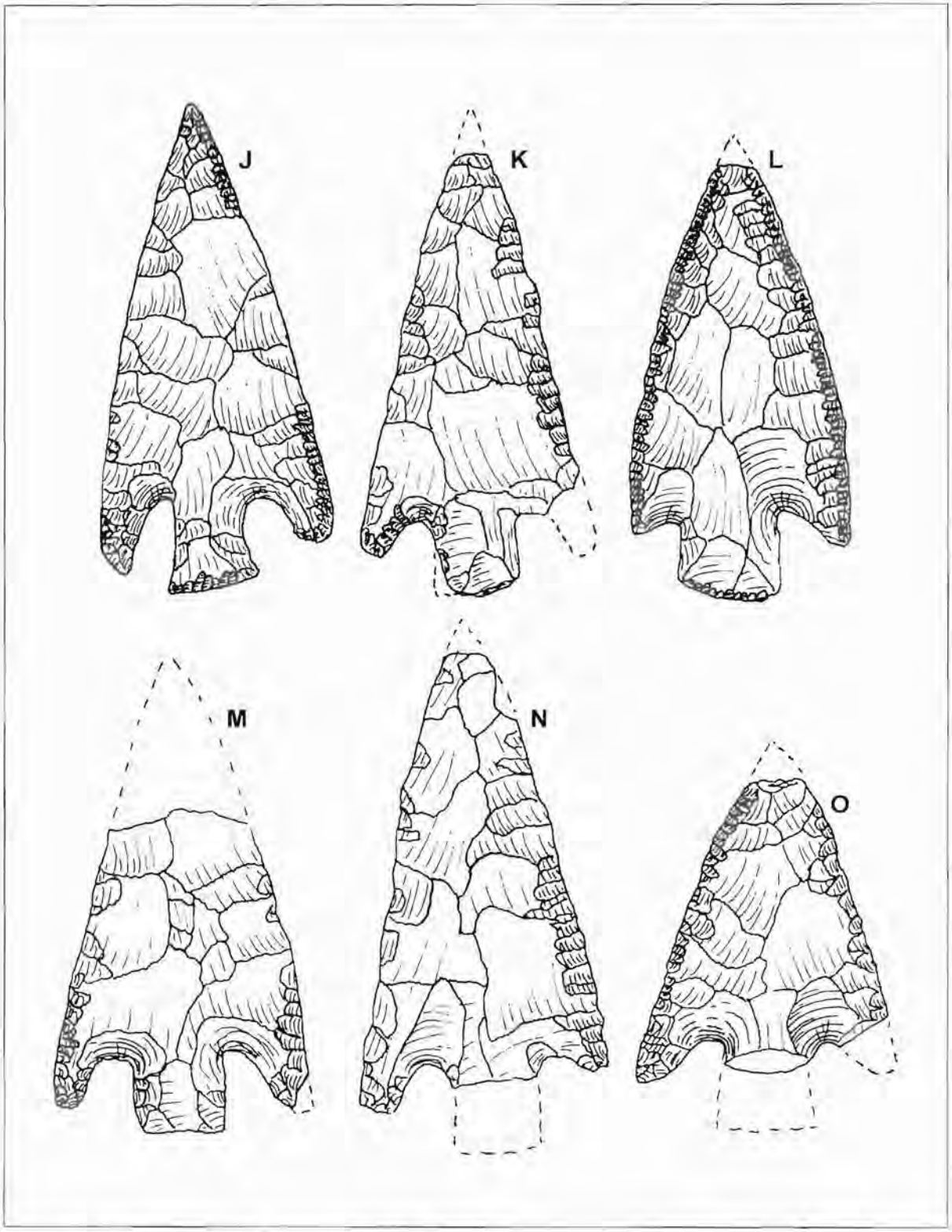

Figure 145. Late Archaic Barbed Points, var. Straight Base.

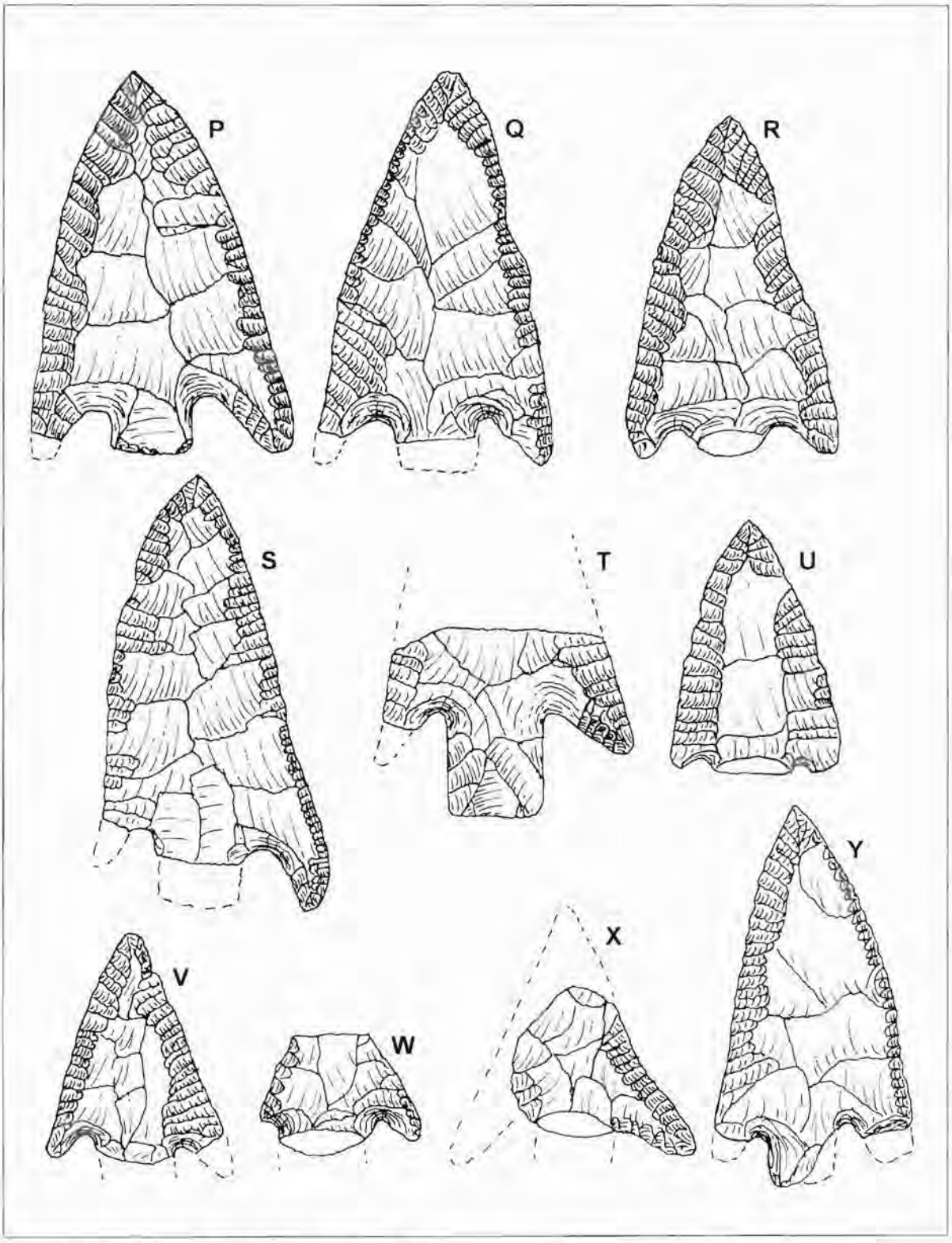

Figure 146. Late Archaic Barbed Points, var. Straight Base.

Cotaco Creek (DeJarnette, Kurjack, and Cambron 1962:33)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 14 specimens
Average Length: 57 mm
Range of Length: 33-84 mm
Average Width: 34 mm
Range of Width: 25-43 mm
Average Thickness: 8 mm
Range of Thickness: 7-9 mm
Figures: 148 and 149

Cotaco Creek points in Mississippi are medium sized points with rounded or straight bases and rounded shoulders. Blade edges are finely retouched with pressure flaking, which resulted in serrations on the original form. Some examples, such as specimens D and K of Figure 148, have been reused after suffering transverse fracture, indicated by the small flake scars emanating from the fractured edges. Of the specimens illustrated in Figure 148, all but two are of heat treated Tuscaloosa gravel chert. One is of tan chert (Figure 148A), probably from the Citronelle formation in south Mississippi. The other (Figure 148L) is of Fort Payne chert. Examples of the type are apparently widely distributed (Figure 149).

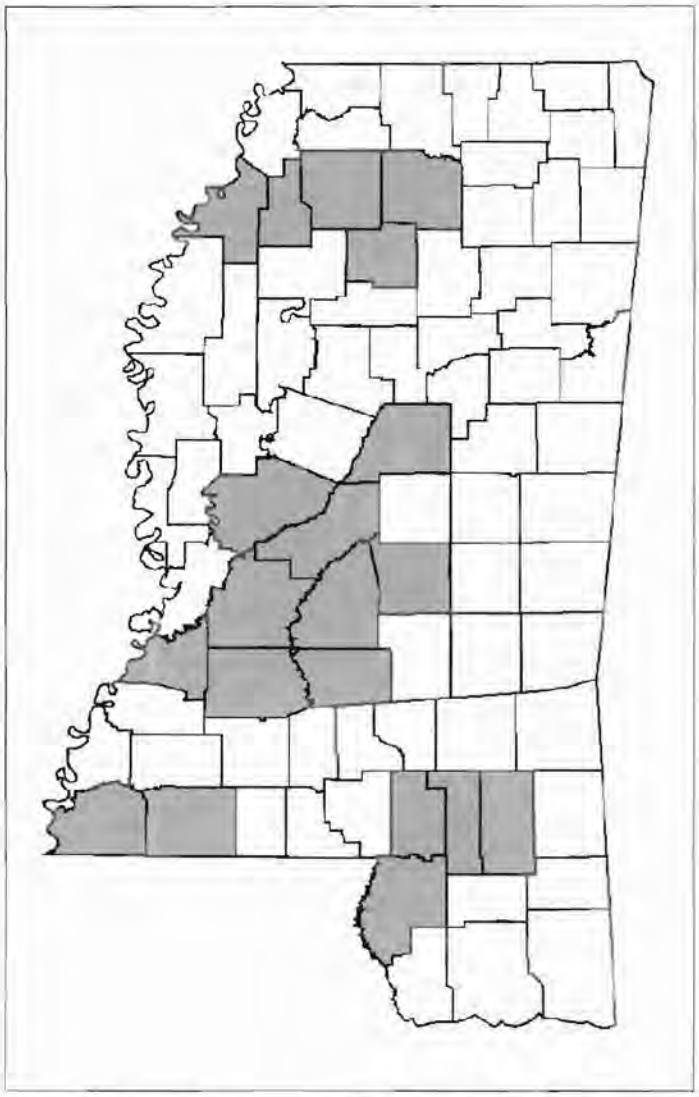

Figure 147. Known Distribution of Late Archaic Barbed Points.

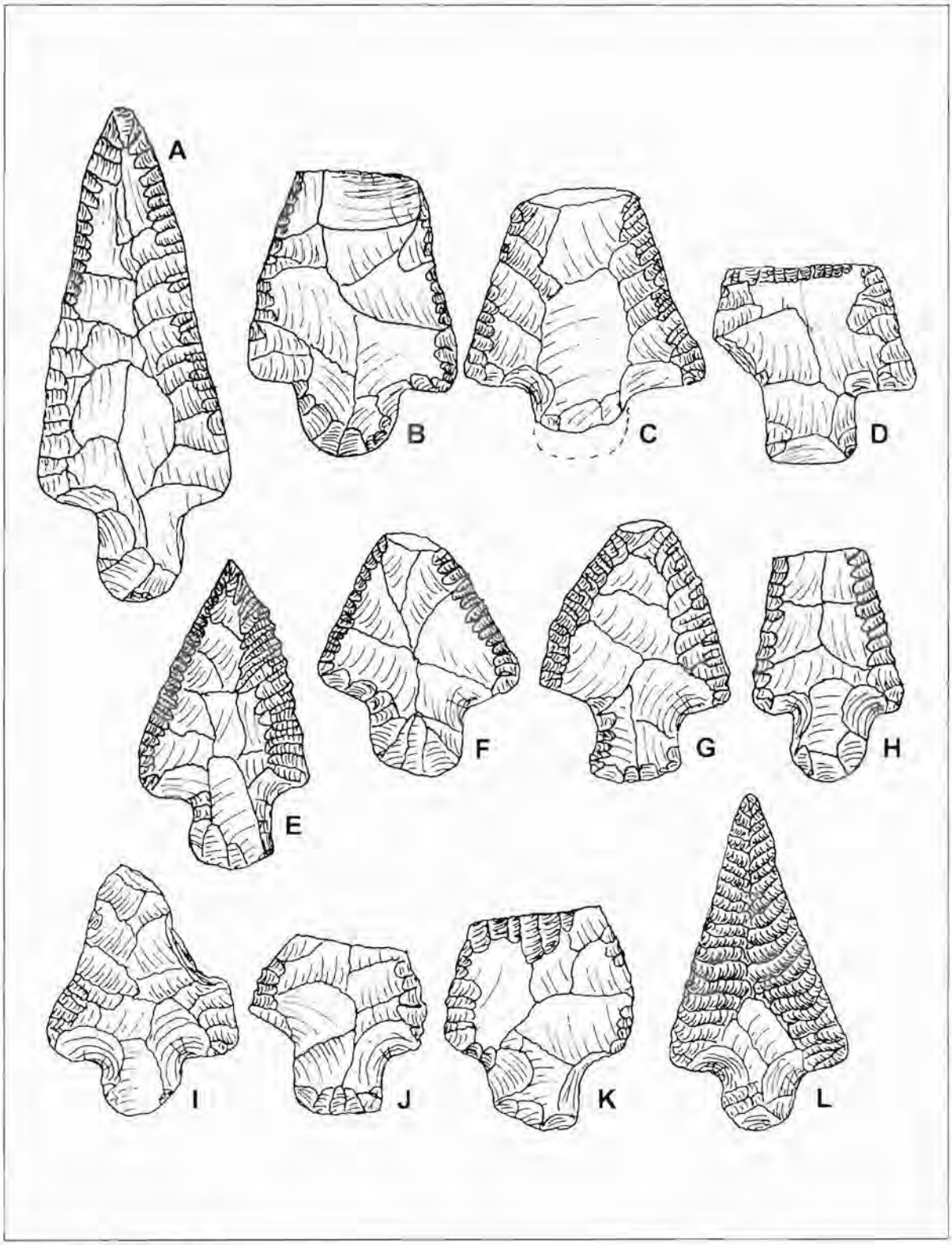

Figure 148. Cotaco Creek Points.

Kent (Suhm, Kreiger, and Jelks 1954:432)

Chronological Position: 3,500 BP- 2,500 BP

Metric Data: 26 specimens. (From Connaway, McGahey, and Webb 1977:40)

Average Length: 57 mm

Range of Length: 45-78 mm

Average Width: 23 mm

Range of Width: 19-30 mm

Average Thickness: 10 mm

Range of Thickness: 8-12 mm

Figures: 150 and 151

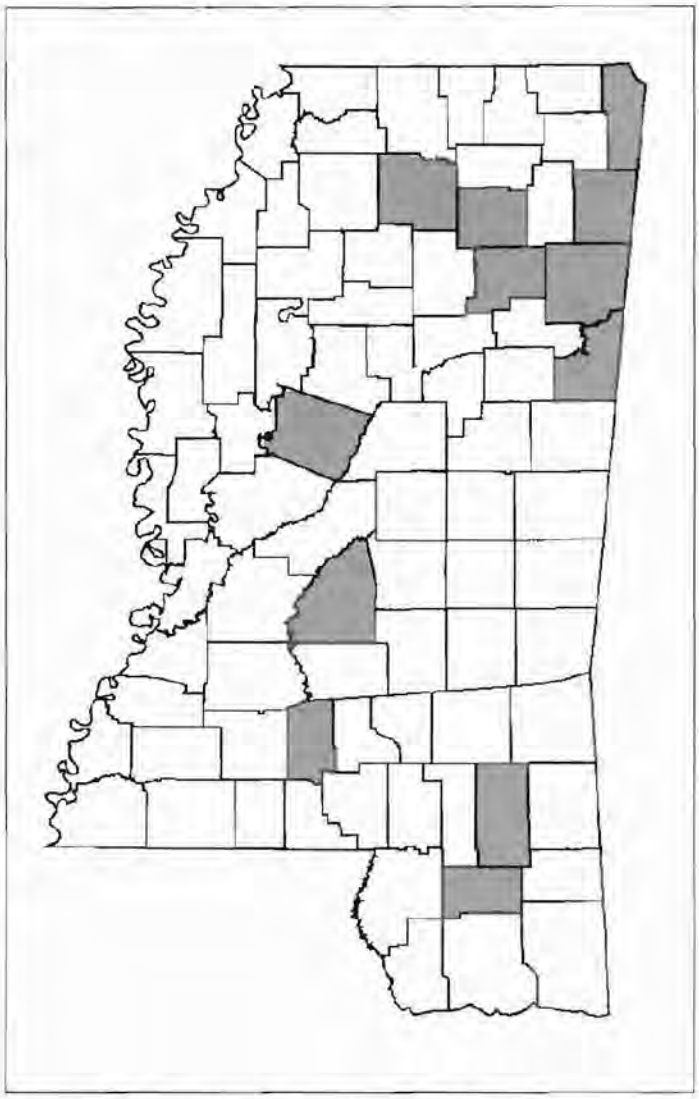

Figure 149. Known Distribution of Cotaco Creek Points.

Kent points are similar in many respects to the Pontchartrain type. They have been considered possible early stage Pontchartrains, lacking primarily the pressure retouching of blade edges and having a cruder overall appearance (Connaway, McGahey, and Webb 1977:40). The basic form is of a relatively narrow, thick point with straight, concave, or convex edges. Stems are usually square with straight bases, although the rather poor execution of some specimens frequently makes this assessment difficult. Cortex remnants are frequently observed on these points, most often at the base as is frequently seen on Pontchartrain points. Raw material is generally of whatever type of gravel chert is most conveniently available. Poverty Point sites generally yield a few specimens of this type made of exotic material such as novaculite. The type is usually considered to be Late Archaic in age. Specimens are found over much of the state of Mississippi but appear to be most common in the western part of the state (Figure 151).

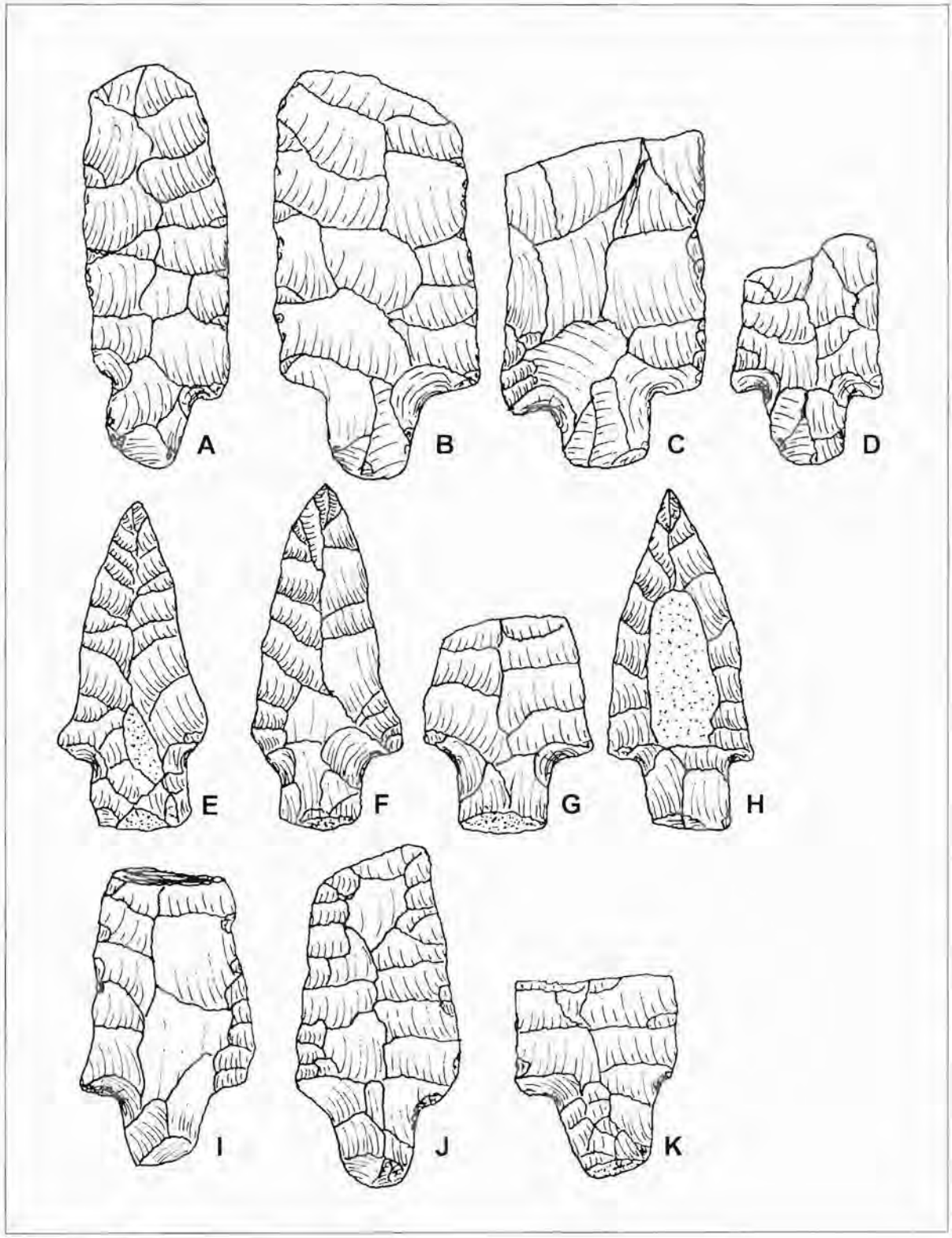

Figure 150. Kent Points.

Flint Creek-Pontchartrain (Cambron 1958 for Flint Creek and Ford and Webb 1956 for Pontchartrain)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 27 specimens
Average Length: 59 mm
Range of Length: 37-117 mm
Average Width: 25 mm
Range of Width: 16-35 mm
Average Thickness: 8 mm
Range of Thickness: 6-12 mm
Figures: 152, 153, 154, 155, 156, and 157

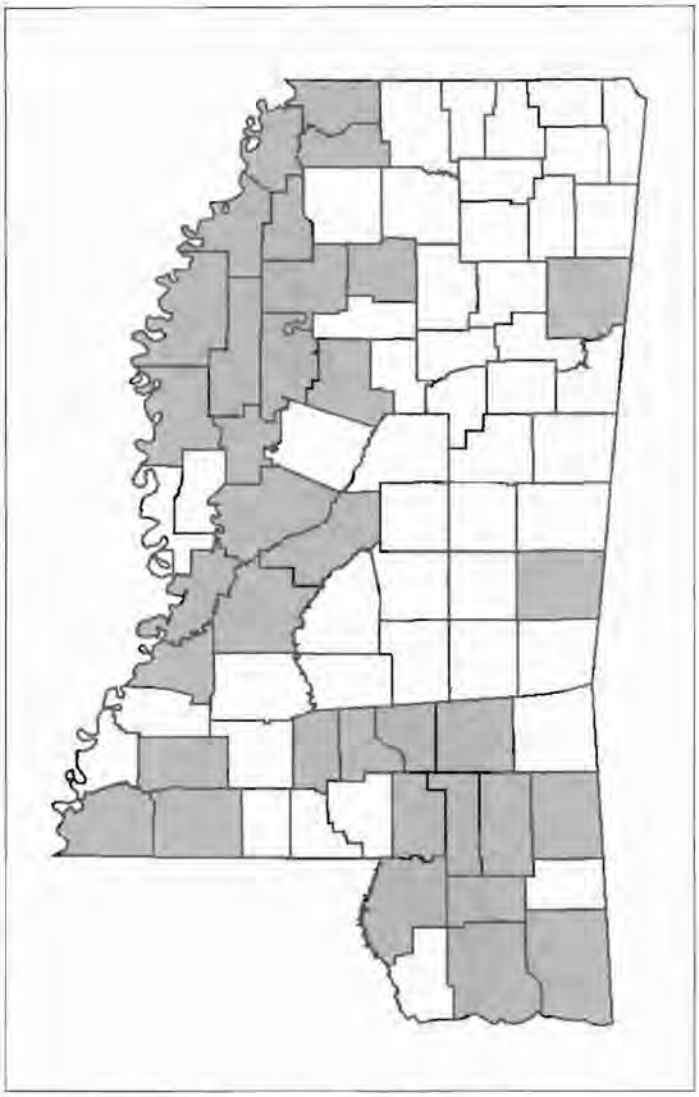

Figure 151. Known Distrtibution of Kent Points.

As has been pointed out previously by Perino (1985:132 and 306), the types Flint Creek and Pontchartrain are closely related. The Pontchartrain type was initially recognized in Louisiana, as the name suggests. It is one of the major types of the Poverty Point culture and is found over most of western Mississippi, where it has been dated at ca. 1700 BC-1000 BC at the Teoc Creek site (Connaway, McGahey, and Webb 1977:108) and into south Mississippi, where it has been dated at ca. 1600 BC in Perry County (Wright 1982:86). The Flint Creek type, which appears to be primarily Late Gulf Formational, with strong associations with the Alexander ceramic complex or slightly later than Poverty Point, was initially recognized in North Alabama. The type has been excavated in close association with Alexander ceramics at the Mingo Mound site in Tishomingo County (Jolly 1971:1-37). A similar situation was reported from the Sanders site in Clay County (O'Hear 1990) and from site 22-It-563 in Itawamba County (Ensor 1981:95) The observation of numerous large projectile point collections over the state of Mississippi has revealed the distributions of these two types to be a geographic continuum. The physical attributes also appear to form a continuum.

Flint Creek points have a greater tendency to have slightly expanding stems, whereas the Pontchartrain type generally has a straight or slightly contracting stem. Most Flint Creek points are heat treated to the extent that the originally tan to brown gravel chert has become glossy and is color altered, with pinks and shades of red dominating. The Tuscaloosa gravel cherts from which most of the Flint Creek points are made are much more easily heat treated successfully than other gravel cherts to the south or west within the state of Mississippi and seem to be tolerant of the higher temperatures neces-

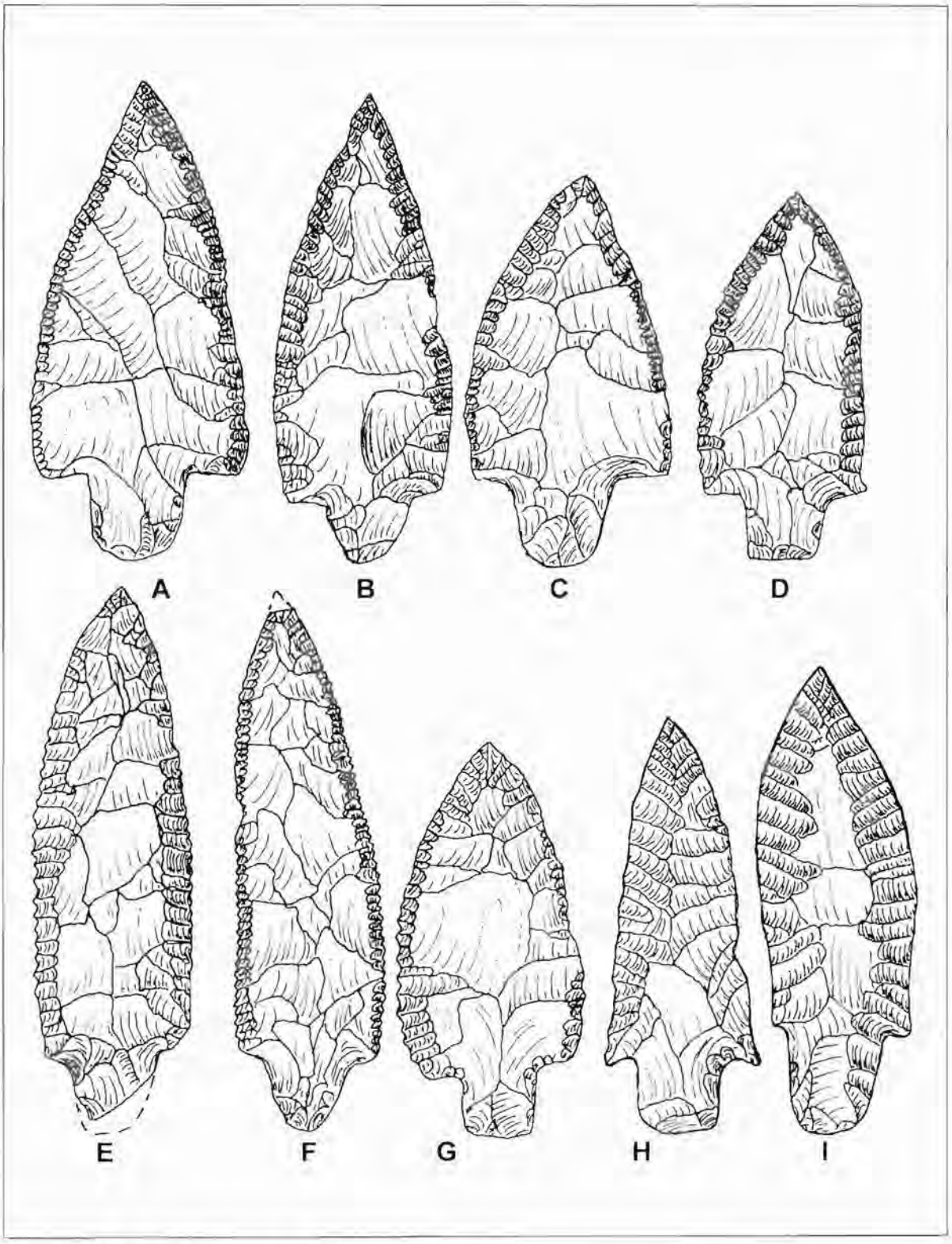

Figure 152. Flint Creek-Pontchartrain Points

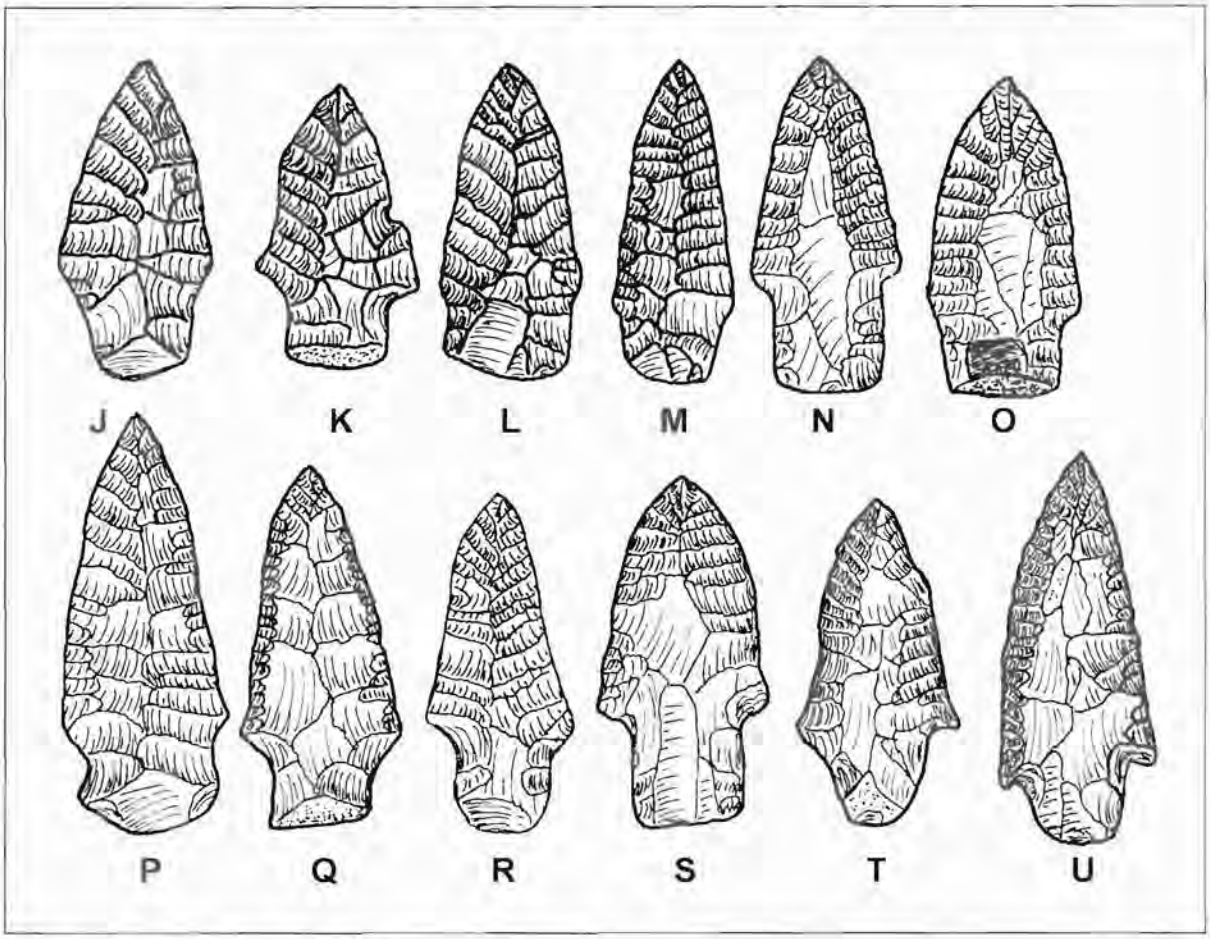

Figure 153. Flint Creek-Pontchartrain Points.

sary for the complete color change, in contrast to the Citronelle or pre-loess gravels, which must be more carefully heated, generally at lower temperatures. The result of these differential physical characteristics of the locally available cherts is that the projectile points in this continuum are almost invariably tan or some variation thereof in southwest Mississippi and nearly always a mottled red or pink in the northeastern part of the state. The intervening areas, many of which have no locally available gravel, yield specimens made from both types of material.

Flint Creek-Pontchartrain points are small to large, relatively narrow and thick, stemmed projectile points that have invariably seen considerable pressure flaking of edges. These pressure flake scars occasionally reach halfway across the point. Most specimens were probably originally equipped with fine serrations, although in many cases these are worn away in use, presumably as knives or saws. Some variants of the form may be relatively flatter and broader (e.g. Figure 152A-D and G). These variations have been noted for both Flint Creek (Ensor 1981:95) and Pontchartrain (Connaway, McGahey, and Webb 1977:39). Blade edges are typically slightly convex, but some are parallel sided. Many bases have cortex remnants from the original gravel chert raw material, and some stem edges are ground. Many examples of this type give indications of heavy wedging or battering activity, as is illustrated in Figure 155BB-MM and Figure 156NN-SS. Some indicate a single impact flute, such as in Figure 155MM. Most,

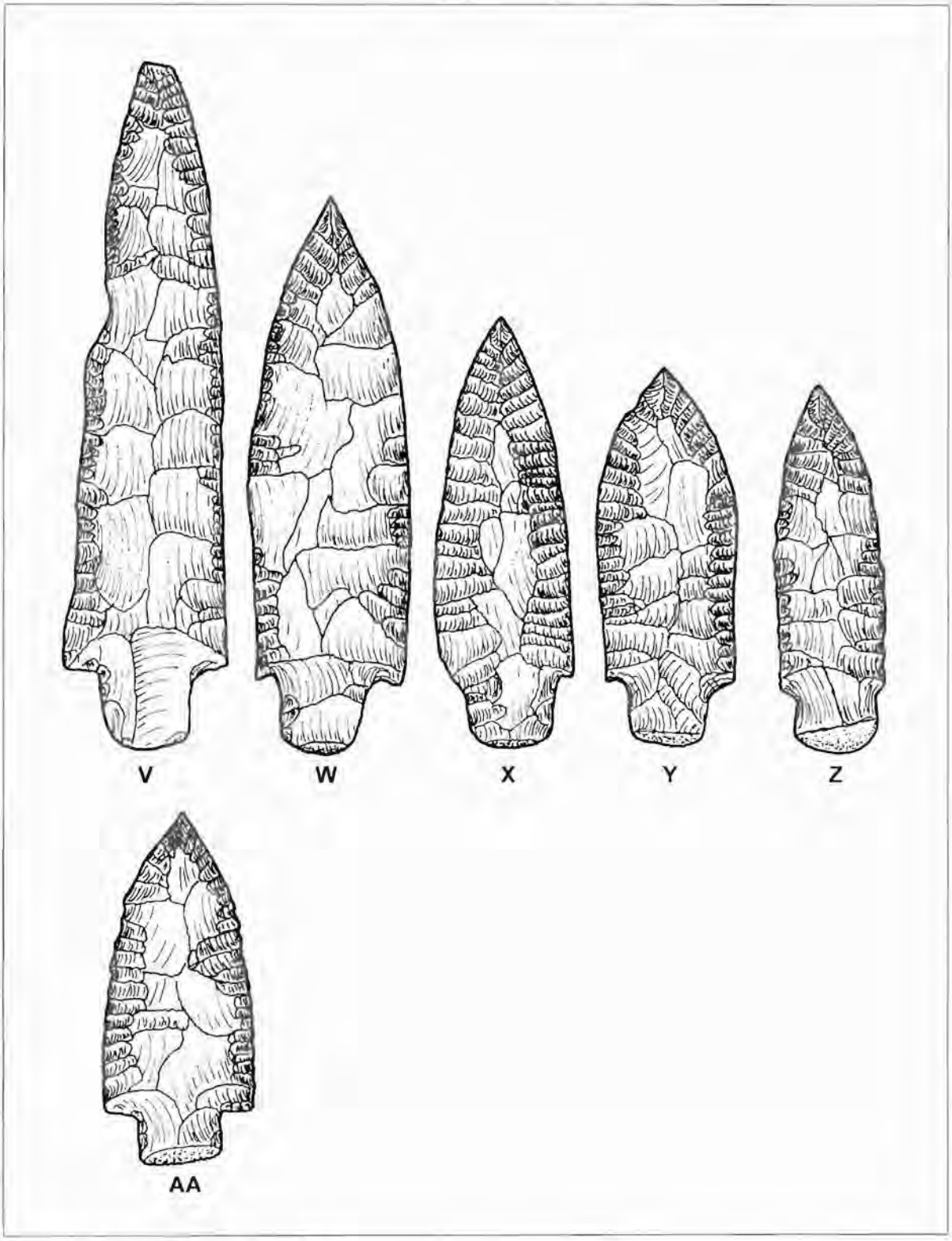

Figure 154. Flint Creek-Pontchartrain Points.

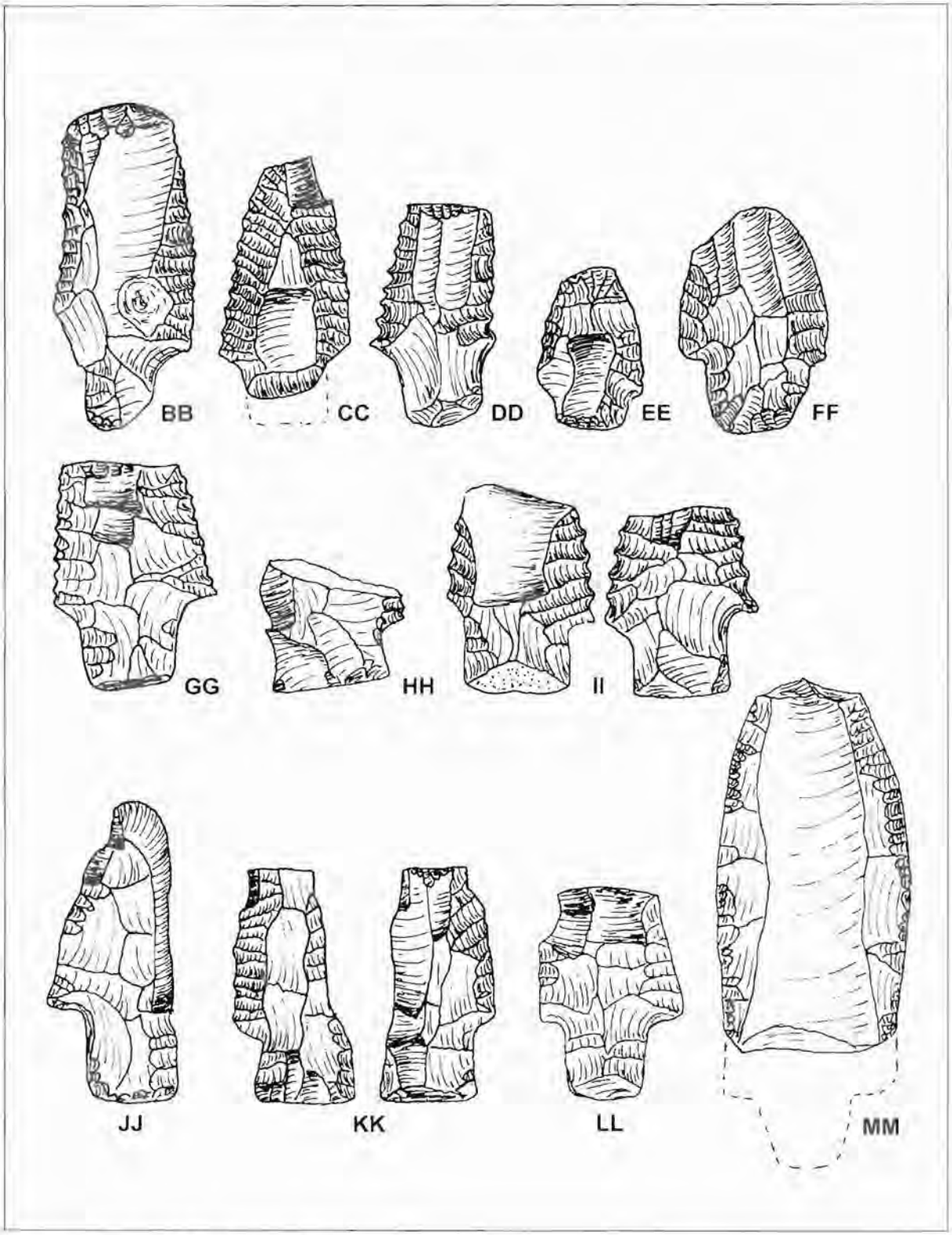

Figure 155 Flint Creek-Pontchartrain Points

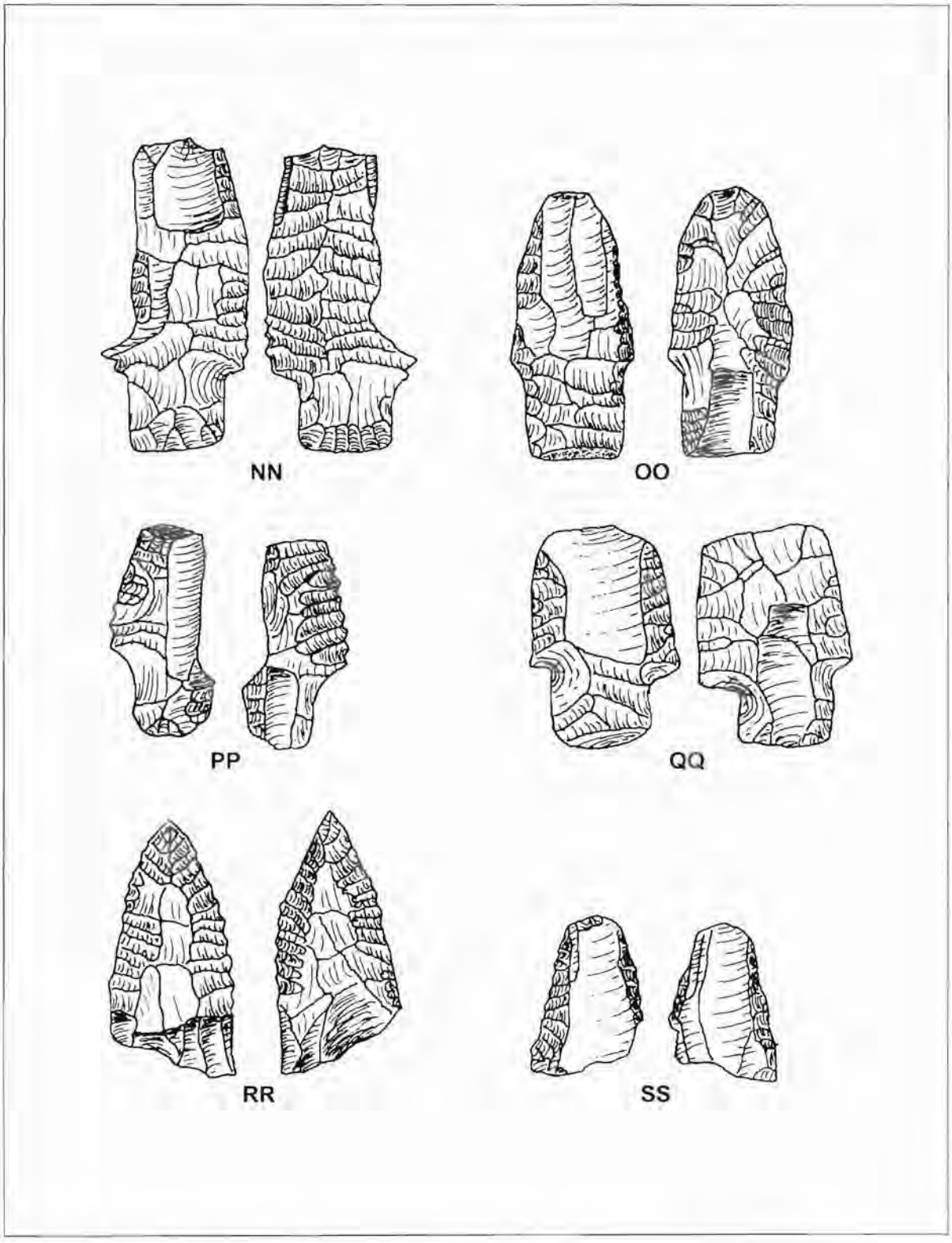

Figure 156. Flint Creek-Pontchartrain Points.

however, appear to have been impacted multiple times (e.g. Figure 155KK and 156NN and OO), and many have been impacted from both ends (e.g. Figure 155CC, and 156OO, and PP). Examples of this type—or if you prefer, these types—are recorded over most of the state (Figure 157).

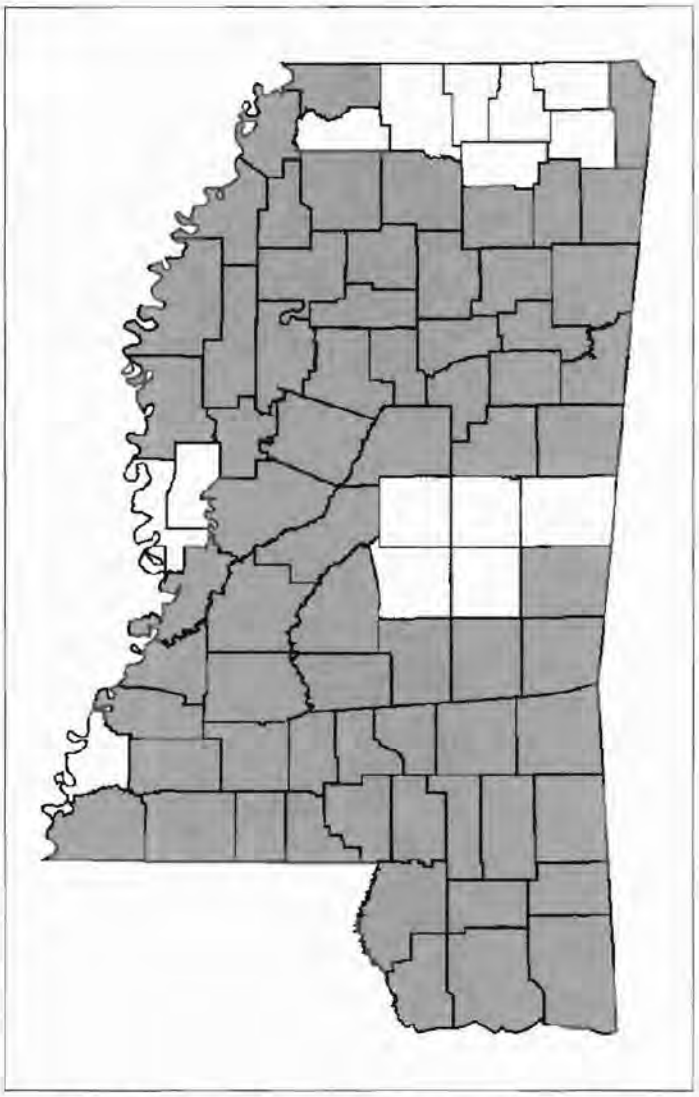

Figure 157. Known Distribution of Flint Creek-Pontchartrain Points.

Mud Creek (Cambron and Hulse 1975:94)

Chronological Position: 3,500 BP- 2,500 BP

Metric Data: 15 specimens
Average Length: 40 mm
Range of Length: 39-52 mm
Average Width: 21 mm
Range of Width: 14-25 mm
Average Thickness: 10 mm
Range of Thickness: 6-11 mm
Figures: 158 and 159

The Mud Creek point is a small to medium sized point with a basically triangular blade configuration. Blade edges are slightly convex or may be recurvate, as seen in Figure 158H. Distal ends are acute. The flaking is usually random, but the pressure flaked edge retouch on Mississippi examples is parallel and extends to the point's midline in some specimens, a characteristic shared in common with the Flint Creek-Pontchartrain grouping. The resemblances of the two types are sufficiently strong that sorting between them can be difficult, especially on shorter, heavily resharpened examples. Most recorded examples to date are from the northeastern part of the state. The raw material of the specimens recorded in this study is heat treated Tuscaloosa gravel chert and Fort Payne chert, except for the unheated gravel used for the two examples not found in northeast Mississippi. Specimens have been recorded from seven counties (Figure 159).

Figure 158. Mud Creek Points

Figure 159. Known Distribution of Mud Creek Points

Smithsonia (Cambron and Hulse: 1964)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 8 specimens
Average length: 48 mm
Range of Length: 35-61 mm
Average Width: 25 mm
Range of Width: 18-29 mm
Average Thickness: 7 mm
Range of Thickness: 6-9 mm
Figures: 160 and 161

This type bears a close resemblance to various other Late Archaic-Gulf Formational projectile point types such as Flint Creek, Ledbetter, and Cotaco Creek. The type, based on the eight recorded Missis-

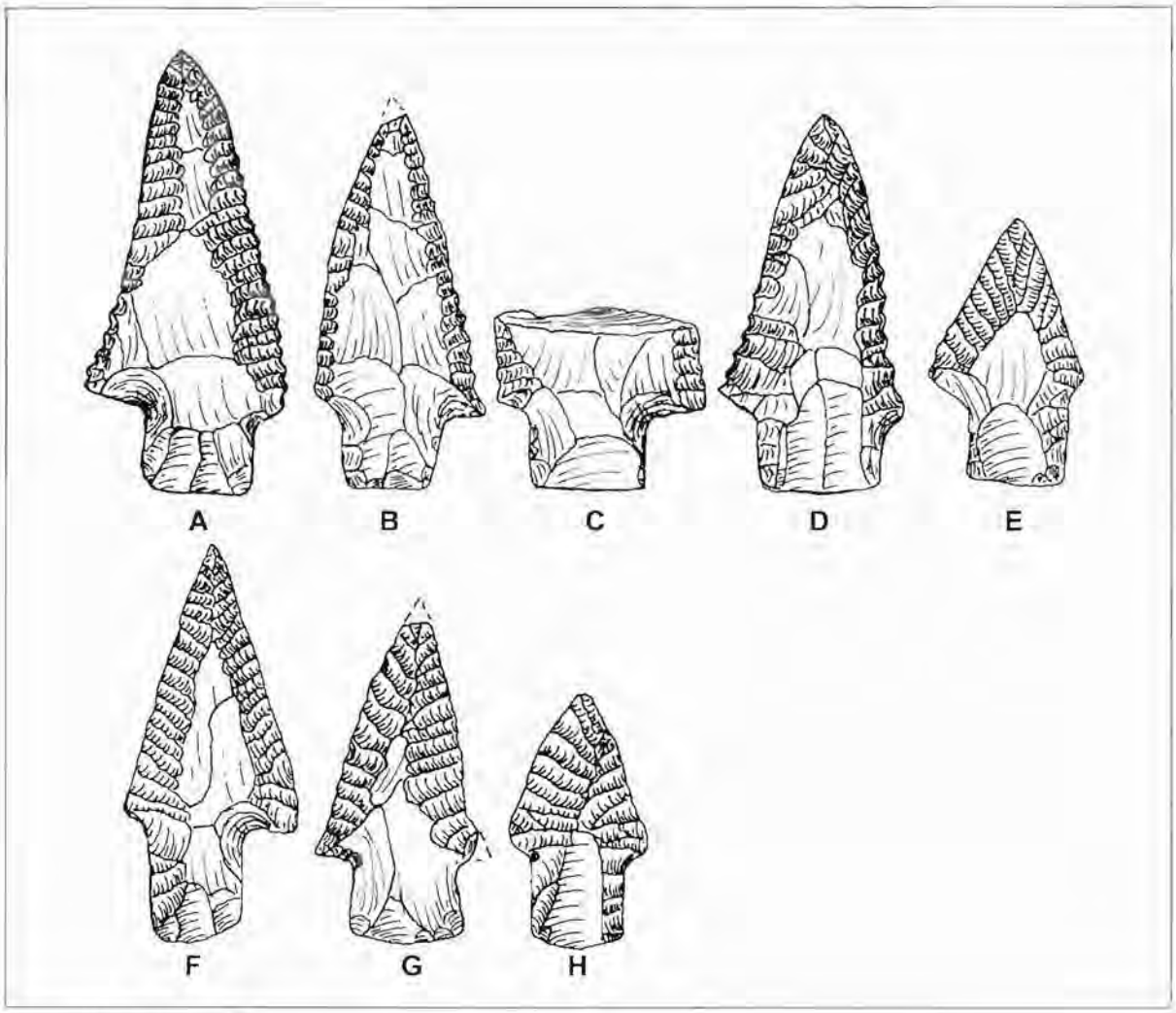

Figure 160. Smithsonia Points.

sippi specimens, appears to be most closely related to the Flint Creek type but differs primarily in having a more triangular blade and being relatively thinner. Stems are basically straight with square bases. Most examples seem to have been finely serrated originally, with well executed pressure edge retouch extending to the midline of the point in some cases. Stems are occasionally ground. All of the recorded examples are from north Mississippi (Figure 161). Two of the eight are of blue-gray Fort Payne chert The others are of gravel cherts, usually heavily heat treated.

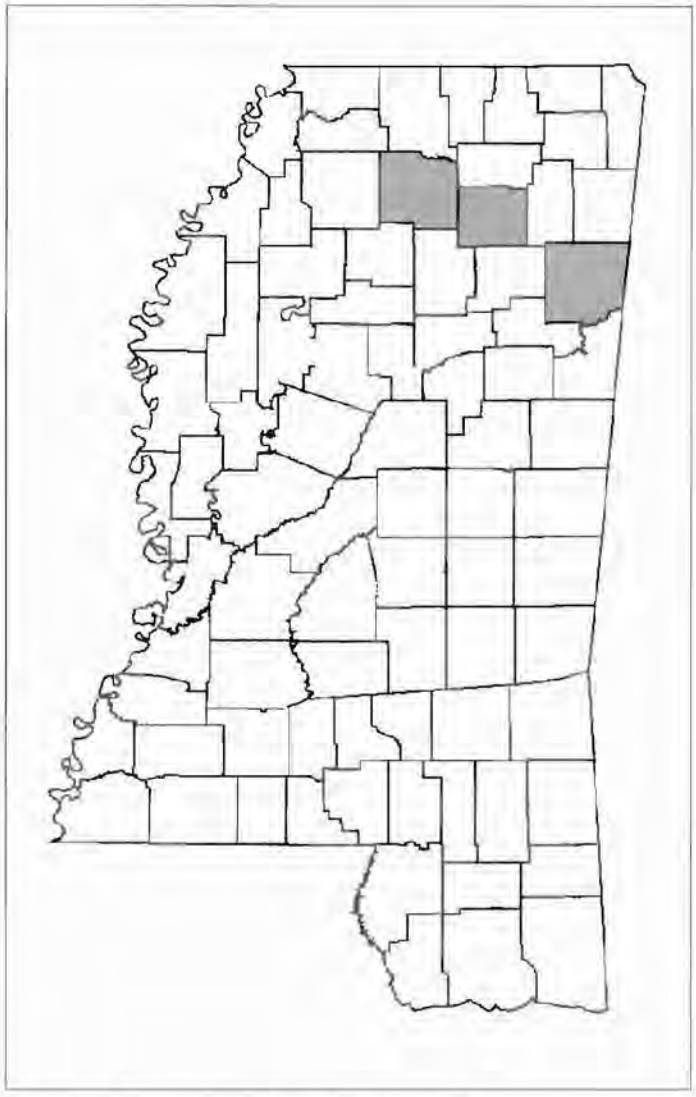

Figure 161. Known Distribution of Smithsonia Points.

Wade (Cambron and Hulse 1960)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 9 specimens
Average Length: 50 mm
Range of Length: 42-60 mm
Average Width: 34 mm
Range of Width: 32-43 mm
Average Thickness: 9 mm
Range of Thickness: 7-14 mm
Figures: 162 and 163

Wade points are straight-stemmed points that are strongly barbed. In some cases the barbs approach the length of the stem. The sides are usually straight and the blades are triangular in outline. Stem bases are usually straight and are thinned. Most examples are well made. They are randomly flaked, with some pressure retouching around the edges. Raw material is usually heat treated Tuscaloosa gravel chert. Ensor (1981:95) places the Wade type in a cluster with Cotaco Creek and Motley. He cites a date range of from 1280 BC to 460 BC for eastern Tennessee and suggests that a comparable date range is applicable to the Tombigbee River area. Wade points bear considerable resemblance to the provisional type Late Archaic Barbed, described above. Specimens have wide distribution (Figure 163).

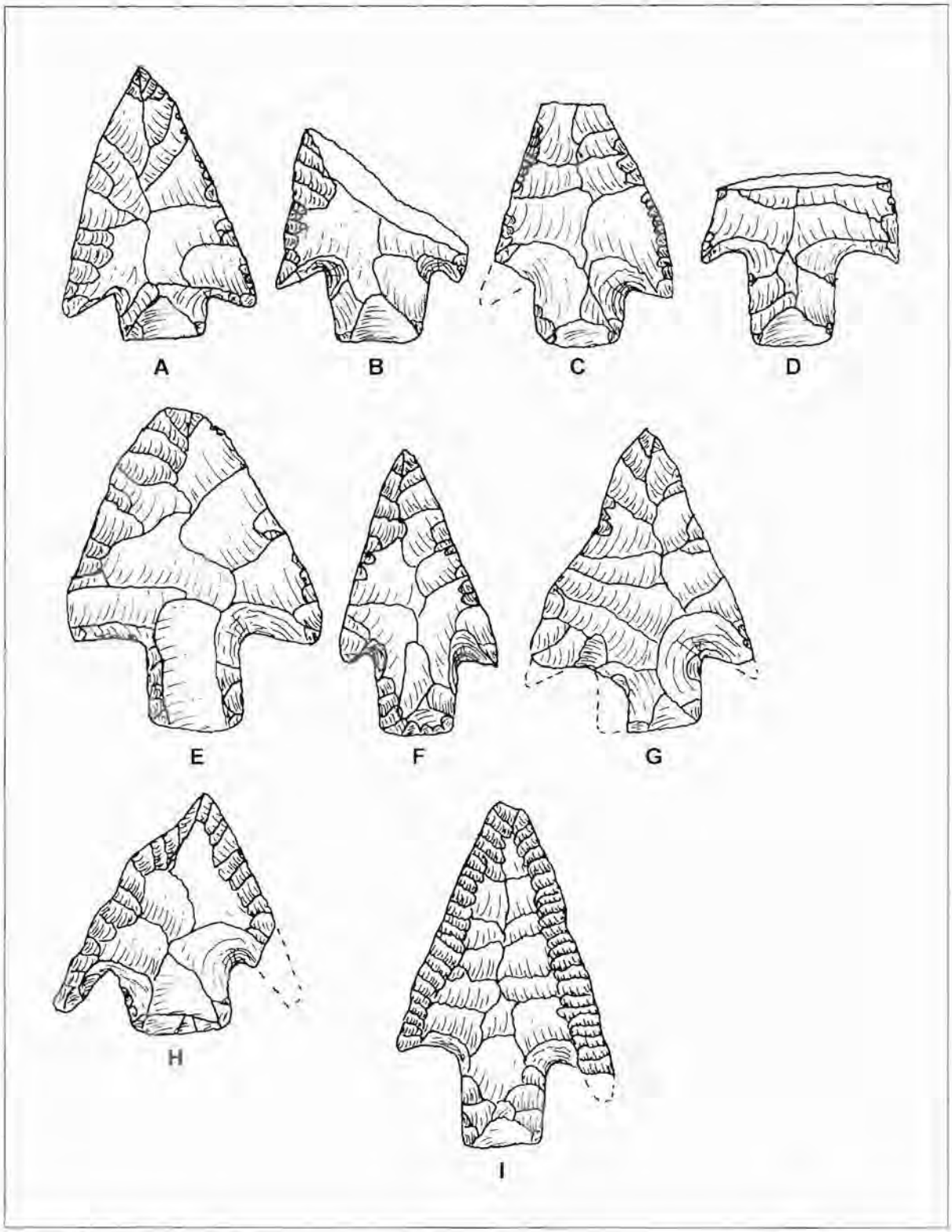

Figure 162. Wade Points.

Motley (Ford, Phillips, and Haag 1955:129)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 17 specimens
Average length: 65 mm
Range of Length: 41-89 mm
Average Width: 27 mm
Range of Width: 23-36 mm
Average Thickness: 8 mm
Range of Thickness: 6-13 mm
Figures: 164 and 165

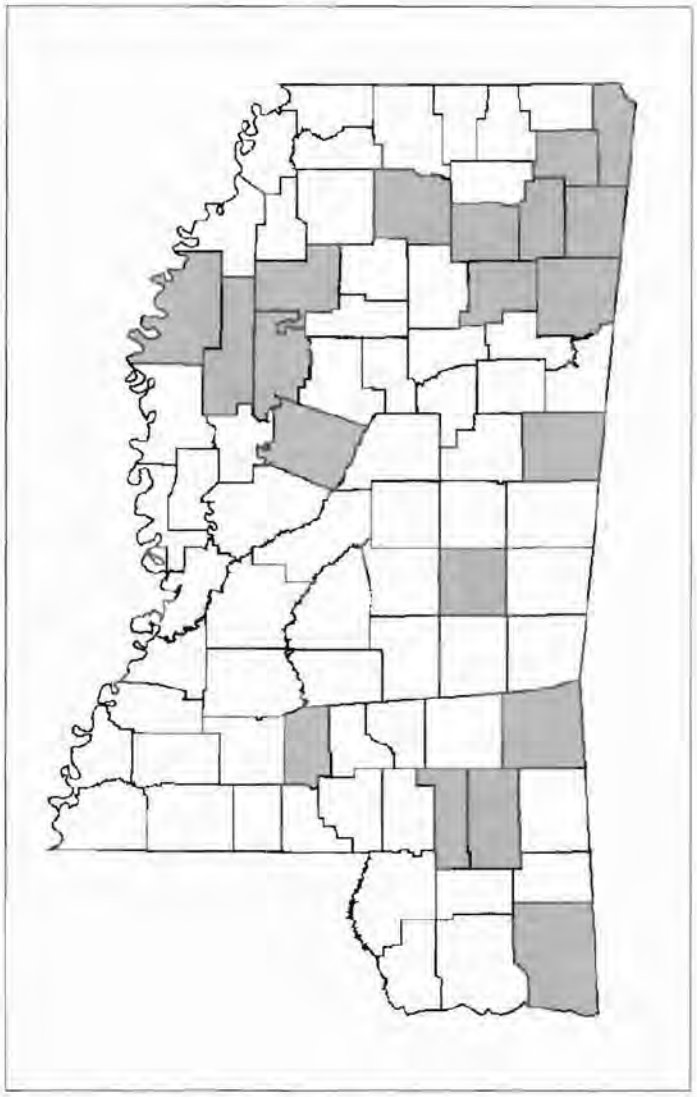

Figure 163. Known Distribution of Wade Points.

Motley points are medium to large corner-notched points. They are often of good to excellent craftsmanship, at times approaching the quality of work of Early Archaic flint knappers. One of the most distinguishing features is a relatively narrow neck, which seems to have been so delicate as to cause the stem to snap at its narrowest point more often than was the case for other corner-notched types. The base is usually convex but may occasionally be straight. Notches are deep and from the side, leaving a long expanding stem. The blade outline is triangular or with slightly convex sides. Flake scars indicate the removal of broad, well-controlled flakes. Pressure retouch of the edges was performed. The raw material is predominantly imported high quality chert or flint, which is usually gray or blue-gray. Sources for this material are thought to be from the Midwest or the Ohio River drainage with some, most notably Dover and blue-gray Fort Payne chert, originating in the Tennessee Valley. Of 191 Motley points recorded by Lehmann (1982:22) in his study of Poverty Point material from the Jaketown site, 74% were of imported material. The known distribution of the type in Mississippi is primarily the Yazoo Basin in northwest Mississippi or on Poverty Point sites, primarily but not necessarily confined to the Yazoo Basin (Figure 165). Motley points are considered to be one of the best indications of the presence of a Poverty Point component.

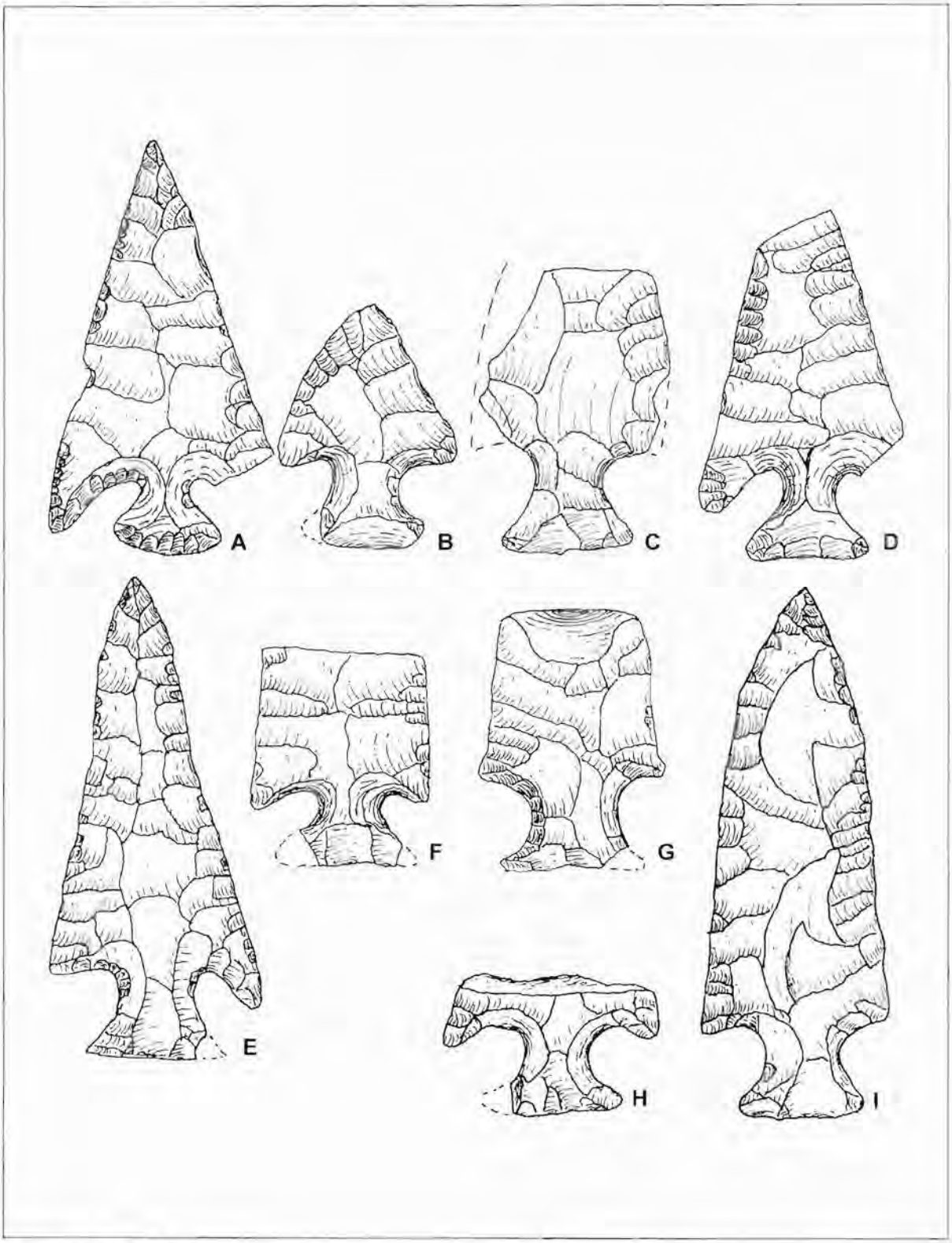

Figure 164. Motley Points.

Epps (Ford and Webb 1956)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 10 specimens
Average Length: 71 mm
Range of Length: 55-81 mm
Average Width: 31 mm
Range of Width: 24-37 mm
Average Thickness: 9 mm
Range of Thickness: 7-11 mm
Figures: 166 and 167

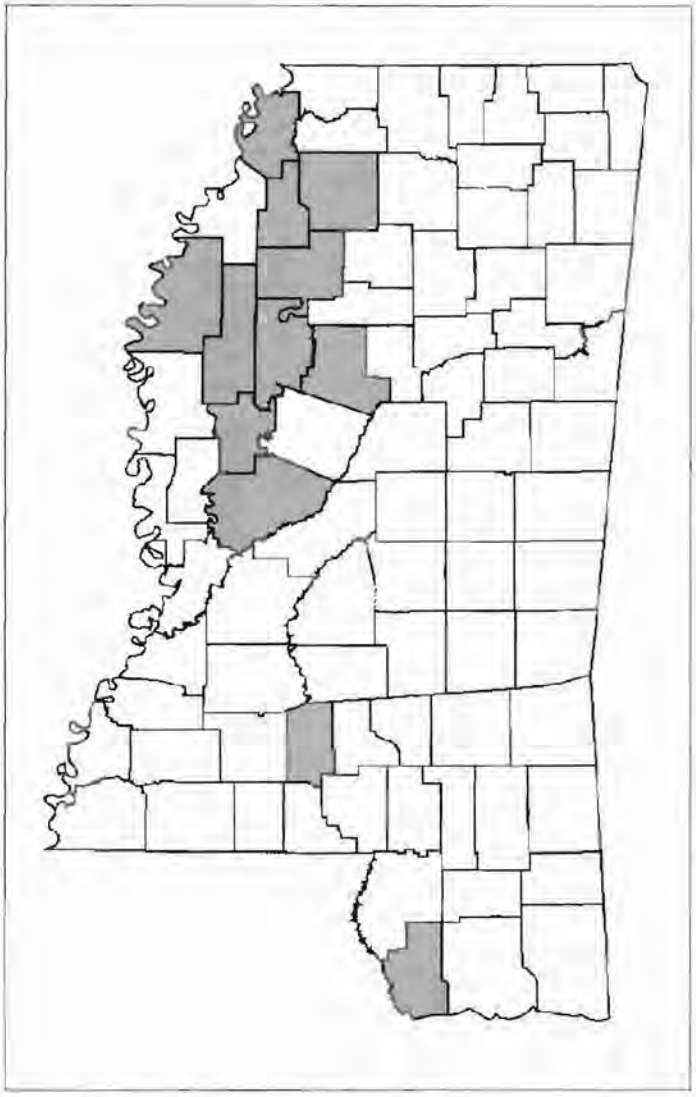

Figure 165. Known Distribution of Motley Points.

Epps Points are very similar to and in some instances difficult to separate from Motley points. They differ in having a broader neck and being side-notched instead of corner-notched, resulting in the absence of barbs on Epps points where they are present on specimens of the Motley type. The type, as with Motley, is usually carefully made and is most often of imported raw material. Lehmann's study of Poverty Point artifacts from the Jaketown site recorded 183 specimens, of which 63% were determined to be of exotic material (Lehmann 1982:22). The Epps points were most often of a white chert thought to have originated in northern Arkansas (Boone formation) or from the Crescent Hill quarries in southeast Missouri (Lehmann 1982:14). The Epps type has a strong association with the Poverty Point culture and is found in Mississippi primarily in the Yazoo Basin (Figure 167).

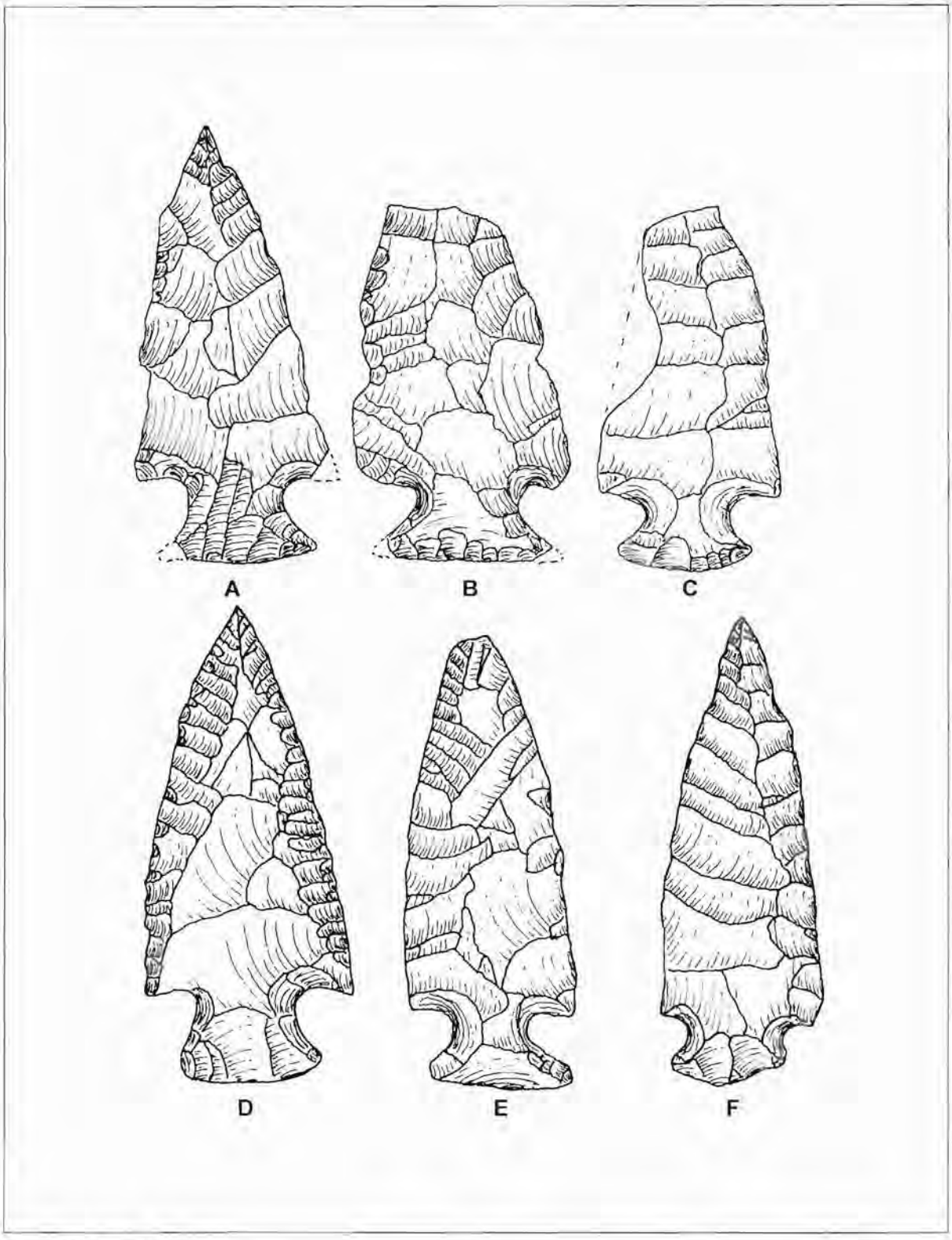

Figure 166. Epps Points.

Delhi (Ford and Webb 1956:58)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 6 specimens
Average Length: 92 mm
Range of Length: 87-95 mm
Average Width: 35 mm
Range of Width: 31-41 mm
Average Thickness: 9 mm
Range of Thickness; 7-11 mm
Figures: 168 and 169

Figure 167. Known Distribution of Epps Points.

Delhi points are medium to large points with straight, square stems. They are triangular in outline or have slightly convex blade edges. Blade edges are generally retouched with pressure flaking. Blade corners tend to be barbed. The type is usually rather well made, as is the case with the related types Motley and Epps. Of 177 Delhi points recorded by Lehmann from the Jaketown site, approximately 55% were of imported raw material (Lehmann 1982:22). This exotic material is primarily of what Lehmann terms gray chert and Fort Payne chert. The gray chert is thought to have originated in the Ohio River valley (1982 :13). The Fort Payne is probably from the Tennessee River valley area in northern Alabama or perhaps further downstream in Tennessee. Delhi points are strongly connected to the Poverty Point culture, and in Mississippi have been observed primarily in the Yazoo Basin (Figure 169).

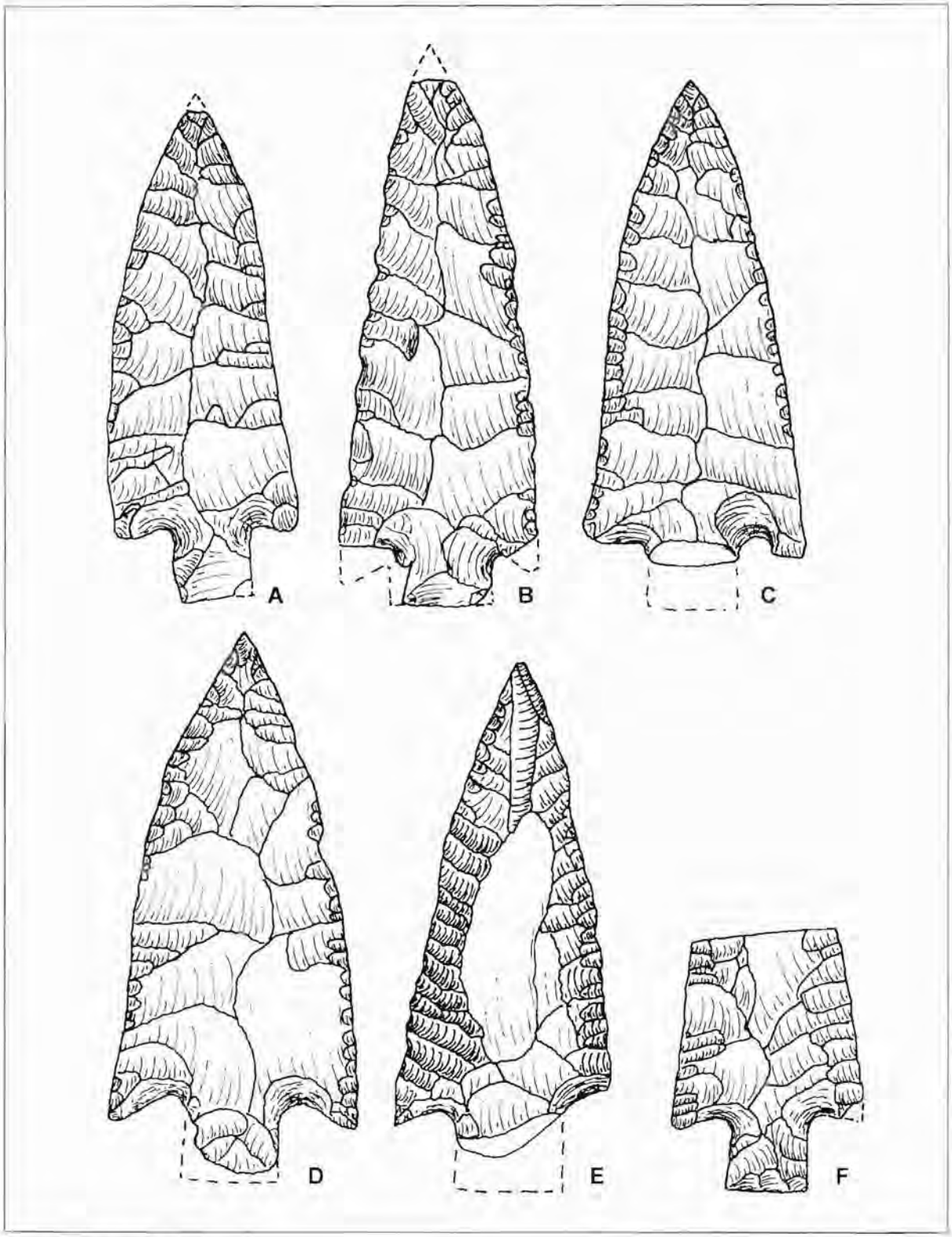

Figure 168. Delhi Points.

Macon (Ford and Webb 1956:54)

Chronological Position: 3,500 BP-2,500 BP

Metric Data: 15 specimens
Average Length: 57 mm
Range of Length: 40-67 mm
Average Width: 31 mm
Range of Width: 27-36 mm
Average Thickness: 9 mm
Range of Thickness: 6-13 mm
Figures: 170 and 171

Macon points are medium-sized points with straight, moderately long, square stems with straight bases. The bases are usually thinned and occasionally ground. Blades are usually triangular. Most specimens exhibit good workmanship and some degree of pressure retouching to the edges of both stem and blade. Many specimens are made from imported raw material, with Fort Payne chert, other exotic gray or blue-gray chert, and Tallahatta quartzite being well represented. Fifty-six percent of the 87 Macon points recorded by Lehmann (1982:28) from the Jaketown site are of imported raw material. The type has strong connections with the Poverty Point culture in Mississippi and is most commonly found in the Yazoo Basin (Figure 171).

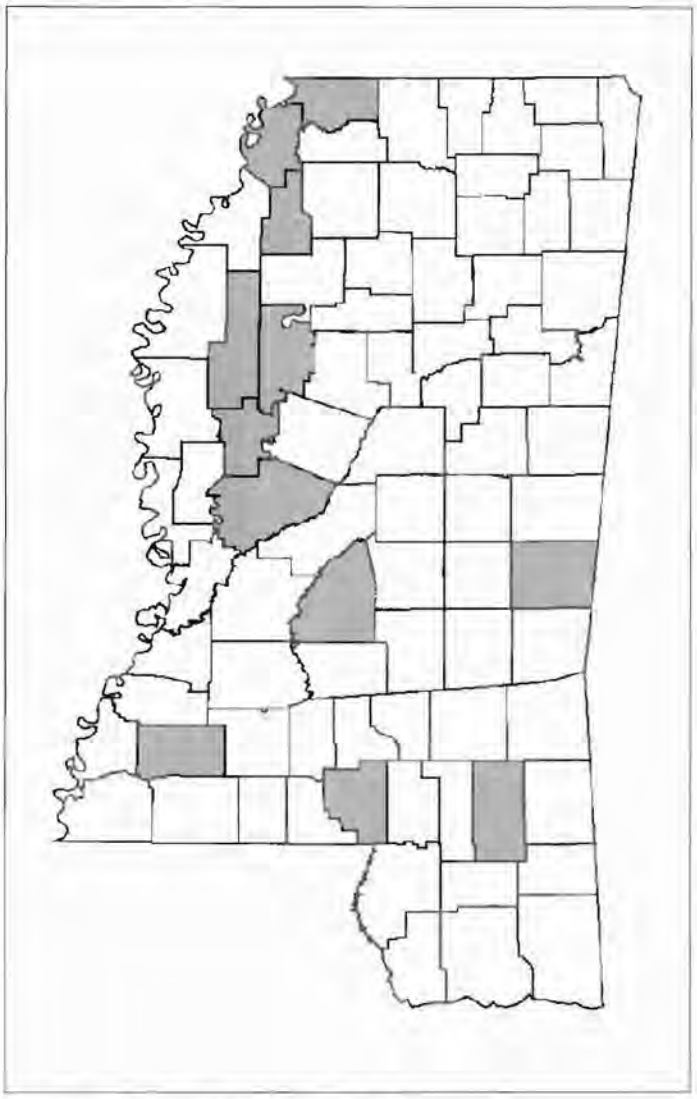

Figure 169. Known Distribution of Delhi Points.

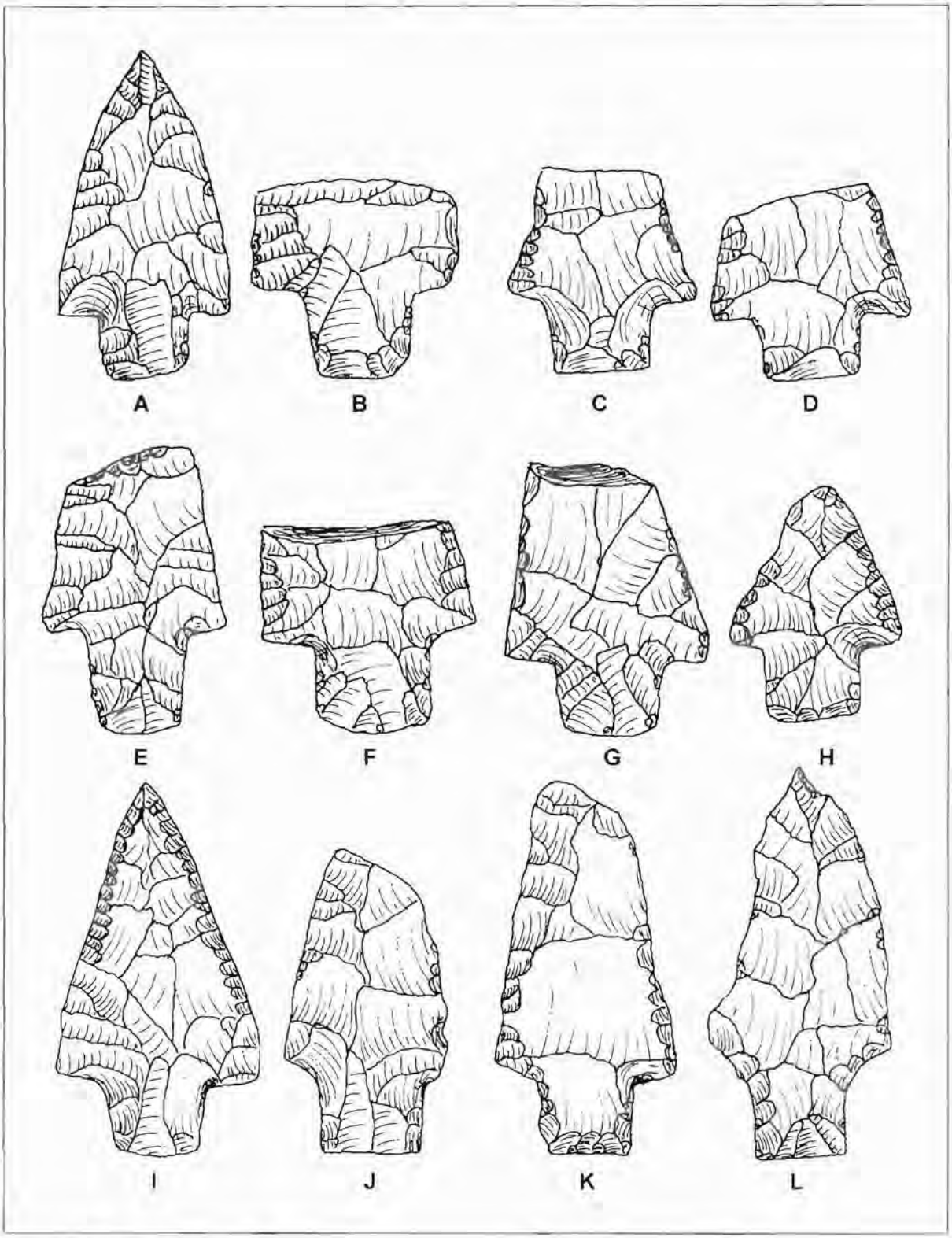

Figure 170. Macon Points.

Wolf Lake (provisional type)

Chronological Position: 3,500 BP-2,500 BP

Metric Data:14 specimens
Average Length: 83 mm
Range of Length: 37-182 mm
Average Width: 40 mm
Range of Width: 24-59 mm
Average Thickness:8 mm
Range of Thickness: 6-12 mm
Figures: 172 and 173

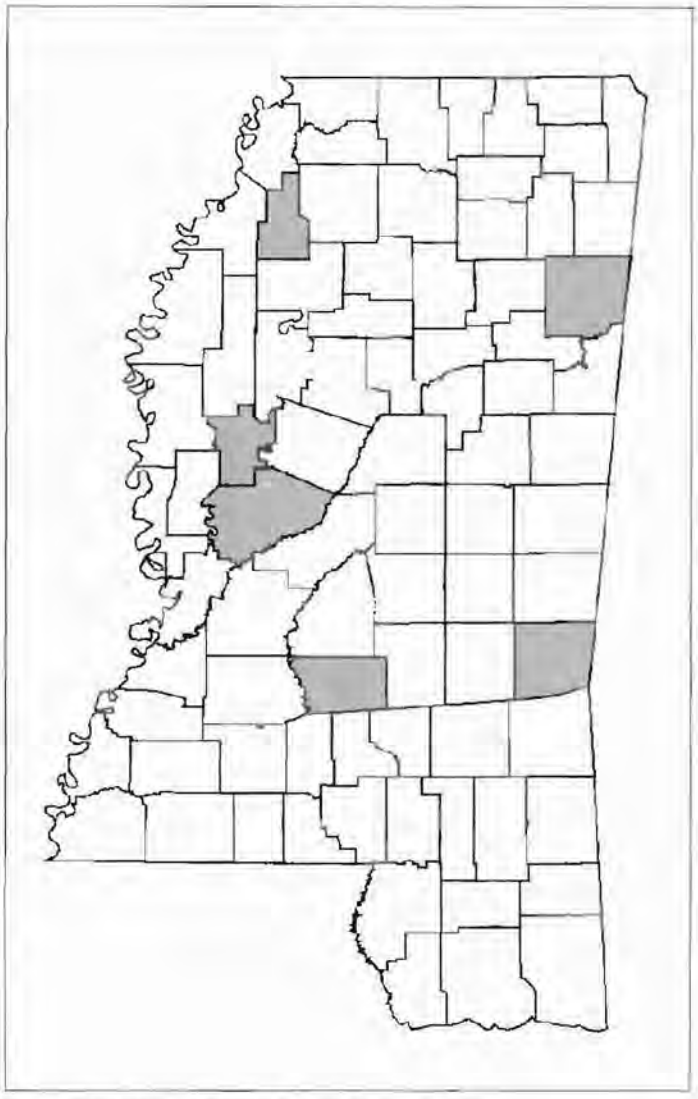

Figure 171. Known Distribution of Macon Points.

Wolf Lake points are small to large points with basically triangular blades and long, relatively narrow contracting stems. Bases are straight. Shoulders are tapered or somewhat barbed. Flaking is random and most examples exhibit some pressure retouching. Two of the recorded specimens (Figure 172A and B) have spokeshaves worked into a blade edge.

Some of this group were extremely large (Figure 172, Specimens A and E). All of the recorded specimens except for one are from one site in the Yazoo Basin. This site (22-Hu-655) has also yielded two large ground and polished points, one of which strongly resembles the flaked specimens under discussion here. These artifacts appear to be ceremonial objects. Although all of the points are surface finds, it appears quite possible that the larger ones (both flaked and ground and polished) represent ceremonial caches such as those described by Johnson and Brookes (1987, 1988, 1989) for the Benton culture. Twelve of the fourteen recorded specimens are of material exotic to the state of Mississippi. Five of this number are of Arkansas novaculite.

The chronological position is unknown, although it is assumed to be Late Archaic, Poverty Point. It has been suggested by Sam Brookes (personal communication, 1997) that these points are of the Newnan type. Newnan is a Florida type said to date from around 3,400 BC (Perino: 1985:270). The above reference to the possibility of a Benton-like ceremonial caching behavior opens the possibility of a Middle Archaic date for the type, but the surface associations and the morphology of the points, especially the typically later than Middle Archaic stems, together with the lack of other possible Middle Archaic components in that part of the Yazoo Basin, makes an earlier date very unlikely. Specimens are recorded from Humphreys and Yazoo counties (Figure 173).

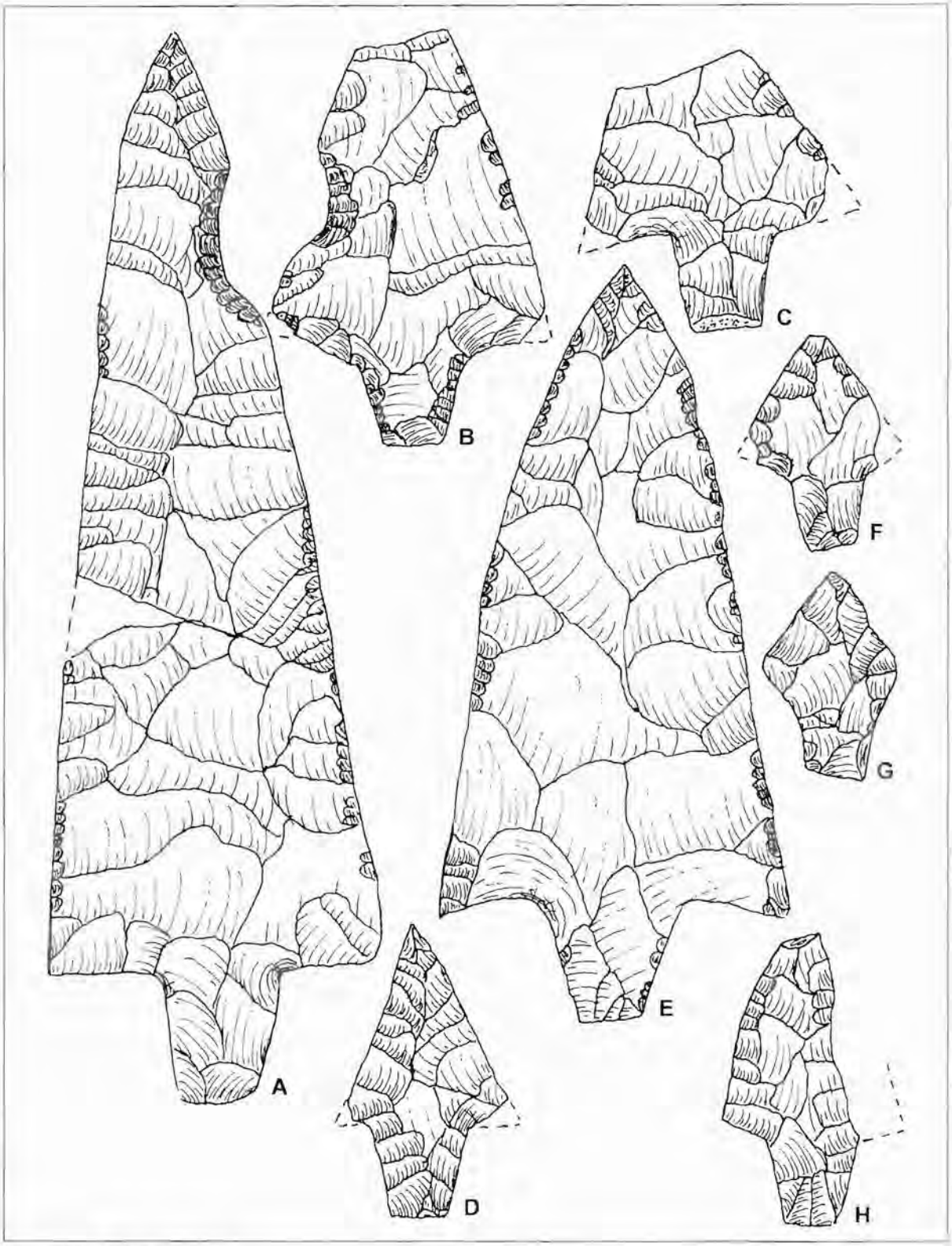

Figure 172. Wolf Lake Points.

Figure 173. Known Distribution of Wolf Lake Points.

Woodland ca. 500 BC - AD 1000

The Woodland period saw several significant technological and social changes which distinguish it from the preceding period. The net result of these changes is that the population increased its ability to control the physical environment and at the same time intensified its alteration of the environment. Noteworthy among the changes were an intensification of earth altering activities such as the construction of mounds and earthen embankments, a sharp increase in the production of ceramic vessels, and in the later part of the period the introduction of the bow and arrow, which greatly increased the firepower of the average hunter. Perhaps of greatest significance was the intensification of manipulation of plant life toward the development of agriculture.

Beginning dates of archaeological periods are arbitrary to a considerable extent and their definitions in terms of beginning and ending dates take into account many other considerations than the date ranges of individual projectile point types. Much of what are defined as the Gulf Formational, Poverty Point, or Early Woodland periods saw the continued use of earlier types of projectile points with beginnings in the Late Archaic Period. These transitional types are all considered under the preceding section, and what is left to the Woodland period consists mainly of types understood to be primarily of the Middle or Late Woodland periods (ca. 0-AD 1000). Types of projectile points in use during the period of ca. 500 BC-0 are not well documented, although it seems likely that the smaller, relatively narrow, and narrow-stemmed varieties of the Pontchartrain-Flint Creek types continued into this period.

Projectile points of this period are generally smaller than those of the preceding period and lack the fine pressure flaked edge retouching that is characteristic of such types as Pontchartrain or Flint Creek. This development seems, from the perspective of Mississippi, to be a major technological development and therefore has been chosen as a logical dividing point. The diminished size of the presumed dart point or spear point/knives appears to foreshadow the coming of the bow and arrow with even smaller, lighter arrow points. The exact date of the arrival of the earliest arrow point has not been established, but it is currently believed that the triangular points usually referred to as Madison points were the first arrow points to enter Mississippi from the east during the Late Woodland Miller III period (Rafferty and Starr 1986:112; Blakeman, Atkinson, and Berry 1976:54). Miller III dates from approximately AD 300-700. Collins points, which are side-notched, appear to signal the coming of bow technology to northwestern Mississippi at approximately the same time (Williams and Brain 1983:223).

Woodland Period Dart or Spear Points

Bakers Creek (DeJarnette, Kurjack, and Cambron 1962:8)

Chronological Position: 0-AD 500

Metric Data: 43 specimens
Average Length: 44 mm
Range of Length: 27-67 mm

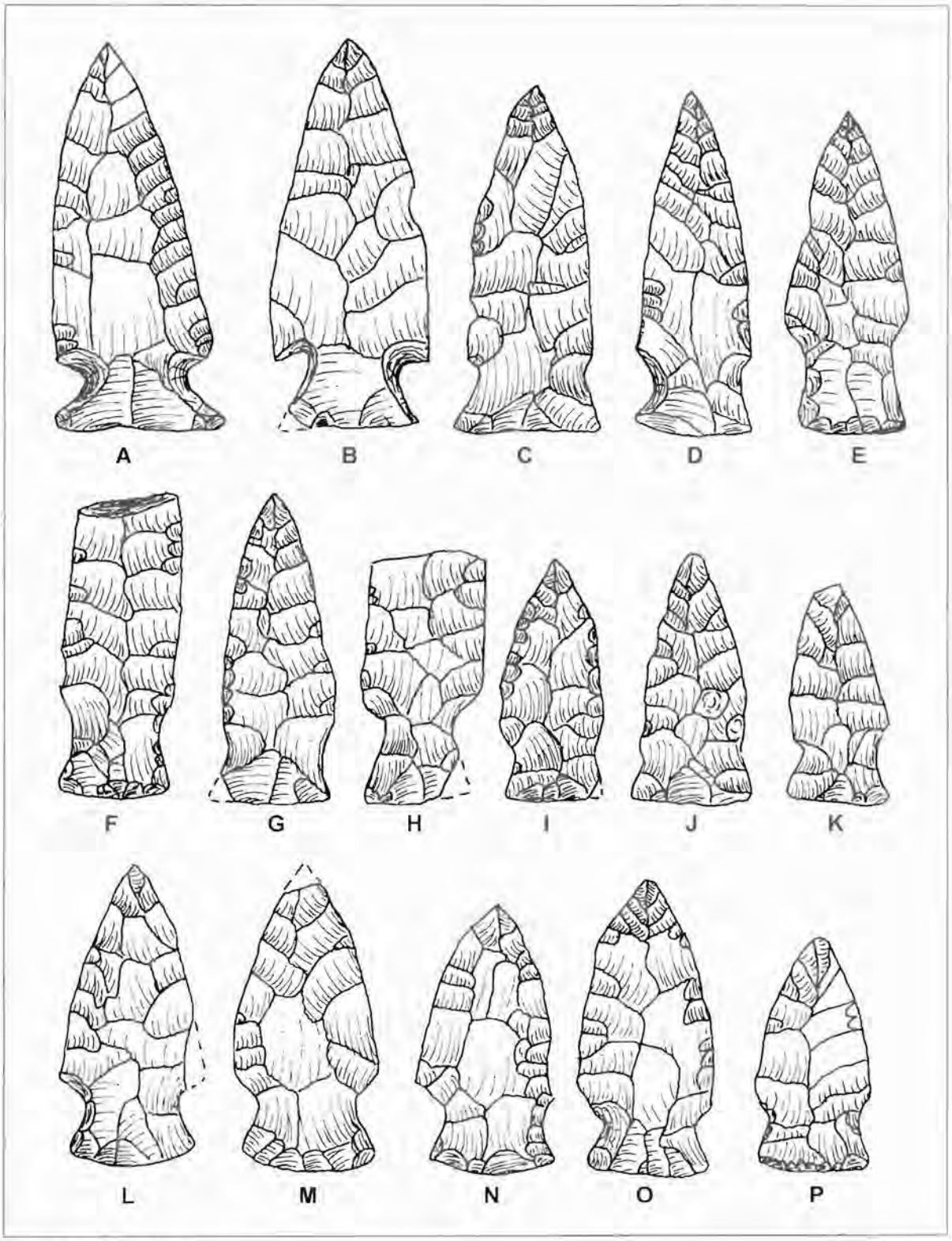

Figure 174. Bakers Creek Points

Average Width: 20 mm
Range of Width: 16-28 mm
Average Thickness: 7 mm
Range of Thickness: 4-10 mm
Figures: 174, 175, and 176

Baker's Creek points are small to medium-sized points with expanding stems and straight or slightly convex bases. Blades are triangular with slightly convex sides. Some of the unresharpened or early stage points may be slightly barbed. The maximum width of most unresharpened specimens is about one third of the way from the proximal to the distal end. Occasional points are recorded, such as those illustrated in Figure 175V and X, that have apparently been recycled for use as drills or reamers. Flaking is random. A variety of raw materials was used in the manufacture of Baker's Creek points in Mississippi, although most were made from the closest available serviceable chert. Chert specimens from northeast Mississippi are usually of Tuscaloosa gravel and in most cases have been heat treated to a mottled pink and/or red color. Chert specimens from other parts of the state are usually of tan gravel chert. Occasional specimens of Tallahatta quartzite are recorded. Marksville period sites in the Yazoo Basin frequently yield specimens of blue-gray or blue-green material that is assumed to be derived from the Midwest. Baker's Creek points are thought, primarily on the basis of surface associations, to be a Middle to Late Woodland type in Mississippi, with the primary associations being Late Middle Woodland. Greengo (1964:78) illustrates two examples in Figure 37C and D which seem to duplicate part of the range of the type as defined and illustrated in this text. Greengo's classification mistakenly categorizes

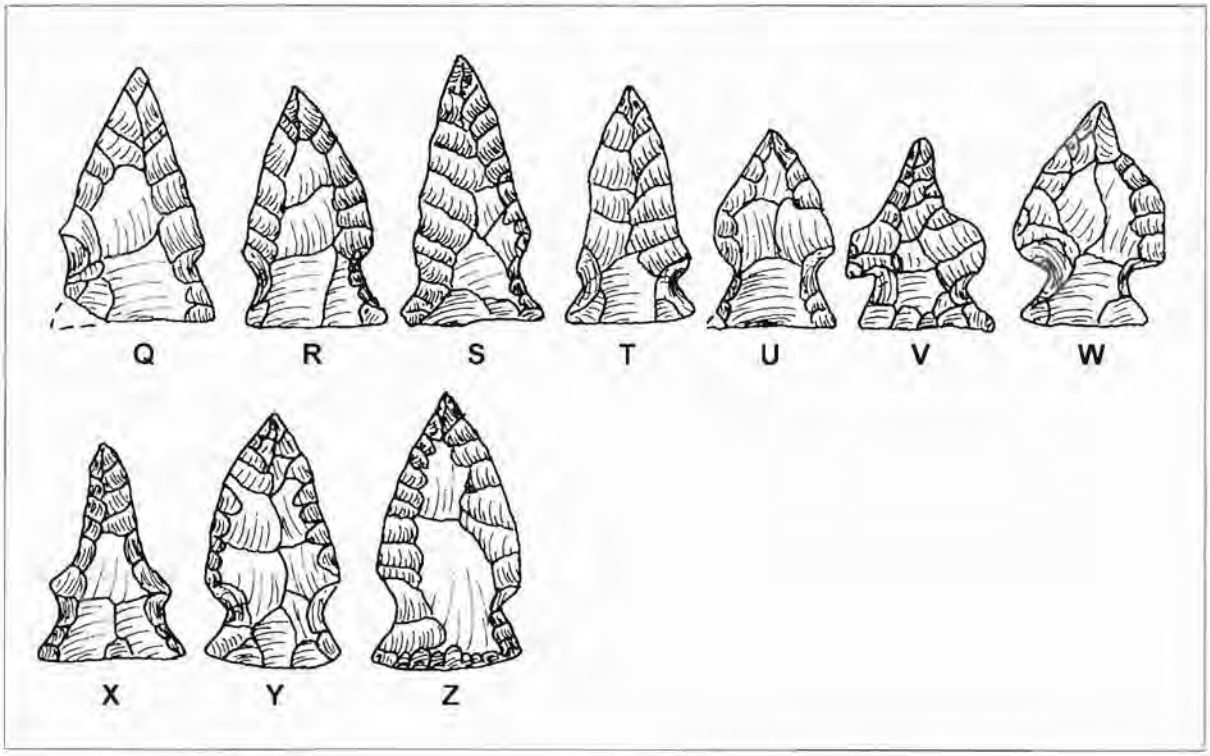

Figure 175. Bakers Creek Points.

these specimens as Ellis points. The associations of Greengo's specimens are Issaquena phase sites in the Yazoo Basin. Most of the specimens illustrated in Figure 174 and 175 of this publication are from sites with Middle Woodland era ceramics.

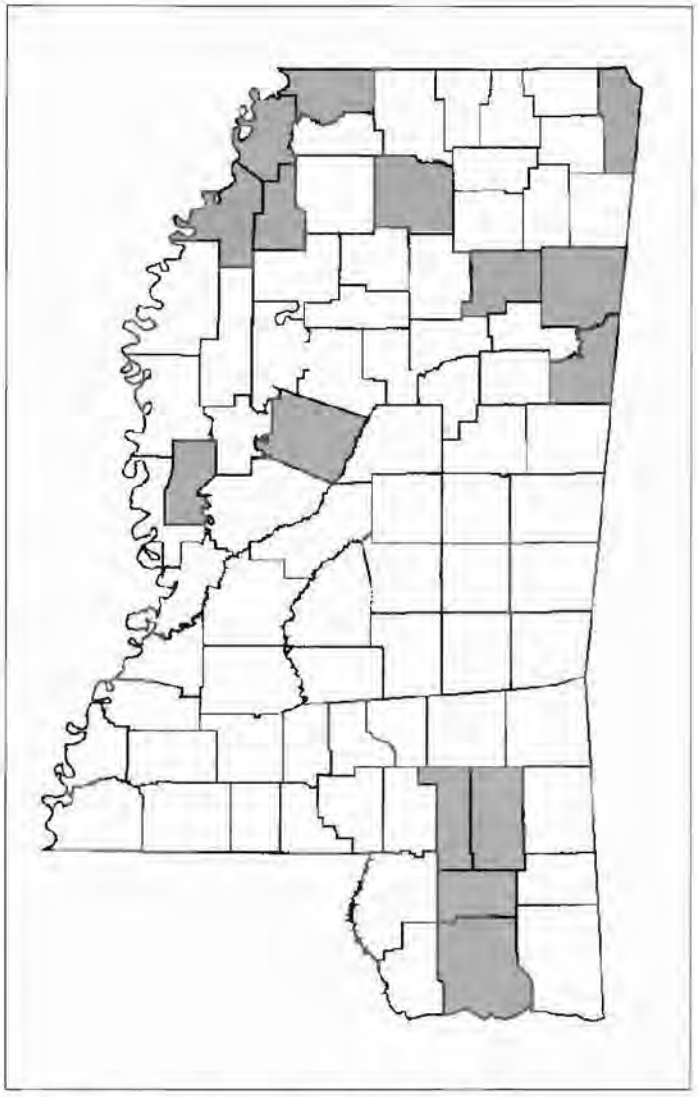

Figure 176. Known Distribution of Bakers Creek Points.

Wilson (Provisional type)

Chronological Position: 0-AD 500

Metric Data: 44 specimens
Average Length: 54 mm
Range of Length: 33-73 mm
Average Width: 20 mm
Range of Width: 15-26 mm
Average Thickness: 8 mm
Range of Thickness: 5-13 mm
Figures: 177 and 178

This type is closely associated with the Baker's Creek type, being found on many of the same sites. Its nearest relatives morphologically appear to be the types Baker's Creek, Swan Lake (Cambron and Hulse 1960), Duval (Bullen 1951; Perino 1985:112), and Godley (Jelks 1962; Perino 1985:152). The specified geographical ranges of the latter two types, however, seem to remove them from consideration as close relatives. The type is characterized by having an expanding stem, resulting from broad side notching. Bases are moderately to strongly convex. Distal ends are acute or gradually tapering to a point. The broadest part of the point is usually at the shoulder but is occasionally midway along the blade. Most specimens are rather crudely percussion flaked with a minimum of pressure edge retouching. The raw material is primarily whatever gravel chert was most convenient. Examples from northeast Mississippi are likely to be of a mottled reddish pink color, resulting primarily from heat treatment. One specimen is of Dover chert from Tennessee.

The surface ceramic associations of this type are probably the best indicators of its chronological position. A single component Issaquena site (22-Co-590) has yielded the greatest number of points of the type with seven. Other ceramic associations are with Early Marksville through the Coles Creek period, which suggests a range from ca. AD 100 through perhaps AD 900. Most recorded specimens at this time are from the Yazoo Basin and adjacent uplands, although others have been noted in the north-central and northeastern parts of the state (Figure 178).

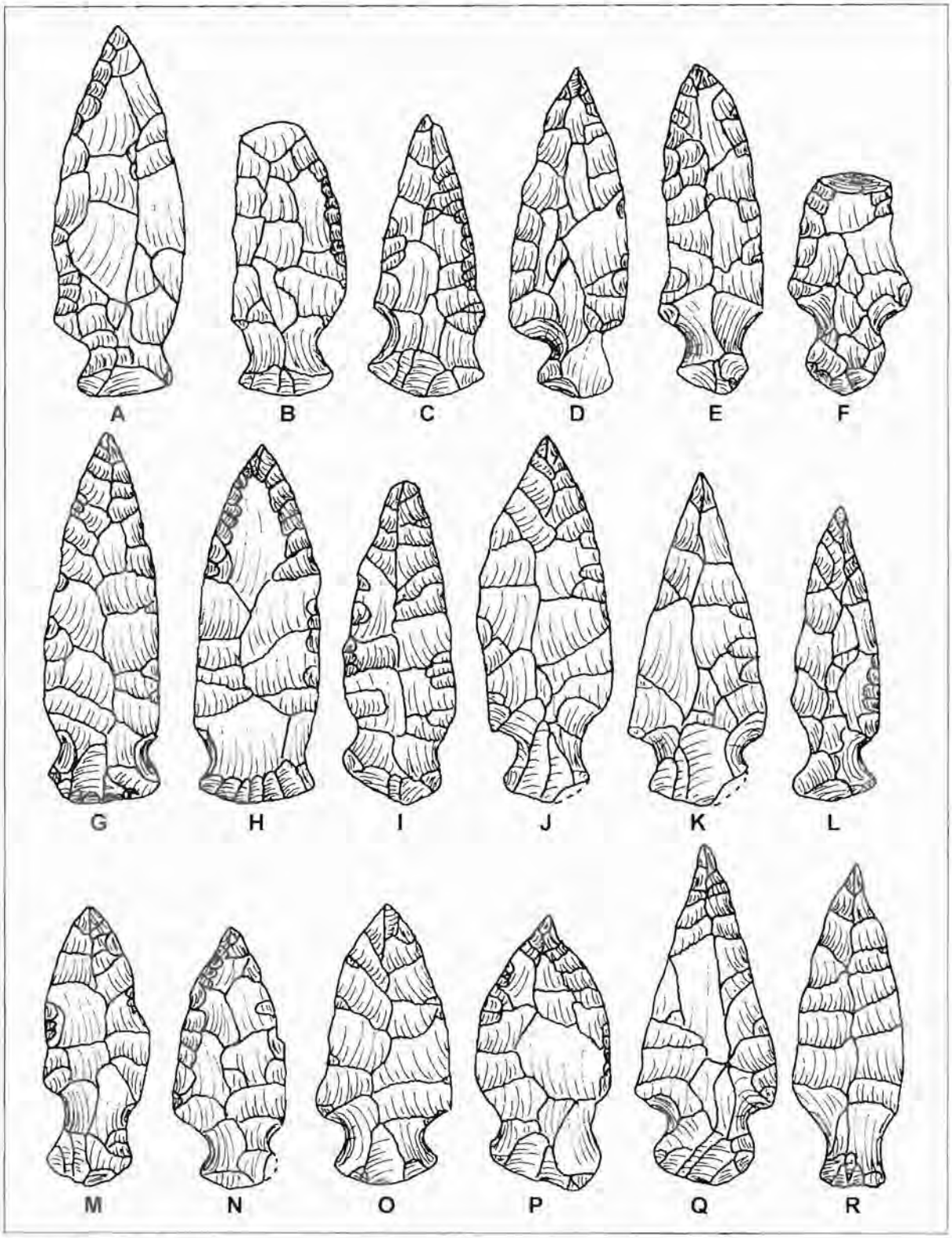

Figure 177. Wilson Points.

Gary, *variety Maybon* (Williams and Brain 1983:233)

Chronological Position: 0-AD 700

Metric Data: 35 specimens
Average Length: 55 mm
Range of Length: 27-67 mm
Average Width: 18 mm
Range of Width: 15-23 mm
Average Thickness: 8 mm
Range of Thickness: 4-11 mm
Figures: 179 and 180

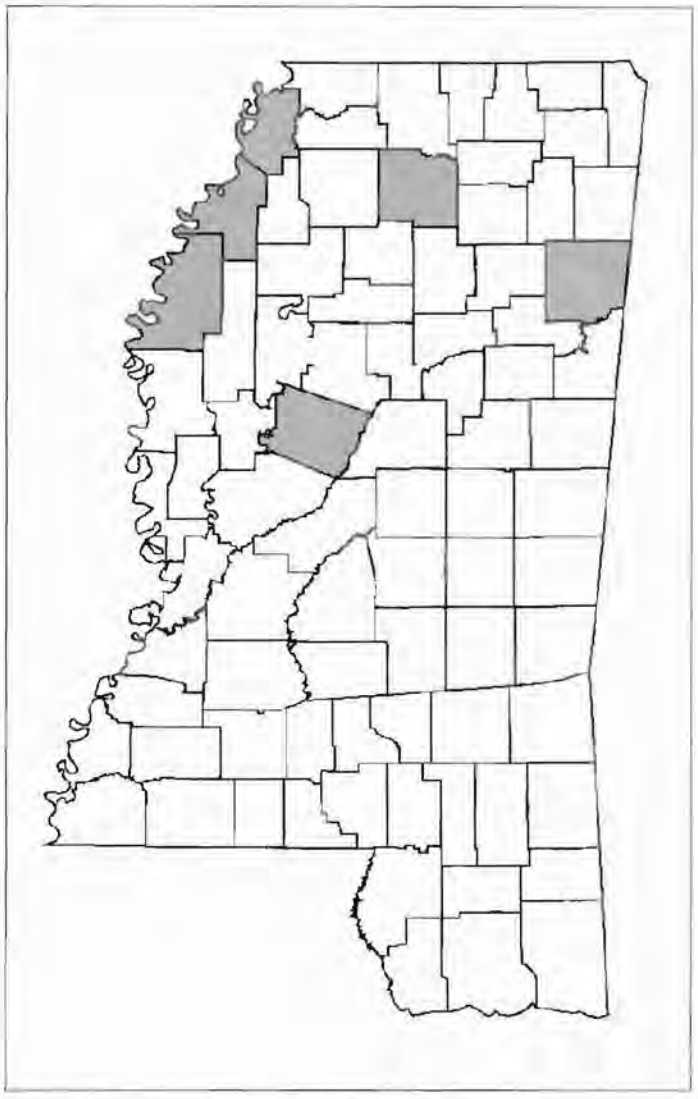

Figure 178. Known Distribution of Wilson Points.

The original spelling of this variety name was "Mabin" (Phillips 1970:311). Because the name Mabin had already been used to designate a variety of Marksville Stamped ceramics, Williams and Brain changed the name of the projectile point variety to "Maybon" (1983:233). Phillips's original description of the variety was extremely brief and did not specify the sample size or metric data, although he states that they are "the characteristic type of the Issaquena Phase" (Phillips 1970:614). Williams and Brain (1983:233) describe a sample of 15 specimens from the Lake George site.

The Maybon nomenclature is used here with reservations. The fifteen specimens described by Williams and Brain differ somewhat from our sample in metric dimensions, with the most notable departure being in width. Our sample tends to be longer and narrower. The Maybon variety points considered in this study are small to medium in size, with triangular blades, including some with convex, straight, or slightly concave sides. Stems are tapered with pointed or rounded bases. Some of the size range is probably due to resharpening and/or repointing of individual specimens. Two recorded specimens exhibit multiple impact scars to the distal ends of the points (Figure 179, Specimens O and P). These two points may have been used in wedging bone or antler in the process of making tools from these materials. Most of the points in our study were found in association with ceramics of the Middle or Late Woodland periods, while several of the specimens have come from essentially pure Issaquena contexts (Figure 179A-C, G, and H).

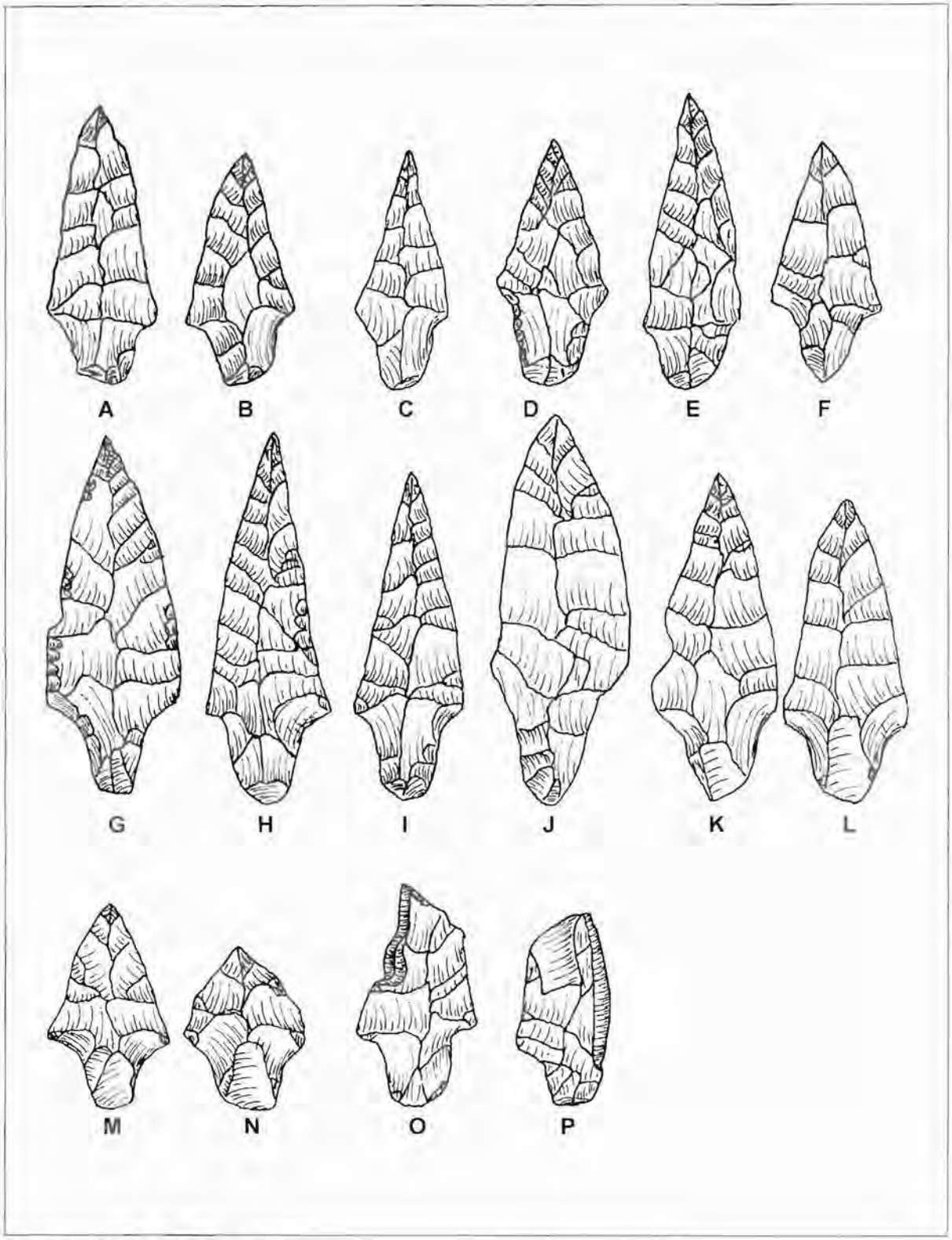

Figure 179. Gary, var. Mabon *Points.*

Edwards Stemmed (Williams and Brain 1983:225)

Chronological Position: 0-AD 700

Metric Data: 21 specimens
Average Length: 52 mm
Range of Length: 44-60 mm
Average Width: 20 mm
Range of Width: 15-25 mm
Average Thickness: 7 mm
Range of Thickness: 5-10 mm
Figures: 181 and 182

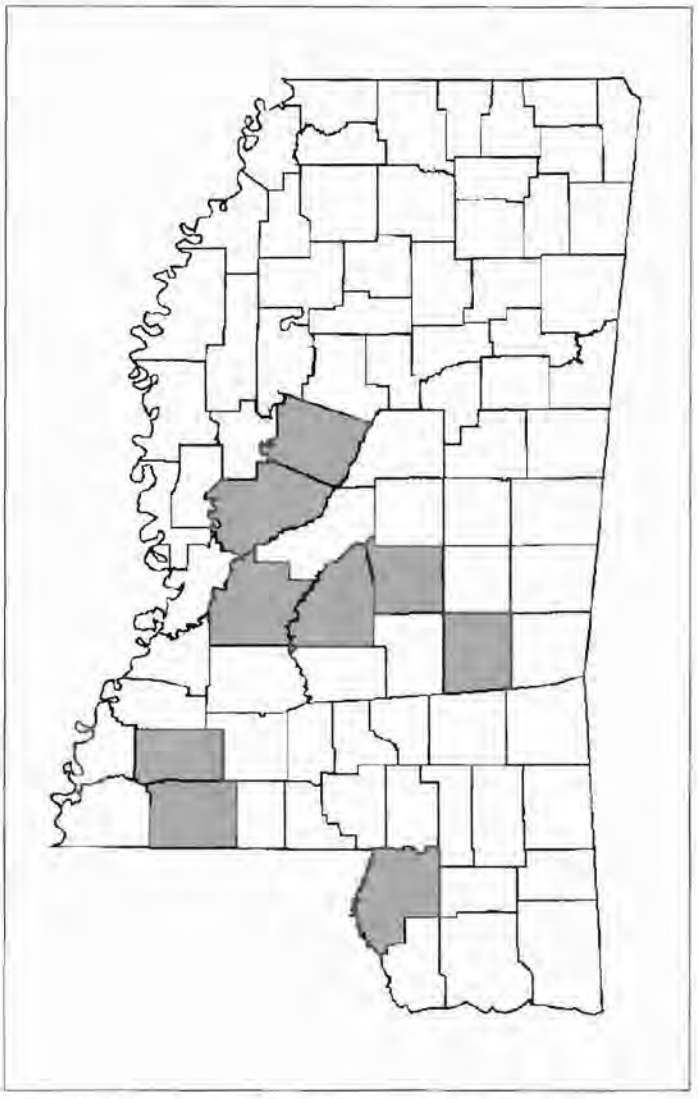

Figure 180. Known Distribution of Gary, var. Mabon *Points.*

Williams and Brain (1983:227) designate two varieties of this type at the Lake George site in Yazoo County. They are a relatively longer, narrower variety named *Enola,* with a sample size of 6, and *variety Sunflower,* with a sample size of 22. The distinguishing characteristics of the two varieties are primarily that the former is somewhat larger and the latter has a tendency to have "an unfinished stem," is somewhat smaller, and exhibits more variation. Our sample, consisting of 21 specimens, does not appear divisible into varieties.

Edwards Stemmed points are small to medium-sized, relatively narrow points with straight stems and generally straight bases. They frequently have cortex remnants on basal edges and occasionally on one or both faces, and some basal surfaces are formed by a transverse fracture of the preform. Blade edges are straight to slightly convex. Distal ends are usually acute. The type is not particularly well made and has only minimal edge retouching.

Raw material is usually the nearest available gravel chert, although novaculite, Fort Payne chert, and Kosciusko quartzite have been recorded. Eight of the specimens, illustrated in Figure 181A-E and H-J, are from the Austin site (22-Tu-549). Austin's primary occupation is from the Late Woodland period into the Mississippian period. Specimens L and Q of the same figure are from 22-Co-590, a single-component Issaquena site. The type probably ranges from sometime around AD 1 until and after the introduction of the bow. Examples of the type have been mostly recorded from western counties (Figure 182).

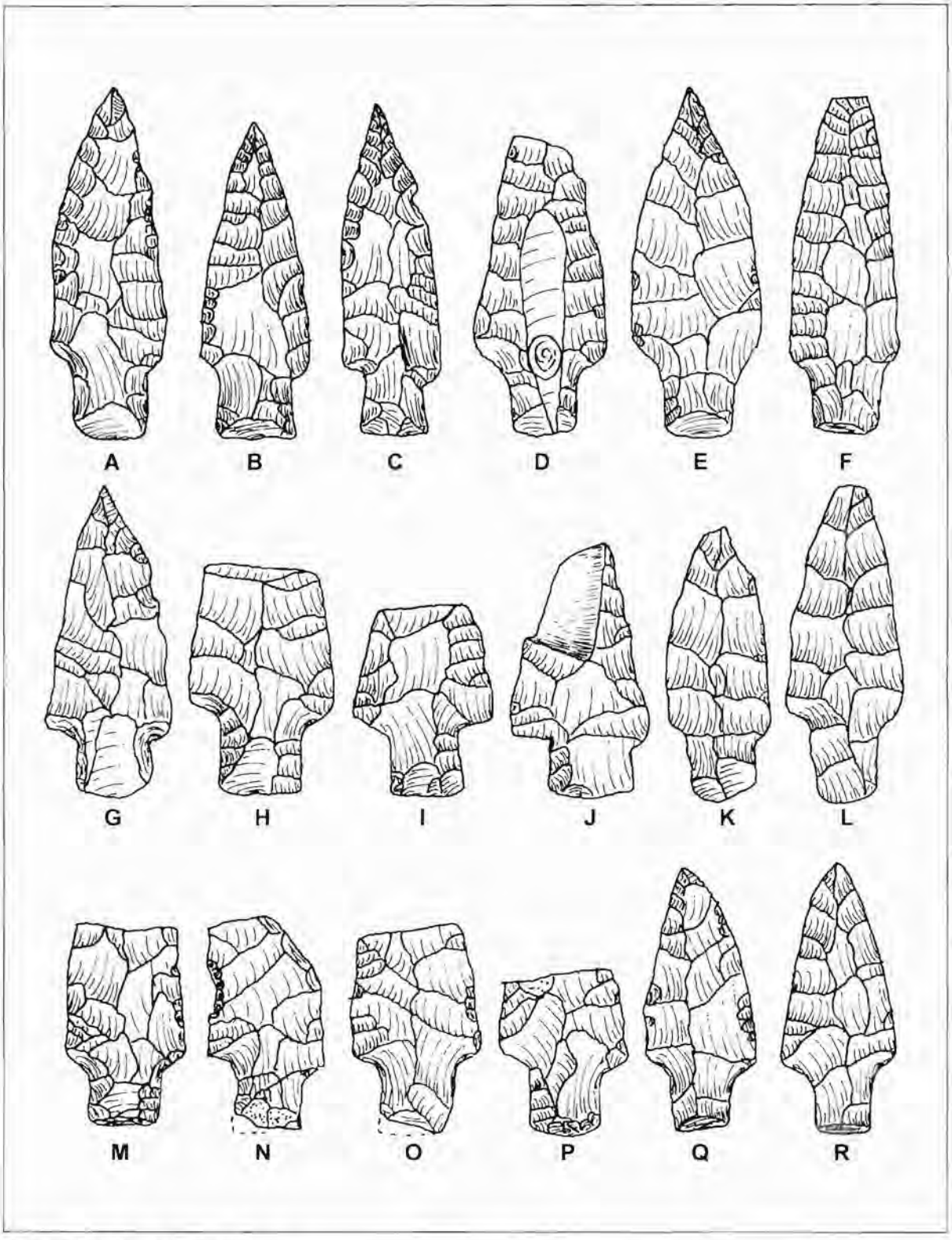

Figure 181. Edwards Stemmed Points.

Tombigbee Stemmed (Ensor 1981:91)

Chronological Position: 0-AD 700

Metric Data: 10 specimens
Average Length: 60 mm
Range of Length: 47- 70 mm
Average Width: 22 mm
Range of Width: 18-26 mm
Average Thickness: 8 mm
Range of Thickness: 7-11 mm
Figures: 183 and 184

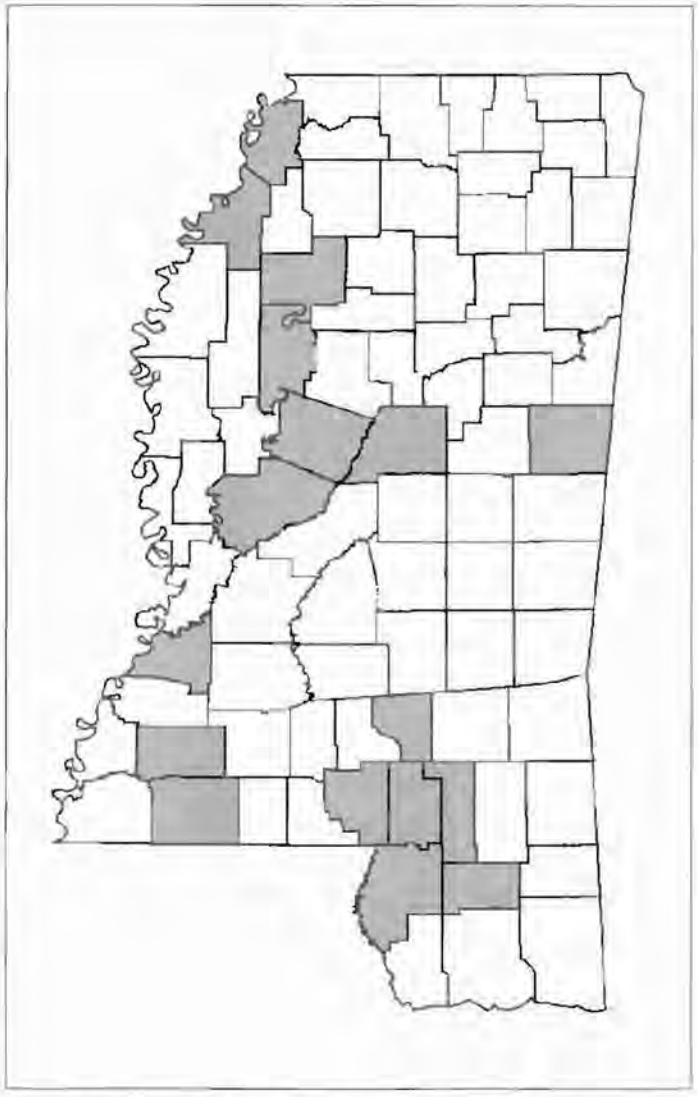

Figure 182. Known Distribution of Edwards Stemmed Points.

This type resembles the Maybon type previously described. Specimens are characterized by having straight or contracting stems and sloping shoulders. Bases are convex or occasionally straight. Many have cortex remnants on the bases. Distal ends tend to be acute and sides are usually convex. The quality of workmanship is usually poor in comparison to earlier points of similar size and form such as Flint Creek or Pontchartrain. Most examples recorded in this study are of heat treated Tuscaloosa gravel chert and are mottled red to pink in color. The type would appear to be a regional variation on a geographically much broader theme which probably includes such types as Maybon. The most precisely dated specimen of the type would appear to be Figure 183J, which was discovered in a cypress knee adjacent to site 22-Lo-861. A C-14 date of AD 90 was obtained on the cypress knee (Rafferty and Starr 1986:83). Ensor suggests that the type dates from 100 BC to AD 600 (Ensor 1981:92). The type has been reported mostly eastern counties (Figure 184). A careful examination of collections of west through central Mississippi might well reveal that its distribution is much larger than that, including other areas and other named types such as Maybon

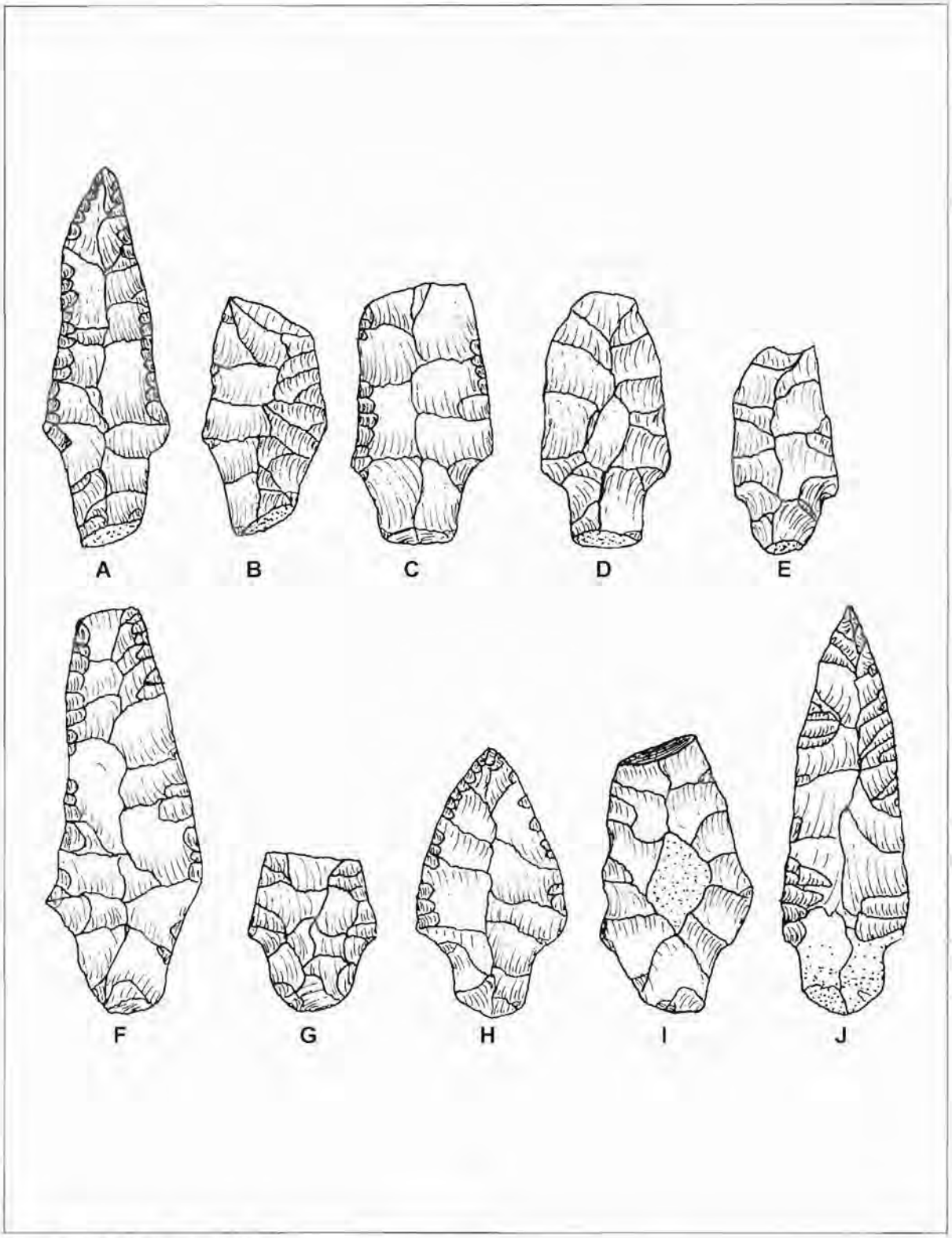

Figure 183. Tombigbee Stemmed Points.

Arrow Points (Late Woodland through Mississippian periods)

Chronological Position: AD 500-1700

Arrow points came with the introduction of the bow. Larger bifaces continued in use but were substantially reduced in numbers, their use at this time being restricted primarily to non-projectile-point functions. The exact nature of the transition from the use of the atlatl or spear thrower to the bow is not known. It is probably a safe assumption that the superiority of the new technology was soon obvious to those who were exposed to it, but it is not clear whether there was an appreciable length of time when both atlatl and bow were used by the same groups. According to Blitz (1988:133), the transition in the Southeast was relatively sudden.

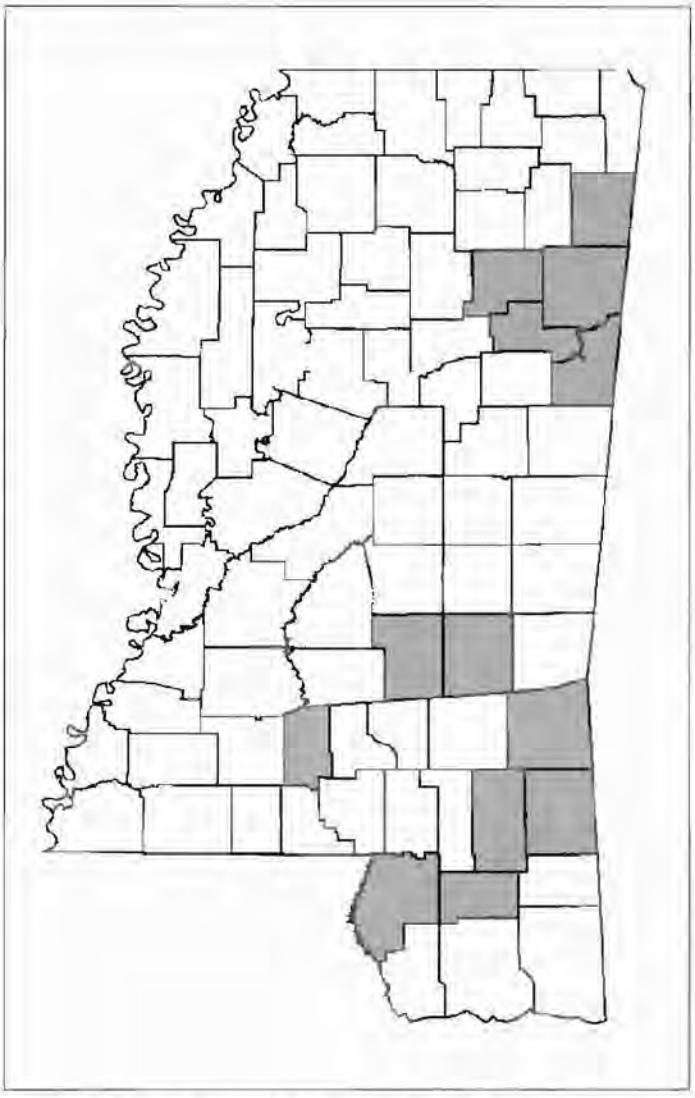

Figure 184. Known Distribution of Tombigbee Stemmed Points.

Collins (Williams and Brain 1983)

Chronological Position: AD 500-AD1000

Metric Data: 24 specimens
Average Length: 43 mm
Range of Length: 27-55 mm
Average Width: 12 mm
Range of Width: 10-14 mm
Average Thickness: 4 mm
Range of Thickness: 3-6 mm
Figures: 185 and 186

Collins points are small and relatively narrow, side-notched arrow points with slightly concave or straight bases. Blades are triangular with straight or convex edges. Many examples have an extended needle-like distal end. Occasional specimens such as Specimens I and J of Figure 185 appear to have been used as drills or reamers. The raw material of the type is primarily tan chert of the nearest convenient gravel source. In areas near outcrops of quartzite of the Kosciusko Formation in central and north central Mississippi, however, Kosciusko quartzite is heavily used, in some cases constituting the only raw material on certain sites. Aborted preforms indicate that in many cases Collins points were made from relatively thick pebbles or thick flakes (see preform in Figure 185, specimen Y), a peculiar situation which will be more fully discussed in the following section on Madison points. Most specimens of the type were apparently heat treated. As was previously stated above, the Collins point is considered one of the earlier forms of arrow point in Mississippi. The earliest date for the type is unknown but may be around AD 400-500. The most common occur-

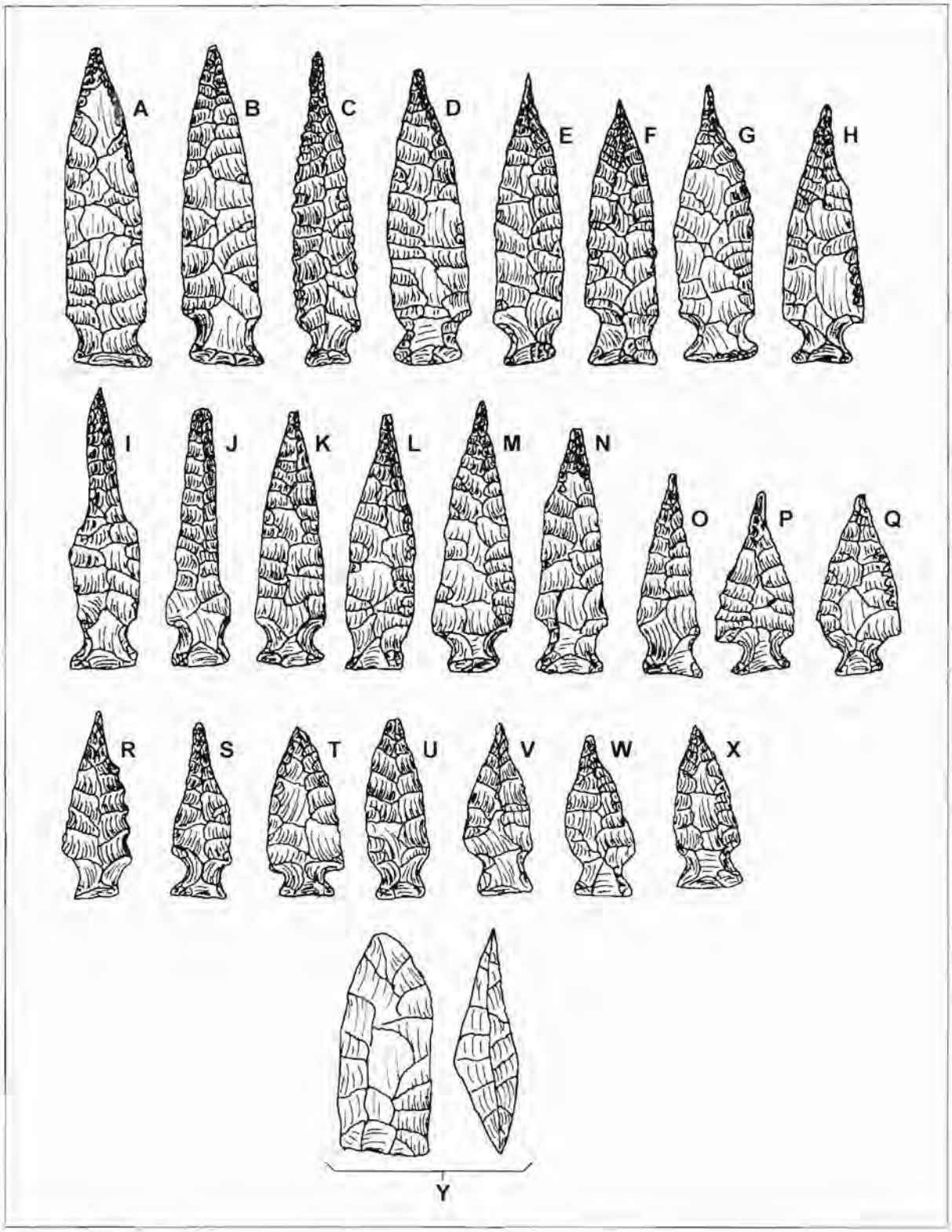

Figure 185. Collins Points.

rence of the type is in the Yazoo Basin and the north-central Mississippi area (Figure 186). Although the Collins type seems to have entered what is now Mississippi at about the same time as the Madison type, it seems to have been replaced by Madison and therefore became obsolete before the other type. The exact date of its departure will never be known precisely, but it may have been prior to AD 1000.

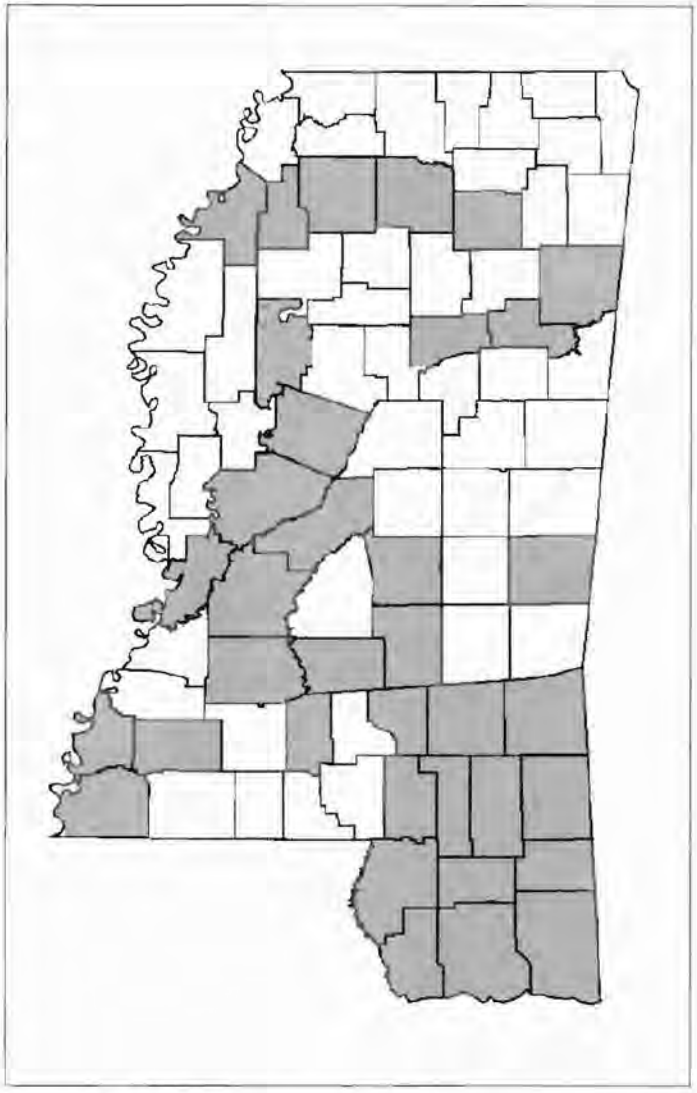

Figure 186. Known Distribution of Collins Points.

Madison (Scully 1951:14)

Chronological Position: AD 500-1700

Metric Data: 11 specimens
Average Length: 24 mm
Range of Length: 16-39 mm
Average Width: 17 mm
Range of Width: 13-26 mm
Average Thickness: 5 mm
Range of Thickness: 2-7 mm
Figures 187 and 188

Madison points are small triangular points. Basal edges are usually straight but may be concave or slightly convex. Blade edges may also vary in the same way. Occasional blade edges are finely serrated. Numerous sites in Mississippi have yielded examples demonstrating the complete reduction cycle of the type from early stage preform to finished point. The most common technique for the manufacture of the type raises some interesting questions about the thought processes of those who made the points. Although this has not been quantified, it would appear that an unusually large percentage of preforms of this type were abandoned before they yielded completed points (see the preform in Figure 187L). The reason for this considerable failure rate seems to be that an inappropriate reduction process was used. Many aborted preforms indicate that large, relatively thick pebbles were selected as the raw material (for example see Brookes 1975:23), or in the case of Kosciusko quartzite, very thick flakes were chosen as the point of departure. Occasional specimens were made from flakes of appropriate size and thickness, which must have considerably shortened the manufacturing process, yet it seems as if these appropriate selections were made only when there were no inappropriate materials available. The same procedure also seems to have been used in the manufacture of Collins points.

The usual raw material for the type is gravel chert from the nearest source. Most examples of the type were heat treated, with those made from cherts of the Tuscaloosa formation being mostly glossy red

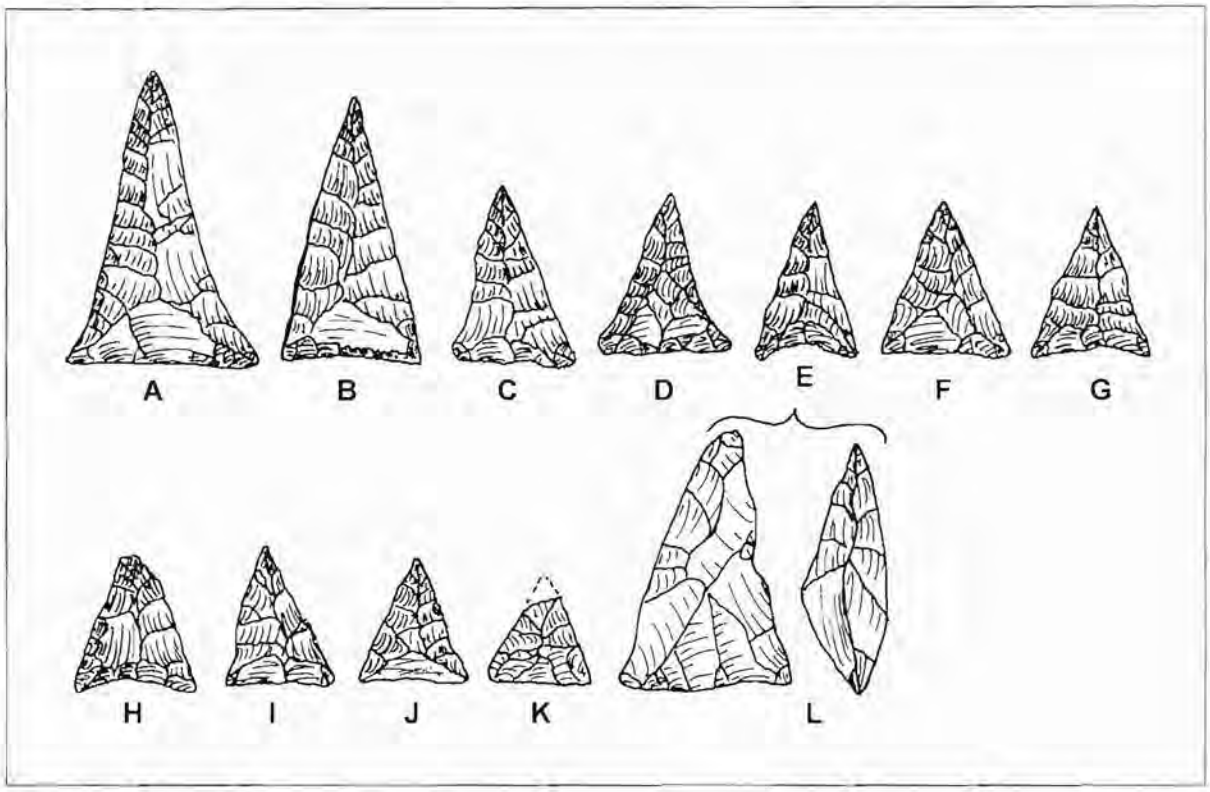

Figure 187. Madison Points.

or mottled pink and/or red. Most examples from the western part of the state are tan with reddened extremities or with a definite reddening to much of the otherwise tan surface. In the vicinity of outcrops of Kosciusko quartzite, many sites yield Madison points mostly or exclusively of that material, which is generally of a light mottled gray color. The Historic period Chickasaw Indians in northeast Mississippi began to use a light gray to almost white high quality chert in the late sixteen hundreds for the manufacture of Madison points and other small tools. This material is thought to be of the Fort Payne formation and to have come from the Pickwick Lake area of the Tennessee River (Atkinson 1987:41)

The earliest use of Madison points in Mississippi seems to have been in the northeastern counties, where they began to be used sometime in the Miller III period (AD 300-700). They continued to be used until European contact. Evan Peacock (1986:117) presents data indicating that various attributes of the type show significant change through time. Blade shape, base shape, cross-section, and degree of heat treating were found to vary significantly. His data indicate that the degree of heat treating on examples of the type lessens through time. The Madison type is represented in all parts of the state, but seems to be more common in the north (Figure 188).

Scallorn (Kelley, J. Charles 1947:122)

Chronological Position: AD 500-1200

Metric Data: 34 specimens
Average Length: 23 mm
Range of Length: 15-31 mm
Average Width: 16 mm
Range of Width: 9-20 mm
Average Thickness: 5 mm
Range of Thickness: 2-5 mm
Figures: 189 and 190

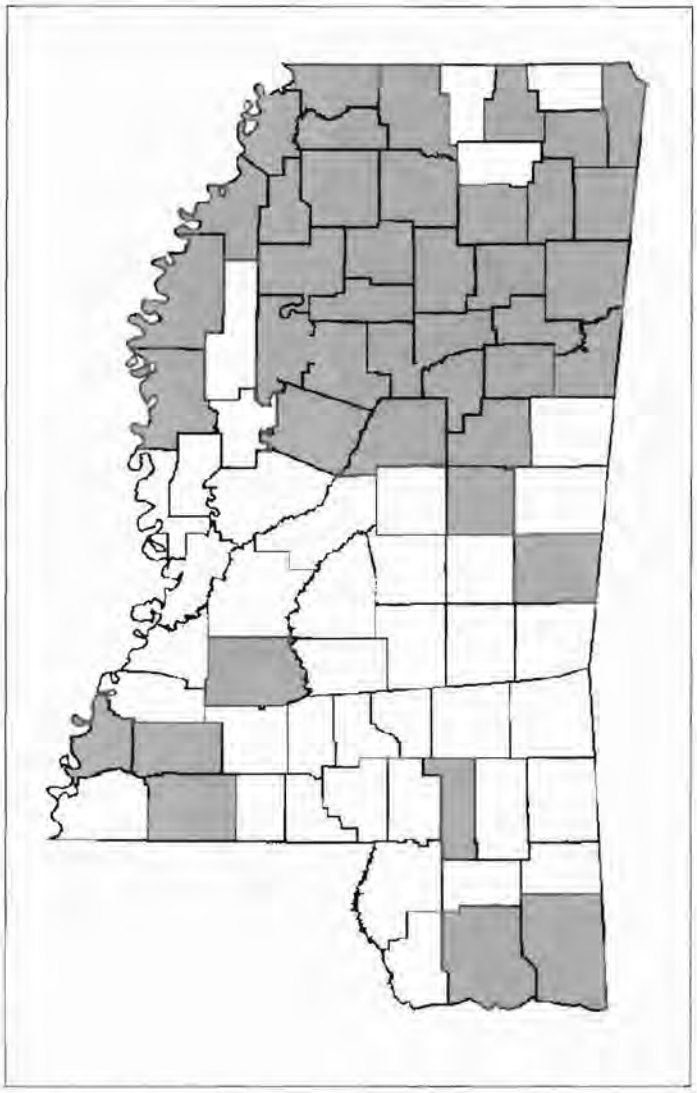

Figure 188. Known Distribution of Madison Points.

Scallorn points are triangular with straight blade edges occasionally serrated. They are corner notched with expanding stems that have straight or slightly convex bases and strong barbs. They are usually relatively thin and well made. The surfaces are largely covered with pressure flaking scars. The raw materials of many specimens recorded in this study are from distant sources, with Crescent Quarry, Pitkin chert, and Novaculite being well represented (eleven of a total of thirty-four recorded). Certain other specimens of tan chert may or may not be from distant sources.

According to Perino (1985:334), the type is Late Woodland or AD 500-900. Schiffer and House (1975:32) place the type in northeast Arkansas at about AD 1200. It appears in northwest Mississippi at some time near or at the end of the Woodland period. Human burials at the Bonds (22-Tu-530) and Austin (22-Tu-547) sites have Scallorn points imbedded in skeletal remains, and these projectiles seem to have caused the deaths of several individuals. Evidence from the Bonds site (Figure 189BB-KK) suggests very strongly that the Scallorn points were not the tools of the Bonds village inhabitants but were instead used by a raiding party that also took trophy heads (Connaway and McGahey 1970:8). It seems a reasonable hypothesis that this was also the case with the remains at the Austin site. Considering the fact that most of the known Scallorn points in Mississippi are from the western margin of the state, that the vast majority of the type are found west of the Mississippi River, and that many of them found in Mississippi are of exotic material from north and west of the Yazoo Basin, it seems likely that they were primarily made and used by groups raiding into the Basin from what is now the state of Arkansas (Figure 190).

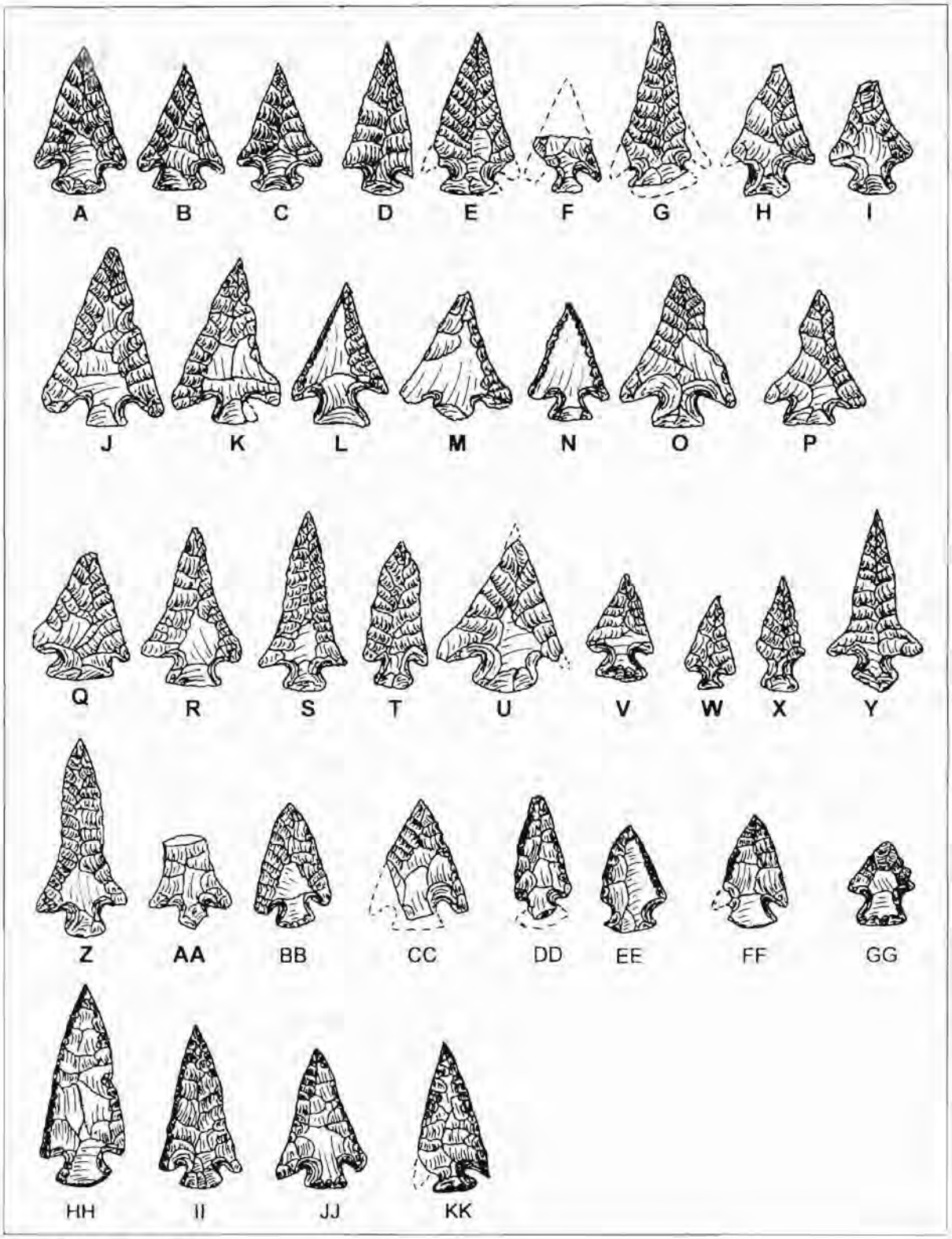

Figure 189. Scallorn Points.

Bayogoula Fishtailed (Williams and Brain 1983:222)

Chronological Position: AD 950-1000

Metric Data: 18 specimens
Average Length: 32 mm
Range of Length: 23-45 mm
Average Width: 14 mm
Range of Width: 11-20 mm
Average Thickness: 4 mm
Range of Thickness: 3-6 mm
Figures: 191 and 192

Figure 190. Known Distribution of Scallorn Points.

Bayogoula Fishtailed points are small to medium-sized arrow points with side notches, concave bases and leaf or ovate blades. Occasional specimens are serrated along the blade edges, and reworked specimens lose the ovate shape as resharpening occurs. The outline then becomes an elongated diamond shape. Many distal ends, like those of the Collins type, are sharp and needle-like. Some specimens are difficult to sort from Collins points, and the type would appear to be related, with Collins apparently being the earlier of the two. The raw material is almost invariably the nearest available tan gravel chert. Many reveal evidence of heat treating, and an occasional specimen may be completely reddened by the process. Webb (1975:5-6) cites evidence placing the type at between AD 950 and AD 1000. According to Perino (1985:29), the type is found from southern Louisiana and Mississippi northward to Illinois and Wisconsin. Examples have been reported in Mississippi mostly from southern counties (Figure 192).

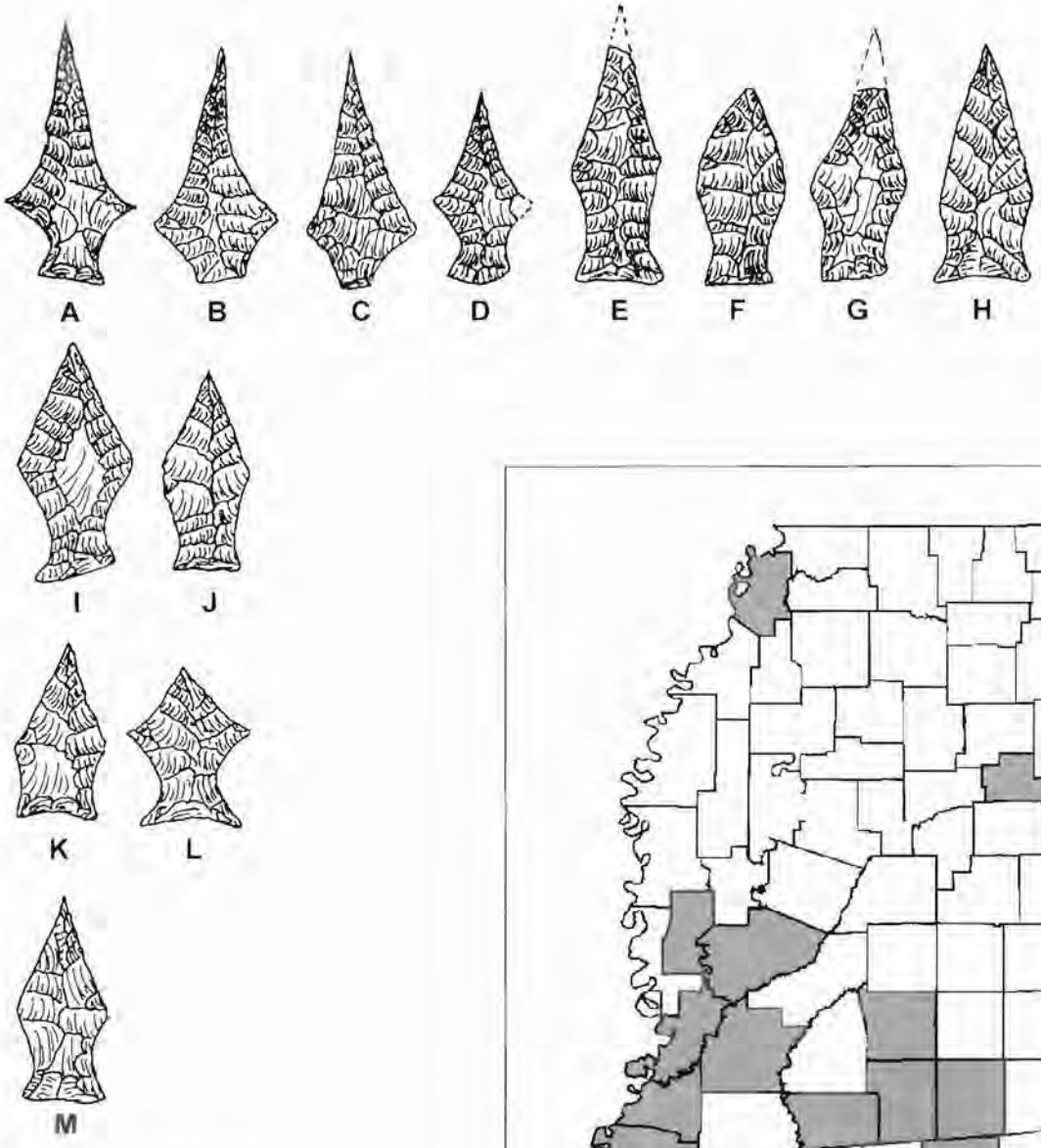

Figure 191. Bayogoula Points.

Figure 192. Known Distribution of Bayogoula Points.

Nodena (Chapman and Anderson 1955:15)

Variety Nodena

Chronological Position: AD 1300-1700

Metric Data: 18 specimens
Average Length: 41 mm
Range of Length: 29-47 mm
Average Width: 15 mm
Range of Width: 11-18 mm
Average Thickness: 4 mm
Range of Thickness: 3-6 mm
Figures: 193 and 194

Variety Russell

Chronological Position: AD 1500-1700

Metric Data: 6 specimens
Average Length: 25 mm
Range of Length: 19-39 mm
Average Width: 12 mm
Range of Width: 11-15 mm
Average Thickness: 3 mm
Range of Thickness: 2-5 mm
Figures: 193 and 194

Nodena points are small to medium-sized arrow points with a leaf-shaped or narrow oval outline. The bases are rounded and the distal ends are acute. Flaking quality ranges from mediocre to excellent, with varying degrees of pressure retouch including some specimens such as Figure 193H and I, where the pressure flake scars cover the entire surface. The type has been sub-divided into varieties by Brain (1988:397). His two varieties are *Nodena* and *Russell*. Perino (1985:273) describes and illustrates a variation which he names Nodena Spike, although these specimens are not given formal status as a variety. The *variety Nodena* is a relatively thin, well made variety in contrast to the later more crudely fashioned *variety Russell*. The other main difference is that the *Russell* variety has a much more flattened base in contrast to the rounded or almost pointed *Nodena* variety. Specimens illustrated by Perino as "Nodena Spikes" appear very similar to so-called pipe drills depicted by Morse and Morse (1983:272) and Brain (1988:262). The *Russell* variety is considered to be a later version of the Nodena type, dating from the Protohistoric and early Historic periods (Brain 1988:397). *Variety Nodena* points are illustrated in Figure 193, specimens A-T, with specimens A-C representing preforms. The remaining specimens in Figure 193 (U-Z) are from the Orchard site (22-Le-519) in Lee County. They are considered by Johnson (1997:220) to fall into Brain's Nodena, *variety unspecified* (Brain 1988: Figure 199 g-j). Except for the relative crudeness specified by Brain for the *Russell* variety, specimens V-Z appear to this writer to resemble those classified as *variety Russell* by Brain. The Orchard site is Chickasaw and is thought to date from the early eighteenth century (Johnson 1997:225).

Most examples of the type are of tan chert, which is thought to have been available in gravel bars of the Mississippi, possibly some of the other streams in the Yazoo Basin, or in the hills to the east of the

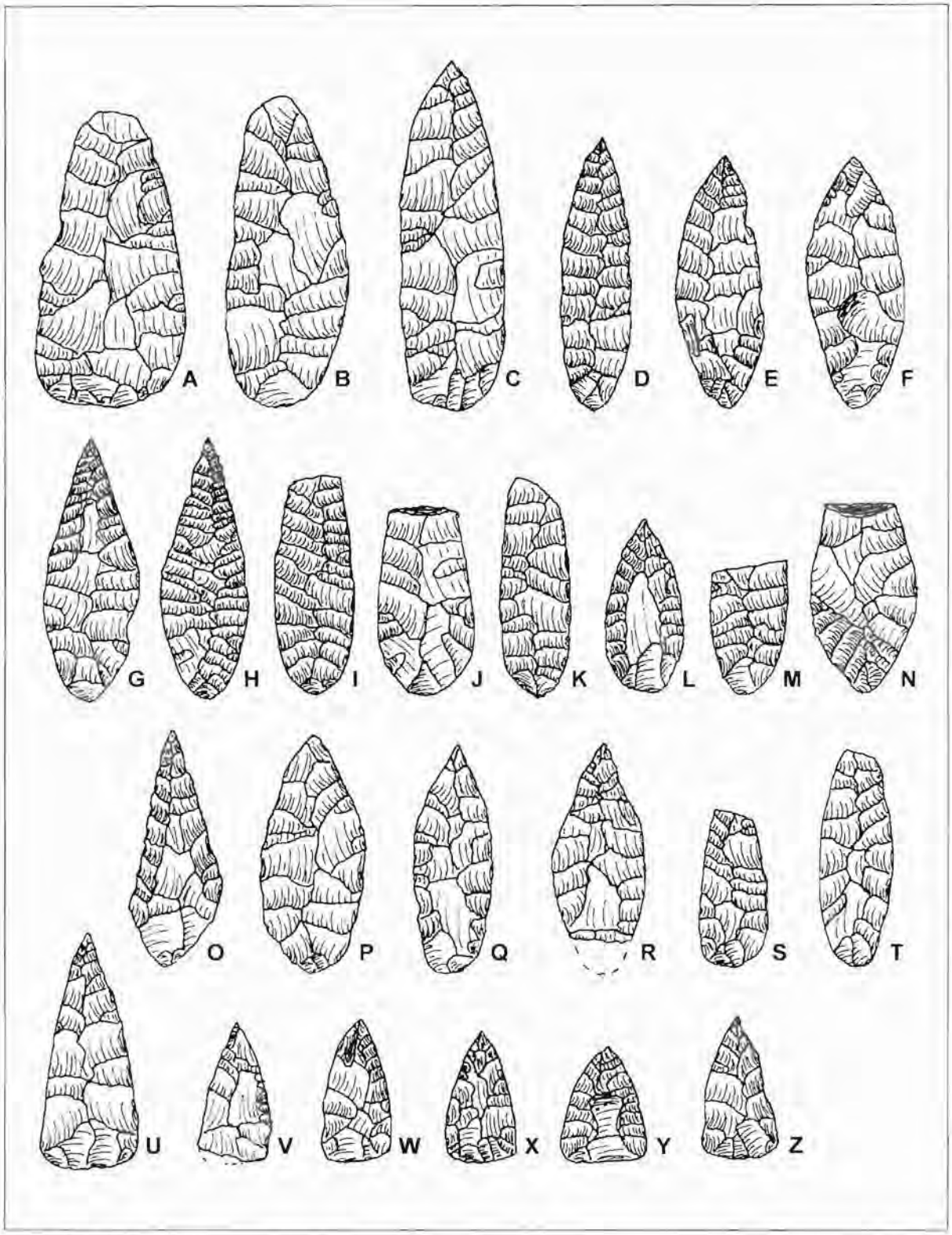

Figure 193. Nodena Points.

alluvial valley of the Mississippi. Some examples from the Oliver site (22-Co-503) in Coahoma County, however, are of Pitkin chert and possibly Boone chert from northwest Arkansas; one specimen of a dark blue-gray, glossy chert seems to be of Midwestern origin. The raw material of specimens from the Lee County site is a light gray or bluish gray Fort Payne chert which probably comes from the Tennessee River area near the Mississippi-Alabama-Tennessee border. Perino (1985:272) dates the Nodena type at between AD 1300 and AD 1700. Brain (1988:397), as stated above, says that the *Russell* variety is a late variety dating from the Protohistoric and early Historic periods. The type has been reported from northern and western counties (Figure 194).

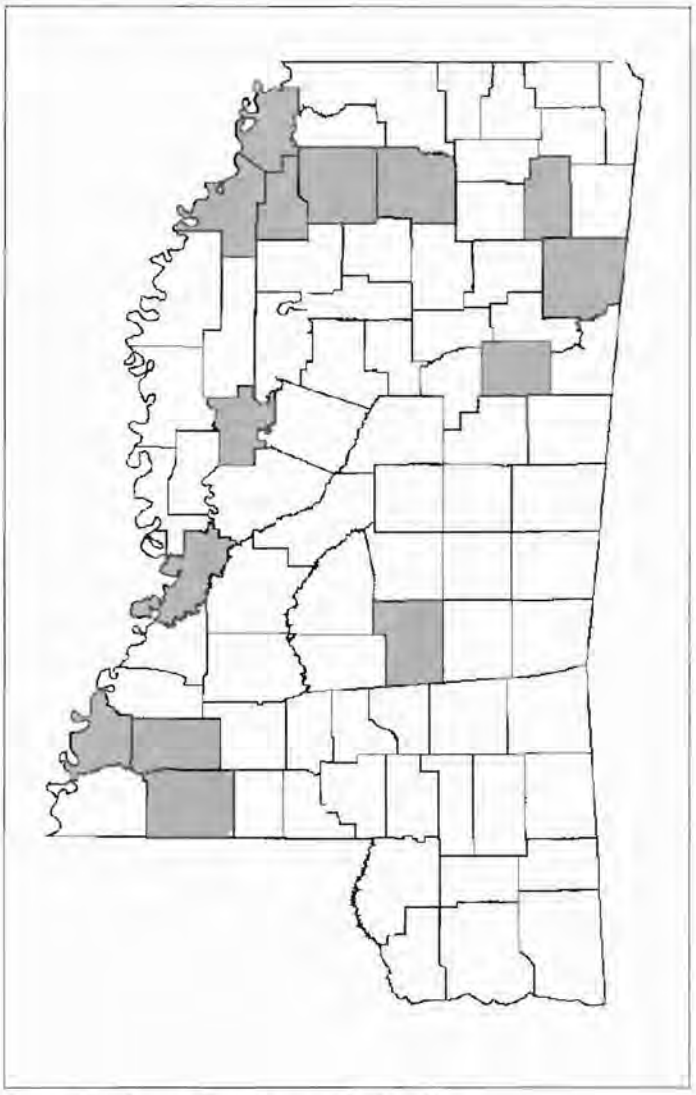

Figure 194. Known Distribution of Nodena Points.

Glossary

Auricles: Ear-like protrusions at the basal corners of a projectile point.

Basal thinning: A process similar to fluting where a projectile point preform is thinned by removing a series of flakes from the proximal edge toward the distal end. The difference between this technique and fluting is that several flakes are removed from the proximal edge of each face and that they are shorter flakes than in the fluting process.

Base: The proximal edge of the projectile point.

Baton flaking: A technique in the manufacture of flaked stone tools where a relatively heavy club-like object of antler, bone or hard wood is struck against the edge of a piece of flakeable raw material to remove a flake.

Bifacial: A term used to describe a flaked stone tool as having two flaked surfaces.

Bifurcate: Bifurcate refers to the shape of the basal section of a projectile point where the basal concavity is sufficiently deep and narrow that it divides the basal section into two lobes.

Cortex: The weathered outer surface of a stone such as gravel chert.

Distal: The business end of the projectile point, usually pointed and opposite from the proximal end.

Excurvate: Pertaining to the blade edge of a projectile point, it defines the outline as being convex or curving outward in the area between the base and the distal end.

Fluting: A technique of striking or pressing the proximal edge of a projectile point preform and removing relatively long narrow lengthwise flakes that create a shallow channel running toward and occasionally reaching the distal end.

Graver: A pointed protrusion worked onto the edge of a flaked stone tool and commonly believed to have been used for carving, engraving or otherwise shaping wood, bone, antler or ivory.

Hafting area: The area beginning at the base and extending toward the distal end which is believed to have been used to affix the projectile point to a shaft.

Incurvate: Pertaining to the blade edge outline of a projectile point, it defines the outline as being concave or curving inward in the area between the base and the distal end of the point.

Lateral: The sides of the projectile points.

Mucronate: Referring to the distal portion of a projectile point, it describes the outline approaching the distal end as curving sharply inward as the distal end is approached and then abruptly straightening with straight edges converging to a point.

Percussion flaking: A technique in the manufacture of flaked stone tools where the edge of a piece of raw material is struck directly with another object to effect the removal of a flake.

Preform: In the context of the reduction process of a piece of flakable raw material into a projectile point form, it is an advanced stage of that process, nearing the completion of the projectile point but usually lacking notches, serrations, grinding, or other finishing touches.

Pressure flaking: A technique in the manufacture of flaked stone tools where a pointed object is pressed against the edge of a piece of flakeable raw material to remove a small flake in a precisely controlled manner.

Proximal: The hafting area end of the projectile point or the non-pointed end.

Recurvate: Pertaining to the blade edge of a projectile point, it defines the outline as curving inward from the basal area and then changing directions and curving outward as the distal end is approached.

Shoulder: The change in outlines of the lateral margins of projectile points, occuring at the distal end of the hafting area in stemmed or notched projectile points.

Spokeshave: A concavity worked into the edge of a flaked stone tool and thought to have functioned to scrape the edge of a shaft in order to smooth and round it.

Stem: A hafting area that is sharply demarcated from the blade or cutting area of the projectile point by a change in outline.

Unifacial: A term used to describe a flaked stone tool as having only one flaked surface.

Waisted: A bilateral change in the outline of a projectile point where the width of a lanceolate shaped specimen gradually decreases toward the distal end and then as the distal end is approached, begins to increase again.

References

Alexander, Lawrence S.

1983 The Archaeology of the Emmett O'Neal site(22-Ts-954) in the Bay Springs segment of the Tennessee-Tombigbee Waterway, Tishomingo County, Mississippi. Draft report submitted to the U.S. Army Corps of Engineers, Nashville District, by the Department of Anthropology, Mississippi State University, Contract CACW-81-C-0245.

Atkinson, James R.

1974 Test excavations at the Vaughn Mound site. In *Archaeological survey and test excavations in the upper-central Tombigbee River Valley: Aliceville-Columbus lock and dam and impoundment areas, Alabama and Mississippi.* Final Report. Department of Anthropology, Mississippi State University. 115-158.

1987 Historic Chickasaw cultural material: a more comprehensive identification. *Mississippi Archaeology* 22(2):32-62.

Barbour, E. H. and C. B. Schultz

1932 The Scottsbluff Bison Quarry site and its artifacts. *Nebraska State Museum Bulletin* 34(1):283-286.

Bell, Robert E.

1958 Guide to the identification of certain American Indian projectile points. *Oklahoma Anthropological Society Special Bulletin* 1.

1960 Guide to the identification of certain American Indian projectile points. *Oklahoma Anthropological Society Special Bulletin* 2.

Bense, Judith A., Chung Ho Lee, and Nancy Marie White

1982 *Archaeological investigations at four sites in Monroe and Itawamba Counties, Mississippi. Phase Two interim report, Vol.1.* University of West Florida Office of Cultural and Archaeological Research, Report of Investigations 4.

Bense, Judith A (Editor)

1987 *Final report, the Midden Mound project.* University of West Florida Office of Cultural and Archaeological Research, Report of Investigations 6.

Blakeman, Crawford H. Jr., James R. Atkinson, and G. Gerald Berry

1976 *Archaeological investigations at the Cofferdam site, 22-Lo-599, Lowndes County, Mississippi.* Report submitted to the U. S. Army Corps of Engineers, Mobile District, by the Department of Anthropology, Mississippi State University.

Blitz, John H.

1988 Adoption of the bow in prehistoric North America. *North American Archaeologist* 9(2):123-145.

Brain, Jeffrey P.

1971a Provisional type descriptions of two early notched points from Mississippi. Peabody Museum of Archaeology and Ethnology, Harvard University. Limited distribution manuscript.

1971b The Lower Mississippi Valley in North American prehistory. Research conducted under cooperative agreement between the National Park Service, Southeast Region and the Arkansas Archaeological Survey. Manuscript prepared for the Arkansas Archaeological Survey, Fayetteville.

1988 *Tunica Archaeology*. Papers of the Peabody Museum of Archaeology and Ethnology 78.

Brookes, Samuel O.

1975 The Cedar Creek 31 site. A Mississippian period site in Lowndes County, Mississippi. *Mississippi Archaeology* 10(7):21-24.

1979 *The Hester site: An Early Archaic site in Monroe County, Mississippi, A Preliminary Report*. Mississippi Department of Archives and History Archaeological Report 5.

1985 The Kirk point that ate the Eastern United States. *Mississippi Archaeology* 20(2):24-31

1996 Aspects of the Middle Archaic: The atassa. Draft of paper presented at Midsouth Archaeological Conference, 1996.

Brookes, Samuel O., Bruce J. Gray, Byron Inmon, and Angela Rodrigue

1974 Greenbriar points: A discussion of form and function. *Mississippi Archaeology* 9(8):6-9.

Brookes, Samuel O., and Melissa H. Reams

1996 Early Holocene climate in the eastern United States: A view from Mississippi. Paper presented at the 61st Annual Meeting of the Society for American Archaeology, New Orleans, Louisiana.

Brookes, Samuel O., and Byron Inmon

1973 *Archaeological survey of Claiborne County, Mississippi*. Mississippi Archaeological Survey Report 3.

Brown, Calvin

1926 *Archeology of Mississippi*. Mississippi Geological Survey, University , Mississippi.

Broyles, Bettye J.

1966 Preliminary report: The St. Albans site (46-Ka-27) Kanawha County, West Virginia. *West Virginia Archaeologist* 19:1-43.

Bullen, Ripley P.

1951 *The Terra Ceia site, Manatee County, Florida*. Florida Anthropological Society Publication 3.

Caldwell, Joseph R.

1958 *Trend and tradition in the prehistory of the eastern United States*. American Anthropological Association Memoir 88.

Cambron, James W.

1957 Some early projectile point types from the Tennessee Valley, *Journal of Alabama Archaeology* 3(2):17-19.

1958 Projectile point types, Part III. *Journal of Alabama Archaeology* 4(2):10-12.

Cambron, James W. and David C. Hulse

1960 The Transitional Paleo-Indian, *Journal of Alabama Archaeology* 5(1):18, 21.

1964 *Handbook of Alabama Archaeology, part 1: Point types*. The Archaeological Research Association of Alabama, Inc.

1975 *Handbook of Alabama Archaeology, part 1: Point types.* The Archaeological Research Association of Alabama, Inc.

Chapman, Carl H.

1948 A Preliminary survey of Missouri archaeology, Part IV. *Missouri Archaeologist* 10(4):135-64.

Chapman, Carl H., and Lee Anderson

1955 The Campbell site, A Late Mississippi town site and cemetery in southwest Missouri. *Missouri Archaeologist* 17(2,3):1-140.

Chapman, Jefferson

1975 *The Rose Island site and the bifurcate point tradition.* Department of Anthropology, University of Tennessee, Report of Investigations 14.

Cloud, Ron

1969 Cache River side-notched points. *Central States Archaeological Journal* 16(3):118-19.

Coe, Joffre L.

1964 The Formative cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54(5):1-130.

Collins, Wilkie J.

1984 Observations on thermal treatment of Citronelle gravels from Louisiana and Mississippi: An archaeological assessment. *Mississippi Archaeology* 19(2):7-13.

Connaway, John M.

1977 *The Denton site: A Middle Archaic occupation in the northern Yazoo Basin, Mississippi.* Mississippi Department of Archives and History Archaeological Report 4.

Connaway, John M., and Sam McGahey

1970 *Archaeological survey and salvage in the Yazoo-Mississippi Delta and in Hinds County, November 1,1968-December 31,1969.* Mississippi Archaeological Survey, Preliminary Report.

Connaway, John M., Samuel O. McGahey and Clarence H. Webb

1977 *The Teoc Creek site: A Poverty Point site in Carroll County, Mississippi.* Mississippi Department of Archives and History Archaeological Report 3.

DeJarnette, David L., Edward Kurjack, and James W. Cambron

1962 Stanfield-Worley Bluff Shelter excavations. *Journal of Alabama Archaeology* 8 (1-2):1-124.

Duffield, Lathel

1963 *The Wolfshead site: An Archaic-Neo-American Site in San Augustine County, Texas.* Bulletin of the Texas Archaeological Society, 34.

Ensor, Blaine H.

1981 *Gainesville Lake area lithics: Chronology, technology and use. Volume III of Archaeological investigations in the Gainesville Lake area of the Tennessee-Tombigbee Waterway.* Office of Archaeological Research, University of Alabama, Report of Investigations 13. Report submitted to the U.S. Army Corps of Engineers, Mobile District.

1985 The Joe Powell site (1-Pi-38): A Dalton manifestation on the Alabama Coastal Plain. *Journal of Alabama Archaeology* 31(1):1-47.

Ford, James A., Phillip Phillips, and William G. Haag

1955 The Jaketown site in west-central Mississippi. *Anthropological Papers of the American Museum of Natural History*, Volume 45: Part 1.

Ford, James A, and Clarence H. Webb

1956 Poverty Point, A Late Archaic site in Louisiana. *Anthropological Papers of the American Museum of Natural History*, Volume 41, part 1.

Futato, Eugene M.

1983 Pattern of lithic resources utilization in the Cedar Creek Reservoir area. *Southeastern Archaeology* 2(2):118-131.

Gagliano, Sherwood M.

1963 *A Survey of preceramic occupations in portions of south Louisiana and Mississippi.* United States Gulf Coastal Studies, Technical Report 16, Part E. Coastal Studies Institute Contribution 63-7. Baton Rouge.

1967 Kirk Serrated: An Early Archaic index point in Louisiana. *The Florida Anthropologist.* 20(1):3-9.

1979 *Cultural resources studies in the Pearl River mouth area, Louisiana-Mississippi: Chef Menteur and Rigolets Passes Hurricane Control Structures, Orleans and St. Tammany Parishes, Louisiana.* Coastal Environments Inc., Cultural Resources Studies Publication NOD 80-. Submitted to U. S. Army Corps of Engineers, New Orleans District.

Gagliano, Sherwood and Clarence H. Webb

1970 Archaic-Poverty Point transition at the Pearl River mouth. *Southeastern Archaeological Conference Bulletin* 12:47-72.

Geiger, Carey L.

1980 Survey of selected sites in the Leaf River floodplain *Mississippi Archaeology* 15(2):8-25.

Giliberti, Joseph A.

1995 San Patrice and related early tool assemblage from the Beaumont Gravel Pit site (22-PE-504), A Late Paleoindian site in south Mississippi. MA thesis, Department of Sociology and Anthropology, University of Southern Mississippi.

Goodyear, Albert C.

1974 *The Brand site: A techno-functional study of a Dalton site in Northeast Arkansas.* Arkansas Archaeological Survey Research Series 7.

Greengo, Robert E.

1964 *Issaquena: An archaeological phase in the Yazoo Basin of the Lower Mississippi River Valley.* Society for American Archaeology Memoir 18.

Howard, Edgar B.

1935 Evidence of Early Man in North America. *University of Pennsylvania Museum Journal* 24(2-3): 61-171.

Huntsville-Madison Chapter of the Alabama Archaeological Society

1961 The Jude Hollow story. *Journal of Alabama Archaeology* 8(2):76-87.

Jelks, Edward B.

1962 *The Kyle site, A stratified Central Texas Aspect site in Hill County, Texas.* Department of Anthropology, University of Texas, Archaeological Series 5.

Johnson, Jay K.

1997 Stone tools, politics, and the eighteenth-century Chickasaw in northeast Mississippi. *American Antiquity* 62(2):215-230.

Johnson, Jay K., and Samuel O. Brookes

1987 Benton points, Turkey Tails and cache blades: Middle Archaic exchange in the Southeast. Paper presented at the 52nd Annual Meeting of the Society for American Archaeology, Toronto, Canada.

1988 Rocks from the Northeast: Archaic exchange in north Mississippi. *Mississippi Archaeology* 23(2):53-63.

1989 Benton points, Turkey Tails and cache blades: Middle Archaic exchange in the Midsouth. *Southeastern Archaeology* 8(2):134-145.

Jolly, Fletcher III

1971 A single component Alexander assemblage from the Mingo Mound site (22-Ts-511) in the Bear Creek watershed of N. E. Mississippi. *Tennessee Archaeologist* 27(1):1-38.

Kelley, J. Charles

1947 The Lehmann Rock Shelter; A stratified site of the Toyah, Uvalde, and Round Rock Foci. *Bulletin of the Texas Archaeological Society* 18:115-128.

Kneberg, Madeline

1956 Some important projectile points found in the Tennessee area. *Tennessee Archaeological Society* 12(1):17-28.

Lauro, James and Geoffrey R. Lehmann

1982 *The Slate site: A Poverty Point lapidary industry site in the southern Yazoo Basin.* Mississippi Department of Archives and History Archaeological Report 7.

Lehmann, Geoffrey R.

1982 *The Jaketown site: Surface collections from a Poverty Point regional center in the Yazoo Basin, Mississippi.* Mississippi Department of Archives and History Archaeological Report 9.

Lewis, Thomas M.N.

1954 The Cumberland point. *Bulletin of the Oklahoma Anthropological Society* 2:7-8.

1960 Editor's notes: The Guinn collection. *Tennessee Archaeologist* 16(1):54-61.

Lewis, Thomas M. N., and Madeline Kneberg Lewis

1961 *Eva: An Archaic site.* University of Tennessee Press, Knoxville.

Lewis, Thomas M.N. and Madeline Kneberg

1958 The Nuckolls site, *Tennessee Archaeologist* 14(2): 60-79.

1960 Aaron B. Clement collection. *Tennessee Archaeologist* 16(1): 49-61.

MacDonald, George F.

1985 *Debert, A Paleoindian site in central Nova Scotia.* Persimmon Press and the National Museum of Man, National Museums of Canada.

McGahey, Samuel O.

1981 The Coldwater and related Paleoindian projectile points. *Mississippi Archaeology* 16(1):39-52.

1987 Paleo-Indian lithic material: Implications of distributions in Mississippi. *Mississippi Archaeology* 22(2):1-13.

1999 Use and avoidance of Kosciusko quartzite in Prehistoric Mississippi flaked stone assemblages. In *Raw material and exchange in the Midsouth,* ed. Evan Peacock and Samuel O. Brookes, 1-11. Mississippi Department of Archives and History Archaeological Report 29.

Morse, Dan F., and Phyllis A. Morse

1983 *Archaeology of the Central Mississippi Valley.* Academic Press, San Diego.

Neill, Wilfred T.

1963 Three new Florida projectile point types believed to be early. *Florida Anthropologist* 14(4):99-104.

Newell, H. Perry , and Alex D. Kreiger

1949 The George C. Davis site, Cherokee County, Texas. *American Antiquity* 14 (2), part 2:164-165.

O'Hear, John W.

1990 *Archaeological investigations at the Sanders site (22-Cl-917), an Alexander midden on the Tombigbee River, Clay County, Mississippi.* Cobb Institute of Archaeology Report of Investigations 6.

Peacock, Evan

1986 A Comparison of Late Woodland, Mississippian, and Protohistoric triangular points From the central Tombigbee River drainage. *Journal of Alabama Archaeology* Vol. 32(2):108-29.

1988 Benton settlement patterns in north-central Mississippi. *Mississippi Archaeology* 23(1):12-33.

Perino, Gregory

1970 *Guide to the identification of certain American Indian projectile points.* Oklahoma Anthropological Society Special Bulletin No. 4. Printed by Leslie H. Butts, Oklahoma City.

1985 *Selected preforms, points and knives of the North American Indians,* Vol.1. Points and Barbs Press, Idabel, Oklahoma.

1991 *Selected preforms, points, and knives of the North American Indians,* Vol. 2. Points and Barbs Press, Idabel, Oklahoma.

Phillips, Phillip

1970 *Archaeological survey in the Lower Yazoo Basin, Mississippi, 1955. Part Two.* Papers of the Peabody Museum of Archaeology and Ethnology 60.

Rafferty, Janet, and Mary Evelyn Starr

1986 *Test excavations at two Woodland sites, Lowndes County, Mississippi.* Cobb Institute of Archaeology Report of Excavations 3.

Scully, Edward G.

1951 Some Central Mississippi Valley projectile point types. Mimeographed paper, Museum of Anthropology, University of Michigan, Ann Arbor.

Schiffer, Michael B. and John H. House

1975 *The Cache River Archaeological Project: An experiment in contract archaeology.* Arkansas Archaeological Survey Publications in Archaeology, Research series 8.

Soday, Frank

1954 The Quad site, A paleo-Indian village in northern Alabama. *Tennessee Archaeologist* 10(1):1-20.

Suhm, Dee Ann, Alex D. Kreiger, and Edward B. Jelks

1954 *An Introductory handbook of Texas archaeology.* Bulletin of the Texas Archaeological Society 25.

Walthall, John A.

1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama and the Middle South.* University of Alabama Press, Tuscaloosa.

Webb, Clarence H.

1946 Two unusual types of chipped stone artifacts from northwest Louisiana. *Bulletin of the Texas Archaeological and Paleontological Society* 17:9-17.

1975 Letter to the editor, *Mississippi Archaeology* 10(6):5-6.

Webb, Clarence H., James A. Ford, Sherwood M. Gagliano, and Roger T. Saucier

1970 Poverty Point Culture and the American Formative. With a Section on Paleo-Indian traits at the Poverty Point Site. Manuscript on file, Louisiana Division of Archaeology, Baton Rouge.

Webb, Clarence H., Joel L. Shiner, and E. Wayne Roberts

1971 *The John Pearce site (16 CD 56): A San Patrice site in Caddo Parish, Louisiana.* Bulletin of the Texas Archaeological Society 42.

Weinstein, Richard A.

1981 *Archaeological investigations Along Moore's Creek, Alcorn County, Mississippi.* Coastal Environments, Inc. Baton Rouge. Report submitted to the National Park Service, Southeast Regional Office, Atlanta.

White, Nancy Marie (ed.), Chung Ho Lee, and Judith A. Bense.

1983 *Final interim report. Archaeological investigations in the Upper Tombigbee Valley, Phase II.* University of West Florida Office Of Cultural and Archaeological Research, Report of Investigations 4. Submitted to the U. S. Army Corps of Engineers, Mobile District, Contract No. DACW01-80-C-0063.

Williams, Stephen, and Jeffrey P Brain

1983 *Excavations at the Lake George site, Yazoo County, Mississippi, 1958-1960.* Papers of the Peabody Museum of Archaeology and Ethnology 74.

Wright, Newell O.

1982 *Augusta Bluff: A Late Archaic site on the Leaf River, Perry County, Mississippi.* Archaeological Research Associates Report of Investigations 13.

Wynn, Jack T., and James R. Atkinson

1976 *Archaeology of the Okashua and Self sites, Mississippi.* Department of Anthropology, Mississippi State University. Final report submitted to the United States Department of the Interior-National Park Service, Contract Number CX500050189.

Figure 195. Map identifying Mississippi counties.