The below section is from the Bulletin of the Texas Archaeological Society, volume 66. It is part of an article entitled "Prehistoric and Historic Aboriginal Ceramics in Texas" by Timothy K. Perttula, Miles R. Miller, Robert A Ricklis, Daniel J. Prikryl, and Christopher Lintz.

Caddoan Ceramics from Northeast Texas

The distinctive styles and forms of ceramics found on sites in Northeast Texas hint at the variety, temporal span, and geographic extent of a number of prehistoric Caddoan groups in this region (cf. Thurmond 1985, 1990). The diversity in decoration and shape in Caddoan ceramics is substantial, both in the utility ware jars and bowls, as well as in the fine ware bottles, carinated bowls, and compound vessels. However, prehistoric ceramics had been manufactured in Northeast Texas for about 1000 years before the development of the Late Prehistoric (after ca. A.D. SOO/900) Caddoan ceramic tradition.

Story (1990:246-247, 277-319), in an excellent discussion of the cultural context and archeological character of these early ceramic-making groups, indicates that the earliest ceramics in the

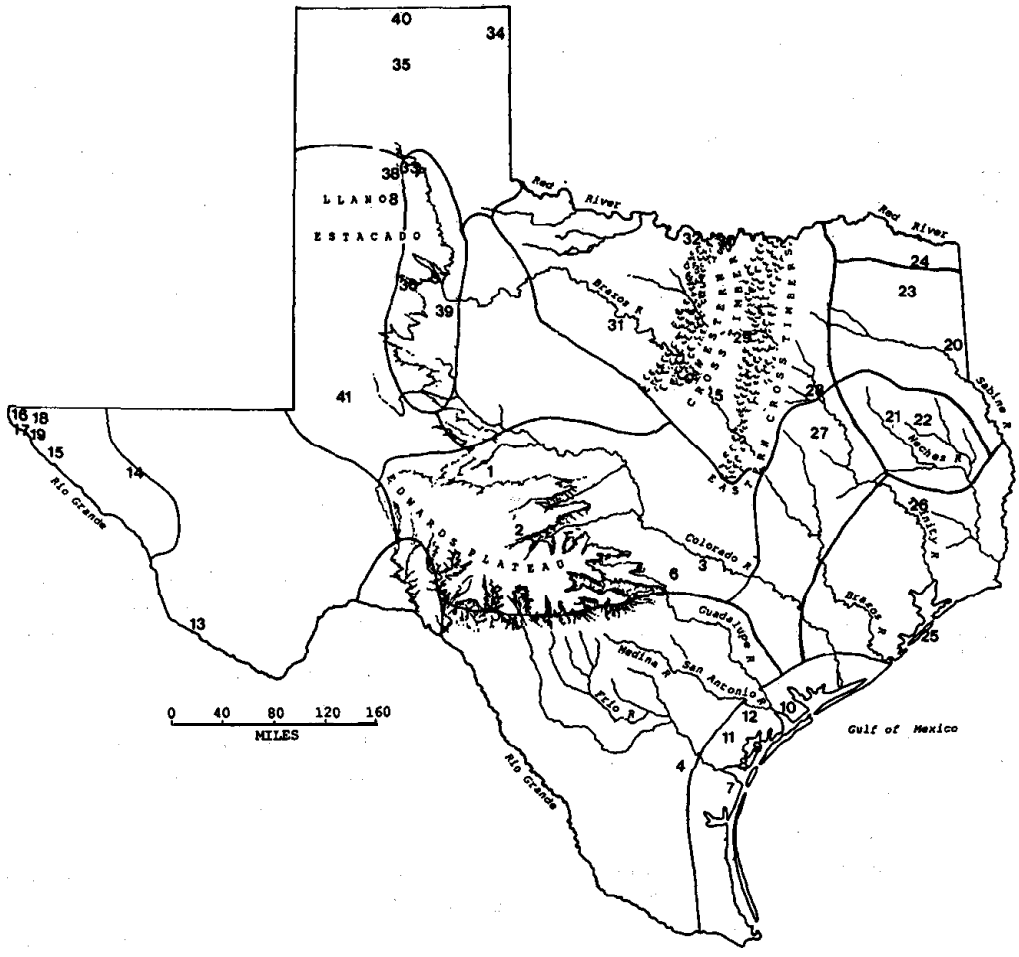

Figure 1. The Distribution of Regional Ceramic Assemblages in Texas and selected archeological sites mentioned in the text. Toyah phase sites: 1, East Levee; 2, Buckhollow; 3, Smith; 4, Hinojosa; 5, Kyle; 6, Mustang Branch. Rockportphasesites: 7, Kirchmeyer; 8,McGloinBluff&41SP120;9,LiveOakPoint; 10,MustangLake; 11, Aransas Riversites; 12,Mellon. WestTexas sites: 13, Polvo; 14,GranadoCave; 15,41HZ493; 16,NorthHills; 17,Firecracker Pueblo; 18, Hot Wells; 19, Ysleta WIC. Northeast Texas sites: 20, Resch; 21, George C. Davis; 22, Deshazo; 23, Benson's Crossing; 24,41MX5. Southeast Texas sites: 25, Mitchell Ridge; 26, Carl Matthews. East Central Texas sites: 27, Jewett Mine sites; 28, Bird Point Island. North Central Texas sites: 29, Cobb-Pool; 30, Chicken House & Dillard; 31, Harrell; 32, Spanish Fort sites. Lower Plains, Caprock Canyonlands, and Texas Panhandle sites: 33, Deadman's Shelter; 34, Buried City Complex; 35, Antelope phase sites, Canadian River; 36, Lubbock Lake; 37, Bridwell; 38, Tierra Blanca; 39, Headstream & Longhorn; 40, Palo Duro Reservoir; and 41, Andrews Lake.

region date between ca. 500-100 B.C. and are closely related to the kinds of ceramics being produced in the Lower Mississippi Valley (LMV). Groups manufacturing these early ceramics were relatively sedentary hunter-gatherers. South of the Sabine River, the earliest locally produced ceramics are plain wares with sandy pastes (sharing similarities with the coastal and inland Southeast Texas ceramic Goose Creek Plain), while north of the Sabine River to the Red River, the early ceramics are principally from thick, plain grog- (Williams Plain) and bone-tempered (Cooper Boneware) vessels, although sandy paste wares are also present in low numbers (Story 1990:246).

Between the introduction of ceramics in the region, and the emergence of distinctive Caddoan vessel forms and decorative motifs around A.D. 800, the local plain ware traditions seem to have continued relatively unchanged. LMV-related ceramics are present as well, although not in great numbers, including distinctive Marksville, Troyville, and Coles Creek incised and stamped vessels (see Phillips 1970) from sites such as Resch, Coral Snake, Tankersley Creek, and James Pace in the Sabine River and Cypress Creek basins.

As Story (1990:247) notes:

> Sometime probably between A.D. 700 and A.D. 900 (there is a lot of room for arguing the age), Caddoan ceramics came to dominate the northeastern part of [Texas]. These ceramics are distinguished by certain vessel forms (especially a long-necked bottle with a globular body and a carinated bowl), engraved decorations, and other attributes. Although the bottle form and engraving may have an exotic origin, most of the Caddoan ceramics can be recognized as local developments with strong influences from the LMV.

A diverse and distinctive ceramic assemblage characterizes the Caddoan tradition in Northeast Texas. Ceramics are quite common in domestic contexts on habitation sites across the region (i.e., it is not unusual to recover more than 10,000 sherds from hundreds of vessels on Caddo settlements on excavation projects, and assemblages with upwards of 100,000 sherds are not uncommon at the larger sites), and also occur as grave goods in mortuary contexts (see for example the large well-analyzed sherd assemblages from George C. Davis [Newell and Krieger 1949; Stokes and Woodrmg 19811, Deshazo [Fields 1981], Benson's Crossing [Driggers 1985], and 41MX5 [Brewington et al. 19951). Much attention has been paid by Caddoan archeologists over the years to the well-made ceramics manufactured by the Caddo peoples, and it is accurate, we think, to state that the study of Caddo ceramics is integral to the study of any Caddo site in the four-state Caddoan archeological area.

The Caddo made ceramics in a wide variety of vessel shapes (cf. Reynolds 1992), and with an abundance of well-crafted and executed (Johnson 1992) body and rim designs and surface treatments (Table 1). From the archeological contexts in which Caddo ceramics have been found, as well as inferences about their manufacture and use, it is evident that ceramics were important to the prehistoric Caddo in: the cooking and serving of foods and beverages, in the storage of foodstuffs, as personal possessions, as beautiful works of art and craftsmanship (i.e., some vessels were clearly made to never be used in domestic contexts), and as social identifiers (that is, certain shared and distinctive stylistic motifs and decorative patterns 'marked closely related communities and constituent groups [David et al. 1988; Thurmond 19851).

The Caddo made both fine wares (with very finely crushed temper [Schambach and Miller 1984:109]), bottles and many bowls, and utility wares (some of the simple bowls, as well as the jars that were made in a variety of sizes). Almost without exception, Caddoan ceramics were tempered with grog (crushed sherds) or bone, although burned and crushed shells were used as temper after ca. A.D. 1300 among most of the Red River Caddo groups (see Bruseth 1995; Schambach and Miller 1984) and on later Caddoan sites in the upper Sulphur River basin (see Fields et al. 1994; Cliff and Perttula 1995). After adding the temper to the clay, the kneaded clay was formed into clay coils that were added to flat disk bases to form the vessel, and the coils were apparently smoothed with a round river pebble to create the finished vessel form. Decorations and slips were added before, as well as after, baking in an open fire, and commonly the vessels were then burnished and polished; red ochre and white kaolinite clay pigments were often added to or painted on to the decorations on bottles and carinated bowls.

These kinds of ceramics were designed to serve different purposes within Caddoan communities and family groups-from that of a cooking

Table 1. Caddoan Vessel Forms*

Decoration	ca. A.D. 900-1400	ca. A.D. 1400-1700
Engraved	bowls: carinated, boat-shaped, cylindrical, compound, hemispherical, simple, deep, flat, globular; bottles, effigy bottle, gourd-shaped bottle; compound bottle, goblet, spitoon-shaped, small jar, and cylindrical jar	bowls: compound, deep, simple, carinated, conical and globular, compound globular, vase-like, squat square box, hemispherical; hubcap; platter, ladle-like, barrel-shaped, short globular and tripod bottles, ollas, effigy bottles, bottles with legs, and small jars
Incised	cylindrical jar, small jar, oval effigy, barrel-shaped, bottle, bowls:simple with rim peaks, carinated, small hemispherical, compound and deep, globular, and square bowl	jars
Trailed-Incised	-	jars
Pinched	small jars (some with pedestal base), simple bowls, bottle	-
Fingernail-Impressed	small jars, carinated bowls, compound bowl, compound vessels	-
Punctated	small jars	jars
Punctured-Incised	carinated bowls, cylindrical vessels, shallow bowls	jars
Ridged	-	jars
Neck-banded	jars	jars
Appliqued	-	jars
Brushed	-	jars, ollas, barrel-shaped, carinated bowls
Stamped		globular jars, triple vessels (joined globular bowls)
Noded	bottles (includes tripod bottles)	bowls and bottles
Rattles & EfSigies	-	bowls and bottles
Plain	bowls: simple, carinated, deep, hemispherical; jars, plates or platters, barrel-shaped vessels, and bottles	jars

* After Suhm and Jelks (1962)

pot to the mortuary function of a ceremonial beaker-and this is reflected in differences in paste, surface treatment, firing methods, decoration, and vessel form between the two wares. Both the early and later Caddoan fine wares were usually well-polished, and decorated with fine-line incised and engraved designs (Figure 2a-n, Figure 3a-p, and Figure 4a-e, h). The earlier Caddoan fine ware designs are curvilinear, rectilinear, and horizontal, and frequently cover the entire vessel surface; other tine ware designs simply are placed on the rim (see Figure 3c, f-k, m-n), or sometimes on the interior rim surface. In general, the earlier Caddoan fine wares across Northeast Texas (and indeed extend-

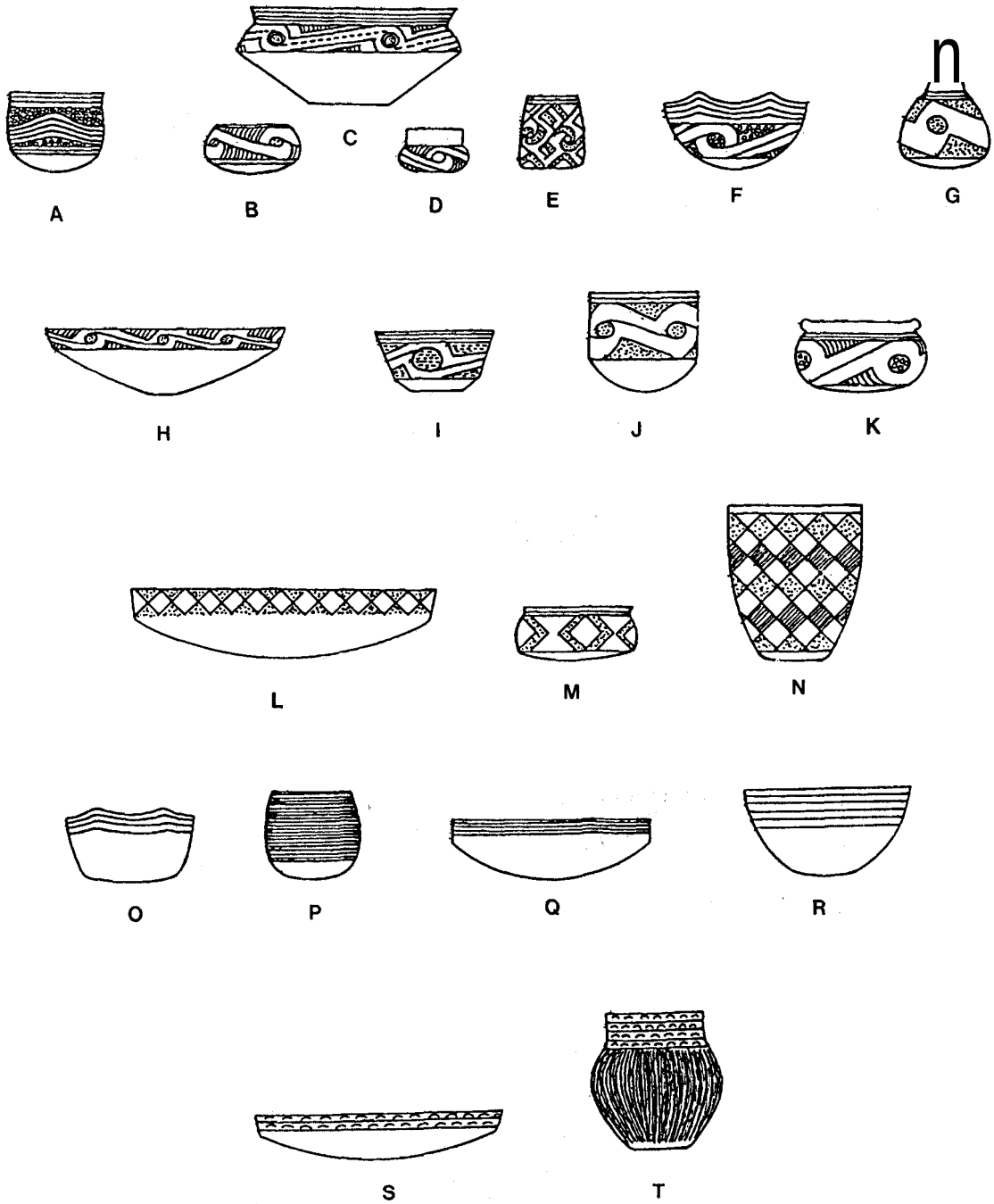

Figure 2. Early Caddoan Ceramic Forms and Decorations (after Krieger 1946): a-k, curvilinear incised and punctated; l-n, punctated-incised; o-r, horizontal incised; s, fingernail impressed; t, fingernail impressed-brushed.

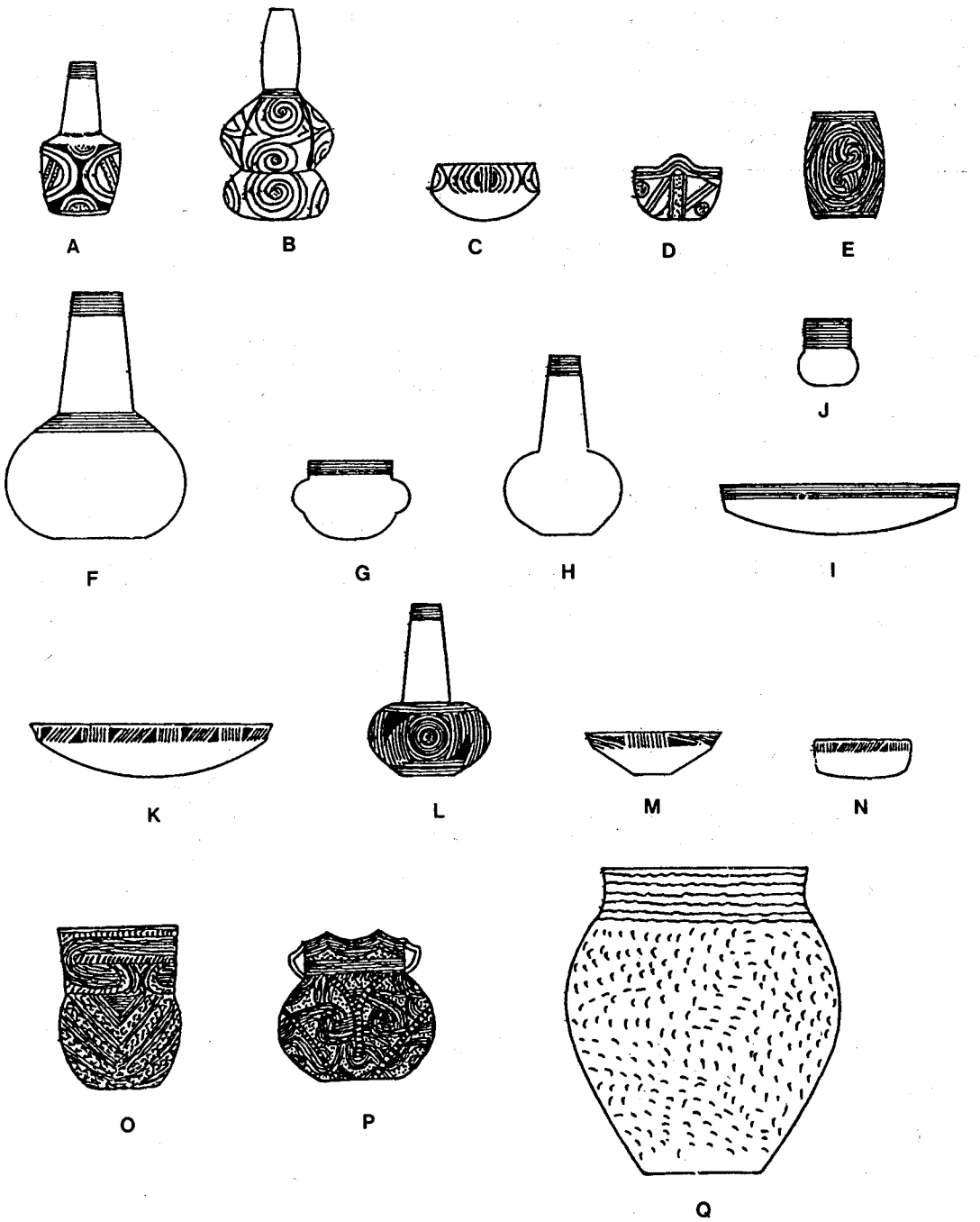

Figure 3. Early Caddoan Bottles, Bowls, and Jars (after Krieger 1946): a-e, l, curvilinear and scroll engraved; f-j, horizontal engraved; k, m-n, vertical and diagonal engraved; o-p, complicated incised; q, neck-banded-punctated.

ing across much of the Caddoan area itself) are quite uniform in style and form, suggesting broad and extensive social interaction between Caddoan groups across the region.

The later Caddoan fine ware designs in Northeast Texas include scrolls, scrolls with ticked lines, scrolls and circles, negative ovals and circles, pendant triangles, diagonal lines and ladders, and S-shaped motifs (see Figure 4a-e, h; also Suhm and Jelks 1962; Shafer 1981; Middlebrook 1994; Fields et al. 1994:Figure 13; Perino 1994:Figures 9-14). These kinds of decorative elements continued in

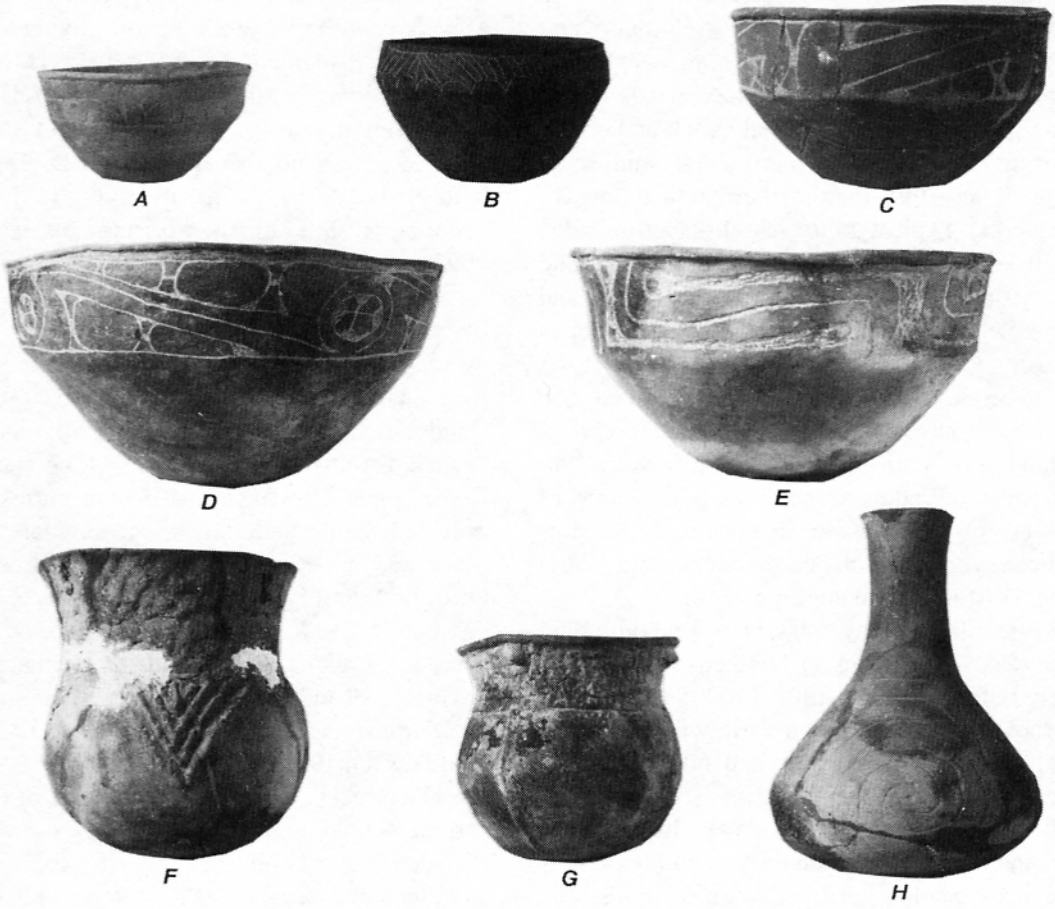

Figure 4. Late Caddoan bowls, jars, and bottle: a-e, engraved curvilinear and scrolls; f-g, neck-banded and applique; h, engraved scrolls. Photographs courtesy of the Texas Archeological Research Laboratory.

use in historic Caddoan ceramics (that is, until about A.D. 1800 [Gregory 1973]). They are best exemplified by the intricate scrolls, ovals, and circles on Hudson Engraved and Keno Trailed bottles and Natchitoches Engraved bowls among Red River Caddoan groups, the scrolls and ticks of Patton Engraved among Hasinai Caddo groups south of the Sabine River (Fields 1981), and the pendant triangles and engraved scolls on Womack Engraved bowls on the upper Sabine (Duffield and Jelks 1961; Jelks 1967) and the middle Red River (Harris et al. 1965).

The later Caddoan fine wares (that is, dating after ca. A.D. 1300/1400) are more stylistically diverse across Northeast Texas, and there are very specific differences in vessel shapes, designs, and decorative attributes between Caddoan ceramics in individual drainages, or even within specific smaller segments of river and creek basins (e.g., Thurmond 1985; Perttula et al. 1993). This diversity can be reasonably interpreted to be representative of specific Caddoan social groups. In historic Caddoan times, ceramic vessel forms and decorations are considerably more homogeneous across much of the Caddoan area, suggesting extensive intra-regional contact between contemporaneous Caddoan groups (Perttula 1992:154 and Table 14).

Table 1 indicates the impressive diversity of vessel forms among the Caddoan fine wares. This includes carinated bowls, deep compound bowls, double and triple vessels (joined bowls and bottles [Suhm and Jelks 1962:Plates 38k, 51e, 59d]), bottles, ollas, zoomorphic and anthropomorphic effigy bowls and bottles, ladles, platters, peaked

jars, gourd and box-shaped bowls, and chalices.

The Caddoan utility vessels usually have a coarser paste, a rougher surface treatment, and thicker body walls than the fine wares, which was probably related to the performance needs of the cooking pot to withstand thermal shock and cracking during use (see the experimental studies by Schiffer et al. 1994 on the thermal response of cooking pots). Typical utility vessel shapes included small to large jars (see Figure 2t, Figure 3q, and Figure 4f-g), as well as a variety of conical and simple bowl and bottle forms, most of the latter in the earlier Caddoan ceramics (and the historic Caddoan ceramics) being plain and unpolished. The utility vessels have carbon encrustations, food residues, and soot stains, suggesting they were employed by the Caddo as cooking pots. Some of these kinds of vessels were used primarily for storage (those with large orifice diameters and vessel volumes) of foodstuffs and liquids.

While plain utility vessels were commonly used by Caddoan groups in Northeast Texas, particularly before ca. A.D. 1300-1400 (see Table I), they were also decorated in a variety of ways. The earlier Caddoan utility wares had horizontal (see Figure 20-r) and cross-hatched incised lines, fingernail impressions (see Figure 2s-t), pinching, fingernail and tool punctates on the rim and bodies, as well as neck-banding, at least south of the Sabine River [see Newell and Krieger 1949] (see Figure 3q). The types of decorations and/or surface treatments on later Caddoan utility vessels included neck-banding or corrugation (see Figure 4f-g), brushing, ridging, applique (Perino 1994:Figure 7e-f, h), and combinations of zoned and diagonal incised and punctated designs on the rim and body of jars. In historic Caddoan times, rows of fingernail punctations on the rim of everted-rim Emory Punctated-Incised jars are a common decorative treatment. Handles and lugs were present on some of the utility vessels.

Caddoan ceramics were apparently widely traded in Texas, as they have been found in significant quantities on North Central, East Central, Central, and inland Southeast Texas archeological sites (Story 1990:247). The earlier Caddoan ceramics (dating before ca. A.D. 1300) were most widely distributed in the upper Trinity and Brazos River basins of North Central Texas (see Prikryl and Perttula, below), and in inland Southeast Texas, while the Late Caddoan ceramic wares appear to have been most commonly exchanged with East Central and Central Texas groups after A.D. 1300, as well as with prehistoric peoples living along the Trinity River in inland Southeast Texas (McClurkan 1968). Caddoan ceramic finewares were also traded extensively in parts of the Midwest and Southeastern U.S., most notably after ca. A.D. 1300-1400 with Native American groups living in the Lower Mississippi Valley of Arkansas and Louisiana (Early 1993:232-233).

Other types of ceramic artifacts manufactured by prehistoric Caddoan groups include ceramic earspools and disks, figurines, and a variety of pipe forms (Jackson 1933:71). The earliest types of Caddoan clay pipes were plain, tubular and cigar-shaped forms, followed by the long-stem "Red River" pipes (Hoffman 1967) with burnished and polished stems and bowls; rectangular platform pipes and some elbow pipe forms (Bruseth and Perttula 1981:Figure 5-l la-b) have also been recovered in Caddoan sites dating before A.D. 1200. The later Caddoan pipe forms in Northeast Texas are biconical and elbow pipe forms with small bowls (c 25 mm) and small stem diameters (c 25 mm) (see Jackson 1933:Plates 16-18).

Two recent advances in the study of Caddoan ceramics hold great promise for increasing our knowledge about prehistoric stylistic, technological, and functional changes in this material culture. First, compositional analyses using petrographic and chemical characterizations are now being used on samples of Caddoan ceramics (see Fischbeck et al. 1989; Steponaitis et al. 1995) to discern manufacturing techniques, source/regional distributions of particular wares, and functional characteristics of different kinds of vessels (Reese-Taylor 1994, 1995a). For example, recent analyses of the petrographic constituents in the pastes of Caddoan ceramic assemblages in the Sabine River, Cypress Creek, and Sulphur River basins has shown that there appear to be consistent paste differences (specifically in the percentages of alkali feldspars and quartz) between the ceramics in each of the river and creek basins (Figure 5). This is turn seems to reflect the local basin-specific production by Caddoan groups of ceramic vessels from locally available clays (Reese-Taylor 1995), with limited evidence for the exchange of vessels from one group to another in different basins. This type of analysis should prove of great utility in examining the archeological record in Northeast Texas (and

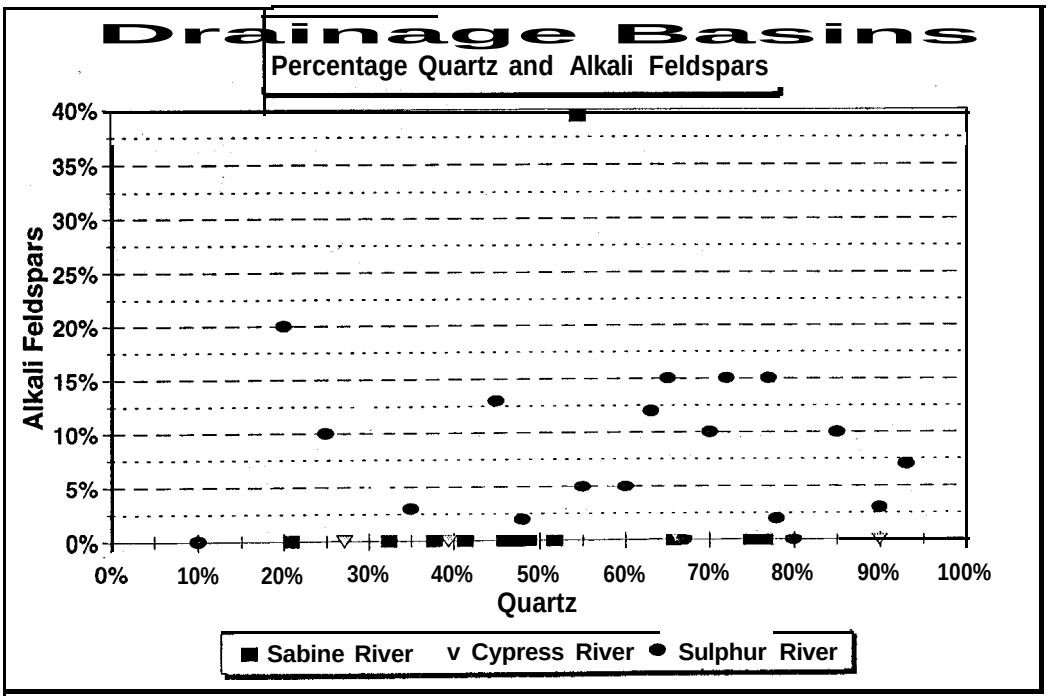

Figure 5. Petrographic Analysis of Quartz and Alkali Feldspars in Caddoan Ceramics from the Sabine, Cypress, and Sulphur River drainage basins (from Reese-Taylor 1995a).

adjacent regions) for considerations of cultural affiliation, and exchange between Caddo and non-Caddo groups, as well as for discerning manufacturing techniques, raw material use, source/regional distributions of particular wares, and specific functional characteristics of different kinds of vessels (Neff 1.995; O'Brien et al. 1994).

Second, a very detailed analytical classificatory system of decorative motifs and patterns has been developed for Caddoan ceramics by Schambach (Schambach 1981; Schambach et al. n.d.) that has proved useful in detecting fine-scale temporal and stylistic changes (on the order of 20-30 years) in ceramic decoration among prehistoric Caddoan groups on the Red and Ouachita rivers in Arkansas and Louisiana (e.g., Schambach and Miller 1984; Kelley 1994). The system uses a hierarchical or paradigmatic (see Dunnell 1986) classification of decorative techniques and motifs (classes A-H, such as diagonal or vertical rectilinear incised [A], horizontal rectilinear and curvilinear designs [B], brushed [D], engraved [E], and applique [H], etc.) for rims and vessel bodies in combination with groups of similar designs within classes, called patterns. Figure 6 illustrates how the classification works with a sample of vessels from the Late Caddoan Cedar Grove site in southwestern Arkansas (Schambach and Miller 1984); for example, the Austin-Abraham vessels on the top row illustrate Class A rim and body decorations, while Austin 1 and Austin 2 represent different designs with the Austin pattern of vertical incising on short rims.

The definition of such stylistic attributes is well-suited to the recognition of comparable design, vessel, and rim sets across the Caddoan area. With this kind of specific and idiosyncratic information on prehistoric vessel decorations (element as well as placement), and forms, as well as the character of stylistic variation present at different times among related groups (e.g., Neiman 1995), we can confidently explore the nature of social relationships among Caddo groups "from the message and meaning ascribed to ceramic design" (Early 1995:4).

Southeast Texas

Prehistoric ceramics are common in inland and coastal sites throughout Southeast Texas (cf. Aten 1983; Bollich 1995). According to Aten (1983), ceramics were adopted by coastal hunter-gatherers about 2000 years B.P., and perhaps by 1500 years

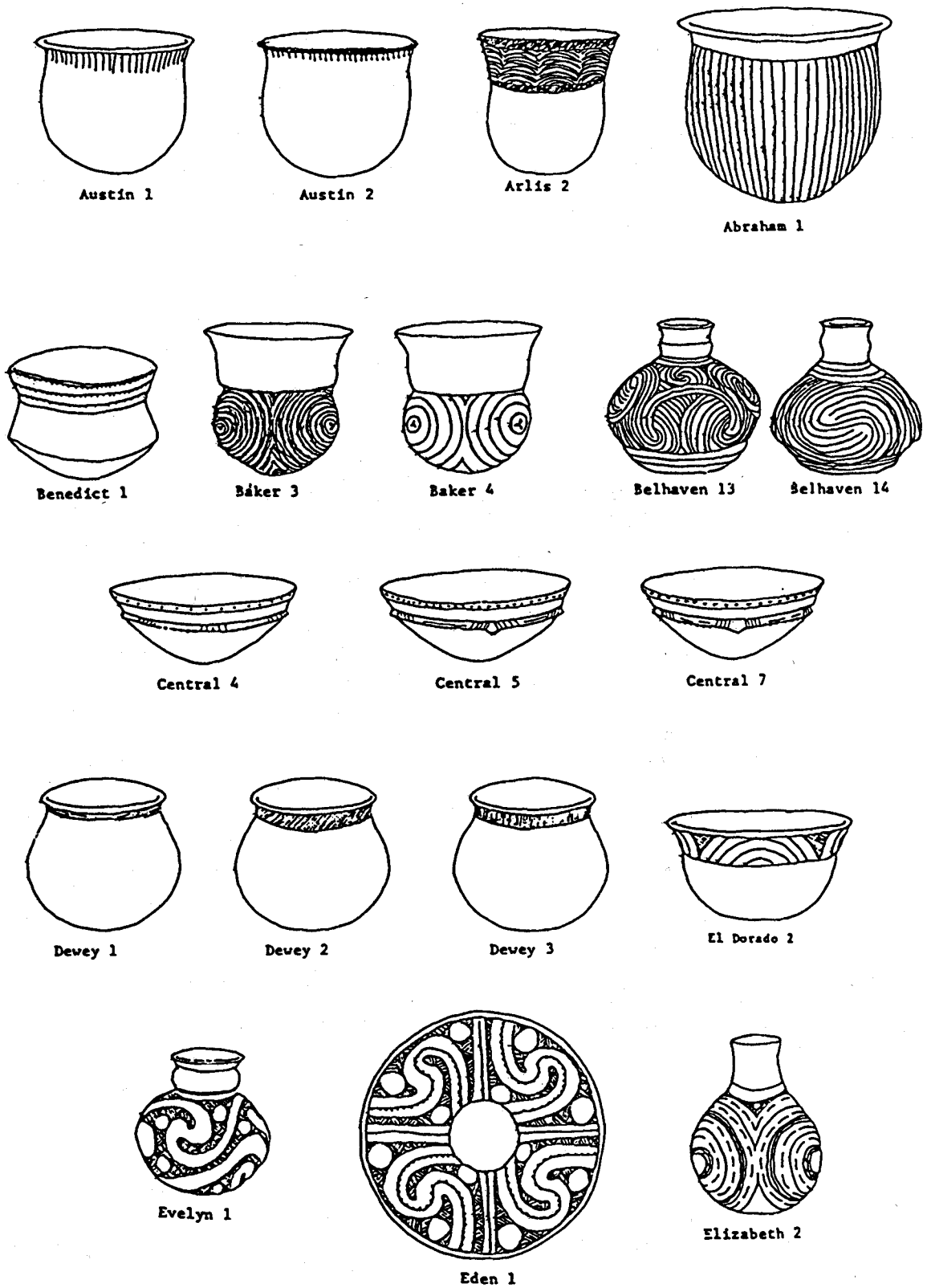

Figure 6. Class and Pattern Classification of Caddo Ceramics from the Cedar Grove Site, Lafayette County, Arkansas (after Schambach and Miller 1984).

state in archeological contexts. Accordingly, we hope that this overview will bring renewed archeological attention to the prehistoric and historic aboriginal ceramics found in Texas, and that new methods of study— and most importantly new ways of thinking—result in refined understanding of the role of ceramics in Native American lifeways.

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