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DEATH'S HEADS, CHERUBS, AND WILLOW TREES: EXPERIMENTAL ARCHAEOLOGY IN COLONIAL CEMETERIES¹

EDWIN DETHLEFSEN AND JAMES DEETZ

ABSTRACT

Seventeenth- and eighteenth-century gravestones in Massachusetts are decorated with a traditional set of designs which have distinctive spatial and temporal limits. By treating them as archaeological phenomena, one can demonstrate and test methods of inferring diffusion, design evolution, and relationships between a folk-art tradition and the culture which produced it. Early popularity of death's-head designs reflects Puritan attitudes toward death, while the later cherub, willow tree, and urn motifs indicate the breakdown of these values. Although cherubs appear earliest among an innovating urban class in Cambridge, they remain a relatively minor type in this central area but are rapidly adopted in outlying districts further removed from the center of influence. Imperfect reproduction of certain designs gives rise to distinctive local styles of other areas. The distribution of these local styles in time and space provides further insights regarding religious change in the Colonial period, including a clear indication of how this change proceeded in different geographical areas at different times. Future analysis of this material promises to be quite productive in the areas of experimental archaeology, kinship analysis, demographic studies, style change, and religious change in Colonial America.

And know, reader, that though the stones in this wilderness are already grown so witty as to speak, they never yet that I could hear of, grew so wicked as to lye.

Cotton Mather, 1693

THE PROBLEM of deriving meaningful inferences from an artifactual assemblage concerning the culture which created it is an ever-present one with which the prehistorian must be concerned. A number of specific methods have been devised to aid in coping with this problem, and much of the cultural reconstruction which has been done to date is indicative of the success of such methodology. However, in most instances interpretive methods, such as seriation, typology, and various space-time unit concepts, are devised, tested, and subsequently employed in situations which are not rigorously controlled. The purpose of this paper is to direct attention to a corpus of artifactual material in which a wide variety of archaeological methods may be tested, refined, and perhaps improved under highly controlled circumstances. Colonial gravestones are uniquely and admirably suited to such a study. Produced by

a literate people whose history is known, these markers show design variations in time and space which can be projected against known historical data, thereby detailing the dynamics of change in material objects as a function of changes in the society which produced them. Gravestones are peculiarly suited to such an investigation for a number of specific reasons:

(1) Although produced in a civilized milieu, Colonial gravestones were not carved by full-time specialists. Stonecarvers might have been ropemakers, leatherworkers, smiths or printers who pursued stonecutting as a secondary specialty. Gravestones are therefore true folk products as is much of the artifactual material with which the prehistorian is routinely involved.

(2) New England stonecutters produced stones for the population immediately surrounding the towns in which they lived. There is no evidence of itinerant stonecutters, and few stones were erected at a great distance from the town in which they were carved. In spite of this local pattern and the absence of a professional stonecarving group, all carvers participated in a decorative tradition which extended unbroken over an area vastly larger than that served by any one individual. While local variations can be seen between any two areas at the same point in time, these are minor when compared with the adherence to a larger design tradition, shown by stones over all of eastern Massachusetts, and probably even farther.

(3) Gravestones, by their very function, carry their own elegant chronological control. All are dated, and in those instances when one can determine the time interval between the death of the individual whose resting place is marked by a stone and its purchase and erection, this period is relatively brief, usually within a year.

(4) It is possible to project design patterns against genealogy, since the stones bear kinship data. Thus one can investigate the effect, if any, of familial affiliation on designs employed. Adequate information also exists regarding the carvers of the stones. Many of them are known by name, their products have been identified, and it is possible to investigate the nature of kin-based micro-traditions of design among the carvers.

(5) Since age at death is also stated in most cases, life tables can be constructed and, through them, certain demographic information can be derived.

(6) Since a large number of the stones bear epitaphs, it is possible to arrive at some statement concerning values regarding death, which can be shown to change in harmony with designs. This literary dimension provides a small measure of psychological control.

(7) The distinctive symbols employed as decorative elements are in part a function of religion, and therefore changes in this aspect of culture can be investigated as they relate to other areas of change.

¹ This is an expanded version of a paper presented at the 29th Annual Meeting of the Society for American Archaeology, Chapel Hill, North Carolina, May 9, 1964.

It can be seen that gravestones are probably unique in permitting the anthropologist to investigate interrelated changes in style, religion, population, personal and societal values, and social organization under absolute chronological control with a full historical record against which to project results for accuracy. As such, they form a valuable laboratory in which to test many of the inferential methods employed by the archaeologist who works with material culture.

The present study, which is still in its early stages, began with a tabulation of design types in a number of cemeteries in eastern Massachusetts. The area presently under investigation is approximately 100 mi. long and 50 mi. wide, centering on Boston, with the long axis running north and south along the Atlantic coast (Fig. 1). These limits are purely arbitrary and in the near future will be expanded to include all of New England and ultimately the entire eastern seaboard area which formed the sphere of 17th- and 18th-century English Colonial development. The temporal limits extend from about 1680 to the early years of the 19th century. Preservation of gravestones erected before 1680 is generally not so reliable as that of later stones; by 1830, stonecarving had become a full-time specialty, bringing into effect a different set of forces to act upon stylistic selection and change. Between these two dates, nearly all stones in the area are made from native slate. The widely held notion that most of the raw material from which the stones were cut was imported from the British Isles is incorrect. Harriet Forbes (1927: 5-7) makes an excellent case for the extensive utilization of native stone by citing the absence of slate from the shipping bills of merchant ships of the period and by correctly pointing out that the low prices usually paid for these stones precludes their having been imported in either worked or unworked form. In addition to the commonly used slate, sandstones and schists were employed for gravestones in some cases, these materials being particularly popular in the area south of Boston, where good-quality slate was lacking in any quantity.

Three basic designs are universally present in the Colonial cemeteries of eastern Massachusetts. A number of other design types have a more local distribution, but local styles do not eclipse the universal motifs. The normal location of the primary design is at the top of the headstone. Although decorated footstones are present in

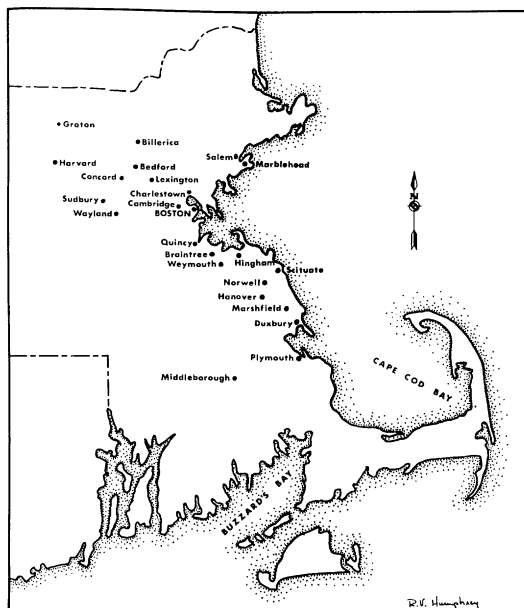


FIG. 1. Eastern Massachusetts, showing cemetery locations.

many cases, their designs were not included in this study, since they do not seem to provide the regularity of patterning as universally as headstone designs do, nor are they present in adequate numbers for statistical treatment. Beneath the design is the inscription, usually giving the name, age, and date of death of the individual, and the epitaph, if any. In addition to the main top design, the sides of most stones are embellished with various floral, geometric, and anthropomorphic motifs.

The three universally occurring design types are as follows:

(1) *Death's Heads* (Fig. 2 a). Usually some type of winged skull, this design is early in New England and is found on the oldest stones as the most common motif. At times it is combined with other elements such as bones, hourglasses, coffins, and palls. This design undergoes a gradual simplification through time.

(2) *Cherubs* (Fig. 2 b). A human face with wings, this style is characteristic of stones carved after the middle 18th century. Like the death's-head motif, the cherub motif undergoes considerable modification through time, chiefly marked by a trend toward simplification.

(3) *Urns and Willow Trees* (Fig. 2 c). The urn and willow motif appears at the close of the 18th century and becomes universal in a very short time. It is the latest design of the three, and its appearance signals the end of the slate-gravestone tradition in New England. Associated with this design is a marked alteration in the shape of the stone. Earlier stones have arched shoulders flank-



FIG. 2. Universal motifs. a, death's head; b, cherub; c, urn and willow.

ing the curved major-design area, while the urn-and-willow design is preponderantly associated with a square-shouldered stone.

The method employed in this study consisted of making photographic collections of all stones in a number of key cemeteries and supplementing these with selections from a number of other locations. Epitaphs were also collected so that a study of the relationship between epitaph and design, if any, could be made. Each com-

plete cemetery sample was then quantified by determining the relative popularity of all designs through the time represented by the cemetery, broken down by decade, and presented in graphic form showing the percentage of each design type used in each ten-year period. This procedure enables one to determine by rapid inspection the time of initial appearance, maximum popularity, and final disappearance of each design involved. After these graphs were prepared, the data were viewed synchronically in an effort to determine the direction of movement of certain designs or attributes thereof, and then both aspects of design distributions were projected against known historical data. Cemeteries at Sudbury, Concord, Lexington, Cambridge, and Plymouth were treated in this manner, although over 40 cemeteries were visited and inspected to ascertain that the pattern in the five intensively treated cemeteries was a valid and universal one. The results of this initial effort are extremely promising in a number of ways.

When the three types are plotted against time, it appears that gravestone designs produce classic examples of the well-known "battleship-shaped" curve which is the mainstay of seriation methods (Fig. 3). Each cemetery so far examined in depth shows the gradual replacement of skulls by cherubs and the subsequent eclipse of the cherub motif by the urn-and-willow design. While the general pattern of replacement is repeated in each of the cemeteries treated, as well as in each of those visited, there are significant differences in the time and rate of change. While cherubs replace death's heads over the entire area, they do so later in Cambridge and progressively earlier as one moves out from the Boston area, although their time of initial appearance is earlier in the Boston area and correspondingly later in areas farther removed. This change is more marked in the southern direction toward Plymouth.

Another significant difference is in the number of local styles in the cemeteries in question. Although Cambridge has none, many cemeteries in the surrounding area have at least one design type of only local occurrence. Most of these local styles occur with highest frequency during the 20-year period between 1740 and 1760. Gravestone designs in the 5000-square-mile area in question cluster rather naturally by type into three time periods between 1680 and 1820. These are as follows: Period I, 1680-1740;

TABLE 1. SEQUENCE OF UNIVERSAL STYLES IN COLONIAL CEMETERIES

| <i>Universal Styles</i> | <i>Period</i> |
|-------------------------|---------------|
| Death's heads | I, II |
| Cherubs | II, III |
| Urns and willows | III |

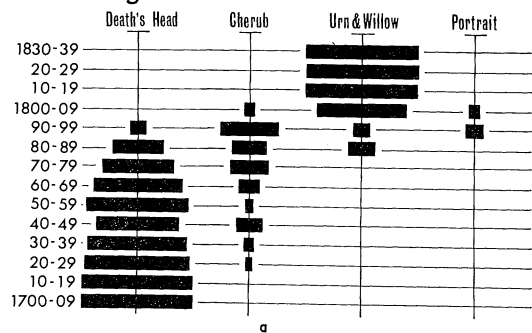
Period II, 1740–1760; and Period III, 1760–1820. These are seriated in Table 1.

Of the six local styles described in Table 2, four are found in the area south of Boston, two occur primarily to the west, and none as yet has been isolated in the area north of Boston in the direction of Salem or Cape Ann. With one exception, these designs are derived in some way from one of the universal motifs. The portraits, which are nearly universal, occurring in most cemeteries outside the Boston area and the region immediately to the north and east, seem to be analogous in many ways to the cherub motif. In fact, many of the cherubs probably have some aspect of portraiture. In the Cambridge and Charlestown cemeteries, cherubs marking male burials differ from those marking females in a single aspect, the style of hair, with male cherubs exhibiting a downward curl and female hair styles done in an upsweep (Fig. 5). This distinction is probably an idiosyncrasy of one family of carvers, the Lamsons of Charlestown, since the distinction cannot be shown to carry over to cherub motifs executed by other carvers. The essential functional identity between cherubs and portraits is further indicated by their similar distribution in time, both reaching their highest frequencies in the third quarter of the 18th century or somewhat later. The Medusas and birdlike death's heads of the Plymouth-Scituate area are derived from the death's head design. In both cases, there seems to have been a change in the features of the lower face, with the typical death's head nose enlarging to form a smiling mouth, with a subsequent reduction or complete loss of the teeth. The curious heart-mouthed death's heads, on the other hand, appear to derive from some other source, as yet unclear.

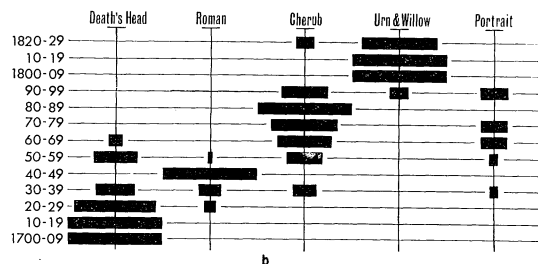
Among these local styles, the so-called Roman motif is unique in its remarkable conservatism. Although in use for a period of approximately 30 years, little change can be seen between its earliest and latest form. Slight variations in the number of turns in the flanking spirals and the

occasional addition of a second, smaller, six-pointed element within the larger ones at the sides are the only changes which take place. This design was probably the product of a single carver, Jonathan Worcester (Forbes 1927: 77–8), but other carvers whose work is known in detail show considerable variation and change in their work over a comparable period of time, as can be seen in the reduction of complexity in the cherub motif employed by Nathaniel and Caleb Lamson between 1740 and 1760 (Fig. 5). Worcester's work is also unique in that he retains upper-case lettering for inscriptions, a practice which was abandoned for more conventional lower case by all other carvers in the first two decades of the 18th century. It is tempting to view the intense conservatism of Worcester's

Cambridge



Concord



Plymouth

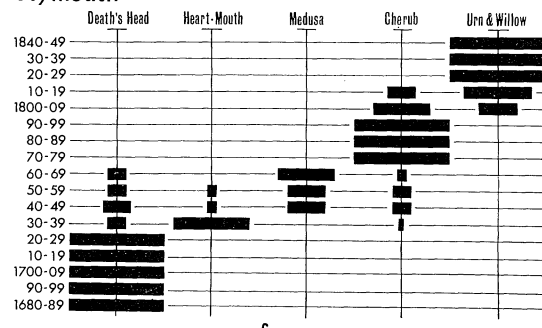


FIG. 3. Graphs showing stylistic sequences in three cemeteries.

TABLE 2. LOCAL STYLES IN COLONIAL CEMETERIES (FIG. 4)

| Style | Carver | Dates and Period | Known Distribution |
|---|-----------|-------------------|---|
| "Roman" | Worcester | 1730-1760 (II) | West of Boston (Concord, Lexington, Wayland, Sudbury, Billerica, Bedford, Harvard). |
| Large, red sandstone portraits | Unknown | 1770-1800 (III) | South of Boston, Old Plymouth Colony (Hanover, Hingham, Quincy, Braintree, Weymouth, Norwell, Plymouth). |
| Black slate, portraits or bulldoglike death's heads | Park | 1756-1785 (III) | West of Boston (Lexington, Concord, Billerica, Bedford, Wayland, Sudbury). |
| Green schist Medusas | Unknown | 1745-1770 (II) | South of Boston to Cape Cod (Middleboro, Marshfield, Plymouth, Buzzards Bay, Duxbury). |
| Birdlike death's head | Vinal? | 1740-1770 (II) | A local style of limited distribution, centered on Scituate, home of Vinal. (Scituate, Norwell, Braintree, Marshfield). |
| Death's head with heart-shaped mouth | Unknown | 1730-1745 (I, II) | Middleboro, Marshfield, Plymouth, Scituate. |

curious design as resulting from its unique qualities. The design in toto could have been taken as a minimal significant unit, rather than its constituent attributes, while cherubs and death's heads could more easily have been perceived as made up of rather discrete, semi-independently variable elements such as wings, skulls, faces, and different hair styles.

This pattern of design change and replacement, rigidly placed in time and space by the peculiar nature of the material which demonstrates it, reflects a wealth of information concerning the times during which it was produced. The interpretive aspects of this study, only recently begun in detail, already show considerable promise of providing a model of inter-related change in many aspects of culture, based primarily on its material remains. For example, the replacement of one universal motif by another through time over the entire area is certainly a function of changes in religious values combined with significant shifts in views regarding death. Considered synchronically, it can be seen that these changes did not proceed uniformly but were proceeding at different rates and probably for different reasons. It is a safe assumption that Cambridge and Boston were apparently the 18th-century cultural focus in eastern Massachusetts. Harvard was a divinity school at the time, and religious attitudes and beliefs must have been intensified and initially changed in this central

area. Since the death's-head motif was the modal design which accompanied early Puritanism in the colony, the shift from death's heads to cherubs may be viewed as indicative of a departure from a prior form of Puritan religion. Such an assumption is strongly supported by the epitaphs normally found on stones of the late 17th and early 18th centuries, which are in close harmony with the major tenets of New England Puritanism. Mortality is stressed, little or no mention being made of an afterlife or resurrection of the dead, as shown by the following example:

Remember me as you pass by
As you are now so once was I
As I am now you soon must be
Prepare for death and follow me.

Other epitaphs mention moldering dust, worms, and decay. When cherubs become modal after midcentury, epitaphs take on a lighter, more hopeful note, although the earlier type does not disappear, occurring even on urn-and-willow stones. Frequent mention of ascent to God, or afterlife in general, is common on cherub stones:

Farewell my wife and children dear,
I leave you for a while
For God has called and I must go
And leave you all behind.

It is important to note that while the death's head can be viewed as a graphic representation of one's mortal remains, cherubs are indicative

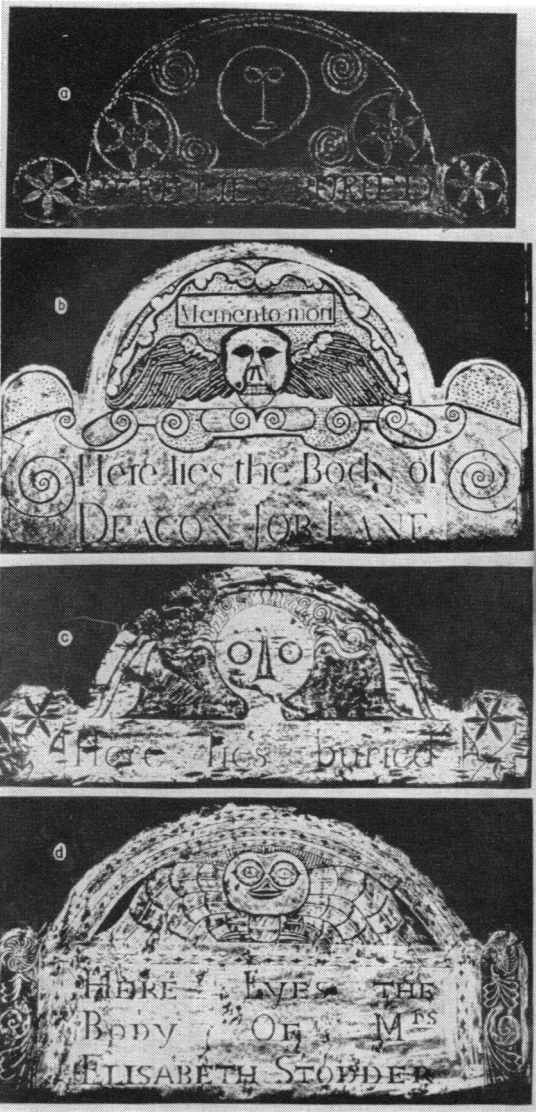


FIG. 4. Four local styles. a, Roman; b, black slate death's head; c, Medusa; d, birdlike death's head.

Graham 1957-58; Yentsch 1963). Cherubs were therefore modal in England in the opening decades of the 18th century, and they appear in small numbers in Cambridge and Charlestown as early as the second decade of that century. The association of these early cherub stones in Cambridge is largely with members of the cosmopolitan minority of the populace. High church officials, a governor's daughter, Harvard College presidents and their wives, and even a Londoner have graves marked by stones bearing elaborate cherub designs. While the cherub motif remains a minor component in

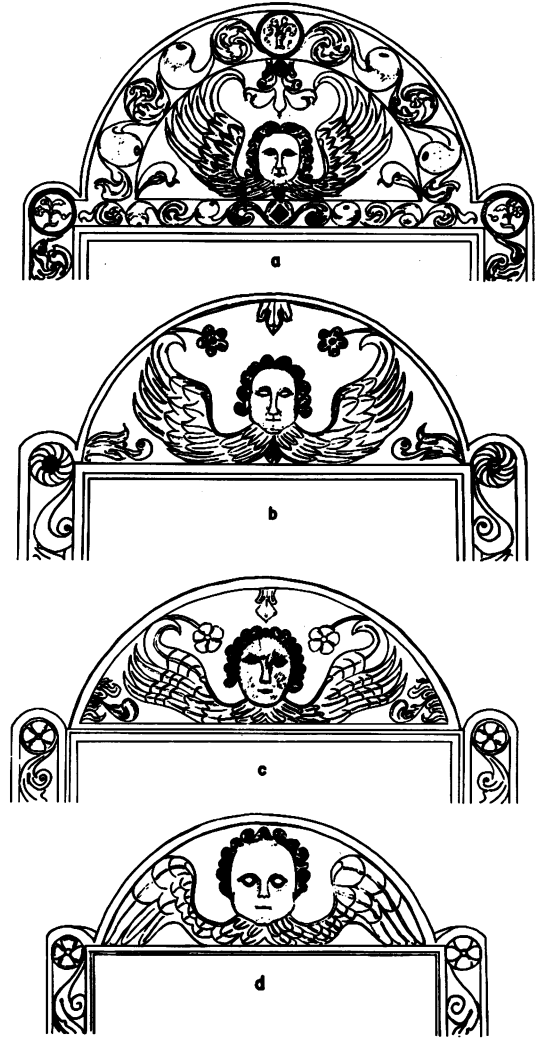


FIG. 5. Cherub designs carved by the Lamson family of Charlestown, Massachusetts, showing reduction in design complexity from 1720 to 1760. a-c, from stones marking male burials; d, from stone marking female burial.

of the immortal component of the deceased. However, both designs are personal representations, while the later urn-and-willow motif is a depersonalized memorial. In addition to this religious dimension of design change, there may be a significant social dimension. A survey of the literature dealing with English gravestones of the 17th and 18th centuries shows that a change from death's heads to cherubs occurred in the British Isles approximately 70 years before it occurred in New England (Chin 1963; Christison 1902;

Cambridge gravestone design, the association with members of a higher, more worldly urban class suggests that they are the source of innovation in this case. The remainder of the population still employs stones with the typical death's heads, and cherubs never become a truly popular design in the central Cambridge-Boston area (Fig. 3*a*). The upward slope of the horizon marking the initial appearance of cherubs in the cemeteries progressively farther from the center probably indicates that this influence diffused outward. However, from the point in time when cherubs become popular, the slope is in the other direction, downward as one moves out from Boston. This can be most economically interpreted as indicating the progressive reduction in intensity of the Puritan ethic in places farther removed from the center of its formulation and transmission. It appears that change is primarily initiated by a small segment of the population and then spreads to the majority, with the rate of spread being inversely proportional to the strength with which religious belief is regulated by a central authority. This interpretation is tentative, subject to the accumulation of additional data.

The distribution pattern of local styles supports these general interpretations. The preponderance of local stylistic diversity in the area which until 1692 was Plymouth Colony, with a somewhat different religion, is expectable according to the general conclusions drawn from the pattern of change seen through time in all cemeteries studied. The only local styles which exist outside of the Old Colony are the two which occur in the Concord-Lexington-Harvard sphere, and these are somewhat different from those to the south. The Roman style was the work of one man, and it continued only during his productive years; William Park's massive black-slate stones, while distinctively local, are usually decorated with one of the universal motifs. In marked contrast, the area south of Boston abounds with designs which are truly peculiar, and the pattern of highly individualistic designs, derived from the universal motifs but quite different from them in detail, is distinctive of this area.

The period from 1740 to 1760 stands out as a time of initial departure from death's heads and of considerable experimentation in new designs. West of Boston it is the peculiar Roman style; to the south, birdlike skulls, Medusas, and the first cherubs occur in quantity. This sudden

variability is not seen in Boston, in Cambridge, or in the area immediately to the north. In all other cemeteries, however, it is the time during which the maximum number of designs occurs. After 1760, cherubs preponderate; prior to 1740, death's heads are virtually universal. This two-decade span was noted at an early stage of this study, and only much later did we discover that it coincided with the time of the "Great Awakening." This movement within New England Puritanism, sparked by Jonathan Edwards, began in 1740 in the Connecticut Valley in Central Massachusetts, and spread rapidly east, reaching but not entering Boston. It was characterized by a newly placed stress on the joys of life after death and resurrection of the dead, rather than the earlier stern emphasis on judgment and mortality. While the cemeteries surrounding Boston on the west and south do not share in the precise motifs introduced during this period, the cherub is one design universally shared, and its subsequent rise to popularity, eclipsing other local styles, in all probability relates in some way to the influence of the Great Awakening.

The end of the Great Awakening is also the time of the final demise of Puritanism. The year 1760 marks the beginning of yet another change in religious views, leading to the rise of Unitarianism and Methodism in the early years of the 19th century. This change is reflected in the cemeteries by the final shift in design types from cherub to urn-and-willow. The urn-and-willow motif becomes the hallmark of Victorian gravemarkers. In direct contrast to the earlier highly personalized designs, urns and willows reflect a trend toward the depersonalization of death and memorial. By the beginning of the 19th century this design becomes absolutely universal, and even today draped urns are a favorite element in gravestone style. The depth to which chroniclers of American funeral custom trace the historic roots of modern practices probably cannot pass this point of time. Much of modern "grief therapy" (Mitford 1963) may be traceable to this initial step in depersonalization, but certainly funeral customs in the period preceding 1800 belong to another age and another set of values.

The data and tentative conclusions presented above are but a very small part of a program already planned and in process in this study of Colonial gravestone design. This paper is primarily a preliminary statement of aims and

methods, with a number of tentative conclusions included to direct attention to the value of the study in its entirety. That this project is of importance to general anthropological theory has already been suggested above. A brief enumeration of future plans will make this more obvious. The following objectives are among those to be reached in the next three to five years:

(1) A complete photographic sample of all cemeteries in the study area, plus a large number of comparative cemeteries in the area from Maine to Georgia and west to the Appalachians will be accumulated. Eastern Massachusetts alone is expected to provide 20,000 stones from hundreds of locations. These are now being photographed; the size of the photographic sample at this writing is approximately 3000 stones from 20 cemeteries.

(2) For each stone an IBM card will be punched according to a design vocabulary now being prepared. In addition, the cards will bear punches for person, age, kinship term, date of death to the day, cemetery, cause of death if given, and stone material.

(3) Using the coded cards, a study of design change in terms of discrete stylistic elements as well as multi-attribute configurations will be pursued.

(4) Using the data regarding date of death, sex, and location, a demographic study of colonial New England will be carried out. It is reasonable to expect that the paths of epidemics, differences in mean age of death in time and space, and other significant information regarding Colonial populations can thus be derived. One such pattern has already emerged with great clarity; there is a marked tendency for young people to die during the summer months, while elderly people have a higher death rate during the winter. Gravestones are a much more detailed source of such information than many town records, which often provide only yearly summaries of fatalities. A projection of cemetery data against town death-lists in Plymouth indicates that most of the population is represented in that cemetery at least until 1800.

(5) All stones bear kinship terms, such as mother, son, and daughter. Preliminary analysis suggests that changes in terminology and shifts in emphasis between consanguinal and affinal kinship terms as they occur spatially and temporally can be determined and explained. As an example of this type of investigation, inscriptions indicate a heavy paternal bias in the period preceding 1800. Stones marking the graves of males are inscribed with name only, with no kinship affiliation indicated. Women and unmarried children, on the other hand, are almost always identified in terms of their husbands or fathers, with "wife of," "child of," "son of," and "daughter of" as the kinship terms utilized in the inscription. Between 1800 and 1840, this strong paternal emphasis is seen to break down, and a brief period of sexual equality is reflected by the general use of Mr. and Mrs. or the deceased's name only. From 1840 until the beginning of the present century, some slight maternal bias is present, as shown by the placement of the wife's name first on stones marking the remains of couples or by larger letters being used for wives' names. The modern pattern contrasts with all previous ones, with most individuals being referred to as mother or father of individuals still

alive, indicating a filial bias in the perception of deceased kin. It may well be that gravestones are one of the richest sources of information regarding changes in the cognitive aspect of kin terminology through time in American culture.

(6) Genealogies will be constructed, and the correlation between design types and families will be further investigated. Preliminary study suggests that familial affiliation has little or no effect on selection of design.

(7) By consulting the probate records, it is possible to determine the average price of stones of each design type in different places at different times. These records are also informative concerning the social status, occupation, and net worth at death of the estate of the individual whose resting place is marked by a stone. Thus the economic dimension of style change can be detailed.

(8) Using the discrete design elements which occur on the stones, rate of stylistic change within each major type will be measured to determine if a difference in rate of change exists between waxing and waning styles.

(9) Seriation methods will be tested by arranging single-decade samples from different cemeteries in chronological order and investigating the effect of direction and rate of diffusion on the sequential ordering of sites at different locations. Analysis completed to date suggests that if a series of sites is sampled along a line which is parallel to the direction of diffusion, successively more recent sites in the direction of diffusion will produce a curve for the rate of change which is more gradual than the true rate, while a sequence ordered in a line running against the direction of diffusion will produce an apparently greater rate of change. This phenomenon is analogous to the Doppler effect in physics, where frequencies of sound and light appear to rise or fall depending on whether the observer is traveling toward or away from the source of energy.

(10) Investigation of the degree of social and commercial intercourse between towns, as shown by an index stating the percentage of shared surnames and relatives, will be pursued, and between-town design sharing will be studied in these terms.

(11) An attempt will be made to reconstruct extinct political boundaries. Preliminary analysis suggests that the Massachusetts Bay-Plymouth Colony line is reflected in a disruption of an otherwise smooth continuum of design variation along a line connecting Boston and Plymouth. All of the local styles in the Plymouth Colony area are restricted to that region, and the red-sandstone portraits and birdlike skulls reach their northern limit along a line approximating this boundary. A similar phenomenon may occur at the Rhode Island-Plymouth Colony line and at the junction of any two of the original colonies.

(12) The totality of New England mortuary art will be traced back to its Old World antecedents.

This project holds great potential for several aspects of general anthropology, going far beyond the area of archaeological method. Practically every factor which might have an effect on the changes observed in one area of material culture can be controlled and investigated in considerable depth. This control is not restricted

to the cultural realm of human existence; with the demographic dimension added, an important biological integration is provided. That the archaeologist must at all times keep before him a sense of the articulation between his excavated material and the rich and colorful culture which produced it is a frequently repeated injunction which is all too often not adequately heeded. Colonial gravestones provide the anthropologist with a highly complex pattern of material change, in which the dominant theme is the highly integrated nature of the various aspects of culture change.

While most of the intrinsic value of this study arises from the rigorously positive historical control which allows observation in considerable detail of the causes of various changes in gravestone decorative style, it has further value in providing detailed information concerning social changes and historical events which did *not* have an effect on gravestone design. The most striking example of this latter negative type of control is the fact that the American Revolution, a most moving and disruptive event in New England Colonial culture, has not as yet been detected in the gravestone data. With the exception of certain epitaphs which commemorate an individual killed in action or which cite his military prowess, no discernible change in design is registered in the period between 1750 and 1800 which could in any way be attributed directly to the effects of the Revolution. Such a lack of indication in an otherwise rather sensitive tradition should be noted and heeded as a plea for due caution in interpretation, particularly the postulation of the lack of cultural elements based on negative evidence.

The success with which the initial phases of this study have been completed points strongly to a successful final conclusion. Since ethnographic data are frequently lacking in the kind of information which is of maximum value to the prehistorian, controlled studies of this type may provide a valuable alternative solution to the problem of joining man's material products with his culture in a meaningful sense. Archaeology must be viewed as a technique employed by the ethnologist for the purpose of adding a

time dimension to his analysis of culture. As such, the prehistorian must be an ethnologist first and an archaeologist second, since he cannot possibly perform meaningful and sophisticated reconstructions of past cultures unless he is aware of the nature of the articulation between culture and its products. A study like the present one is therefore a problem in general anthropology, as well as a valuable exercise in experimental archaeology. Future work in this area should help to delineate the nature of the links between archaeological and ethnological data and thus serve both subdisciplines well.

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