Materiality and memory: an archaeological perspective on the popular adoption of linear time in Britain

Harold Mytum*

Archaeologists increasingly realise that prehistoric peoples had their own ideas about time. The concept of linear, measurable time emerged in learned Europe largely in the first millennium. Here the author tracks how, with the broadening of literacy in sixteenth-century Britain, dates start appearing on numerous items of popular culture. The dated objects in turn feed back into the way that people of all social levels began to see themselves and their place in history.

Keywords: Britain, Reformation, time, memory, church, bells, memorials

Introduction

Archaeologists have become increasingly interested in time and memory, examining these two linked issues in a number of ways (Bailey 1987; Gosden 1994; Thomas 1996; Murray 1999; Karlsson 2001; Bradley 2002; van Dyke & Alcock 2003; Lucas 2005). Linear time has become recognised as only one of several competing or, according to Lucas (2005), complementary paradigms that may be applied within the contemporary world, and in the past. It is thus now commonplace for archaeologists to conceive their chronologies in linear time, studying prehistory in relative stratigraphic sequences and equating them to calendar years using calibrated radiocarbon chronologies. Within that linear past, however, they seek an understanding of past actors’ world views that may have been of cyclical or experienced time. The origins of popular understanding and implementation of linear time have not, however, been investigated.

Material evidence for the popular perception of linear time in recent millennia in Europe, as an incremental addition of years from the birth of Christ, suggests that the adoption of such a chronological perspective was central in the construction of individual, familial and community histories, to be set besides the developing national histories already identified by historians (Cressy 1989; Anderson 1991). Archaeologists can identify the shift in a popular understanding of time that was a powerful factor in increasing pressure for social and political change in the English-speaking world, and also led to the development of both history and archaeology as academic subjects. The concept of materiality allows for

* Department of Archaeology, University of York, King’s Manor, York YO1 7EP, UK (Email: hcm1@york.ac.uk)

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the acknowledgement and investigation of the relationships between ideas and activities (DeMarrais et al. 1996), and material culture labelled with dates not only reflected, but also created patterns of understanding and behaviour regarding such a concept of time.

The Judeo-Christian Biblical counting of years created a framework for understanding and counting linear time, beginning with the Creation, pivoted around Christ's birth, and was scheduled to end with the Resurrection of Christ at the Second Coming. This provided a linear framework, within which years of each king's reign were counted, and the Annals and Chronicles of the early Middle Ages were formulated. Yet time was not normally viewed in that way during the Middle Ages (Burke 1969). Predominant medieval concepts of time rather emphasised the cyclical nature of the seasons, and longer-term change was not perceived within a linear dimension. What to us appears as a certain timelessness was applied to medieval understanding of the remote past, as seen in medieval illustrations of Biblical events where all the participants were depicted with material culture including clothes, architecture and tools that were contemporary with the creation of the image (Panofsky 1960: 170). This ahistorical vision gave time a different quality. Although events could be placed in a linear arrangement, as indicated in the Annals and Chronicles, those early in the sequence could be understood in terms of contemporary concerns and imagery. This may be linked to St Augustine's consideration of personal time, with the present incorporating past memory and expectation of the future. In religious art this would link the Biblical past event with the present of the artist and viewer, and to the future when Judgement would come. Archaeology and history, as would be appreciated today, did not exist in such a milieu. The annual cyclical pattern of religious feast days and festivals created a dynamic of time that in one sense moved on along a linear trajectory towards the Day of Judgement (and millennial movements at AD 1000, for example, reflected this). In other senses, however, the timelessness of the cyclical calendar dominated popular thought and action. This combination of different understandings of time is frequent in many cultures, including our own. As Lucas (2005) points out, linear time does not exclude the cyclical daily and seasonal round, and cyclical time can be moving in a linear direction.

The development of concepts of linear time and the arrangement of this into meaningful history can be seen to emerge in the fifteenth century, with the creation and dissemination of printed chronicles of events (Burke 1969; Breisach 1994). These were derived from the Bible, other ancient texts, and various lists of officials and events that had been produced under the medieval concepts of linear time, but were not then used to create history. In the sixteenth century, large numbers of such chronicles were produced for widespread consumption. A significant shift in ensuring popular understanding occurred in 1565 when Richard Grafton produced a small handbook entitled A Manuell of the Chronicles of England. From the creacion of the worlde, to this yeare of our Lorde 1565 (Wright 1935: 305). This was particularly important because he used Arabic numerals instead of Roman 'for the helpe of suche as are not acquainted with the use of Figures'. The shift to indicating dates with Arabic numerals made linear time more easily accessible, and the present could be placed in a measurable position with events in the past. Moreover the future, however distant, could also be easily calculated and placed in the linear framework. In addition, local histories began to be produced for the first time (McKisack 1971), allowing individuals and families to conceive of their place within time and history.
The material evidence for linear time

Some items of material culture from early modern England carried texts that indicated their date of production. Where corpora have been compiled, it is possible to indicate changes in the popularity of such explicitly dated items, and so trends over time can be identified. Three such categories church bells, dated foundation stones in buildings (datestones) and internal church monuments, will be examined here. Trends identified across these categories can be compared with other forms of material culture with dates, including lead-work, furniture, glass bottles and ceramics. Although as yet these can only be illustrated through ad hoc examples, they are numerous and demonstrate the ubiquity of dating in the early modern English-speaking world. They indicate a middle-class concern with marking linear time, and the beginnings of the culture of popular commemoration with which we are familiar today. This is in stark contrast to the previous, medieval attitudes to time and remembrance.

The materiality of the dated items reflected a growing awareness of the role of linear time in changing society, but also further created a new awareness of history through the physical presence of such dated items in the world. These were both material and textual, carrying the date and often other information such as initials or names. They took a form that made them aesthetic (Knappett 2004: 49), though some of the artefacts (such as ceramics and furniture) also had a practical use. The different attitude to time reflected in part intellectual changes but also changes in practice.

Church bells

The study of church bells formed part of the popular Victorian antiquarian tradition, exemplified by county catalogues such as that for Northamptonshire (North 1878). A typology of bell forms has been developed, and makers identified for many bells. This activity culminated in a synthesis of the English material (Walters 1912), and there continues to be further work by campanologists, though with no standard methodology of recording, or consistency of published detail. Later studies have variously examined the physical and tonal qualities of the bells, but only some have been concerned to place the bells in a historical framework. Archaeologists, however, have taken limited interest in extant hanging bells, as noted by Christie (2004: 14) for bells and bell towers of all periods. This largely unseen resource provides significant evidence for the development of interests in time.

Bells were important in the medieval and early modern period for the marking of time (Lucas 2005: 75-6). They were rung to mark Christian annual special days, weekly Sunday services, and particular times of those services; secular timekeeping included curfews and, from the Elizabethan period onwards, national days of celebration (North 1878; Walters 1912: 114-51; Cressy 1989). Bells also marked personal time, celebrating rites of passage such as marriage, death and burial (Walters 1912: 152-64). Public clocks were linked to bells in the late Middle Ages on the Continent, where mechanisms were developed that allowed the striking of hours (Dohrn-van Rossum 1992: 202-15). Bells were thus associated with cyclical time through daily and annual patterns, but they also reveal through texts cast into them a changing attitude that placed a greater significance on linear time.

Medieval and later bells were often cast with raised texts on them, formed by pressing letters into the clay mould. Whilst most medieval bells had Latin dedications, usually to the
Virgin Mary or St John the Baptist (Walters 1912: 269), some makers also put a symbol, or less often their actual name or initials on the bell (Walters 1912: 315-27). A small number revealed the name of the donor or other short exhortations. Few bells were dated (Walters 1912: 317-18), though this was more common in France and the Low Countries, as can be seen on the small number of imported bells (Walters 1912: 211). Moreover, English medieval dated bells are mainly of the later fifteenth and early sixteenth centuries, and can be seen as the beginnings of a trend that becomes apparent after the Reformation.

Early modern bells have a wide range of inscriptions, but the overwhelming majority give the year, sometimes in Latin but usually in Arabic numerals. The names or initials of the maker, churchwardens, clergy and donor may all appear on the bell, though normally it is only the first two that are used. Many have exhortations regarding the quality of the bell and others make political statements such as ‘God save the king’, but the importance of the date and the key individuals associated with the commissioning and manufacture is clear (Figure 1).

The Northamptonshire corpus (North 1878) provides a sufficiently large sample to demonstrate the increasing popularity of dated bells. A significant production can be observed from the 1580s, rising steadily to a peak in the 1620s (Figure 2). Cressy (1989: xii) notes that after 1570 the role of bells widened to include celebrating ‘the queen’s holy day’ on 17 November; in the seventeenth century the Stuarts added further commemorations. This increased the social importance of bells, and may account for the seventeenth-century development of the distinctively English practice of change ringing. This produced more complex patterns of sound (Cressy 1989: 70) and marked a shift from the medieval practice in which a single bell was tolled; a tower could have several bells but each was used to signal certain times or occasions. Now a set of compatible bells was required, and the consequent recasting and extending of rings of bells explains the large numbers produced at this time. It is noteworthy that although there was a drop during the English Civil War and Commonwealth period, some new bells were still being manufactured even through this turbulent period.

Whilst the changes in bell use and ringing can account for increased bell recasting and production, it does not itself explain why the bells are dated and have initials or names cast on them, unlike most medieval bells. Almost all bells thought to be of the seventeenth century and later are indeed dated and with names or initials, yet they were always placed high up in the church tower, well out of sight, unseen even by the ringers who operated the bells by means of ropes that hung down into a lower ringing chamber. The inscribing of the bells therefore had no obvious practical significance, except that those who had them made knew that this was physically recorded; their contribution in time, skill or resources would be known to posterity. The symbolic significance of casting the bell has yet to be explored fully and deserves further research, but the use of names and dates to mark this indicates the growing importance of marking linear, chronological time to those involved in their commissioning.

**Datestones**

Buildings can display a stone block on which is carved a date, normally a year in Arabic numerals. This is called a datestone, though an equivalent text can even be carved on a
Figure 1. Date and initials on a bell in Burford parish church, Oxfordshire; a - General view; b - detail of date (1635) and names (CHWA is the abbreviation for churchwarden).
structural timber to serve the same purpose. Thus far, architectural historians and buildings archaeologists have used datestones to provide a chronology, always aware that they can be moved and reused, and that the date may be commemorating something other than the construction or extension of the standing building. Nevertheless, when confidently seen as being in situ, datestones have been used as a sensitive and accurate means of providing a chronology in linear time. Why such features were put in the buildings has not been considered, yet they do not occur during the Middle Ages. Their very production is valuable evidence for changing perceptions of time, and the nature of familial commemorative practice. Datestones often incorporate initials of one or more individuals, sometimes husband and wife. Almost all datestones seem to have been cut in the year that they give; a few may be much later and have been cut to commemorate a past historical event, but the style of the numerals and methods of carving usually allow these to be excluded. Data sets from Wales and Jersey can illustrate the chronological trends in their use.

Welsh datestones up to the 1740s have been catalogued by Smith (1988). He demonstrates that a small number of buildings had such stones in the early sixteenth century, but that from the 1570s they began to become more popular (Figure 3). Numbers gradually rose during the seventeenth century, and then became very frequent in the later eighteenth century. Smith analysed the spatial distribution of the Welsh datestones over time, and saw an initial heavy concentration in the north. Gradually the incidence of such chronological markers spread over the whole country, a pattern that he saw was linked to increased educational levels amongst the gentry for whom most of the houses were constructed. The Renaissance impacted upon North Wales earlier than the rest of Wales, evidenced in the production of literature. Smith (1988) identified that datestones derived from this learning but did not explore this further. The material evidence demonstrates that the concept of linear time circulating in intellectual circles led to changes in commemorative behaviour, through the marking of time when houses were built, extended or altered. Linear time was made
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Figure 3. Bar graph of datestones from Wales (data from Smith 1988).

Figure 4. Bar graph of datestones from Jersey (data from Glendinning n.d.).

concrete and allowed the creation of familial and community history based on that form of chronology. It is noteworthy in this context that one of the earliest county historians, George Owen, was Welsh (McKisack 1971).

Many houses in Jersey were provided with datestones (Stevens 1977; Glendinning n.d.), with a slow beginning in the 1580s, a constant rate of erection through to the middle of the seventeenth century, and much greater popularity from the 1660s (Figure 4). Most of the earlier stones consisted of initials, often of husband and wife, and date in Arabic numerals. Later, names were sometimes given in full. Shield outlines formed part of the
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Figure 5. Examples of seventeenth and eighteenth century Jersey datestones, from the Jersey Datestones Register (Glendinning n.d.). A, Cat. No. 194; B, Cat. No. 278; C, Cat. No. 214 with double heart motif. Photographs by A. Glendinning.

design for many stones of the sixteenth and seventeenth centuries, and motifs such as the heart later became frequent (Figure 5). Though having a later start than in Wales, datestones subsequently became far more popular during the seventeenth century, given the relative size of the two study areas. Early datestones rarely survive from North America, though one of 1726 can be seen at Berkeley Plantation, a Georgian mansion in Virginia.

Datestones marking linear time were not erected in the Middle Ages, but began in the sixteenth century. In some areas with strong intellectual traditions, such as North Wales, they became frequent from the later sixteenth century, but became widespread during the seventeenth century. Their rise in popularity closely mirrors that of the printed chronicles and histories, and indicates the transfer of such concepts of linear time into the middling classes that are commissioning the buildings in which the stones are prominently placed. It was the same middle-class members of the community that were the churchwardens recorded on the church bells, and they began to take up these and other commemorative strategies at the same time.

Internal parish church memorials

Commemorative monuments that give dates occur in small numbers during the medieval period, especially on brasses, but this becomes more common in the sixteenth century and increases rapidly in the seventeenth century. Bigland’s collection of information for Gloucestershire churches (Frith 1992) includes details of many memorials now destroyed or hidden by later church alterations. The monuments have been allocated to a decade based on the first named person on the memorial, and this is sufficiently accurate to identify the overall trend (Figure 6). There is a clear and consistent rise in the use of internal memorials from the 1600s onwards, with a drop after the 1720s. Some early memorials, especially those used as ledger slabs, had only initials and year of death, but many of the more elaborate memorials had longer inscriptions. Data from Norwich analysed by Finch (2000) shows a remarkably similar rise from 1600, and a drop from the 1730s (Figure 7). The most popular monuments vary in form over time, from brasses to tombs and ledgers to wall monuments, but this does not affect the overall thrust of change (Figure 8). The internal monuments can be seen to form part of a developing tradition of dated mortuary material culture, as coffins
began to be labelled with initials and year date in the seventeenth century (Mytum 2004). The earliest external memorials often only have initials and year, though very few survive from the sixteenth century, and seventeenth century examples are very unevenly distributed (Mytum & Chapman 2006). They nevertheless demonstrate that the pattern indicated by the internal monuments was also followed externally.

Memorials of the early modern period in England reflect the change from late medieval Catholic concerns with intercession to reduce the time the deceased might spend in Purgatory to a Protestant celebration of the life of the deceased (Finch 2000; Llewelyn 2000). This shift from ‘prospective’ hope for salvation to ‘retrospective’ accounts of the deceased has been linked to the rise of the individual, but this is at best a partial explanation (Finch 2000: 389).
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The immediate family was often emphasised, and indeed the decreasing number of Norwich monuments commemorating only one person during the later seventeenth and early eighteenth centuries further suggests more factors than individualism (Finch 2000: 175-77). Texts give dates and relationships with other named individuals, their places of abode, and achievements. This may have been important in creating and reinforcing identities but it also allowed for the creation and display of history. The memorials indicate an awareness of the deceased within linear time, and a desire to mark physically and articulate parts of familial and community histories.

Other material culture with dates

A wide range of other material culture displays dates from the sixteenth century onwards. Lead-work is linked to buildings and the phenomenon of datestones, but others represent very different categories of material culture including furniture, glass and ceramics. Leadwork can be used in a range of architectural features, and one of the earliest dated examples in England can be seen at Windsor Castle, where a rain-water pipe-head has the initials ER and year 1589, though a few other sixteenth century examples also survive (Weaver 1909: 26). More can be found from the seventeenth century, and many surviving...
lead cisterns have dates and initials (Weaver 1909). Furniture, both ecclesiastical and secular, could be inscribed with initials and year. Many types of furniture including chairs, dressers, cradles and chests survive in churches (Roe 1929), historic houses and museums (Anon
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Whilst a few sixteenth century examples are known, numbers significantly increase in the seventeenth century (Figure 9). The inscriptions are similar in design to their contemporary datestones, with year in Arabic numerals and initials being most common. Such furniture is known from North America, including a Massachusetts-made chest of drawers dated 1678.

Evidence for dated bottles and ceramic items comes from complete examples in collections and from excavated material at production and settlement sites. Bottle seals demonstrate the desire to mark property with names, initials and often year dates; examples from Oxford incorporating the year begin from the late seventeenth century (Banks 1997), and they also occur in North America associated with residents there in the eighteenth century. Dates and initials were painted freehand on ceramic vessels, often on slipwares and delftware. They could be specifically commissioned, and were not restricted only to the family and friends of the potters. Staffordshire slipware occurs widely throughout Britain, and indeed in North America. Forms made for commemorative purposes included mugs, posset pots, large plates (chargers) and model cradles (Hughes 1960: Plate 2). They often carried names or initials (of the maker or commissioner) and year dates. The Donyat pottery kilns in Somerset have yielded dated fragments from the 1640s, with a steady representation from the later seventeenth century onwards (Allason-Jones 1988). The origins and early development of dated and initialled ceramics matches the other evidence discussed above, beginning early in the seventeenth century. The dated examples have been used to aid the construction of chronologies and typologies, but their significance regarding attitudes to time, as with other aspects of material culture, have not been evaluated or recognised. Glass and ceramics with
year dates will enable archaeologists to consider further the geographical and social spread of the concept of linear time, and the commemoration of personal and family events.

**Memory and modern commemoration**

The objects displaying year dates demonstrate the acceptance and practice of marking linear time, recognising chronological time counting onwards from the birth of Christ. The reasons why such a concept was accepted, and why it was then materially marked in these ways, needs some discussion, though at this stage of research this can only be a preliminary statement.

The role of heraldry, genealogy and patina on material items all demonstrated continuities. These were important aspects of elite justifications for power, continuing from the late Middle Ages (McCracken 1988). Lucas (2005: 90) notes that this was a way that the established elite could separate themselves from the *nouveaux riches*. It is interesting, then, to note that whilst the Tudor and Stuart monarchy espoused linear time to bolster their political power over the aristocracy, the contemporaneous popular marking of absolute time began within the middle classes. Whilst the capitalist time of clocks may later have become important to this group in the everyday working of their businesses (Thompson 1967; Leone & Shackel 1987), it is their earlier developing attitudes to longer timescales and history that are important here. National chronicles showed dated events in sequence, and the middle classes desired to place their personal events within this framework. The categories of artefact displaying dates and names or initials ranged from those widely visible to the public, with parish church internal monuments and, to a lesser extent, datestones on the outside of buildings, through those visible only to individuals invited within the house on furniture, glass and ceramics, to ones rarely seen, as on bells in parish church towers or coffins in vaults. But all these dated items displayed a concern with marking events and the creation of history. Just as the published chronicles listed events by the year, so these personal events were physically inscribed onto material culture. These cumulatively provided the physical evidence from which different groups in society could create their own understandings and histories, within a linear, measurable, narrative format.

The new phenomenon of inscribing and marking time became increasingly common even while the concept of patina was in use by the aristocracy. Patina means the surface appearance caused by age, but this appearance of age and stability could be created and manipulated to justify the social order. It is generally thought that only in the later eighteenth century did patina cease to be socially powerful, being replaced by consumerism (McCracken 1988), but the evidence presented here suggests that this was being challenged from the late sixteenth century. Dating the rebuilding of a house, or construction of a family funerary monument, challenged the role of age and patina by demonstrating newness. Explicit dates in linear, chronological time celebrated the arrival of new money and influence, just as innovative measures of social status, such as success in commerce, appeared on memorials (Finch 2000). Dating the rebuilding of a house in the hope that in a hundred years time its antiquity and patina could be verified and socially accepted seems unconvincing. Surely this inscribing was undermining the role of patina by explicitly stating the contemporary or recent success marked by the dated commemorations, and demonstrating that the days of patina were
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numbered. There was a popular shift within the middle classes to indicate their economic success, and signal their growing social significance. Indeed, historians have noted that the middle classes were not emulating their immediate superiors but establishing their own patterns of culture and social recognition on their own terms (Wright 1935: 20; Wrightson 2000).

The desire to order time sequentially, in a linear fashion, came through the middle classes’ entrepreneurial activities, creating patterns of timekeeping that went beyond the cyclical, as has been identified anthropologically elsewhere (Boivin 2004: 66). The very presence of dated items in everyday use and in the built environment cemented and reinforced this form of time awareness. Newness advertised through dated material culture can be archaeologically demonstrated across a wide range of material goods and practices throughout the English-speaking world. Part of this process of differentiation involved an increasing appreciation of linear time and change, and with it individual and familial roles in the creation of history.

Conclusions

Documentary evidence indicates that the concept of linear time was appreciated and applied in Britain from the sixteenth century (Levy 1967: 234), and was widely accepted by all from the aristocracy to the middle classes during the seventeenth century (Burke 1969). This can now be demonstrated, and its popular extent explored, through material culture. Here materiality allows for a complex interaction between concept, text, object and behaviour. Fragmentary evidence indicates that this was also the case in English-speaking America. The extent to which the signalling of date on artefacts was also a popular phenomenon in Protestant or Catholic Europe and its colonies has not yet been explored, though in intellectual circles it was vibrant (Burke 1969; Woolard 2004).

The acceptance of linear time was no mere intellectual exercise; rather it caused individual and familial action and memory to be framed within this perspective, and physically commemorated in this way. A royal strategy for increasing national consciousness may be relevant in the initial stages of practising linear time (Cressy 1989), as with the early use of dates on lead-work at Tudor palaces. But whilst bells were recast or commissioned anew to fulfil demands for commemoration of national festivities, the placing of individuals’ initials and dates of manufacture on the bells reflected local and personal attitudes to linear time and memory. The appearance of dates and initials or names on houses, furniture, glass, and ceramics demonstrates widespread localised changes in perception. This emphasis on change and newness, in contrast to the signs of antiquity or patina so important to the old establishment, supported the rising confidence of the increasingly affluent and powerful middle classes. In North America, the calendar did not follow the English one closely, and local events were commemorated (for example in Virginia, Cressy 1989: 195-96), creating a regional, colonial heritage and temporal framework. With the acceptance of linear time a sense of history, progress and change became more obvious, important and measurable. It provided a conceptual structure that allowed the English-speaking middle classes to seek new power and influence. As the local calendars and memories provided through linear time may be linked to nationalism (Anderson 1991; Woolard 2004), it may be argued that the differing perceptions sowed the seeds of American independence. In the English-speaking
world, documentary and archaeological sources demonstrate that socially diverse histories were being created from the late sixteenth century, and divergent futures imagined. Time and times were changing.

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