n recent years there have been considerable advances in the application of computer technology to research in the humanities. One significant benefit of this has been an increased capacity to gather and manipulate large quantities of information on a given subject. Another has been to make this data more easily available to a wide range of scholars with diverse research interests. Researchers into the Anglo-Saxon period of England (AD 400–1066) have been in a good position to develop and exploit such resources. By making information from different subject areas more widely available, they are able to compare data and, as a result, gain a much deeper understanding of the period.

Several projects have been inspired by this potential for greater communication between the different disciplines of Anglo-Saxon studies (archaeology, history, coin studies, linguistics and place-names). The first steps have been to refine the discrete data sources and place them into a computer-manipulable environment. The Corpus of Early Medieval Coin Finds, for example, lists all of the coins minted between 410 and 1180 found in the British Isles as single finds (as opposed to hoards). Other examples, the Prosopography of Anglo-Saxon England and the Electronic Sawyer of Anglo-Saxon Charters, have made virtually all the written texts of the period more easily available to a wide range of scholars with diverse research interests. Researchers into the Anglo-Saxon period of England (AD 400–1066) have been in a good position to develop and exploit such resources. By making information from different subject areas more widely available, they are able to compare data and, as a result, gain a much deeper understanding of the period.

What is ASKED?
The Anglo-Saxon Kent Electronic Database is a collaboratively built research tool, developed initially to facilitate the doctoral research of two Institute of Archaeology students: Stuart Brookes, investigating state formation in Anglo-Saxon east Kent, and Sue Harrington, examining aspects of gender and craft production in early Anglo-Saxon England with particular reference to the early kingdom of Kent. Both projects were supervised by Martin Welch and drew on the wealth of data contained in the burials of the period AD 400–750. These inhumations were frequently furnished with dress fittings, weapons and personal effects, to the extent that this period can be viewed as being among the most exceptionally rich in British archaeology. Such burials are particularly abundant in Kent, with nearly 50 cemeteries having been excavated there over the past 200–300 years (Fig. 1).

Gaining an overview of such a large dataset is difficult at the best of times, but the situation was made more difficult by the disorderly state of the excavated material. Several of the major cemeteries were excavated by antiquarians, such as the Reverend Brian Faussett, who, in the course of demolishing seventh-century barrow graves, nevertheless recorded them to a standard in advance of his time (Fig. 2). His collection was acquired by a Liverpool businessman and given to the City of Liverpool. Unfortunately, some of the material from the extensive Ozengell cemetery (on the Isle of Thanet near Ramsgate) did not survive the bombing of Liverpool City Museum in Second World War. Material from other cemeteries was dispersed to several museums. The material from the important cemetery at Sarre (on the western end of the Isle of Thanet above the Wantsum Channel) now has six different locations, and significant quantities have been de-contextualized and mixed with finds from other sites. Better represented are those cemeteries excavated in the 1950s and 1960s, for example by Vera Evison and the late Sonia Chadwick Hawkes (Fig. 3). The majority of these have been brought to publication, although some more completely than others. In more recent times, the piecemeal excavation of east Kent cemeteries by various contracted field units, in advance of building development and works associated with the cross-Channel rail link, has further dispersed the archaeological material, occasionally separating the paper archive from the artefacts.

Although approximately 300 published articles deal with the material from these 50 or so sites, the level of detail presented is not consistent. A backlog of unpublished excavation material from significant cemetery sites has built up over the past 20–30 years, during which time material may have been mislaid, been misidentified, deteriorated or become subject to dispute regarding their interpretation or ownership. Researchers have, in the mean time, been allowed access to discrete parts of the material, such as the spears, buckles and certain brooches, pending their publication. However, this has served to restrict the archaeological research agenda for the...
period to issues of typology and cultural affiliations, looking at objects not people, rather than exploring broader issues such as state formation or identity in a time of dynamic social change.

In order to use this much fragmented corpus, and to be able to address questions central to our researches, it was decided to reassemble as much of the identifiable archaeological data as possible in a new, unified and cross-comparable format. The period October 1999 to January 2001 was spent in museum stores and other venues, working through the site archives of all partially and fully excavated Anglo-Saxon cemetery sites from east Kent, and making a catalogue of the finds from the few settlement sites of the period. Archives visited included the British Museum, the Powell Cotton Museum at Quex Park, the Royal Museum at Canterbury, and Maidstone Museum and Art Gallery (Fig. 4). The intention was to gather together as fully as possible all of the artefactual data for each site, to structure it back into discrete grave groups, and to date it according to the latest available information. By way of support

Figure 2 An etching showing the site of early excavations by the Reverend Brian Faussett in the sand quarry at Gilton, Kent. From 1757 to 1777 he excavated many Anglo-Saxon barrows in Kent, amassing a huge private collection of grave goods that were posthumously published in 1856 by Charles Roach Smith as the Inventorium Sepulchrale, from where this image is reproduced.

Figure 3 Aerial photo (from the north-east) of the cemetery at Eastry Updown, which was partially excavated in two campaigns by the Kent Archaeological Rescue Unit and a student excavation directed by S. C. Hawkes (courtesy of the University of Cambridge Air Photography Unit).

Figure 4 One of the authors measuring artefacts from the cemetery of Dover Buckland cemetery, now archived in the British Museum.
for our individual researches, previously neglected categories of data were also generated, for example, the weights and raw-material content of the artefacts, the location on objects of the surviving textile fragments, and detailed recording of the weaving equipment from female burials, either as an extension of reports already in the public domain or as completely new data from previously unexamined material.

The ASKED project has identified some 150 different artefact types, many with typological variants, which were used as grave goods in the early Anglo-Saxon period. The total number of objects entered into the database is in excess of 11,000 from within 3,750 burials. This rigorous approach has allowed, for example, an updated and comprehensive listing of spear types found in Kent. ASKED comprises a series of related data broken into three main types: cemetery, grave and artefact. Cemetery data include information on the site, its location, underlying geology, excavation history and date range of its use. Grave data provide each individual burial with a unique identifier (or name), their estimated age at death, their biological sex and their gender ascription based on their associated grave goods. For example, DBU/20 refers to Dover Buckland grave 20, a female child with feminine grave goods, buried c. AD 520, from the important cemetery excavated by Vera Evison in 1953 (Fig. 5). The grave goods, where present, determine the ascribed date range for the burial of that person, although the majority can be placed only within broad phases. Artefact entries give details of the type, the material composition, weight, position in the burial in relation to the body, and an assessment of the provenance or source of the object, for example imported (amber from the Baltic) or coming from another region (brooches from Saxon areas) (Fig. 6).

Through using ASKED, new insights into aspects of early Anglo-Saxon society and economies have been achieved. For example, it is now possible to identify the early Anglo-Saxon framework for the development of the kingdom of Kent, by defining how different communities exploited the landscape. Similarly, geographical information systems have enabled the spatial relationship between Early Anglo-Saxon settlement and previous Roman patterns to be explored. Manipulating the same data, but from a slightly different theoretical perspective, it is now possible to identify sixth-century ethnic divisions between those women buried with spindle whorls and those accompanied by other weaving equipment. In addition, the recording of the positioning of objects allows us to identify tentatively those few male burials that have spearheads orientated towards their feet as being ethnically linked to contemporaneous burial rituals prevalent in northern Europe, particularly in the kingdoms of Frankia across the Channel.

Advancing the potential of interdisciplinary research

The ASKED project has demonstrated the value of applying computer technology to the cataloguing of burial data. Anglo-Saxon burials are discrete contexts and are rich in archaeological information. It is these same factors that make them an appropriate category of data from which to develop both standards and techniques for the online dissemination of information. Unlike many other forms of archaeological evidence, they are inherently coherent and closed. By listing these dead people, together with their grave inventories and the structures built around their graves, ASKED can support a huge range of archaeological questions, including examinations of ritual behaviour, explorations of shifting gender identities, and analyses of exchange and consumption of materials or objects. The database format allows for the bolting on of additional datasets, for example analysis of skeletal remains that have potential to expand our understanding of population, disease and longevity among these communities.

Overall, the longer-term vision for the project is to unify all of the disparate strands of the data to facilitate different theoretical approaches and thereby to broaden research agendas in Early Anglo-Saxon archaeology. Through the use of computer technology, it is also possible to create links to data generated by other disciplines, for example geographical information science and linguistics. Although such links may have been considered by
earlier researchers, they were essentially unrealizable before now. It is with this prospect in mind that a three-year research project, called Beyond the Tribal Hidage and funded by the Leverhulme Trust, began in September 2006. This will apply the methodologies developed in the creation of ASKED to explore the evidence for the processes underpinning the emergence of the early kingdoms of Kent, Sussex and Wessex in southern Britain in the post-Roman period. We will expand the corpus of Early Anglo-Saxon burials to list all individuals known archaeologically from south of the Thames. By mapping this data alongside evidence from contemporary settlements, the archaeology of the late Roman period, and selected information from the other disciplines noted above, we will for the first time be able to investigate the full range of information available to us in a more systematic and comprehensive manner. This will essentially be a comparative study that will explore in depth the origins and subsequent evolution of three rather different early kingdoms. We expect to be able to detect the emergence through time of core areas of wealth, which contributed to the creation of localized power bases. Our hope is that the major outcome for this project will be a significant contribution to the archaeological study of the emergence and organization of state societies.

Notes
1. The Corpus of Early Medieval Coin Finds: www.fitzmuseum.cam.ac.uk/emc/
The Prosopography of Anglo-Saxon England: www.pase.ac.uk/index.html
The Electronic Sawyer: www.trin.cam.ac.uk/chartwww/eSawyer.99/eSawyer2.html
2. ASKED will be accessible as an Archaeology Data Service online catalogue special collection by the end of 2006, at: http://ads.abds.ac.uk/
4. Travel was kindly funded by the Institute of Archaeology Small Grants Awards.

Figure 6 A gilt-silver Nydam-style brooch from Gillingham, recently excavated by Pre-Construct Archaeology. Dress ornaments of this type are common in Early Anglo-Saxon burials and can provide important information regarding, for example, fashion, technology and trade. (Courtesy of Pre-Construct Archaeology)