On Making in the Digital Humanities

The scholarship of digital humanities development in honour of John Bradley

Edited by
Julianne Nyhan, Geoffrey Rockwell,
Stéfan Sinclair and Alexandra Ortolja-Baird

UCLPRESS

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Contents

Contributors

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Janet Nelson is Professor Emerita of Medieval History at King's College London. She has published extensively on early medieval Europe, including Anglo-Saxon England. Her research focus has been on kingship, government and political ideas, on religion and ritual, and increasingly on women and gender. She is currently Co-Investigator on the AHRC-funded *Making of Charlemagne's Europe* project. She co-directed with Simon Keynes (Cambridge) and Stephen Baxter (KCL) the AHRC-funded project *Prosopography of Anglo-Saxon England* (PASE and PASE2).

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Manfred Thaller was born in Austria in 1950. He holds a PhD in modern history from the University of Graz (1975) and a postdoctoral degree in social studies from the Institute for Advanced Studies, Vienna (1978). He was Professor of Historical Computer Science at the University of Bergen from 1995 to 2000. Until his retirement in 2015 Manfred held a professorship for Humanities Computer Science at the University of Köln.

Joanna Tucker is Lecturer in History at the University of Glasgow. Her research focuses on approaches to medieval charters and cartulary manuscripts, especially developing a new methodology for analysing scribes and their work in *Reading and Shaping Medieval Cartularies: Multi-scribe manuscripts and their patterns of growth* (2020). She has engaged in digital humanities approaches to manuscripts and texts as Co-Director of www.modelsofauthority.ac.uk and Co-Investigator on the research network *A Digital Framework for the Medieval Gaelic World* (AHRC-IRC 2020–2021).

List of figures and table

Where no source is provided, these are author images.

Figures

Table

2
Prosopography meets the digital: PBW and PASE[*]

Charlotte Roueché, Averil Cameron and Janet L. Nelson

Prosopography

Which comes first – the person or the source? One of the first major endeavours to develop a formal prosopography was undertaken in response to the impact on the study of Roman history of the discovery of ever-increasing numbers of inscribed texts; a narrative which had been driven by the analysis of literary sources was suddenly confronted with a flood of data about individuals – some previously known, but many more newly revealed. It was the German scholar Theodor Mommsen (1817–1903), who was responsible for the organisation and publication of the major collection of Latin inscriptions, *Corpus Inscriptionum Latinarum* (CIL), who initiated the accompanying *Prosopographia Imperii Romani* (PIR). To begin with, this was partly an exercise in organising the data (Eck 2003).

While historical biography and biographical dictionaries had a long history, and continue to be written, PIR represented a publication which was driven by the data in the sources, not by the historian's selection of 'interesting' people. Although book publication meant that not every-one could be included, the tendency of the Romans to describe a man's career – with a list of offices held – now enabled the editors to accept for inclusion all persons who had held an office of some kind. That approach, eminently manageable, established a model for later studies and deter-mined the kind of information included; among the people excluded perhaps the most obvious are women, who qualified for inclusion only through their relationships to men. The resultant assemblage provided valuable new resources for historians examining political structures and

the interactions of elite groups; it also stimulated further work of the same kind. The first edition of PIR, recording people in the Roman imperial period, appeared in 1898; in 1912 Matthias Gelzer published a study, based on prosopographical research, of the Roman Republic (Gelzer 1912); Friedrich Münzer was to use PIR in extending this approach (Münzer 1920); and for English readers Ronald Syme's *Roman Revolution* exemplified the value of tracing individual relationships (Syme 1939). Lewis Namier was to apply similar analysis to members of the British parliament in the eighteenth century, another very well-documented group; it is interesting to note that the *Oxford Dictionary of National Biography* article, in including the evidence for his wealth at death from the Calendar of the Grants of Probate and Letters of Administration, is adopting precisely the methodology which he espoused of gathering materials from a very wide range of sources (Cannon 2004).

During the twentieth century contemporary populations and their statistics were increasingly recorded and measured, for a host of reasons. Historians of earlier periods were also considering how to extend analyses of persons beyond the study of a ruling elite. While there were lively discussions of methodologies, one fundamental challenge was that of volume. The question of defining the appropriate format for social history was raised by Lawrence Stone, but all analyses needed to conform with the constraints of print publication (Davies 2004). The only way to combine detail with volume was to focus on a clearly defined and limited place or time, as in the groundbreaking study of Montaillou; such an approach was simply not scalable in print (Le Roy Ladurie 1975).

Prosopography in Roman and late Roman studies

PIR covers the period to AD 284, after which the nature of the sources changes substantially; the proportion of inscriptions is much reduced and careers within the church come to parallel those within the state. Mommsen envisaged a continuation into the later Roman empire and some data were collected which were recovered at the end of the Second World War and brought to London. A new British Academy Prosopography Committee met for the first time on 4 October 1949 (Martindale 2003). In 1950 the newly created Fédération internationale des associations d'études classiques / International Federation of the Societies of Classical Studies (FIEC) held its first Congress;[1] on that occasion the British, represented by A.H.M. Jones (1904–70) (Brunt 2004), and the French, represented by H.I. Marrou (1904–77), decided

to undertake the prosopography of the later Roman period, leaving the secular individuals to the British and the ecclesiastical persons to the French (Mathisen 2003). Any such undertaking required defined limits: the inheritance from PIR meant that the *Prosopography of the Later Roman Empire* (PLRE) would cover only holders of central government offices, which also reflected the research interests of Jones. This rather artificial division reflects the greater volume of material for this period, and also the need for different systems of organisation. PIR orders individuals alphabetically and covers the period 31 BC–284 AD. For the later Roman Empire (defined here as AD 250–640) the ecclesiastical materials have been treated by geographical region and work still continues (by Mandouze et al., 1982–2013);[2] the secular materials were divided by period (Jones et al. 1971–92). This division again reflected the problems of working within the printed book structure, but it is also true that PLRE enormously improved our understanding of late Roman administration.

Prosopography in medieval history

In 1980 the Medieval Institute at the University of Michigan launched a new journal, *Medieval Prosopography*. The founding co-editors were the godparents of the new journal and George T. Beech has served medieval prosopography for nearly 40 years in both editorial and godparental capacities, as well as being a very active founding member of the celebrated Medieval Studies Congresses at Western Michigan University, Kalamazoo, from 1962 to the present. In 1980 he observed that 'large-scale lists of data on occupational, religious or political groups' were taking the place of earlier monographs on individuals and families, and – *en passant* – that scholars 'now' were 'sometimes working in teams', and that 'the application of electronic data-processing techniques to the analysis of masses of names . . . has contributed still further to the advancement of medieval prosopography' (Nelson et al. 2003, 155–9).

First steps towards the digital

PLRE I (edited by Jones and others) and II (edited by J.R. Martindale) were published by Cambridge University Press in 1971 and 1982. PLRE III, edited by Martindale, was nearing completion in the early 1980s; it went to press in 1987 and was published in 1992. In 1981 a provisional British Academy planning committee was established to discuss a possible

Byzantine continuation; it included two members of the PLRE committee of the British Academy, Cyril Mango (Bywater and Sotheby Professor of Byzantine and Modern Greek Language and Literature at the University of Oxford), who chaired the Committee, and Averil Cameron (Department of Classics, King's College London). The initiative for a *Prosopography of the Byzantine Empire* (PBE) came from within the Academy and with the support of the publisher, and it had a long gestation. It was urged from the beginning, including by Cambridge University Press (CUP) as publisher (represented by Pauline Hire, the editor of PLRE for CUP), that such a project must be computerised, and as discussions proceeded this was interpreted as meaning more than 'done on a word processor' (contrast 'the use of a computer ought to be considered', as Mango put it during the discussions). At the time, the use of computers in the humanities was largely focused on the stylistic and literary analysis of texts (Marriott 1979; Sansone 1990). While initially there was little awareness of the possibilities offered by a digitised prosopography, this understanding changed over the several years during which the project was in the planning stage; understanding of what computing might mean was changing over the same period, as were the available tools. The committee decided that the new prosopography would provide continuous coverage from AD 641 (the end-date of PLRE III) to the mid-thirteenth century (the start-date of the *Prosopographisches Lexikon der Palaiologenzeit*) (Trapp 1976). Martindale, with his long experience from working on PLRE, would be central to the project; he was 'exceptionally well qualified', Mango maintained. The location would be either London (King's) or Oxford; Martindale was Cambridge-based and that was a practical consideration. The project was announced at the International Congress of Byzantine Studies, Washington DC, in 1986.

Also at the British Academy, on 24 October 1985, the late Donald Bullough hailed the 'massed computers of Franco-German prosopographical research' (Bullough 1985). He did so with more than a touch of irony and paradox. The application of digital humanities to prosopography involved no magic wands. The machines that could provide masses of names and sometimes their kin-groups could at the same time, Donald thought, 'further dim their individuality'. Bullough's aim, far from dimming individuality, was of course to evoke Charlemagne's court and the world of the court – which reproduced itself from one generation to the next – not through simple replication but by evolution. This can be imagined working vertically and horizontally: the men of the 770s acquired new and elaborate cultural traits, and from the 780s through to the imperial years after 800, there was (to borrow Walter Ullmann's borrowed term) a collective social Carolingian re-naissance (Ullman 1979). Over

the same period a horizontal process re-formed the court as an organism that grew tentacularly, so that there was a spatial spread (to follow through Bullough's line of thinking) of 'literacy . . . and patterns of formal loyalty without which it would have been impossible to govern the extended *regnum*, and the political and institutional cohesiveness which followed from this' (Bullough 1985, 132). Bullough left it at that. Had he lived (he died, alas, in 2002), he might have become interested in applying massed computers to prosopography, but that was not to be.

Just how far Franco-German prosopographical research had come was signalled by Michael Borgolte's publication in 1986 of *Die Grafen Alemanniens in merowingischer und karolingische Zeit: ein Prosopographie*. Massed computers were not in evidence. The reader was presented instead with an encyclopedic biographical dictionary of a regional elite. Some 10 years later, in 1997, Philippe Depreux regaled francophone scholars with *Prosopographie de l'entourage de Louis le Pieux (781–840)*, which offered mini-biographies of 280 persons (including just two women, both empresses).[3] In the UK, meanwhile, although many prosopographers stuck to their card-files, many more were starting to construct databases capacious enough to include – along with institutional structures – communities with ideas and ideals, and quantities of individuals that prosopography could help organise and interpret, search and relate. The result was to widen the scope of medieval history hugely, by exploring not just rarefied coteries but social worlds that overlapped and interacted. *The New Dictionary of National Biography* (published on 23 September 2004, in 60 volumes) still exuded a whiff of the great and the good. A prosopographical project 'allows, in principle, a universal record', asserted one rather unrealistic historian in 2000 at a symposium at the British Academy. Another, wiser, historian (on the same occasion) reminded the audience that a database was 'only as comprehensive as the available data themselves'.[4] Such a project's target material consisted very largely of '"new", i.e. hitherto hidden, men and women' (Nelson et al. 2003, 158). Digital technology, and changes in national research funding policies (see below), could together make a database relational and adaptable.[5]

Meanwhile, at KCL

'Humanities computing' began at King's College London in the early 1970s, with Computing Services staff assisting humanities academics to generate concordances and create thesaurus listings in a manner typical of the period. In 1971 the arrival of Roy Wisbey as Professor of German

gave the activity a particular boost; in 1964, while at Cambridge, Wisbey had started the Centre for Literary and Linguistic Computing. The inaugural meeting of the Association for Literary and Linguistic Computing (ALLC) was held at King's in 1973, with attendees from a number of countries across western Europe, and Wisbey was elected as its first chair.

In part because computing services' support for humanities research was already established at King's, Wisbey did not feel it necessary to create a new humanities computing centre when he arrived. In 1985, however, when he was Vice-Principal of the College, a series of institutional mergers gave him the chance to propose the formation of a 'Humanities and Information Management' group (HIMG) in the restructured Computing Centre (Siemens et al. 2008). Gordon Gallacher moved to the new Centre from Imperial College and worked as Acting Assistant Director of HIMG, while the College advertised for a Director; this attracted an application from Harold Short, who was appointed to the post in August 1988.

Increasingly scholars at King's were examining new ways of exploiting these new possibilities, going well beyond the original traditions of textual analysis. One group of scholars who had been considering the use of digital tools were those interested in the large collections of papyri from Roman Egypt, and the possibilities for using computers to handle this abundant material had been explored as early as the 1960s (Tomsin 1966). In 1985 Dominic Rathbone arrived as a lecturer in the Department of Classics at King's. He was completing a thesis on the economic history of Roman Egypt and started to discuss with colleagues the possibility of a digital prosopography of Roman Egypt. The project, *Computerised Prosopography of Roman Egypt* (CPRE), received funding from the Leverhulme Trust and Rathbone started to work with Mark Stewart in HIMG. The first system they used was STATUS, and they later transferred to the more powerful TRIP; the major challenge at this stage was mastering over-complex software, which left little time for actual data input.[6] This project was later subsumed into a larger international undertaking (Strassi 2015; Fiorillo 2015).[7] In 1987 a medievalist with extensive computing experience, Susan Kruse, joined the HIMG, and, with Janet Nelson in the Department of History, designed and co-taught an optional introductory computing course for undergraduates

Prosopography comes to KCL

These various developments came together in 1988, when the PBE planning committee met in March. The meeting was chaired by Cyril Mango,

and those present were Robert Browning, A.A.M. Bryer, Donald Nicol, Averil Cameron, John Martindale, Peter Brown, Michael Evans and Peter Williams (the last three from the British Academy). The decision was made, in the light of developments at KCL, to base the project there, although the chair of the committee, Cyril Mango, dissented. Following this meeting PBE was formally set up as a British Academy Research Project. Mango withdrew from the project, and Professor Robert Browning became chair of a new British Academy PBE management committee; the first meeting took place in July 1988.

Work started immediately at King's; John Martindale collaborated on the design with Gordon Gallacher, in HIMG, working in parallel, and in discussion, with the CPRE project, and using the same TRIP software. The initial format was a flat-file database on a mainframe server. The challenge that the two projects shared was the fundamental challenge posed by the new medium; there was no longer a rationale for excluding people. For Roman Egypt this meant tackling, for the first time, all the thousands of people briefly mentioned in the papyri. For the PBE it meant abandoning the model which had continued from PIR to PLRE – and which was imposed by print publication – of selecting only office-holders to record; this would come to transform the structure in which the information was presented.

KCL: further developments

Meanwhile, the interest in humanities computing in the College, with the growth of optional extra courses, such as the one taught by Kruse and Nelson, led to the introduction in 1989 of an undergraduate 'minor' programme in which students gained the degree title 'French/Spanish/Music/. . . with Applied Computing'. This course was designed and taught by members of the new Humanities and Information Management group. Over the same period, the group was developing further research collaborations. The increasingly academic focus of the work led to the creation in 1992 of the Research Unit in Humanities Computing (RUHC) as a joint development of the School of Humanities (which established a 'Lecturer in Humanities Computing' post), and the Computing Centre, which funded two posts (Director and Senior Analyst). The RUHC further developed the teaching programme, introducing courses for humanities graduate students and a special course for historians, and became involved in an increasing range of major research projects in the humanities, joining the *Prosopography of the Byzantine Empire*.

During the 1980s universities were increasingly looking to formalise and develop research processes and projects; in the humanities, as already in the sciences, there was a move towards large, collaborative and interdisciplinary projects. While interdisciplinarity always presents practical challenges, the School of Humanities at KCL was already relatively close-knit, with collaborations across departmental lines. In 1988–9 the College was in the process of developing interdisciplinary research centres, a model which many institutions have followed; the two first Centres were the Centre for Late Antique and Medieval Studies, established and led by Roy Wisbey, and the Centre for Hellenic Studies, established and led by Averil Cameron, who was also a member of the PBE committee. The new PBE project fitted very well into this environment.

By 1996 it was clear that additional resources were needed to cope with increasing demand for computing in the humanities, and with the backing of the Head of School, Professor Barry Ife, the RUHC was transformed into another Research Centre, the Centre for Computing in the Humanities (CCH). The Centre differed structurally from other Research Centres at King's and continued to be jointly funded by Computing Services and the School of Humanities. The complement of full-time staff went from three posts – held by Harold Short (Director), Lynne Grundy, and the shared post held by Gordon Gallacher and Susan Kruse – to five, bringing in John Lavagnino and Willard McCarty. In 1996 Gallacher and Kruse moved to Scotland and in 1997 John Bradley arrived to fill their post. CCH continued to grow, and in 2002 moved out of Computing Services to become an academic department, the first in the world in this field. The CCH name, however, was retained until 2010, when it was changed to Department of Digital Humanities.

The birth of the factoid

In 1993 Dion Smythe joined John Martindale in working on the PBE. He and Gordon Gallacher began to reassess the materials which had been collected, and reconsider how they should be presented. In the same year, 1993, discussions with the recently reconstituted Berlin-Brandenburg Academy, where it had become clear that work on Byzantine prosopography was also in hand, resulted in an official agreement to collaborate; the *Prosopographie der mittelbyzantinischen Zeit* (PmbZ) would cover the first period (642–867) and also the second (868–1024); the British team would continue their work on the first period, incorporating references to the PmbZ, and would then deal with the period from 1025.

This provided a reason to reassess the approach of the British project, to consider what it could usefully contribute. The PmbZ was intended as a print publication, with the data presented in articles, although the material is now also available online. But the huge crowd of people who could now be included in a digital resource were not most usefully presented in the traditional long article form; while this is entirely suitable for a collection of elite people, as in the early prosopographies, it is not a useful way to include butchers, bakers and candlestick makers. This kind of approach also meant processing the sources in a slightly different way. The researchers worked systematically through each source, recording all statements about individuals, and attaching such statements to person records. The information for an individual is not reconciled, as in an article-based prosopography, and in the PmbZ: though some sources are clearly more accurate than others, all available testimony is recorded. The PBE dataset is a guide to what is said in the sources; it has not set itself the task of source criticism, establishing which sources are more 'valuable', 'accurate' or 'true'.[8] This was a radical new approach, made possible by working in a digital environment.

The first requirement was to define the data, which were statements made in a wide range of sources. It was not possible to treat every such statement as a 'fact'; the team originally conceived them as hypotheses and used the term Hyp-id. This understanding produced the concept of the 'factoid', which was to become a bedrock of all the subsequent prosopography projects at KCL. A factoid is an assertion, in an earlier source, as interpreted by a modern scholar (Bradley n.d.). This wealth of information was both too irregular and also too rich to be adequately expressed in a flat-file structure. The technical change needed to accommodate this methodological change was to develop the system in a relational database. It was Gordon Gallacher who responded to this by undertaking the initial relational design for a database which deployed factoids, which remained fundamental to all future projects; he worked in the INGRES software recently purchased by King's.

John Bradley at KCL

Working first with PBE, John embraced the 'factoid' concept and started to refine it. The team were already working on the first phase of the project – people recorded in Byzantine sources from the period 642–867. Since the original work had been designed in article format, this was retained in the publication. The persons in PBE I are described in articles,

with even some references to modern scholarly discussion; but the indices and search aids were generated by the factoid database, covering a relatively limited number of factoid types.[9] The work was completed by 2000; publication online was an intention, but not yet a realistic possibility, so PBE I was published on a CD-ROM, which could, however, be read using a browser (Netscape 2.0). This allowed, among other things, for the presentation of ancient Greek, since Unicode for polytonic Greek was not yet available. The rich search facilities were enabled by the work which John had done (Martindale 2001).

In 1998 the national research landscape was transformed by the establishment of the new Arts and Humanities Research Board (AHRB), which took over funding for research projects from the British Academy (Conisbee n.d.). Its remit was to develop a 'broad strategic framework' for research, and the fundamental nature of large research databases to support humanities research fitted well into this. At KCL the Director of CCH, Harold Short, who himself had a background in database design and development, saw the important potential of John's work with the PBE, and worked closely with him in the planning of two further prosopographical projects. One of these was *The Clergy of the Church of England* (CCE), jointly nurtured by another KCL historian, Arthur Burns, with colleagues at Kent and Reading.[10] Over the same period, while Kruse (a Viking-Age archaeologist by training) and Nelson (a mainly Carolingian historian) had been teaching together, they had found that their interests overlapped in Anglo-Saxon England, and had begun planning a digital *Prosopography of Anglo Saxon England* (PASE). As with CCE, this project was developed with colleagues at other universities, principally Cambridge, where Simon Keynes became a co-director with Nelson; team researchers were Alex Burghart, David Pelteret and Francesca Tinti. Both of these projects were developed in partnership with Harold (as Technical Research Director) and John, and both were granted funding, for five years each, by the AHRB in 1999.

The year 2000 saw some important reflections on the nature of prosopography. An international conference was convened by Averil Cameron at the British Academy to mark 50 years since the announcement of the project on Late Roman Prosopography at the FIEC meeting of 1950 (Cameron 2003). It also marked the opening of the second phase of the *Prosopography of the Byzantine Empire* project, with AHRB funding. It had been agreed that the British team would leave the period 867–1024 to the scholars in Berlin and would start work on the period 1025–1204 (initially, to 1180). John Martindale retired once PBE I was published; it was the good fortune of the project that Michael Jeffreys, Professor of

Modern Greek at the University of Sydney, had moved to the UK some time after the appointment of his wife, Elizabeth Jeffreys, to the Bywater and Sotheby Chair at Oxford. He was appointed as the manager of the next phase of the project, assisted by Tassos Papacostas, together with Mary Whitby and Olga Karageorgiou; the digital management was undertaken by John Bradley, working increasingly with Elliott Hall. This undertaking was rapidly revealed to be very different in character from what had gone before. The Byzantine Empire of the first period had been a fairly clearly defined entity. By the eleventh century the fortunes of the empire were intertwined with those of a wider medieval world. The scope and nature of the project were encapsulated in a new name, *Prosopography of the Byzantine World* (PBW) and a PBW workshop was held at the British Academy in 2002 to explore some of these complexities, with experts on the history and prosopography of several adjacent cultures (Whitby 2007). It became increasingly clear that the contents would be not a total account of each actor involved, but instead an assembling of the materials from a clearly defined range of sources. For this the factoid approach was the perfect tool; as Jeffreys stated, the resource is 'a prosopographical reading of Byzantine sources, 1025–1180 . . . while PBW should be examined for what it contains, it should never be assumed that what it does not contain does not exist' (Jeffreys et al. 2016, home page).

All these projects reflected one of the crucial new aspects of working in a digital environment, which facilitates collaboration in a transformative way. Each of these projects drew on different kinds of source and presented different challenges. CCE traces the careers of clerics in the Church of England between 1540 and 1835, based on a very specific body of evidence: 'the Database draws on a core of four types of record maintained in diocesan collections: registers, subscription books, licensing books and *liber cleri* or call books' (Clergy Database 2013). The sources therefore provide the structure for the data.

For PASE, as for PBE and PBW, the sources were defined by period, the initial phase drawing on 'sources written during the period from 597 to 1042'.[11] These projects all demanded collaborative work on a large scale, across sources of very different kinds; in the case of PBW these were in several languages. For such collaboration to be productive, the intellectual structure had to be crystal clear to all contributors. John Bradley further defined the factoid concept and its deployment: 'No factoids (including Events) appear unless they are linked both to Persons and to Sources. This principle is rigorously applied so that users are in a position to follow the Person-to-Source "trail", and to make their own reference to the relevant Source at any stage' (PASE 2010). CCH had been looking for

an alternative to the INGRES system for some time, and the development of the open-source MySQL system offered the opportunity to do this. It was John who was given the responsibility for undertaking and overseeing this transition. This then became the basis of all future projects that required database technology – mainly but not exclusively the prosopographies. For collaborators who were geographically dispersed or only had access to slow internet connections, he created 'data collection databases' (DCDs), where the information was recorded in basic factoid format, ready for uploading to the master database, where it could be linked into the wider network of factoids; this was to enable and empower real and increasing collaboration (Nelson 2012). Alongside members of the research team, postgraduate students at King's were given the opportunity to contribute to PBW. The outcome was several publications of remarkable consistency and clarity; while scholars may use the materials to reach varied conclusions, and while new sources may come to be examined, the basic assemblage of the data will not become obsolete.

PASE I was published online in 2005; in 2006 the first edition of PBW was published at the International Congress of Byzantine Studies. In 2005 the PBW team obtained funding from the Leverhulme Trust to add more materials from Arabic sources;[12] in 2006 the Leventis Foundation funded a three-year Research Fellowship, which allowed Dr Judith Ryder to undertake important new work on ecclesiastical sources. In 2005 the PASE team obtained a second Resource Enhancement grant from the AHRB to cover the shorter but highly complex period 1042–66, adding coverage of all English persons down to c.1100.[13] It also added information on landholders recorded in Domesday Book for 1066 (*Tempore regis Edwardi*) and from 1086 (*Tempore regis Wilhelmi*).[14] Its use of Domesday, in particular, was to have considerable impact on the wider public, not least because of the work of Stephen Baxter. This ambitious second edition, enhanced thanks to John and his team by a more user-friendly web interface and more powerful search functions, was launched in 2010, and subsequently enhanced. A new edition of PBW was launched in 2011,[15] and a third edition in 2016.[16]

Over this period the research environment had again changed. In 2005 the AHRB was converted into the Arts and Humanities Research Council, to provide full parity in status – if not in funding – with the other Research Councils. This brought Humanities Research into the remit of the Department for Trade and Industry, which later became the Department for Innovation, Universities and Skills. The new Council lost some of the independent input from other bodies (the Funding Council of the AHRB had included representatives from the Department

for Education and Skills, the Department for Culture, Media and Sport and the Leverhulme Trust). It also lost the commitment to basic, facilitating projects, particularly long-term ones, and to data collection; research projects were now required to demonstrate that they were intended to deal with a 'research question', and they were encouraged to respond to research 'themes' proposed by the Council. Frustratingly, this has tended to overshadow the kind of enabling methodological research which John undertook in partnership with the other projects, and which was fundamental to the collaborative work of CCH. It also led to the design of a new kind of project; the assembling of essential data needed to be justified by a specific question. Further very important prosopography projects, conceived to meet these requirements, continued to use and develop the factoid structure; these are what John has described as third-generation Factoid Prosopographies.[17]

John was therefore involved over almost two decades in the development and delivery of several complex, similar but not identical, databases of people; among other important advances, this allowed him to develop and test the factoid model. This was primary research in its own right; it is set out in several articles (Bradley and Short 2005), and in particular in his 'What is Factoid Prosopography All About?' (Bradley n.d.). This creative work was extremely demanding; the demands were regularly underestimated by the researchers working on the sources – something which continues to be a problem in joint projects. The value-added amount of technical work over and above what had been estimated was calculated by John as 'more than 1.5 person years' (and what had not been estimated had not been funded). John's firm grip on such costings, his responsiveness to colleagues, and, again, to resultant synergies, were particularly important in ensuring the advance of both PBW and PASE.

The digital prosopographies at King's grew from a series of insights and interactions, which enabled the emergence of a profoundly new understanding of how to describe and record individuals in history. The creation of a Centre for such activities meant that a series of projects could be conceived not just within the boundaries of subject expertise, but as presenting a shared intellectual challenge (Bradley 2012). In a manner typical of digital humanities projects over this period, each undertaking could build on the experience of the others. John listened carefully to the demands, possibilities and problems of each project; he then explored the ways of responding, which were evolving as the technologies evolved. John's key role – with the support of the team that grew up around him – was to ensure this methodological clarity, and incremental growth in understanding, from which many more projects will benefit in

future. Interdisciplinarity is always going to be difficult, and collaboration is hard to cost and administer; these groundbreaking projects were not easy, but they demonstrate what can be achieved when experts in a range of fields – from historical analysis to computer science – work together.

Notes

* Recent history is surprisingly hard to reconstruct. We are very grateful to colleagues who have helped us in clarifying this narrative, particularly Harold Short. Unless otherwise stated, all websites cited in the notes below were accessed and checked 6 September 2022.

1. fiecnet.org.
2. *Prosopographie chrétienne du Bas-Empire*. Four volumes have been published: A. Mandouze, *Prosopographie de l'Afrique chrétienne (303–533)* (1982); C. and L. Pietri, *Prosopographie de l'Italie chrétienne (313–604)* (2000); S. Destephen, *Prosopographie du Diocèse d'Asie (325–641)* (2008); L. Pietri and Marc Heijmans, *Prosopographie de la Gaule chrétienne (314–614)* (2013).
3. Michael Borgolte and Philippe Depreux were to become leading scholars of medieval European history, but not (to our knowledge) leaders in the field of digital humanities.
4. The first historian (who is one of the present authors) had been overly optimistic: Anglo-Saxon historical records have proved curiously resistant to inquiries for information about women. The wiser historian was Averil Cameron.
5. Established in 1998 by the British Academy, the Department of Education for Northern Ireland, and the English, Welsh and Scottish funding councils, the AHRB emerged after a long campaign by the arts and humanities community to create a British national arts and humanities funding body – a research council in all but name for research outside the sciences. On 23 April (St George's Day) 2005, in the last decade of the second millennium, the AHRC came into being.
6. Rathbone, personal communication.
7. *Digitalised Prosopography of Roman Egypt* (DPRE).
8. *PBE* I, introduction.
9. 'How to Publish PBE?', http://www.pbe.kcl.ac.uk/how-publish-pbe
10. *The Clergy of the Church of England Database 1540–1835*. http://theclergydatabase.org.uk
11. 'Introduction', http://pase.ac.uk/about. The proposal was to create 'a relational database aiming to provide structured information to all the recorded inhabitants of England between 597 and 1042, based on a systematic examination of the available written sources for the period, and intended to serve as a research tool suitable for a wide range of users with interests in the Anglo-Saxon period'.
12. *A Prosopography of Arabic Sources for Byzantines and Crusaders, 1025–1204*: the researchers were Letizia Osti and Bruna Soravia, both working from Italy.
13. The researchers were Alex Burghart (KCL), Andrew Bell (Cambridge), Natasha Hodgson (Cambridge), Juliana Dresvina (KCL) and Ben Snook (Cambridge).
14. http://domesday.pase.ac.uk/pde/about.jsp (consulted 1 February 2021).
15. http://db.pbw.kcl.ac.uk/jsp/index.jsp (consulted 1 February 2021).
16. 'Welcome to PBW 2016!', https://pbw2016.kdl.kcl.ac.uk
17. 'Factoid Prosopographies at CCH/DDH KCL', https://www.kcl.ac.uk/factoid-prosopography/projects

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