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# The Identity of the St Bees Lady, Cumbria: An Osteobiographical Approach

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We dedicate this contribution to the life  
and career of the late Dr John Todd.

*USING AN OSTEOBIOGRAPHICAL approach, this contribution considers the identity of the woman found alongside the St Bees Man, one of the best-preserved archaeological bodies ever discovered. Osteological, isotopic and radiocarbon analyses, combined with the archaeological context of the burial and documented social history, provide the basis for the identification of a late 14th-century heiress whose activities were at the heart of medieval northern English geopolitics.*

In 1981, excavations in the ruinous S chancel aisle of St Bees Priory church, Cumbria (NGR: NX 969 121) (Fig 1), uncovered an ashlar tomb containing two individuals. One was wrapped in a lead sheet, the shape of which resembled the human form, and had been placed in a wooden coffin bound with iron bands and filled internally with grey clay. Nobody expected to find an almost complete man inside the lead wrapping, especially due to an incomplete seal that left the foot end exposed (Fig 2). Realising the uniqueness of the find, and to maintain its preservational integrity, the lead coffin and its contents were hastily transferred to the local hospital morgue through the efforts of local GP, Ian McAndrew. Through the offices of the Department of the Environment (English

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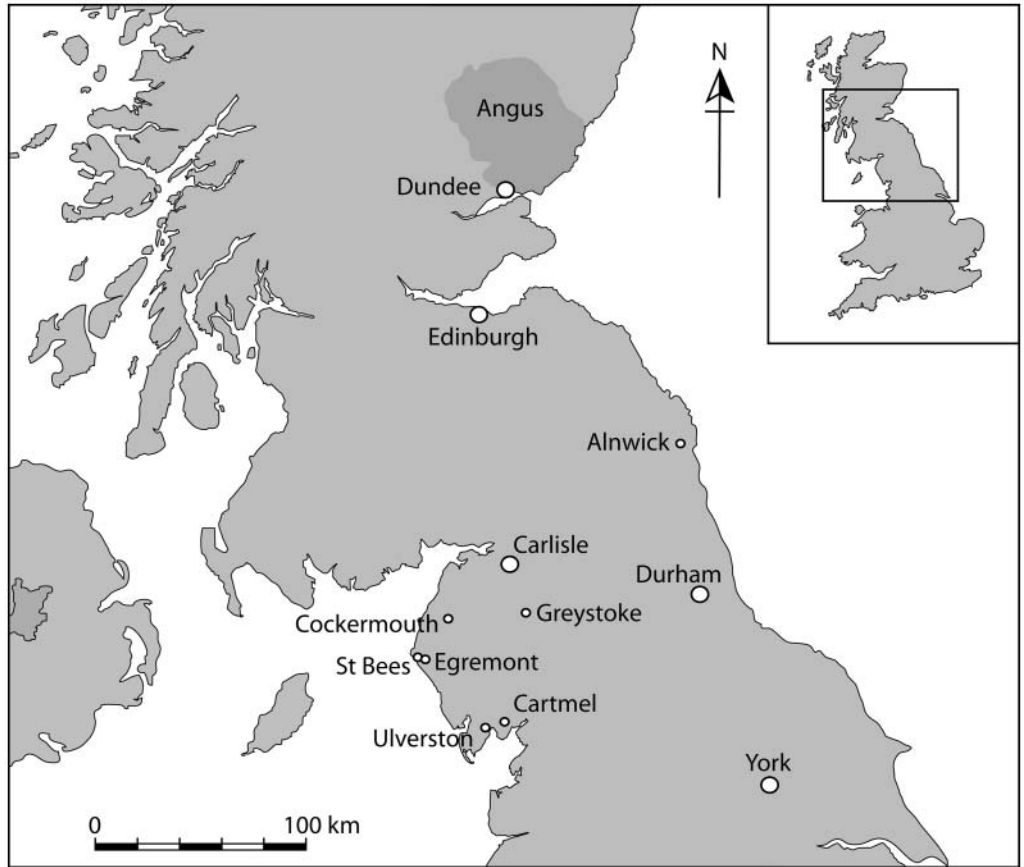


FIG 1

Location map of places mentioned in the text. *Illustration* © Dan Bashford.

Heritage's predecessor), Edmund Tapp, Preston Royal Infirmary, performed an autopsy.<sup>6</sup> Due to local sensitivities aroused by his unusual preservation, within a short time, the 'St Bees Man' — replaced again in his lead wrapping but with the shroud and samples of tissue retained — was re-interred close to his original resting place.

His remarkable preservation provides an unusually poignant link to the people of the past and mortality. While skeletal remains fascinate, he was a whole, fleshed person more easily recognised among the local community as a person whose identity could be established than, for example, the skeletal remains of the individual alongside him, simply designated 'Skeleton 100' (Sk100). In the case of the Man, there was a face, hands, hair and, internally, blood and organs. The autopsy established that he had suffered a violent death, and a 'wreath' of hair placed on his chest inspired much local interest as a presumed

<sup>6</sup> Tapp 1982; Tapp and O'Sullivan 1982.



FIG 2

The opening of the lead wrapping revealing the St Bees Man inside. *Photograph © Doug Sim.*

‘love token’ and inflamed speculation that Sk100 had once been his wife — and even a betrayed one — should the hair belong to another woman.

Despite all that could be ascertained about St Bees Man, his identity remained unresolved, although one Anthony de Lucy, who died in Prussia in 1368, seemed a good candidate. The original identification of Sk100 as a younger woman caused doubt as to the validity of this identification because no female — wife or relative — seemed to fit his known associates.<sup>7</sup> Sk100 was, from the start, viewed as key to identifying the Man.

This study re-examines Sk100 (not re-interred in 2002 like the rest of the burials) in an effort to identify her using current scientific applications, as well as samples from the Man.<sup>8</sup> It demonstrates the interpretive power of

<sup>7</sup> Chapman 1995.

<sup>8</sup> For example, the near re-invention of human remains analysis in order to assess age-at-death, sex, health status and ethnic affinity; cheaper, more accessible and precise radiocarbon dating; isotopic analysis of diet, origin and change of residence from bones, teeth and hair; advances in residue analysis applied to archaeological materials; as well as more synthetic and more theoretically informed approaches to the funerary record.

the formidable blend of humanistic and scientific aspects that comprise modern archaeology.

### BURIAL LOCATION OF SKELETON 100 (SK100)

The Priory church of Sts Mary and Bega, St Bees, was formerly a Benedictine house and cell of the great St Mary's Abbey in York, the prior and its six monks departing in 1539 following Henry VIII's Dissolution of the Monasteries.<sup>9</sup> The Priory was founded by William le Meschin (son of Ranulph), Lord of Egremont, in the reign of Henry I and dedicated sometime between 1120 and 1135.<sup>10</sup> The original excavations at the Priory directed by Deirdre O'Sullivan and John Todd between 1979 and 1981 were undertaken to uncover pre-Norman activity intimated by the dedication to St Bega, who gives her name to the church today and, in a corrupted form, to the village of St Bees.<sup>11</sup> The nave continued in use for worship after dissolution, but the chancel fell into disrepair (Fig 3), and the monastic buildings eventually disappeared. The S chancel aisle in which the St Bees Man and Sk100 were interred may have suffered some structural problem prior to dissolution and may have already gone out of use before 1539.<sup>12</sup>

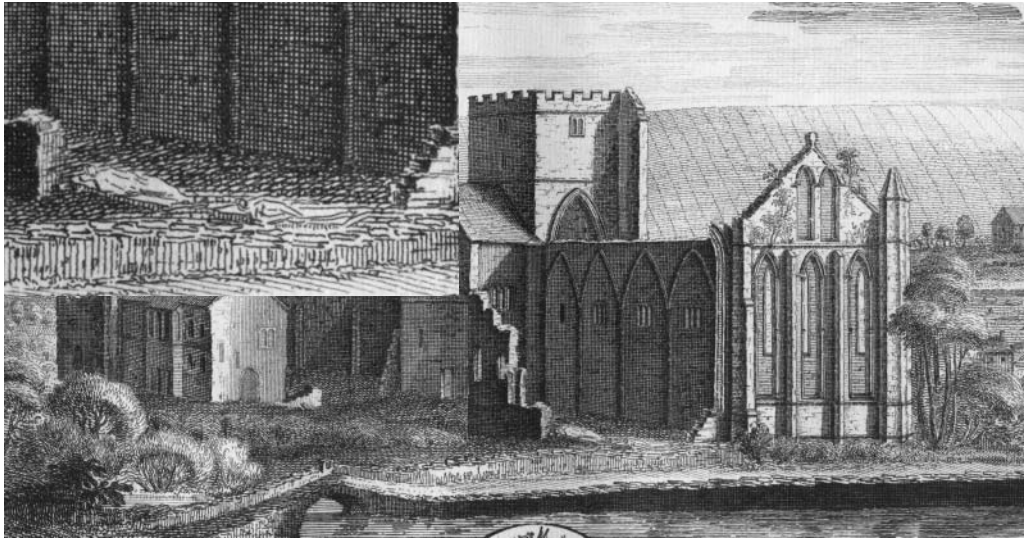


FIG 3

The Buck engraving of 1739 showing the unroofed chancel and ruinous S chancel aisle. It depicts two effigies in the S chancel aisle (see enlarged detail). This image pre-dates the extensive renovations in the 19th century when some monastic buildings were still standing. *Print in the possession of St Bees Priory church.*

<sup>9</sup> NA, Public Record Office, SC6/Henry VIII/7382.

<sup>10</sup> Nasmith 1787; Todd 2003.

<sup>11</sup> See Todd 2003.

<sup>12</sup> The argument for this rests on a drawing (Gough Maps 4, fol. 38b, Bodleian Library, Oxford) of the S side of the church (original lost) made c 1800, where the arches between the chancel and the chancel aisle are shown as blocked with masonry in which is set small windows of 16th-century pattern. These indicate that the chancel aisle went out of use while the chancel was itself still in use, and therefore before 1539.

Following extensive 19th-century refurbishments, the re-roofed chancel became the main lecture room of St Bees Theological College (1816–95),<sup>13</sup> the so-called ‘Old College Hall’. The S chancel aisle remained ruinous, but is easily identifiable from remaining surface architectural features (Fig 4), and stylistically dates to c 1270–1300.<sup>14</sup> The chancel itself dates no later than 1190.<sup>15</sup> The medieval parish of St Bees extended from Lamplugh, some 10 km south-west of Cockermouth, to Whicham and Whitbeck, some c 15 km north-west of Ulverston, c 40 km to the south. It was a large but probably sparsely populated parish.

The 1981 summer excavations aimed to understand better the dating and development of the standing church architecture (Figs 5 and 6). In the course of excavation, 17 inhumations were uncovered, comprising 11 males, two females and four sub-adults.<sup>16</sup> In the first phase, the S chancel aisle appears to have been a monastic burial area, as attested by the dominance of male inhumations — monks’ cemeteries often lie at the E end of medieval monastic churches<sup>17</sup> — and a priest buried with a lead chalice and paten. A second phase of apparent secular burial included the occupants of the impressive ashlar vault, c 1.3 × 2.5 m, probably close to where an altar had been located. The presence of 14th-century ceramics and the lack of later medieval pottery from the fill of the vault suggest a date in the 14th century, rather than in the 15th century, and accords



FIG 4

Composite photograph of the area of the ruinous S chancel aisle, from the south-east, with a fragment of the original southern wall to the left. *Photograph* © Ian McAndrew.

<sup>13</sup> Park 1982.

<sup>14</sup> O’Sullivan 1982.

<sup>15</sup> Pevsner 1967.

<sup>16</sup> Chapman 1995.

<sup>17</sup> Cf Stroud and Kemp 1993.

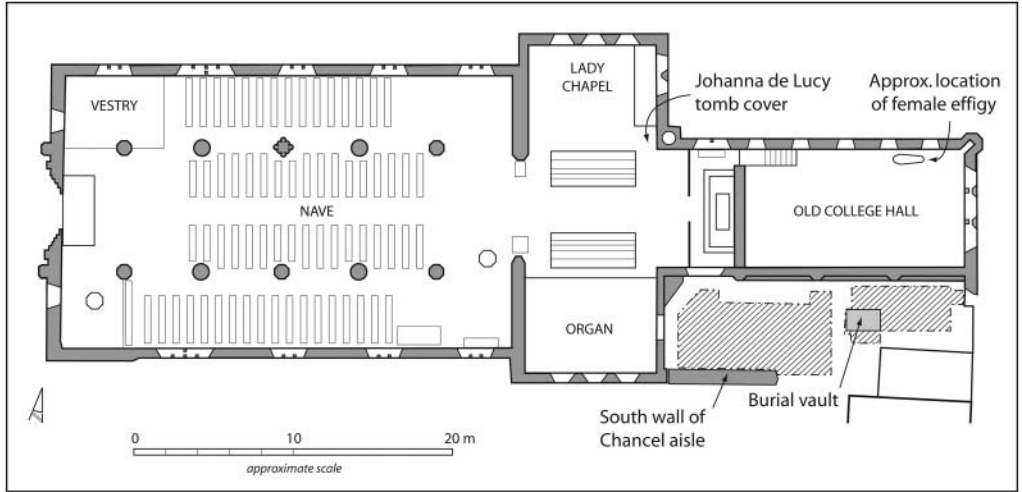


FIG 5

Plan of St Bees Priory today showing the location of the 1981 excavations in the S chancel aisle (hachured) with the burial vault and the discovery location of a female stone effigy.

*Illustration © Doug Sim with modifications by Seán Goddard.*

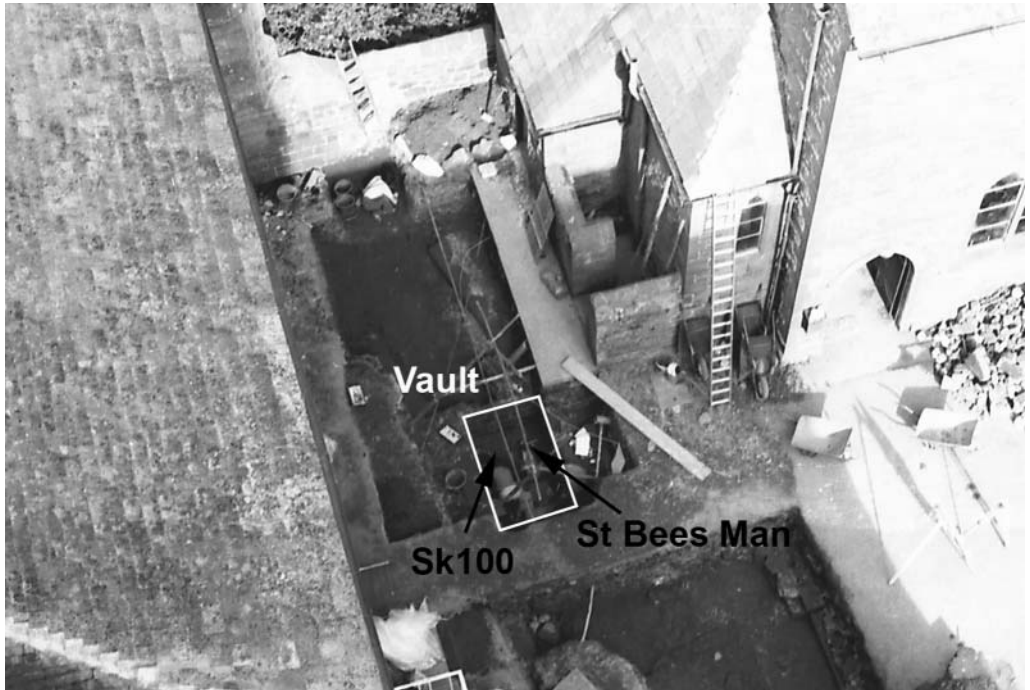


FIG 6

Location of the ashlar vault in the S chancel aisle during excavation in 1981.

*View from the church tower. Photograph © Doug Sim.*

with the relative dating suggested by the chancel architecture.<sup>18</sup> It is clear from the construction of this vault that, at some point after the Man's burial, the E wall was extended from its original width of 0.8 m by 0.56 m in order to accommodate the wooden coffin in which Sk100 was buried. These burials were then covered in soil as indicated by a dip in the stratigraphy formed when the wooden coffin of Sk100 collapsed. The Man's lead coffin lay on a stone paving while that of Sk100 lay on the bare earth. The lack of evidence for a re-cut to permit the deposition of Sk100 attests to the original vault being a void into which the Man's burial had been placed, without infilling, until Sk100 was deposited. The close proximity of the two individuals indicates a possible relationship in life as well as death.

## ANALYSIS OF SK100

### BIOLOGICAL IDENTITY

Louise Scheuer and Sue Black define biological identity as composed of the following: sex, age-at-death, stature, and ethnic origin.<sup>19</sup> In addition, health status and, for archaeological remains, completeness and fragmentation are key components to skeletal analysis because of their influence on interpretation. The skeleton of Sk100 is heavily fragmented, especially the lower right limb and vertebral column. Although most parts of the skeleton are represented, the feet and hands are absent (Fig 7).

The most diagnostic areas of the pelvis, the *ossa pubes* and the greater sciatic notches of the ilium, were too fragmented to use for metrical sex determination, but other sexually dimorphic morphological features attest to these remains being those of a female.<sup>20</sup> These include the presence of pre-auricular sulci; a wide, U-shaped surviving greater sciatic notch on the right *os coxae*; a small and antero-laterally divergent acetabulum and a laterally divergent ilium on the pelvis. In addition, the cranium is gracile, with small mastoid processes, a steep frontal, shallow digastric fossae, faintly marked temporal lines but with parietal bossing, a temporal zygomatic root that does not extend beyond the external auditory meatus and lack of supramastoid crest development, and a parabolic-shaped palate and dental arcade. There is also a single mental tubercle and lack of gonial flare, which lends the mandible a female appearance. There is agenesis (ie absence) of all third molars, an inherited trait more common in females.<sup>21</sup> The supero-inferior diameter of the right femoral head is 41 cm, which also suggests a smaller body consistent with that of a female.<sup>22</sup>

Despite recent advances in determining age-at-death from skeletal remains, age-at-death is less precise for older than for younger individuals; this is due to the variable rates at which individuals age once they have achieved maturity, which tends to make some older people appear younger.<sup>23</sup> Age-at-death was determined from the auricular surface morphology of the ilium, dental wear and ectocranial suture closure, both vault and lateral-anterior sites.<sup>24</sup> The ectocranial suture sites produce an age-at-death of 39.4 years for the vault and 43.4 years for the lateral-anterior sites. The auricular surfaces, being phase 5/6,<sup>25</sup> provide an age-at-death of 40–4 years. Application of the more recent revised Buckberry and Chamberlain method produced an older age range of 53–92 with a sample mean of 72 years from one observer and suggested a range of

<sup>18</sup> O'Sullivan 1982.

<sup>19</sup> Scheuer and Black 2007, 202.

<sup>20</sup> Bass 1987; Buikstra and Ubelaker 1994; Cox and Scott 1992.

<sup>21</sup> Hillson 1996; Scott and Turner 1997, 127.

<sup>22</sup> Stewart 1957 cited in Bass 1987, 220.

<sup>23</sup> Scheuer and Black 2007, 205–7.

<sup>24</sup> After the method of Lovejoy et al 1985; after Brothwell 1981; after Meindl and Lovejoy 1985.

<sup>25</sup> And very similar to the 47 year old depicted in Krogman and Iscan 1986.



FIG 7

Sk100 in situ beside the lead-wrapped St Bees Man. Note the absence of the hand and foot bones. Photograph © Doug Sim.



29–88, which has a sample mean of 59.94, from a second observer.<sup>26</sup> These results suggest that Sk100 was possibly in her 50s or older at death. The dental wear produced a more youthful estimate of 25–35, but with only the left cheek dentition showing dentine exposure. Pathological conditions discussed below have clearly influenced this determination. Some vertebral degenerative joint disease in the cervical region and syndesmo-phytes between the second and third thoracic vertebrae of the vertebral column support an assessment of age-at-death of at least in the 40s. In summary, the age-at-death of this individual was at least 36–45 years but perhaps in the 50s.

Using the partial lengths obtained from the fragmentary right humerus,<sup>27</sup> and the regression formulae of Trotter and Gleser,<sup>28</sup> the reconstructed stature is  $160.9 \pm 5.16$  cm (roughly 5 ft 2 in), which is little different from that of the medieval female norm of about 159 cm,<sup>29</sup> and somewhat shorter than the modern United Kingdom female average of 163.15 cm.<sup>30</sup>

Using a number of formulae, body mass estimates for Sk100 are 51.74 kg, 51.9 kg and 56.49 kg.<sup>31</sup> The average body mass of modern United Kingdom females is 59.5 kg.<sup>32</sup> Therefore, Sk100 was more lightly built than the average modern British woman at skeletal maturity.

Due to the fragmented cranium, ethnic affiliation could not be obtained metrically. The rather prominent nose and facial morphology (Fig 8) of this individual supports a European origin,<sup>33</sup> and the right mandibular canine is double-rooted, a trait rarely found outside Europe, where it reaches a frequency greater than 5%. This makes the trait a European marker.<sup>34</sup> Sk100 appears to have been of European ancestry.



FIG 8

A lateral view of Sk100's crano-facial skeleton, showing her projecting nose. Photograph © Alan R Ogden.

<sup>26</sup> Buckberry and Chamberlain 2002: first observer CJK, second Jo Buckberry.

<sup>27</sup> Steele 1970, cited in Krogman and Iscan 1986, 330.

<sup>28</sup> Trotter and Gleser 1952, 1977, cited in Krogman and Iscan 1986, 308.

<sup>29</sup> Schweich 2005.

<sup>30</sup> Eveleth and Tanner 1976, 287.

<sup>31</sup> Ruff et al 1991; McHenry 1992; Grine et al 1995.

<sup>32</sup> Eveleth and Tanner 1976, 287.

<sup>33</sup> Byers 2008, 155–60.

<sup>34</sup> Scott and Turner 1997, 229.

## PALAEOPATHOLOGY

Only the jaws and teeth are affected by pathological conditions. Sk100's dental health is relatively poor with a large, crown-destroying carious lesion present interproximally between the left maxillary premolars (Fig 9). This decay also affects the distal aspect of the canine on the left side. An area of bone formation, indicative of gingival inflammation, extends superiorly from these teeth along the alveolar process, stretching posteriorly to the first molar. A large dental abscess had formed superior to the carious left premolars, affecting the alveolar process from the canine through the premolars, such that the roots of these teeth were exposed buccally. Also on the left side and in the same quadrant, there is a carious lesion distally on the left first molar; a similar lesion occurs in the same position on the opposite right maxillary first molar and on the same aspect of the right mandibular first molar. There is also porosity indicative of periodontal disease of all alveolar processes.

The most diffuse of these dental pathological conditions — heavy calculus deposits — affects both the maxilla and mandible of the right side, covering the buccal, lingual and occlusal surfaces of the teeth from the canine to the second molars (Fig 10). These right side posterior teeth are unworn, while the posterior dentition of the left side demonstrates the more usual exposure of secondary dentine.

The right condyle of the lower jaw is expanded medio-laterally and hypoplastic (under-developed), and there is a deposit of new bone within the corresponding mandibular fossa (Fig 11).

## DIFFERENTIAL DIAGNOSIS

Such a heavy development of calculus is highly unusual. This condition — coupled with the lack of wear on the right side posterior dentition — suggests dysfunction. When the maxilla and mandible are placed in occlusion, the right mandibular condyle articulates in an anterior position on the articular eminence of the temporal bone. This indicates partial dislocation and, given the lack of dental wear and asymmetry of the



FIG 9

The left maxillary dentition of Sk100, which shows a large, crown-destroying carious lesion present interproximally between the left maxillary premolars (only the root of the fourth is present, while the crown of the third is mostly obliterated). *Photograph* © Alan R Ogden.



FIG 10

The heavy calculus deposits covering the mesial, distal, buccal and occlusal surfaces of the right maxilla and mandible of Sk100. *Photograph © Alan R Ogden.*



FIG 11

The medio-lateral expansion, flattening and hypoplasia (under-development) of the right mandibular condyle of Sk100 (on the left). *Photograph © Christopher Knüsel.*

lower jaw, this must have occurred in youth.<sup>35</sup> Dislocation usually occurs during jaw opening when the condyle passes the margin of the meniscus on the articular eminence of the temporo-mandibular joint and lodges anterior to it. Anterior dislocation is the most common type encountered, either direct or indirect trauma being the cause.<sup>36</sup> It may occur in yawning or simple opening of the mouth too widely,<sup>37</sup> but it may also occur as a result of a blow to the chin when the mouth is partially open.<sup>38</sup>

An alternative to this diagnosis would include temporo-mandibular joint (TMJ) disease, a form of osteoarthritis. This possibility is discounted based on the evidence for a lack of mastication (ie tooth wear) on the affected, right side. Individuals suffering from TMJ disease preferentially chew on the affected side because compression

<sup>35</sup> Luyk and Larsen 1989.

<sup>36</sup> Dandy 1993, 142.

<sup>37</sup> Luyk and Larsen 1989; Palastanga et al 1994, 678.

<sup>38</sup> Bailey and McNeil Love 1949, 920.

of the joint that occurs in chewing is less painful.<sup>39</sup> The absence of calculus on the left side and extreme build-up on the affected right side indicates that this was not occurring.

#### BIOGEOCHEMICAL ANALYTICAL RESULTS

##### *Provenance*

Strontium and lead isotope analysis of tooth enamel can provide evidence for the geographic origin of human remains.<sup>40</sup> We transferred removed enamel and dentine from a left upper second molar to the clean laboratory suite at the NERC Isotope Geosciences Laboratory, Keyworth, UK, for further cleaning and preparation.<sup>41</sup> The samples were spiked with <sup>84</sup>Sr (strontium) tracer and a <sup>208</sup>Pb (lead) tracer, and strontium and lead were separated from the tooth matrix using Sr-spec resin.<sup>42</sup> Lead concentration and isotope ratios were obtained by high resolution multi-collector inductively coupled plasma mass spectrometry (*Nu Instruments Nu Plasma*) and strontium concentration and isotope ratio by thermal ionisation mass spectrometry (*Finnigan Triton*). Repeat analysis of international standards (NBS 981 and NBS 987) assessed reproducibility (Tab 1).

The results indicate that Sk100 grew up on the Triassic red sandstone common to the St Bees area (Fig 12). The crown dentine value provides an indication of mobile strontium in the burial environment,<sup>43</sup> and for Sk100 is close to the value for seawater. Irrespective of the underlying geology, marine strontium can heavily influence soils at coastal sites because of the deposition of salt and the inclusion of marine sand.<sup>44</sup> Given the proximity of the Priory church to the sandy beach (< 1 km away), the dentine value reflects this coastal burial location and is likely to be diagenetic in origin. Together, these indicate that Sk100 was local to her place of burial. The lead found in her tooth enamel is consistent with English ore sources,<sup>45</sup> but is present at a level above that which occurs naturally. Such a result is typical of the 'cultural focusing' of lead isotope ratios seen in British populations through time and is therefore suggestive of exposure to pollutant sources.<sup>46</sup> Sk100 groups most closely with 15th-century values that thus also suggest a relative date for her (Fig 13).<sup>47</sup>

##### *Diet*

Three different bones provided samples for carbon and nitrogen stable isotope analysis of bone collagen in order to obtain evidence for diet at three different life stages: cranial vault (very little bone turnover, approximating childhood diet), tibia (slow turnover, dietary average over several decades) and rib (fastest turnover; approximately

TABLE 1  
RADIOGENIC ISOTOPE RESULTS

Sample	Tooth	Tissue	Preservation	Sr ppm	<sup>87</sup> Sr/ <sup>86</sup> Sr	Pb ppm	<sup>206</sup> Pb/ <sup>204</sup> Pb	<sup>207</sup> Pb/ <sup>204</sup> Pb	<sup>208</sup> Pb/ <sup>204</sup> Pb	<sup>207</sup> Pb/ <sup>206</sup> Pb
SK100	M <sup>2</sup> L	enamel	satisfactory	82	0.709815	7.2	18.43	15.63	38.40	0.848
		dentine	poor	194	0.709400	–	–	–	–	–
<b>Estimated reproducibility</b>										
% 1SD					1% 0.002	1%	0.008	0.014	0.019	0.007

<sup>39</sup> Hylander 1975.

<sup>40</sup> Bentley 2006; Montgomery 2002.

<sup>41</sup> Following the method described by Montgomery 2002.

<sup>42</sup> Deniel and Pin 2001; Horwitz et al 1992.

<sup>43</sup> Montgomery et al 2007.

<sup>44</sup> Ibid; Whipkey et al 2000.

<sup>45</sup> Rohl 1996.

<sup>46</sup> Budd et al 2004; Montgomery et al 2005.

<sup>47</sup> Montgomery 2002.

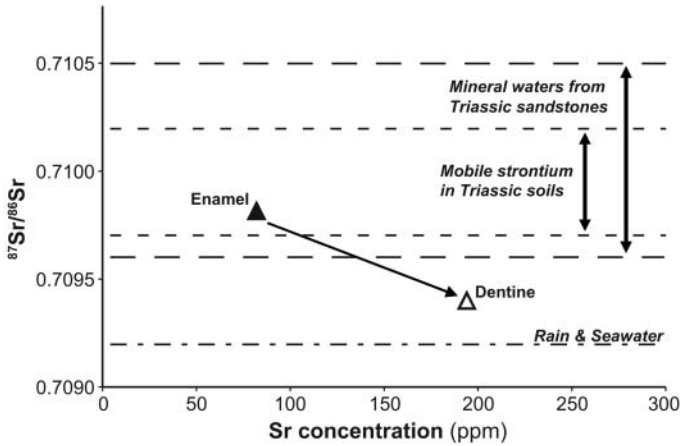


FIG 12

The strontium values for enamel that are set in childhood indicate that Sk100 probably grew up in the vicinity of the Triassic red sandstone common to the St Bees area. The dentine values are close to the value for rain and seawater and, given the proximity of the grave to the shore, are likely to be diagenetic in origin. The 2-sigma analytical error is within the symbols. Additional data sources: Montgomery et al 2006; 2009. Illustration © Janet Montgomery.

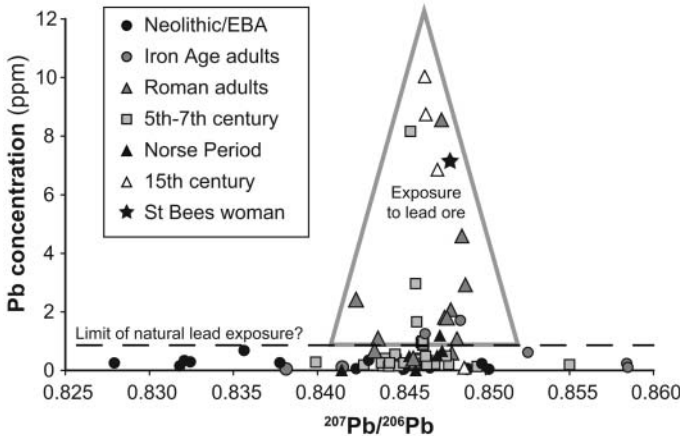


FIG 13

The lead in Sk100's (St Bees Woman) enamel is of English origin and the amount considerably exceeds natural levels. This suggests she was exposed to pollutant sources, which is consistent with other 15th-century English individuals (Montgomery 2002). Additional data sources: Montgomery 2002. Illustration © Janet Montgomery.

the last 10 years of life).<sup>48</sup> These data were compared with carbon and nitrogen isotope measurements on 15 mm-long serial segments of the hair (Fig 14) found on the chest of St Bees Man.<sup>49</sup>

Of the three bone samples, only collagen from the cranium and rib was well-enough preserved to yield reliable stable isotope data; whereas, for the histological data, % carbon and nitrogen and carbon to nitrogen atomic ratio showed all hair segments to be well enough preserved (Tab 2).  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  ratios of the bone samples were within 0.5‰ of each other, which is typical of repeat collagen extractions of the same bone and indicates good agreement.<sup>50</sup> These data indicate that no significant dietary change had taken place, at least up until the last few years of Sk100's life. The isotope values from the bone, with a mean carbon stable isotope ratio of  $-18.6\text{‰}$  and a mean nitrogen stable isotope ratio of  $14.5\text{‰}$ , are distinctive and, with their unusually high

<sup>48</sup>Sealy et al 1995; see Geyh 2001; Hedges et al 2007.

<sup>49</sup>Analytical protocols of collagen extraction and isotope ratio mass-spectrometry are described in detail in Müldner and Richards 2007a. Hair samples were soaked in 2:1 (v/v) methanol:chloroform solution, rinsed thoroughly in de-ionised water and lyophilised according to standard protocols in O'Connell et al 2001.

<sup>50</sup>Müldner, unpublished data.

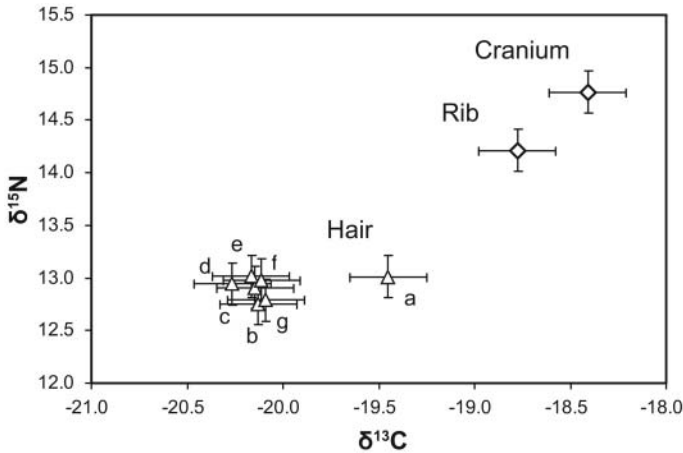


FIG 14

The data from the bone of Sk100 and the 'wreath of hair' deposited on the chest of the St Bees Man represent very different diets, with the bone exhibiting greater consumption of marine and, probably, animal products in general. These data indicate a rapid dietary shift or — more likely — that the bone and hair are not from the same individual. Error bars indicate analytical error ( $\pm 0.2\text{‰}$ ). Hair samples are labelled according to their distance from the scalp (a = distal and g = proximal ends, see Tab 2). Illustration © Andrew Wilson.

$\delta^{15}\text{N}$  ratios in comparison with the relatively small increase in  $\delta^{13}\text{C}$  compared to terrestrial baseline values, are typical of English populations from the later Middle Ages.<sup>51</sup> They therefore fit well with a later medieval date. The data suggest a diet of mainly terrestrial foods, probably with a large contribution from animal protein, but also a significant component of marine fish.<sup>52</sup> When these values are directly compared with the large dataset available from the Gilbertine priory of St Andrew, Fishergate, in York (which is slightly problematic as there are, as yet, no environmental baseline values available for St Bees), Sk100 would plot among the individuals with the most  $^{13}\text{C}$ - and  $^{15}\text{N}$ -enriched stable isotope values in the whole population, and higher than any of the females sampled (Fig 15).<sup>53</sup> This suggests Sk100 had a privileged diet, and she was of high social standing.

TABLE 2  
CARBON AND NITROGEN ISOTOPIC VALUES FROM SK100 (MEAN  $\delta^{13}\text{C}$   $-18.6\text{‰}$  AND MEAN  $\delta^{15}\text{N}$   $14.5\text{‰}$ ) AND FROM THE HAIR (MEAN  $\delta^{13}\text{C}$   $-20.0\text{‰}$  AND MEAN  $\delta^{15}\text{N}$   $13.0\text{‰}$ ) PLACED ON THE CHEST OF ST BEES MAN

	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	%C	%N	C/N	%Collagen
Sk100 cranium	-18.4	14.8	44.2	15.5	3.3	4.2
Sk100 tibia	-18.8	15.0	27.1	8.7	3.7	0.3
Sk100 rib	-18.8	14.3	42.6	13.8	3.4	2.5
Sk100 cranium	-18.4	14.8	44.2	15.5	3.3	4.2
Sk100 tibia	-18.8	15.0	27.1	8.7	3.7	0.3
Sk100 rib	-18.8	14.3	42.6	13.8	3.4	2.5
Hair a (proximal)	-19.5	13.1	43.9	13.8	3.7	
Hair b	-20.1	12.8	44.2	13.9	3.7	
Hair c	-20.1	13.0	44.6	14.0	3.7	
Hair d	-20.3	13.0	45.4	14.3	3.7	
Hair e	-20.2	13.1	46.8	14.8	3.7	
Hair f	-20.1	13.0	47.3	15.1	3.7	
Hair g (distal)	-20.1	12.8	47.9	15.1	3.7	

<sup>51</sup> See Müldner and Richards 2005; 2007a.

<sup>52</sup> Müldner and Richards 2007a.

<sup>53</sup> Müldner and Richards 2007b.

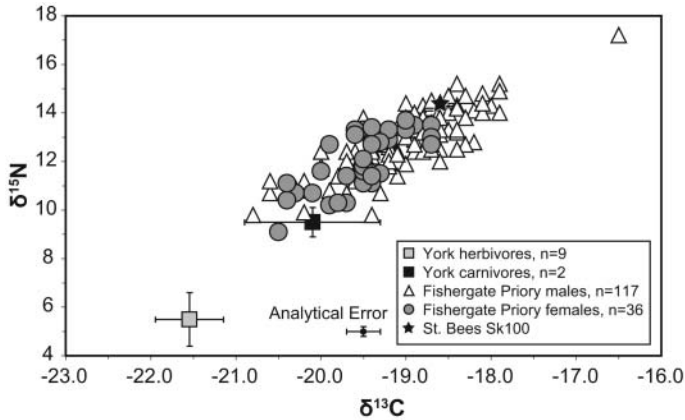


FIG 15

Comparison of the bone carbon and nitrogen data from Sk100 with individuals buried at the Gilbertine Priory of St Andrew, Fishergate in York and later medieval fauna from the same site (Müldner and Richards 2007b). The isotope data obtained from Sk100 groups with those from Fishergate, which appear typical of later medieval English populations (see Müldner and Richards 2007a). Both Sk100's  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  ratios are higher than those of the Fishergate females, suggesting that she consumed more marine protein than these individuals. *Illustration* © Gundula Müldner.

While bone isotopic signatures represent an average of dietary protein consumed over several years or decades prior to death, hair does not remodel once formed and preserves a signal of recent diet, with 1 cm of hair equating to roughly one month of an individual's life.<sup>54</sup> Carbon and nitrogen stable isotope data from the hair placed on the chest of St Bees Man (mean  $\delta^{13}\text{C}$   $-20.0\text{‰}$  and mean  $\delta^{15}\text{N}$   $13.0\text{‰}$ ) are very different to those obtained from the bones of Sk100. This difference exceeds the 'natural' offset we might expect between bone collagen and hair keratin due to their distinctive amino acid composition.<sup>55</sup>  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  ratios from the hair are much less enriched and suggest consumption of significantly less marine protein than indicated by the bone data (Fig 14, Table 2). For hair and bone to be from the same individual, Sk100 would have had to experience a very rapid and abrupt change in diet, lasting for at least several months (as indicated by the length of the hair), but the change in diet must have been recent enough not to be reflected in the isotopic composition of Sk100's rib bone collagen. Given the evidence for chronic jaw pathology that occurred early in Sk100's life, it is unlikely that this condition precipitated a dietary change immediately prior to death. Moreover, the death of Sk100 would have had to occur a relatively short time after that of the Man. A much simpler and more straightforward explanation would be that the hair did not come from Sk100 but from another person with a different diet.

#### RADIOCARBON-DATING EVIDENCE

Two AMS radiocarbon ( $^{14}\text{C}$ ) determinations provide further dates for Sk100 and for the hair deposited on the chest of the St Bees Man (Tab 3). The first, from a diaphyseal femoral sample from Sk100, produced a  $^{14}\text{C}$  determination of  $716 \pm 28$   $^{14}\text{C}$  BP (Fig 16). Using the Calib 5.02 Radiocarbon Calibration software programme, this produced the following age limits: 89.5% probability that the age lies in the range cal AD 1255–1303 and 5.9% probability that the age lies within cal AD 1366–85. The second sample, from the human hair associated with St Bees Man, gave a  $^{14}\text{C}$  determination of  $658 \pm 25$   $^{14}\text{C}$  BP (Fig 17). This calibrates to AD 1280–1319 (46.5% probability) and AD 1350–90 (48.9% probability).

<sup>54</sup>Wilson and Gilbert 2007, tab 9.2.

<sup>55</sup>See O'Connell et al 2001.

TABLE 3  
RADIOCARBON DETERMINATIONS AND  $\delta^{13}\text{C}$  AS MEASURED BY THE  
OXFORD RADIOCARBON ACCELERATOR UNIT

Lab code	Sample material	$^{14}\text{C}$ age BP	$\delta^{13}\text{C}$	Calibrated dates	
				2 sigma	Corrected for marine reservoir effect at 2 sigma
OxA-V-2153-17 STBE-100	Sk100 femoral bone collagen	716 $\pm$ 28	-18.1‰	AD 1255-1303 (89.5%) AD 1366-83 (5.9%)	AD 1301-1407 (95.4%)
OxA-17733	Human hair placed on St Bees Man's chest	658 $\pm$ 25	-19.05‰	AD 1280-1319 (46.5%) AD 1350-90 (48.9%)	AD 1310-67 (51.4%) AD 1382-1425 (43.9%)

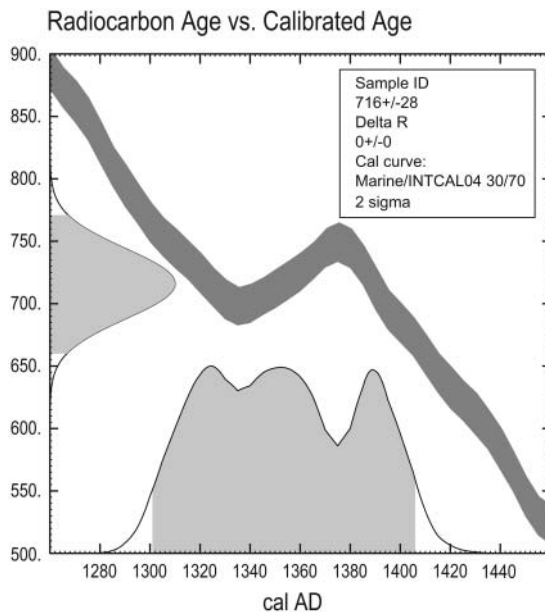


FIG 16

Marine-reservoir corrected Calib 5.02 radiocarbon ( $^{14}\text{C}$ ) determination of AD 1301-1407 (95.4% probability) on Sk100's original  $^{14}\text{C}$  determination of 716  $\pm$  28 14C BP from the Oxford Radiocarbon Accelerator Unit, originally calibrated to an 89.5% probability that the age lies in the range cal AD 1255-1305 and 5.9% probability that the age lies within cal AD 1365-85. The plot on the X-axis is the probability distribution for the calibrated age with the shaded area representing 95.4% probability. The Y-axis is the normal distribution of the  $^{14}\text{C}$  age with the shaded area indicating the 2-sigma limits. The shaded band going from top left to bottom right is the calibration curve and its limits. *Illustration © Gordon Cook.*

Table 2 contains stable isotope data measured on samples from different skeletal elements of Sk100 and clearly demonstrates that this person consumed a diet with a significant marine component ( $\delta^{13}\text{C}$  values heavier than -19‰ and  $\delta^{15}\text{N}$  values heavier than +14‰). A typical terrestrial diet would produce bone collagen  $\delta^{13}\text{C}$  values lighter than -20‰ and  $\delta^{15}\text{N}$  values lighter than +10‰.<sup>105</sup> Thus, a correction to the calibration of the  $^{14}\text{C}$  ages is required in order to compensate for the well-established marine-reservoir effect that makes  $^{14}\text{C}$  ages 'too old'. There are a number of uncertainties and assumptions associated with this correction. These include: (1) whether there is an accurate value available for the  $\Delta\text{R}$  (ie the deviation from the global average marine-reservoir effect for surface waters of c 400 years) that is applicable to the



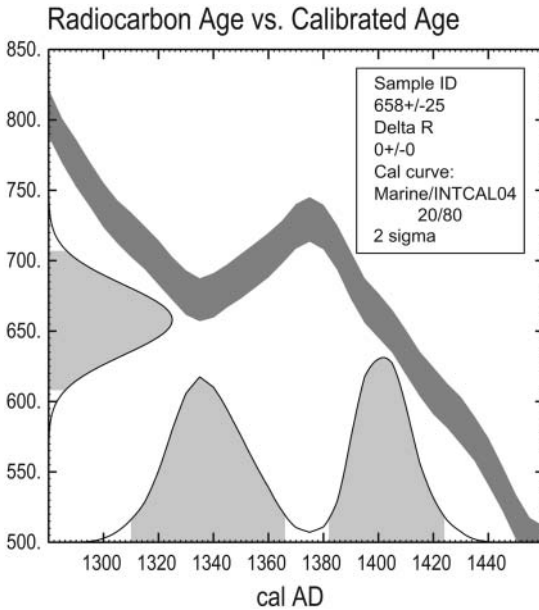


FIG 17

Marine-reservoir corrected Calib 5.02 radiocarbon ( $^{14}\text{C}$ ) determination of AD 1310–67 (51.5% probability at 2 sigma) and AD 1382–1425 (43.9% probability at 2 sigma) on the human hair associated with St Bees Man's original  $^{14}\text{C}$  determination of  $658 \pm 25$   $^{14}\text{C}$  BP from the Oxford Radiocarbon Accelerator Unit, originally calibrated to AD 1280–1320 (46.5% probability) and AD 1350–90 (48.9% probability). *Illustration* © Gordon Cook.

particular period and geographical area under study; (2) an uncertainty as to the stable isotope end members for 100% terrestrial and 100% marine diets; (3) there is an assumption of linearity between the end members; (4) the same percentage marine diet can produce somewhat different stable isotope values depending on which marine resources are consumed;<sup>106</sup> (5) how typical the measured stable isotope values for the skeletal remains under study are. The data in Table 2 illustrate this with  $\delta^{13}\text{C}$  values varying between  $-18.4$  and  $-18.8\text{‰}$  and  $\delta^{15}\text{N}$  values varying between  $+14.3$  and  $+15.0\text{‰}$  for different skeletal components. Despite these potential problems, a correction that takes these into account will produce a calibrated age that is closer to the true age.

In the absence of any  $\Delta\text{R}$  values for this period and region, the default value of 0 was employed in the calibration calculation. Using a linear relationship between marine and terrestrial diet  $\delta^{13}\text{C}$  end members of  $-12$  and  $-21\text{‰}$ , respectively, together with an average  $\delta^{13}\text{C}$  value for Sk100 of  $-18.5 \pm 0.2\text{‰}$ , the percentage marine diet was estimated at  $28 \pm 2\%$ . Using Calib 5.02, this produces a calibrated age range of AD 1301–1407 (95.4% probability) when allowance is made for the standard deviation on the  $\delta^{13}\text{C}$  values.

Using the  $\delta^{13}\text{C}$  value of  $-19.05\text{‰}$ , as measured by the Oxford Radiocarbon Accelerator Unit on the sample, and the same dietary end members and  $\Delta\text{R}$  parameters as above, the hair sample has calibrated age ranges of AD 1310–67 (51.5% probability at 2 sigma) and AD 1382–1425 (43.9% probability at 2 sigma).

## SUMMARY

Sk100 is the remains of a mostly complete but fragmentary female of European origin, aged at least between 36 and 45 years but probably older at death (in her 50s), who was  $160.9 \pm 5.16$  cm tall and weighed between 51 and 57 kg. She suffered from a chronically partially dislocated jaw, acquired during youth, which affected dental health, with substantial calculus build-up on the right side of her mouth and multiple dental cavities and an abscess on the left. Isotopic analyses indicate that she was local to the area and benefited from a diet high in fish-derived protein. This type of diet is indicative of late-medieval

high status as is her elaborated funerary treatment. Radiocarbon determinations corrected for her high marine fish diet provide a date in the range AD 1301–1407 (95.4% probability). The hair wreath on the chest of the Man, who preceded her burial in the tomb, has a different isotopic composition indicating that it most likely belonged to a person other than Sk100.

### THE REMAINS OF THE ST BEES MAN

The body of 'St Bees Man', originally the only occupant of the ashlar vault, was wrapped in two separate linen shrouds beneath the lead sheet wrapping. The body was naked except for a piece of cloth cut from one shroud that covered the loins. Wadding had been inserted into the bodily orifices and over the eyes. A string, tied around the neck, ran down to the penis to which it was also tied. The dark human head hair arranged on his chest measured some 6 in (c 15.25 cm) and showed no traces of the white hair that characterised the hair of the Man.<sup>56</sup>

During autopsy the internal organs were still red in colour but turned brown upon exposure to air. The irises of the eyes were visible (Fig 18) and fingerprints retained on the hand (Fig 19). The stomach contents consisted of a porridge-like substance that included a grape seed, and the large intestine contained soft brown faecal material.<sup>57</sup> Since the investigators did not observe bloating and decomposition from the faecal-filled intestines,<sup>58</sup> Ian McAndrew suggests that the body must have been kept cool or even frozen after death to prevent the development of these common after-death signs.<sup>59</sup> Tooth wear and pelvic X-ray indicate that he was 35–45 years of age at death.<sup>60</sup> Greying head hair and a short-cropped beard also support both sex and age-at-death assessments.

Like Sk100, he suffered from poor dental health. In addition to pronounced tooth wear that may have prevented dental caries (the worn off tooth crowns preventing build up of food particles), two teeth had been extracted prior to death, the upper left second and the right third lower molar, the latter extracted only some five to 12 months prior to death based on the state of healing.<sup>61</sup> The roots of the left second molar broke away when the crown of this tooth was extracted.<sup>62</sup> The second left upper molar and both of the lower first molars had abscesses, the former draining into the left maxillary sinus, where the presence of granulation tissue attested to sinusitis disseminated from the palatal root of the tooth.<sup>63</sup>

This individual had sustained several traumatic injuries. The enlarged left scrotal sac, measuring some 16 cm, indicates that he had suffered a hydrocele (ie an accumulation of serous fluid in the scrotal sac that could be due to abdominal herniation) in life.<sup>64</sup> In addition, he had sustained two peri-mortem fractures of the lower jaw, one that ran from the anterior part of the corpus to the right side in the vicinity of the third molar, and a second to the opposite, left side ascending ramus, just inferior to the mandibular condyle. Fractures such as these occur most often, though not exclusively, in motor vehicle accidents today, but also occur in fistfights.<sup>65</sup> Whatever the case, such fractures result from considerable force, possibly a single blow to the chin.<sup>66</sup>

<sup>56</sup> Tapp and O'Sullivan 1982.

<sup>57</sup> *Ibid.*

<sup>58</sup> McAndrew pers comm.

<sup>59</sup> See DiMaio and DiMaio 2001, 30–5.

<sup>60</sup> Tapp 1982; Leek 1982.

<sup>61</sup> Leek 1982.

<sup>62</sup> *Ibid.*

<sup>63</sup> *Ibid.*

<sup>64</sup> Tapp and O'Sullivan 1982, although this may be due to putrefactive changes due to the accumulation of gas passing from the gut into the scrotum.

<sup>65</sup> Galloway 1999, 77; Dandy 1993, 142.

<sup>66</sup> Tapp 1982.



FIG 18

The face of St Bees Man during autopsy. Note the short-cropped beard, irises of the eyes and worn dentition. *Photograph* © Ian McAndrew.



FIG 19

Left hand of St Bees Man during autopsy showing dermatoglyphic ridges (fingerprints). *Photograph* © Ian McAndrew.

The hyoid bone was also fractured. Fractures of the hyoid bone normally occur in a limited range of circumstances, including from direct trauma, as from a blow to the neck, from strangulation, in automobile accidents, or other actions that produce extension of the neck. They normally occur because of trauma to the mandible or other surrounding structures.<sup>67</sup> Hyoid fractures are most often associated with cases of manual strangulation, but they may also result from hanging and ligature strangulation.<sup>68</sup> Since the string found around the neck of the Man is a form of ligature, and Tapp noted that it left a 'deep groove' in the neck, it could have caused the fracture.<sup>69</sup> Ultimately, it seems more likely that a single blow to the head produced both the mandibular and hyoid fractures, isolated hyoid fractures being rare.<sup>70</sup> Hyoid fractures can be fatal due to associated asphyxia.<sup>71</sup> Although these injuries could have been life-threatening ones and suggest that the manner of death was due to trauma, the preservation of soft tissues also permits an extremely rare opportunity to identify cause of death in a medieval individual. The left seventh rib had sustained a peri-mortem fracture and an accumulation of dark red fluid in the right lung when examined by Tapp spectroscopically was found to be blood from a haemothorax (Fig 20), which could have arisen as a result of a small tear in the lung (although the location of this tear was not noted at autopsy). The rib fracture suggests a direct blow to the torso, and it is likely that the injury to the right lung, in the absence of any cardio-vascular insult, occurred at the same time. This internal thoracic bleeding and/or asphyxia would have been the cause of death.



FIG 20

Haemothorax as exposed during autopsy. Identified as the cause of death of the St Bees Man.  
*Photograph © Ian McAndrew.*

<sup>67</sup> Guernsey 1954.

<sup>68</sup> Pollanen et al 1995; Szeremeta and Morovati 1991; Ubelaker 1992.

<sup>69</sup> Tapp 1982, 179.

<sup>70</sup> Szeremeta and Morovati 1991.

<sup>71</sup> Papavasiliou and Speas 1959.

## PRESERVATION

The use of a lead covering seems to have been reserved for individuals of high social status in the later Middle Ages and is known to have been used in delayed burial. The chronicler Froissart records this treatment for the Prince of Wales, Richard Woodstock, the Black Prince, who died of dysentery on 8 June 1376 at the Palace of Westminster.<sup>72</sup> Others treated in this way include King Henry IV (d 1413) and his Queen, Joan (Joanna de Navarre, d 1437) whose wrapping was ‘formed by bending one sheet of lead over another, and soldering them at the junctions’; the Scottish King, Robert the Bruce (d 1329); and King Henry VI (d 1471) whose remains were found in a ‘small rectangular leaden chest’ within a larger, wooden coffin.<sup>73</sup>

The shroud retains a pine scent today.<sup>74</sup> Its conservators described a ‘bituminous’ or ‘tar-like, greasy accretion’ adhering to it.<sup>75</sup> During autopsy, it was said to have had a ‘waxy’ feel that led to the suggestion that beeswax had been used.<sup>76</sup> Our analysis of parts of the shroud by gas chromatography-mass spectrometry indicates the presence of *Pinaceae* (the pine, fir (*Abies*) family, though most likely pine) mixed with an oil or fat. The *Pinaceae* resin has been heated (there is presence of trace retene) so probably a pine pitch, not unlike that used to treat ships’ hulls. Due to the absence of specific lipids, the residue does not appear to be bitumen or beeswax.

The Man’s state of preservation may be due to a combination of a largely sealed lead covering, a resin-impregnated shroud, and adipocere formation, the fatty acid ‘crystals’ observed by Tapp during the autopsy. The adipocere formation affected all tissues, also occurring *within* the organs of the abdominal cavity (an unusual occurrence). These factors excluded bacterial action that leads to decay.

## SUMMARY

The St Bees Man was 35–45 years of age at death. He had suffered several traumatic injuries, both prior to and at the time of his demise. One of the latter injuries, a puncture to the right lung, is the likely cause of death. The extent of these injuries suggests that he had been a physically active man who participated in inter-personal violence.

His remarkable preservation seems to have been the result of post-mortem preparation, including the use of a lead wrapping, a pine-pitch impregnated shroud, and the formation of adipocere. The use of a lead wrapping has analogues with late-medieval funerary practices for some individuals of high social standing. High status is also implicit in tooth extractions, dental treatment being a rarity in the medieval period.<sup>77</sup> Preparation of the body involved placing a ‘wreath of hair’ on the Man’s chest. This was probably a gift, a gage or pledge — an object of little intrinsic value<sup>78</sup> — from an admiring woman, perhaps an action undertaken without the knowledge of officiating clergy.<sup>79</sup> Preparation of the body was often the work of women in medieval households, who bathed and sewed it into a shroud prior to burial. This hair dates the Man to the late medieval period.

<sup>72</sup> Froissart 1968, 193.

<sup>73</sup> Spry 1836, 443; Kaufman 2008; St John Hope 1911, 536–7.

<sup>74</sup> ASW and CJK pers obs.

<sup>75</sup> Glover 1990, 53.

<sup>76</sup> Tapp 1982, 114.

<sup>77</sup> CJK and ARO pers obs.

<sup>78</sup> Cf Mauss 1990, 60–1.

<sup>79</sup> Gilchrist and Sloane 2005, 227.

IDENTIFICATION OF SK<sub>100</sub> AND THE ST BEES MAN

## EFFIGIES AND TOMB MARKERS

Effigies, their varied forms, and for both males and females, are a phenomenon of the later Middle Ages, the majority dating to the 13th and 14th centuries. They attest to the expression of an individualistic, knightly class-consciousness.<sup>80</sup> They are redolent of elaborate funerary rights for those of high social standing. Three stone effigies in-the-round are displayed in the Priory church today, and include two knightly, now badly broken, effigies and one, less badly damaged, of a lady (Fig 21). These and another wooden effigy were depicted in 17th-century drawings (Figs 22 and 23) made by Gregory King, amanuensis to Sir Thomas Dugdale, while he was accompanying the herald on his visit to St Bees in 1665, after the English Civil War, when they were apparently in their original locations and in an undamaged state.<sup>81</sup> The text accompanying the drawings indicate that they were present in the chancel and S chancel aisle, as also depicted in Buck's 1739 engraving of the Priory (Fig 3).

The wooden effigy depicted in the upper register of Fig 22 shows a chainmail-wearing, shield-bearing, and cross-legged knight with parallels in stone in the late 13th or early 14th centuries.<sup>82</sup> Joseph Nicolson and Richard Burn identified this wooden effigy, now lost, as that of Anthony the last Lord Lucy,<sup>83</sup> ie Anthony



FIG 21

Effigies in-the-round displayed in the 'History Corner' of the Priory church. The effigy of the Lady is displayed between the two defaced knightly male effigies; in the foreground is the effigy dated 1360–80 and in the background that dated to no later than 1320. *Photograph* © Carol Palmer.

<sup>80</sup> Tummers 1980, 125–6.

<sup>81</sup> London, College of Arms MS C39.

<sup>82</sup> Tummers 1980, 131–3.

<sup>83</sup> Nicolson and Burn 1777, vol 2, 41.



FIG 22

College of Arms, MS C39. Drawings by Gregory King of effigies at 'St. Bees (formerly the monastery of St Bega)', 2 April 1665. The upper drawing is of a wooden effigy (now lost) of a cross-legged knight and the lower effigy of a lady that was rediscovered in 1981. The text associated with the upper effigy translates as 'In a certain recess, on the S side of the old choir of the conventual church there, now very ruinous' and with the female effigy 'On the north side of the same choir'. © *Reproduced with permission of the Chapter of the College of Arms.*

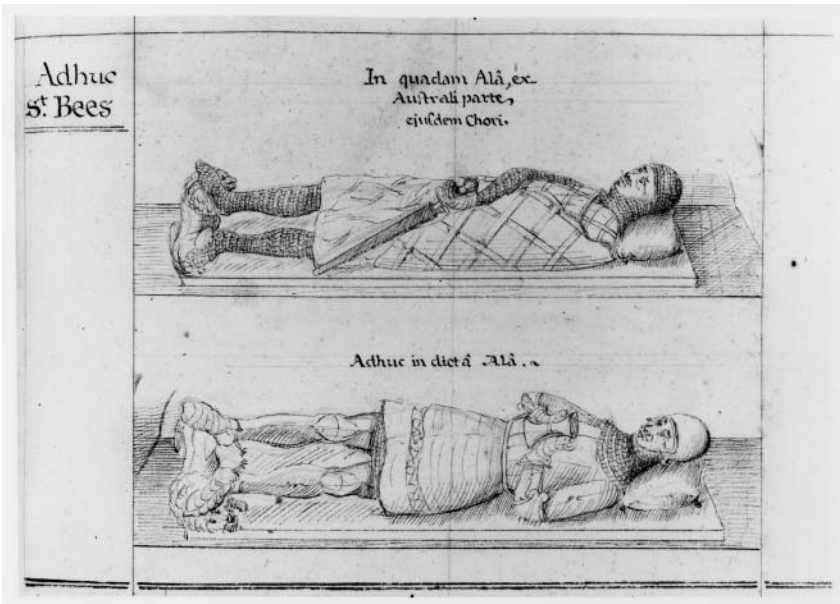


FIG 23

College of Arms, MS C39, also at St Bees. The text associated with the upper effigy translates as 'In a certain aisle, on the south side of the same choir' and the lower effigy 'also in the said aisle'. The upper effigy has been stylistically dated to no later than 1320 and the lower effigy to between 1360 and 1380. © *Reproduced with permission of the Chapter of the College of Arms.*

de Lucy (d 1368), the son of Thomas de Lucy (d 1365). Gregory King gives its position in the church as '*In quodam formice, ex australi parte veteris chori . . .*' ('in a certain niche on the S side of the old choir . . .'). A niche fitting this description and of a size and construction consistent with that of a tomb remains in a fragmentary form beneath the floor of the Old College Hall on the S side.<sup>84</sup> Today, it is blocked by rubble that incorporates a medieval tomb cover, among other masonry fragments. When in use, this niche would have formed an aperture making the chancel and S aisle inter-visible. The wooden effigy had vanished by 1816.<sup>85</sup> There is no other record identifying this effigy, and Bishop Nicolson's informants may have relied upon inaccurate local tradition, but a tradition exists that the younger Anthony de Lucy had a commemorative monument in the Priory.

The elegant female effigy in-the-round uncovered during the 1980/81 excavations under the Old College Hall and former chancel (not in its original location) and now displayed in the Priory church is clearly the effigy in the lower register of Fig 22 (also see Fig 21). It portrays an unidentified woman who appears to date stylistically to the late Middle Ages.<sup>86</sup> She is dressed in flowing garments, folds of which she holds to her bosom; on her head she wears a veil and wimple held in place under the chin with a 'barbette' (a band of cloth) that identifies this figure as depicting a Lady (long garments were an identifiable feature of later medieval nobles of both sexes).<sup>87</sup> This may be the effigy that once adorned the burial of Sk100.

Of the two remaining stone effigies, one is similar to the wooden effigy (Fig 23, upper register), though without the crossed lower limbs but with clear heraldic insignia in the form of a 'fretty' shield, a type of cross-hatch heraldic device that is repeated on the figure's surcoat. The second knightly stone effigy (Fig 23, lower register) portrays a man in full plate armour, with no heraldic or other identification, who holds an object on his chest that Gregory King clearly saw as a chalice. This is almost unheard of for a layman, and it has been suggested that this object was a heart casket, which may indicate fulfilment of a vow made in life.<sup>88</sup> An assessment by Philip Lankester, formerly of the Royal Armouries, dated the armour on the 'fretty' shield-bearing effigy as earlier than 1320 and the plate armour on the second as between 1360 and 1380.<sup>89</sup> The inscription indicates these male stone effigies were both in the S chancel aisle in 1665.

An extant grave tomb cover, 132 × 61 cm, stands in a blocked doorway of the present Lady Chapel in the N transept of the Priory church (Figs 5 and 24, not its original location). It portrays an apparently adult female, which is stylistically somewhat later in date than the effigies previously discussed, based on her hairstyle and clothing.<sup>90</sup> She is depicted without a headdress or veil, her hair rolled in plaits or braids on either side of her head, and her gown decorated with multiple delicate buttons along each sleeve and down its front. The damaged but still legible inscription leaves no doubt as to whom it once

<sup>84</sup> Douglas Sim pers obs, January 2009.

<sup>85</sup> Lysons and Lysons 1816, vol 4, 117.

<sup>86</sup> Cf Coss 1998; Tummers 1980.

<sup>87</sup> Cf Coss 1998, 80; Van Uytven 1999, 31.

<sup>88</sup> Bower 1901, 115.

<sup>89</sup> Lankester 1983, pers comm.

<sup>90</sup> Cf Coss 1998, 48–9; Haines 1970, 206 and figure on the same page.





FIG 24

The tomb cover of Johanna (Joan) de Lucy.  
 Photograph © Carol Palmer.

commemorated: *'Hic jacet Jhna Lucy — P[ro]pi[t]etur Deus. Amen.'* ('Here lies Johanna Lucy — May God have mercy on her. Amen.'). Although small in size, this is also a candidate as a potential marker for a female burial.

#### PROMINENT LOCAL FAMILIES OF THE ENGLISH–SCOTTISH BORDERS

In the 14th century the border between England and Scotland was contested land. Recurrent and continuous incursions across it involved both English and Scottish (and often mixed) armies, as well as less well-organised but effective havoc-raising raiders, who operated against a backdrop of both English and Scottish dynastic struggles. As a result, due to the strategic importance of these borderlands, powerful intermarried warring families came to dominate them, and their wealth and prestige made them political allies and, from time to time, foes of the monarchs and pretenders to the monarchies of both Scotland and England throughout the period. These areas accordingly became known by the term 'Marches' (ie borders or boundaries) and those that defended them procured offices conferred by the King. Their defence brought not only political power and wealth but, more importantly, considerable social status and prestige. Thus titles such as 'Warden of the East Marches' (the north-eastern part of England and Scotland) or 'Warden of the West Marches' (the north-western

part) became embedded in the social structure (ie named positions/offices) and heavily moderated and influenced social organisation (ie the relations among individuals). This happened through a web of shifting alliances and even more fluid allegiances that these families brokered through the system of marriage and the dynastic advancement and the accumulated land, rights and privileges this entailed.

Prominent families local to St Bees and the large parish covered by the Priory church from the late 13th to early 15th centuries likely to have been buried there include the de Multon family of Egremont, the de Harington family of Harrington and Aldingham, and the de Lucy family of Allerdale and Cockermouth. Although the intent of this contribution is to discuss the remains of a woman, due to the manner in which history is recorded for the period and due to medieval society being highly patriarchal and patrilocal, it is the Man's identity as much as that of Sk100 that is important in this endeavour. We can use recorded, and often somewhat reconstructed (ie based on actions mentioned in dated documents) ages-at-death, to limit the search for the identity of the Man and Sk100.

*De Harington of Harrington and Aldingham*

Six Cumbrian families bore the 'fretty' shield heraldic device identified on one of the effigies, but the one most closely connected with St Bees Priory was that of de Harington. The Chronicle of St Mary's Abbey, York, the mother-house of St Bees, records that Robert de Harington was buried at St Bees in 1298.<sup>91</sup> At one stage in our investigations, it seemed attractive to suppose that the Man was indeed Robert de Harington, and that Sk100 was his wife, Agnes de Cansfield. However, the fact that Agnes died before him in 1293,<sup>92</sup> and Sk100 is buried in a later extension of the tomb (and thus after the Man), makes this unlikely (Tab 4). It is a possibility that Agnes' remains could have been translated to the tomb extension when Robert died, but Sk100 shows no sign of

TABLE 4  
DE HARRINGTON OF HARRINGTON AND ALDINGHAM FAMILY  
RELATIONSHIPS AND POTENTIAL FOR THE IDENTITY  
OF THE ST BEES MAN AND SK100

<b>de Harington</b>	<b>Relationship</b>	<b>Died (age at death)</b>	<b>Comment</b>
Robert	father	1298 (> 50 years)	buried at St Bees; too old
Agnes de Cansfield	wife of above Robert	1293	pre-deceased husband
John	son	1347	buried at Cartmel Priory
Robert	grandson	c 1334	too young; brother-in-law of Thomas de Lucy
Elizabeth de Multon	wife of above Robert		sister of Margaret and John de Multon (see Tab 5)
John	great-grandson	1363 (c 60 years)	too old

<sup>91</sup> Craster and Thornton 1934, 30.

<sup>92</sup> Cokayne 1926, 314.

the disturbed skeletal patterning associated with a secondary burial. Robert de Harington would have been at least 50 years of age at death, which is older than the age determination of the Man, although due to the vagaries of age-at-death assessment, this interpretation requires caution. It still seems probable that Robert de Harington's burial and effigy were located nearby and, even, that the earlier of the two effigies — with the fretty shield — could be for the burial of Robert de Harington.

Robert's son, John de Harington, the first Lord Harington (d 1347), was buried in Cartmel Priory in southern Cumbria,<sup>93</sup> a foundation of Austin canons,<sup>94</sup> where the family would develop strong links in the following decades. This shift in place of burial may suggest that John de Harington's male descendants, another Robert, who died at a young age in Ireland in about 1334 and, then, another John (son of Robert), who died in 1363 at Gleaston Hall, near Ulverston (see Fig 1), would have chosen southern rather than western Cumbria for burial, although the exact locations of their burials are not known. Based on their ages-at-death, however, the latter Robert and John de Harington seem unlikely — too young and too old, respectively, to be St Bees Man. Robert would have been a younger man and the latter John de Harington 60 years old at death.

### *De Multon of Egremont*

It is possible that members of the de Multon family were buried in the Priory church at St Bees, although neither historical sources nor the monumental memorials attest this. Based on the <sup>14</sup>C determinations, four male de Multons are worthy of consideration for the identity of the St Bees Man (see Tab 5). The dates of death of the first Thomas de Multon (aged 21 in 1246,<sup>95</sup> d 1294) and his son, Thomas (d before 24 July 1287, in his father's lifetime),<sup>96</sup> fall outside the range provided by the marine-corrected <sup>14</sup>C determinations and, in addition, the first Thomas' age-at-death is too old to be the Man. Thomas' grandson, yet another Thomas (1276–1321/22), and his son, John (1308–34), the last male heir of the line, are potential candidates. John de Multon died aged 26 years and is therefore too young and, moreover, he is perhaps the John de Multon buried in the nave of Lincoln Cathedral.<sup>97</sup> His father, the third Thomas here,

TABLE 5  
DE MULTON OF EGREMONT FAMILY RELATIONSHIPS AND  
POTENTIAL FOR THE IDENTITY OF THE ST BEES MAN

de Multon	Relationship	Died (age at death)	Comment
Thomas	father	1294 (c 69 years)	too old
Thomas	son	before July 1287	too early
Thomas	grandson	1321/2 (c 46 years)	possible
John	great-grandson	1334 (c 26 years)	too young; last of male line; brother of Margaret and Elizabeth

<sup>93</sup> *Ibid.*, 315.

<sup>94</sup> Dickinson 1991.

<sup>95</sup> Cokayne 1936, 402.

<sup>96</sup> *Ibid.*, 403.

<sup>97</sup> *Ibid.*, 405, n b.

who died in 1321/22 aged c 46 years, is more likely, yet this Thomas is recorded as having given land in Moulton, near Spalding, Lincolnshire (from whence the family name derives), for a chantry in the parish church of Harrington (presumably Harrington in Lincolnshire, not Cumbria).<sup>98</sup> This would suggest that he may have sought burial in his chantry foundation rather than at St Bees. Overall, it seems more likely he was buried in Lincolnshire where his son was buried and where the de Multon founding ancestor, Lambert de Multon (living in 1166, but date of death unknown), was buried — in Spalding Priory, Lincolnshire.<sup>99</sup> This third Thomas was the first de Multon to hold the title 'Lord of Egremont'. He had a distinguished career in the service of Edward I and was present at the coronation of Edward II in January 1307/08.<sup>100</sup> After the premature death of his son, John, Thomas' three daughters inherited the Egremont estates (see below) and the title 'Barony of Multon of Egremont' fell into abeyance. The de Lucy family, then, came to prominence at Egremont through marriage.

#### DE LUCY OF ALLERDALE AND COCKERMOUTH

In the 14th century, Thomas de Lucy was Lord of Cockermouth and through his marriage to a de Multon sister, Margaret, daughter of the last Thomas de Multon, he received a third of the barony of Egremont by right of his wife.<sup>101</sup> The de Multon and de Lucy families had intermarried for generations. By marriage, Thomas de Lucy and the younger Robert de Harrington were also brothers-in-law because Robert married another de Multon sister, Elizabeth. Thomas de Lucy was an active and pivotal member of the de Lucy family. He held the office of Sheriff of Cumberland and was joint Warden of the West Marches (a post in which he served until his death). He was also summoned to Parliament on more than one occasion and to support King Edward III at the Battle of Crécy (1346), but was unable to do so because of Scots' incursions in the north that drew his intervention. He did partake in the later siege of Calais.<sup>102</sup> The Chronicler Jean Froissart substantiates that Lord Lucy was summoned to partake at Crécy,<sup>103</sup> which marks him as a powerful and noble baron of the realm. In sum, the de Lucy family was one of the most prominent in Cumberland and one of Thomas de Lucy's ancestors, Richard de Lucy, had been buried previously at St Bees Priory in 1213.<sup>104</sup> Succession to the barony of Egremont through his wife carried with it an interest in the patronage of St Bees Priory, and from this time the de Lucy family may have exercised their right to be buried in the Priory church again. The members of this family under consideration here are the said Thomas (d 1365), his father Anthony I (d 1343), his son Anthony II (d 1368), and his granddaughter Joan or Johanna (d 1369) (Tab 6).

<sup>98</sup> *Ibid.*, 1936, 404, n f.

<sup>99</sup> *Ibid.*, 398.

<sup>100</sup> *Ibid.*, 404.

<sup>101</sup> *Cal. Fine Rolls*, 1337–47, 80.

<sup>102</sup> Cokayne 1926, 252.

<sup>103</sup> Froissart 1968, Bk 1, 84. Froissart also records that Lord Multon was present at Crécy, but this is not the John de Multon of Egremont who died in 1334. The title descended to John de Multon of Frampton (Lincolnshire), a descendent of Thomas de Multon (d 1240), and it is this Lord Multon who was present at Crécy and who died in 1358 (pers comm Peter Coss).

<sup>104</sup> Cokayne 1932, 248.

TABLE 6  
DE LUCY FAMILY RELATIONSHIPS AND POTENTIAL FOR  
THE IDENTITY OF THE ST BEES MAN AND SK100

de Lucy	Relationship	Died (age at death)	Comment
Anthony	father	1343 (> 60 years)	too old
Elizabeth	wife of above Anthony		pre-deceased husband
Thomas	son	1365	brother-in-law of the younger Robert de Harington; summoned to Crécy (1346); died in London
Margaret de Multon	first wife of above Thomas		sister of Elizabeth and John de Multon; brought barony of Egremont through marriage to Thomas; pre-deceased him
Agnes de Beaumont	second wife of above Thomas		still living in 1359
Anthony	grandson	1368	died abroad; tradition of burial in St Bees; last of male line
Joan Fitzhenry	wife of above Anthony	1403	died in London
Maud	sister of above Anthony	1398 (c 55 years)	married 1. Gilbert de Umfraville 2. Henry Percy, Early of Northumberland
Joan or Johanna	daughter of above Anthony and Joan Fitzhenry	1369 (< 3 years)	a child

The elder Anthony de Lucy died in 1343 at an age greater than 60 years (being at least 50 years of age in 1331).<sup>105</sup> The elder Anthony's considerably older age-at-death than that determined for the St Bees Man would seem to exclude him and his wife, Elizabeth, who died before him (and thus cannot be Sk100 on archaeological grounds), from consideration as the couple in the tomb.

Thomas de Lucy, the younger Anthony's father, died 5 December 1365 in London, although his place of burial is unknown.<sup>106</sup> Importantly, his wife, Margaret de Multon, predeceased him, a detail that might exclude him from consideration on archaeological grounds (again, Sk100 being buried *after* the Man), but his second wife, Agnes de Beaumont, daughter of Henry de Beaumont, Earl of Buchan (Scotland), a relative of King Edward III, may have survived him. It could be that Thomas de Lucy's body was retrieved from London for burial in St Bees, and this occasioned the need to preserve it for delayed burial, but the woman interred would have been Agnes de Beaumont (who was still living in 1359, but there is no information about when she died or where she was buried).<sup>107</sup> Sk100 could not be his first wife's and Anthony's mother's remains, those of Margaret de Multon. There is no mention of how Thomas de

<sup>105</sup>Ibid, 250.

<sup>106</sup>Ibid, 253.

<sup>107</sup>Ibid, 253.

Lucy died or how old he was at death, although records of his activities date to as early as 1327. He likely would have been in at least his 50s, older than the Man, but the vagaries of determining age-at-death even in a well-preserved, fleshed individual would make it difficult to confidently exclude him completely as a candidate. Thomas de Lucy's exploits and honours would not be discordant with such a grand burial. It seems, though, that Thomas did not die in the borders, so perhaps not from violence but maybe of natural causes while attending to the King, who had granted him 100 marks for life, just months before his death, in May 1365.<sup>108</sup> This would seem to cast doubt on his being the Man.

Anthony de Lucy the younger, grandson of his namesake, died in 1368.<sup>109</sup> Anthony succeeded to his father Thomas' estates in 1365 at his father's death, and took over his father's duties on the West March. He was at least 24 years of age and 'much more' at his father's death,<sup>110</sup> which means he may well have been in his 30s or even 40s when he died. This figure would correspond with the age-at-death derived from examination of the Man.<sup>111</sup>

During a lull in the Border wars, and after receiving royal permission to leave the realm and borrowing £500 from the King's mistress, Alice Perrers, Anthony set sail from Dover with 15 horsemen.<sup>112</sup> Anthony's licence to travel does not indicate his destination, but, in the same week as it was issued, his distant cousin, John de Multon was going to 'la Pruce' — Prussia.<sup>113</sup> This John de Multon was son of John de Multon of Frampton (Lincolnshire) and was in the wardship of Thomas Lucy of Cockermouth, the father of Anthony de Lucy, so it is likely that they grew up in the same household.<sup>114</sup> With the Holy Land secure in Islamic hands, by the 14th century Prussia had become a common destination for noblemen (as indeed it was for Chaucer's Knight) from all over Europe to take up arms in aid of the Teutonic Knights in their efforts to suppress the pagan Lithuanians. Because the Papacy had granted the 'full spiritual privileges of a crusader to those who assisted the Order',<sup>115</sup> this destination possessed great attraction for knights requiring a holy calling to display their martial prowess and would also guarantee them papal absolution from sins and a Christian burial should they die by force of arms. Moreover, in the spring of 1368, the Prussian chronicle of Wigand of Marburg, the herald of the Grand Master of the Teutonic Knights, records a party of Englishmen assisting the Knights against the Lithuanians in this long-running northern crusade. Wigand does not mention Anthony de Lucy or John de Multon by name, but he does mention a 'Lord Bemunt' (Anthony's stepmother was a Beaumont, see above) and 'Nortz Vewater'.<sup>116</sup> This last person may be Wautero Fitz Wauter (ie Walter Fitzwalter), another cousin of Anthony de Lucy, who is named as a potential heir in the settlement of the de Lucy's estates, discussed below.<sup>117</sup>

<sup>108</sup>Ibid, 253.

<sup>109</sup>Ibid, 253.

<sup>110</sup>*Cal. Inq. Post Mortem*, vol 14, 233 no 169.

<sup>111</sup>Tapp 1982.

<sup>112</sup>Cokayne 1932, 253.

<sup>113</sup>*Calendar of Patent Rolls (1367–70)*, 34, 57, 58; *Calendar of Close Rolls (1364–68)*, 396.

<sup>114</sup>Coss pers comm.

<sup>115</sup>Seward 2000, 83; see also Christiansen 1980, 148.

<sup>116</sup>Hirsch, *Scriptores*, 1861–74, 2, 558.

<sup>117</sup>Cokayne 1926, 192, n h.

Anthony never returned home alive. The Inquisition Post Mortem merely says that he died abroad on either 19 August or 16 September 1368.<sup>118</sup> A 15th-century roll of the Greystoke family states that he died in *Terra Sancta* (the Holy Land).<sup>119</sup> It is possible that Anthony travelled from Prussia to the Holy Land, but it is more likely that the Greystoke chronicler made a mistake, or perhaps intended to record that Anthony died while carrying the cross (ie on crusade). His travelling companion, John de Multon, died there too.<sup>120</sup> Whatever the case, it would seem that Anthony's body would have required transport for burial, and the distance involved may have been, at least in part, what motivated the elaborate funerary treatment noted in the St Bees Man's burial. Burial in a foreign land, especially a heathen one, distant from one's own holdings to which social status was so closely linked, was anathema to the nobility of the Middle Ages.<sup>121</sup> The wounds recorded on the St Bees Man attest to a violent death, and there is a local tradition that his effigy was once in the Priory. The <sup>14</sup>C determinations from the hair are consistent with this (Tab 3); the hair could have been cut prior to 1368. It may be that the later stone effigy dated c 1360–80 that once rested in the chancel aisle and depicting a knight holding a chalice (Fig 23, lower) could represent Anthony the younger, rather than the stylistically earlier wooden one (Fig 22, upper). If the Man is indeed Anthony de Lucy II, the question of the woman's remains becomes more tractable, given that we might expect burial of noble family members close to one another.

#### FEMALE RELATIVES OF THE YOUNGER ANTHONY DE LUCY

The younger Anthony de Lucy had three female relatives: Joan (or Johanna) FitzHenry, his wife; his infant daughter, also Joan, aged 2 years 3 months in January 1368/69, died 30 September 1369,<sup>122</sup> and Maud, his only sibling and sister. The infant Joan is clearly not the woman (Sk100) buried within the tomb. It seems, too, that if this child was buried at St Bees, then this burial was not one of those recovered in the excavations. Simon Chapman reports that the only sub-adult remains recovered are those of a newborn infant (a sole tibia from the fill of grave 110) and those of an 8- to 10-year-old child.<sup>123</sup>

Anthony de Lucy's wife, Joan, died on 1 September 1403 in Clerkenwell, N London, according to the Inquisition Post Mortem held on 27 October 1403 in Lincoln: '*Et dicunt quod eadem Johanna obiit apud Clerkenwell in suburbio Londoniarum primo die Septembris ultimo preterito*' ('And they say that this Johanna died in the London suburb of Clerkenwell the first day of September last').<sup>124</sup> Although to our modern eyes the tomb cover with the dedication to Johanna de Lucy seems to depict an adult, it is unlikely that this is the older Joan's tomb cover. Because Joan remarried after Anthony's death, we do not expect her to lie beside her deceased former husband. Indeed, Anthony de Lucy, whom she married in

<sup>118</sup> *Cal. Inq. Post Mortem*, vol 14, 233 no 169.

<sup>119</sup> Cokayne 1926, 192, n e and f.

<sup>120</sup> Coss pers comm.

<sup>121</sup> Boase 1972, 113.

<sup>122</sup> Cokayne 1932, 254.

<sup>123</sup> Chapman 1995, 27.

<sup>124</sup> Cokayne 1926, 194, n h.

1366, was not her only previous husband. Joan already had four children by her first husband, William Lord Greystoke, when she married Anthony de Lucy: Ralph, William, Robert and Alice, the last of whom married Robert de Harington,<sup>125</sup> the father of the second John de Harington. From previous studies, it seems that European medieval noble women were more likely to be buried with husbands with whom they had had children, ie surviving heirs, while women who died without issue were more likely to be buried with members of their natal lineage.<sup>126</sup> If Joan was aged 15 when first married, she would have been at least in her late 60s, if not 70s, when she died in 1403, having out-lived her third husband, Sir Matthew de Redmond, by 13 years.<sup>127</sup> Joan's presence in Clerkenwell at the end of her life may be linked to this area of London being dominated by the Priory of St John, the English base of the crusading order of Knights Hospitallers, as well as being the location of a nunnery dedicated to St Mary.<sup>128</sup> Perhaps Joan, in advanced age, may have joined this house (a fairly common practice in the medieval period),<sup>129</sup> and arranged to be buried there, or was a patient in the hospital that operated there at her death and was thus interred there. Her age-at-death is considerably greater than that determined from the remains of Sk100. All this indicates that Sk100 is unlikely to be the remains of Anthony de Lucy's wife, Joan FitzHenry.

The tomb cover engraving depicting Johanna de Lucy (Fig 24) is of a much younger woman, a 'maiden'. This and its small size (see above) suggest it once adorned the burial place of the child, not the wife of Anthony de Lucy. Although her cause of death in 1369 is unknown, it coincides with an outbreak of the Black Death in Cumbria,<sup>130</sup> to which the infant Joan would have been at risk — children without acquired immunity falling prey to outbreaks of plague after the major pandemic in 1348.<sup>131</sup> Interestingly, although he provides no explanation, Pevsner clearly identifies this effigy as commemorating the infant Joan by ascribing the date 1369.<sup>132</sup>

### MAUD DE LUCY

When Anthony de Lucy's and Joan's only child died, the de Lucy estates passed to Antony's sister, Maud, aged 26 or more in 1369 and 30 or more in 1375.<sup>133</sup> Maud had previously been married to the Anglo-Scot 10th Earl of Angus (Maud being his second wife), a defender of England's NW marches (see Fig 1), Gilbert de Umfraville, who died in 1380/81. Although she had conceived a child through this marriage, the child did not survive.<sup>134</sup> Due to a lack of surviving heirs, Maud, as Countess of Angus, held not only Gilbert's Scottish

<sup>125</sup>Ibid, 193, n f.

<sup>126</sup>Weiss-Krejci 2004, 385.

<sup>127</sup>Cokayne 1926, 193.

<sup>128</sup>See Lewer and Dark 1997, 19–20, for a description of this area in the medieval period.

<sup>129</sup>Rosenthal 1987, 223.

<sup>130</sup>Summerson 1992, 156.

<sup>131</sup>Gottfried 1983, 130.

<sup>132</sup>Pevsner 1967, 184.

<sup>133</sup>Cokayne 1926, 254.

<sup>134</sup>Ibid, 254.



estates but also those that the de Umfravilles held in Northumberland, including Redesdale and Prudhoe.<sup>135</sup>

After the death of her husband, the alliance-conscious Henry Percy, First Earl of Northumberland (1341–1407/08), purchased the licence fee on Gilbert's lands and, therefore, the hand of Maud in 1381. This was *prior* to the death of his own wife, Margaret de Neville, widow of Lord William de Ros,<sup>136</sup> and daughter of Lord Ralph Neville. The Crown allowed Maud to settle all her estates on the Earl's son, Henry Percy (known as 'Hotspur'), which excluded any heirs at law.<sup>137</sup> Maud de Lucy died without surviving issue on 18 December 1398,<sup>138</sup> aged perhaps in her mid-50s. Henry Hotspur only outlived her for five years. He was famously killed at the Battle of Shrewsbury (Shropshire) in 1403, his end brought about by his opposition to and rebellion against King Henry IV (the so-called 'Pretender' due to irregularities in his dynastic claim).

The calibrated <sup>14</sup>C determinations corrected for marine-reservoir effect (Tab 3) broadly include both the historically documented dates of death of Anthony de Lucy (d 1368) and his sister, Maud de Lucy (d 1398). The skeletal age determination estimated an individual between at least 36–45 years but perhaps in her 50s at death and therefore consistent with the historically documented lifespan of Maud de Lucy. In fact, though, we do not have reliable birth dates for either Anthony de Lucy or his sister. These are historically surmised based on the dates of other life course events, such as marriage and deaths of parents.

From documented historical cases, the place of burial chosen by wealthy medieval women reflected their concern with both parentage (ancestry) and lineage (descendants obtained through marriage).<sup>139</sup> Burial might also be influenced by death succession, especially if an individual happened to be the last survivor and heiress of a particular line. Inheritance of land and titles tended to draw women back to their natal house for burial. Despite marriages that brought her into the families of powerful men and that sealed alliances with royal approval, with her brother's wife remarried and having inherited his estates prematurely at his death, Maud may have preferred burial with her own lineage and sought burial in her brother's tomb, one she very likely had a role in creating (as his most immediate surviving kin and heir). It is potentially indicative that Anthony's tomb, in its original design, was not created for a double burial. The unanticipated deaths and circumstances that followed his interment are thus perhaps made material in the form of the final tomb structure.

Perhaps the sole surviving object that permits us to glimpse Maud de Lucy's motivations (ie social agency) is encapsulated in a surviving personal seal of 1381, the year she married Henry Percy.<sup>140</sup> In general, seals reflect a concern with status as well as allegiance. Divided into three zones, the seal depicts Umfraville dexter (ie right), Percy centre and Lucy sinister (ie left). By employing

<sup>135</sup>Cokayne 1910, 150.

<sup>136</sup>Cokayne 1936, 712.

<sup>137</sup>Cokayne 1910, 150.

<sup>138</sup>Cokayne 1932, 254.

<sup>139</sup>Weiss-Krejci 2004.

<sup>140</sup>Described in Coss 1998, 45.

these heraldic devices, Maud alluded to her first husband's family, her last husband's family and her own family, the de Lucys, Lords of Egremont and Cockermouth. She desired to display not only her successive marital alliances but also that of her paternal lineage. This seal is a physical manifestation of political relations and, based on its representations, suggests political awareness that when placed in the context of historical documents, demonstrates not only the realities of social relations in the late medieval period but also reveals a geo-political astuteness that belies more than mere adherence to precepts of social convention. The symbolism reflects a desire to establish a new personal and political identity, as well as reflecting an attempt to maintain a lasting memory of the de Lucy lineage that would become extinct with her death. Maud orchestrated this. Banks records the following:

He [Henry Percy, First Earl of Northumberland] married, secondly, Maud, sister and heir of Anthony de Lucy, lord Lucy, who settled on him and his heirs the honour and castle of Cockermouth, with other great estates, on condition that her arms should be for ever quartered [portrayed together] with those of the Percies, viz. three luces or pikes [ie fish], argent [silver], in a field, gules [red] [the de Lucy crest], along with the blue lion, rampant, in a field, or [gold] [ie the Percy crest] . . .<sup>141</sup>

A surviving fragment from a relief that is today located inside the belfry tower of the present Priory church records this very heraldic device (Fig 25). This relief, rotated through 90 degrees, is incorporated into the fabric of the rebuilt 19th-century tower on the E side above head level, a little more towards the S wall. The only personage to whom this can be attributed is Maud de Lucy since she alone had a direct link to the powerful northern scions, the Percy family. This then ties her to the Priory church.

Although her chosen heir, Henry Hotspur, met a grisly, premature demise as a rebel against King Henry IV, Maud was amazingly successful in perpetuating the memory of her lineage. The Percy crest bearing the quartered de Lucy arms is displayed at Percy House, Cockermouth, built by Henry the 9th Earl of Northumberland in 1538. As late as 1776, the funeral entry at Westminster



FIG 25

The stone fragment of the quartered de Lucy and Percy coat-of-arms from the E wall of the belfry tower, St Bees Priory church.

Photograph © Doug Sim.

<sup>141</sup>Banks 1808, 235.

Abbey for the Duchess of Northumberland still mentions the de Lucy barony as one of five that the elderly scion held at her death.<sup>142</sup> This coat of arms later became incorporated into the crest of St Bees Theological College in the 19th century. In the church there is an extant reminder; this crest appears on the Willis organ case located in the S transept.

Why would Maud have agreed to such a union, though? Of the great value of the lands to which she was last heiress there seems little doubt. Moreover, she would have known that the Percies, who were originally ensconced in Yorkshire, had become the most substantial landowners in the north of England through a series of purchases (that included their extant castle at Alnwick in Northumberland) and royal grants and, importantly, that would be greatly extended through the acquisition of the de Lucy and de Umfraville estates.<sup>143</sup> Their worth is indicated by events a little later, at the turn of the 15th century. These northern lands were granted to members of the Neville family after the rebellion (against King Henry IV) and defeat of Henry Hotspur.<sup>144</sup> The Nevilles were rivals of the Percies for the next century, an enmity that contributed to and culminated in the 15th-century Wars of the Roses. It is likely that Maud's wealth made her a target for and a potential pawn of the desires of surviving collateral kin in the West Marches, lands notorious as the setting for internecine border raiding and counter-raid that had contributed to heightened political machinations on a national scale. A marriage to one of the most powerful and prosperous men in the land removed these threats and offered financial in addition to social security in later years, for her and her tenants. That her brother, Anthony de Lucy, and her first husband Gilbert de Umfraville, were Percy supporters also no doubt played a part, but to keep her lands from falling into the hands of other powerful families, perhaps the social-climbing Nevilles foremost among them,<sup>145</sup> might also have been an equally potent motivation. As Joel Rosenthal notes, '... [for an heir] to step down (or aside) was to make way for a rival, a replacement, and perhaps to be driven to relegation or second-class status ... In the public arena, where so much depended on visible symbols and forms, the inoperative was apt to be the soon-forgotten'.<sup>146</sup> Maud may have taken this decision for no other reason than for a peaceful transition; whatever, the case, though, it seems clear that she did so for the continued memory of her lineage, perhaps more so than for herself.

## CONCLUSION

The most common funerary pairing in the late medieval period is between husband and wife, with women most often providing detailed instructions in their wills indicating their desire to be buried near a named person, usually their husbands. Husbands, on the other hand, were more mindful of the specific location of burial within the church or churchyard.<sup>147</sup> This process was often influenced by the order in which people died, wealthy women, more often

<sup>142</sup>Cokayne 1936, 744, n b.

<sup>143</sup>Tuck 1992.

<sup>144</sup>Rose 2002.

<sup>145</sup>See Richardson 1998, who succinctly charts their rise.

<sup>146</sup>Rosenthal 1982, 214.

<sup>147</sup>Harding 1992.

than not, surviving their husbands, sometimes by many years.<sup>148</sup> Instead of the wife of St Bees Man, Sk100 appears to have been his sister, and this occurrence highlights the value of the funerary record as a complement to historiography.

A combination of unusual funerary treatment and preservation, osteological analysis, absolute dating and isotopic analyses, as well as church monuments and architecture, provide the means by which to identify these as high-status late-medieval burials. Ultimately, the physical injuries identified in the St Bees Man and the presence of the quartered arms of de Lucy and Percy in the Priory church today clinch the identification of Sk100 as Lady Maud de Lucy, last of the de Lucy line, and her brother, Anthony de Lucy, Lord of Cockermouth and Egremont, Warden of the West Marches, and knight of the realm. The strength of the osteobiographical approach lies in harnessing human remains to elucidate the individual's role in past societies, how social change is reflected in their funerary treatment, and their active role in socio-political continuity or change.<sup>149</sup> In such circumstances, the body and its treatment becomes an artefact of and canvas for symbolic and social expression.

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<sup>148</sup>Rosenthal 1982.

<sup>149</sup>Cf Verdery 1999; Knüsel 2006.

## BIBLIOGRAPHY

- Bailey, H and McNeill Love, R J 1949, *A Short Practice of Surgery*, London: H K Lewis.
- Banks, T C 1808, *Banks's Peerage: The Dormant and Extinct Baronage of England: An Historical and Genealogical Account of the Lives, Public Employments, and Most Memorable Actions of the English Nobility Who Have Flourished from the Norman Conquest to the Year 1806* **2**, London: J White.
- Bass, W M 1987, *Human Osteology: A Laboratory and Field Manual*, Columbia (MO): Missouri Archaeological Society.
- Bentley, R A 2006, 'Strontium isotopes from the earth to the archaeological skeleton: a review', *J Archaeol Method Theory* **13**, 135–87.
- Boase, T S R 1972, *Death in the Middle Ages: Mortality, Judgement, and Remembrance*, London: Thames and Hudson.
- Bower, Revd Canon 1901, 'On a brass found in Arthuret Church', *Trans Cumberland Westmorland Antiq Archaeol Soc* **1**, new ser, 114–15.
- Brothwell, D R 1981, *Digging Up Bones*, London: Cambridge University Press and British Museum.
- Buckberry, J L and Chamberlain, A T 2002, 'Age estimation from the auricular surface of the ilium: a revised method', *Am J Phys Anthropol* **119**, 231–9.
- Budd, P, Montgomery, J, Evans, J et al 2004, 'Human lead exposure in England from approximately 5500 BP to the 16th century AD', *Sci Total Environment* **318**, 45–58.
- Buikstra, J E and Ubelaker, D H (eds) 1994, *Standards for Data Collection from Human Skeletal Remains*, Fayetteville (AR): Arkansas Archaeological Survey.
- Byers, S N 2008, *Introduction to Forensic Anthropology*, Boston (MA): Allyn and Bacon.
- Chapman, S 1995, St Bees, Cumbria: a report on the human remains excavated from the south aisle of the Priory church in 1981 (unpubl MA in Post-Excavation Studies, University of Leicester).
- Christiansen, E 1980, *The Northern Crusades: The Baltic and the Catholic Frontier 1100–1525*, London and Basingstoke: Macmillan Press.
- Cokayne, G C 1910, *The Complete Peerage of England, Scotland, Ireland, Great Britain, and the United Kingdom Extant, Extinct, or Dormant*, ed V Gibbs, **1**, London: The St Catherine Press.
- Cokayne, G C 1926, *The Complete Peerage or a History of the House of Lords and All of its Members from the Earliest Times*, ed H A Doubleday, D Warrand and Lord H de Walden, **6**, London: The St Catherine Press.
- Cokayne, G C 1932, *The Complete Peerage or a History of the House of Lords and All of its Members from the Earliest Times*, ed H A Doubleday Lord H de Walden, **8**, London: The St Catherine Press.
- Cokayne, G C 1936, *The Complete Peerage or a History of the House of Lords and All of its Members from the Earliest Times*, ed H A Doubleday and Lord H de Walden, **9**, London: The St Catherine Press.
- Coss, P 1998, *The Lady in Medieval England*, Stroud, Gloucestershire: Wrens Park.
- Cox, M and Scott, A 1992, 'Evaluation of the obstetric significance of some pelvic characters in an 18th century British sample of known parity status', *Am J Phys Anthropol* **89**, 431–40.
- Craster, H H E and Thornton, M E 1934, *The Chronicle of St Mary's Abbey, York*, Surtees Society **148**.
- Dandy, D J 1993, *Essential Orthopaedics and Trauma*, 2nd edn, Edinburgh: Churchill Livingstone.
- Deniel, C and Pin, C 2001, 'Single-stage method for the simultaneous isolation of lead and strontium from silicate samples for isotopic measurements', *Analytica Chimica Acta* **426**, 95–103.
- Dickinson, J C 1991, *The Priory of Cartmel, Milnthorpe*, Cumbria: Cicerone Press.
- DiMaio, V J and DiMaio, D 2001, *Forensic Pathology*, 2nd edn, Boca Raton (FL): CRC Press.
- Eveleth, P B and Tanner, J M 1976, *World-wide Variation in Human Growth*, Cambridge: Cambridge University Press.
- Froissart, J 1968, *Chronicles*, Harmondsworth: Penguin Books.
- Galloway, A (ed) 1999, *Broken Bones: Anthropological Analysis of Blunt Force Trauma*, Springfield (IL): Charles C Thomas.
- Geyh, M A 2001, 'Bomb radiocarbon dating of animal tissues and hair', *Radiocarbon* **43**, 723–30.
- Gilchrist, R and Sloane, B 2005, *Requiem: The Medieval Monastic Cemetery in Britain*, London: Museum of London Archaeology Service.

- Glover, J M 1990, 'The conservation of medieval and later shrouds from burials in northwest England', in S O'Connor and M M Brooks (eds), *Archaeological Textiles*, Occasional Papers No 10, London: The United Kingdom Institute for Conservation, 49–58.
- Goodman, A and Tuck, A (eds) 1992, *War and the Border Societies in the Middle Ages*, London: Routledge.
- Gottfried, R S 1983 *The Black Death: Natural and Human Disaster in Medieval Europe*, New York: The Free Press.
- Grine, F E, Jungers, W L, Tobias, P V, et al 1995, 'Fossil Homo Femur from Berg Aukas, Northern Namibia', *Am J Phys Anthropol* **97**, 151–85.
- Guernsey, L H 1954, 'Fractures of the hyoid bone', *J Oral Surg* **12**, 241–6.
- Haines, H 1970, *A Manual of Monumental Brasses*, Bath: Adams and Dart.
- Haneveld, G T and Perizonius, W R K (eds) 1982, *Proceedings: Paleopathology Association 4th European Meeting*, Middelburg/Antwerpen: Elinkwijk B V, Utrecht.
- Harding, V 1992, 'Burial choice and burial location in later medieval London', in S Bassett (ed), *Death in Towns: Urban Responses to the Dying and the Dead, 100–1600*, Leicester: Leicester University Press, 119–35.
- Hedges, R E M, Clement, J G, Thomas, C D L, et al 2007, 'Collagen turnover in the adult femoral mid-shaft: modeled from anthropogenic radiocarbon tracer measurements', *Am J Phys Anthropol* **133**, 808–16.
- Hillson, S 1996, *Dental Anthropology*, Cambridge: Cambridge University Press.
- Hirsch, T (ed) 1861–74, *Scriptores Rerum Prussicarum*, Leipzig.
- Horwitz, E P, Chiarizia, R and Dietz, M L 1992, 'A novel strontium-selective extraction chromatographic resin', *Solvent Extraction and Ion Exchange* **10**, 313–36.
- Hylander, W L 1975, 'The human mandible: lever or link?', *Am J Phys Anthropol* **43**, 227–42.
- Kaufman, M H 2008, 'Analysis of the skull of Robert the Bruce', *Hist Scot* **8**:1, 22–30.
- Knüsel, C J 2006, "'Of no more use to men than in ages before?": the Investiture Contest as a model for funerary interpretation', in R Gowland and C J Knüsel (eds), *Social Archaeology of Funerary Remains*, Oxford: Oxbow Books, 209–23.
- Krogman, W M and Iscan, M-Y 1986, *The Human Skeleton in Forensic Medicine*, 2nd edn, Springfield (IL): Charles C Thomas.
- Leek, F F 1982, 'The dentition of the St Bees Man', in Hanveld and Perizonius (eds), 183–7.
- Lewer, D and Dark, R 1997, *The Temple Church in London*, London: Historical Publications.
- Lovejoy, C O, Meindl, R S, Pryzbeck, T R and Mensforth, R P 1985, 'Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of age at death', *Am J Phys Anthropol* **68**, 15–28.
- Luyk, N H and Larsen, P E 1989, 'The diagnosis and treatment of the dislocated mandible', *Am J Emerg Med* **7**, 329–35.
- Lysons D and Lysons S, 1816 *Magna Britannia, being a concise Topographical Account of the several Counties of Great Britain* **4**, London: T Cadell and W Davies.
- Mauss, M 1990, *The Gift: The Form and Reason for Exchange in Archaic Societies*, trans W D Halls, London: Routledge.
- McHenry, H M 1992, 'Body size and proportions in early hominids', *Am J Phys Anthropol* **87**, 407–31.
- Meindl, R S and Lovejoy, C O 1985, 'Ectocranial suture closure: a revised method for the determination of skeletal age based on the lateral-anterior sutures', *Am J Phys Anthropol* **68**, 57–66.
- Montgomery, J 2002, Lead and strontium isotope compositions of human dental tissues as an indicator of ancient exposure and population dynamics (unpubl PhD thesis, University of Bradford).
- Montgomery, J, Evans, J A and Chenery, C A 2009, 'Strontium and oxygen isotope analysis of burials from Wasperton, Warwickshire', in M O H Carver, C Hills and J Scheschkewitz (eds), *Wasperton: A Roman, British and Anglo-Saxon Cemetery in Central England*, Woodbridge: Boydell and Brewer, 48–9.
- Montgomery, J, Evans, J A and Cooper, R E 2007, 'Resolving archaeological populations with Sr-isotope mixing models', *Applied Geochemistry* **22**, 1502–14.
- Montgomery, J, Evans, J A, Powlesland, D et al 2005, 'Continuity or colonization in Anglo-Saxon England? Isotope evidence for mobility, subsistence practice, and status at West Heslerton', *Am J Phys Anthropol* **126**, 123–38.

- Müldner, G and Richards, M P 2005, 'Fast or feast: reconstructing diet in later medieval England by stable isotope analysis', *J Archaeol Sci* **32**, 39–48.
- Müldner, G and Richards, M P 2007a, 'Stable isotope evidence for 1500 years of human diet at the city of York, UK', *Am J Phys Anthropol* **133**, 682–97.
- Müldner, G and Richards, M 2007b, 'Diet and diversity at later medieval Fishergate: the isotopic evidence', *Am J Phys Anthropol* **134**, 162–74.
- Nasmith, J 1787, *Tanner's Notitia Monastica, or An Account of the Abbies, Priors, and House of Friars Formerly in England and Wales*, Cambridge: Cambridge University Press.
- Nicolson, J and Burn, R 1777, *The History and Antiquities of the Counties of Westmorland and Cumberland* **2**, London: W Strachan and T Cadell.
- O'Connell, T C, Hedges, R E M, Healey, M A, et al 2001, 'Isotopic comparison of hair, nail and bone: modern analyses', *J Archaeol Sci* **28**, 1247–55.
- O'Sullivan, D 1982, 'St Bees Man: the discovery of a preserved medieval body in Cumbria', in Haneveld and Perizonius (eds), 171–7.
- Palastanga, N, Field, D, and Soames, R 1994, *Anatomy and Human Movement: Structure and Function*, 2nd edn, Oxford: Butterworth-Heinemann.
- Papavasiliou, C G and Speas, C J 1959, 'Fractures of the hyoid bone', *Radiology* **72**, 872–4.
- Park, T 1982, *St Bees College 1816–1895: A Short History*, Barrow in Furness: St Bega Publications, Guardian Printers.
- Pevsner, N 1967, *Cumberland and Westmorland*, London: Penguin Books.
- Pevsner, N and Neave, D 1995, *Yorkshire: York and the East Riding*, 2nd edn, London: Penguin Books.
- Pollanen, M S, Bulger, B and Chiasson, D A 1995, 'The location of hyoid fractures in strangulation revealed by xeroradiography', *J Forensic Sci* **40**:2, 303–5.
- Richardson, G 1998, *The Lordly Ones; A History of the Neville Family and their Part in the Wars of the Roses*, Shipley, West Yorkshire: Baildon Books.
- Rohl, B 1996, 'Lead isotope data from the Isotracer Laboratory, Oxford: archaeometry data base 2, galena from Britain and Ireland', *Archaeometry* **38**, 165–80.
- Rose, A 2002, *Kings in the North: The House of Percy in British History*, London: Phoenix.
- Rosenthal, J T 1982, 'Old men's lives — elderly English Peers, 1350–1500', *Medievalia* **8**, 211–37.
- Rosenthal, J T 1987, 'Other victims: peeresses as war widows, 1450–1500', *History* **72**, 213–30.
- Ruff, C B, Scott, W W, and Liu, A Y-C 1991, 'Articular and diaphyseal remodeling of the proximal femur with changes in body mass in adults', *Am J Phys Anthropol* **86**, 397–413.
- Scheuer, L and Black S 2007, 'Osteology', in Thompson and Black (eds), 199–219.
- Schweich, M 2005, Diachronic effects of bio-cultural factors on stature and body proportions in British archaeological populations: the impact of living conditions, socio-economic, nutritional and health status on growth, development, maximum attained stature and physical shape in archaeological skeletal population samples (unpubl PhD thesis, University of Bradford).
- Scott, G R and Turner II, C G 1997, *The Anthropology of Modern Human Teeth: Dental Morphology and its Variation in Recent Human Populations*, Cambridge: Cambridge University Press.
- Sealy, J, Armstrong, R and Schrire, C 1995, 'Beyond lifetime averages — tracing life-histories through isotopic analysis of different calcified tissues from archaeological human skeletons', *Antiquity* **69**, 290–300.
- Seward, D 2000, *The Monks of War: The Military Orders*, London: The Folio Society.
- Spry, J H 1836, 'A brief account of the examination of the tomb of King Henry IV in the Cathedral of Canterbury, August 21, 1832', *Archaeologia* **36**, 440–5.
- St John Hope, W H 1911, 'The discovery of the remains of King Henry VI in St. George's Chapel, Windsor Castle', *Archaeologia* **62**, 533–42.
- Stroud, G and Kemp, R L 1993, *Cemeteries of St Andrew, Fishergate*, The Archaeology of York **12/2** The Medieval Cemeteries, York: Counc Brit Archaeol.
- Summerson, H 1992, 'Responses to war: Carlisle and the West March in the later fourteenth century', in Goodman and Tuck (eds), 155–77.
- Szeremeta, W and Morovati, S 1991, 'Isolated hyoid bone fracture: a case

- report and review of the literature', *J Trauma* **31**:2, 268–71.
- Tapp, E 1982, 'St Bees Man: did he fall or was he pushed?', *Proc Inst Maxillo-Facial Technology 1980–1982*, 113–26.
- Tapp, E and O'Sullivan, D 1982, 'St Bees Man: the autopsy', in Haneveld and Perizonius (eds), 178–82.
- Thompson, T and Black, S (eds) 2007, *Forensic Human Identification: An Introduction*, Boca Raton (FL): C R C Press.
- Todd, J M 2003, 'The pre-Conquest church in St Bees, Cumbria: a possible minster?' *Trans Cumberland Westmorland Antiq Archaeol Soc* **3**, 97–108.
- Tuck, A 1992, 'The Percies and the community of Northumberland in the later fourteenth century', in Goodman and Tuck (eds), 178–91.
- Tummers, H A 1980, *Early Secular Tomb Effigies in England: The Thirteenth Century*, Leiden: E J Brill.
- Ubelaker, D H 1992, 'Hyoid fracture and strangulation', *J Forensic Sci* **37**:5, 1216–22.
- Van Uytven, R 1999, 'Showing off one's rank in the Middle Ages', in W Blockmans and A Janse (eds), *Showing Status: Representations of Social Positions in the Late Middle Ages*, Medieval Texts and Cultures of Northern Europe 2, Turnhout, Belgium: Brepols, 19–34.
- Verdery, K 1999, *The Political Lives of Dead Bodies: Reburial and Postsocialist Change*, New York: Columbia University Press.
- Weiss-Krejci, E 2004, 'Mortuary representation of the noble house', *J Social Archaeol* **4**:3, 368–404.
- Whipkey, C E, Capo, R C, Chadwick, O A, et al 2000, 'The importance of sea spray to the cation budget of a coastal Hawaiian soil: a strontium isotope approach', *Chemical Geology* **168**, 37–48.
- Wilson, A S and Gilbert, M T P, 2007, 'Hair and nail', in Thompson and Black (eds), 147–74.

#### Archive sources

- Calendar of Close Rolls (1364–68)*, 396.
- Calendar of Fine Rolls*, 1337–47, 80.
- Calendar of Inquisitions Post Mortem*, vol 14, 233 no 169.
- Calendar of Patent Rolls (1367–70)*, 34, 57, 58.
- Gough Maps 4, fol. 38b, Bodleian Library, Oxford.
- London, College of Arms MS C39.
- NA, Public Record Office, SC6/Henry VIII/7382.

#### Résumé

**L'identité de la dame de St Bees, Cumbrie: ostéobiographie** par Christopher J Knüsel, Catherine M Batt, Gordon Cook et al

Cette contribution utilise l'ostéobiographie pour déterminer l'identité de la femme trouvée aux côtés de l'homme de St Bees, l'un des corps les mieux préservés jamais mis à jour lors de fouilles archéologiques. Associées au contexte archéologique de la tombe et aux documents d'histoire sociale, les études ostéologiques, isotopiques et au carbone-14 forment la base de l'identification de cette héritière de la fin du 14<sup>e</sup> siècle, dont les activités étaient au cœur du contexte géopolitique du nord de l'Angleterre médiévale.

#### Zusammenfassung

**Die Identität der St Bees Lady, Cumbria: ein osteobiographischer Ansatz** von Christopher J Knüsel, Catherine M Batt, Gordon Cook et al

Mit einem osteobiographischen Ansatz untersucht dieser Beitrag die Identität der Frau, die neben dem St Bees Man gefunden wurde, einem der besterhaltenen archäologischen Leichname, die je gefunden wurden. Osteologische, Isotopen- und Radiokarbonanalyse, kombiniert mit dem archäologischen Kontext der Grabstätte und sozialgeschichtlichen Dokumenten dienen als Grundlage für die Identifizierung einer Erbin aus dem späten 14. Jahrhundert, die im Herzen der mittelalterlichen nordenglischen Geopolitik tätig war.



*Riassunto*

**L'identità della donna di St Bees in Cumbria: un approccio osteobiografico** di Christopher J Knüsel, Catherine M Batt, Gordon Cook et al

Utilizzando un approccio osteobiografico, questo studio considera l'identità della donna trovata di fianco all'uomo di St Bees, uno dei corpi meglio conservati mai scoperti dall'archeologia. Analisi osteologiche, isotopiche e al radiocarbonio, abbinate al contesto archeologico della sepoltura e alla documentazione della storia sociale forniscono le basi per l'identificazione di un'ereditiera del tardo XIV secolo le cui attività furono al centro della geopolitica medievale dell'Inghilterra settentrionale.