CATALOGUE

Key to abbreviations

x	tooth l	ost ani	temortem
	1001111	0.01 0000	

/ tooth lost postmortem

- tooth and jaw missing
- *u tooth unerupted*
- np tooth not present

Grave 1

Indeterminate 14 - 17 yrs

Location: At west end of nave near graves 98 and 107. Skull revealed during emptying of sewer. Rest of body within unexcavated area to east.

Probable date: Late 12th century.

Preservation: Poor. <40%. Only cranium and cervical vertebrae remain.

Bones present: Cranial vault, maxilla and right mandible, cervical vertebrae, one rib and one rib fragment.

Dentition: //6//3u1|1u34567x 876-----

Dental pathology: Congenital absence of maxillary lateral incisors. Possible impacted third right mandibular molar.

Non-metric traits: Double atlas facets. Accessory transverse foramina in cervical vertebrae. Occipital bun surrounded by lambdoid ossicles. Left epipteric bone. Left parietal notch bone. Left supraorbital notch with foramen embedded in it.

Skeletal pathology: Cribra orbitalia in left orbit, porosity of anterior palate. Left maxillary sinusitis.

Grave 2

Male 18 - 25

(MNI: four adults)

Location: Outside priory foundations to north of west end. Reburial of skeleton within topsoil, probably in the 19th century following drain digging. *Probable date:* ?

Associated material: Two right femoral shafts, one with distal end and the other with neither end, light coloured femoral and tibial fragment, light coloured right humerus with large cortical defect, dark coloured right radial shaft missing both ends. Cattle phalange, cattle femoral fragment.

Preservation: Good but less than 40% of burial present.

Bones present: Dark-coloured cranium, mandible, some long bones, right innominate, and a collection of long bones from other individuals. In total, there are three right femora, two right, and one left, humeri, two right radii, one right and one left tibial shaft and two fibulae ?side; femoral and tibial fragments, light in colour, from another individual.

Dentition: <u>no maxilla</u> np / 6 / / / / | 1 2 3 4 5 6 7 np

Dental pathology: Caries (LL7)

Skeletal pathology: Cortical defects at insertion of *teres major* on left humerus, each 11 mm in length. *Additional right humerus:* Cortical defect at insertion of *pectoralis major* 32 mm in length. Thickening of right tibia on its interosseous surface in mid-shaft region. Smooth and well-remodelled and probably representing osteitis. Scoring by rodent tooth marks on thickened surface.

Grave 3 (13, 13A)

MNI?

Male 26+ No complete long bones

Location: At west end of nave. Partly within south section. Articulated skeleton (13a) with loose bones (13) thrown on top.

Burial position: Hands on pelvis.

Probable date: 14th century.

Preservation: Poor. Less than 40% present. Very incomplete burial with some bones of different colours. Cranial vault, right pelvis, some ribs, two arm and two leg bones. *Bones present:* Cranium, right humeral shaft, four dark-coloured ribs and left femur (labelled 13A); part of left clavicle, right scapular fragment, a few ribs, right ulna, lumbar vertebra and right innominate (labelled 13).

Dentition: <u>/76//3/-</u>-----no mandible

Dental pathology: Attrition.

Non-metric traits: Supraorbital notches, single right and double left zygomatic foramina, left Poirier's facet.

Skeletal pathology: Severe mediolateral bowing of left femur suggestive of healed rickets or a greenstick fracture. This has resulted in flattening of the femoral head superiorly. Severe porosity and osteophytosis of both twelfth rib heads, osteophytosis of one other left rib head.

Grave 4

? Male

26+ No complete long bones

Location: To west of north aisle. Reburial of skull and two limb bones in lower disturbed garden soil.

Preservation: Poor. Less than 40% of burial present. Cranium with no facial bones or mandible and two long bones. The cranium is pale in colour and the femur surface eroded.

Bones present: Cranial vault, petrous temporals and four other fragments, right distal humerus and femur without ends.

Non-metric traits: Parietal foramina.

Grave 5

Male 46+ 173.2 ± 4.32 cm (ulna)

Location: To west of north aisle. Articulated skeleton with feet in section. Disturbed lower limbs.

Burial position: Hands on pelvis.

Probable date: Early 12th century.

Coffin type: None.

Associated material: two mandibular fragments, part of right pubic symphysis, two lower cervical vertebrae, juvenile vertebra, left medial epicondyle of humerus, right squamous temporal of young individual, left radius, two non-human bones, third and fourth right metacarpals and proximal first hand phalanx.

Preservation: Fair. 40-70% of burial present. Complete cranium. Upper body fairly well preserved. No legs or feet apart from left femoral head and one fifth metatarsal.

Bones present: Cranium and mandible, clavicles and parts of scapulae, humeri (with fragmented proximal ends), radii, ulnae, most hand bones, most ribs and some vertebrae, pelvic bones, left femoral head.

Dentition:

<u>x x x x // // // // x x x</u>

876x4/21 | 12/45xxx

Dental pathology: Attrition, caries, abscess.

Non-metric traits: Right supraorbital notch, left foramen, additional left infraorbital foramen, double zygomatic foramina, coronal ossicle, occipital bun with large lambdoid ossicles, ossicles at asterion, right divided hypoglossal canal, mastoid foramina, accessory transverse foramina (C5, C6).

Skeletal pathology: Swelling and porosity around superior part of nasal aperture. ? cause. Osteoarthritis of right acromioclavicular joint. Enthesopathies of biceps on radial tuberosities, for pronator quadratus on ulnae, for quadriceps and adductors on left ischial tuberosity, for interosseous ligament on both pelvic bones, for costotransverse ligaments on four right and one left rib tubercles, and for common extensor on left radial tuberosity. Osteophytosis of two right rib tubercles, of glenoid cavity on right scapula, and of right acetabulum (with porosity) superiorly. Spinal osteophytosis, Schmorl's nodes of T7 to L1.

Grave 6

? Male 46+ No complete long bones

Location: To west of north aisle. Reburial of skull within garden soil. No grave visible.

Probable date: ?

Preservation: Poor. Less than 40% of burial present. Only part of cranium and a few vertebral fragments remain. The cranial surface is badly eroded *postmortem*.

Bones present: Part of cranial vault, right zygomatic, a few incomplete lumbar vertebrae.

Dentition: _____| - 2 3 - _ _ _ no mandible

Dental pathology: Complete oblique fracture of left maxillary canine, covered with calculus.

Non-metric traits: Supraorbital notches, triple right zygomatic foramen, left foramen of Huschke.

Skeletal pathology: Strangely crested look to frontal bone. Osteophytosis of lumbar vertebrae and at lumbosacral joint.

Grave 7

? Male Old adult (46+) No complete long bones

Location: At west end of nave near graves 9 and 10. Undisturbed, articulated burial. Tile within grave.

Burial position: Hands on pelvis.

Probable date: Early 14th century.

Coffin type: None.

Associated material: Non-human bone. ? metapodial.

Preservation: Fair. 40 - 70%. Most long bone ends are fragmentary. No pelvic bones. *Bones present:* Fragmentary cranium, mandible, left clavicle, both scapulae and humeri, left radius and ulna, some hand bones, some ribs and vertebrae, right femoral and both tibial shafts.

Dentition: $\frac{1}{x \times 21} \frac{2}{10} \frac{100}{100} \frac{100}$

Dental pathology: Severe flattening of mandibular condyles. *Non-metric traits:* Right supra-orbital notch, left foramen spinosum incomplete, bilateral Huschke's foramina. *Skeletal pathology:* Degenerative joint disease of both temporomandibular joints with porosity and osteophytic lipping. Osteoarthritis of cervical vertebrae with fusion of C4 to C5, and of right acromioclavicular joint. Slight, well-healed periostitis on interosseous surface of left tibia. Osteophytosis of left proximal ulna. Osteoarthritis of cervical vertebrae, osteophytosis, and porosity of upper thoracic spine.

Grave 8

? Male 36-45 No complete long bones

Location: At west end of nave near grave 10. Most of burial lies outside excavated area. Circular hole in frontal bone made by mattock.

Probable date: Late 12th century.

Preservation: Fair. Less than 40% of burial present. Only cranium and mandible, pectoral girdle and thoracic cage remain. No mandible. A 71 mm circular hole has been driven through the frontal bone, probably at the time of excavation, as the edges are fresh. Bone quality fair.

Bones present: Cranial vault and mandible, clavicles, scapulae, ribs and vertebrae.

Dentition: <u>7 x 5 4 3 2 1</u> / <u>/ 4 5 6 7 -</u> 8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8

Dental pathology: Large oro-antral fistula by left first maxillary molar; heavy calculus in upper right quadrant; mandible: heavy wear, calculus, abscesses, caries. *Non-metric traits:* Supraorbital notches, left supraorbital foramen, right parietal foramen, accessory transverse foramen.

Skeletal pathology: Porosity of one right rib tubercle, osteophytosis of right glenoid cavity, porosity on both medial and lateral articular surfaces indicating degenerative joint disease. Osteoma on right squamous temporal. Osteoarthritis of cervical and upper thoracic spine with severe porosity on all vertebral bodies.

Grave 9

Male 26 - 35 years 171.7 ± 4.32 cm (ulna)

Location: At west end of nave, near graves 7 and 10. Complete, articulated burial cutting grave 10, and including some loose bones from it. Pottery in grave fill. Two other skulls found in region of lower limbs.

Probable date: Late 14th century.

Coffin type: None.

Associated material: Left femur.

Preservation: Fair. 40-70% of burial present.

Bones present: Cranial vault, mandible, left clavicle, scapulae, humeri, radii, ulnae, some ribs and vertebrae, pelvic bones, left femur, left tibia, and fibula. *Dentition:*

<u>no maxilla</u>

/7654321 | 12345/-

Dental pathology: Small incisors. Moderate attrition.

Non-metric traits: Left supraorbital notch, right supraorbital foramen, parietal foramina, right mylohyoid bridge, accessory transverse foramen (C6 left), right accessory sacral facet.

Skeletal pathology: Diffuse striated, well-healed periostitis of left femur. Osteophytosis of one left rib tubercle. *Spina bifida occulta* of 1st and 5th sacral vertebrae. Spinal osteophytosis, Schmorl's nodes (T7-T8, T11-L1).

Grave 10 (context 27)

Indeterminate 26+

Location: At west end of nave. Includes lower part of legs only - rest of skeleton disturbed by grave 9.

Probable date: Early 14th century

Coffin type: None.

Associated material: A further cranium and mandible (labelled 26a), right tibial shaft from a small individual, metatarsal shaft.

Preservation: Fair. 40-70% of burial present. Cranium, right radial shaft and leg bones. Only one long bone is intact. Bone condition quite good.

Bones present: Cranial vault, one tooth, right radial shaft, three hand bones, shafts of both femora, left tibia and fibula, right tibia and distal fibula, most hand bones.

Non-metric traits: Supraorbital notches, right foramen spinosum, foramina of Huschke, mastoid foramina, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Slight, well-healed, diffuse periostitis on medial aspect of right tibia.

Grave 10 (Context 26a)

Female 18-25 years

Associated material: Pair of petrous temporal bones.

Preservation: Good. Complete cranium and mandible (without left ramus). Bone condition excellent.

Dentition: <u>---//////34567 np</u> np 7 6 5 4 3 // |//3/567/

Dental pathology: Compensatory eruption.

Nonmetric traits: Single zygomatic foramina, right parietal foramen, ossicle at lambda, lambdoid ossicles, right ossicle at asterion, left condylar canal present, mastoid foramina.

Grave 11

Male 36-45 years 174.4 ± 3.37 cm (tibia)

Location: In centre of north aisle, near graves 12 and 18. Skull removed by creation of 18th-century culvert. Burial subsequent to addition of north aisle. Lay on north-facing slabs of north wall of nave.

Burial position: Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Associated material: two non-human rib fragments, two dark-coloured hand phalanges - one proximal and one mid.

Preservation: Poor. 40-70% of burial present. Almost no cranium or arm bones, no cervical or upper thoracic vertebrae, badly fragmented pelvis and ribs, most lower limb bones incomplete.

Bones present: left petrous temporal and two other cranial fragments, radial and ulnar fragments, a few hand bones, some ribs and vertebrae, parts of pelvic bones, incomplete femora, left tibia, fibulae, complete right tibia, some foot bones.

Non-metric traits: Right Poirier's facet, lateral tibial squatting facets, single inferior talar and calcaneal facets.

Skeletal pathology: Severe enthesopathies of adductors on femora and soleus on tibiae. Severe osteophytosis on right distal femur and proximal tibia, particularly on lateral compartment. Diffuse, well-healed, periostitis on interosseous surfaces of both tibiae with build-up of bone on anterior borders. Schmorl's nodes (T7-T12, L3-L5). Osteophytosis of S1.

Grave 12

? Female 26-35 167.1 ± 4.3cm (ulna)

Location: Centre of north aisle in same grave as burial 18 - buried together with elbows touching.

Burial position: Hands on pelvis.

Probable date: ? 15th century.

Coffin type: None.

Associated material: Calcaneus, talus, lateral border of scapula, scapular fragment and fibular shaft.

Preservation: Fair. 40-70% of burial present. Incomplete cranium, some long bones and part of axial skeleton. Bone quality good.

Bones present: Part of cranial vault, clavicles, scapulae, left humerus, right proximal ulna, left radius and ulna, some hand bones, some ribs and most vertebrae, pelvic bones, left femur, tibiae, fibulae, some foot bones.

Non-metric traits: Ossicle at lambda, lambdoid ossicles, ossicles at asterion.

Skeletal pathology: Moderate porosity of both lateral clavicles. Ossification of costal cartilage on first right rib. Pronounced insertion for *pronator quadratus* on left ulna and for costoclavicular ligaments on both clavicles. Osteophytosis of one right rib tubercle and of one right rib head, also at inferior angle of left acetabulum. Localised

new bone formation on interosseous surfaces in middle third of both tibiae. This has caused thickening of the left tibia. Spinal osteophytosis, Schmorl's nodes (T8, T10).

Grave 13

MNI: 2

Male 46+ 173.6 ± 4.05 cm (humerus)

Location: Centre of north aisle, near graves 14, 15 and 16. Partly outside excavated area.

Burial position: Hands over tops of femora. *Probable date:* Late 15th century. *Coffin type:* None.

13A: Associated material from a smaller individual (? Female): Maxilla, small left tibial shaft, small right radial shaft, right radius and ulna shafts and ulnar fragment, right innominate.

Preservation: Fair. 40-70% of burial preserved. No hand bones, lower legs or feet, no left clavicle. Most long bones incomplete. Bone condition quite good.

Bones present: Cranial vault, maxilla, mandible, right clavicle, scapulae, right humerus and left proximal humerus, radial and ulnar shafts, manubrium, some ribs and most vertebrae, pelvic bones, femora (missing distal end).

Dentition: <u>/ x x x 4 /// |////5 x x x</u> 8 / 6 5 //// |/------

Dental pathology: Heavy attrition.

Non-metric traits: Supraorbital notches, supraorbital foramina, parietal foramina, accessory transverse foramina.

Skeletal pathology: Marginal osteophytosis of right acetabulum, degeneration of facet for clavicle on right side of manubrium. Spinal osteophytosis, Schmorl's nodes (T6-L3).

13A:

Dentition:

no mandible

Skeletal pathology: Osteoarthritis of both acromioclavicular joints. Severe porosity of right medial clavicle, with inferior lipping.

Grave 14

Male 36-45 No complete long bones *Location:* Centre of north aisle near graves 13, 15 and 16. Partly disturbed by burial 13.

Probable date: 15th century.

Associated material: Right humerus.

Preservation: Fair. 40-70% of burial present. No cranium. Unmarked mandible (14A) which is darker in colour. No left arm bones, no left tibia, fibulae or feet. Widespread patchy staining of bones, with a black fungal deposit.

Bones present: Clavicles, scapulae, right humerus, radius and ulna, left ulnar fragment, a few hand bones, sternum, some ribs, most vertebrae, pelvic bones, femora, right tibia.

Non-metric traits: Accessory transverse foramina, right Poirier's facet.

Skeletal pathology: Enthesopathies for costotransverse ligaments on two right and one left rib tubercles and for biceps on right radial tuberosity. Osteophytosis on distal articular surface of right ulna. Deep excavation for insertion of *ligamentum teres* in right femoral head. Osteoarthritis of cervical vertebrae, spinal osteophytosis, very severe Schmorl's nodes (T6-T10, T12-L3).

14A

Dentition: <u>no maxilla</u> 8 7 6 5 4 3 2 / /// 4 5 6 7 8 Dental pathology: Imbrication, heavy wear.

Grave 15

? Female36-45No complete long bones

Location: Centre of north aisle, cut by graves 13 and 16, near grave 15. Head and upper part of thorax only; lower skeleton disturbed by graves 13 and 16.

Burial position: Hands on pelvis.

Date: 15th century.

Coffin type: None.

Preservation: Poor. Less than 40% of burial present. Very incomplete; collection of bones in not particularly good condition.

Bones present: Fragmentary cranial vault, maxilla and mandible, parts of both clavicles, right humerus (missing proximal end), right distal radius, left proximal radius, one hand bone, some vertebrae, distal right and proximal left femur.

Dentition: <u>-76----</u> 8 x x x x 3 // | x // 4 5 x x x

Dental pathology:-

Non-metric traits: Divided right hypoglossal canal,.

Skeletal pathology: Deltoid enthesopathy on right clavicle. Ossification of capsular ligament on right lateral clavicle suggesting a degree of subluxation or trauma to the right shoulder. Spinal osteophytosis, Schmorl's nodes of T6, T10 and T11.

Grave 16

Indeterminate 26+ No complete long bones

Location: Centre of north aisle cutting grave 15, near graves 13 and 14. Head and upper part of thorax only; lower skeleton disturbed by 18th-century culvert. *Burial position:* Hands on pelvis.

Probable date: Late 15th century.

Coffin type: None.

Associated material: two or three sets of cervical vertebrae (C4-C6, C1-C2, C5-C7), unfused medial clavicle.

Preservation: Poor. Less than 40% of burial present. Fragmentary cranium, some bones from upper limb, an assortment of vertebrae and a few ribs. Cranial bone is fragmentary and badly eroded.

Bones present: Cranial vault, maxilla, part of mandible, clavicles scapulae, parts of both humeri, right radial and ulnar shafts (ulna with proximal end), a few ribs and vertebrae.

Dentition: | x x 5 4 / / | / 2 / 4 x x - no mandible

Dental pathology: Supraorbital foramina, left foramen spinosum incomplete, left circumflex sulcus.

Skeletal pathology: Cranium is thickened but sutures are not fused. Spinal osteophytosis, Schmorl's nodes (T11, T12).

Grave 17

Female 26-35 No complete long bones

Location: Centre of north aisle, to north of grave 16. Skull disturbed and part of right side missing due to late gardening activity.

Burial position: Hands on pelvis.

Probable date: Late 15th century.

Coffin type: None.

Preservation: Poor. 40-70% of burial present. Incomplete cranium, some arm and leg bones, left pelvis, some ribs and most vertebrae. Bone quality quite good. Cranial fragments badly eroded.

Bones present: A few cranial fragments, part of mandible, left clavicle and scapula, right humeral fragment, left distal humerus, radial shafts, right distal ulna, left ulna (missing distal end), some hand bones, some ribs and most vertebrae, part of sacrum and left pelvic bone, parts of both femoral shafts, right distal tibia, fibular fragment, one foot bone.

Dentition: no maxilla / 7 / / x / - - |------

Non-metric traits: Right atlas bridge, left double anterior calcaneal facets.

Skeletal pathology: Large exostosis at insertion of costoclavicular ligament on left clavicle. Inferior lipping on left medial clavicle. Pronounced conoid ligament insertion. Osteophytosis of one left rib tubercle. Osteoma on dorsal surface of one mid hand phalanx. Spinal osteophytosis.

Grave 18

Male 36-45 No complete long bones

Location: Centre of north aisle. Skull and left side of burial missing - cut by 18thcentury pit. In same grave cut as burial 12. Probably buried together, with elbows touching.

Burial position: Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Preservation: Poor. 40-70% of burial present. Most bones from right arm, right pelvis, some right ribs and most of the bones from the lower extremities. Long bone ends mostly fragmented.

Bones present: Right scapula, fragmentary right humerus, right radius and ulna (missing proximal ends), some hand bones, a few right ribs, right pelvic bone, part of sacrum, femora (missing distal ends), right patella, fragmentary right tibia, two right foot bones.

Non-metric traits: Third trochanters.

Skeletal pathology: Well-healed Colles' fracture of right distal radius. It has severely disrupted the articular surface of the right wrist. Severe, well-healed subperiosteal reactive new bone on the medial aspect of the right tibia. There is also new bone formation on the medial and interosseous surfaces of the distal tibial fragment. Enthesopathy of patellar ligament on right patella. Enthesopathies for *gluteus maximus* on both femora and for adductor on left femur.

Grave 19

Male 36-45 years No complete long bones

Location: At west end of north aisle.

Burial position: Forearms crossed on waist. Articulated burial, but feet missing. 15th century pottery in grave. *Probable date:* 15th century. *Coffin type:* None.

Associated material: two potsherds, two non-human bones, right proximal humeral epiphysis of juvenile, three metacarpals from a small individual.

Preservation: Fair. 40-70% of burial present. Incomplete cranium, long bone ends fragmented, most ribs missing as are some vertebrae. No right tibia or feet. Most hand bones missing.

Bones present: Cranium, mandible, scapulae, clavicles, shafts of both humeri, radii and ulnae, some hand bones, a few ribs, some vertebrae, parts of both pelvic bones and sacrum, femoral shafts.

Dentition:

<u>- / x 543 / / |/ 234 //--</u> x 76 54 321 | 12345/7 x

Dental pathology: Lipping of right mandibular condyle, heavy attrition.

Non-metric traits: Left parietal foramen, foramina of Huschke, left mastoid foramen, mylohyoid bridges.

Skeletal pathology: Severe antero-posterior bowing of both femora suggesting possible healed rickets. Diffuse striated subperiosteal reactive new bone formation on medial surface of left tibia and in middle third of interosseous surface. Spinal osteophytosis, particularly of lumbar vertebrae, slight compression of T7 and T8 with erosion of their inferior surfaces.

Grave 20

Male 46+ 171.2 ± 4.32 cm (radius)

Location: At west end of north aisle. Intact burial. Burial position: Hands on pelvis. Probable date: 15th century.

Coffin type: Wood.

Associated material: Cervical vertebra from another individual

Preservation: Fair. 40-70% of burial present. Bone condition quite good. Cranial vault fairly complete but surface of frontal is eroded. Left forearm, most of hand bones, most of left femur and right tibia are missing, as is most of sacrum.

Bones present: Cranial vault, maxilla, mandible right clavicle, both scapulae, humeri, right ulna and left distal ulna, right radius and left distal radius, some ribs and most vertebrae, pelvic bones, right femur and distal left femur, left tibia and distal right tibia, both fibular, a few hand and some foot bones.

Dentition:

 $\frac{---///|x x 3 x 5 x x x}{x x x 4 ///|12 / 4 x x 8}$

Non-metric traits: Metopic suture, left supraorbital foramen, right parietal foramen, lambdoid ossicles, posterior atlas bridging bilaterally, left circumflex sulcus, right third trochanter, left double inferior talar and anterior calcaneal facets, absent left anterior calcaneal facet.

Skeletal pathology: Osteoarthritis of right acromioclavicular joint. Enthesopathies of *costotransverse* ligament on one left and two right rib tubercles. Osteophytosis of three right rib tubercles. Degeneration of facet for first right rib on manubrium; osteophytosis of facet for clavicle. Osteoarthritis of cervical vertebrae, severe osteophytosis of thoracic vertebrae, Schmorl's nodes of T7, T8 and T12.

Grave 21

Male Old adult (46+) 172.6 ± 2.99 cm (femur + tibia)

Location: Centre of nave nearest to screen. Undisturbed - lid of coffin still in place. *Burial position:*

Probable date: Mid 13th century.

Coffin type: Monolith with moulded edges and lid. Decoration: two shields.

Preservation: Good. >70%. Almost complete apart from facial bones, frontal and a few hand and foot bones. Very well preserved, with all long bones complete.

Bones present: Posterior cranium, mandible, all postcranial bones apart from part of sacrum.

Dentition: <u>876 / / / / | / / 567/</u> 87654321 | 12345678

Dental pathology: Compensatory eruption.

Non-metric traits: Bilateral parietal foramina, right condylar canal present, left foramen spinosum incomplete, right double condylar facets, right atlas bridging, left atlas facet double, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Cranial vault consists of disorganised bone with deeply etched middle meningeal vessels. Clavicles are porous and thickened, particularly on the right. Scapulae are covered with disorganised porous bone and much heavier than normal, particularly on the right. Right proximal humerus is thickened and very porous without affecting articular surface. Left proximal humerus has small porous lesion starting to affect bone below proximal articular surface. Manubrium and sternum are diffusely affected by surface porosity. The entire rib cage is affected by severe diffuse porosity with thickening of the rib shafts. Only one or two are spared. The lower thoracic and lumbar vertebrae are affected by diffuse porosity. The bone of spine is of poor quality and of a biscuit-like consistency. The entire sacrum is porous and greatly thickened. Innominates are relatively slightly affected but there is some porosity, particularly on the right side. The proximal halves of the femora are greatly thickened and covered in porous bone formation. Their articular surfaces are not affected. There is diffuse porosity on the incrosseous crest of the proximal half of the left fibula. There is ossification of the ligament on the anterior aspect of the glenoid cavity of the right scapula with some disruption of the articular surface. This may be to accommodate the enlarged humeral head as there does not appear to be a fracture. Osteophytosis on inferior surface of proximal ulna. Enthesopathies of supinator, brachialis and biceps on proximal ulnae and radii. Marked enthesopathies for soleus on tibiae, particularly left. Spinal osteophytosis. Schmorl's nodes. Paget's disease

Grave 22

Indeterminate 14 - 15 years

Location: At west end of north aisle. Intact burial. Burial position: Hands on pelvis. Probable date: 15th century.

Coffin type: None.

Associated material: Left humerus of juvenile (missing distal end of diaphysis).

Preservation: Good. More than 70% of burial present. Bone condition excellent. Most elements present apart from some ribs and hand and foot bones.

Bones present: Part of cranial vault, left maxilla and mandible, scapulae, humeri, radii, ulnae, a few hand bones, some ribs and most vertebrae, pelvic bones, femora, patellae, tibiae, fibulae, some foot bones.

Dentition: -----|////6/u ----/1|1234//7u

Dental pathology: Cusp of Carabelli on left maxillary first molar.

Skeletal pathology: Scheuermann's disease of second lumbar vertebra with wedging of anterior aspect of superior endplate.

Grave 23

Indeterminate 2-4 years

Location: To west of north aisle. Intact burial but some bones decomposed. Burial position: Arms by sides. Head turned to right. Probable date: 14th century? Coffin type: None. Associated material: Distal femur of juvenile of a similar age

Preservation: Fair. More than 70% of burial present. Bone condition quite good. Long bone shafts almost complete, surfaces slightly eroded on most long bones. Parts of cranial vault surface sloughing off. Most vertebrae missing, as are hand and foot bones.

Dentition: <u>----- |-- - d e u</u> u e //// |/ b c d e u

Grave 24

? Male 26+ 169.9 ± 3.27 cm (femur)

Location: In west part of north aisle. Skull missing.

Probable date: Late 15th century.

Coffin type: None.

Associated material: three juvenile bones (hand phalanx and two metacarpals), one nail, one potsherd and one non-human bone.

Preservation: Good. 40-70% of burial present. Cranium missing, otherwise bone in good condition and most of skeleton is present. No ribs and few vertebrae are preserved.

Bones present: Clavicles, scapulae, humeri, right ulna, radii, some hand bones, a few vertebrae, parts of pelvic bones, femora, tibiae, fibulae, some foot bones.

Non-metric traits: Accessory transverse foramen (C5), Poirier's facets, double inferior and anterior calcaneal facets.

Skeletal pathology: Degenerative joint disease of both acetabula. Both tibiae are flattened mediolaterally with lateral bowing of the proximal end. The left fibula is also considerably bowed. The ligamentous insertion on the left tibial tuberosity is long and thin and the insertions for *soleus* are very marked on both tibiae. <u>? healed rickets</u>. Localised deposits of mainly striated new bone formation on the distal half of the interoseous surface of the left tibia. There are two main areas of new bone formation. Porosity at the insertions of the distal tibio-fibular ligaments on both fibulae. Spinal osteophytosis.

Grave 25

Indeterminate 6-7 years

Location: To west of north aisle. Skull missing. Only right side survives. Cut by grave 24.

Probable date: 15th century.

Preservation: Good. 40-70% of burial present. Bone in good condition. No cranium, clavicles, scapulae, vertebrae, left pelvis, lower legs or feet.

Bones present: Humeri, right radius and ulna, three hand bones, right pelvic bone, femora, two epiphyses, a few scapular and rib fragments.

Grave 26

Male 26-35 years 171.1 ± 3.37 cm (tibia)

Location: In centre of nave, at north side near graves 36 and 43. Intact, it cut grave 36 and contained the disturbed skull from grave 36. 14th century pottery in grave. *Burial position:* Hands on pelvis. *Probable date:* Late 14th century. *Coffin type:* None.

Associated material: two rib fragments, two non-human bones, right femur, distal left radius, left foot including calcaneus, talus, navicular, two left cuboids, light-coloured fifth metatarsal, 1st metatarsal and two other metatarsals.

Preservation: Good. More than 70% of burial present. Most of the bone is in good condition. Some long bone ends are fragmented.

Bones present: Most of cranial vault, facial bones and mandible, both clavicles, scapulae, humeri, ulnae and radii, most hand bones, most ribs and vertebrae, pelvic bones and part of sacrum, both humeri, patellae, tibiae, fibulae (left tibia and fibula missing proximal ends) and most foot bones.

Dentition:

<u>8 / 6 5 4 3 // | 1 / 3 4 x / x 8</u> 8 7 x 5 4 3 2 1 |/ 2 / 4 5 6 7 /

Dental pathology: Abscess in maxillary right third molar. Moderate attrition. *Non-metric traits:* Metopic suture, single zygomatic foramina, lambdoid ossicles, left divided hypoglossal canal, right foramen ovale incomplete, accessory transverse foramen (C5), left Poirier's facet, single inferior talar and anterior calcaneal facets. *Skeletal pathology:* Osteophytosis of cervical and two lumbar vertebrae. Schmorl's nodes (T8-T12).

Grave 27

Male 46+ 173.4 ± 3.37 cm (tibia)

Location: At east end of north aisle. Intact burial. Near graves 29, 32 and 57 (not excavated).

Burial position: Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Associated material: Unnumbered cranium, occipital bone, 6 non-human bones, 12 subadult bones including left distal humerus, both proximal ulnae, proximal humerus, four fibular fragments, rib, metatarsal, metacarpal, right proximal tibia.

Preservation: Fair. More than 70% of burial remains. The bone is discoloured by black patches throughout the skeleton suggesting a fungal process. Most of the long bones have fragmented ends.

Bones present: Fragmentary cranial vault, facial bones and mandible, both clavicles, scapulae, humeri, ulnae and radii, most hand bones, some ribs and most vertebrae, both pelvic bones, both femora, patellae, tibiae and fibulae, most foot bones.

Dental pathology: Small lower second premolars, crossbite.

Non-metric traits: Left supraorbital notch, double right zygomatic foramen, right mylohyoid bridge, accessory transverse foramen C6, right suprascapular foramen, circumflex sulci, left Poirier's facet, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteoarthritis of both acromioclavicular joints and of both feet (talonavicular joints), ossification of costal cartilage throughout the rib cage. Enthesopathies for extensors on distal humeri, for rotator cuff on left humerus, for external obliques on both pelvic bones, for Achilles tendons and plantar ligaments on both calcanei, and for *supinator* on left ulna. Osteophytosis of both patellae, and on the talo-calcaneal joints of both feet. Osteoarthritis of cervical facet joints, severe osteophytosis of thoracic vertebrae and lumbo-sacral joint.

Grave 28

Male 46+ 177.6 ± 2.99 cm (femur and tibia)

Location: Within chancel. Near grave 94. Ankles and feet missing. Grave made by removal of one course of stones in chancel wall. Tiles in grave

Burial position: Hands on pelvis.

Probable date: Late 14th century.

Coffin type: None.

Associated material: Proximal articular surface of tibia.

Preservation: Good. More than 70% of burial present. The bone quality is good and most of the long bones are intact. Complete cranium, vertebrae well preserved but no foot bones. Right pelvic bone also not present. Some fragmentation of ribs.

Dentition: no maxilla x 7 x 5 4 3 2 1 | 1 2 3 4 / x x 8

Dental pathology: Compensatory eruption.

Non-metric traits: Metopic suture, supraorbital notches, parietal foramina, ossicle in coronal, bun created by lambdoid ossicles, ossicles at asterion, left condylar canal present, left mastoid foramen, left mandibular torus.

Skeletal pathology: Osteoarthritis of left acromioclavicular joint, osteophytosis of both glenoid cavities, of proximal ulnae, of both patellae and of many joints in both hands. The left pelvic bone has been replaced by disorganised new bone which also fills the iliac fossa and affects both pubic bones. Paget's disease affecting the left pelvic bone, both pubic bones, and one rib fragment. The fifth to eleventh thoracic vertebrae are fused through the anterior longitudinal ligament. DISH affecting thoracic vertebrae. There are enthesopathies for external oblique on left iliac crest, for *costotransverse* ligament on four right and one left rib tubercles, for *biceps* on radial tuberosities, for patellar ligament on patellae, for adductors and *gluteus maximus* on both femora, and for *soleus* on tibiae. Well-healed new bone formation on anterior border and medial surface of left tibia. Slight diffuse *cribra orbitalia* affecting both orbital roofs. Three ossified segments of blood vessel. Pronounced insertions for *pronator quadratus* on ulnae. Severe spinal osteophytosis, osteoarthritis of thoracic intervertebral facet joints.

Grave 29

Male

18 - 20 years 168.1 ± 3.37 cm (tibia)

Location: At east end of north aisle near graves 27, 32 and 57. Top half missing, removed by 17th-century pit (18).

Burial position: Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Associated material: 6 non-human fragments.

Preservation: Good. 40-70% of burial present. No upper body remains.

Bones present: Right humerus and scapula, left distal humerus, radii, ulnae, lower right ribs, lower thoracic and lumbar vertebrae, few hand bones, pelvis, right femur, left distal femur and patella, tibiae, fibulae, feet.

Non-metric traits: Single inferior talar and anterior calcaneal facets.

Skeletal pathology: Sacralisation of sixth lumbar vertebra with *spina bifida* of neural arch. There is also *spina bifida* of first, fourth and fifth sacral vertebra. Considerable torsion of distal two thirds of right femoral shaft with angulation of the medial portion of the distal end posteriorly. This suggests a greenstick fracture exacerbated by cyst formation (visible on X-ray) within the bone.

Grave 30

Indeterminate

5 - 6 years

Location: In north transept. Buried in stone coffin, disturbing burial 31. Intact.

Burial position:-

Probable date: 14th century.

Coffin type: Monolith. No lid.

Associated material: one adult rib shaft fragment.

Preservation: Fair, more than 70% of burial present. Bone condition good but cranium, ribs and long bones are somewhat fragmented.

Bones present: Fragmentary cranium, maxilla and mandible, clavicles, scapulae, humeri, left radius and ulna, some ribs and vertebrae, a few hand bones, left pelvic bones, femora, tibiae, fibulae, some foot bones, a few epiphyses.

Dentition: u e d c b a | a b c d e uu e d c b a | a b c d e u

Skeletal pathology: Porosity of the left orbital roof, particularly in the internal third suggesting *cribra orbitalia*.

Grave 31

Male 46+ No complete long bones. *Location:* In north transept. Shares coffin with burial 30. Lower half missing - cut by burial 30 which was placed on top.

Probable date: 13th century.

Coffin type: Monolith. No lid.

Associated material: Distal femoral epiphysis of juvenile (belonging to 30).

Preservation: Fair. 40-70% of burial preserved. Cranium, long bone ends and ribs fragmented. Many bones missing, including most of forearm bones, lower extremities and hands and feet. Clavicles and tibial surfaces eroded.

Dentition:

<u>--6----|1---67-</u> 8 x x x 4 3 2 1 |1-3-56--

Dental pathology: Gross attrition, mandibular tori, thick lingual plate.

Non-metric traits: Right supraorbital notch, right parietal foramen, lambdoid ossicles, left ossicle at asterion, right divided hypoglossal canal, left mastoid foramen. Right posterior atlas bridge, accessory transverse foramen C5.

Skeletal pathology: Osteophytosis of one right rib tubercle. Enthesopathies for *costoclavicular* ligaments on four right rib tubercles. Calcification of costal cartilage. Enthesopathy of *tibialis posterior* on left tibia. Osteoarthritis of cervical vertebrae (C2-C4), spinal osteophytosis.

Grave 32

Male 46+ 175.8 ± 4.32 cm (ulna)

Location: At east end of north aisle. Near graves 27, 29 and 57. Part of left leg missing. Fragile. Skull partially removed by 18th-century culvert.

Burial position: Arms crossed over waist.

Probable date: Late 15th century.

Coffin type: Wood.

Associated material: one non-human vertebra, four pieces of degraded metal.

Preservation: Poor. More than 70% of burial present. No cranium. Bone badly fragmented because of senile osteoporosis. Many long bone and rib fragments which are hard to place, as they are only slivers of bone. Vertebrae are also fragmented. *Bones present:* Fragment of mandible, parts of right clavicle and scapulae, both distal

humeri, both radii and ulnae, some hand bones, sternum, some ribs and vertebrae, pelvic bones, parts of both femora, fibulae and left tibia, most of right tibia, some foot bones.

Dentition: no maxilla ----//// x x x x x x --

Non-metric traits: Right double anterior calcaneal facets.

Skeletal pathology: Osteoarthritis of right acromioclavicular joint, of both elbows, of joints between eleventh ribs and vertebrae, of both hands (distal interphalangeal joints and right metacarpo-phalangeal joint) and of first metatarso-phalangeal joint.

Sacralisation of fifth lumbar vertebra without fusion. *Spina bifida occulta* of fifth sacral vertebra. Osteophytosis and porosity of right medial clavicle, of right acetabulum, of distal radio-ulnar articulations and of one right and two left rib tubercles. Enthesophytes on articulations between sternum and costal cartilages. Osteoarthritis of thoracic vertebral facet joints. Spinal osteophytosis. Schmorl's nodes of T6, T7, T11-L1.

Grave 33

Male 26 - 35 years 172 ± 4.32 cm (radius)

Location: In north-east chapel. Disturbed in 19th century. Only upper body, down to mid-femur.

Burial position: Hands on pelvis

Probable date: Early 14th century.

Coffin type: Stone-built.

Associated material: one non-human fragment.

Preservation: Fair. 40-70% of burial present. Bone quality good but only right femoral head remains from right lower limb and there is no left lower leg or foot. Cranium incomplete. No right proximal humerus or clavicle.

Bones present: Parts of cranial vault, maxilla and mandible, left clavicle, scapulae, humeri, radii, ulnae, some hand bones, some ribs and vertebrae, pelvic bones, right proximal femur, left femur (missing distal end).

Dentition: <u>87/5432/</u>-----87/54321/2/45678

Dental pathology: Right maxillary third molar filed flat?

Non-metric traits: Supraorbital notches, supraorbital foramina, left third trochanter. *Skeletal pathology:* Schmorl's nodes of T10, T12-L3. T10 is particularly severely affected with some evidence of axial compression of vertebral body.

Grave 34

MNI: two individuals **34A:** Male 46+ 179.2 ± 3.27 cm (femur)

Location: In north-east chapels near graves 58 and 68. Lid removed, coffin full of topsoil and charnel above skeleton.

Burial position: Forearms folded over waist.

Probable date: Early 14th century.

Coffin type: Monolith. No lid.

Associated material: Right humeral shaft, right mandible, four non-human fragments. *Preservation:* Poor. 40-70% of burial present. Parts of cranium and long bones are all that remain.

Bones present: Fragmentary cranial vault, part of mandible, part of right scapula, distal humeri, distal right and most of left ulna, distal left radius, a few rib shaft fragments, part of left pelvic bone, right femoral shaft and proximal femur, left femur, distal tibiae, foot bone.

Dentition: <u>no maxilla</u> / 7 6 / / / - - |------

Dental pathology: Heavy attrition.

Skeletal pathology: <u>Paget's disease of left pelvic bone</u>, severe *gluteus maximus* and *adductor* enthesopathies of both femora.

34B:

Female 18-25 years No complete long bones

Preservation: Poor. 40-70% of burial present. Severely fragmented white-coloured human remains consisting of parts of cranium, mandible, vertebrae, ribs, hands and feet and a few fragments of long bone. The bone has a texture which suggests that it is highly mineralised.

Bones present: Fragmentary cranial vault and mandible. Parts of scapulae and left clavicle, fragments of ulnae and radii, a few hand bones, some ribs and vertebrae, parts of both pelvic bones, fragments of distal femora, left patella, some foot bones.

Dentition: no maxilla_____

Dental pathology:

Skeletal pathology: Slight cortical defect for costoclavicular ligament 16 mm in length. Schmorl's nodes of T8 and T12.

Grave 35

Male 46+ 169.4 ± 4.32 cm (radius)

Location: East cloister walk, near grave 38. Articulated burial. Tile in grave. *Burial position:* Hands on pelvis. *Probable date:* 14th century.

Coffin type: None.

Associated material: one non-human bone

Preservation: Fair. More than 70% of burial present. Bone is well preserved apart from some fragmentation of long bone ends, particularly those of the lower extremities.

Bones present: Incomplete cranial vault, facial bones and mandible, both clavicles, scapulae, humeri, radii and ulnae, some hand bones, most ribs and vertebrae, pelvic bones, sacrum, femora, tibiae, fibulae and some foot bones.

Dentition: $-76 \times 43/1 | /2345-- 8 \times 654321 | 1234/6 \times 8$

Dental pathology: Oligodontia, compensatory eruption.

Non-metric traits: Right supraorbital notch, left mastoid foramen, single right and double left inferior and anterior calcaneal facets.

Skeletal pathology: Enthesopathies for *triceps* on both ulnae, for external obliques on iliac crests, for *gluteus maximus* and *adductors* on both femora, for costotransverse ligament on four right and four left rib tubercles, for quadriceps on left ischial tuberosity, for deltoid on both clavicles, for Achilles tendons on both calcanei, for talofibular ligament on both distal fibulae and for *soleus* on both tibiae. New bone formation on the necks of at least two left and two right upper ribs (porous) and on a further three left ribs (well-healed) suggesting a possible tuberculous infection. Degeneration of articulation between right clavicle and manubrium and between both first ribs and manubrium. Osteophytosis of both distal femora and lateral condyle of left tibia. Well-healed, striated subperiosteal new bone formation on the medial and interosseous surfaces of both tibiae. The lesions are diffuse and moderately severe with slight thickening of the tibiae. Spinal osteophytosis, severe in thoracic region.

Grave 36

Male 26-35 years 169.6 ± 4.05 cm (humerus) *Location:* In centre of nave near graves 26 and 43. Some confusion with crania probably from these other graves.14th-century tile in grave. *Burial position:* Hands missing, probably over pelvis. *Probable date:* Early 14th century. *Coffin type:* None.

Associated material: Additional unmarked cranium with no facial bones or mandible (36A). It is grey in colour with a whitened appearance and black fungal growth posteriorly.

Preservation: Good. More than 70% of burial present. Bone quality good. Complete cranium. Most long bone ends fragmented; hand and foot bones mainly missing. Both forearms absent, as is left clavicle. Postmortem hole in occipital bone.

Dentition: <u>/765///////4567/</u> 87/5///1 | 12345678

Dental pathology: Enamel hypoplasia of mandibular incisors and canines, abscess of right mandibular first molar.

Non-metric traits: Supraorbital notches with foramina bilaterally. Multiple infraorbital foramina (left), triple zygomatic foramina on right, double on left, left parietal foramen, lambdoid ossicles, right ossicle at asterion, condylar canals bilaterally, right mandibular torus, accessory transverse foramen (C6), double left anterior calcaneal facet.

Skeletal pathology: Enthesopathy for *costoclavicular* ligament on right clavicle and porous new bone formation on antero-inferior aspect of shaft (at least two layers). Porous new bone formation covering distal half of left second or third metacarpal, entire proximal phalanx and mid phalanx. Second mid phalanx also affected. Porous new bone covering right first metatarsal on lateral aspect. Rib lesion on visceral surfaces of almost entire right rib cage. This includes the first right rib and all the others apart from the 11th and 12th ribs (the second rib is not present). Possible new bone formation on left calcaneus. <u>Tuberculous dactylitis with rib and clavicle lesions</u>. Schmorl's nodes.

Grave 37

Female Old adult (46+) No complete long bones

Location: In north transept near grave 84. Lower part of skeleton below tiled floor.

Burial position:?

Probable date: 13th century.

Coffin type: ?

Preservation: Poor. 40-70%. Fragmentary cranium and mandible, arm bones, hand bones and a few vertebrae. The bones are very gracile and osteopenic.

Bones present: Fragmentary cranium and mandible, both clavicles, both humeral, radial, and ulnar shafts, a few hand bones, a few vertebrae.

Dentition:

<u>- - - 5 4 3 2 x |/ / / / x 7 -</u> x x x x 4 / 2 1 | 1 2 3 4 5 x //

Dental pathology:-

Non-metric traits: Bilateral foramina of Huschke; palatine torus; right double zygomatico-facial foramina.

Skeletal pathology: Slight bilateral deltoid enthesopathies. Probable osteoporosis with small, fragile bones and thin long bone cortical shafts. Porosity at insertions of *brachialis* and *supinator* on the left ulna.

Grave 38

Indeterminate 36 - 45 years No complete long bones

Location: Cut deeply into east cloister walk. Near grave 35. Intact burial. Burial position: Hands over pelvis. Probable date: 13th century. Coffin: Yes. *Associated material:* Right humerus from large individual (in two parts) *Preservation:* Fair. More than 70% of burial preserved. Fragmentary skull, ribs, long bone ends, hand and foot bones. The vertebrae are fairly complete.

Dentition: <u>np 7 6 5 4 3 // | / x x 4 5 ///</u> np 7 / 5 4 3 2 1 | 1 2 3 4 5 x 7 np

Dental pathology: Moderate attrition, lipping of both condyles.

Non-metric traits: Left supraorbital foramen, left zygomatic foramen, single inferior talar and anterior calcaneal facets bilaterally.

Skeletal pathology: Brachialis enthesopathies on both ulnae, *biceps* enthesopathy on left radius, severe enthesopathy of patellar ligament on tibial tuberosity (? side). Osteoarthritis of cervical vertebrae (C2-C3), spinal osteophytosis, Schmorl's nodes (T9 and 10).

Grave 39

Male Young/middle adult (26-35 yrs) No complete long bones

Location: In north-east chapels, near graves 60, 113, and 114. Top and lower part of skeleton missing.

Burial position: Right hand at side, left over pelvis. Left leg displaced to left. Skull and feet missing.

Probable date: Early 14th century.

Coffin type: None.

Associated material: three fragments of metal, one subadult bone.

Preservation: Poor. 40-70%. The upper part of the body, including the cranium, clavicles and left humerus are entirely missing; the ribs, vertebrae and long bone ends are severely fragmented. No feet, only one fragment of left tibia.

Bones present: A few cranial fragments, right scapula and humerus, both radii and ulnae, some hand bones, some ribs, thoracic and lumbar vertebrae, pelvis, both femora, tibial and fibular shafts.

Skeletal pathology: Spinal osteophytosis; Schmorl's nodes.

Grave 40

Male 36-45 176.4 ± 3.37 cm (tibia)

Location: At south of east cloister walk near grave 117. Mostly beyond excavated area. Cut by 20th-century water main. Only legs present on photograph. Burial position:? Probable date: 13th century. Coffin type: Associated material: 14 non-human bones and one tooth (including bone with a healed fracture)

Preservation: Fair. More than 70% of burial present. Fragmentary cranium, ribs and incomplete vertebrae. Long bones are also not complete. No forearms or hand bones. Some sloughing off of bone surfaces. No maxilla.

Dentition: -- 65-321 |-- 3--- 7-87654 / 21 |// //5678

Dental pathology: Periodontal cratering around mandibular second molars.

Non-metric traits: Supraorbital foramina, double inferior talar and anterior calcaneal facets.

Skeletal pathology: Exostosis at insertion of *costoclavicular* ligament on right clavicle. Osteophytosis of both distal tibiae and left proximal tibia. Enthesopathies for *adductors* and *gluteus maximus* on both femora, for patellar ligament on both patellae and on both tibial tuberosities, and for *soleus* on both tibiae. Severe enthesopathies for Achilles tendons on both calcanei. Erosive lesion on right distal metatarsal. <u>Osteochondroma</u> on posterior aspect of right tibia. Fusion of two cervical vertebrae (? congenital as it is very smooth) with osteophytosis on inferior body, severe osteophytosis of thoracic spine.

Grave 41

Female 36-45 162.3 ± 3.72 cm (femur)

Location: To north of north-east chapel near grave 53. *Burial position:* Forearms folded over lower chest *Probable date:* 1300-1325.

Coffin type: Monolith. Highly decorated.

Associated material: two degraded pieces of metal.

Preservation: Good. More than 70% present. Cranium fragmentary with no facial bones (apart from right maxilla) or mandible, otherwise skeleton is fairly complete. Bone is in good condition.

Bones present: Cranial vault, clavicles, scapulae, humeri, radii, ulnae (right missing proximal end), most hand bones, manubrium, sternum, most ribs, some vertebrae, pelvis, femora (right incomplete), left patella, tibiae (incomplete), left fibula, most foot bones.

Dental pathology: Large oro-antral fistula on right maxilla.

Non-metric traits: Right double mastoid foramen, accessory transverse foramina, left suprascapular foramen, circumflex sulcuses, right septal aperture, third trochanters, single inferior talar and anterior calcaneal facets, double atlas facets.

Skeletal pathology: Severe enthesopathy of patellar ligament. Slight osteophytosis on posterior margins of distal femoral articular surfaces, and on proximal tibiae. Osteophytosis of distal articulation of left first metatarsal, and on one right and one left rib tubercle and one left rib head. Enthesopathies of Achilles tendon on both calcanei, for *gluteus maximus* on femora, and for *quadriceps* on ischial tuberosities. Possible lumbar rib. Spinal osteophytosis.

Grave 42

Male 26-35 years No complete long bones

Location: East cloister walk near burials 63 and 78 and disturbed by them. Lower half missing - cut by water pipe. Incorporated charnel pit (42a).

Burial position: Hands probably on pelvis.

Probable date: Late 15th century.

Coffin type: None.

Associated material: Charnel deposit probably from underlying graves 63 or 78 including right occipital condyle, part of right scapula, fragment of right radius, left radius, ulna and scaphoid, six vertebral fragments, shaft of right femur, edentulous mandible (42A); non-human rib fragment.

Preservation: Poor. 40-70% of burial present. Complete cranial vault, facial bones, mandible, incomplete arm bones, fragmented ribs and lower vertebrae, part of pelvis, no lower limbs apart from femoral head.

Dentition: <u>-76543// | /2u456--</u> 8765432/ | 12345678

Dental pathology: Mild periodontitis with alveolar lipping.

Non-metric traits: Supraorbital notches, single right zygomtic foramen, lambdoid ossicles, ossicles at asterion, right ossicle at parietal notch, right divided hypoglossal canal, mastoid foramina, accessory transverse foramen (C6).

Skeletal pathology: Osteophytosis of both 12th rib heads with porosity on right. Spinal osteophytosis, Schmorl's nodes (T9-T12).

42A

Dentition: no maxilla ----- x x | x / / / x x --

Grave 43

Male 26-35 174.6 ± 4.32 cm (radius) *Location:* In centre of nave near northern edge. In same grave cut as, and below, grave 36 but not disturbed by it. Occupants probably buried together. Near grave 26. *Burial position:* Right hand across waist, left towards right shoulder.

Probable date: 13th century.

Coffin type: None.

Associated material: Right innominate bone.

Preservation: Poor but more than 70% of burial present. Cranium, ribs, long bone ends, hand and foot bones badly fragmented, as is pelvis. Many of the bones are split and degraded. Most of cranial vault missing.

Dentition:

<u>/765432/ |/2345//8</u> 876543/ / |/2/45678

Dental pathology: Compensatory eruption, slight alveolar lipping.

Non-metric traits: Accessory transverse foramen, supracondyloid processes, single right and double left inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteophytosis on right glenoid cavity, osteophytosis of left twelfth rib head, deep cortical defect measuring 30 mm x 4 mm for teres major on right humerus. Spinal osteophytosis, Schmorl's node (T11).

Grave 44

Female

46+

Location: In nave near northern edge towards eastern end. Intact burial. 14th century pot in grave.

Burial position: Hands over thighs.

Probable date: 14th century.

Coffin type: None.

Associated material: Complete cranium (unnumbered).

Preservation: Fair. 40-70% of burial present. Cranium, mandible, long bone shafts, some ribs and vertebrae, some foot bones. The bone is osteoporotic and much of it has degraded in the ground.

Dentition:

 $\frac{--5}{8 \times 5} \frac{1}{3} - \frac{1}{3} \frac{1}{4} \frac{1}{5} \frac{1}{8} \frac{1}{8} \frac{1}{8} \frac{1}{8} \frac{1}{3} \frac{1}{4} \frac{1}{5} \frac{1}{4} \frac{1}{8} \frac{1}$

Dental pathology: Compensatory eruption.

Non-metric traits: Right supraorbital notch, left mastoid foramen.

Skeletal pathology: Destruction of auricular surface on left innominate bone suggesting that it was fused. Facet on inferior aspect of left acromion of scapula, with porosity suggesting impingement of humeral head on acromion, resulting from subluxation at shoulder joint. Osteophytosis of right acetabulum. Destruction of facets and thickening of neural arch of fifth lumbar vertebra suggesting erosive arthropathy which is also affecting the auricular surface. There is erosion of inferior aspect of the vertebral body suggesting possible slippage. Very marked deltoid insertion on right humerus. Osteoarthritis of cervical vertebrae, including atlanto-axial joint.

Grave 44 (unnumbered cranium)

Female Middle adult

Preservation: Complete cranium without mandible.

Dentition: Edentulous.

Non-metric traits: Right supraorbital notch, left supraorbital foramen, double zygomatic foramina, right parietal foramen, right epipteric bone, lambdoid ossicles, right ossicle at asterion, right foramen spinosum incomplete.

Grave 45

? Male 26-35 171.4 ± 4.32 cm (ulna)

Location: In north-east chapel (north) near grave 56. Coffin lid removed in 19th century.

Burial position: Arms folded across chest.

Probable date: 14th century.

Coffin type: Stone-built.

Associated material: Fragment of non-human bone.

Preservation: Fair. 40-70% of burial present. No cranium (only mandible); long bones are severely eroded and split. Incomplete ribs and vertebrae, few long bone ends preserved, few foot bones. Black staining on right tibia and mandible.

Dentition:

Dental pathology: Lipping of right mandibular condyle.

Non-metric traits: Right supraorbital notch, single right zygomatic foramen.

Skeletal pathology: Osteoarthritis of right temporo-mandibular joint, deep cortical defects for costoclavicular ligaments on both clavicles, enthesopathies for *gluteus maximus* on femora and for *supinator* on right ulna. Two proximal hand phalanges are thinner than normal and slightly curved. This may suggest leprosy but important evidence has not been recovered so impossible to be sure.

Grave 46

Male 26-35 172 ± 4.32 cm (ulna)

Location: North cloister walk. Feet missing - cut by late sewer. 14th-century floor tiles in grave.

Burial position: Forearms folded over chest.

Probable date: 14th century. *Coffin type:* None.

Associated material: Right temporal bone.

Preservation: Good. More than 70% of burial present. No foot bones otherwise well preserved and almost complete. The right mandible is present but no other facial bones.

Dentition: <u>no maxilla</u> 8 7 6 5 4 3 // //----7-

Dental pathology: Moderate attrition.

Non-metric traits: Right supraorbital notch, left supraorbital foramen, left parietal foramen, lambdoid ossicles.

Skeletal pathology: Cortical defect for costoclavicular ligament on left clavicle, osteophytosis of one right and one left rib tubercle, the latter with porosity. Lumpy subperiosteal new bone formation on medial surface of right tibia with largish exostosis. Schmorl's nodes (T6-T11, T12).

Grave 47

Male 36-45 173.2 ± 4.32 cm (ulna)

Location: Between presbytery and south-east chapel. Feet beyond excavated area. *Burial position:* Hands on pelvis.

Probable date: ?.

Coffin type: None.

Preservation: Fair. 40-70% of burial present. Fragmentary cranium, no maxilla. No lower legs or feet. Some fragmentation of ribs, some long bones are incomplete. Bone condition quite good.

Bones present: Part of cranial vault, mandible, clavicles, scapulae, humeri, radii and ulnae, most hand bones, ribs and vertebrae, pelvic bones, sacrum, femora, patellae.

Dentition: no maxilla 8 7 6 5 4 3 / 1 | 1 2 3 4 5 6 7 8

Dental pathology: Extreme interproximal wear, pulpal exposure.

Non-metric traits: Double zygomatic foramina, right mylohyoid bridge.

Skeletal pathology: Osteoarthritis of both acromioclavicular joints. Osteophytosis of three right and six left rib tubercles and of distal femoral articular surfaces. Calcification of costal cartilage on both first ribs. Enthesopathies for *costotransverse* ligaments on two right rib tubercles, for external obliques on both iliac crests, also for biceps on left radial tuberosity, for gluteus maximus and adductors on both femora (severe). Joint capsule is ossified on two left rib heads.

Grave 48

Male 26-35 177.0 ± 4.05 cm (humerus)

Location: Chapter house, near graves 49, 51 and 52. Intact burial. 14th-century sherd below pelvis.

Burial position: Hands by side below pelvis.

Probable date: Early 14th century.

Coffin type: Monolith.

Associated material: one small mammal bone, tooth of large ungulate (well-worn), two non-human bones.

Preservation: Good. More than 70% of burial present. Fragmentary cranium, most long bones fairly complete, as are ribs and vertebrae. Bone quality good.

Bones present: Part of cranial vault, maxilla and mandible, clavicles, scapulae, humeri, radii ulnae, some hand bones, sternum, most ribs and vertebrae, pelvic bones, femora (missing proximal ends), left tibia, fibulae, most foot bones.

Dentition:

Dental pathology: Rhino-maxillary atrophy.

Non-metric traits: Zygomatic foramina, left condylar canal, right double condylar and atlas facets, right lateral and posterior atlas bridging, left septal aperture, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Porosity of the palatine process of maxilla and localised porosity of left maxilla on nasal aspect. Symmetrical recession of alveolar bone with loss of central incisors. Severe porosity of vomer. Pencilling of metatarsals with palmar grooves and curving of distal ends of two proximal hand phalanges (probably left). These findings suggest a diagnosis of leprosy. Facets on underside of both clavicles suggesting impingement by coracoid process. Porosity of two right and one left rib tubercles. Osteophytosis of distal articular surface of left first metacarpal.

Grave 49

Indeterminate 2-3 years

Location: Chapter house, near graves 48, 51 and 52. Skeleton disturbed - skull and some leg bones only.

Burial position:-

Probable date: Early 14th century.

Coffin type: Monolith.

Associated material: Part of left femur, right scapula, some rib fragments and left petrous temporal bone from a smaller child.

Preservation: Poor. 40-70% of burial present. No arm bones or lower legs and feet. No facial bones or mandible (apart from fragment from right maxilla). Ribs and vertebrae are very incomplete.

Bones present: Part of cranial vault, right temporal, right maxilla and mandibular ramus, some vertebrae and rib fragments, right pelvic bone, both femora, both fibulae, left calcaneus.

Dentition: <u>- e d / - - | - - - e -</u> no mandible

Grave 50

Male 46+ 171.7 ± 2.99 cm (femur + tibia)

Location: In north-east chapel (north). Skeleton intact, grave cutting into grave 53. On photograph labelled 52 in error.

Burial position: ?

Probable date: Late 14th century.

Coffin type: None.

Associated material: Three fragments of posterior cranium from a much darker skull (part of parietals and occipital bone), some ribs from a smaller individual. Three pieces of non-human bone, right distal humerus.

Preservation: Good. More than 70% of burial present. Well preserved skeleton with good bone mass. Cranium is fragmentary otherwise almost complete.

Bones present: Fragmentary cranial vault, maxilla, mandible, clavicles, scapulae, humeri, radii, ulnae, most hand bones, manubrium, most ribs, vertebrae, pelvis, femora, right patella, tibiae, fibulae (fragmentary ends), most foot bones.

Dentition: -76--3--|/23456xxnp 7 x x / 2 / | / 234-67-

Dental pathology: Double-rooted left mandibular canine.

Non-metric traits: Left supraorbital notch, right double zygomatic foramen, right divided hypoglossal canal, right mastoid foramen, Poirier's facets, vastus notches, single inferior talar and anterior calcaneal facets, right accessory sacral facet.

Skeletal pathology: Left clavicle is replaced by disorganized bone formation and is increased in size. It has a facet inferiorly where it has been impinging on coracoid of scapula and the bone is possibly fractured. Left scapula is increased in size superiorly with dense, disorganized bone. Left proximal humerus is more porous than normal. The left innominate is heavier than normal and the bone has become disorganized. This also affects the sacrum and the right proximal femur. Degeneration of clavicular facets on manubrium, particularly on left. Osteoarthritis of acromioclavicular joints, of some facet joints in the spine, of the right wrist and the joints of the left first metatarsal. *Spina bifida occulta* of the sacrum (apart from S1). Rotator cuff trauma denoted by porosity on subscapularis insertions. Calcification of costal cartilage on both first ribs. Enthesopathies for extensors on distal humeri, for *biceps* on radii, for *triceps* on right ulna, for both patellar ligaments on patellae and tibial tuberosities, for Achilles tendons and on bases of both fifth metatarsals. Fracture of right fifth

metacarpal and distortion of shape of right first metacarpal. Osteophytosis of left glenoid cavity, of two right and one left rib heads and one left tubercle, of both acetabula and of the entire spine. Periostitis on proximal left fibula. Ossification of ligaments on both proximal fibulae suggesting trauma or possible fracture. <u>Paget's disease affecting left clavicle, left scapula, left pelvic bone, sacrum and right femoral head.</u>

Grave 51

Indeterminate 1 - 2 yrs

Location: Chapter house near graves 48, 49 and 52. Intact burial. Burial position: -Probable date: Early 14th century. Coffin type: Monolith. Preservation: Good. More than 70% of burial present. Cranium well preserved, most long bones present apart from left tibia. A few badly degraded foot bones. Bones present: Cranium, maxilla and mandible, both clavicles and scapulae, humeri, radii ulnae, iliac bones, femora, right tibia and fibula, some hand and a few foot bones.

Dentition: <u>uuuu/ |/uuu-</u> uuuua |auuuu

Dental pathology:

Grave 52

Infant 6 mo - 1 yr

Location: Chapter house near graves 48, 49 and 51. Skeleton disturbed and much missing - skull fragments only.

Burial position: -

Probable date: Early 14th century.

Coffin type: Monolith.

Associated material: Adult hyoid bone - central portion

Preservation: Fair. Less than 40% of burial present. Fragmentary cranium, part of mandible, neural arch of vertebra, right clavicle.

Bones present: Most of cranial vault, right mandible, right clavicle, neural arch fragment.

Skeletal pathology: The cranial bone is of poor quality with porous regions, particularly over the parietal bosses. The mandible is also expanded and the bone is very porous. Suggests some sort of deficiency of essential nutrients, as seen in <u>rickets</u>.

Grave 53

Male 46+ No complete long bones

Location: In north-east chapel (north) near grave 50 with the end of the grave cut by the latter. Burial largely intact.

Burial position: Left arm bent with hand on left shoulder. Right forearm across chest. *Probable date:* Early 14th century.

Coffin type: Stone-built.

Preservation: Poor. 40-70% of burial present. Fragmentary, incomplete cranium, ribs and vertebrae. Long bones are also somewhat incomplete and fragmented. Blackening of the edge of one cranial and long bone fragment.

Dentition: no maxilla //x//---

Dental pathology:-

Non-metric traits: Single inferior talar and absent anterior calcaneal facets.

Skeletal pathology: Thickening of left clavicle and scapula with disorganised new bone formation. One mid-thoracic right rib is thickened in the neck region with disorganised new bone formation. Discrete areas of porous thickening on dorsal surface of left pelvic bone, sacrum is also affected. Thickening of left proximal femur with dense new bone formation. Thickening of left tibia with new bone formation on anterior border extending on to medial and interosseous surfaces. <u>Paget's disease affecting left clavicle and scapula, one right rib, the fifth lumbar vertebra, left pelvic bone, sacrum, the left femur (particularly the proximal end) and the left tibia. Enthesopathies of patellar ligament on right patella, of external obliques and interosseous ligament on left pelvic bone, of *pronator quadratus* on both ulnae, for common extensors on left distal humerus and for *soleus* on both tibiae. Probable fusion of the right sacroiliac joint.</u>

Graves 54 and 55 in south transept but absent from coffin.

Grave 56

? Male 15 - 18 years

Location: North-east chapel (north). Intact burial but upper part of grave disturbed. *Burial position:* Hands on pelvis.

Probable date: Circa 1300.

Coffin type: Monolith with lid and drain.

Associated material: three non-human bones, including part of vertebra, rib and sacrum of a sheep. Sacrum shows butchery marks.

Preservation: Good. More than 70% of burial present. Bone condition excellent. Cranium incomplete and fragmentary with no facial bones or maxilla, otherwise almost complete burial. Some destruction of long bone ends. No epiphyses recovered apart from distal radii, one distal femur, one proximal tibia.

Bones present: Part of cranial vault and mandible, clavicles, scapulae, humeri, ulnae, radii, most hand bones, manubrium, most ribs and vertebrae, pelvic bones, femora, right patella, tibiae, fibulae, some foot bones.

Dentition: no maxilla u - - - - - - - - - ///4567u

Dental pathology: -

Skeletal pathology: Slight enthesopathies for deltoid on both clavicles. No non-metric traits. No Schmorl's nodes.

Grave 57: Lid in situ. Not opened.

Grave 58

Male 46+ No complete long bones

Location: In north-east chapel near grave 34. Noted as 'totally disturbed' and only cranium sent for examination.

Burial position: -

Probable date: 13th century.

Coffin type: Monolith: decorated, chamfered, part of lid present.

Preservation: Good. Less than 40% of burial present. Complete cranium without mandible. However, large parts of the surface are eroded, particularly the frontal bone. No teeth but some sockets are filling up with bone.

Dental pathology: -

Non-metric traits: Supraorbital notches, double right and absent left zygomatic foramina, condylar canals present, right mastoid foramen.

Skeletal pathology: Very large pterygoid plate on right, much reduced on left. Swollen nasal conchae suggesting repeated respiratory infections.

Grave 60

? Male 36-45 No complete long bones

Location: North-east chapel near graves 113 and 114. Burial intact - cut through chapel wall.

Burial position: Hands crossed over pelvis. *Probable date:* 15th century.

Coffin type: None.

Preservation: Fair. >70% present. Complete cranial vault, fragmented long bone ends, some ribs and vertebrae missing.

Bones present: Cranium and mandible, scapulae, humeri, ulnae, right radius and distal left radius, some hand bones, a few ribs and some vertebrae, both innominates, both femora, right patella, shafts of both tibiae and fibulae, some foot bones.

Dentition: <u>np 7 x // /2/ // /4 /x 7 np</u> np 7 6 5 / 3 2 / 1 2 3 4 5 6 7 /

Dental pathology: Imbrication of left mandibular lateral incisor; moderate attrition. *Non-metric traits:* Supraorbital notches, right parietal foramen, right epipteric bone, lambdoid ossicle, right ossicle at asterion, both foramina spinosum incomplete, left circumflex sulcus, single anterior calcaneal facets. Additional facet by right condyle on cranial base.

Skeletal pathology: Subperiosteal new bone formation on both tibiae, both fibulae, both ulnae and both femora. Osteophytosis of joints between tali and calcanei, particularly on the left, degenerative joint disease of both first metatarsophalangeal joints. The distribution of the subperiosteal new bone formation suggests treponemal disease rather than a non-specific bone infection. Schmorl's nodes of T10, T11 and L2.

Grave 61

Male 36 - 45 years 177.7 ± 4.32 cm (radius)

Location: Centre of nave near grave 21. Intact burial. *Burial position:* Hands crossed on chest.

Probable date: -

Coffin type: Monolith with lid. Sword decoration.

Associated material: Badly eroded left temporal bone and cranial fragment; parts of a second cranium. Left petrous temporal from a third cranium.

Preservation: Good. >70% of burial present. Almost complete. Bone well preserved but some fragmentation of long bone ends. Cranium fragmentary.

Bones present: Cranium and mandible, clavicles, scapulae, humeri, radii, ulnae, most hand bones, most ribs and vertebrae, pelvis, femora, patellae, tibiae, fibulae, most foot bones.

Dentition: $\frac{1/x/4/1}{1000} \frac{1/x}{4.5 x/1}$ $\frac{1/x}{1000} \frac{1}{2.00} \frac{1$

Dental pathology: Moderate attrition; lingual eruption of left mandibular third molar.

Non-metric traits: Double right zygomatic foramen, left posterior atlas bridging, left suprascapular foramen, right Poirier's facet, vastus notches, single inferior talar and absent anterior calcaneal facets.

Skeletal pathology: Osteophytosis of one left rib tubercle, bony exostosis on distal articular surface of left first metatarsal dorsally.

61A: Badly eroded cranium which is white in colour consisting of frontal, parietals and occipital.

Dentition:

 $\frac{--6----1}{-----21} \frac{123-----}{12-45---}$

Dental pathology: Abnormally short roots, wide heavily-worn crowns.

61B

Dentition: ----4321 | 123---------- / / 1 | //3-----

Dental pathology: Imbrication and calculus ++ on lower incisors.

Grave 62

Indeterminate 9 - 10 years

Location: Centre of nave near southern edge. Burial position: Arms folded over waist. Probable date: -Coffin type: Monolith with lid. Chamfered, faint centre line.

Associated material: Adult left rib.

Preservation: Fair. 40-70% of burial present. Bone is in good condition but most of right side is missing.

Bones present: Cranial vault and part of maxilla, left clavicle, scapula and humerus, most ribs and some vertebrae, pelvic bones, left femur, tibiae, part of one fibula, some foot bones.

Dentition: -/////|----6- -64//21|12cde6uAlso two teeth from a middle-aged adult.

Grave 63

Male 36 - 45 No complete long bones *Location:* To north of east cloister walk near graves 42 and 78. Burial intact - grave cut by overlying grave 42, and cutting 78. Contained 15th-century tile.

Burial position: Arms folded across lower chest.

Probable date: Early 15th century.

Coffin type: None.

Associated material: two teeth.

Preservation: Poor. Less than 40% present. Some facial bones and mandible, fragmentary long bones from postcranial skeleton and fragmentary axial skeleton.

Bones present: Some facial bones and mandible, clavicles, right scapula, right humerus, radius and ulna (with fragmentary ends), some hand bones, some ribs and vertebrae, parts of both innominates, femora, patellae, tibiae and fibular (all long bones fragmented at ends) some foot bones.

Dental pathology: -

Non-metric traits: Single right and double left inferior talar and anterior calcaneal facets.

Skeletal pathology: Periostitis of right tibia in central third of interosseous surface posteriorly. Periostitis of left tibia on medial aspect in distal half of bone. The left fibula is thickened in the mid-shaft region by porous but dense new bone. The right fibula is slightly thickened. Cortical defects at pectoralis major insertion on right humerus and also at insertion of teres major. Osteophytosis of thoracic and lumbar spine.

Grave 64

Female 46+ No complete long bones

Location: East cloister walk. Legs only surviving. Cut by late water pipe trench. *Burial position:* Forearms folded over lower chest.

Probable date: 13th century.

Coffin type: Monolith with drain.

Associated material: one non-human bone.

Preservation: Poor. 40-70% of burial present. Fragmentary cranium, many ribs and vertebrae missing, few hand or foot bones, long bone ends fragmented.

Bones present: Part of cranial vault and maxilla, parts of both clavicles and scapulae, shafts of humeri, radii and left ulna, a few ribs and some vertebrae, parts of pelvic bones, shafts of femora, tibiae and fibulae, some foot bones.

Dentition: ---//// ////---87x//3// ///3//6x8

Dental pathology:-

Non-metric traits: Supraorbital notches, right zygomatic foramen, parietal foramina, single left anterior calcaneal facet.

Skeletal pathology: Porosity of acromial facet on left clavicle; diffuse, striated, wellhealed periostitis on medial surfaces of both tibiae. Osteoarthritis of upper thoracic vertebrae, osteophytosis and porosity of cervicals.

Grave 65

? Male 26+ No complete long bones

Location: North-east chapel between graves 67 and 101. Intact in stone coffin with disturbed but replaced lid.

Burial position: Forearms folded over pelvis.

Probable date: Late 13th century.

Coffin type: Monolith with lid and drain. Decorated.

Preservation: Poor. Less than 40% of burial remains. The long bone shafts are badly degraded and blackened in colour. Their surfaces are eroded. Some teeth are present but the jaw bones have not been preserved.

Bones present: Left humeral shaft, both radial and ulnar shafts, both innominates, both femora (missing distal ends), both tibiae and fibulae (missing proximal ends).

Dentition: <u>87-----</u> --6-----5678

Dental pathology: Root caries and/or severe taphonomic destruction. *Skeletal pathology:* Enthesopathies at insertion of sacroiliac interosseous ligament and of *transverse abdominis* on iliac crest on left innominate.

Grave 66

? Female 26+ No complete long bones

Location: East cloister walk near grave 64. Lower limbs only surviving - cut by water pipe trench.

Burial position: -

Probable date: 13th century.

Coffin type: Monolith.

Associated material: Additional left ulna without ends, fragments of tile/pot.

Preservation: Poor. Less than 40% of burial remains. Only a few cranial fragments and the shafts of the major long bones remain. The surfaces of the bones are badly degraded.

Bones present: Part of occipital bone and left parietal, parts of humeral, radial and ulnar shafts, fragment of right innominate, parts of femoral, tibial and fibular shafts.

Grave 67

? Female Adult No complete long bones

Location: North-east chapel near grave 65. Fragile, skull displaced. Intact in stone coffin with disturbed, but replaced, lid.

Burial position: Hands on pelvis.

Probable date: Late 13th century.

Coffin type: Monolith with lid. Decorated and chamfered.

Associated material: one non-human fragment.

Preservation: Poor. Less than 40% of burial remains. A few very poorly preserved fragments of long bone plus a few cranial and pelvic fragments and some hand and foot bones. The bone surfaces are badly eroded.

Non-metric traits: Right medial and left lateral tibial squatting facets.

Skeletal pathology: Spina bifida occulta of S4 and S5 (possibly more).

Grave 68

? Female Adult No complete long bones

Location: North-east chapel. Intact burial - disturbed upper fill but 14th century tile beneath skeleton.

Burial position: Hands over tops of femurs.

Probable date: Early 14th century.

Coffin type: Monolith with drain.

Associated material: Part of shaft of right ulna, large proximal foot phalanx and first metatarsal.

Preservation: Poor. Less than 40% remains. Only fragments of maxilla and mandible, shafts of long bones, a few vertebrae, some hand bones and most of the bones from both feet.

Bones present: Part of maxilla and mandible, both clavicles, scapulae, right humeral, both ulnar and radial shafts, some hand bones, fragment of acetabulum, a few vertebrae, both femoral, tibial and fibular shafts.

Dentition:

<u>---- |/234----</u> --xx4--- |/234xxx

Dental pathology: -

Non-metric traits: Lateral tibial squatting facets, single right inferior talar facet. *Skeletal pathology:* Marked *soleus* insertions on both tibiae. Large exostosis at insertion of conoid tubercle on both clavicles. Osteoarthritis of cervical facet joints.

Grave 69

? Male

26+ No complete long bones

Location: In west part of nave. Disturbed during excavation. Burial position: -Probable date: Late 14th century. Coffin type: -Associated material: A second maxilla and accompanying teeth.

Preservation: Poor. Less than 40% of burial remains. Only maxilla, mandible, a few ribs and vertebrae, fragmentary long bones and miscellaneous fragments are present. The right radius and ulna appear to come from a second individual.

Bones present: Maxilla, mandible, both clavicles, right distal humerus and proximal ulna, left humerus (missing proximal end), left radial fragments, a few hand bones, cervical and upper thoracic vertebrae, both femora (fragmented), right tibia (missing distal end), fragment of left tibia, a few foot bones.

Non-metric traits: Left mandibular torus, accessory transverse foramen (C6).

Skeletal pathology: Severe porosity at sternal ends of both clavicles, osteoarthritis of left acromioclavicular joint and atlanto-axial joint. Smooth fusion of C7 to T1 suggesting possible seronegative spondyloarthropathy. Osteoarthritis of cervical vertebrae. Osteophytosis of two left rib tubercles, biceps enthesopathy on left radius.

69A:

Dentition: <u>--//////////34567/</u> x x x x / 3 2 / 1 2 3 4 / x x 8

Dental pathology: Severe attrition, caries, recent antemortem tooth loss of first and second left mandibular molars.

69B

Dentition: <u>----/// |/x//----</u>no mandible</u>

Grave 71

MNI: 3 individuals (?M, ?F, Ad)

Location: Centre of nave. Largely disturbed below lower part of skeleton.

Burial position: -

Probable date: 15th century.

Coffin type: None

Preservation: Poor. Context consists of the poorly preserved remains of up to three individuals - a pale-coloured skull, part of the cranial base, mandible and upper body of a possible male and the torso (ribs and vertebrae) of an older possible female.

Bones present: (a) Cranial vault; (b) right temporal bone, mandible, clavicles, both scapulae, humeri and proximal ulnae; (c) ribs and vertebrae; misc: a few acetabular and femoral fragments.

Dentition:

no maxilla

- 7 x x x / 2 1 | 1 2 3 / 5 x 7 -

Non-metric traits: (a) Apical bone, lambdoid ossicles; (b) left septal aperture. *Skeletal pathology:* (b) Osteoarthritis of right acromioclavicular joint; (c) osteophytosis of one right and one left rib tubercles, ossification of cartilage joining first left rib with manubrium. Osteophytosis of lower cervical and upper thoracic vertebrae, ossification of the anterior longitudinal ligament on seven vertebral body fragments. Osteophytosis of acetabular fragment.

Grave 72

? Male 26-35 161.6 ± 4.05 cm (humerus)

Location: Centre of nave. Intact burial. *Burial position:* Forearms folded over lower chest.

Probable date: 1325-1350.

Coffin type: Lid only. Decorated with face and oak leaves.

Associated material: two non-human fragments

Preservation: Good. More than 70% present. Complete cranium. Bone condition excellent. Almost all other bones are also complete.

Bones present: Cranium, mandible, both clavicles, scapuli, humeri, radii, ulnae and most hand bones; sternum, manubrium, most ribs, vertebrae, pelvis, femora, patellae, tibiae, fibulae and most foot bones.

Dentition: np 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 np np 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 np

Dental pathology: Palatine torus, moderate attrition.

Non-metric traits: Supraorbital notches and foramina (double on left), bilateral epipteric bones, ossicle at bregma, apical bone, lambdoid ossicles, bilateral condylar canals and mastoid foramina, left circumflex sulcus, sternal foramen, single talar facets and absent anterior calcaneal facets.

Skeletal pathology: Osteophytosis of one left rib facet, *spina bifida occulta* of S4 and S5, deep cortical defects for costoclavicular ligaments on clavicles. Moderately severe *cribra orbitalia* in both orbits (Stuart-Macadam grade III).

Grave 73

Male 46+ 173.2 ± 4.32 cm (ulna)

Location: West end of north aisle near graves 20 and 22. Ankles and feet missing. *Burial position:* Hands on pelvis. *Probable date:* 15th century. *Coffin type:* None

Preservation: Fair. More than 70% present. Cranium and ribs are quite fragmentary. No distal tibiae, fibulae or feet.

Bones present: Fragmentary cranium and mandible, clavicles, scapulae, humeri, ulnae, radii (left missing distal end), most hand bones, most ribs and vertebrae, pelvis, femora, proximal tibiae and fibulae. Multiple pieces of calcified blood vessel.

Dentition: <u>--654/// | 12345---</u> ///543/1 |/2345678

Dental pathology: Gross caries on first second and third left mandibular molars. Hypercementosis of right maxillary first molar.

Non-metric traits: Atlas bridging bilaterally, accessory transverse foramen C6. *Skeletal pathology*: Severe rotator cuff changes on left humeral head affecting all three insertions, porosity of *subscapularis* insertion on right humerus. Osteoarthritis of both acromioclavicular joints. Degenerative joint disease of both mandibular condyles. Alteration of shape of joint between C1 and cranium with porosity of left facet and an extra facet on the transverse process of C1. Fusion of three pairs of vertebrae suggesting one of the seronegative spondyloarthropathies, possibly psoriatic arthropathy. Degeneration of lumbosacral joint with new bone formation on intervertebral joint. Severe osteophytosis of proximal and distal interphalangeal joints of both hands and osteoarthritis of first left carpo-metacarpal joint. Osteophytosis surrounding both glenoid cavities and of both proximal and distal ulnae. Enthesopathy of interosseous joint on right and five left rib tubercles, osteophytosis of three right rib tubercles. Degenerative joint disease of right acetabulum with porosity at margin. Spinal osteophytosis and osteoarthritis of one lumbar facet joint.

73A:

Dentition: <u>no maxilla</u> ---- 4 3 -- |-- 3 4 5 ----

Grave 74

Male 46+ 174.3 ± 4.32 cm (radius)

Location: To south of south-east chapel. Lower legs extend beyond excavation. Burial position: Forearms folded over chest with hands together. Probable date: 15th century. Coffin type: None. Associated material: one non-human bone.

Preservation: Fair. 40-70% complete. No cranial vault. No lower legs or feet. Ribs fairly fragmented and neural arches separated from bodies. The right femoral head has been sectioned in three parts.

Bones present: Facial bones and mandible, both clavicles, scapulae, humeri, radii, proximal ulnae, sternum, most ribs and vertebrae, pelvis, femora, left patella. Piece of calcified blood vessel.

Dentition: <u>876///1|12345x7x</u> 87x5432/|/2345678

Dental pathology: Severe attrition, abscesses in first and second left maxillary molars. *Non-metric traits:* Left mylohyoid bridge, left vastus notch.

Skeletal pathology: Osteoarthritis of right acromioclavicular joint. Severe enthesopathy at *subscapularis* insertion on right humerus with obliteration of bicipital groove. Moderate *subscapularis* enthesopathy on left humerus. Osteophytosis surrounding both glenoid cavities. Osteophytosis of both distal humeri, two right rib and one left rib tubercles, also of left first hand phalanx and left distal femur. Well-healed fracture of left first metacarpal with secondary osteoarthritis of proximal end. Well-healed fracture of right fifth metacarpal in midshaft. The bone is both curved and thickened. Enthesopathies of external obliques on both innominates, for interosseous ligament on left side, for quadriceps on both ischial tuberosities, for adductors and *gluteus maximus* on both femora and for inguinal ligament on left pubic tubercle. There is also an enthesopathy for the *pisohamate* ligament on the right hamate.

Grave 75

Female 18-25 years 154.4 ± 3.27 cm (femur)

Location: In centre of nave. Intact burial situated between graves 70 and 72. Burial position: Hands on pelvis. Probable date: Late 14th century. Coffin type: None. Associated material: piece of metal, non-human vertebra.

Preservation: Good. More than 70% present. Bone condition is excellent and the burial is very complete. There is considerable colour variation between the cranium and the lower half of the body. The former also appears more male and the latter more female.

Bones present: Cranium and mandible, both clavicles, scapulae, humeri, radii, ulnae, most hand bones, manubrium, sternum, ribs and most vertebrae, pelvis, both femora, left patella, left tibia, both fibulae, most foot bones.

Dentition: <u>/ 7 6 / // np / | 1 np / / / 6 7 x</u> np 7 6 np 4 3 2 / | 1 / 3 4 np 6 7 np

Dental pathology: Oligodontia, retained deciduous second molar, small first molars.

Non-metric traits: Left double supraorbital foramen, parietal foramina, coronal ossicle, lambdoid ossicles, right mylohyoid bridge, Allen's fossae, single anterior talar and absent anterior calcaneal facets.

Skeletal pathology: Spina bifida occulta of S1, transitional vertebra (T12), twelfth ribs are greatly reduced in size, particularly on left. Severe osteophytosis and porosity of two right rib tubercles. *Deltoid* enthesopathy of right clavicle. Schmorl's nodes of T5, T7, T9 to T12.

Grave 76: not excavated.

Grave 77: one fibular fragment ? side.

Location: In Grave 64. Burial position: -Probable date: 14th century.

Grave 78

Male 46+ No complete long bones

Location: North-east corner of cloister walk. Partially cut by grave 63.

Burial position: Probably at sides.

Probable date: 14th century.

Coffin type: Stone-built, now destroyed.

Associated material: Left humeral shaft, small right tibial shaft.

Preservation: Poor. 40-70% present. No cranial vault, fragmentary vertebrae, pelvis and long bone ends; most of ribs, right humerus and radius missing. Bone quality quite good. No right femur.

Bones present: Right temporal, facial bones and mandible, both clavicles and scapulae, left humerus and radius, ulnae, some hand bones, a few ribs and vertebrae, parts of pelvic bones, left femur, both tibiae and fibulae (missing proximal ends), some foot bones.

Dentition: <u>8 7 6 5 4 3 2 / / 2 3 4 5 6 x /</u> np 7 6 5 4 3 / / / 2 / / 5 6 7 8

Dental pathology: -

Non-metric traits: Double inferior talar and anterior calcaneal facets.

Skeletal pathology: Large bony exostosis in posterior half of left maxillary sinus. It may be associated with a dental abscess. Both antra are divided into two parts by a bony septum. Diffuse, well-healed, striated periostitis on medial aspects of both tibiae near to posterior borders. Enthesopathies for common extensor insertion on lateral epicondyle of left distal humerus, for *supinator* and *pronator quadratus* on left ulna, for adductors and *gluteus maximus* on left femur and for costotransverse ligament on three left rib tubercles. Osteoarthritis of left acromioclavicular joint. Periostitis on medial aspect of additional tibia.

Grave 79

Male 36-45 176.9 ± 4.32 cm (radius)

Location: In south-east chapel. Greatly disturbed by tree roots. Burial position: -Probable date: -Coffin type: Monolith? Preserved. Most ribs a

Preservation: Poor. 40-70% of burial preserved. Most ribs and some vertebrae are missing, long bones fragmented, surface of cranium badly eroded. Long bone surfaces also eroded and split. No facial bones or mandible.

Bones present: Cranial vault, two teeth, clavicles, scapulae, humeri, radii, ulnae, a few hand bones, a few ribs and vertebrae, fragmentary pelvic bones, femora, tibiae and some foot bones.

Dentition: <u>--///---</u> |--3----no mandible

Non-metric traits: Right double condylar facet, right foramen ovale incomplete, bilateral septal apertures, double inferior talar and anterior calcaneal facets.

Skeletal pathology: Achilles tendon enthesopathies on both calcanei. Third and fourth lumbar vertebrae are fused with disc spaces completely obliterated. T1 and T2 are on the verge of fusing. New bone formation occluding sacroiliac joint. Probable early ankylosing spondylitis or seronegative spondyloarthropathy.

Grave 81

Male Middle adult (36 - 45 yrs) 175.4 ± 4.32 cm (ulna)

Location: Disturbed by charnel. *Burial position: -*

Probable date: 14th century. *Coffin type:* Monolith: chamfered.

Associated material: Cattle rib, non-human ulna, non human cranial fragment.

Preservation: Fair. >70%. Bone condition good, part of cranium missing, long bones in several pieces, ribs fragmentary. Left femoral head has been sawn off.

Bones present: Posterior cranium, maxilla and mandible, both clavicles and scapulae, both humeri, radii and ulnae, some hand bones most ribs, vertebrae, pelvis, both femora, tibiae and left fibula, most foot bones.

Dentition: $8 \times x 5 4 3 21 | x \times / 4 5 6 7 8$ 8 7 6 5 / / / | 1 / 3 / 5 6 7 8 Dental pathology: Compensatory eruption.

Non-metric traits: Left zygomatico-facial foramen, lambdoid ossicles, right condylar canal, left divided hypoglossal canal, right mylohyoid bridge, left circumflex sulcus, left septal aperture, left lateral tibial squatting facet, bilateral single inferior talar facets and absent anterior calcaneal facets.

Skeletal pathology: Osteophytosis on superior aspect of proximal articular surface of left ulna; *gluteus maximus* and adductor enthesopathies on both femora; osteophytosis on one right and one left rib tubercles; enthesopathy at insertion for costoclavicular ligament on left clavicle; considerable torsion of both humeri caused by extensive use of pectoralis major and deltoid muscles. Both bones are flattened on their medial aspects and narrowed antero-posteriorly. The muscle insertions are extremely prominent. Enthesopathies for pronator quadratus on both ulnae, osteophytosis of acetabula. Spinal osteophytosis and Schmorl's nodes.

Grave 82 (19)

MNI 5 individuals (humeri)

Location: In western part of eastern chapel. Main burial disturbed by charnel placed on top.

Burial position: Hands on pelvis. *Probable date: -Coffin type:* Monolith.

Preservation: Very variable. Some long bone surfaces are sloughing off.

Cranial bones: (1) Cranial vault consisting of frontal, both parietals, most of occipital and left temporal. It is quite compact but the brow ridges and orbital rims suggest a male, as does the nuchal crest. (2) Cranial vault consisting of most of frontal and parts of both parietals. It is greatly thickened and light in colour. The surface is badly eroded. Left orbit, maxilla and mandible with some teeth and part of left ramus. (3) Part of a third cranial vault consisting of left parietal and occipital bones. It is pale in colour. Right petrous temporal bone. (4) Cranial vault consisting of part of frontal, both parietals, right temporal and part of occipital.

Dentition: <u>8 7 / / 4 / / | / / / / / 7 8</u> 8 7 x 5 4 3 2 1 | 1 2 3 4 5 x 7 8

Dental pathology: Gross caries with exposure of pulp cavities on left mandibular second and third molars.

Vertebrae: C2 - T11 inclusive from DISH spine.

Upper limb bones: Pair of clavicles, parts of three left scapulae, two with glenoid, one acromion, right glenoid and right acromion showing impingement on inferior aspect. Osteophytosis of both clavicular facets on acromions. Pair of humeri with osteophytosis surrounding heads and severe changes to rotator cuff insertions, a further four right humeri, three missing proximal end and one distal. Parts of three other left humeri (one head and two shaft pieces. Left ulna (with severe *triceps*)

enthesopathy), two left radii, three right radii and two ulnae. Right and left hand consisting of 5 metacarpals, four proximal phalanges, three mid phalanges each + three distal phalanges, right trapezium, capitate, scaphoid and hamate.

Ribs: three right and three left ribs and 10+ rib fragments ? side.

Pelvic bones: Right and left innominate with marginal osteophytosis (2).

Lower limb bones: Femoral shaft fragment and two distal femoral fragments - right one has severe marginal osteophytosis (3) and articular surface with porosity, one femoral head. Left tibia with severe osteophytosis (3), right tibia with diffuse periosteal reaction on medial aspect. This is both porous and striated. two right tibial shafts, left tibial shaft, four distal tibiae, two proximal tibial fragments, three tibial shaft fragments. Distal half of left fibula.

Foot bones: Right calcaneus, pair of tali, pair of metatarsals.

Context 16:

MNI: 5 individuals (three Males, one Ad and ?one Female)

Cranial bones: Small, dark cranial vault consisting of parietals and occipital bone. Pale-coloured cranium in several parts consisting of frontal, left parietal, right orbital roof and both petrous temporals. Mastoid processes are large and robust. Cranial vault which is greatly thickened and eroded, including right temporal, right orbital roof and parietal and occipital fragments. Facial bones with abscess perforating into nasal region, two right petrous temporals, part of occipital, 16 cranial fragments including right zygomatic bone. Fragment of right sphenoid.

Arm bones: Left humerus (in two parts) badly eroded, two right proximal ulnae, right lateral clavicle, eroded distal ulna ? side.

Ribs: one right rib and three shafts (unsided).

Pelvic bones: three right acetabula with auricular surface and right pubic bone (male) with eroded symphyseal face, three left iliac bones, 7 other pelvic fragments.

Vertebrae: one atlas fragment.

Leg bones: 5 left proximal femora, including four femoral heads, two left distal femora, 5 right proximal femora, including three heads, two unsided shaft segments and one unsided distal femur, right proximal tibia, two left proximal tibiae (one with diffuse, well-healed subperiosteal reaction - slight), two right distal tibiae, left shaft segment, right distal fibula.

Foot bones: Left and right calcanei.

Summary of skeletal pathology for grave 82: Severe osteophytosis on anterior aspect of right humeral head with flattening and porosity on *subscapularis* insertion; moderate porosity of *subscapularis* on second right humeral head. OA of right acromioclavicular joint. Severe osteophytosis on anterior aspect of left humeral head and enthesopathy on subscapularis insertion. Slight impingement on left acromion. Severe enthesopathy on *triceps* insertion of left ulna. Fused 11th and 12th vertebrae with severe osteophytosis and ossification of anterior longitudinal ligament suggestive of DISH. Osteoarthritis of distal femur ? side. Osteophytosis of left proximal tibia, severe enthesopathy on tibial tuberosity, periostitis on right tibial segment. Diffuse well-healed periostitis on right tibia. Adductor enthesopathies on two left and one right femoral segment. Enthesopathies for *biceps* on radial tuberosity. DJD of left acetabulum. **Graves 83 and 93:** in western part of eastern chapel. 83 = loose bones disturbed in a layer.

Grave 84

Female 46+ 156.4 ± 4.3 cm (ulna)

Location: North transept. Skull missing. Fragile.
Burial position: Right hand near right shoulder, left across chest.
Probable date: Late 13th century.
Coffin type: Wood.
Associated material: Three pieces of metal, one nail, one piece of grey pottery.
Preservation: Poor. 40-70% of burial present. No cranium or facial bones, no ribs, few vertebrae, most long bone ends destroyed. Few hand and foot bones. Bone quality quite good.

Bones present: Mandible, parts of clavicles and scapulae, humeri (missing proximal ends, left radius and ulna (missing distal ends), right radius and ulna, a few hand bones, a few vertebrae, parts of both pelvic bones, femoral and tibial shafts, some foot bones.

Dentition: no maxilla ----- |-///5x/8

Dental pathology: -

Non-metric traits: Single inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteoarthritis of both knees (lateral compartment), of both elbows, of pubic symphysis and of both first metatarso-phalangeal joints. Osteophytosis of right talo-calcaneal joint and of left acetabulum. Diffuse, well-healed periostitis affecting medial and interosseous surfaces of both tibiae. Enthesopathies of *soleus* on both tibiae, more severe on right, of adductors on both femora and of biceps on both radial tuberosities. Severe osteophytosis of cervical vertebrae, osteoarthritis of upper thoracic vertebrae.

Grave 85

? Female 46+ 159.7 ± 4.24 cm (radius)

Location: North transept. Intact burial. Pot in grave. Burial position: Hands over lower chest. Probable date: Late 13th century. Coffin type: Stone-built.

Associated material: Juvenile right ischium, fragment of fibula from another individual, fragment of non-human bone.

Preservation: Fair. 40-70%. The bone is in quite good condition but no femora or tibiae are present, apart from a few fragments. Arm bones complete, skull almost complete; vertebrae, ribs and pelvis are fairly well preserved. The cranium is whitened and much lighter in colour than the rest of the bones. All surfaces are fairly well preserved. No mandible present.

Bones present: Cranium (with part of right side missing) scapulae, left clavicle, both humeri, radii and ulnae, some hand bones, some ribs and vertebrae, part of pelvis, distal humeri, proximal tibiae, parts of both fibulae, some foot bones.

Dentition:

Dental pathology:

Non-metric traits: Right parietal foramen, left condylar canal, left mastoid foramen, palatine tori, bilateral septal apertures, single left inferior talar facets.

Skeletal pathology: Cranium is thickened with hyperostosis frontalis interna with thick deposits around the midline. Osteoarthritis of facet joints of T6. Osteoarthritis of patello-femoral compartment of right knee and of femoro-tibial compartment, osteophytosis of left distal femur. Porosity on inferior margin of left glenoid, dislocation of right acromioclavicular joint. New bone formation on fibular shafts. Ossification of interosseous ligaments along shafts of metatarsals affecting lateral aspects of shafts on right foot and medial aspects of shafts on left foot. Bone is thick and smooth.

Grave 88

Indeterminate Adult No complete long bones

Location: In centre of nave. Fragmentary - cut by later drains.

Burial position: -

Probable date: 15th century.

Coffin type: None.

Preservation: Poor. Less than 40% of burial preserved. Very poorly preserved collection of fragments.

Bones present: Three cranial fragments, several fragments from right scapula and one from left, one rib fragment, a few proximal hand phalanges, complete left and posterior right calcaneus, part of left distal femur, parts of both tibiae and fibulae and a few miscellaneous fragments of bone.

Skeletal pathology: Enthesopathies of Achilles tendon on both calcanei, for *tibialis posterior* on inferior aspect of left calcaneus, for long head of triceps below glenoid cavity of right scapula and for teres major also on right scapula. Central porosity and osteophytosis on inferior aspect of glenoid from right scapula; osteophytosis on one tibial condylar fragment ? side. Diffuse striated, well-healed periostitis on medial and interosseous surfaces of left tibia. Similar appearances on fragments from right tibia. New bone formation/ligamentous ossification on one fibular fragment. It is quite knobbly and extensive.

Grave 91 (context 12)

Male 26-35 years No complete long bones

Location: South-east chapel. Intact burial with lead buckle and bronze rings. Burial position: Hands crossed over waist. Probable date: 15th century. Coffin type: Stone-built but had caved in. Preservation: Good but less than 40% of burial present. Bones present: Most of cranial vault, facial bones and mandible, clavicles, scapulae, ulnae, radii (missing distal ends), parts of pelvic bones, femora, fibulae, some foot bones

Dentition: <u>/7654////34567/</u> /7654321 | 12345678

Dental pathology: Very large teeth and jaws, rounded arches, imbrication.

Non-metric traits: Right supraorbital notch, two right zygomatic foramina, left mastoid foramen, right double right inferior talar and double left anterior calcaneal facets.

Skeletal pathology: Adductor enthesopathies on both femora.

Grave 91 (context 4)

MNI: 4 or 5 individuals (one male - probably main burial)

Cranial bones: Maxilla (attached to sphenoid and base of skull), mandible in two parts (edentulous on left), left petrous temporal, left zygomatic, left maxilla, two sphenoid fragments, nine cranial fragments.

Dentition (a): <u>|76543 | | |2|45x7|</u> xx65 | | | | |/|45678

Dental pathology: Huge crater before antemortem loss of left maxillary first molar, severe attrition.

Dentition(b): _____ |///567_ no mandible

Dental pathology: Gross caries and attrition of left maxillary first molar.

Arm bones: Left glenoid cavity, right and left humeri (in two parts missing proximal ends), two left humeral segments ? from different humeri, right proximal ulna, small right distal radius, right glenoid cavity, third right metacarpal, scapula fragment.

Axial bones: Manubrium, three right and three left ribs, eight rib shaft fragments, fragment of lumbar vertebra with large osteophyte on body and superior process, right innominate, left ischium and left ischial fragment, left pubic symphysis (male), fragment of iliac bone, right pubic bone.

Leg bones: Three right femoral shafts and femoral head, one left femoral shaft, seven distal femoral fragments (one with osteophytosis at margin), right proximal tibia, left distal tibia, three right tibial shafts (one small), two left distal tibiae, six tibial fragments, left patella (with patellar ligament enthesopathy), right calcaneus, left talus.

Grave 92

Male 26 - 35 years 174.9 ± 3.37 cm (tibia)

Location: South-east chapel within stone grave built into south wall.

Burial position: Forearms crossed over waist.

Probable date: 15th century.

Coffin type: Stone-built.

Preservation: Good. 40-70%. Bone well preserved with good bone mass but there is no cranium and only a fragment of maxilla and mandible. Most of the right arm is missing as is the left forearm. Only one vertebral fragment remains. No fibulae.

Bones present: A few facial bones and part of mandible, right clavicle, scapulae, right distal humerus, left humerus, left radial and ulnar fragments, most ribs, one vertebral fragment, pelvis, both femora, tibiae, some foot bones.

Dentition: <u>876--3--</u>|----678 8765////|///5678

Dental pathology: Gross over eruption of left mandibular second molar.

Non-metric traits: Single inferior talar and anterior calcaneal facets.

Skeletal pathology: Soleus enthesopathy of right tibia; osteophytosis on three left and one right rib tubercles. Cortical defect for *pectoralis major* on left humerus measuring 30x3 mm.

Grave 93

Indeterminate Adult (26+) No complete long bones

Location: In western part of eastern chapel. Lower part of skeleton alone survived. *Burial position:* -

Probable date: 15th century.

Coffin type: None.

Associated material: Left tibia of a second individual and vertebral fragment with large osteophyte.

Preservation: Fair. <40% present. Only the spine and leg bones are preserved with part of the right scapula.

Bones present: two cervical, all thoracic and lumbar vertebrae, both femoral shafts (right including distal end, right tibia, most of right fibula and two fragments of left, left calcaneus, small fragments of scapula, sternum and humerus.

Skeletal pathology: Enthesopathy of soleus on right tibia and slight striated healed periostitis on medial surface of the same bone. Schmorl's nodes.

Additional left tibia: Fusion of proximal tibia and fibula probably caused by trauma. Severe periostitis diffusely affects the medial surface over its entire length.

Enthesopathies for soleus and patellar ligament on tibial tuberosity.

Grave 94

Male 36-45 175.1 ± 3.37 cm (tibia)

Location: In centre of chancel (presbytery 1). Intact burial. Mosaic tiles.

Burial position: Arms and hands at sides.

Probable date: Late 13th century.

Coffin type: Monolith.

Associated material: one non-human bone, neural arch of axis vertebra, piece of tibial condyle.

Preservation: Fair. More than 70% of burial present. No complete long bones. Cranium partially articulated but with posterior portion missing. It is severely eroded on all its aspects. Marked arachnoid granulations on internal surface of frontal bone.

Bones present: Cranium and mandible, clavicles, scapulae, humeri (missing proximal ends, radii and ulnae, some hand bones, some ribs, most vertebrae, pelvis, right femur and part of left femur, fragmentary tibiae and fibulae, most foot bones.

Dentition: <u>8 x / / 4 - - | - / - - - 6 - -</u> 8 7 6 5 4 - - - | - - - - - 7 8

Dental pathology: Large periapical cyst by right maxillary first molar.

Non-metric traits: Supraorbital notches, lambdoid ossicles, right divided hypoglossal canal.

Skeletal pathology: Cortical defects for costoclavicular ligaments on both clavicles, porosity and lipping of sternal ends. Osteophytosis of both distal femora and proximal left tibia. *Cribra orbitalia* of left orbit. *Spondylolysis* of L5. Slight, well-healed, striated periostitis on medial aspect of both tibiae. Bilateral enthesopathies for *soleus* on tibiae, for adductors on right femur, for external obliques on right innominate and for interosseous ligaments on both innominate bones.

Grave 95

Indeterminate Subadult

Location: -Burial position: -Probable date: -Coffin type: -Associated material: Pair of adult fibulae. *Preservation:* Poor. Less than 40% of burial present. Only a few juvenile bones and a pair of tibial shafts remain.

Bones present: Fragment of frontal bone, two left ribs and the proximal shaft of a left ulna.

Grave 97

? Male 26-35 years No complete long bones

Location: Skeleton very disturbed.

Burial position: -

Probable date: Early 14th century.

Coffin type: Stone-built.

Preservation: Fair. 40-70% of burial present. Bone quality good. However, the maxilla and mandible are missing and the long bone ends are fragmented. There are few hand and foot bones. Some ribs and vertebrae are missing. No patellae, sacrum, right radius or clavicle.

Bones present: Cranial vault, left clavicle, scapulae, humeri, ulnae and left radius, a few hand bones, some ribs and vertebrae, pelvic bones, femora, tibiae, fibulae, some foot bones.

Non-metric traits: Supraorbital notches, left epipteric bone, lambdoid ossicles, right ossicle at asterion, mastoid foramina, accessory transverse foramen (C5), single right inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteophytosis of one right and one left rib tubercle, severe enthesopathy of *extensor carpi radialis* on left distal humerus, cortical defect for *costoclavicular* ligament on left clavicle, *gluteus maximus* enthesopathy on left femur. Osteophytosis of three thoracic vertebrae.

Grave 98

Male 36-45 years 175 ± 4.32 cm (ulna)

MNI: three individuals (two M, one F)

Location: At west end of nave near graves 1, 107 and 108. Intact skeleton accompanied by two skulls and loose bones.

Burial position: -

Probable date: 15th century.

Coffin type: Wood.

Associated material: one non-human bone, two further crania (one of which is accompanied by facial bones and teeth)

Preservation: Fair. More than 70% of burial present.

Bones present: Part of cranial vault, clavicles, scapulae, humeri, ulnae radii, some hand bones, a few ribs and most vertebrae, pelvic bones, femora, tibiae, fibulae, a few foot bones.

Dentition: <u>np 7 x 5 4 3 / / / / / / - - - -</u> np / x x 4 / 2 1 / 2 / 4 5 x 7 np

Dental pathology: Oligodontia, large single rooted molars, rotations.

Non-metric traits: (28A) Right supraorbital foramina (2), left supraorbital foramen, parietal foramina, foramina of Huschke.

Poirier's facets, double inferior talar and anterior calcaneal facets, right *calcaneus* secondarius.

Skeletal pathology: Severe periostitis affecting inferior halves of medial aspects of both tibiae. The infection is in a resolving phase but it is dark in colour and is both porous and striated. Similar lesions on both fibulae, new bone formation on *linea aspera* of both femora in central third of both femora. Enthesopathies for *psoas major* and *iliacus* on lesser trochanters. Enthesopathy for *semimembranosus* on right pelvic bone. Defect in inferior aspect of articular surface of left pelvic bone. Trochlear ridges on both distal humeri. Spinal osteophytosis, Schmorl's nodes (T4-T8, T11, T12).

Grave 99

Female 46+ No complete long bones

Location: At west end of nave. Only central part of burial intact. Top removed by grave 98, lower part by grave 100.

Burial position: Probably hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Associated material: Left distal humerus and radial shaft.

Preservation: Fair. 40-70% of burial present.

Bones present: Posterior cranium, mandible, clavicles, humeri, radii, ulnae, a few hand bones, a few ribs and vertebrae, parts of pelvic bones, femora (possibly associated with additional humerus and radius), fibular fragment.

Dentition: no maxilla x x x 5 4 3 2 / // 3 4 5 x x x

Dental pathology:

Non-metric traits: Mastoid foramina.

Skeletal pathology: Severe *gluteus maximus* enthesopathies. Osteoarthritis of right sacroiliac joint. Osteophytosis of one left rib tubercle. Spinal osteophytosis. Schmorl's nodes of T7-T10 and T12.

Grave 100

Male 26-35 years 174.1 ± 3.37 cm (tibia) Location: At west end of nave, near graves 98 and 99. Intact burial.

Burial position: Arms folded over waist.

Probable date: Late 15th century.

Coffin type: None.

Associated material: Small, dark-coloured right tibia without ends and part of dark-coloured fibula, part of mandible from another individual.

Preservation: Good. More than 70% of burial present. Some long bone ends fragmented.

Bones present: Most of cranial vault, maxilla and mandible, clavicles, scapulae, humeri, radii, ulnae, most hand bones, most ribs and vertebrae, pelvis, femora (missing distal ends, left patella, tibiae fibulae, most foot bones.

Dentition: <u>7654321 | 12/45678</u> --6 --321 | 12345678

Dental pathology: Alveolar recession but healthy margins.

Non-metric traits: Right supraorbital foramen, left notch, right double zygomatic foramen, right foramen spinosum incomplete, right posterior and lateral atlas bridge, single inferior talar and absent anterior calcaneal facets.

Skeletal pathology: Slight, striated periostitis diffusely distributed on medial surfaces of both tibiae. Moderate *cribra orbitalia* on both orbital roofs anteriorly. Slight depressions at insertion of *costoclavicular* ligaments.

Grave 101

Male 26 - 35 years No complete long bones

Location: North-east chapel. Head and feet missing.

Burial position: Hands on pelvis.

Probable date: 13th century.

Coffin type: Monolith with drain.

Associated material: Part of non-human mandible, three subadult bones, part of adult left proximal femur.

Preservation: Fair. 40-70% of burial present. Cranium, ribs and long bone ends are rather fragmentary. The pelvic bones are also fragmented.

Bones present: Parts of cranial bones, maxilla and mandible, clavicles, shafts of both humeri, left ulna and both radii, a few ribs and most vertebrae, pelvic bones, shafts of both femora, tibiae and fibulae, a few foot bones.

Dentition:

- -- - 4 3 2 1 | 1 2 3 4 5 - - -

/7654321 | // / / 567/

Dental pathology: Interproximal caries in left mandibular first and second molars.

Non-metric traits: Right supraorbital notch, double left zygomatic foramen, right divided hypoglossal canal, foramina of Huschke, mastoid foramina, accessory transverse foramen (C6).

Skeletal pathology: Cortical defects for *costoclavicular* ligaments on both clavicles, larger on the left. Slight, diffuse, striated periostitis on medial aspects of both tibiae near posterior border. Spinal osteophytosis, Schmorl's nodes (T5-T7, T11, L1-L3).

Grave 102

Male 36-45 years No complete long bones

Location: In centre of nave near grave 103. Largely intact but some of side removed by 19th-century sewer. Tile in fill. Burial position: Arms and hands at sides. Probable date: 14th century. Coffin type: None. Associated material: one non-human bone.

Preservation: Fair. 40-70% of burial present. The bone itself is comparatively wellpreserved but there are some arm and leg bones missing, including the right forearm, the pelvis and most hand bones. Fibulae consist of slivers of bone.

Bones present: Most of cranial vault, maxilla and mandible, clavicles scapulae, humeri, left radius and ulna, one hand bone, most ribs and some vertebrae, one sacral fragment, left femoral shaft, left patella, tibiae, fibular fragments, some foot bones.

Dental pathology: -

Non-metric traits: Left parietal foramen, coronal ossicle, ossicle at lambda, lambdoid ossicles, left mandibular torus, accessory transverse foramen (C5), right single inferior talar facet, left absent anterior calcaneal facet.

Skeletal pathology: Erosive lesions on medial aspect of the distal articular surface of the right first metatarsal. These are rounded, suggesting that some healing of the lesion has taken place. This suggests the resolving phase of gout. *Triceps* enthesopathy on left ulna; slight, diffuse, well-healed, striated periostitis affecting the medial aspect of both tibiae, Achilles tendon enthesopathy on right calcaneus. Schmorl's nodes (T11, T12, L3). Intervertebral osteochondrosis of L4 and L5.

Grave 103

? Male 26+ 175 ± 2.99 cm (femur + tibia)

Location: In centre of nave, near grave 102. Badly damaged by 19th-century sewer. Tile in fill.

Burial position: -

Probable date: 14th or 15th century.

Coffin type: None.

Preservation: Poor. 40-70% of burial present. The burial consists of a fragmentary humerus, a few vertebrae, ribs, hand bones and the long bones from the lower extremities. The left humerus is badly damaged in recent times with some of the surface exfoliated. Only two teeth.

Bones present: Left humerus, left proximal ulna, a few ribs and vertebrae, pelvic fragment, femora, tibiae, fibulae, a few foot bones.

Dentition: Only two teeth remain.

Dental pathology: -

Non-metric traits: Accessory transverse foramina. *Skeletal pathology:* Well-healed, striated periostitis diffusely distributed in a narrow line along interosseous borders of both tibiae on the interosseous surface.

Grave 104

Male 36 - 45 years 166.8 ± 3.37 cm (tibia)

Location: South-east chapel. Partly disturbed burial.

Burial position: Hands crossed over chest.

Probable date: 16th century.

Coffin type: Roughly stone-built.

Associated material: Right pelvic bone, right patella.

Preservation: Poor. 40-70% of burial present. The surface of the bone is severely eroded. Most of the upper body is missing.

Bones present: Part of left temporal bone, right scapula, parts of both humeri, right proximal ulna and radial fragment, a few ribs and vertebrae, parts of pelvic bones, part of right femur and left distal femur, right patella, right tibia and left distal tibia, fibular fragments, some foot bones.

Non-metric traits: Double inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteophytosis on glenoid of right scapula. Osteophytosis of lumbar vertebrae.

Grave 107

Male 26 - 35 years 177.4 ± 3.37 cm (tibia)

Location: Intact burial with central part damaged by charnel pit. Tile in fill. *Burial position:-Probable date:* 15th century. *Coffin type:* None. Associated material: Large subadult right proximal femur and metatarsal, hand bones, right tibia (context 34), first right metatarsal and foot phalanx, cattle tooth, two metapodials from small ungulate, non human bone.

Preservation: Good. More than 70% of burial present. Fragmentary cranium, neural arches are also fragmented. Remains of two individuals but primary burial is a large male.

Bones present: Part of cranium, maxilla and mandible, clavicles, scapulae, humeri, radii, ulnae, some hand bones, ribs and vertebrae, pelvic bones, femoral shafts, tibiae, fibulae (missing proximal ends), most foot bones.

Dentition:

<u>--x543// /////x/-</u> ----3// //234567 np

Dental pathology: Periodontal ridging and fenestration of left mandibular first molar. *Non-metric traits:* Right supraorbital foramen, right zygomatic foramen, coronal ossicle, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Spina bifida occulta of S1 and S2, severe *peroneus brevis* enthesopathy of left fibula due to trauma, no evidence of fracture. Slight enthesopathies of Achilles tendons on calcanei. Slight diffuse, striated, well-healed periostitis on medial aspects of both tibiae, osteophytosis of two right rib tubercels, cortical defect in proximal foot phalanx on proximal aspect of right first foot phalanx. Spinal osteophytosis, Schmorl's nodes (T12). Additional tibia: Slight diffuse striated, well-healed periostitis on medial aspect.

Grave 108

Male 18-25 years No complete long bones

Location: Intact except for right lower limb. *Burial position:* Hands on pelvis.

Probable date: 14th century.

Coffin type: None.

Preservation: Good. 40-70% of burial present. Complete cranium; ribs and vertebrae well preserved. However, there are no complete long bones, lumbar vertebrae, right pelvic bone, right femur or left tibia.

Bones present: Cranium and mandible, clavicles, scapulae, humeri, radii, ulnae, a few hand bones, most ribs and upper vertebrae, left pelvic bone, left femur, right tibia, some foot bones.

Dentition: <u>no maxilla</u> 8 7 / 5 4 / 2 1 | 1 / 3 4 5 6 7 8

Dental pathology: Teeth small and spaced; caries in left mandibular first molar. *Non-metric traits:* Left supraorbital notch, right supraorbital foramen, right multiple infraorbital foramina, single zygomatic foramina, lambdoid ossicles, right foramen ovale and foramen spinosum incomplete, double condylar facets, mylohyoid bridges, left circumflex sulcus, left double inferior talar facets, double atlas facets (unusual in appearance.

Skeletal pathology: Cortical defects for both *costoclavicular* ligaments on clavicles. The right one measures 31×8 mm and the left 27×10 mm. Pronounced conoid tubercles. Schmorl's nodes T6-T10.

Grave 110

Male 36-45 years 166.6 ± 3.27 cm (femur)

Location: Chapter house. Burial somewhat disturbed. Burial position:-Probable date: Early 14th century. Coffin type: Stone-built. Preservation: Good. >70% present. The burial is almost complete, lacking only a few hand and foot bones. Bone quality good.

Bones present: Complete cranium, clavicles, scapulae, humeri, radii, ulnae, most hand bones, ribs and vertebrae, pelvic bones and part of sacrum, femora, patellae, tibiae, fibulae, most foot bones.

Dentition: no maxilla 8 7 6 5 - - 2 1 ////5 6 7 8

Dental pathology: Periodontal cratering around mandibular molars.

Non-metric traits: Right supraorbital foramen and left supraorbital notch, bilateral parietal foramina, ossicles in lambdoid (large on right), double condylar facets, left mastoid foramen, maxillary and palatine tori, right accessory transverse foramen (C5), double atlas facets, single anterior talar and calcaneal facets.

Skeletal pathology: Bilateral enthesopathies for *gluteus maximus* on femora, external obliques on iliac crest, *soleus* on tibiae, *biceps* on radii, *supinator* on left ulna, *deltoid* on humeri and Achilles tendons on both calcanei. Osteoarthritis of one left rib tubercle and osteophytosis of three right mid-thoracic rib tubercles. Enthesopathies of *costotransverse* ligaments on four right and four left ribs. Severe porosity of turbinate bones suggesting infection in the nasal region. Osteoarthritis of cervical spine and severe osteophytosis of the lower thoracic spine. Schmorl's nodes.

Grave 111

Male 46+ 178.3 ± 4.05 cm (humerus)

Location: In centre of nave. Intact burial. Burial position: Hands on pelvis. Probable date: 15th century. Coffin type: Wooden coffin. Additional material: Right fifth metatarsal, neonatal right tibia.

Preservation: Fair. >70%. Most of burial is present but torso and long bone ends are somewhat fragmented. Most neural arches are separated from the vertebral bodies. Bone surface condition good. No left lower leg or foot (proximal tibia and fibula only). Green staining of third left metacarpal and one proximal hand phalanx ? due to wearing a ring.

Bones present: Cranium and mandible, clavicles and scapulae, humeri, radii, ulnae, most hand bones, ribs and vertebrae, part of pelvic bones and sacrum, femora, patellae, left tibia and fibula, right proximal tibia and fibula, left foot.

Dentition:

<u>-76 / /321 | 12345xxx</u> np7x54321 | 12345x78

Dental pathology: Compensatory eruption; calculus.

Non-metric traits: Bilateral supraorbital notches, right double condylar facet, right mylohyoid bridge, single anterior talar and calcaneal facets.

Skeletal pathology: DISH affecting T5 - T11. Extraspinal manifestations consist of severe enthesopathies affecting the external obliques on both iliac crests and left *rectus femoris*, both patellar ligaments and *soleus* insertions on both tibiae. Moderate enthesopathies of *subscapularis* insertions on both humeri, *triceps* insertion on left proximal ulna, adductors on both femora and *costotransverse* insertions on 5 right and 5 left rib tubercles. Degeneration of articulation between manubrium and both first ribs and expansion of both medial clavicles. Fusion of right sacroiliac joint due to DISH. Osteophytosis of four right and 7 left rib tubercles. Severe enthesopathy of anterior talofibular ligament probably due to trauma. Osteoarthritis of cervical vertebrae and Schmorl's node of T1.

Grave 112

Male 36-45 years 171.5 ± 2.99 cm (femur + tibia)

Location: South-east chapel (west). Skull found detached so not on photograph. Burial position: Forearms folded across lower chest. Probable date: 14th century. Coffin type: Stone-built. Associated material: 5 non-human bones, one neonatal femur (distal half).

Preservation: Good. More than 70% of burial present. However, there are no facial bones or mandible. Black staining of anterior cranium. Bone is in good condition.

Bones present: Cranial vault, clavicles, scapulae, humeri, radii, ulnae, some hand bones, most ribs and vertebrae, pelvic bones, femora, patellae, tibiae, fibulae, most foot bones.

Non-metric traits: Right zygomatic foramen, ossicle at lambda, lambdoid ossicles (occipital bun), ossicles at asterion, foramina of Huschke, left mastoid foramen, left circumflex sulcus.

Skeletal pathology: Osteoarthritis of two right rib tubercles and osteophytosis of two left ones. Mid-shaft fracture of left fibula with incompletely remodelled callus

formation. Enthesopathies of *costotransverse* ligaments on two right and two left rib tubercles, for Achilles tendons on both calcanei, for *deltoid* on both humeri and on costal articulations of sternum. Degeneration of facets for first ribs on manubrium. Severe osteophytosis of lower thoracic and lumbar vertebrae.

Grave 113

Female 26+ No complete long bones

Location: Grave cut through 13th-century wall in north-east chapel. Skeleton in poor condition.

Burial position: Hands on pelvis, right elbow akimbo.

Probable date: 14th century.

Coffin type: None.

Preservation: Poor. 40-70% of burial present. Incomplete cranium, no right humerus. Lower limb bones are splintered, apart from left femoral shaft.

Bones present: Part of cranial vault and mandible, clavicles, left scapula, left humerus, ulnae (missing distal ends), radial shafts, some hand bones, a few fibs and vertebrae, pelvic fragments, left femoral shaft, fragments of right femur and tibiae, a few foot bones.

Non-metric traits: Left parietal foramen, accessory transverse foramen (C6).

Skeletal pathology: Osteophytosis of glenoid from left scapula, porosity and lipping of left medial clavicle. Osteophytosis and porosity of cervical vertebrae.

Grave 114

Male 36 - 45 years 162.6 ± 2.99 (femur + tibia)

Location: North-east chapel, near grave 113. Intact skeleton. 15th-century tile in grave.

Burial position: Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Preservation: Good. More than 70% of burial present. Bone condition good. Cranium fragmented. No mandible or maxilla, otherwise mostly complete.

Bones present: Fragmentary cranial vault, left mandibular ramus, clavicles, scapulae, humeri, radii, ulnae, some hand bones, most ribs and vertebrae, pelvic bones, femora, patellae, tibiae, fibulae, most foot bones.

Non-metric traits: Supraorbital foramina, left single zygomatic foramen, accessory transverse foramen, right Poirier's facet, single right inferior talar facet and absent right anterior calcaneal facet, double left inferior talar and anterior calcaneal facets.

Skeletal pathology: Enthesopathies for Achilles tendons on both calcanei, for talofibular ligaments on both distal fibulae, for *soleus* on both tibiae, for adductors and *gluteus maximus* on both femora, for *biceps* on both radial tuberosities, for extensors on both distal humeri and for *costoclavicular* ligament on left clavicle. Enthesopathies are also present at the *costotransverse* insertions on two right and four left rib tubercles and at the external oblique insertions on both iliac crests. Fusion of right sacro-iliac joint above articular surface. Degeneration of the medial and lateral ends of both clavicles with lipping and porosity, also of clavicular facet on the acromion of the right scapula. Osteophytosis of the right radio-ulnar articulation, of both first foot phalanges (distal articular surface), of one right and one left rib tubercles (porosity of three right and two left rib tubercles). Porosity of right clavicular facet on manubrium and calcification of costal cartilage at the joints between the ribs and the manubrium. Osteoarthritis of right wrist with eburnation of scaphoid. There is severe, well-healed periostitis in the middle third of the medial surface of the left tibia with a prominent bony exostosis in the centre. There is also a severe subperiosteal bony reaction on the proximal right fibula on its lateral surface. Spinal osteophytosis, Schmorl's nodes of T11-L1. Transitional vertebra at L1 creating six lumbar vertebrae and probably only eleven thoracic ones. The ligamentous ossification suggests early DISH.

Grave 115

Male 36-45 years 169.9 ± 4.05 cm (humerus)

Location: At western end of nave by southern edge. Head and upper torso missing. *Burial position:* Hands on pelvis.

Probable date: 15th century.

Coffin type: None.

Preservation: Fair. 40-70% present. No cranium, upper thoracic or cervical vertebrae. No left clavicle or scapula. Few hands and foot bones. Bone quality fair. Lower extremities very fragmentary.

Bones present: Right scapula, humeri, ulnae, left radius, a few hand bones, some ribs and vertebrae, fragmentary pelvic bones and femora, right patella, distal tibiae and left fibula, three foot bones.

Non-metric traits: Right circumflex sulcus, right septal aperture and supracondyloid process.

Skeletal pathology: Cortical defects at site of *teres major* insertions on both humeri, enthesopathies for interosseous ligaments on both pelvic bones, for *biceps femoris* on left pelvic bone and for *brachialis* on right humerus for *biceps* on left radial tuberosity. Severe osteophytosis of distal articular surface on right first metatarsal. Spinal osteophytosis, Schmorl's nodes (T7-12).

Grave 116

Male 46+ 167.8 ± 4.05 cm (humerus)

Location: At western end of nave near south edge. Close to grave 115. Intact burial. Tiles and pottery in grave fill. *Burial position:* Hands on pelvis. Feet crossed. *Probable date:* 15th century.

Coffin type: None.

Preservation: Fair. >70% present. Most of the bones are fairly well preserved with a complete cranium and mandible. However, the ribs are fragmented and there are some small miscellaneous fragments. Some long bone ends are broken.

Dentition: <u>no maxilla</u> np / / 5 4 3 2 / 1 2 3 4 5 6 7 np

Dental pathology: Calculus on biting surface of lower left molars.

Non-metric traits: Supraorbital notches, left parietal foramen, bilateral condylar canals, accessory transverse foramen (C5), right suprascapular foramen, right Poirier's facet, single right anterior calcaneal facet.

Skeletal pathology: Cranial vault and mandible thickened with disorganised new bone formation internally, as are left lateral clavicle and left scapula. New bone on distal end of both humeri and on humeral heads. New bone diffusely covering both pelvic bones, both femora, both patellae, upper part of right and entire left tibia. The fifth and sixth lumbar vertebrae, the right calcaneus and first metatarsal are both affected. Severe osteophytosis of right distal humerus with pseudarthrosis of medial epicondyle. Syperior dislocation of right humeral head impinging on acromion with eburnation. Osteoarthritis of left first carpo-metacarpal joint and of three distal interphalangeal joints. Osteoarthritis of all compartments of the right elbow ? secondary to avulsion of medial epicondyle. Osteoarthritis of right hip. Osteoarthritis of cervical and upper thoracic vertebrae, osteophytosis of the entire spine. <u>Paget's disease affecting cranium, left clavicle, both scapulae, both humeri, both pelvic bones, both femora, the left tibia, the proximal right tibia and both patellae.</u>

Grave 117

Male 26-35 years 173.4 ± 2.99 cm (femur + tibia)

Location: At southern end of east cloister walk near grave 40. In good condition.

Burial position: -

Probable date: 13th century.

Coffin type: Stone-built with slab base.

Preservation: Good. >70% present. Almost complete burial; excellent bone preservation.

Bones present: Cranium, mandible, clavicles, scapulae, humeri, radii, ulnar, most hand bones, ribs and vertebrae, pelvic bones, sacrum femora, right patella, tibiae, fibulae, most foot bones.

Dentition: <u>/765//////234567/</u> 87654321 | 12345678

Dental pathology: Smooth alveolar recession around maxillary molars.

Non-metric traits: Supraorbital notches, right asterionic bone, single anterior talar and calcaneal facets.

Skeletal pathology: Severe enthesopathies of Achilles tendons on both calcanei; moderate enthesopathies of adductors and gluteus maximus on femora, severe soleal and patellar tendon enthesopathy on left tibia and moderate on right. Severe periostitis diffusely distributed on medial aspect of left tibia, both porous and striated in nature.

Grave 118: Skull only excavated (but not sent for examination), rest of skeleton in poor condition.

Grave 119

Male 36 - 45 years 175.1 ± 4.32 cm (ulna)

Location: In grave below carved sandstone lid; in good condition. Tile. *Burial position:* Forearms crossed over chest.

Probable date: 15th century.

Coffin type: None, only lid remaining: decorated and chamfered.

Preservation: Good. >70% present. Some fragmentation of cranium, ribs and long bone ends.

Bones present: Cranium, mandible, clavicles, scapulae, humeri, ulnae, radii, most hand bones, part of manubrium and sternum, most ribs and vertebrae, pelvis, femora, patellae, tibiae, fibulae and most foot bones.

Dentition: x 7 6 5 4 3 2 1 | 1 / 3 4 5 6 7 8 8 x x / 4 3 / / | 1 / 3 4 5 6 7 8

Dental pathology: Smooth alveolar recession; enamel mounds.

Non-metric traits: Multiple left infraorbital foramina, large ossicle at bregma, right mastoid foramen, left double atlas facet, accessory transverse foramina, Poirier's facets, single inferior talar and absent anterior calcaneal facets.

Skeletal pathology: Porosity of both medial clavicles, well-healed striated periosteal reaction diffusely covering medial aspects of both tibiae, enthesopathies of patellar ligament on left patella, of Achilles tendon on left calcaneus, and of *costotransverse* ligament on three right and two left rib tubercles. Porosity of distal tibio-fibular ligament insertion on left fibula. Spinal osteophytosis, Schmorl's nodes of T4-L2.

Grave 120

Male 26-35 years 169.4 ± 4.32 cm (radius)

Location: In north-east chapel (east). Intact burial. Tile. Burial position: Hands crossed over chest. Probable date: 14th century Coffin type: Monolith. Associated material: two non-human bones. *Preservation:* Fair. More than 70% present. Cranium and ribs are fairly fragmented. No right femur apart from distal articular surface. Some fragmentation of long bone ends.

Bones present: Cranium and mandible, clavicles, scapulae, humeri, radii, ulnae, some hand bones, most ribs and vertebrae, pelvic bones, left femur, patellae, tibiae, fibulae and most foot bones.

Dentition: <u>//xx//////xx//</u> 876543//////////

Dental pathology: Lingual calculus, reversed occlusal plane.

Non-metric traits: Left supraorbital foramen, double left and single right zygomatic foramina, right parietal foramen, lambdoid ossicles, divided hypoglossal canals, double right foramen spinosum, left foramen of Huschke, right mylohyoid bridge. *Skeletal pathology:* Enthesopathies of four right and four left *costotransverse* ligaments on rib tubercles, for *costoclavicular* ligament on right clavicle, for *coraco-acromial* ligament on left acromion and for interosseous ligament on left pelvic bone. Exostosis on superior surface of second left rib. Spinal osteophytosis, Schmorl's nodes (T6-L2, L4).

Grave 121: Within sandstone coffin. Damaged - the few remaining bones discarded.

Grave 122

Male 46+ 174.7 ± 3.27 cm (femur)

Location: Outside church at western end near graves 123, 124, 125 and 126. Head and right shoulder missing.

Burial position: Hands on pelvis.

Probable date: -

Coffin type: None.

Associated material: Non-human mandibular condyle.

Preservation: Fair. 40 - 70% complete. No cranium, mandible, clavicles, proximal humeri or ribs; few vertebrae. Pelvis and long bone ends are badly fragmented.

Bones present: Parts of scapulae, humeri, radii, ulnae, most hand bones, vertebral fragments, pelvic bones, femora, patellae, tibiae, fibulae, most foot bones.

Non-metric traits: Vastus notches (?emarginate patella), double inferior talar and anterior calcaneal facets.

Skeletal pathology: Enthesopathies for common flexors and extensors on distal humeri, for *biceps* on radii and for *supinator* on ulnae. Severe enthesopathy for *triceps* on right ulna, for adductors and *gluteus maximus* on both femora for patellar ligament on both patellae, for *soleus* on both tibiae and for talofibular ligament on both distal fibulae. Well-healed fracture of fibula ? side and of one rib ? side. Osteophytosis of right acetabulum. Severe osteophytosis of lumbar vertebrae and osteoarthritis of right inferior facet joint of L2.

Grave 123

Male 46+ 167.3 ± 3.37 cm (tibia)

Location: Outside church at western end, near graves 122, 124, 125 and 126. Complete but skull and right shoulder clipped by drain. Burial position: Hands on pelvis. Probable date: -Coffin type: None. Associated material: one non-human bone, unnumbered radius. Preservation: Fair. More than 70% of burial present. Cranium, ribs and vertebrae

Preservation: Fair. More than 70% of burial present. Cranium, ribs and vertebrae fragmented. Most long bone shafts incomplete due to brittleness of bone.

Bones present: Cranium and mandible, clavicles, scapulae, humeri, radii (missing proximal ends), ulnae, most hand bones, most ribs and vertebrae, pelvis, femora, patellae, tibiae, fibulae, most foot bones.

Dentition:

Dental pathology: Compensatory eruption; caries and abscess left mandibular lateral incisor.

Non-metric traits: Left zygomatic foramen, right divided hypoglossal canal, right foramen of Huschke, right mastoid foramen, right circumflex sulcus, right Poirier's facet, double inferior talar and anterior calcaneal facets.

Skeletal pathology: Spondylolysis of fifth lumbar vertebra. Severe porosity of left medial clavicle and of opposing facet on manubrium. *Myositis ossificans* on distal right femur posteriorly with lateral deflection of shaft probably due to trauma. Porosity of both acetabula superiorly. Severe osteophytosis of one right and one left rib tubercles. Cortical deflect on articular surface of first right proximal foot phalanx. Enthesopathies of Achilles tendons on calcanei and patellar ligament on left patella. Osteoarthritis of cervical vertebrae. Spinal osteophytosis.

Grave 124

Indeterminate 7-9 years

Location: Outside church at western end near graves 122, 123, 125 and 126. Intact burial.

Burial position: Hands on pelvis.

Probable date: -

Coffin type: None.

Preservation: Fair. >70% present. Fragmentary cranium and ribs, most long bones broken. Bone condition good.

Bones present: Cranium and mandible, both scapulae, clavicles, humeri, radii and ulnae, most ribs and vertebrae, pelvic bones, both femora, tibiae, fibulae, most hand and foot bones.

Dentition: <u>u 6 // c 2 1 // 2 c / e 6 u</u> u 6 e d c / 1 | 1 2 c d e 6 u

Dental pathology: Deep palatal grooves on second maxillary incisors.

Grave 125

Indeterminate 46+ No complete long bones

Location: Outside church at western end near graves 122, 123, 124 and 126. Head and right torso missing - damaged by drains.

Burial position: Hands between tops of thighs.

Probable date: -

Coffin type: None.

Preservation: Poor. Less than 40% of burial present. Some hand bones, part of left humerus, radii and femora as well as a few rib and pelvic fragments and some long bone shaft fragments are all that remain.

Bones present: Part of left humeral shaft, fragments of radial shafts, a few hand bones, a few vertebral and pelvic fragments, parts of femoral shafts, right patella, part of left tibial shaft.

Skeletal pathology: Osteoarthritis of both hands including the first left carpometacarpal joint and the distal interphalangeal joints. Severe patellar ligament enthesopathy on right patella.

Grave 126

Male 26 - 35 years 172.5 ± 4.32 cm (ulna)

Location: Outside church at western end near graves 122, 123, 124 and 125. *Burial position:* Hands on pelvis.

Probable date: -

Coffin type: None.

Preservation: Fair. 40-70% of burial present. No cranium, clavicles, scapulae or right arm, no cervical or upper thoracic vertebrae. Some long bone ends fragmented and shafts split. Bone condition quite good.

Bones present: Left humerus (missing proximal end), left radius and ulna, right distal radius, most hand bones, a few ribs and vertebrae, pelvic bones; femora, tibiae, fibulae (all with fragmentary ends), most foot bones.

Non-metric traits: Single right and double left inferior talar and anterior calcaneal facets.

Skeletal pathology: Degenerative changes of both acetabula, enthesopathies of Achilles tendon on both calcanei and of *biceps* on left radial tuberosity. Osteophytosis of T12 to L4.

Grave 127

Male 36-45 years 173 cm ± 4.32 cm (ulna)

Location: In north-east chapel (east) between graves 128 and 141. Intact but fragile; skull disturbed by rabbits.

Burial position: Hands over lower chest, elbows splayed.

Probable date: -

Coffin type: -

Preservation: Fair. More than 70% of burial present. Almost complete burial. Cranial vault complete, long bone ends fragmented, as are ribs and vertebral neural arches. In general preservation is quite good.

Bones present: Cranial vault, maxilla and mandible, clavicles, scapulae, humeri, radii, ulnae, most hand bones, some ribs and most vertebrae, pelvic bones, femora, left patella, tibiae, fibulae, most foot bones.

Dentition: -76543/1|12-4xx7-87-54321|12345678

Dental pathology: Impacted lower third molars, over-eruption of left mandibular second molar.

Non-metric traits: Supraorbital notches, double right zygomatic foramina, parietal foramina, both foramina spinosum incomplete, right mylohyoid bridge, double inferior talar and anterior calcaneal facets.

Skeletal pathology: There are two small holes in the frontal bone and one in the parietal measuring 4, 3 and 2 mm in diameter. There is also a small hole in the centre of the frontal bone and a larger hole on the right squamous temporal measuring 10 x 6 mm. These are probably cystic. The outer table is very porous in the posterior region on both posterior parietals and the superior occipital. Enthesopathies for *deltoid* on both clavicles, for distal talofibular ligament on fibulae and for adductors on both femora. Moderately severe resolving periostitis (striated and porous on central part of interosseous surface and well-healed periostitis on medial aspect of right tibia. Degeneration of articulation for first rib on manubrium. Osteoarthritis of first metatarso-phalangeal joint. Osteophytosis of both distal femora, right proximal tibia and proximal right ulna. ? sacralisation of sixth lumbar vertebra.

Grave 128

Male 36-45 years 179 ± 3.27 cm (femur)

Location: In north-east chapel (east) between graves 127 and 137. Intact burial. *Burial position:* Hands on pelvis. *Probable date:* -*Coffin type:* - *Preservation:* Good. More than 70% of burial present. Excellent bone condition. Almost complete burial. No patellae.

Dentition: <u>87xx4321 | 123xx6x8</u> xxx54321 | 12345xx8

Dental pathology: Deep overbite, cingular wear, palatally erupted maxillary left canine.

Non-metric traits: Right supraorbital notch, left foramen, double right zygomatic foramen, parietal foramina, right foramen spinosum incomplete, right mastoid foramen, accessory transverse foramina, double inferior talar and anterior calcaneal facets.

Skeletal pathology: Degenerative change of acromioclavicular joints. Enthesopathies for deltoid on clavicles, for interosseous ligaments on pelvic bones, for Achilles tendons on both calcanei, for adductors and *gluteus maximus* on both femora, for *supinators on ulnae*, for *talofibular* and *tibiofibular* ligaments on both distal fibulae and for *costotransverse* ligaments on three right and one left rib tubercles. Osteophytosis on margins of both glenoid cavities and superiorly on left acetabulum, also on three right and one left rib tubercles. Degeneration of costal cartilage on both first ribs. Lipping on medial end of right clavicle. Spinal osteophytosis. Schmorl's nodes (T9, T10).

Grave 129

Female 18 - 25 years 153.1 ± 3.72 cm (femur)

Location: North-east chapel (east) near grave 131. Intact burial. Burial position: Left forearm across waist, right across chest. Probable date: -Coffin type: -Associated material: Right proximal femur of newborn infant. Preservation: Good. More than 70% of burial present. Excellent bone preservation and very complete. Bones present: Almost complete cranium, maxilla and mandible, clavicles, scapulae,

humeri, radii, ulnae, most hand bones, manubrium and sternum, ribs, vertebrae, pelvis, femora, tibiae, fibulae (missing proximal ends), most foot bones.

Dentition: <u>87x54321 |/2345678</u> 8 /xx4321 |12345x78

Dental pathology: Gross caries in left molars, very short condyles.

Non-metric traits: Supraorbital notches, zygomatic foramina, ossicle at lambda, lambdoid ossicles, right ossicle at asterion, accessory transverse foramina, lateral tibial squatting facets, double inferior talar and anterior calcaneal facets.

Skeletal pathology: Spina bifida occulta of S3 to S5. S1 and S2 fused but with gap. Atlas unfused at apex. Enthesopathies for *gluteus maximus* on femora.

Grave 130

one Male, one Female 26+, 26+ No complete long bones

Location: In north-east chapel (east) between graves 137 and 138. Intact burial!! *Burial position:* Hands on or near pelvis; one forearm across waist. *Probable date:* -

Coffin type: -

Preservation: Poor. Less than 40% of each burial present. At least two individuals are represented; the cranium is that of an adult female whereas the postcranial is from a robust male.

Bones present: Fragmentary cranial vault, maxilla and mandible, incomplete clavicles and scapulae, parts of shafts of humeri, ulnae, radii, femora, and tibiae, a few vertebrae and bones from hands and feet.

Dental pathology: Root caries; chiselled upper incisors.

Skeletal pathology: Biceps enthesopathy on left radial tuberosity, pronounced *pectoralis major* and *deltoid* insertions. Osteophytosis of two cervical vertebral bodies.

Grave 131

Female 26-35 147.8 ± 4.24 cm (radius)

Location: In north-east chapel (east) near grave 129. Fragmentary burial. *Burial position:* Arms folded over chest.

Probable date: -

Coffin type: -

Preservation: Poor. 40-70% of burial present. Only a few fragments of cranium, part of mandible, long bone shafts, fragmentary ribs, vertebral bodies, hand and foot bones remain. Bone quality fair. The bone is dark in colour.

Bones present: A few cranial fragments, mandible, fragments of both clavicles and scapulae, left humerus (with distal end), left radius and ulna, part of right radius and ulna, some hand bones, ribs, vertebrae, parts of both pelvic bones and sacrum, fragmentary femora, tibiae, fibulae, left patella and some foot bones.

Dentition:

Dental pathology: -

Non-metric traits: Lateral squatting facets, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteophytosis and porosity of one right and one left rib tubercle. Achilles tendon enthesopathy of right calcaneus. Schmorl's nodes (T12 and L1).

Grave 132S (57)

Female 36-45 No complete long bones

Location: In north-east chapel (east), between 132N and 140.

Burial position: Arms at sides.

Probable date: -

Coffin type: None.

Preservation: Poor. 40-70% of burial present. Bone quality quite good but skeleton badly fragmented. All elements are fragmentary apart from vertebrae. No hand bones or left lower leg.

Bones present: Fragmentary cranial vault, mandible, clavicles, scapulae, shafts of humeri, radii and ulnae, some ribs, most vertebrae, pelvic bones, shafts of both femora, left tibia and fibula, a few foot bones.

Dental pathology: Severe attrition.

Non-metric traits: Supraorbital notches, left foramen of Huschke,.

Skeletal pathology: Severe subperiosteal reactive new bone formation on all surfaces of left tibia. It is both porous and striated and has caused considerable thickening of the bone. Disruption of the proximal articular surface of the left ulna with new bone formation. ? Septic arthritis or fracture. Six lumbar vertebrae. Spinal osteophytosis. Schmorl's nodes (T5-L1, L3 and L4).

Grave 132N (58)

Male 26+ No complete long bones.

Location: In north-east chapel (east) between graves 132S and 141. In poor condition. *Burial position:* Arms at sides.

Probable date: -

Coffin type: No.

Preservation: Poor. 40-70% present. The bone is very badly degraded and incomplete with a friable texture. By contrast the cranial bone is thin and brittle. The teeth are also badly degraded. Mandible thick and its surface is degraded.

Bones present: Fragmentary cranium and mandible, parts of scapulae, humeral radial and ulna shafts two hand bones, two vertebrae, part of pelvis, femoral shafts, patellae, tibial and fibular fragments, a few foot bones.

Dentition: <u>- 6 - - - - | 1 2 3 - - - -</u> 8 7 - 5 - - - | - - 3 4 5 - - -

Dental pathology: Severe taphonomic change. *Non-metric traits:* Single inferior talar and anterior calcaneal facets. *Skeletal pathology:* Slight patellar ligament enthesopathies.

Grave 133

? Male 26+ No complete long bones

Location: In north-east chapel (east). In poor condition.

Burial position: -

Probable date: -

Coffin type: -

Associated material: Long bone shaft from juvenile (? humerus), shafts of two adult left humeri (one with distal end), two femur shaft segments and right tibial shaft from a large individual.

Preservation: Poor. 40-70% of burial present. Disturbed burial. Fragmentary cranium, long bone shafts and a few other bones. Cranial vault fragments are thin and have a female appearance. Postcranial very robust.

Bones present: Fragmentary cranial vault and mandible, right clavicle and scapula, right humeral, both radial and ulnar shafts, left distal humerus. One hand bone. A few rib and vertebral fragments. Parts of pelvic bones, femoral tibial and fibular shafts, right patella, some foot bones.

Dentition:

<u>-----321 | 1234567</u>-

Dental pathology: Severe taphonomic change.

Skeletal pathology: Severe sub-periosteal reaction of a striated nature diffusely distributed on distal half of medial surface of right tibia. Similar lesion on distal right fibula.

Grave 134

Female 26-35 164 ± 4.24 cm (radius)

Location: In north-east chapel (east) near grave 143. Disturbed in area of lower vertebrae. Disarticulated bone in fill.

Burial position: Probably hands over pelvis.

Probable date: -Coffin type: -

Associated material: Right humerus (unfused at proximal end), left humerus (in three parts, without distal end), juvenile left humerus, lumbar vertebra, first rib (with unfused head), first rib segment.

Preservation: Good. More than 70% present. No cranium. Bone condition good. Long bone ends fragmented.

Bones present: Mandible. Both clavicles and scapulae, both humeri (missing proximal ends), both radii and ulnae, a few hand bones, most ribs and vertebrae, pelvic bones, both femora, tibiae and fibulae, some foot bones.

Dentition:

Dental pathology: Small mandibular tori.

Non-metric traits: Accessory transverse foramen, circumflex sulci, right lateral tibial squatting facet (also on right talus), single right inferior talar facet, absent anterior calcaneal facet.

Skeletal pathology: Transitional vertebra at T12. Striated subperiosteal reaction diffusely distributed on medial surface of both tibiae. It is more severe on the distal end of the left tibia. Periostitis on one fibula fragment. Enthesopathies for deltoid and conoid ligament on both clavicles. Porosity and osteophytosis of twelfth left rib head.

Grave 135N

? Male26 - 35 yearsNo complete long bones

Location: At northern end of north-east chapel (east) near grave 135S. *Burial position:* Hands on pelvis. *Probable date:* -*Coffin type:* -

Preservation: Poor. 40-70% complete. No left forearm or hand. No cranium or upper arm bones. Long bone ends fragmentary. No ribs and only a few vertebral fragments. *Bones present:* Right radius and ulna, some right hand bones, some pelvic fragments, both femoral tibial and fibular shafts (right ones have distal ends), some foot bones. *Skeletal pathology:* Pronounced soleal lines on both tibiae.

Grave 135S

Female 26-35 154 ± 4.24 cm (radius) *Foetus*: 34 weeks ± 2.08 weeks

Location: At northern end of north-east chapel (east) next to 135N. Found with foetal skeleton within pelvis. Foetal skull lay towards right of pelvis.

Burial position: Hands folded on chest. *Probable date:* -*Coffin type:* -

Preservation: Good. >70% complete. Cranium almost complete, post-cranial skeleton is also virtually complete. Bone condition excellent. Foetus found *in utero*.

Bones present: Cranium, mandible, clavicles, scapulae, humeri, ulnae, radii, most hand bones, ribs and vertebrae, pelvic bones, femora, tibiae, fibulae, most foot bones. *Foetal bones present:* Cranium, mandible, scapulae, humeri, ulnae, some ribs and vertebrae, iliac bones, left femur.

Dentition: 8 7 x / 4 3 / 1 | 1 2 3 4 5 x 7 8 8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 x 8

Dental pathology: Gross caries, gross alveolar loss, possible cyst.

Non-metric traits: Metopic suture, supraorbital notches, right supraorbital foramen, ossicle at lambda, lambdoid ossicles, left foramen spinosum incomplete, mastoid foramina, right posterior atlas bridging, accessory transverse foramen, right circumflex sulcus, third trochanters, single left inferior talar and anterior calcaneal facets, accessory sacral facets.

Skeletal pathology: Slight, diffuse, well-healed periostitis on medial aspect of right tibia; moderate, diffuse, striated and porous periostitis on medial aspect of left tibia. Small cortical defect with porous base on proximal articular surface of first metatarsal. Osteophytosis and porosity of left 12th rib head, small cortical defects in *teres major* insertions on both humeri. Pronounced *pronator quadratus* insertions on both ulnae. Osteophytosis of a few thoracic vertebrae, Schmorl's nodes (T5, T11 and T12).

Grave 136

Indeterminate 8 - 9 years

Location: In north-east chapel (east) near grave 133. Burial position: Hands crossed over waist. Probable date: -Coffin type: -Preservation: Good. More than 70% complete.

Preservation: Good. More than 70% complete. No distal tibiae or feet. Bone condition very good. Cranium complete. Patchy dark staining of skull.

Bones present: Cranium, mandible, clavicles, right scapula, humeri, radii, ulnae, some hand bones, ribs and vertebrae, most pelvic bones, femora, proximal tibia and fibulae.

Dentition: u 6 e 4 c 2 1 | 1 2 c d e 6 uu 6 e d c 2 1 | 1 2 c d e 6 u

Dental pathology: Caries in right maxillary deciduous second molar.

Skeletal pathology: Deep cortical defects at insertions of *teres major* on humeri, more severe on right than left.

Grave 137

Male 36-45 168.3 ± 3.37 cm (tibia)

Location: In north-east chapel (east) between 128 and 130. Skull damaged. *Burial position:* Hands on pelvis.

Probable date: -

Coffin type: -

Associated material: Right humeral shaft and clavicles from a smaller individual.

Preservation: Fair. 40-70% of burial present. Left femur and tibia missing. Most cranial bones absent. Bone condition fair. Fragmentation of long bone ends. Much of the right side of the body is present but little of the left.

Bones present: Occipital bone, clavicles, parts of scapulae, both humeri, right radius and ulna, fragments of left ulna, two hand bones, a few ribs and vertebrae, right pelvic bone and fragment of sacrum, right femur, patella, tibia, fibula and most foot bones, left fibula and foot bones.

Non-metric traits: Accessory transverse foramen, right vastus notch, right lateral squatting facet, double left inferior talar and anterior calcaneal facets, absent right anterior calcaneal facet.

Skeletal pathology: Severe enthesopathy for patellar ligament on right patella and for *soleus* on right tibia, also for plantar *calcaneo-navicular* ligament on both naviculars and on lateral cuneiforms; Achilles tendon enthesopathies on both calcanei. Porosity at insertions for distal *tibiofibular* ligament on both fibulae. Osteophytosis on distal articular surfaces of both first metatarsals. Moderate well-healed periostitis on medial surface of right tibia. Cortical defect for *teres major* on right humerus.

Grave 138

Female 26 - 35

Location: At northern side of north-east chapel (east). Disarticulated skull - charnel not retained.

Burial position: -

Probable date: -

Coffin type: -

Associated material: Cranium and mandible labelled 'Halton hill'.

Preservation: Good but less than 40% of burial present.

Bones present: Well preserved cranium with more fragmentary maxilla and mandible plus a few miscellaneous fragments of cortical bone.

Dentition: 8765 - - - |--|/x78- - - 4 - 21 | 1 2 3 4 5 x 7 np *Dental pathology:* Maxillary canines show medio-palatal inclination. *Non-metric traits:* Supraorbital notches, parietal foramina, right foramen of Huschke.

Grave 139

? Female26-35No complete long bones

Location: In north-east chapel (east) between graves 120 and 143. Lower body only. Burial position: -Probable date: -Coffin type: -Associated material: About ten slivers of non-human bone. Preservation: Fair but less than 40% of burial present. Bone condition good. Fragmented long bone ends. Bones present: Some lumbar vertebrae, pelvis, parts of tibiae and fibulae and feet are all that remain.

Non-metric traits: Left lateral tibial squatting facets, single inferior talar and anterior calcaneal facets.

Grave 140

Female 26 - 35 years No complete long bones

Location: At southern end of north-east chapel (east) near grave 132S.

Burial position: Arms at sides.

Probable date: -

Coffin type: -

Associated material: Atlas vertebra, non-human rib.

Preservation: Poor. 40-70% of burial preserved. Fragmentary cranium, long bone shafts without ends and incomplete vertebrae. Most upper limb bones missing.

Bones present: Cranial vault, zygomatic bones, mandible, parts of clavicles and scapulae, left radial and ulnar shafts, a few hand bones, a few rib and vertebral fragments, parts of pelvic bones, shafts of femora, tibiae, fibulae, some foot bones.

Dentition: no maxilla 8 7 x / / / / / / / 5 6 7 8

Dental pathology: Moderate attrition.

Non-metric traits: Supraorbital notches, right foramen of Huschke, single inferior talar and anterior calcaneal facets.

Skeletal pathology: Moderate, well-healed periostitis on distal halves of both tibiae. Pronounced conoid ligament insertions on both clavicles. Porosity of articular facets on one thoracic vertebra.

Grave 141

Female 46+ No complete long bones.

Location: In north-east chapel (east) between graves 127 and 132N.

Burial position: Hands over tops of thighs.

Probable date: -

Coffin type: -

Preservation: Poor. 40-70% of burial present. The cranium, ribs, pelvis and long bones are very badly fragmented. The cranium shades from very light on the left side to dark on the right. Many pieces of long bone are cut to shreds and unidentifiable. No articular surfaces preserved from one piece of acetabulum.

Bones present: Part of cranium, maxilla and mandible. Left clavicle, part of left scapula, left humeral, radial and ulnar shafts, a few hand bones, vertebral body and pelvic fragments, parts of shafts of femora, tibiae and fibulae, some foot bones.

Dental pathology: Approximal wear on left mandibular premolars.

Non-metric traits: Left supraorbital foramen, left foramen spinosum incomplete, single left inferior talar and anterior calcaneal facets.

Skeletal pathology: Button osteoma 5 mm in diameter in centre of left side of frontal bone. Porosity at *deltoid* insertion on left clavicle. *Hyperostosis frontalis interna* on internal surface of frontal bone. Osteoarthritis of cervical vertebrae.

Grave 142

Indeterminate Adult No complete long bones

Location: Lower legs and feet alone preserved.

Burial position: -

Probable date: -

Coffin type: Stone-built.

Preservation: Fair. Less than 40% of burial present. Only lower legs and feet present. Long bone ends fragmented. Bone is in fairly good condition.

Bones present: Distal femora, patellae, tibiae, fibulae, most foot bones.

Non-metric traits: Single inferior talar and anterior calcaneal facets.

Skeletal pathology: Osteophytosis of both patellae, of left distal femur, of right proximal tibiae and surrounding distal articular surface of left first metatarsal.

Enthesopathies for Achilles tendon on calcanei. Slight, well-healed periostitis on medial aspects of both tibiae.

Graves 143 and 144: in north-east chapels but not sent for analysis.

Charnel deposit (NP71, 2, 3)

MNI: 10 + two .

This deposit consists of ten almost complete crania, three of which are dark in colour.

Cranium 1: Almost complete cranium missing small part of left frontal bone and left orbital roof. ? Male.

Cranium 2: Consists of frontal, both parietals and occipital bone and is dark in colour. There is an ossicle at the apex of the sagittal suture and others also in the sagittal. Unfused sutures. Young individual. Female appearance.

Cranium 3: Dark-coloured cranium consisting of posterior part of frontal, left parietal and most of right parietal and occipital bones. There is a large postmortem hole in the posterior parietal and occipital bones. Includes part of base of skull and sphenoid. ? male.

Cranium 4: Parts of both parietals fused to upper part of occipital bone.

Cranium 5: Occipital bone fused to posterior part of both parietals.

Cranium 6: Upper part of occipital fused to posterior parietals and fragment of transverse sinus.

Cranium 7: Incomplete occipital bone.

Cranium 8: Upper part of occipital fused to posterior parietals.

Cranium 9: Incomplete occipital bone.

Cranium 10: Unfused occipital bone.

Other skeletal elements: Left temporal bone Left temporal bone Right sphenoid Right frontal and anterior parietal bones Part of right frontal with orbital roof and part of sphenoid attached Part of frontal including both supraorbital ridges Part of right frontal bone including lateral part of orbital roof 5 large frontal fragments 17 smaller fragments of cranial vault Central part of mandible from large individual 11 small miscellaneous fragments Right and left edentulous maxillae with a few anterior tooth sockets. The one is very thin and osteopenic.

Right mandible in two pieces with very worn second and third molars; left mandibular ramus

Part of left scapula with glenoid cavity and lateral border

Right proximal radius from a large individual

Long bone fragment