

**Wilton Autos, Wilton (60515)**  
**Human Bone Publication Report**

August 2008

immature individuals: long bone measurements consistently underaging compared with teeth by gen. 2 years (younger tends to be less, e.g. neonates OK, y.infants .5 yr. etc.; max. by 3 yr.)

tooth loss giving skewed impression of age; early tooth loss due to caries

none of males have strong nuchal crests; skull traits gen. not strongly marked. Mastoid ps all fairly large – not reliable variation Body size & robusticity more indicative.

Several cases metopic sutures & ossicles at lambda

## **Wilton Autos, Wilton (60515)**

### **Human Bone Report for Assessment**

Jacqueline I. McKinley  
August 2008

Human bone from 126 contexts (46 articulated, 80 disarticulated) was subject to analysis. The majority of the material derived from a c. 6.5 x 6m area in the south-west corner of the excavated area; one context (disarticulated bone) derived from a modern feature in evaluation Trench 1 and four (one articulated bone, three disarticulated) from the watching brief undertaken to the south of the current site.

The disarticulated bone from c. 50 contexts in the excavation all derived from the same cemetery soil, group 184, and have all been recorded together for the purposes of this report.

#### *Methods*

Articulated remains were subject to full analysis with limitations on certain areas of data collection imposed but time constraints. The disarticulated remains were subject to minimum number counts (MNI) according with methods outlined in McKinley 2004. Age was assessed from the stage of tooth and skeletal development (Beek 1983; Scheuer and Black 2000), and the patterns and degree of age-related changes to the bone (Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (Bass 1987; Buikstra and Ubelaker 1994).

#### **Results**

A summary of the results from analysis of the articulated remains is presented in Table 1.

A MNI of 73 individuals are represented including a broad age range from 19 week foetal to older adult. The proportion of immature individuals is high, being significantly greater amongst the disarticulated remains (64% compared with 35% adults) than within the articulated bone assemblage (44% immature compared with 56% adult). The number of males amongst the adults is slightly higher than the number of females (58% and 42% of adults respectively).

A range of pathological conditions are present. There are high rates of dental disease suggestive of a poor quality diet with a low meat protein content, exacerbated by poor dental hygiene and possibly sugar consumption. Juvenile stress indicators do not indicate that those who survived childhood were subject to a compromised diet or frequent illness. Fractures appears to have been relatively uncommon but two legs fractures with associated ankylosis indicate falls with major forceful impacts. Infections, included cases of sinusitis and osteomyelitis, the latter possibly linked to syphilis. Parasitic infection is also indicated by the presence of a hydatid cyst (indicative of tapeworm infestation). Lesions in one cervical vertebra demonstrate at least one individual suffering from a soft tissue tumour. Other lesions are generally degenerative in nature, indicative of osteoarthritis and possibly rheumatoid arthritis, and physical stress indications of age-related wear-and-tear.

There are few human bone assemblages which can be securely dated to the 16<sup>th</sup> or 17<sup>th</sup> centuries (Church of England & English Heritage 2005, 47) which makes this assemblage of particular interest at both a local and regional level. The demographic, pathological and (albeit limited) anthropological data recovered will enable useful

comparisons with existing data to be made to help assess the social and economic context of the individuals buried in this semi-urban 17<sup>th</sup> century churchyard. Documentary data pertaining to the economic background of the parish and its inhabitants will assist in interpreting the likely social standing of those buried here (in the unlikely event that we have the time & money to do so!).

Further detailed site data will be required before the final MNI can be calculated, together with a more accurate assessment of the demographic make-up of the assemblage.

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| context      | cut  | quantification | age/sex                                 | pathology  |
|--------------|------|----------------|---|--|
| 105          | 104  | c. 55%         | adult c. 30-35 yr. male                 | amtl; caries; abscesses; hypoplasia; calculus; Sch – 2T, 1L; op – T9-10 bsm, right hip; pitting – right sterno-clavicular; plastic changes – left ilium; poliomyelitis? (left)   |
| 106          | 104R | c. 40% a.u.l.  | adult c. 40-50 yr male                  | displaced prox. tibia/fibula joint   |
| 171          | 169  | c. 30% s.a.u.  | juvenile/subadult c. 12-13 yr<br>??male | caries; hypoplasia; calculus; <i>cribra orbitalia</i> ; mv – wormian bone  |
| 173          | 172  | c. 98%         | juvenile c. 6-7 yr.                     | calculus; <i>cribra orbitalia</i> ; periosteal new bone – tibiae; mv – ossicle at lambda, wormian bone   |
| 233          | 232  | c. 97%         | adult c. 35-45 yr. ?female              | amtl; caries; abscesses; calculus; endocranial new bone; osteoarthritis – 4 costo-vertebral; op – 2T & L1-5 bsm, left knee, both hips; pitting – 1T & 2L ap, right acromio-clavicular, right hip; enth – iliac crest, calcanea, patellae; exostoses – left ulna  |
| 237          | 240R | c. 35%         | adult c. 30-35 yr. male                 | amtl; caries; abscess; hypoplasia; calculus  |
| 241          | 240  | c. 98%         | juvenile c. 5-6 yr.                     | caries; <i>cribra orbitalia</i> ; ?infection – right ankle joint; mv – ossicle at lambda, wormian bones  |
| 248          | 247  | c. 90%         | adult c. 35-45 yr. male                 | amtl; caries; abscesses; hypoplasia; calculus; periosteal new bone – maxilla; <i>osteochondritis dessicans</i> ; Sch – T6-12; op – 1T tp, left hip, 2 distal IP joints (hand), 3 costo-vertebral; pitting – right hip, left acromio-clavicular; enth – patellae, calcanea; mv – metopic suture, ossicle at lambda, wormian bones, S1 lumbarised  |
| 251          | 250  | c. 80%         | neonate c. 1-2 weeks                    |  |
| 253          | -    | c. 25% s.a.u.  | infant c. 1.5-2.5 yr.                   |  |
| 258          | 257  | c. 42% a.u.l.  | adult c. 35-45 yr.                      | periosteal new bone – right tibia; op – left knee, left 2nd T-MtT, right hip; enth – patellae, calcanea  |
| 270          | 269  | c. 99%         | adult c. 35-45 yr. ?male                | amtl; caries; abscesses; calculus; osteoarthritis - 3 costo-vertebral, L5, right hip; periosteal new bone – manubrium, ribs, right pubic crest, left clavicle, scapula, left 5 <sup>th</sup> metatarsal; fracture – radius; osteomyelitis – femoral, tibiae & fibulae shafts (?syphilis); Sch – T8-10; ddd – 3C, L5-S1; op – 1C & all T-L bsm, knees, left ankle & tarsals, left wrist, both shoulders, right elbow, both hips, 2 left distal IP joints (hand), 2 right carpals; pitting acromio- & sterno-clavicular joints, left knee, 3 costo-vertebral; enth – ulna, calcanea; mv – <i>os acromialie</i> |
| 276          | 275  | c. 99%         | adult c. 18-20 yr. male                 | caries; abscesses; calculus; Sch – T12; op – distal IP joint (hand); hyper-porosity at bregma; periosteal new bone – left tibia; surface defects – C aps, right dorsal calcaneum; mv – M3s absent, cartilaginous coalition left 3 <sup>rd</sup> C-MtC  |
| 327          | 419  | c. 47% a.u.l.  | juvenile c. 5-7 yr. ??male              |  |
| 340          | 339  | c. 55%         | neonate c. 2-3 weeks<br>??female        |  |
| 372          | 371  | c. 85%         | adult c. 30-35 yr. female               | amtl; caries; abscesses; calculus; hypoplasia; osteoarthritis – 12 <sup>th</sup> costo-vertebral; calcified cartilage; periosteal new bone – tibiae, fibulae, left calcaneum; juxta-articular erosions – prox. humerus; op – 2C, T4-12, L3-S1 bsm, knees, ankles, 2 left tarsals, right distal IP joint (foot), left shoulder & elbow; pitting – left sterno- & acromio-clavicular; enth – distal humerus, patellae; exostoses – left calcaneum, right 1 <sup>st</sup> MtT; surface defects – anterior patellae, right inferior-dorsal; mv – M3s absent, cervical rib, 4 lumbar vertebrae 5L/S1same          |
| 407<br>?=607 | 406  | c. 30% l.      | adult >25 yr. male                      | fracture (with ankylosis) – left fibula; surface defects – anterior patellae, dorsal calcanea; juxta-articular erosions – left 1 <sup>st</sup> MtT, Left 1 <sup>st</sup> MtT-P; op – knees, left Mt-P joint; enth – calcanea   |
| 453          | 452  | c. 30% a.u.l.  | neonate c. 3 months                     | periosteal new bone – fibulae  |

| context | cut | quantification | age/sex                        | pathology   |
|---------|-----|----------------|--------------------------------|---|
| 509     | 508 | c. 45% a.u.l.  | infant/juvenile c. 4-6 yr.     |   |
| 513     | 512 | c. 28% s.a.u.  | adult c. 18-23 yr. female      | amtl; caries; abscess; hypoplasia; calculus; periodontal disease; periosteal new bone – mandible, maxilla; osteoarthritis – T4-5; op – C1-2; mv – ossicle at lambda, wormian bones  |
| 524     | 523 | c. 99%         | adult c. 30-35 yr. male        | amtl; caries; abscesses; hypoplasia; calculus; periodontal disease; calcified cartilage; ivory osteoma; osteoarthritis – T6-8, L2-3, cost-vertebral; ddd – C3, T9-11; Sch – T4, T6-12; surface defects – left glenoid, left 4 <sup>th</sup> MtT; juxta-articular erosions – MtT; op – T5-12 & S1 bsm, ankles, left Mt-P joint, right shoulder, hip & knee; pitting – right hip, sterno- & acromio-clavicular; exostoses – right tibia; enth – calcanea; mv – <i>os acromialie, spina bifida occulta</i>   |
| 529     | 530 | c. 97%         | foetal/neonate 40 weeks/birth  |   |
| 533     | 532 | c. 98%         | adult c. 20-25 yr. male        | amtl; caries; hypoplasia; calculus; Sch – T4-12, L4-5; op – L5-S1 bsm, hips, left knee, costo-vertebral; pitting – costo-vertebral; enth – left navicular; mv – L5 semi-sacralised, cartilaginous coalition left 3 <sup>rd</sup> C-MtC  |
| 536     | 535 | c. 30%         | juvenile c. 10-12 yr.          | hypoplasia; calculus; <i>cribra orbitalia</i> ; mv – wormian bone   |
| 539     | 538 | c. 45% a.u.l.  | infant c. 3-5 yr.              |   |
| 548     | -   | c. 48%         | juvenile c. 7-8 yr. ??male     | calculus; mv – metopic suture   |
| 549     | -   | c. 12%         | infant c. 4-5 yr.              | caries  |
| 559     | 558 | c. 98%         | adult c. 35-45 yr. male        | amtl; caries; abscesses; hypoplasia; calculus; <i>cribra orbitalia</i> ; osteoarthritis – T12, left costo-vertebral; ?healed cut – left rib; eburnation – right humerus lesser tubercle; ddd – C3-5, T12, 1L; op – hips, right ankle, shoulders, wrists, right elbow; pitting – right knee, costo- & acromio-clavicular; exostoses – right tibia; enth – right distal tibia, calcanea   |
| 562     | 561 | c. 98%         | adult c. 40-55 yr. female      | amtl; caries; abscesses; calculus; calcified cartilage; surface erosion – left rib shaft; ?fracture – right fibula; periosteal new bone – right distal radius & ulna, tibiae, fibulae; osteoarthritis – 10 <sup>th</sup> costo-vertebral, L1 & 4; ddd – C3-7, L5-S1; Sch – T8; pitting – temporo-mandibular, left knee, hips, right MtT-P joint, right MtC-P joint; juxta-articular erosions – hands (?some rheumatoid); new bone – prox. femora; op – knees, MtT-P joint, shoulders, elbows, hips, prox. IP joint (hand); enth – distal humerus, left prox. ulna, patellae, calcanea; exostoses – left prox. fibula; mv – metopic suture |
| 573     | -   | c. 25% s.a.u.  | adult c. 35-50 yr. female      | amtl; abscess; hypoplasia; calculus; fracture – nasal bone; periosteal new bone – visceral rib; osteoarthritis – C4-5, T1-2, right occipital condyle; ddd – C3-5, C7; op – left shoulder & costo-vertebral; pitting left costo-vertebral; mv – metopic suture   |
| 582     | 581 | c. 35% a.l.    | juvenile/subadult c. 11-14 yr. | mv – <i>spina bifida occulta</i>  |
| 589     | 588 | c. 50% s.a.u.  | adult c. 30-40 yr. female      | amtl; caries; abscesses; apical cysts; calculus; sinusitis (?secondary) - left antrum; periosteal new bone – left maxilla; calcified cartilage; Sch – L3-4; op – C1-2, T7-12 bsm, right costo-vertebral; mv – <i>os acromialie</i> (bi-)  |
| 592     | 591 | c. 60% a.u.l.  | adult c. 35-45 yr. male        | fracture (with ankylosis) – left leg; osteoarthritis – 12 <sup>th</sup> costo-vertebral, left wrist; periosteal new bone – left tibia & fibula; Sch – 2T, 2L; op – T9-S1 bsm, knees, left ankle & tarsals, hips, right prox. IP joint (foot), left shoulder & elbow, hands, left costo-vertebral; pitting – hips, right costo-vertebral; enth – right carpal, patellae, left fibula, calcanea, right 1 <sup>st</sup> prox. phalanx (foot); surface erosions – MtT; new bone – prox. femur   |

| context      | cut | quantification | age/sex                       | pathology  |
|--------------|-----|----------------|-------------------------------|--|
| 602          | -   | c. 30% s.a.u.  | adult c. 35-45 yr. female     | amtl; caries; abscesses; calculus; <i>cribra orbitalia</i> ; soft tissue tumour – C3; osteoarthritis – 1 <sup>st</sup> costo-vertebral, T3-4; op – T1-4 bsm, left shoulder; pitting – temporo-mandibular, left acromio-clavicular; enth – C2; mv – M3s absent  |
| 607<br>?=407 | 606 | c. 8% a.u.     | adult c. 25-45 yr. male       | osteoarthritis – 11-12 <sup>th</sup> costo-vertebral; op – 2Tbsm, right elbow, right MtC-P joint   |
| 617          | 616 | c. 30% l.      | adult c. 20-35 yr. male       | op – left knee; enth – patellae, left tibia, calcanea; surface defect – 1 <sup>st</sup> MtT-P  |
| 620          | 619 | c. 99%         | adult c. 40-45yr female       | amtl; caries; abscesses; hypoplasia; calculus; calcified cartilage; hydatid cyst; osteoarthritis – T4-5; Sch – T5-11; ddd – T7; op - hips, knees, right MtT-P, left carpal, right shoulder & elbow, right prox. IP (hand), costo-vertebral; pitting – left hip, costo-vertebral; enth – patellae, calcanea<br>surface defects – calcanea posterior, 1 <sup>st</sup> prix. phalanges (foot); mv – metopic sutures, M3s absent, occipital bunning, ossicle at lambda, wormian bones                                  |
| 626          | 625 | c. 98%         | adult c. 40-50 yr. ?female    | amtl; caries; impaction – max. left canine; calculus; sinusitis (bi-); ivory osteoma; endosteal new bone; new bone – metatarsal articular surfaces; osteoarthritis – right costo-vertebral; op – C1, T2-11, L1-S1 bsm, knees, hips, right shoulder & elbow, left MtT-P, right sterno-clavicular, costo-vertebral; pitting – right acromio-clavicular, T4-5 ap; enth – iliac crest, right olecranon, prox. femora, calcanea, metatarsals; juxta-articular erosions – metacarpal; mv – metopic suture, wormian bones |
| 642          | 641 | c. 99%         | adult c. 45-55 yr. female     | amtl; caries; abscess; calculus; osteoarthritis – 11 <sup>th</sup> costo-vertebral; periosteal new bone – tibiae, fibulae; Sch – T6-12, L2; ddd – C3-6, 4T, L2; op – C1-2, 4T & S1 bsm, knees, hips, wrists, left shoulder, left MtC-P, right hand, right costo-vertebral; pitting – 1st costo-vertebral, C2 ap, right temporo-mandibular; costo- & sterno-clavicular joints, costo-vertebral; enth – distal humerus, patellae, tibiae, calcanea, right navicular & cuneiforms; mv – occipital bunning             |
| 647          | 646 | c. 12% a.u.    | adult c. 35-55 yr. ?female    | osteoarthritis – right costo-vertebral; ddd – T4-5; new bone/fusion – T4-12; pitting - 1 <sup>st</sup> costo-vertebral, right sterno-clavicular; op – left costo-vertebral, 2C, T3-L4 bsm  |
| 650          | 649 | c. 19% l.      | infant c. 3-4 yr.             |  |
| 661          | 660 | c. 80%         | juvenile c. 5.5-7 yr.         | caries   |
| 664          | 660 | c. 50%         | juvenile c. 8-10 yr.          | hypoplasia; calculus; surface defect – left talus  |
| 667          | 666 | c. 12% l.      | adult >25 yr. ??male          | op –right knee, left tarsals; surface defect – distal tibia; enth – right distal tibia & fibula, calcanea; remodelling – left calcaneum-talus  |
| 670          | 669 | c. 23% l.      | adult c. 45-55 yr. male       | osteoarthritis – L4-5, hips; op – 2T & S1 bsm, right knee, left elbow & wrist, prox. IP (hand); pitting – prox. IP (hand); juxta-articular erosions – hands; ?erosive arthropathy – finger phalanges; enth – prox. femur, patellae   |
| 675          | 674 | c. 25% a.u.l.  | subadult c. 14-16 yr. ?female |  |

Table 1: Summery of results from analysis of articulated human skeletal remains

KEY: s.a.u.l. – skull; axial skeleton; upper limb; lower limb (only where all four skeletal areas not represented); amtl - *ante mortem* tooth loss; Sch – Schmorl's node; ddd - degenerative disc disease; op – osteophytes; enth – enthesophytes; mv - morphological variation; C – cervical; T – thoracic; L – lumbar; S – sacral; bsm - body surface margins; MtT – metatarsal; MtC – metacarpal; IP – interphalangeal; tp - transverse process; ap - articular process; prox. - proximal

