

Don Brothwell 1933-2016: A tribute to a polymath



Don Brothwell, Professor and then Emeritus Professor of Human Palaeoecology at York, with members of the BioArCh team in the Department of Archaeology, University of York (courtesy of Malin Holst)

As a person and as a scholar, Don Brothwell had an incredible influence on so many people around the world for so many years, and his legacy continues to do so. However, it is a very daunting task to write a short celebration of his life in archaeological science, and particularly in bioarchaeology, because he did so much for us! He himself had just written and published his memoirs (2016), the Archaeopress website describing it as ‘the first memoir by an internationally known archaeological scientist, and one who has been particularly research active for over fifty years in the broad field of bioarchaeology’. Beyond the references I have cited for this piece, I would highly recommend this as a fascinating read for all (see contents list below); just look at what he has done and where he has travelled as a starting point! What a role model for being an academic.

Some of what I will say here is already on York University’s website for Don as a personal tribute to him (<http://www.york.ac.uk/archaeology/staff/academic-staff/in-memoriam-don-brothwell/>), but here I am describing some of his remarkable achievements through what he published. First, though, we should celebrate his contributions, in general, to archaeological science. How did that all start? Well, he did “science” A levels in biology, chemistry and geology and then studied for a BSc in Archaeology and Anthropology from 1952 at the Institute of Archaeology,

University College, London. His science degree clearly shaped the rest of his life in science; he actually considered most of archaeology as science, but emphasised that our discipline needed to incorporate scientific approaches much more, and that archaeology had ‘just about reached middle childhood’ (Ecklund et al 2003; interview). Lots more to do then!

Even by the age of 12 years old Don had become interested in archaeology (and human remains), stimulated by local excavations, but in his 2003 interview when asked what he would have been interested in if he was starting out now, he said that it would have been the human brain and its evolution, more generally the ‘neuro-sciences in relation to archaeology together with social psychology and social pathology’, and animal diseases in the past as seen through their remains – it would not be ‘old human bones’! Very soon after graduating, in 1958 Don was employed by the University of Cambridge as a “demonstrator” in the Faculty of Archaeology and Anthropology. In 1961 he moved to employment in the British Museum (Natural History) as Principal Scientific Officer and Head of Anthropology, went on to teach and research at the Institute of Archaeology, UCL from 1974, and then moved to the University of York in 1993 as Professor in Human Palaeoecology. More specifically with regard to “science”, Don founded and became joint editor of the *Journal of Archaeological Science* between 1974 and 1993, but even at the tender age of 30 years old he had edited with Eric Higgs the huge volume *Science in Archaeology* (1963), which went into a 2nd edition in 1969, and re-emerged in 2001 as *A handbook of archaeological science* (this time co-edited with Mark Pollard).

In 2003, he described his interests to ‘lie mostly in the broad field of archaeological science, but particularly in human palaeoecology.the archaeology of food, the disease ecology of past populations (humans and domestic livestock), the micro-evolution of humans and associated domesticates and the potential application of DNA studies to the resolution of bioarchaeological problems. These research interests range across a very broad temporal span, from Pleistocene to mediaeval times’. At this time he reminded us that his interests were indeed broad and global, covering a long time span, saying that he was currently conducting experimental work on the vitrification of fortification walls in Scotland! Beyond vitrification, he mentioned writing a book on archaeological birds, more on veterinary palaeopathology, and on preserved bodies. Don also had a strong interest in art, and admits that he was an ‘art school dropout’!

Let’s now see more of what he has written about, much of which still influences many scholars around the world. I should add that I doubt that he bothered much about journal impact factors and citations and downloads! He was already writing on leprosy in Britain in 1958 at 25 years of age, and in 1959 on trepanation, metrical and non-metrical data, teeth in earlier human populations and “mongolism” in the Anglo-Saxon period. The following year saw works on Bronze Age people in Yorkshire alongside Upper Pleistocene human remains from Borneo. In the 1960s he also considered cannibalism in Britain, tuberculosis in Egypt, and human remains from Borneo, Israel, Palestine, Dunbar in Scotland, Swanscombe in Kent, the Upper Palaeolithic skull from Whaley rock shelter in Derbyshire, West Overton and Fussell’s Lodge in Wiltshire, England, and County Cavan in Ireland. During the 1960s, he further authored and edited a range of books: *Science in archaeology* (1st and 2nd editions), *Food in antiquity*, *Skeletal biology of earlier human populations*,

Diseases in antiquity, Digging up bones, and Dental anthropology. A pretty impressive lineup, and dating to 1963-9!

By the 1970s we were seeing reports on the human biology of Neolithic British populations, craniometric analysis of British populations, and on human remains from Amesbury in Wiltshire, Maiden Castle in Dorset, West Africa, and on the Singa skull from Sudan. He further discussed head growth in late Pleistocene East Asian and Australian populations, and did some writing on Neanderthals. He also gave us his thoughts about trepanation, osteogenesis imperfecta present in Egypt, palaeodemography, Scottish vitrified forts, domestic fowl, Amerindian dogs, bone chewing by ungulates, the relevance of small mammals to archaeology, urban health, and the impacts of pollution on well-being. Some papers focused on Orkney at this time showed his interest and love of the Orkney Islands in Scotland – demography and genetics, and souterrains. In the 1970s he also was showing his interest in treponemal disease, with a paper in *Science*, and writings on the disease in Oceania and Mexico, alongside some dating evidence. He continued to edit and author books: a 2nd edition of *Digging up bones*, *Biosocial man*, the *Population biology of ancient Egypt*, and a book on *Visual art*. What is impressive about Don's publications is the variety of subjects he wrote about, but also his ability to contribute to fields beyond "archaeological human remains", for example his co-edited contribution on 'Research problems in zooarchaeology' in 1978.

In the 1980s Don continued with the publication of several books: *Animal diseases in archaeology*, *Environmental aspects of coasts and islands*, *Lindow man. The body in the bog* and the *Bog man and the archaeology of people*, showing his increasing interest in preserved bodies; this all went with the appearance of a 3rd edition of *Digging up bones* in 1981. He was also writing about house mice, guinea pigs, petrology and archaeology, dental wear and ageing, child mortality in the past, taphonomy and the Jewbury burial ground in York, human remains from Alton in Hampshire, and treponemal disease. It was in the latter part of this decade that he published his first works on dental calculus and its potential for understanding, amongst many things, diet in the past (1987, 1988). How right he was!

The 1990s saw Don extend his work on preserved bodies, but also his strong interests in non-human pathology (syntheses, but he also considered perforations in cattle skulls, chicken bones, and animal bones from Colchester). He also again showed his eclectic interests in his publications: cribra orbitalia, stress, preserved hair, trepanation, malocclusion, drugs in the past, and ancient conflict and warfare. The important co-edited publication of the analysis of the skeletal remains of Jewish people buried in York came out in 1994, along with his report on the human remains from the chambered tomb of Wayland's Smithy in Oxfordshire.

In the last 15 or so years, Don continued to published widely, with two books in 2001 (*Handbook of archaeological science* – to follow on from *Science in archaeology* - and a co-edited book on radiology: *Paleoradiology: Imaging Mummies and Fossils*). He widened his publication themes to include tumours in the past (extending from his chapter in his edited book from 1967 *Diseases in antiquity*), normal variation in human skeletons – the chapter in Cox and Mays (2000) and for the BABAO *Guidance to the standards for recording human remains*, dental attrition, oral pathology in inland and island populations, calculi, treponemal disease (a recurrent

theme!), microbiological ecosystems, iodine in bones and teeth, taphonomy of bog bodies, analysis of hair from the Neolithic Iceman and in a South African fossil hyaena coprolite, the analysis of salt preserved bodies in Iran, endocranial variation, and the causes of skeletal atrophy, and. His work on non-human remains also continued, including New World dogs again, avian osteopetrosis, and abnormal sheep metatarsals. From 2010, apart from his autobiography, Don has published on differential diagnosis in palaeopathology, another book chapter on tumours, dyschondrosteosis, organic residues in grave soils and soil micromorphology and chemistry (the result of his European grant at the age of 77 – see below), the biology of early British populations, and went back to dental calculus. I am sure that there are many more publications to come as I am certain that he had papers in press/in review and in prep; we have not seen the last of them, thankfully.

I should at this point highlight his many books listed above that have shaped so much in “archaeological science” (beyond the “*Handbook of archaeological science*”). While his 1969 book on *Food in antiquity* appealed to a very broad readership, not many have taken on board the huge potential of studying animal diseases in archaeology that was outlined in his wonderful 1980 book on the subject with vet, John Baker. Hopefully that will change and new research will add to papers Don also wrote on animal disease (e.g. the value of zoonoses in understanding the past 1991 in Ortner and Aufderheide eds. *Human paleopathology*). The year 1986 saw the first of his work (book) on preserved bodies, and in 2002 a contribution on the subject to *Advances in forensic taphonomy* (W & M Sorg eds). As an aside on the word “forensic”, in his 2003 interview he had strong feelings about the “forensic” side of biological anthropology. He said: ‘I’ve taken an interest in the development of these courses, but I do feel that in Britain..... we have now reached saturation point. I think there are probably too many universities offering these courses..... I think there are far too many students attracted to the courses’. Has there been an increase since 2003 one wonders? Don also published on the famous Tyrolean Iceman in 2003 and 2005.

Perhaps one of the most important of his works for me personally at the start of my career was his 1963 *Digging up bones* (see below), but equally for many was his 1963 *Dental anthropology* book and his 1968 edited book on the *Skeletal biology of earlier human populations*. I should also note his 1961 his paper on the “Palaeopathology of early British man” in the *Journal of the Royal Archaeological Institute*, which was an important reference point for Margaret Cox and I when we were writing *Health and Disease in Britain* (2003); his was the first synthetic study of the subject. Not long after these influential publications he came up with another milestone contribution, co-edited with Andrew Sandison (*Diseases in antiquity. A Survey of the Diseases, Injuries, and Surgery of Early Populations*). This book is still of immense value in palaeopathology even though it is nearly 50 years old (and is still selling on Amazon!). Don’s most recent book of course is of course his autobiography (2016) but in 2007 he co-edited a book on paleoradiology with a radiologist, the first of its kind.

I consider that one of the more important studies he did with regard to skeletal reporting concerned the monograph he was part of which concerned the human remains from Jewbury in York, a Jewish community and a rarely excavated archaeological context. In that report by Lilley et al in 1994, there was a section on

the identification and analysis of dental calculus, something that Don (and Keith Dobney) had published on in the late 1980s. This Jewbury report also raised issues related to ethics and human remains, perhaps the first “ethics occasion” for me in my early years as a bioarchaeologist. In the 1980s and early 1990s ethics was not a subject that was discussed much at all in the UK context. In relation to ethics and archaeological contexts containing human remains, in his 2003 interview Don was adamant that long-term conservation of samples of various kinds (hair, bone) with access for further studies, alongside a ‘good database’, were essential as more and more human remains are being repatriated and/or reburied. This is something that needs more debate. I also feel that Don and Keith’s initial work on inclusions in dental calculus is often forgotten as more papers are published on the subject; this is in an age when calculus is now considered a good preserver of organic materials, such as ancient DNA. However, it was so pleasing to see his co-authorship of a 2012 *Science* paper on *Neanderthal medics? Evidence for food, cooking, and medicinal plants entrapped in dental calculus*. It was to me also of particular interest to see Don’s research on the treponemal diseases develop, again initially as a *Science* paper in 1970. Just over 10 years ago, he again contributed to the “syphilis debate” (2005) where he re-considered the Old World theories and evidence for treponemal disease (Powell and Cook eds. *The Myth of Syphilis, The Natural History of Treponematosis in North America*). However, he did not particularly enter the often bitter “Columbian” debates about the history of this infection, but has continued to “plough his own furrow” using available scientific evidence. Overall, Don’s publication record is astounding; there are very few people in archaeological science who have published on such a diverse subject matter in so many outlets over so many years. Taking just bioarchaeology, a lot of the things he initiated interests in via his early publications remain areas for development today.

I first “came across” Don when I was an undergraduate at the University of Leicester. While I had not really thought about any particular “specialism” of archaeology that I might be interested in (fully expecting to return to nursing after my degree), I did a dissertation on human bones from the crypt of Rothwell Church, Northamptonshire. The only book that I found to guide me was an early edition of “*Digging up Bones*”, a book that I feel must be on the shelves of anybody studying archaeological human bones. I do not recall really having much supervision for my dissertation at Leicester and just “muddled through”, although being a nurse helped (as did contacts with Keith Manchester at Bradford). Don’s book was therefore my “Bible” as I did my analyses. I even wrote to him about platymeric and platycnemic indices, trying to find out more about how these indices could be interpreted for populations in the past. As was the norm for him, he handwrote a letter back to me with further information (nearly as quickly as email!). As an aside, I admired him for shying away from email – ‘why bother with email when you have letters, fax, and telephone for communications’, he often said – indeed why bother! Don was also my PhD examiner, as he was for some of my PhD students, and I had a thoroughly pleasant time being “grilled” in my viva! Who wouldn’t if it was Don?

Following my undergraduate days, I intermittently kept in touch with Don over the years I was an academic at the University of Bradford before coming to work at Durham University in 2000. Developing and instigating the MSc in Palaeopathology in 2000, and because Don was relatively close at hand in York, I quickly decided that having him talk to our students about some of his favourite topics would be such a

bonus for the students (even though he had officially retired in 1999!). I was not disappointed, and nor were the students. Until a couple of years ago he came up every year and provided them with thought provoking lectures (animal palaeopathology and syphilis – of course!); they really valued this input to their knowledge base. Of course, we had to provide a slide projector for his lectures because we had moved to the “working in the power point presentation mode”. Again, I commend him for “sticking to his guns” on presentation modes! Don was made an Honorary Research Professor in 2006 at Durham University.

Don was an inspiration to us all. A genuinely lovely man, he constantly had new research ideas, gave people time – something we are all short of (and hand wrote personalized letters!), and was open to discussions and debates; established scholars and students alike loved him. He was awarded his last grant at the age of 77 years and has been publishing since the 1950s right up to 2016! It just goes to show that the older academic generation can continue to offer considerable insights and inspiration to the younger generation. They also have a sense of the historical development of their discipline, and know about those dim and distant papers published years ago that may not be accessed by students today. Having that sense of history, older academics that are officially “retired” contribute so much to so many. I last saw Don in Hovingham in the Yorkshire Wolds where he lived last September. I am so glad I did. With my better half (Stewart), I was on a cycling holiday around that area and we stayed at the Worsley Arms in his village overnight. We took him to dinner that night and had a wonderful time; his eyes sparkled as he talked about what research he was currently doing. He told me about the book he was writing on syphilis - I hope it is published because I think he had nearly finished it – I would hazard a guess that it will be the most sensibly written “ode” to the history of syphilis we will have ever seen.

Even though he was such a modest man, his immense intellect constantly shone through; he indeed was a polymath, something that many of us will never be, including me. As Keith Dobney said (2012) ‘Many of us have been lucky to count Don as a generous colleague and friend, one who never sought the academic heights or limelight. He is without doubt, and in the truest sense, both a “gentleman and a scholar”’.

Here’s to Don – he will be terribly missed by us all but he has left a huge legacy to archaeological science.

*Charlotte Roberts, Department of Archaeology, Durham University, England
(January 6th 2017)*

References

Brothwell D 2016 *A Faith in Archaeological Science: Reflections on a Life*. Oxford, Archaeopress

Dobney K 2012 Don Brothwell (1933-). In JE Buikstra, CA Roberts (eds): *A global history of paleopathology. Pioneers and prospects*. Oxford, University Press, p 22-31

Eklund J, Townend S, Haddow S 2003 Don Brothwell, Emeritus Professor, Department of Archaeology, University of York. *Papers from the Institute of Archaeology* 14:24–41

<https://www.york.ac.uk/archaeology/staff/academic-staff/don-brothwell/>



My paltry attempt at a “biography” cake to celebrate Don’s life on the 15th December 2016 at the University of York – not easy to fit all that he has done on a cake!

The following are the contents page of Don's 2016 autobiography; as would be expected, an eclectic mix of things of importance in his life:

Childhood, Family and Education

Widening Horizons in Education, Teaching and Research

The Natural History Museum

The Institute of Archaeology in London

The University of York

Writing and Editing, the Final Education

War, Peace and Prison

The Prison Episode

Suez, politics and people

On the Science of Art

Controversies with Fossils

Forensic Interludes

Kosovo

Bog People and Other Friends

Bog Bodies

The Neolithic Iceman

Ancient Yemenis

Salted People

Egyptian mummies and dried bodies

From Rocks to Protons

Grave soils

Harnessing X-rays, Electrons and Protons

A Hair of the Dog

Bones, Teeth and People

Glue and Data: the Value of Bones

Teeth and Time: Reflections on Dental Archaeology

Population Studies : Beyond the Individual

Of Mice and Mammoths

The Nature and Antiquity of Diseases

In search of syphilis

Epidemiology and our past

Food and Health in the Past

Animal Health and Husbandry

Peoples and Places

The Viking Experience

The Siege of Avebury

Fromelles, France

Entering the Islamic World

Greenland

Mongolia

The Americas

Character Parts in a History

Theory, Language and Culture

My doubtful place in human culture

Language

Aspects of the Emotions

Evolving Beyond Religions

Love, the Ultimate Chimera

The Identification of Humour

Traversing the mindfield which is life

Imprinting, the ultimate deterrent to independent thought

Crowd Behaviour

Mind and Malfunction

Evolution, mind and reality

Psychological archaeology emerges

Pondering mind and reality

Socio-economic changes and mental stability

Mind and conflict

Psychopathology and archaeology

Conclusions on a Life

On the Possible Scenario for my Descendents Long in the Future

Don Brothwell's research publications (in bold are books authored/edited)

Note: There does not seem to be a complete list of Don's publications anywhere. Therefore, I have consulted many sources to create this list, including bibliographies in his books. I cannot guarantee I have included absolutely everything, but if anybody out there knows of missing publications, I would be grateful to hear about them!

2010-date

Brothwell DR 2010 On Problems of Differential Diagnosis in Palaeopathology, as Illustrated by a Case from Prehistoric Indiana. *Int J Osteoarchaeology* 20: 621-622

Bianucci R, Brothwell DR, Van der Sanden W, Papageorgopoulou C, Gostner P, Pertner P, Egarter-Vigl E, Maixner F, Janko M, Piombino-Mascoli D, Mattiution G, Ruhli F, Zink A 2012 A possible case of dyschondrosteosis in a bog body from the Netherlands. *J Archaeology in the Low Countries* 4:37-64

Brothwell DR 2012 Tumors: problems of differential diagnosis in paleopathology. In A Grauer (ed): *A companion to paleopathology*. Wiley-Blackwell, p 420-432

Hardy K, Buckley S, Collins MJ, Estalrrich A, Brothwell DR, Copeland L, García-Taberner A, García-Vargas S, de la Rasilla, M, Lalueza-Fox C, Huguet R, Bastir M, Santamaria D, Madella M, Cortés AF, Rosas A 2012 Neanderthal medics? Evidence for food, cooking, and medicinal plants entrapped in dental calculus. *Naturwissenschaften* 99: 617-626

Pickering M, Lang C, Usai M-R, Brothwell DR, Keeley B 2014 Organic Residue Analysis in Soils. In L Lou, A Boyle, H Webb, D Score (eds): *Given to the Ground: A Viking Age Mass Grave on Ridgeway Hill, Weymouth*. Oxford, Dorset Natural History and Archaeological Society Monograph Series; no. 22, p 237-245

Usai M-R, Pickering M, Wilson C, Keely BJ, Brothwell DR 2014 Interred with their bones: soil micromorphology and chemistry in the study of human remains. *Antiquity* 88: 339

Brothwell DR 2014 The biology of early British populations. In B O'Donnabhain, M Lozada (eds): *Archaeological human remains: global perspectives*. Heidelberg, Springer, p 65-84

Brothwell D 2016 *A Faith in Archaeological Science: Reflections on a Life*. Oxford, Archaeopress

2005- 2009

Brothwell DR, Dobney K, Jacques D 2005 Abnormal sheep metatarsals: a problem in aetiology and historical geography. In J Davies, M Fabis, I Mainland, M Richards, R Thomas (eds.): *Diet and Health in Past Animal Populations: Current Research and Future Directions*. Oxford, Oxbow, p 75-79

Brothwell DR 2005 New World dogs: theory and practice. In D Smith, M Brickley, W Smith (eds): *Fertile ground. Papers in honour of Susan Limbrey*. Oxford, Oxbow, Symposia of the AEA 22, p 11-15

Brothwell DR 2005 Malocclusion and methodology: The problem and relevance of recording dental malalignment in archaeology. *Int J Osteoarchaeology* 1:27-37

Brothwell DR. 2005 North American treponematosi against the bigger world picture. In M Powell, D Cook (eds.): *The Myth of Syphilis, The Natural History of Treponematosi in North America*. Gainesville, Florida, p 480-96

Brothwell DR 2005 The Tyrolean Ice Man and questions of taphonomy and tissue identification. *Journal of Biological Research* 80: 215-216

Brothwell DR 2007 Dental attrition: Neanderthals, Romans and Egyptians, and the question of where we go now. In M Faerman, L Horwitz, T Kahana (eds.): *Faces from the Past: Papers in Honour of Patricia Smith: Diachronic Patterns in the Biology of Human Populations from the Eastern Mediterranean*. British Archaeological Reports International Series 1603. Oxford, Archaeopress, p 58-65

Luff R, Brothwell DR 2007 On the possible ritual marking of a young XVIIIth dynasty pig skull from Tell El-Amarna, middle Egypt. *Int J Osteoarchaeology* 17: 524-530

Chhem RK, Brothwell DR (eds) 2007 *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer

Chhem RK, Brothwell DR 2007 Preface. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer

Brothwell DR 2007 The taphonomic process, biological variation, and X-ray studies. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer, p 55-72

Chhem RK, Saab G, Brothwell DR 2007 Diagnostic paleoradiology for paleopathologists. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer, p 73-118

Brothwell DR 2007 Paleoradiology in the service of zoopaleopathology. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer, p 119-145

Brothwell DR 2007 Normal variations in fossils and recent human groups. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer, p 147-158

Brothwell DR 2007 Concluding remarks. In RK Chhem, DR Brothwell (eds) : *Paleoradiology: Imaging Mummies and Fossils*. Berlin, Springer, p 159-160

Brothwell DR 2007 Tumours and tumour-like processes. In R Pinhasi, S Mays (eds.): *Advances in Human Palaeopathology*. Chichester, Wiley, p 253-81

Brothwell DR 2008 Problems of differential diagnosis in Pleistocene mammal pathology. *Veterinarija ir Zootechnika* 44:88-90

Pollard AM, Brothwell DR, Aali A, Buckley S, Fazeli H, Hadian Dekhordi M, Holden T, Jones A, Shokouhi J, Vatandoust R, Wilson A 2008 Below the salt: a preliminary study of the dating and biology of five salt-preserved bodies from Zanjan Province. *Iran* 46:135-160

Backwell L, Pickering R, Brothwell DR, Berger L, Witcomb M, Martill D, Penkman K, Wilson A 2009 Probable human hair found in a fossil hyaena coprolite from Gladysvale cave, South Africa. *J Archaeological Science* 36: 1269-1276

Brothwell DR 2009 Childe, his student, and archaeological science: an epilogue. *European J Archaeology* 12:193-202

Wright CC, Collins MJ, Brothwell DR, Shafer D 2009 Bioarchaeological analysis of iodine in dental enamel: initial analysis of sheep dental enamel for elemental iodine, for the purpose of future detection of in vivo iodine deficiency in ruminants and humans. In *Holm of Papa Westray: Artefacts and human and faunal remains*, p 83-87

2000-2004

Barrett JH, Beukens RP, Brothwell DR 2000 Radiocarbon dating and marine reservoir correction of Viking Age Christian burials from Orkney. *Antiquity* 74: 537-543

Brothwell DR, Powers R, Wright SM 2000 Demography. In P Rahtz, S Hirst, SM Wright (eds): *Cannington cemetery. Excavations 1962-3 of prehistoric, Roman, post-Roman and later features at Cannington Park Quarry, Near Bridgwater, Somerset*. Britannia Monograph Series No. 17, Society for the Promotion of Roman Studies, p 135-161

Brothwell DR, Powers R, Gauthier S 2000 The biometric data. In P Rahtz, S Hirst, SM Wright (eds): *Cannington cemetery. Excavations 1962-3 of prehistoric, Roman, post-Roman and later features at Cannington Park Quarry, Near Bridgwater, Somerset*. Britannia Monograph Series No. 17, Society for the Promotion of Roman Studies, p 161-187

Brothwell DR, Powers R, Hirst SM 2000 Non-metric variation. In P Rahtz, S Hirst, SM Wright (eds): *Cannington cemetery. Excavations 1962-3 of prehistoric, Roman, post-Roman and later features at Cannington Park Quarry, Near Bridgwater,*

Somerset. Britannia Monograph Series No. 17, Society for the Promotion of Roman Studies, p 188-195

Brothwell DR, Powers R, Hirst SM 2000 The pathology. In P Rahtz, S Hirst, SM Wright (eds): *Cannington cemetery. Excavations 1962-3 of prehistoric, Roman, post-Roman and later features at Cannington Park Quarry, Near Bridgwater, Somerset*. Britannia Monograph Series No. 17, Society for the Promotion of Roman Studies, p 195-256

Brothwell DR, Powers R, Hirst SM 2000 The pathology. In P Rahtz, S Hirst, SM Wright (eds): *Cannington cemetery. Excavations 1962-3 of prehistoric, Roman, post-Roman and later features at Cannington Park Quarry, Near Bridgwater, Somerset*. Britannia Monograph Series No. 17, Society for the Promotion of Roman Studies, p 195-256

Brothwell DR 2000 Studies on skeletal and dental variation: a view across two centuries. In M Cox, S Mays (eds): *Human osteology in archaeology and forensic science*. London: Greenwich Medical Media, p 1-6

Brothwell DR 2000 On the complex relationships of microbial ecodynamics in relation to earlier human palaeoecology. In G Bailey, R Charles, N Winder (eds): *Human ecodynamics: proceedings of conference 1988 held at the University of Newcastle upon Tyne*. Oxford, Oxbow Books, p 10-14

Brothwell DR, Pollard AM (eds.) 2001 *Handbook of Archaeological Sciences*. Chichester: John Wiley. Hardback

Brothwell DR 2001 Pleistocene and Holocene hominid evolution. In DR Brothwell, AM Pollard (eds): *Handbook of Archaeological Sciences*. Chichester: John Wiley, p 213-218

Brothwell DR 2001 But what is archaeological science, and where is it going? In AR Millard (ed.): *Archaeological Sciences '97: Proceedings of the Conference Held at the University of Durham, 2nd-4th September 1997*. British Archaeological Reports International Series 939. Oxford: Archaeopress, p 5-9

Brothwell DR 2001 Iodine and bones: contributions to theoretical zooarchaeology. In H Buitenhuis, W Prummel (eds): *Animals and man in the past*. Groningen, ARC Press, p 41-43

Brothwell DR 2002 Ancient avian osteopetrosis: the current state of knowledge. *Acta Zool Cracov* 45: 315-318

Brothwell DR, Gill-Robinson H 2002 Taphonomic and forensic aspects of bog bodies. In W Haglund, M Sorg (eds): *Advances in Forensic Taphonomy*. Boca Raton, p 119-132

Brothwell DR 1986 and 2002 *The Bog Man and the Archaeology of People*. London, British Museum Publications

Brothwell DR, Grime G 2003 Analysis of the hair of the Neolithic Iceman. In N Lynnerup, C Andreasen, J Berglund (eds): *Mummies in the new millennium*. Copenhagen, Danish Polar Centre, p 66-68

Brothwell DR 2003 Can oral pathology be a measure of dietary contrasts between island and mainland people in Britain. *J Paleopathology* 15:69-75

Brothwell DR. 2003 On the need for a more systematic evaluation of endocranial vault abnormality. *Journal of Palaeopathology* 15:13-21

Brothwell DR 2003 Skeletal atrophy and the problem of differential diagnosis in conditions causing paralysis. *Antropologia Portuguesa* 19:5-18

Brothwell DR 2004 Bring out your dead: people, pots and politics. *Antiquity* 78: 414-418

Brothwell DR, Zakrzewski S, 2004 Metric and non-metric studies of archaeological human bone. In M Brickley, JI McKinley (eds): *Guidelines to the standards for recording human remains*. Reading: BABAO & the Institute of Field Archaeologists Paper 7, p 27-33

1995-1999

Brothwell DR, Bourke JB 1995 The human remains from Lindow Moss 1987-8. In RC Turner, RG Scaife (eds): *Bog bodies, new discoveries and new perspectives*, London, British Museum Press, p 52-58

Robledo B, Tracho GJ, Brothwell DR 1995 Cribra orbitalia: health indicators in the late Roman population of Cannington (Somerset, Great Britain). *J. Paleopathology* 7:185-193

Brothwell DR 1995 The special animal pathology. In B Cunliffe (ed): *Danebury, an Iron Age hillfort in Hampshire*. Volume 6. York, Council for British Archaeology Research Report 102, p 207-233

Brothwell DR 1996 Is this ancient Nubian foot a possible early example of mycotic infection? *J Paleopathology* 8:187-189

Brothwell DR, Dobney K, Ervynck A 1996 On the causes of perforations in archaeological domestic cattle skulls. *Int J Osteoarchaeology* 64:471-487

Brothwell DR 1996 European bog bodies: current state of research and preservation. In K Spindler, H Wilfing, D Nedden, H Nothdurfer (eds): *Human mummies*. Vienna, Springer, p 161-172

Brothwell DR 1997 Interpreting the immature chicken bones from the Romano-British ritual complex on West Hill, Uley. *Int J Osteoarchaeology* 7:330-332

Brothwell DR 1998 A possible case of histiocytosis X? *J Paleopathology* 10:43-44

Brothwell DR 1998 Stress as an aspect of environmental archaeology. *Environmental Archaeology* 2:7-13

Brothwell DR 1999 Biosocial and bioarchaeological aspects of conflict and warfare. In J Carman, A Harding (eds): *Ancient warfare: archaeological perspectives*. Sutton, Stroud, p 25-38

1990-1994

Brothwell DR, Holden TG, Liversage D, Gottlieb B, Bennike P, Bosen J 1990 Establishing a minimum damage procedure for the gut sampling of intact human bodies: the case of the Huldremose Woman. *Antiquity* 65:830-835

Brothwell DR, Liversage D, Gottlieb B 1990 Radiographic and forensic aspects of the female Huldremose body. *J Danish Archaeology* 9:157-178

Brothwell DR 1990 Environmental and experimental studies in history. In DE Robinson (ed): *Experimentation and reconstruction in environmental archaeology*. Oxford, Oxbow Books, p 1-24

Brothwell DR 1980 Ancient calcified tissue research: a view to the 21st century. *Int J Osteoarchaeology* Pilot Issue: 2-21

Brothwell DR 1991 Malocclusion and methodology. The problem and relevance of recording dental malalignment in archaeology. *Int J Osteoarchaeology* 1:27-37

Brothwell DR, Cullen R 1991 The human bone (p 72-80). In A Whittle: *Wayland's Smithy, Oxfordshire: excavations at the Neolithic tomb in 1962-63 by RJC Atkinson and S Piggott*. *Proc. Prehistoric Soc.* 57:61-101

Brothwell DR 1991 On zoonoses and their relevance to palaeopathology. In DJ Ortner, AC Aufderheide (eds): *Human palaeopathology. Current syntheses and future options*. Washington D.C, Smithsonian Institution Press, p 18-22

Brothwell DR 1993 Ancient hair analysis and the question of diet and disease. *Pact* 38:317-326

Brothwell DR 1993 Avian osteopathology and its interpretation. *Archaeofauna* 2:33-43

Brothwell DR 1993 On the problem of interpreting within-sample variation. In A Clason, S Payne, HP Uerpann (eds): *Skeletons in her cupboard*. Oxford, Oxbow Monograph 34, p 19-31

Brothwell DR 1993 Health and welfare. In R Ludd (ed): *Animal bones from Colchester, 1971-1985*. Colchester, Colchester Archaeological Report 12, p 101-126

Brothwell DR 1993 Drugs in ancient populations. *Lancet* 341:1157

Lilley JM, Stroud G, Brothwell DR, Williamson MH (eds.) 1994 The Jewish burial ground and Jewbury, *The Archaeology of York 12/3. The medieval cemeteries*, York, York Archaeological Trust and Council for British Archaeology.

Brothwell D, Browne S 1994 Pathology. In JM Lilley, G Stroud, DR Brothwell, MH Williamson (eds.) 1994 The Jewish burial ground and Jewbury, *The Archaeology of York 12/3. The medieval cemeteries*, York, York Archaeological Trust and Council for British Archaeology, p 465-6

Brothwell DR 1994 Ancient trephining: multifocal evolution or trans-world diffusion? *J Paleopathology* 6:129-138

Brothwell DR 1994 On the possibility of urban-rural contrasts in human population palaeobiology. In AR Hall, HK Kenward (eds): *Urban-rural connexions: perspectives from urban-rural archaeology*. Symposia of the Association of Environmental Archaeology 12. Oxford, Oxbow Monograph 47, p 129-136

1985-1989

Brothwell DR 1986-7 The problem of the interpretation of child mortality in earlier populations. *Antropologia Portuguesa* 4-5:135 and 143

Stead IM, Bourke JB, Brothwell DR (eds) 1986 *Lindow Man. The body in the bog*. London, Guild Publishing

Brothwell DR 1986 The remains of Lindow Woman. In IM Stead, JB Bourke, DR Brothwell (eds): *Lindow Man. The body in the bog*. London, Guild Publishing, p 52-53

Dobney K, Brothwell DR 1986 Studies on the hair and nails of Lindow Man and comparative specimens. In IM Stead, JB Bourke, DR Brothwell (eds): *Lindow Man. The body in the bog*. London, Guild Publishing, p 66-70

Brothwell DR 1986 *The bog man and the archaeology of people*. London, British Museum Publications

Brothwell DR 1986 The human bones. In RM Harrison (ed): *Excavations at Saraçhane in Istanbul. Volume 1: The excavations, structures, architectural decoration, small finds, coins, bones, and molluscs*. New Jersey, Princeton University Press, p 374-398

Brothwell DR, Tills D, Muir V 1986 Evidence of micro-evolution in the Orkney Islanders. In RJ Berry, HN Firth (eds): *The people of Orkney*. Kirkwall, Orkney, p 54-88

Brothwell DR 1987 Decay and disorder in the York Jewbury skeletons. In A Boddington, AN Garland and RC Janaway (eds): *Death, decay and reconstruction: approaches to archaeological and forensic science*. Manchester, University Press, p 22-26

Brothwell DR 1987 Biophilosophical aspects of archaeology. *Bull of the Institute of Archaeology* 24:177-190

Dobney K, Brothwell DR 1987 Dental calculus: its relevance to ancient diet and oral ecology. In R Foley, E Cruwys (eds.): *Dental anthropology*. British Archaeological Reports International Series 291. Oxford: Tempus Reparatum, p 55-81

Dobney K, Brothwell DR 1988 A scanning electron microscope study of archaeological dental calculus. In S Olsen (ed): *Scanning Electron Microscopy in Archaeology*. British Archaeological Reports International Series 452. Oxford: Tempus Reparatum, p 372-385

Powers R, Brothwell DR 1988 Human bones – inhumations. In VI Evison: An Anglo-Saxon cemetery at Alton, Hampshire. Hampshire Field Club and Archaeology Society, Monograph 4. Hampshire Field Club, p 59-64

Brothwell DR 1988 Smut, scab and pox: disease and environmental archaeology. In JL Bintliff, DA Davidson, EG Grant (eds): *Conceptual issues in environmental archaeology*. Edinburgh, University Press, p 273-277

Brothwell DR 1989 The relationship of tooth wear to ageing. In MY Iscan (ed): *Age markers in the human skeleton*. Springfield, Illinois, Charles Thomas, p 303-316

1980-1984

Baker J, Brothwell DR 1980 *Animal diseases in archaeology*. London, Academic Press

Brothwell DR 1981 The Pleistocene and Holocene archaeology of the house mouse and related species. *Symposia of the Zoological Society of Great Britain* 47:1-13

Brothwell DR 1981 Microevolutionary change in the human pathogenic treponemes: an alternative hypothesis. *Int J Systematic Bacteriology* 31:82-87

Brothwell DR, Dimbleby G (eds) 1981 *Environmental aspects of coasts and islands*. British Archaeological Reports International Series 94. Oxford, Archaeopress

Brothwell DR 1981 *Digging Up Bones: The Excavation, Treatment, and Study of Human Skeletal Remains*. London: British Museum (Natural History) and Oxford University Press. 3rd edition

Brothwell DR 1981 Disease as an environmental parameter. In M Jones, G Dimbleby (eds): *The environment of man: the Iron Age to the Anglo-Saxon period*. Oxford, British Archaeological Reports British Series 87, p 231-347

Brothwell DR 1983 Petrology and archaeology: an introduction. In D Kempe, A Hervey (eds): *The petrology of archaeological artefacts*. Oxford, Clarendon Press, p 1-25

Brothwell DR 1983 Why on earth the guinea-pig? The problem of restricted mammal exploitation in the New World. In B Proudfoot (ed): *Site, environment and economy*. British Archaeological Reports International Series 173. Oxford, p 115-119

1976-1979

Brothwell DR 1976 Further evidence for bone chewing by ungulates; the sheep of North Ronaldsay, Orkney. *J Archaeological Science* 3:179-182

Brothwell DR 1976 *Beyond aesthetics. Investigations into the nature of visual art*. London, Thames and Hudson

Brothwell DR 1976 Visual art, evolution and environment. In DR Brothwell (ed): *Beyond aesthetics. Investigations into the nature of visual art*. London, Thames and Hudson, p 41-63

Brothwell DR 1976 Further evidence of treponematosi in a pre-European population from Oceania. *Bull History of Med* 50:435-442

Brothwell DR 1977 On a mycoform structure in Orkney, and its relevance to possible further interpretations of so-called souterrains. *Bulletin of the Institute of Archaeology, London* 14:179-190

Brothwell DR (ed) 1977 *Biosocial man. Studies related to the interaction of biological and cultural factors in human populations*. London, Institute of Biology for the Eugenics Society

Brothwell DR 1977 Introduction. In DR Brothwell (ed): *Biosocial man. Studies related to the interaction of biological and cultural factors in human populations*. London, Institute of Biology for the Eugenics Society, p vi-viii

Brothwell DR, Powers R, Denston B 1978 The human skeletal remains from Amesbury Barrow 51 with special reference to the case of trephination and its position in the history of trephining in Britain (p 43-55). In P Ashbee: Amesbury barrow 51: excavations 1960. *Wiltshire Archaeological Magazine* 70/71: 1-60

Brothwell DR, Thomas K, Clutton-Brock J 1978 *Research problems in zooarchaeology*. Institute of Archaeology, London. Occasional Papers 3

Brothwell DR, Jones R 1978 The relevance of small mammal studies to archaeology. In DR Brothwell, KD Thomas, J Clutton-Brock (eds): *Research problems in zooarchaeology*. Institute of Archaeology, London. Occasional Papers 3, p 47-57

Brothwell DR 1978 Possible evidence of the parasitisation of early Mexican communities by the micro-organism *Treponema*. *Bulletin Institute of Archaeology*, London 15:113-130

Brothwell DR, Burleigh R 1978 Studies on Amerindian dogs, 1: Carbon isotopes in relation to maize in the diet of domestic dogs from early Peru and Ecuador. *J Archaeological Science* 5:355-362

Brothwell DR, Malaga A, Burleigh R 1979 Studies on Amerindian dogs, 2: variation in early Peruvian dogs. *J Archaeological Science* 6:139-161

Brothwell DR 1979 Roman evidence of a crested form of domestic fowl, as indicated by a skull showing associated cerebral hernia. *J Archaeological Science* 6:291-3

1970-1975

Brothwell DR 1970 The real history of syphilis. *Science* 6, 9:27-33

Brothwell DR 1971 Africa's contribution to palaeopathology from the past to the future. In M Douglas, PM Kaberry (eds): *Man in Africa*. Garden City, Anchor Books

Brothwell DR 1971 Disease, microevolution and earlier populations. An important bridge between medical history and human biology. In E Clarke (ed): *Modern methods in the history of medicine*. London, Athlone Press of the University of London, p 112-134

Brothwell DR 1971 Forensic aspects of the so-called Neolithic skeleton Q1 from Maiden Castle. *World Archaeology* 3:233-241

Brothwell DR, Shaw T 1971 A late Upper Pleistocene proto-West African Negro from Nigeria. *Man* 6:221-7

Brothwell DR 1971 Palaeodemography. In W Brass (ed): *Biological aspects of demography*. London, Taylor and Francis, p 111-128

Brothwell DR 1972 Palaeodemography and earlier British populations. *World Archaeology* 4: 75-87

Brothwell DR 1972 The question of pollution in earlier and less developed societies. In PR Cox, J Peel (eds): *Population and pollution*. London, Academic Press, p 15-27

Brothwell DR 1972 Community health as a factor in urban cultural evolution. In PJ Ucko, R Tringham, GW Dimbleby (eds): *Man, settlement and urbanism*. Research Seminar in Archaeology and Related Subjects, London University, 1970. Cambridge, Massachusetts, Schenkman Publishing Company, p 353-361

Brothwell DR 1972. *Digging Up Bones: The Excavation, Treatment, and Study of Human Skeletal Remains*. London: British Museum (Natural History). 2nd edition

Brothwell DR, Chiarelli B (eds) 1972 *The population biology of the ancient Egyptians*. London, Academic Press

Brothwell DR 1972 The ancient Egyptians: from Turin to the future. In DR Brothwell D, B Chiarelli (eds) 1972 *The population biology of the ancient Egyptians*. London, Academic Press, 167-168

Brothwell DR 1973 The evidence of osteogenesis imperfecta in early Egypt. In A Basu, AK Ghosh, SK Biswas, R Ghosh (eds): *Physical anthropology and its extending horizons*. SS Sarkar Memorial Volume. Calcutta, Orient Longman, p 45-55

Brothwell D 1973 The human biology of the Neolithic population of Britain. *Fundamenta* 3: 280-299

Boyce AJ, Brothwell DR, Holdsworth V 1973 Demographic and genetic studies in the Orkney Islands. In D Roberts, E Sunderland (eds): *Genetic variation in Britain*. London, Taylor and Francis, p 109-128

Brothwell DR, Krzanowski W 1974 Evidence of biological difference between early British populations from Neolithic to Medieval times, as revealed by eleven commonly available cranial vault measurements. *J Archaeological Science* 1:249-260

Brothwell DR 1974 Osteological evidence of the use of a surgical modiolus in a Romano-British population. An aspect of primitive technology'. *J* 1: 209-211

Brothwell DR 1974 The Upper Pleistocene Singa skull. A problem in palaeontological interpretation. In W Bernhard, A Kandler (eds): *Bevölkerungsbiologie*. Stuttgart, Gustav Fischer, p 534-545

Hills M, Brothwell DR 1974 The use of large numbers of variables to measure the shape of a restricted area of bone. *J Archaeological Science* 1:135-150

Brothwell DR, Bishop A, Woolley A 1974 Vitrified forts in Scotland: a problem in interpretation and primitive technology. *J Archaeological Science* 1:101-107

Brothwell DR 1975 Possible evidence of cultural practices affecting head growth in some late Pleistocene East Asian and Australasian populations. *J Archaeological Science* 2:75-77

Brothwell DR 1975 Adaptive growth rate changes as a possible explanation for the distinctiveness of the Neanderthals. *J Archaeological Science* 2:161-163

Brothwell DR 1975 Salvaging the term 'domestication' for certain types of man-animal relationship: the possible value of an eight-point scoring system. *J Archaeological Science* 2:397-400

Brothwell DR, Burleigh R 1975 Radiocarbon dates and the history of treponematoses in man. *J Archaeological Science* 2:393-396

1966-1969

Brothwell DR, Powers R 1966 The prehistoric skeletons from West Overton G6b (p 144-147). In IF Smith, DDA Simpson: Excavation of a round barrow on Overton Down Hill, Wiltshire. *Proc. Prehistoric Soc.* 32: 122-155

Brothwell DR, Blake ML 1966 The human remains from the Fussell's Lodge long barrow. Their morphology, discontinuous traits and pathology (p 48-63). In P Ashbee: The Fussell's Lodge long barrow excavations 1957. *Archaeologia* 100: 1-80

Brothwell DR 1967 The Amerindians of Guyana, a biological review. *Eugenics Review* 59:22-45

Brothwell DR 1967 Human remains from Gortnacargy, County Cavan. *J Royal Society of Antiquaries of Ireland* 97: 75-84

Brothwell DR, Sandison AT (eds) 1967 *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas

Brothwell DR 1967 Editorial Prolegmenon: the present and future. In DR Brothwell, AT Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas, p xi-xiv

Brothwell DR 1967 The bio-cultural background to disease. In DR Brothwell, AT Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas, p 56-68

Brothwell DR 1967 The evidence for neoplasms. In DR Brothwell, AT Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas, p 320-345

Brothwell DR 1967 Evidence of endemic calculi in an early community. In DR Brothwell, A.T. Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations,* Springfield. Illinois, Charles C. Thomas, p 349-351

Brothwell DR 1967 Bi-parietal thinning in early Britain. In DR Brothwell, AT Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas, p 413-416

Brothwell DR 1967 Major congenital anomalies of the skeleton: evidence from earlier populations. In DR Brothwell, A Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Springfield, Illinois, Charles Thomas, p 423-443

McKenzie W, Brothwell DR 1967 Disease in the ear region. In DR Brothwell, AT Sandison (eds.): *Diseases in antiquity. A Survey of the Diseases, Injuries and Surgery of Early Populations.* Illinois, Charles Thomas, p 464-473

Powers R, Brothwell DR 1967 Appendix 1: Human skeletal material (p 359-365). In PM Christie: A barrow-cemetery of the 2nd millennium BC in Wiltshire, England, *Proc. Prehistoric Soc.* 12: 336-366

Brothwell DR (ed) 1968 *The skeletal biology of earlier human populations.* London, Pergamon Press

Brothwell DR 1968 Introducing the field. In DR Brothwell (ed): *Skeletal biology of earlier human populations*, Pergamon Press, p 1-18

Brothwell DR, Molleson T, Metreweli C 1968 Radiological aspects of normal variation in earlier skeletons: an exploratory study. In DR Brothwell (ed): *Skeletal biology of earlier human populations*, Pergamon Press, p 149-171

Brothwell DR, Powers R 1968 Congenital malformations of skeletons in earlier man. In DR Brothwell (ed): *Skeletal biology of earlier human populations*, Pergamon Press, p 173-203

Brothwell DR 1969. *Food in Antiquity: A Survey of the Diet of Early Peoples.* London, Thames and Hudson

Brothwell DR, Sandison AT 1969 Human biological observations on a Guanche mummy with anthracosis. *Amer J Phys Anthropol* 30:333-347

Harvey R, Brothwell DR 1969 Biosocial aspects of Ainu hirsuteness. *J Biosocial Science* 1:109-124

Brothwell DR, Cullen R 1969 Wayland's Smithy, Oxfordshire. The human bone. *Proc Prehistoric Soc* 57:72-80

Brothwell DR, Higgs ES 1969 Scientific studies in archaeology. In DR Brothwell, ES Higgs (eds): *Science in Archaeology*. London, Thames and Hudson. 2nd edition, p 23-34

Brothwell DR, Molleson T, Harcourt R, Gray PHK 1969 The application of X-rays to the study of archaeological material. In DR Brothwell, ES Higgs (eds): *Science in Archaeology*. 2nd edition. London, Thames and Hudson, p 513-525

Brothwell DR 1969 The study of archaeological materials by means of scanning electron microscopy: an important new field. In DR Brothwell, ES Higgs (eds): *Science in Archaeology*. London, Thames and Hudson, p 564-6

Brothwell DR 1969 Stones, pots and people: a plea for statistical caution. In DR Brothwell, ES Higgs (eds.): *Science in Archaeology*. London, Thames and Hudson. 2nd edition, p 669-679

Brothwell DR 1969 Dietary variation and the biology of earlier human populations. In PJ Ucko, GW Dimbleby (eds): *The domestication and exploitation of plants and animals*. Research Seminar in Archaeology and Related Subjects, London University. Chicago, Aldine, p 531-545

1960-1966

Brothwell DR 1960 The Bronze Age people of Yorkshire: a general survey. *Advancement of Science* 16:311-322

Brothwell DR 1960 Upper Pleistocene human skull from Niah Caves. *Sarawak Museum J* 9:323-349

Brothwell DR 1961 A possible case of mongolism in an Anglo-Saxon population. *Annals of Human Genetics* 24: 141-150

Brothwell DR 1961 Cannibalism in early Britain. *Antiquity* 35:304-7

Brothwell DR 1961 The palaeopathology of early British man: an essay on the problems of diagnosis and analysis' *J.Royal Anthropological Institute* 91: 318-343

Brothwell DR 1961 The people of Mount Carmel. *Proc Prehistoric Soc* 27:155-9

Brothwell DR 1961 An Upper Palaeolithic skull from Whaley Rock Shelter No. 2, Derbyshire. *Man* 61:113-116

Brothwell DR 1962 The dental health of the Etruscans. *British Dental J* 110:207-210

Brothwell DR 1962 A note on the dental pathology of the West Kennet people. Appendix III. In S Piggot (ed): *The West Kennet long barrow – Excavations 1955-56*. London, HMSO

Brothwell DR, Møller-Christensen V 1963 Medico-historical aspects of a very early case of mutilation, *Danish Medical Bulletin* 10, 21-25

Brothwell DR 1963 A possible case of amputation dated to c. 2000 BC. *Man* 63:192-194

Brothwell DR 1963 Where and when did man become wise? *Discovery* 24:10-14

Brothwell DR 1963. *Digging Up Bones: The Excavation, Treatment, and Study of Human Skeletal Remains*. London, Trustees of the British Museum. 1st edition

Brothwell DR (ed) 1963 *Dental anthropology. Dental anthropology, Symposia of the Society for the study of Human Biology, Volume 5, Oxford, Symposium Publications Division. London, Pergamon Press*

Brothwell DR 1963 The macroscopic dental pathology of some earlier human populations. In DR Brothwell (ed): *Dental anthropology, Symposia of the Society for the study of Human Biology, Volume 5, Oxford, Symposium Publications Division. London, Pergamon Press, p 271-288*

Brothwell DR, Carbonell VM, Goose DH 1963 Congenital absence of teeth in human populations. In DR Brothwell (ed): *Dental anthropology, Symposia of the Society for*

the study of Human Biology, Volume 5, Oxford, Symposium Publications Division. London, Pergamon Press, p 179-189

Brothwell DR 1963 Evidence of early population change in Central and Southern Africa: doubts and problems. *Man* 132:101-104

Brothwell DR, Higgs ES (eds.) 1963. *Science in Archaeology. A comprehensive survey of progress and research.* London, Thames and Hudson. 1st edition

Brothwell DR, Higgs ES 1963 Preface. In DR Brothwell, ES Higgs (eds.): *Science in Archaeology*. London, Thames and Hudson. 1st edition, p 15-16

Brothwell DR 1963 The palaeopathology of Pleistocene and more recent mammals. In DR Brothwell, ES Higgs (eds.): *Science in Archaeology*. London, Thames and Hudson. 1st edition, p 275-278

Brothwell DR 1963 The biology of earlier human populations. In DR Brothwell, ES Higgs (eds.): *Science in Archaeology*. London, Thames and Hudson. 1st edition, p 325-329

Brothwell DR 1963 The hair of earlier peoples. In DR Brothwell, ES Higgs (eds.): *Science and Archaeology*. London, Thames and Hudson. 1st edition, p 427-436

Brothwell DR Further comments on the right parietal from Swanscombe: anomalies and endocranial features. In CD Ovey (ed): *The Swanscombe skull: a survey of research on a Pleistocene site*. London, Royal Anthropological Institute, p 173-174

Morse D, Brothwell DR, Ucko PJ 1964 Tuberculosis in ancient Egypt. *American Review of Respiratory Diseases* 90:526-541

Brothwell DR 1964 Further comments on the right parietal from Swanscombe; anomalies endocranial features. In CD Ovey (ed): *The Swanscombe skull: a survey of research on a Pleistocene site*. Royal Anthropological Institute Occasional Paper 20. London, p 173-174

Brothwell DR, Powers R 1964-1966 A massive cist with multiple burials of Iron Age date. Part III The Iron Age people of Dunbar. *Proc. Soc. Antiquaries of Scotland* 98: 184-198

Brothwell DR, Higgs ES (eds) 1965 *Science in Archaeology. A survey of progress and research.* London, Thames and Hudson. 2nd enlarged and revised edition

Brothwell DR 1965 The palaeopathology of the E.B. –M.B. and Middle Bronze Age remains from Jericho (1957-58 excavation). In KM Kenyon (ed): *Excavations at Jericho II. The tombs excavated in 1955-1958*. London, British School of Archaeology in Jerusalem, p 685-693

Brothwell DR, Molleson T 1965 The frequency of middle phalangeal hair in Britain. *Eugenics Review* 57:131-135

Brothwell DR 1965 Micro-evolution in man. *Science Journal* 1:79

1956-1959

Brothwell DR 1958 Evidence of leprosy in British archaeological material. *Medical History* 11:287-291

Brothwell DR 1958 Congenital absence of the basi-occipital in a Romano-Briton. *Man* 58:93

Brothwell DR 1959 Notable examples of early trephining (p 95-96). In Oakley KP, Winnifred MA, Brooke A, Akester R, Brothwell DR 1959 Contributions on trepanning or trephination in ancient and modern times *Man* 59, 93-96

Brothwell DR 1959 Teeth in earlier human populations. *Proc Nutrition Soc* 18:59-65

Brothwell DR 1959 A rare dental anomaly in archaeological material. *British Dental J* 107:400-401

Barnicot NA, Brothwell DR 1959 The evaluation of metrical data in the comparison of ancient and modern bones. In G Wolstenholme, C O'Connor (eds): *Medical biology and Etruscan origins*. London, Churchill

Brothwell DR 1959 The use of non-metrical characters of the skull in differentiating populations. In J Schaeuble, U Schaefer (eds): *Bericht über di 6. Tagung der Deutschen Gesellschaft für Anthropologie in Kiel 30.7. bis 2.8. 1958 Homo Supplement*. Gottingen, p 103-109