

Tom Hart's Bones
by Oscar Nearly

Tom Hart – which was probably his real name – lived each day in pain by the time he died, 1897.¹ He hated the few people he knew, those he was forced to work alongside, and that hatred was reciprocated. He lived alone in a single room, crawling with insects and grime, in a driftwood house that could barely stand on the marshy land drained and flooded by the River Lea. The troughs of mud glowed at night with synthetic dyes running from the Atlas Works, oil from the refinery and the chemical solvents of Achille Serre's dry-cleaning factory; the children who played in the quagmire contracted indescribable diseases of the skin.² It is difficult to work out which came first, the pain or the hatred, but it was both that killed him.

He had been working at the British Xylonite Company in Homerton, one of the earliest plastics manufacturers, making knife handles and washable collars and cuffs. The work was mind-numbing and dangerous, xylonite being flammable enough to warrant the factory its own fire brigade. The plant proved too small to keep up with demand by the 1890s, and work was slowly being transferred to a new site in Hale End; therefore, it is not surprising that Hart was one of the first employees to be let go. Without money and in increasingly debilitating pain, Hart was on the verge of entering the Hackney Workhouse, if he could drag himself there. As it was, he died about a week later, sunken eyes staring as grease dripped from the ceiling, barely able to kick away the rats climbing over his legs – and he filled the air with such screams on the night he died that, when his body was discovered the next morning, the Metropolitan Police commissioned an autopsy just in case he had been unpopular enough to warrant murder. His remains, upper jaw and extremities already stiff from rigor mortis, were conveyed to a mortuary behind St. Leonard's Church in Shoreditch, in which a Dr. George Frederick Norton performed the autopsy.

Norton had previously studied under Professor Rudolph Virchow in the deadhouse of the Berlin Charité Hospital, though – to put it mildly – he was not considered one of England's preeminent pathologists.³ Assisting him was Simeon Conway, a Hackney native still in training at the London Hospital, drafted in mostly because he was one of the few doctors available who didn't refuse when discovering that Norton was in charge. The Shoreditch mortuary had been badly neglected since its brief dramatic role in the Ripper murders, since crowds pushed around the building as it housed the remains of his final victim Mary Jane Kelly. A new Whitechapel mortuary had opened in 1892; in its wake, the neglected St. Leonard's deadhouse started to crumble. Henry Wilton, the local sexton, duty parish clerk and undertaker, did what he could to clean the mortuary, but he was growing old, and blind. Damp rose up the walls of the cramped shed. The windows barely let in enough sun to navigate the room. Still, the doctors lit Davy lamps to cast flickering sallow light over

Hart's body, and Norton managed to stay in fit condition long enough to dissect the body in front of him.

Hart's autopsy seemed uneventful until examination of the cranial cavities. Dividing the scalp, Norton discovered that the bone was deformed in waves across the skull cap. The mal-development of bone, which they traced throughout Hart's skeletal system, was somehow divorced from other organic processes in his body: the distortions tore through his periosteum, the fibrous membrane which is supposed to cover the bone's entire surface, and left it no more than destroyed cobwebs of vessels underneath the skin. The tables of the skull in particular had pierced each other, the brittle vitreous layer projecting out in parallel lines, the tough outer layer curling into the cavity (Norton distinguished this cutting inside, turning the brain to 'pulpy matter consisting of whitish, soft, brain-like substance,' as the ultimate cause of Hart's death). Norton would have been content to ascribe this malformation to an 'obscure tumour of bone' were it not for Conway's observation, at first anecdotal, that there was 'a strong & eerie resemblance between curvature of cranial spines & the tracks of Hackney Downs railway viaduct & sidings at Graham Yard [sic] depot' – and the extent of deformation, the fluctuations across the parallel ridges, directly corresponded to the noises the trains coaxed from the track, the stretches which scraped against the wheels, the screeches Conway could pinpoint from growing up in their midst.

As the examination continued, Conway's local knowledge ceased to be a colourful distraction from the grim task at hand and instead offered the key to understanding Hart's fate. Laying open the thoracic cavity, they discovered a band of splinters emerging from the ribcage, wrapped around the circumferences of the bones, 'akin to crystallising minerals [...] pins & staples of the barrel-organ.' Conway immediately recognised the pattern as 'the unique contrapuntal quality of Hackney's industries' – that is, the unique pattern of droning iron wheels, factory bells and line shafts that pervaded Hackney each day, so recognisable 'that a blind man might know he's home.'⁴ The pelvis, similarly, displayed bulges across the flat of the ilium, 'projecting almost like tumours [...] curving akin to mathematical principles, resonances & bells'; upon (with difficulty) sawing through the protuberances, Norton found that they were completely hollow within. In this aspect there appeared to be disagreement between the pathologists: Norton attributed them to the ringing of the iron barges on the Thames, the concentric circles surrounding each bulge to ripples in the water as the barges knocked against each other; Conway took it to be the old bell of St. Augustine Tower, literally embossed on the bone. In general, where the autopsy notes diverge between the two doctors, Conway's position tends towards the mimetic properties of the skeleton; he followed closely the psychophysics of Theodor Fechner, William Crookes, and William Carpenter, and was influenced by the recent discovery that waves carry the physical proportions of whatever object generated them. He thus made the logical leap that these ordinary objects could be reconstructed from the vibrations they emit.

Norton and Conway agreed, however, that Hart's death was no suicide or murder that might isolate the blame to an individual, was caused not by tumours or diseases, but by the

¹ George Grocott, *Hackney Fifty Years Ago: Some Reminiscences, Etc.* (1915), p. 54.

² Charles Booth, *Life and Labour of the Poor in London*, v. 3 (1902), p. 108.

³ Rudolph Virchow, *Post-mortem Examinations*, trans. T.P. Smith (Philadelphia: P. Blakiston, 1895), p. 89.

⁴ Grocott, p. 13.

‘pollution of the air by the clamour & racket of modern industry [...] which has far graver consequences for health & wellbeing than has previously been understood.’ Concluding their report, Norton and Conway offered this stark warning:

The germ of noise may not be in this street or that, in this waterway or that, but it will find us some day, if we continue to use the industries which produce it [...] The importance of acting promptly is insisted upon. If the conditions of life in the city are unhealthy, & if the air, the very fountain of health, is polluted, then we have to face this fact: saving money by the use of deafening machinery is a penny-wise policy that, in the long run, will fail to pay even for the funerals & mourning goods.⁵

Possibly the most important medical discovery of the nineteenth century was thrown out by other, supposedly more senior physicians. No record remains of any tribunal or response to the original autopsy, though it is understandable perhaps why the poorly lit and ventilated mortuary, Conway’s inexperience and Norton’s alcoholism would be compelling reasons to discard a conclusion which was bad for medicine and worse for business. What does remain is a short paragraph detailing a preferable opinion – the official position. The patterns Conway recognised are here dissolved into ‘an indiscriminate mixture of bone, calcified cartilage and true cartilage, laid down without any attempt at order or regularity.’⁶ Cause of death is determined to be cerebral oedema, developing from tuberculosis, a theory which, with hindsight, doesn’t follow from Norton and Conway’s observations in the slightest. No matter: the case was closed, and industries were safe from other prying social reformers for another few years. When, a decade later, Julia Barnett Rice established the Society for the Suppression of Unnecessary Noise in New York, her case was based entirely on psychological welfare, not physical welfare; the truth Hart had embodied so agonisingly was buried.⁷

Norton never recovered from this blow; he had a nervous breakdown and died within the year at Bethnal House Lunatic Asylum. Conway managed to distance himself both from Norton and the Hart case, and almost went on to have a successful career as a pathologist, assisting Bernard Spilsbury with the Dr. Crippin case in 1910.⁸ His life was cut short, caught in one of the earliest Zeppelin raids on London in WWI, before he could make a real impression.⁹

Conway never made any public statements on Hart, and never professionally followed any similar medical or industrial cases, yet references to Hart recur in Conway’s private notebooks. Conway’s knowledge of psychophysics had made him aware that sound not only carries its point of origin with it; sounds never completely decay. Every vibration we make continues to echo, imperceptible to human ears, and it is only our physical failings, our frail biologies, which stop us from

listening in to events long since passed. In one of his final notebook entries, Conway realises,

were it not for the relative imprecision of our instruments—were it possible to study [Hart’s] Haversian canals with the same exactness with which geologists analyse the grains & traces of the canals wending to the Thames—I am utterly convinced that we would find therein the vestiges of the Sermon on the Mount—the voice of God.¹⁰

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Hollow Objects
an installation by Mhairi Vari
May 2019
at
St Augustine’s Tower
Hackney
London E8 1HT

Bell

amp, cable, coir doormat, electrical
tape, fishing beads, iPod, speakers,
specimen pins, rubber crumb, seaweed
bladders.

Clock

bulldog clips, cling film, coir doormat,
duvets, jeans, mica, pillows, Scotch
Magic Tape, socks.

Pendulum

amp, cable, coir doormat, cork log, cork
underlay, daily disposable contact
lenses, desiccated sprouting potatoes,
granulated cork, iPod, map pins, sound
exciters.

⁵ John F.J. Sykes, *Public Health Problems* (London: Walter Scott, 1899), p. 91.

⁶ John W. Tripe, *Report on the sanitary condition of the Hackney District for the year 1897* (London: A.T. Roberts, 1897), p. 28.

⁷ Robert D. Heintz, ‘The Woman Who Stopped Noises’, *The Ladies’ Home Journal*, v. 25 (1908), p. 334.

⁸ Douglas G. Browne and E.V. Tullett, *Bernard Spilsbury: His Life and Cases* (Harmondsworth: Penguin, 1951), p. 43.

⁹ Joseph Morris, *German Air Raids on Britain 1914–1918* (London: Sampson Low, 1925), p. 44.

¹⁰ London, Hackney Archives, D/F/CON/11, ‘Conway: Diaries and medical notes c 1894-1915’.