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Fit for Purpose: The Victorian and Edwardian Athletic Body

Although the century before the First World War witnessed a gradual intertwining between athletic training and science, experienced Edwardian coaches continued to identify potential sporting talent through a form of natural selection rather than relying on scientific measurements. Harry Andrews believed that a trainer could usually tell at a glance if a prospective athlete was likely to be successful, although he noted that some men, 'whilst in other ways no better trainers than the rest' were especially gifted in this respect.¹ Nowadays, of course, sport scientists are heavily involved in talent identification with athletes being scientifically selected based on physiological evaluation and anthropometric measurements, techniques which have been utilised in the sporting context for over a century.² While this paper touches on that history the focus here is on the traditional methods of identifying athletic talent utilised by professional coaches during the last three hundred years and the approach taken by amateurs to the sporting body in the late Victorian period.

During the Renaissance the observation and objective analysis of the human body contributed towards a new respect for physical function and performance. A learned mind in a strong and agile body became an ideal and an understanding of the Classical world became increasingly important. Hieronymus Mercurialis cited over a hundred authors from antiquity when describing athletic training in *De Arte Gymnastica* in 1569 in which he argued that exercise should be individualised according to constitution and level of fitness.³ Further rationalisation occurred during the seventeenth century, influenced by both Descartes and Puritanism which advocated physical training, proper hygiene and adequate exercise.⁴ The widespread existence of training programmes is confirmed by Stubbe's observation in 1671 that bodies which were 'dieted and brought up to an Athletick habit, do soonest of all decline into sickness and premature old age' and he described the intellects of such men as 'very dull'.⁵ A later eighteenth-century text also drew on Classical examples to point out the dangers of uneven development as a result of specialised training since, in 'every exertion beyond that what is gained in one part is inevitably lost in another'.⁶

By 1800 training programmes normally involved athletes going 'into training' in rural areas for up to eight weeks and beginning with purging and sweating before undertaking a strict regime of diet and exercise overseen by a professional trainer. Many of these traditional practices

¹ Andrews, H., *Training for Athletics and General Health*, C. Arthur Pearson, London, 1903, 46, 91-92.

² Vertinsky, P., *Embodying Normalcy: Anthropometry and the Long Arm of William H. Sheldon's Somatotyping Project*, *Journal of Sport History*, 2002, 29(1), 95-133; Park, R.J., *Physiologists, Physicians, and Physical Educators: Nineteenth Century Biology and Exercise*, *Hygienic and Educative*, *Journal of Sport History*, 1987, 14(1), 28-60; Park, R.J., "Cells or Soaring?": Historical Reflections on "Visions" of the Body, Athletics, and Modern Olympism, *Olympika: The International Journal of Olympic Studies*, 2000, 9, 1-24; Park, R.J., *Muscles, Symmetry and Action: 'Do You Measure Up?' Defining Masculinity in Britain and America from the 1860s to the Early 1900s*, *The International Journal of the History of Sport*, 2007, 24(12), 1604-1636.

³ Peter McIntosh, 'Hieronymus Mercurialis "De Arte Gymnastica": Classification and Dogma in Physical Education in the Sixteenth Century', *International Journal of the History of Sport* 1/1 (1984), 73-74, 81-84.

⁴ Joachim K. Ruhl, 'Religion and Amusements in Sixteenth- and Seventeenth-Century England: "Time might be better bestowed, and besides wee see sin acted"', *British Journal of Sports History* 1/2 (1984), 125-165.

⁵ Henry Stubbe, *An Epistolary Discourse Concerning Phlebotomy in Opposition to G. Thomson Pseudo-chymist, a Pretended Disciple of the Lord Verulam* (1671), 96.

⁶ Francis Fuller, *Medicina Gymnastica: Or, a Treatise concerning the Power of Exercise with Respect to the Animal Oeconomy and the Great Necessity of it in the Cure of Several Distempers* (London, 1705), 231-254; *The Scots Magazine* (March 1790), 107-109.

were recorded by Sinclair who also drew upon manuals⁷ which addressed the essential components of boxing performance and analysed the abilities of contemporary fighters.⁸ Identifying potential talent has always required an extensive knowledge of the performance demands within a sport, an accurate assessment of athlete capabilities in relation to these demands, and the ability to predict future performance levels based on current characteristics. In his 1713 text on wrestling Parkyns noted that he selected men of a middle size, athletic, full-breasted, broad shouldered, brawny-legged and armed, yet clear-limbed, for wind and strength. If he liked a man's size and complexion he first asked whether or not his parents were still alive and, if not, at what age they died, and then he explored their medical history and lifestyle, rejecting libertarians and men used to soft living. He also rejected 'sheep-biters' in favour of beef-eaters, who he believed had more robust, healthy and sound bodies.⁹ In Sinclair's texts trainer John Jackson observed that pedestrians ranged from five feet to six feet tall, with long thighs and short legs, while a fighter was normally of 'good size and weight'. Ages ranged from eighteen to forty and initial potential was assessed through trials involving short runs or sparring. Pedestrian trainer John Hall looked for muscular men, aged between twenty and twenty-six, 'round in their chests, short in their waists, long in their thighs, from five feet seven, to five feet ten'.¹⁰ In 1852, professional oarsman Robert Coombes described an ideal rower as one with 'good loins, wide at the hips, and long arms' weighing on average between nine and eleven-and-a-half stone, and with less than two inches' difference between loins and chest.¹¹ Towards the end of the century, athletics and cycling trainer, James Warburton noted that distance runners should not exceed ten stone and required a good chest and neck, square shoulders, light loins, a woman-like waist, long well-coupled up thighs, a short fore-leg, sound feet, wide nostrils and good teeth.¹² Even a leading critic of trainers, Dr Henry Hoole approved of some general principles suggested by 'an old writer on this subject'. An athlete should have 'a small head, brawny arms and legs, a good wind and considerable strength'. If a runner, 'his thighs ought to be long and his arms short' and a wrestler should be 'of middle height robust full breasted and broad shouldered'.¹³

This implicit understanding of what an athletic body should look like and its fitness for purpose was shared by spectators who evaluated a trainer's success through the 'ceremony of peeling' which preceded most sporting contests. When boxer Tom Spring defeated Langan in 1824 his appearance 'excited general admiration':

It combined elasticity, firmness and elegance. His fine person glowed with health, and his brow with manliness, modesty and resolution. He was in the finest condition, and justified his own and his backers' confidence. Langan stood firmly on his ground, cheerful and hearty, but without the elegance that distinguished Spring. He was reduced below his fighting weight, and showed indifferent condition.¹⁴

⁷ John Sinclair, *A Collection of Papers, on the Subject of Athletic Exercises* (London: Blackader, 1806); *The Code of Health and Longevity; or, a Concise View of the Principles Calculated for the Preservation of Health and the Attainment of Long Life* (Edinburgh: Arch. Constable, 1807), 39-150 and Appendix.

⁸ An Amateur, *The Art of Manual Defence; Or, System of Boxing: Perspicuously Explained in a Series of Lessons* (London: G. Kearsley, 1799), 68-91.

⁹ Thomas Parkyns, *Progymnasmata. The inn-play: or, Cornish-Hugg Wrestler* (London, 1713), 9-18, 37, 59.

¹⁰ Sinclair, *Collection of Papers, on the Subject of Athletic Exercises*, 15, 27.

¹¹ Member of C.U.B.C., *Aquatic Notes, or Sketches of the Rise and Progress of Rowing at Cambridge, With a Letter Containing Hints on Rowing and Training* by Robert Coombes, Champion Sculler, J. Deighton, Cambridge, and G. Bell, London, 1852, 107.

¹² Watson, R.O., 'Choppy' Warburton: Long Distance Runner and Trainer of Cycling Champions. Hero or Villain? E Wileybooks, 2006, 17.

¹³ Henry Hoole, (M.D.) *The Science and Art of Training; A Handbook for Athletes* (London: Trübner, 1888), 21.

¹⁴ *Bell's Life in London and Sporting Chronicle* (13 June 1824), 190.

When professional sculler Robert Chambers stripped off before a race in 1860 his condition was 'admirable' showing every muscle in his 'Herculean back and shoulders'.¹⁵ The key criteria of whether a man had been properly trained included the state of the skin, which should be smooth, elastic and well coloured, or transparent. The loins, the ribs, and the pit of the stomach, should be paler than at the commencement of training, and 'if with a tint of red, the more vigour will be found in his system'. The flesh should be firm and the athlete should feel light and vigorous.¹⁶

In contrast to the reliance on observation and experience used by professional trainers in assessing the athletic body amateur commentators employed scientific arguments to define their particular version of the sporting body in the late nineteenth century. Middle class factions were subject to a status hierarchy at the pinnacle of which stood the professional class with the highest status reserved for those connected with science. Victorian scientific societies saw no need for institutionalised expert training or formal qualifications and this admiration for the gifted amateur permeated all aspects of social life.¹⁷ The principles of amateurism were developed and refined into a philosophy of sport which celebrated the ideal amateur as one who could play several games well without giving the impression of strain. Elegance of style was essential and specialisation needed to be avoided. Distance running rarely appealed to Oxbridge men partly because it required extensive training and coaching and in the Cambridge versus London Athletic Club match in 1892 not one collegian finished the three miles race.¹⁸

In an attempt to consolidate their position within the professional class doctors became increasingly involved in defending this amateur vision of sport. Dr Henry Hoole criticised professional trainers for their lack of scientific accuracy and their ignorance of 'the elementary facts of physiology and anatomy'¹⁹ while Dr H. Cortis argued that physical breakdowns among athletes were caused by the ignorance of professional trainers.²⁰ Issues of class permeated much of the criticism. Henry Fazakerley Wilkinson, writing for amateurs in 1868, advised sportsmen to avoid professional trainers whose 'stereotyped code of rules' ignored individual differences. Constitutions varied according to class and the system employed by professionals was more appropriate to handling debauched working men. A gentleman had superior blood in his system, because of his better diet, and thus had a better foundation for training,²¹ a view supported by Sam Mussabini nearly fifty years later who believed that the extra attention bestowed upon the rearing of the better-class amateur athlete, his longer delay in entering the workplace, and his higher intelligence, could lead to superior athletes.²² Westhall suggested that, while professional athletes were unlikely to reject training restrictions, upper class athletes were likely to resent strict discipline. The social distance between themselves and amateurs presented problems for coaches because gentleman amateurs rejected professional advice in the belief that working class trainers could not properly shape superior upper class bodies.²³

¹⁵ *Baily's Monthly Magazine* (II/8 October 1860), 38.

¹⁶ Dowling, F.L., *Fistiana or, The Oracle of the Ring*, Wm. Clemen, London, 1841, 93.

¹⁷ Adrian Desmond, 'Redefining the X Axis: "Professionals," "Amateurs" and the Making of Mid-Victorian Biology - A Progress Report', *Journal of the History of Biology* 34 (2001), 11; Waller, 'Gentlemanly Men of Science', 83-84, 101, 105; Bellon, 'Joseph Dalton Hooker's Ideals for a Professional Man of Science', 66-68; Christina De Bellaigue, 'The Development of Teaching as a Profession for Women before 1870', *The Historical Journal* 44/4 (2001), 983-984.

¹⁸ *Manchester Guardian* (25 April 1892), 7.

¹⁹ Hoole, *The Science and Art of Training*,, preface.

²⁰ Herbert Cortis, *Principles of Training for Amateur Athletes; Its Advantages and Evils, with Special Regard to Bicyclists 4th edition* (London: Iliffe, 1887), 6.

²¹ Wilkinson, H.F., *Modern Athletics*, Warne, London, 1868, 71-79. 91-110.

²² Mussabini, S.A., *The Complete Athletic Trainer*, Methuen and Co., London, 1913, v-viii, 246-250.

²³ Charles Hall, *The Modern Method of Training for Running, Walking, Rowing, Boxing, Football, Lawn-Tennis, etc., including Hints on Exercise, Diet, Clothing and Advice to Trainers*, new edition, revised by E. Sachs, (London: Ward Lock, 1890), 23-25; Peter Mewett, "'Nothing Is Better for Dinner than a Pint of

During the nineteenth century, national surveys of human characteristics utilised anthropometry alongside 'political arithmetic' (statistics) in the belief that uncertainty was decreased as the number of observations increased. Evolutionary theory provided some theoretical underpinning for anthropometric analyses and the professionalisation of science further enhanced the authority given to those scientists who measured, compared and interpreted variability in the human body, often relating this to class and heredity.²⁴ Inevitably, these techniques were employed to determine the 'fitness for purpose' of the athletic body.²⁵ Archibald MacLaren published data on height, weight and chest girth, gave advice on minimum chest sizes for rowers and expressed concern about the uneven development found among athletes dedicated to one sport, reflecting a growing belief that body symmetry implied both physiological and spiritual fitness.²⁶ This ideal of a symmetrically appropriate body became a feature of the middle class athlete and Holt has suggested that the aesthetics of amateurism required a balance between 'height, weight, muscle development and mobility'.²⁷

Surveys of heights and weights led to the conclusion that a difference in class meant a corresponding difference in height.²⁸ The British Association for the Advancement of Science anthropometric committee, established in 1875, compared American students with members of the English professional class, who were 0.63 of an inch taller and had a greater arm span. It was widely believed that lower class physiology, especially the nervous system, qualitatively differed from that of gentlemen.²⁹ A comparison of Galton's measurements taken at the South Kensington Health Exposition with those of the average Cambridge student revealed that the latter had better lung capacity, height and other measurements thereby verifying the higher 'physical condition of the upper educated classes'.³⁰ Hoole noted that social surroundings had a similar influence upon 'bulk'. The majority of well-known amateur athletes had been the sons of landowners, business and professional men who grew up in the country or at the seaside and then attended public school where doctors and masters selected the recreation best suited to their age and physique. This naturally led to the development of the 'large frames, powerful muscles, and exceptional vigour' observed in senior schoolboys and undergraduates.³¹ For Hoole, well-formed and efficient organs should be encased in a symmetrically developed body which conformed to accepted standards of height and weight and which could tolerate climate extremes, exposure to fatigue and disease, and 'the friction of professional, commercial and domestic life'. He recorded the contemporary University ideal of a perfect athlete as '70 inches high and 168 lbs. in weight'.³²

Good Dry Champagne": The Gentleman Amateur and Sports Training in the Second Half of the Nineteenth Century', in C. Simpson and R. Gidlow, eds, *Proceedings of the Second Australian and New Zealand Leisure Studies Association Conference* (Canterbury: ANZALS, 1995), 207-211.

²⁴ Lorimer, D.A., Nature, Racism, and Late Victorian Science, *Canadian Journal of History*, 1990, 25(3), 369-386

²⁵ Patricia Vertinsky, 'Embodying Normalcy: Anthropometry and the Long Arm of William H. Sheldon's Somatotyping Project', *Journal of Sport History* 29/1 (2002), 94-133; Hyman Krakower, 'Anthropometry. A Brief Survey of the Measurement of Man from Ancient Civilization to 1932', *Research Quarterly* 19 (1937), 86.

²⁶ Archibald MacLaren, *A System of Physical Education, Theoretical and Practical* (Oxford: The Clarendon Press, 1865).

²⁷ Richard Holt, 'The Amateur Body and the Middle-class Man: Work, Health and Style in Victorian Britain', *Sport in History* 26/3 (2006), 362-363.

²⁸ Roderick Floud, 'The Dimensions of Inequality: Height and Weight Variation in Britain, 1700-2000', *Contemporary British History* 16/3 (2002), 13-24.

²⁹ Roberta Park, 'A Decade of the Body: Researching and Writing about the History of Health, Fitness, Exercise and Sport, 1983-1993', *Journal of Sport History* 21/1 (1994), 59; Richard Holt, 'The Appeal of Spectator Sport: Historical Reflections on Hans Ulrich Gumbrecht's in Praise of Athletic Beauty', *Sport in History* 28/1 (2008), 61.

³⁰ *The Lancet* (8 May 1888). Anthropometry.

³¹ Hoole, *The Science and Art of Training*, 23-25, 5-6.

³² Hoole, *The Science and Art of Training*, 20-26.

Commentators fully understood what this body looked like. When one journalist met the Scottish rugby team at their hotel before the Welsh game in 1900 he described them as 'an excellent stamp of the university athlete'.³³ The *County Gentleman* in 1898 argued that it was time for the 'beefy John Bull' emblem to be abandoned because English bodies were no longer corpulent but had gained in height, muscle and stamina. An increase in home exercise programmes helped explain the disappearance of the pot-bellied John Bull type and the development of the sinewy, wiry type of Englishman.³⁴ The *Morning Post* noted in 1900 that this body was not inferior to the American body, despite the successes of American athletes, because the English athlete would certainly hold his own if he was as carefully and continuously trained as his rival. However, if scientific training was impossible without the institution of the American 'training-table' it was better to do without it and be content to lose like a gentleman.³⁵ By 1903 one observer believed that the physique both of the individual athlete and of the nation had never been at a higher general standard of 'fitness' mainly because of the principles of temperance, plain living and abundant exercise.³⁶

He was presumably referring to the middle-class body since his contemporaries remained concerned about the working-class body with one commentator bemoaning the fact that, out of the eleven thousand Manchunians who volunteered for the front in 1899 over eight thousand were rejected because of physical incapacity and only one thousand proved to have the necessary physique for line regiments.³⁷ Clearly these bodies lay outside the 'University athlete' norms as did other freakish or unusual bodies such as wrestlers, throwers and weightlifters.

In some sports there was difficulty in attracting university men precisely because the body shape did not conform to the ideal. Swimming writers observed that 'ordinary' team games were more of a recreation and developed only certain parts of the body while swimming utilized nearly every muscle, particularly the respiratory muscles,³⁸ reflecting the specific type of middle class body and manliness that participants associated with swimming. Swimmers showed 'none of the bulging, knotty muscles of the professional poser', but had smooth arms and legs blessed with 'long, pliant, "working" muscles, that never tire.' Holbein advised anyone under thirteen stone against distance swimming and the amount of flesh often carried by a professional swimmer was considered 'no hindrance to his swimming at a great speed'.³⁹ Jabez Wolffe regarded swimming training as significantly different from other forms of athletic training because swimmers needed to retain 'valuable bonecovering'.⁴⁰

Wolffe's trainer, the 1908 and 1912 Olympic trainer Walter Brickett,⁴¹ noted that girls were well suited for swimming because of their buoyancy and suppleness, their ability to stay in the water for long periods and their stamina, which was 'quite equal' to that of men. He considered seven the ideal age to learn the strokes because the crawl was 'learned with comparative ease by children' although the 'golden period' of a girl's swimming career was between eighteen and twenty-two. Swimmers needed to 'work very hard and train daily'. In Walter's experience, tall girl champions were 'exceptional' and practically all champions had been girls of medium height.⁴²

³³ *Western Mail*, Saturday 27 January 1900. Wales versus Scotland.

³⁴ *The County Gentleman*, Saturday 12 November 1898 p. 1496

³⁵ *The Morning Post*, Saturday 14 July 1900 pg. 4

³⁶ *Evening Telegraph*, Saturday 25 July 1903. Modern Athletic Training.

³⁷ *Manchester Courier and Lancashire General Advertiser*, Wednesday 25 November 1908.

³⁸ Archibald Sinclair, *Swimming and Life Saving* (London: Health and Strength 1906), 2.

³⁹ Holbein, *Swimming*, 57; *Manchester Guardian* (14 October 1895), 3.

⁴⁰ Jabez Wolffe, *The Text-Book of Swimming* (London: Ewart and Seymour, 1910), 52-59.

⁴¹ *ASA Committee Minutes* (1908), 119; *The Times* (4 March 1912), 15; *Daily Mirror* (1 July 1912), 18.

⁴² *London's Swimming Girls* - Newspaper cutting in Brickett family papers.

Edwardian craft coaches like Brickett remained well aware of the importance of choosing the right athletes to work with and believed they possessed the experiential tools to be able to bypass 'scientific' measures. Harry Andrews recalled approvingly one 'celebrated old trainer' who had used three tests of a man's fitness, 'his watch, his weighing-machine, and his looking-glass'. If the glass showed any dullness or 'dead-codfish look, it is certain he is out of condition, stale, or overdone'. Every 'first-rate trainer' would have a range of experiential methods with which to assess a novice's potential.⁴³ Like his predecessors and his contemporaries, Sam Mussabini was not a man to rely on academics and he emphasised that the experienced, intelligent coach was part practitioner, part doctor and part student of nature. An ideal man would be middle aged, have 'gone through the mill himself', and his aptitude would be backed by a common sense that came with years of practice in his craft. Such a coach would be able to select the right raw material and properly train it.⁴⁴ Even in contemporary performance sport, which has fully embraced the scientific paradigm, talent identification still takes place, at least partly, through natural selection and those highly skilled coaches who maintain that they can 'see' talent are supported by research which suggests that an expert coach's 'eye' remains the crucial, initial stage of talent identification.⁴⁵

⁴³ Andrews, *Training for Athletics*, 54, 46, 91-92.

⁴⁴ Greg Moon, *Albert Hill: A Proper Perspective* (Gloucestershire: Greg Moon, 1992), 14-22; Scipio A. Mussabini, *The Complete Athletic Trainer* (London: Methuen, 1913), 103-148.

⁴⁵ Lawrie Woodman, 'Talent Identification - is Competition Enough?' *Sports Coach* 9/1 (1985), 49-57; J. Jarver, 'Do We Need Talent Identification?', *Modern Athlete and Coach* 20/1 (1982), 7-8; J. Kozel, 'Talent Identification and Development in Germany', *Coaching Focus* 31 (1996), 12-13.