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**Introduction**

Over the course of the nineteenth century, several social and technological innovations facilitated new patterns of leisure for the masses and it could be argued that sport experienced its own industrial revolution in this period, in tandem with wider societal developments in technology and industry. Municipal and private initiatives provided more spaces for urban relaxation and play, while industrial legislation and trade union activism caused real wages to rise and reduced the working week, resulting in a Saturday half-holiday for many employees. Emergent efficient and cheap means of intracity transport, facilitated by rapid developments in steam technology, allowed workers to travel more widely. Other technological developments included improved printing press equipment and techniques, such as the use of the newly-invented typewriter, sewing machines that produced uniforms and equipment, pneumatic tires for bicycles, the application of new rubber-making techniques to golf balls and footballs, and the use of steel for bicycle frames, golf-shafts, and the construction of stadia (Baker, 1979: 80, 83). Operating alongside these innovations was a commercial imperative that stimulated an expansion of the popular press, seaside resorts, music halls, and professional sport, which itself generated a significant increase in spectatorship (Vamplew, 1982: 549-550). While these initiatives created the context for mass leisure in Britain, they did not determine its character. Unlike their counterparts in America and France, where unique histories, demographics, and social structures produced different patterns of leisure, late-Victorian Britons experienced a complex blend of paternalism and competitive enterprise as social emulation existed alongside social exclusiveness (Baker, 1979: 80). The veneration of the amateur sportsman encouraged the middle classes to privatize their leisure pursuits to avoid fraternizing with the lower classes while simultaneously adopting an ethos of 'muscular Christianity', which assumed that sport developed self-discipline and team spirit. Although the playing of the same sports by all classes was believed to be a way of achieving class harmony, considerable social zoning occurred and mixed-sex sports such as tennis, hockey, golf, and badminton, remained the preserve of the middle classes until well into the twentieth century. It was only when a second-hand trade emerged in the early 1900s, for example, that lower middle and working-class men and women could realistically participate in cycling (Golby and Purdue, 1999: 79, 120, 170).

Despite these innovations, there was no clear break with the past in the leisure activities of most of the population in nineteenth-century Britain, although there was an acceleration of a pre-existing tendency towards an expansion of the commercial leisure industry, invariably driven by small-scale capitalist entrepreneurs. From the 1840s onwards, popular culture was transformed as leisure activities were re-packaged to accommodate a growing population and an expanding urban, industrialized environment (Golby and Purdue, 79: 120). The need for stable, punctual, sober, and disciplined workers became important for manufacturers and the Factory Acts established rationally organized clear divisions between work time and leisure time (Justman and Gradstein, 1999: 118-119). In eighteenth-century Manchester, hours in the hand spinning factories had fluctuated with seasonal demands and the availability of raw materials, so workers had continued to mix leisure with work, but owners, recognizing the substantial fixed costs associated with running a factory, were enforcing multi-shift work and a strict 75-hour week in mechanized factories by around 1820 (Huberman, 1995: 2). Old habits persisted however. An observer noted of employees in the Staffordshire potteries in 1843 that they “work by the piece; however much there may be on hand to accomplish they seldom or ever work after Saturday noon, and often not before the following Tuesday or Wednesday morning” (Pike, 1966: 197). Twenty-five years later, one artisan, highlighting that some of the working population still adhered to their old traditions, recorded that “the sporting Saint Mondayites take...greatest interest in... amateur [sports] ones of which they themselves are the promoters, and in which eminent members of their own body are the principals” (Wright, 1867).

**Commodification and Entrepreneurship**

Much has been made of the impact of the railways on sport from the 1840s, but extensive travel had been part of elite sport for many years. Devonshire wrestler Abraham Cann was travelling as far afield as London and Leeds

in the 1820s in pursuit of competition while champion jockey Tommy Lye travelled some 6,000 miles, mainly by horse and coach, as early as 1839 in pursuit of his 173 races (Huggins and Tolson, 2001). Many thousands could be found at wrestling contests in early nineteenth-century Cumbria and around 30,000 spectators attended the Langan–Spring prize-fight near Worcester in January 1824 (Hurley, 2002: 137). Nevertheless, the railways did revolutionize sport, not merely by widening the catchment area for spectators but also in enabling participants to compete nationally, which itself led to the organization of regional and national tournaments and leagues. The late 1840s and 1850s witnessed the development of touring professional cricket teams, beginning with William Clarke's first All-England XI, which attracted large crowds, while the easier transport of horses and racegoers resulted in racing becoming a genuinely national sport. By 1900, many railway companies, following their success in organizing seaside excursions, were prepared to provide Sunday anglers' trains for any association ready to guarantee 300 passengers (Lowerson, 1984). The impact of the railways on sport in North America was equally significant in the way that it facilitated spectator travel and competitive developments. Baseball spring training, for example, relied on the railroads to transport teams to suitable locations from the 1880s onwards (Bauer, 2018: 3).

Spectator sport in Britain was stimulated further as more people became able to pay for leisure activities following real wage rises after the 1840s, enabling spectators to afford travel, betting and refreshment costs, and to do so more frequently. There was a significant increase in spectatorship, with up to 80,000 attending major race meetings by the 1890s, and commercialized spectator sport for the mass market expanded as entrepreneurs and sports club executives enclosed grounds, built stadia and charged gate-money. Expansion was facilitated by a significant growth in the urban population, providing a concentrated market for entrepreneurs, and by the Saturday half-day legislation. Sports and leisure providers adopted an industrial approach by providing competitive and attractive fixtures, investing in ground facilities, utilizing emerging technology, organizing events more effectively, improving crowd control, and introducing leagues in team sports. The character and structure of sports were altered to attract more spectators with sprints, two-year-old and handicap racing becoming dominant features in horseracing, rugby splitting into two distinct versions, and some soccer clubs being voted out of the Football League because they were unable to produce enough gate revenue. There was also a growth in sports professionalism. By 1910, there were over 200 first-class professional cricketers, plus several hundred county ground staff and league professionals, some 400 jockeys and apprentices were engaged in horseracing, and there were 6,800 registered soccer professionals, although many were part-timers (Vamplew, 1982, 1988). Their counterparts in North American sports were well established by this stage and had already begun to explore ways of breaking away from their appointed role as mere commodities (Ross, 2016).

Commercialization was never uncontested, however, and the middle-class amateur sportsmen of the late-Victorian and Edwardian periods were not slow in voicing their disapproval. Although their opposition to professionalism was in part based on fears that enthusiasm for the game for its own sake would be lost, it was also based on the association of amateurism with higher social status. Even though national sports developed in which all classes were involved, with teams being supported by a wide cross-section of society, match results appearing in newspapers, and sporting celebrities acclaimed because of their ability not because of their social background, discernible differences between the classes survived. The middle classes generally preferred to be private and domestic in their leisure life and decorous in their behaviour, while the working classes were typically more public, gregarious and rowdy. As these differences gradually dissipated, a leisure culture emerged in which spectator sports homogenized many regional and social distinctions (Golby and Purdue, 1999: 200) and stimulated the development of a range of peripheral industries such as manufacturing and retailing.

### ***Manufacturing and Retailing***

Bailey (1987) argued that the advent of mass leisure in the context of suburbanization created opportunities for consumer agency for those whose engagement with technological and mercantile advance at work and at home

placed them at the forefront of modernity. The mid-nineteenth century retail scene was transformed in Britain by 1900 as the number of stores grew from around 1500 in 1880 to 11,645. Specialized grocers Liptons and Home and Colonial, shoe shop Freeman Hardy & Willis, the chemists Boots, tailors Hepworths, newspaper and bookstore W. H. Smith, along with several similar businesses, expanded significantly as did the availability of sporting goods for sportsmen and sportswomen. Hardy (1990: 73, 82) described this in nineteenth-century America as a three-stage process, one that resonates with parallel developments in Britain. Before 1860, players wore a modified form of everyday clothing and most sporting equipment was handcrafted. The period 1860 to 1880 saw exponential growth as entrepreneurs recognized that sport and sporting goods could expand beyond the artisanal trade, while the third period after 1880 was characterized by mass investment and intense competition between rival manufacturers and retailers trying to claim a share of a rapidly expanding market. By that stage, industrialization and social transformation had produced a completely new occupational stratum and a concomitant customer base that generated new opportunities for petit bourgeois entrepreneurship. An upsurge of popular interest in sports and leisure in the late-Victorian period proved a particularly fruitful avenue of entrepreneurial innovation for all manner of sporting clothing, accessories, equipment and novelties (Levitt, 1986: 204).

British sportsmen such as cricketer John Lillywhite traded on their reputation and set up small establishments manufacturing and retailing their own equipment. Lillywhite opened a shop on Haymarket in 1863 selling cricket gear, and other indoor and outdoor sporting requisites, at a premium price to attract the social elite. This commercial model was then adopted by London's high-end department stores, which incorporated small specialist sports and leisure departments. Gamage's, a department store specializing in sports and outdoor leisure goods, grew rapidly from its origins as a small hosiery shop in 1878, then through the firm's rapid expansion during the 'bicycle boom' of the 1880s and 1890s so that by the early twentieth century, the store was a household name in Southern England, renowned for its affordable sporting goods. This trajectory was driven by the commercial opportunities offered by the need to provide a new kind of distinctively masculine form of shopping environment. Walter Gamage, the store's founder, had been quick to recognize the increasing ideological salience of sport and leisure as the embodiment of fashionable modernity for young urban male consumers. The identification of a lucrative emerging hosiery sector and then rapid expansion into sporting goods proved a particularly apposite strategy for attracting a flourishing male clerical class that constituted the shop's primary consumer base. Sport was a key factor in repositioning male consumers as individuals whose sexual and class identities could be expressed through appropriate forms of fashionable consumption (Biddle-Perry, 2014: 295-297, 303). Similarly, Heffernan (2017) has explored how Eddie O'Callaghan, an Irish bicycle and physical culture retailer operating in *fin de siècle* Ireland, who traded in physical culture equipment between 1898 to 1906, drew on ideas of gender, strength and health in a bid to attract customers.

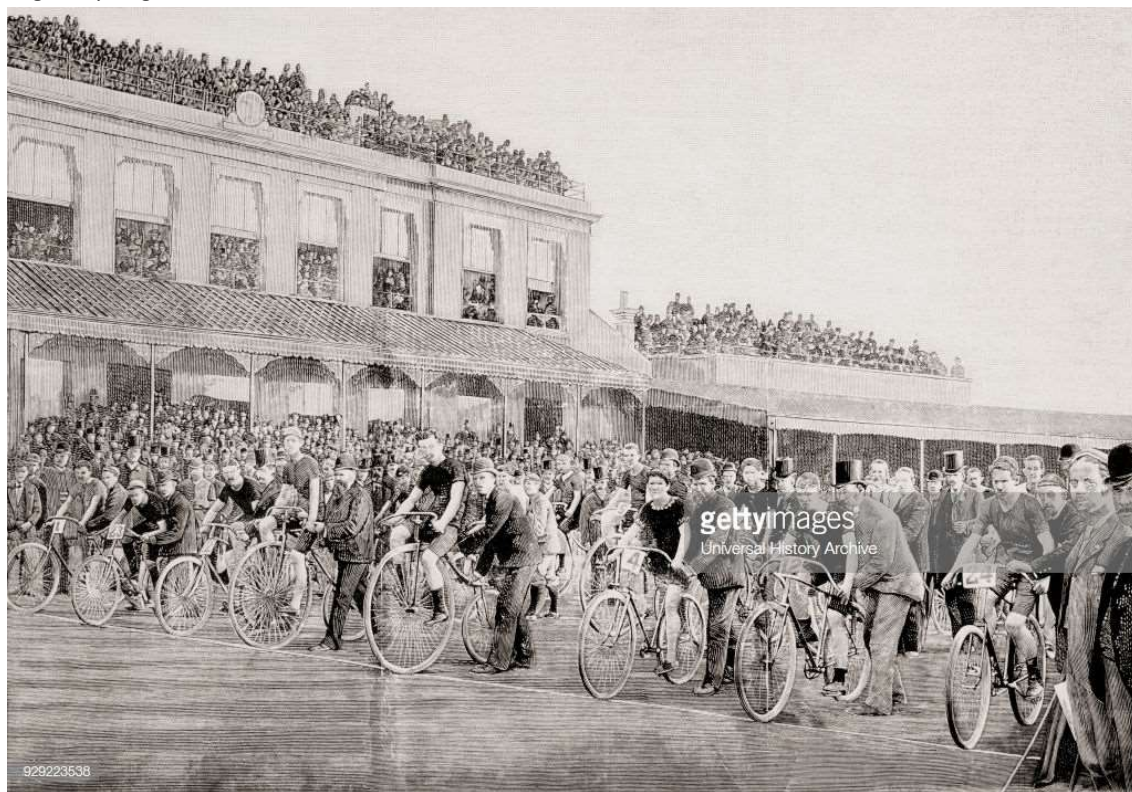
### ***Invention and Innovation***

Gamage's appeal was built on the considerable social cachet attached to sporting participation, especially the opportunities for status recognition that cycling offered in the later nineteenth century when the activity emerged as a fashionable pursuit for an urban elite and the upper-class cyclist became the embodiment of masculine modernity (Norcliffe, 2001: 32). New technology proved to be a key factor. Pierre Lallement took out a patent for the first two-wheeled velocipede in 1866 and subsequent developments in the sport demonstrate a constant sequence of technological change and consumer reaction (Ritchie, 2005: 458, 462). The safety bicycle, whose chain-driven rear wheel gradually became identical in size to the front wheel, was made practicable by John Kemp Starley in 1885, and John Boyd Dunlop's pneumatic tyre was introduced in 1888. This was superior to solid rubber tyres and, although he had many competitors, most of the pneumatic tyres sold during the next decade were Dunlops. With its increasingly sophisticated tyres, gears, and other accessories, the diamond-frame safety bicycle with its cross bar that could be lowered to accommodate women, was recognizably modern and efficient, enabling cycling to become suitable to both sexes and most ages. Gamage's began selling safety bicycles under the store's own label at a highly competitive price, and actively promoted a range of cut price,

fashionable cycling clothing and footwear. A 'Gamage' bicycle and a 'Referee' suit rapidly became synonymous with both the shop and the figure of the young suburban club cyclist (Biddle-Perry, 2014: 299).

By the 1890s, there were approximately 1.5 million cyclists and over 31,000 cycle makers, while most popular newspapers had regular cycling correspondents and cycling magazines had become an important feature of an expanding popular specialist press. Cycling manuals and guidebooks proliferated, while Thomas Cook's promotion of continental bicycle tours was quickly copied by other firms. National cycle shows became major events and membership of the Cyclists' Touring Club (founded in 1878), which catered especially for the titled, the fashionable, and the professional and business classes, rose to 60,449 in 1899. By early 1898, it was estimated that there were over 2,000 cycling clubs in Britain, 300 in London alone. Cycling not only had a social impact but also influenced economic life, especially in the West Midlands, where an industry was established using improved technology, including cheap steel, weldless tubular frames, and standardized parts. After a cycle boom in 1895, large cycle and accessory companies became much more numerous. Export of cycles and parts reached nearly £2 million in 1896, and British companies resisted American and German competition to dominate the world market before World War One. Cycle production stimulated the creation of a large and efficient machine tool industry and the industry provided much of the skilled work force, machinery and parts, and capital that enabled several manufacturers to subsequently produce motor vehicles (Rubenstein, 1977: 47–71, 51-58).

[Fig. 1. Cycling illustration here]



While cycling was the most visible embodiment of the symbiotic relationship between a cultural activity, technological innovation and commercial developments, it was by no means singular. In many ways, swimming epitomized the way in which technology, innovation and entertainment were entwined in the development of Victorian and Edwardian sport. The expansion in municipal baths facilities was important, as were entrepreneurial swimming "professors" who experimented with technique, creating faster strokes such as the Trudgen and the front crawl, and performance technologies, such as the use of oxygen, as well as developing

equipment. Boynton crossed the Channel using a form of rubber canoe, Ward developed a rubber suit for swimming in the sea, and authors proposed the use of 'plates', swim paddles, to aid performance. Crystal tanks filled with water enabled aquatic performers to display their skills in music halls and theatres while circus rings and arenas were flooded to provide suitable environments (Day, 2016, 2015, 2011).

In billiards, Edwin Kentfield, the generally acknowledged champion, and John Thurston, who supplied him with his equipment, improved playing conditions in the 1830s by introducing tables of slate beds with rubber cushions, covered with a finer baize (Wymer, 1949: 231). In 1863, American James L. Plimpton designed roller skates with four small boxwood wheels cushioned by rubber pads that enabled skaters to take advantage of the force of gravity and keep their balance while performing intricate figures. The subsequent invention of ball-bearing wheels in 1884 helped popularize the sport and London's Olympic Hall was built as a roller-skating rink (Brasch, 1986). John Jaques promoted croquet in England and began to manufacture equipment, including a wooden mallet. Croquet became a national pastime for both sexes and by the turn of the century, Jaques had several rivals, among them F. H. Avers of Aldergate, Slazenger in Cannon Street, and The Eclectic and Anglo-American Manufacturing Co. Ltd of Putney (Mallalieu, 1989). Although versions of table tennis began as parlour games, commercial interests soon started to produce custom-made equipment and rivalry between manufacturers stimulated the game. American firm, Parker Bros of Salem, Massachusetts, developed "Indoor Tennis" and exported their sets to England, where Hamley Bros, of London, marketed them under the tradename Ping-Pong. Meanwhile, other English companies, such as Ayres Ltd (who advertised the sport as "The Miniature Indoor Lawn Tennis"), had patented their own equipment under titles such as Gossima, Whiff Whaff, and Flim Flam (Brasch, 1986).

Technological innovations were important in the development of lawn tennis, which was hampered by the lack of a suitable ball until vulcanization was developed by Charles Goodyear in 1839. Another important factor was the invention of the lawn mower around the middle of the century by Alexander Shanks and Thomas Green (Cooper, 2004: 104). Turner (2016: 474) highlights how the tennis shoe became a popular, widely available commodity in late-Victorian Britain, promoted in the leisure press, and sold to both sexes in a variety of retail environments. Valued for symbolic and physically practical reasons, footwear, as with other forms of sportswear, created and communicated new masculine ideals. Clothing was also a way of declaring one's sporting status as an amateur. Day and Oldfield (2015) have demonstrated how late nineteenth-century amateur track and field athletes clothed their bodies in a way that distinguished themselves from their professional pedestrian predecessors. This "university costume" comprised drawers made from thin merino or silk, reaching to the knees and held around the waist by a broad elastic band. The jersey was normally made of the same material. In running events, thin shoes made from French calf, "and fitting the foot like a kid glove when laced up", were worn with chamois leather socks, just covering the toes but not reaching above the top of the shoe. For sports clothing manufacturers, the introduction of this standardized form of dress had a useful commercial benefit in that suppliers could now sell multiple rather than single items.

#### ***Facilities - Private and Public Provision***

While equipment and clothing were important social markers, participants needed suitable venues in which to display their purchases. Field sports remained a form of conspicuous recreation and the popularity of angling increased, partly because it was cheaper and more accessible than hunting, coursing or shooting (Smith, 2003: 34). Falconry, however, found it difficult to compete with alternatives at a time when technological innovation and changes in the environment made it harder to pursue and functionally less relevant (Grassby, 1997: 62). In shooting, servants had thrown potatoes and small turnips into the air for target practice in the early 1800s but, later on, 'trappers' would release pigeons or glass balls on command. In 1890, the Inanimate Bird Shooting Association was formed, and glass balls were gradually replaced by American clay targets that more easily resembled a bird in flight (Smith, 2004). In Argyllshire, a wide range of social groups competed in glass ball shooting, for prizes and medals or in sweepstakes, but in clearly defined classes including, in 1881,

"Gamekeepers; amateurs with gun licences; all comers including fishermen." Traditional practices remained important in activities such as this, and, despite significant changes in the societal context, there was a continuity with age-old traditions of the patronization of local recreation by the gentry (Jackson, 1998: 95), although things were changing in urban and industrial environments. In the North-East, colliery owners, officials and the professional classes were all directly involved in both the promotion and suppression of sports, dependant on whether or not they fell within the boundaries of 'rational recreation' (Metcalf, 1995: 23).

Of all the social groups which expanded with the structural shifts in the late-Victorian economy, clerks were by far the most numerous and important (Anderson, 1977: 113). Heller's analysis (2008) of the growth of staff sports clubs and associations evidences how financial institutions and new bureaucracies such as the London County Council and the Civil Service used the provision of sporting amenities, in conjunction with a wider package of welfare benefits, to generate a sense of commitment, loyalty and fellowship among this group of workers. Industrial employers also saw sport as having a utilitarian function and sponsored works teams as a means of reducing labour turnover by creating loyalty to the firm and increasing productivity by keeping workers fit. Pilkingtons, the glassmakers, were running a cricket team in the 1860s and several works teams were operating by the end of the century. George Cadbury devoted resources at his Bourneville factory to the health of his employees with the aim of enabling them to produce "the supreme economic value of quick, clean work" through the "speed of hand coupled with accuracy of eye...qualities which in the workers make the business pay". There was a well-equipped covered swimming baths for women and four women, fully qualified in the Swedish system of physical education, were employed to teach swimming, games and drill. For girls and boys up to the age of 18 a certain amount of physical education was compulsory and two half-hours of compulsory instruction per week for girls were devoted to Swedish drill, swimming and lifesaving, conducted on a "thoroughly scientific basis". In 1903, the first professional cricket coach was appointed and a second joined a year later (Bromhead, 2000: 105). At Port Sunlight, the village was constantly expanded to house all the workers necessary for the smooth running of the factory. The first public buildings came in 1892 in the form of a shop and Gladstone Hall, which hosted the dramatic society, choir, minstrel troupe, and chemistry club. A gymnasium was added in 1902, alongside an open-air swimming pool, and an auditorium in 1903 (Hindson, 2015).

Elsewhere, it was the commercial entrepreneur who provided facilities and support with the hope of generating a financial return as when Spiers and Pond, operators of a Melbourne restaurant, organized the All England Eleven cricket tour to Australia in 1861–62 (Frost, 2002: 55–56), by which time specialized commercial running areas had become well established. There was the "Hounslow inclosure-ground" in 1818, the "extensive inclosure" at Kilmersdon, near Bath, in 1821, the "prepared ground" near Daventry in 1825, the two-mile circle at Ashted Park, and Sheffield's Hyde Park Ground was operating by the mid-1830s, while a running track was laid out at Lords in 1837 (Brailsford, 1999: 204). By the mid-nineteenth century, most major urban centres had similar well-appointed pedestrian grounds, which staged championships over distances from sprints up to 10 miles, each with its own trophy, championship belt or cup, while racetracks and cricket grounds had grandstands. Owners had a stake in maintaining order and discipline to protect their facilities and paying spectators (Guttmann, 1985: 124), although middle-class entrepreneurs, keen to profit from the new mass market, often undermined attempts to "civilize" the working class and wean it away from drink, sport and popular culture (Lowerson, 1984). One artisan noted in 1867 that "The shrines at which the sporting section of the Saint Mondayites principally sacrifice" were the running grounds situated in the suburbs of London and in the larger manufacturing towns, where the amusements consisted of races ranging from eighty yards to five miles, wrestling matches, and pugilistic benefits to which several "brilliant stars of the ring show up in conjunction with pedestrians and wrestlers" (Wright, 1867). In the 1870s, enclosed commercial sporting grounds were opened in Northumberland and these became central venues for sporting activity (Metcalf, 1995).

Vamplew (2018) suggests that profit-maximization was not necessarily the aim of everyone who invested in the sports industry. While boxing promoters and some thoroughbred owners were concerned with direct financial

returns, others sought profits more indirectly. Alongside the businessmen who patronized works teams as part of their welfare policies, there were the cycle manufacturers who advertised their wares by sponsoring meetings and riders while builders, caterers and sports outfitters invested in football clubs with the hope of obtaining contracts. Additional football shareholders included members of the drink trade who hoped that supporters would frequent their public houses, while transport enterprises connected to prominent facilities in the expectation of benefitting from sports passenger traffic, and the press provided free publicity for sports events in the hope of attracting readers. Other investors had different priorities and some upper-class and middle-class expenditure, such as the maintenance of shooting estates or owning racehorses, can be viewed as conspicuous consumption. Some members of the middle class purchased social exclusivity as members of golf clubs while others subsidized cricket teams purely for reasons of civic or regional pride or invested in municipal facilities and sponsored teams as part of their mission to connect with the working class.

### ***Playing differently***

Sometimes recreations, sports and institutions were able to move up and down the social scale. Pedestrianism and rowing, low pastimes of the masses in the first half of the century, became, with modifications, acceptable to the university man at its end. Developing sports like golf and lawn tennis, however, were specific to the upper and middle classes and were played within clubs whose membership was carefully monitored. In sports accessible to all classes, internal divisions were maintained by the organization of, for example, Old Boys' clubs, which retained their school day connections and only played socially acceptable opponents. However, exclusivity could be maintained only with difficulty, because, as sports became national and leagues and cups proliferated, the desire to win and the need to attract ability and skill could militate against social divisions (Golby and Purdue, 1999: 170). Despite the efforts of middle-class philanthropists, the lower orders continued to approach their games differently. To them, winning, and an uncritical support of the home side, were more important than "playing the game", while drinking and gambling remained more popular than rational recreations, reflecting long-held traditions of working-class engagement with sport. Rowing competitions on the Tyne, involved races varying from individual challenge matches, with stakes ranging from £5 to £100, to championships where professional oarsmen, watched on occasions by crowds numbering 100,000, competed for prizes from £200 to £1,000 (Golby and Purdue, 1999: 65, 78-79). Horseracing and prize fighting contests were inseparable from betting and sporting aficionados were always prepared "to settle all matters of opinion by offering to lay or take long odds referring to 'lumping it on' or 'going a raker' when they have backed their fancy for five shillings, and regarding themselves as daring speculators when they have 'put the pot on'" (Wright, 1867).

Partly because of this addiction to gambling, the honesty of contests diminished from about 1820 onwards and, in prizefighting, things were so bad that the sport virtually disappeared as it increasingly came under pressure from the values associated with evangelicalism and respectability (Waterhouse, 2002). Owing to the large sums of money involved, an easily manipulated handicap system, and the absence of a central governing body, pedestrianism almost encouraged deceit and cheating was integral to most sports and activities of the period. Strongman Wolff, "the Rock of Luxemburg", who performed around 1814, apparently lifted phoney weights while rowing witnessed the withdrawal of amateur oarsman from the traditional culture surrounding the sport because of concerns over professional attitudes. Although the elite attended the first professional sculling championships in 1831, they soon emphasized pleasure over competition and the professional watermen who had coached, coxed and dictated tactics in public school and university rowing clubs began to be regarded with suspicion. Fouling, subsequently described as "watermen's rules", was initially an integral part of the sport but, as elite clubs moved to exclusivity, watermen were gradually withdrawn, first from the boats and then from their coaching jobs (Wigglesworth, 1992: 43, 65, 118, 185, 186).

Women taking part in sport found themselves subject to male stereotypical ideals of female personal conduct and successful female athletes such as pedestriennes were often portrayed as having questionable reputations



(Shaulis, 1999). Women's cycling was consistently attacked as indecent and middle-class females who played golf or tennis initially faced opposition, although these increasingly became acceptable social activities. During the late nineteenth century, golf clubs provided opportunities for healthful exercise, socializing and business, and established new patterns of leisure, land use and sociability, for women as well as men (Griffiths, 2016: 195). Women could often exploit men's notions of double standards. In horseracing, for example, women often got men to place bets 'for them', perhaps receiving the winnings in the form of a pair of gloves, but not having to pay out on a losing bet. The numerous accusations of female cheating at mixed sports suggest that women could get away with cheating more easily (Huggins, 2018: chapter 7). In croquet, some women could abandon their passive role and dominate or indeed humiliate men, mixing flirting with tantrums, wrangling and vociferous argument (Sterngass, 1998: 398).

[Fig. 2 Croquet illustration here]



### **Clubs and Associations**

Part of the solution to cheating was the rationalization of sport through clubs and associations. The search for order in prizefighting included the formation of the Pugilistic Club in 1814 to create "a regular fund for the support of gymnastic exercises". The primary goal was to prevent boxers from selling fights through establishing an organization that funded purses centrally. The club reduced the influence of individual patrons and set a trend for the organization of sports, but it never assumed the functions or the social status of similar bodies (Krzemienski, 2004: 173-174). These included the All England Croquet Club, meant to be "analogous to, and perhaps of similar benefit to croquet as the Marylebone Club is to cricket", formed in 1868, and the National Skating Association, created in 1879 to foster roller-skating (Brasch, 1986). The emergence of centralized National Governing Bodies (NGBs) like these was one of the significant features of late nineteenth-century sport and at least fifteen sports were being organized on a national scale by 1890. Characteristic of the amateur bodies that sprang up in the 1880s, such as the Amateur Athletic Association, the Amateur Boxing Association, the Amateur Rowing Association, the Amateur Swimming Association, and the Lawn Tennis Association, was their view that monetary recompense of athletes was a corrupting influence. In addition, because their founders were public school and university men, members of the liberal professions and serving officers (groups characterized by affluence and leisure time) their regulations inevitably favoured their peers and marginalized other classes.

The transition between pedestrianism and track and field athletics illustrates some of key aspects of the evolution of sports in this period. In nineteenth-century England, pedestrianism, one of the most popular spectator sports because of its gambling potential, involved long-distance feats of walking, in which 'peds' would set themselves the task of performing a stated feat in a given number of hours or days, or competitive races against other runners, which took place at holiday times, often on unenclosed land. A thriving competitive pedestrian culture surrounded regular events taking place in major conurbations such as London and Manchester over distances ranging from short sprints to 10 miles or more. Competitors trained hard, often in stables of athletes working under the eye of professional coaches, and the rewards could be substantial, especially if judicious betting strategies were employed (Day, 2014). They were accompanied by innovations in timing, with specialist watchmakers providing accurate watches, increasing accuracy in the measurement of distances, and the professional preparation of racing surfaces. While supporters came primarily from the working classes, aristocrats sometimes formed their own exclusive clubs and associations. One of the five designated nucleus clubs and the most prestigious amateur club, the Royal Athletic Club, whose subscribers included members of European royalty, withdrew from the Athletic Association in 1872 over the issue of awarding prizes and a few weeks later the Association folded (Goulstone, 1999). The professional middle class gradually assumed control of the sport and formed the Amateur Athletic Association in 1880 to regulate the excesses of the professional sport by enforcing their amateur values, including abolishing gambling and eliminating cheating. From that point, the sport changed both in the way it was structured and in who participated, particularly at elite levels where the "University" athlete became the norm (Day and Oldfield, 2015).

[Fig. 3. Athletics illustration here]



As modern sport forms crystallized, the institutional boundaries around them tightened, and provision for the privileged classes stressed exclusivity, often within private clubs. Most major race-meetings had their race clubs, of which the Jockey Club and Bibury Club in England, the Dublin Turf Club, or the Royal Caledonian Hunt Club in

Scotland, were the most socially elite and respectable (Huggins, 2018: chapter 7). London clubs included the Isthmian Club, which advertised itself in 1882 as a social club for gentlemen interested in rowing and other sports, gentlemen being defined as having been “educated at one of the Universities or at one of the Public Schools” or who were serving as an officer in the army or navy. The Whitehall Club, for 700 members, was founded in February 1904, catering especially for cricket, football, golf, lacrosse, yachting, and rowing. Not all clubs were exclusively male. Queen’s Club was established in 1886, specializing in tennis, cricket, and rackets, and it retained a cycling instructor to give lessons to “Members and Ladies introduced by them” using club machines on their own private running track (Tomlinson, 2003: 1582-1583).

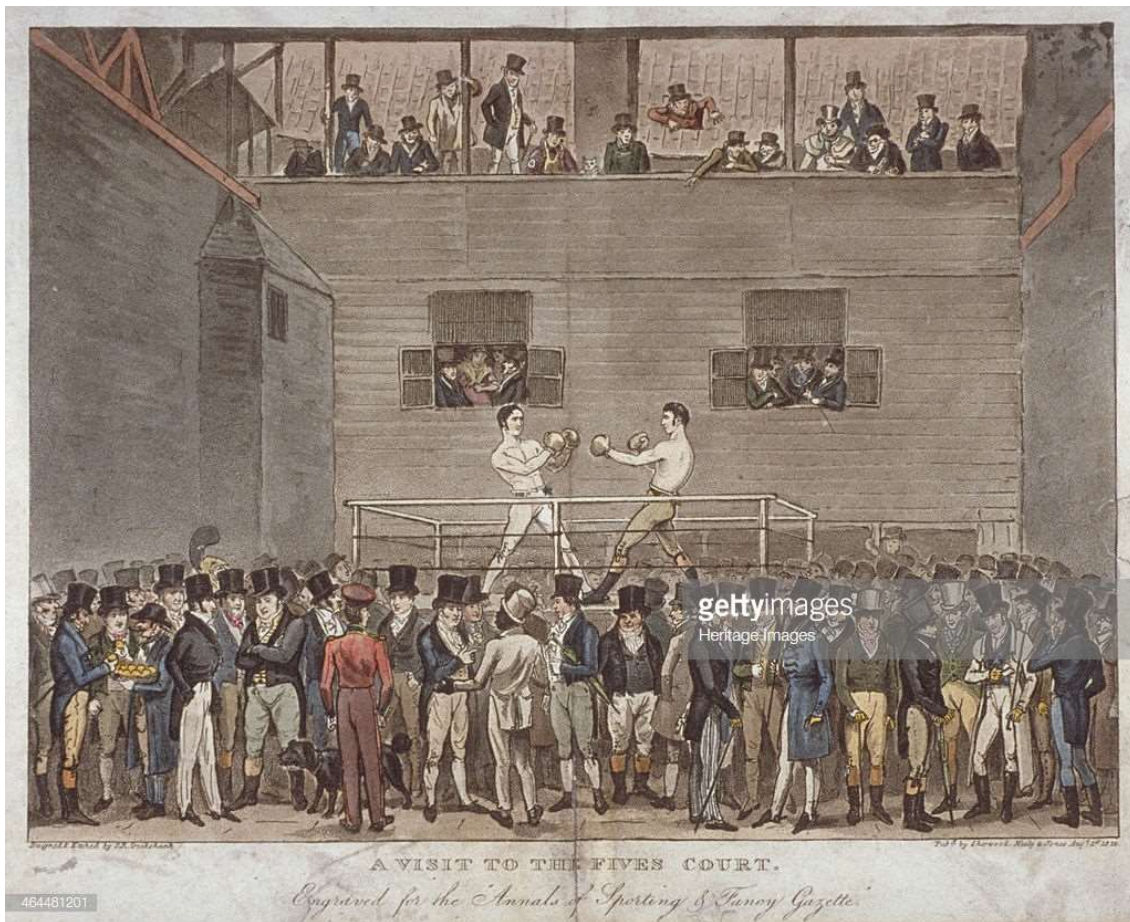
### ***Pedagogy, Training, and Performance technologies***

Between 1800 and 1835, Parliament debated eleven bills on cruelty to animals, and in 1835 finally passed a Cruelty to Animals Act proscribing bear-baiting, bull-running, and cockfights. While these events continued clandestinely in both urban and rural locations, working-class gambling increasingly focused on human rather than animal sports, apart from horseracing. By the 1820s, training for sporting contests had become an accepted and expected part of participants’ preparations. Training took contestants from their usual routines, normally for around two months, and put them under the control of professional trainers, who imposed strict regimes to bring athletes to peak competitive condition. When “in training”, the contestants lived with their mentors, who dictated and supervised every aspect of their daily lives (Day, 2012). Aside from the effectiveness of the training, Barclay’s successful completion of a challenge to cover 1,000 miles in 1,000 hours for 1,000 guineas in 1809 had emphasized how important planning was to successful athletic performance. Trial runs in the Highlands had identified potential issues such as the structure of the challenge itself, the appropriate clothing, the requisite medical support, and the need for planned recovery. The challenge also confirmed how sport and leisure were increasingly becoming intertwined with technological developments, Barclay having had seven gas lamps erected about 100 yards apart and set up on poles on either side of the course (Radford, 2001).

In the early nineteenth century, John Jackson, Champion of the Prize Ring in 1795, took rooms in Bond Street, from where, in conjunction with Harry D’Angelo, then running his family’s well-established and socially exclusive fencing academy, he gave lessons on the art of self-defence six days a week to all the fashionable elite. Along with Manton’s shooting gallery, Jackson’s training rooms became an important male sporting venue (Rendell, 1998: 117), remaining the focal point for the exchange of information on prizefighting, horseracing, cricket, and pedestrianism, until he retired in 1824. The Fancy also arranged demonstration bouts of sparring using gloves, or ‘mufflers’, at the Fives Court in Little St Martin’s Street, which accommodated up to 1,000 spectators (Radford, 2001: 60). Jackson controlled the venue and, like most promoters, trained his own fighters, including Jem Belcher, Bill Richmond, and Dutch Sam. Other sites of training were the back rooms of inns, often owned by members of the sporting fraternity. Bill Warr, the ex-prizefighter who kept the One Tun Tavern in London, was considered a good trainer for any sport, as well as being a successful teacher of boxing. Bill Neat had his training quarters above The Angel in Marlborough, (Hurley, 2002: 39-40, 97-98) and ‘Little Tim’s Crib’, the Angel Inn at Kitts End, near Barnet, was another popular training headquarters in the 1820s (Gee, 1998: 68-69, 87).

[Fig. 4. Fives Court illustration here]





Training programmes reflected the science of the day. Medical science had progressed by the early Victorian years and there was a greater awareness of hygienic needs, a concern for public health, and recognition of the need for fresh air and exercise. Muscle-powered engines operated in prisons, for example, and parliamentary commissions repeatedly endorsed the beneficial effects on the health of inmates by providing aerobic exercise (Vogel, 2002). Bleeding was customary medical practice and often adopted to treat fighters, with mixed results. In 1823, Bill Hall was 'out' for twenty-five minutes and after being bled twice he showed no ill effects but, after fighting for more than an hour in 1820, Winkworth died the day after being bled (Hurley, 2002: 97). Sports training also drew on contemporary medical and scientific understanding in the structuring of training to accommodate four essential elements; purging, a process which cleaned out the system before the training started; sweating, which got rid of fat; diet, the cornerstone of training; and exercise, normally involving daily runs and walks totalling between 20 and 24 miles. Training necessitated a highly regimented, limited, and specific diet, consisting largely of undercooked red meat, dry bread, and stale beer, while avoiding "watery" foods such as fish, vegetables, and fruit. Fluid intake was strictly limited to three pints of old beer. Sweating removed wastes and enhanced the working of the skin, both functions contributing to improved wind. Judging the sweating process was difficult since too much sweating, too late, weakened the athlete while not enough, done too soon, left him overweight and breathless. Those in training ran a weekly "four-mile sweat" dressed in flannels, immediately followed by drinking sweating liquors and being covered with many layers of bedding to hasten perspiration. Finally, they were rubbed dry with coarse towelling to promote the action of skin pores because it was thought that if the skin did not perspire adequately, more load was placed on the lungs to the detriment of wind, so the skin needed to be kept clean for it to perform its excretory function. The constipation frequently experienced in training was credited to the efficient way wastes were removed by perspiration. This basic training regime was adapted and employed by trainers across all sports (Day, 2012).

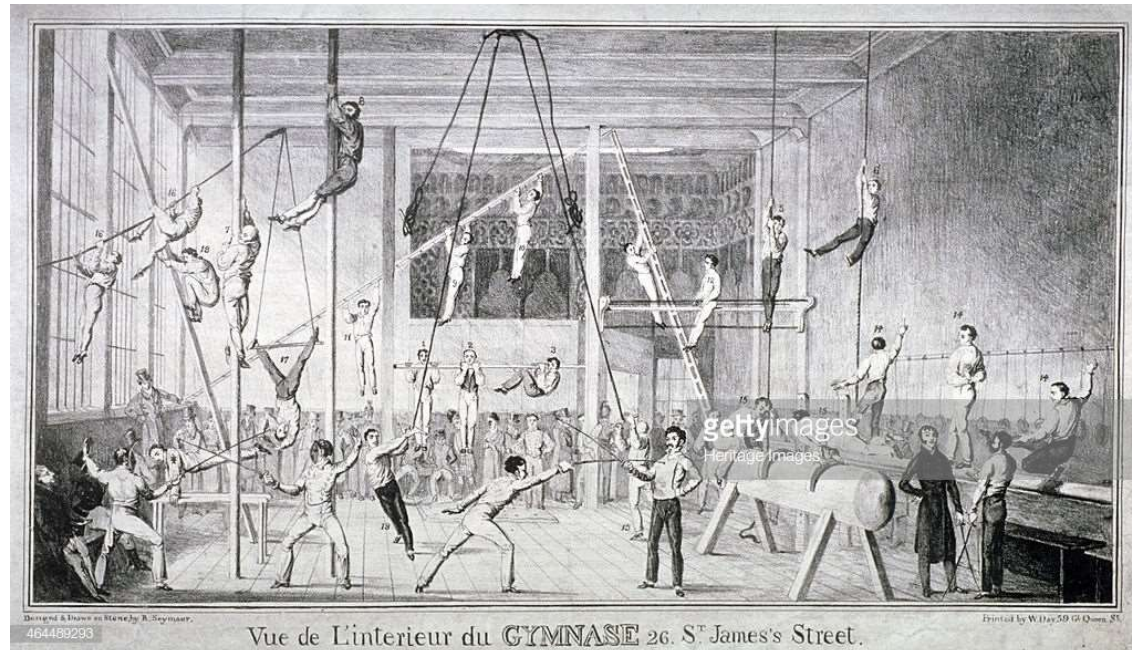
While fitness training reflected the need to remain active for long hours, skills acquisition mirrored the increasing complexity of production in an industrializing society (Mewett, 2002). One of the reasons for the lack of popularity of pugilism among the rising middle-classes was that it remained focussed on exhaustion and surrender while other sports changed their emphasis from sheer spectacle and conquest to a more respectable focus on fair and equal competition. Technical ability became more important, while finesse in play became more admired, and it was noted in 1811 that higher standards of play in cricket had been achieved by the employment of skilled coaches. Grantham Club players, for example, had been trained by Nottingham “professors” and Leicester players by a Mr Howard from the Marylebone Club (Brailsford, 1999: 163, 213). The first coaching manual had been published in 1816, and, by 1824, professionals William Fennex and John Sparkes, had been engaged to coach at Darnal by George Steer, the first proprietor of the ground. By the 1830s, the formation of new clubs in the rapidly developing urban industrial towns throughout Lancashire and Yorkshire had created further coaching opportunities. Tom Marsden had been engaged by the Manchester Club, “to bowl at them and give them instructions in the art of cricket” by 1833 and, in 1836, he was coaching the Burnley Club, while James Dearman was similarly employed by the Rochdale club from 1839 to 1842 and Joseph Crossland was engaged by Todmorden at the end of the next decade (Light, 2005: 65-66).

Over time, the middle classes utilized scientific advances and technological innovations to make sport a more socially acceptable activity. At the start of the nineteenth century, the muscular bodies of some pugilists, such as Bill Richmond and Tom Spring (Hurley, 2002: 41), had been used as artists’ models and the paintings of Jackson in the Royal Academy had encouraged a growing preoccupation with the physical appearance of the male body. Increasingly, though, the sportive body of the early nineteenth century no longer matched the aesthetic or functional preferences of the classes that mattered. The corporeal bodies of prize-fighters and the displays of excess in physical accomplishments such as long-distance pedestrianism, combined with the raucousness that accompanied these and other sporting events, proved unacceptable to the professional middle classes who rejected them as being unsuited to the new social setting and concomitant cultural mores. As a result, popular cultural practices were reshaped through a rewriting of rules for acceptable forms of corporeal practice. The sporting body became tamed, contained, remade, and sculptured into a more acceptable form (Tomlinson, 2003: 1577-1583), resulting in the emergence of a new ideal, the “University athlete”.

The Victorian obsession with measuring body parts and body type to determine aptitude, intelligence and personality traits was reflected in the application of anthropometric techniques to determine the “fitness for purpose” of the athletic body (Vertinsky, 2002: 97). Physical educationalist Archibald Maclaren (1866) published data on height, weight and chest girth, 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. The ideal of a symmetrically appropriate body became a feature of the middle-class athlete and Holt has suggested that the aesthetics of amateurism revived a Classical ideal of human proportion, “balancing height, weight, muscle development and mobility” (Holt, 2006: 362-363). For Hoole (1888: 20-26), 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 praised the contemporary university ideal of a perfect athlete as “70 inches high and 168 lbs in weight”, an athletic body that avoided any outward show of specialization or excessive muscularity and which contrasted with the height and weight of the professional pedestrian. The *County Gentleman* in 1898 argued that English bodies were no longer corpulent but had gained in height, muscle and stamina. The ‘pot-bellied John Bull type’ had disappeared and been replaced by a sinewy, wiry type of Englishman. In the *Evening Telegraph* in 1903, one observer suggested that the individual and national physique had never been at a higher general standard of ‘fitness’ mainly because of the principles of temperance, plain living and abundant exercise. He was presumably referring here to the middle-class body, since his contemporaries remained concerned about the state of the working-class body.

It is sometimes assumed that the sporting culture was all-embracing for the middle-class male of the late Victorian and Edwardian periods but “physical culture”, the development and strengthening of the body by means of regular exercise (OED), was an important part of the cultural landscape in Europe and the United States in the late nineteenth century. In Britain, physical education as a “social good” was a feature of the Muscular Christianity movement, which connected a strong body to moral character as well as ideas of racial purity that served Britain’s imperial projects (Wee 1994: 66). These programmes were accompanied by new forms of exercise equipment. In 1828, Charles Beck produced his *A Treatise on Gymnastics*, which included directions for dumbbell exercises, and two innovations, a ‘dynamometron’ and a ‘beam’, resistance appliances specially designed to incorporate the idea of variable weight. As callisthenics exercises spread in popularity, lightweight wands and dumbbells became the two most popular implements for group exercise classes. The Indian club appeared in England when the British army incorporated Indian club training into their physical conditioning programme, adopting a callisthenic exercise with light clubs rather than using heavyweight clubs for strength and muscle building. Donald Walker, author of *British Manly Exercises*, 1834, outlined basic exercises, as well as more complicated and vigorous club routines, and a year later, he introduced the Indian sceptre, a smaller version of the Indian club, in his *Exercises for Ladies Calculated to Preserve and Improve Beauty* (Todd, 2003: 70-72). A commercial culture always operated alongside this self-improvement agenda. Peter Ducrow, the “Flemish Hercules”, who later became proprietor of an amphitheatre in Bath, appeared at Astley’s Circus in 1800 and before the Royal Family at Frogmore House, Windsor. He would balance three wagon wheels on his forehead or chin and support a platform with ten to twelve men on his hands and feet. The anatomist Dr Bartlett told his students to go to see Andrew Ducrow perform so they could study the perfect human body and he hired Ducrow to model at his lectures (Webster, 2000: 26-27, 29). At the beginning of the nineteenth century, Carl Voelker, opened two *Turnplatz* in London, featuring exercises on horizontal and parallel bars, rope and ladder climbing and pole-vaulting across trenches (McIntosh, 1987) and indoor gymnasia were established in many British cities.

[Fig. 5. Gymnasium illustration here]



Towards the end of the nineteenth century, the term “physical culture” came to be associated with systematized modes of training promoted by Eugen Sandow, George Hackenschmidt, Apollo (William Bankier) in England, Bernarr MacFadden and Charles Atlas in the United States, and Edmond Desbonnet in France. These men espoused a ‘Greek ideal’ of arete (Fair 2015: 20) or personal excellence, which could be attained by programmes of weight and strength training. They pioneered techniques now familiar to modern exercisers and communicated their regimes through magazines, although these pioneers of physical culture were not only

strongmen, but also showmen. Theatrical spectacles, such as vaudevillian exhibitions, wrestling matches and physique competitions were another crucial medium of transmission (Chow, 2015: 33-34). Eugen Sandow, for example, started his theatrical career in 1887 and by the time he retired in 1903, the Sandow name was known internationally as a synonym for strength, health, and bodily perfection. Morais (2013: 193) argues that Sandow utilized a three-pronged strategy to establish his personal brand, which he then leveraged to market his name and other products, including books, a magazine, health clubs, exercise equipment, and miscellaneous health products.

### **Conclusion**

The significant expansion in nineteenth-century sport and leisure chronicled here mirrored wider developments in society as the rationalization of the workplace and the increasing political and economic power of the middle-classes were reflected in the way leisure activities were transitioning into their modern forms. In this respect, sport underwent its own industrial revolution in this period. This was most obvious, perhaps, in the ways that emerging technologies were employed by commercial entrepreneurs to create a product for the marketplace and the subsequent rapid expansion in spectatorship at sports events. Other developments were the result of the political processes that responded to worker demands by providing clear segments of free time and the creation of structures such as clubs and associations, which created competitive frameworks and stimulated a growth in participation as well as in the numbers of professional athletes. Furthermore, a growing affluence as a result of a rise in disposable income, combined with a passion for consumerism, led to a significant increase in the provision of sporting goods and clothing. Alongside this industrialization of sport and leisure was a transformation in the way that the body was viewed. Part of this was the result of the emergence of the amateur ethos as the underlying principle for sports participation in the latter decades of the century. The patrimonial elite that emerged from the public schools and universities rejected the commercialization of their sport and one of the results was a change in training practices, informed more by emerging scientific knowledge than by traditional practices. The perceived excesses of professional sport were subsequently replaced by “moderation” as a central creed and one that was reinforced in participation in socially zoned clubs that avoided mixing with social inferiors. Sports and leisure activities themselves also became identifiable as socially distinctive as the professional classes participated in particular activities that reinforced their superior status, partly because of the cost required and partly because of their temporal and spatial demands.

### **References**

- Anderson, Gregory. 1977. “The Social Economy of the Late Victorian Clerk.” In Geoffrey Crossick (ed.), *The Lower Middle Class in Britain 1870–1914*. London: Croom Helm.
- Bailey, Peter. 1987. *Leisure and Class in Victorian England: Rational Recreation and the Contest for Control*. London: Methuen.
- Baker, William. J. 1979. “The Leisure Revolution in Victorian England: A Review of Recent Literature.” *Journal of Sport History*, 6(3): 76-87.
- Bauer, Robert. 2018. “Gilded Age Gladiators: Hot Springs and the First Major League Baseball Spring Training.” *The Arkansas Historical Quarterly*, 77(1): 1-20.
- Biddle-Perry, Geraldine. 2014. “The Rise of ‘The World's Largest Sport and Athletic Outfitter’: A Study of Gamage's of Holborn, 1878–1913.” *Sport in History*, 34(2): 295-317.
- Brailsford, Dennis. 1992. *British Sport: A Social History*. Cambridge: The Lutterworth Press.
- Brailsford, Dennis. 1999. *A Taste for Diversions: Sport in Georgian England*. Cambridge: The Lutterworth Press.
- Brasch, Rudolph. 1990. *How Did Sports Begin?* Dumfriesshire: Tynron Press.
- Bromhead, John. 2000. “George Cadbury's Contribution to Sport.” *The Sports Historian* 20(1): 97-117.
- Chow, Broderick. 2015. “A Professional Body, Remembering, Repeating and Working out Masculinities in Fin-de-siècle Physical Culture.” *Performance Research*, 20(5): 30-41.



- Cooper, Ian. 2004. "Game, Set and Match: Lawn Tennis, from Early Origins to Modern Sport." In Eric Dunning, Dominic Malcolm, and Ivan Waddington, (eds.) *Sport Histories: Figurational Studies of the Development of Modern Sports*, London: Routledge. Chapter 7.
- County Gentleman. 1898 (November 12), 1496.
- Day, Dave. 2016. "Natational Dress: Functionality, Fashion and the Fracturing of Separate Spheres in Victorian Britain." *Annals of Leisure Research*, 19(2): 145-162;
- Day, Dave. 2015. "From Lambeth to Niagara: Imitation and Innovation amongst Female Natationists." *Sport in History*, 35(3): 364-390.
- Day, Dave. 2014. "Jerry Jim's Training Stable in Early Victorian Preston." In Dave Day (ed.) *Pedestrianism*. Manchester: MMU Sport and Leisure History.
- Day, Dave. 2012. *Professionals, Amateurs and Performance: Sports Coaching in England, 1789-1914*. Bern: Peter Lang.
- Day, Dave. 2011. "Kinship and Community in Victorian London: the 'Beckwith Frogs'". *History Workshop Journal*, 71(1): 194-218
- Day, Dave and Oldfield, S.J. 2015. "Delineating Professional and Amateur Athletic Bodies in Victorian England." *Sport in History*, 35(1): 19-45.
- Evening Telegraph. 1903 (July 25).
- Fair, John D. 2015. *Mr. America: The Tragic History of a Bodybuilding Icon*. Austin: University of Texas Press.
- Frost, Warwick. 2002. "Heritage, Nationalism, Identity: The 1861-62 England Cricket Tour of Australia." *The International Journal of the History of Sport*, 19(4): 55-56.
- Gee, Tony. 1998. *Up to Scratch: Bareknuckle Fighting and Heroes of the Prize-ring*, Queen Anne Press.
- Golby, Jim. M. and Purdue, A.W. 1999. *The Civilisation of the Crowd: Popular Culture in England, 1750-1900*. Sutton Publishing Limited.
- Goulstone, John. 1999. "English Folk Games and Sports." *British Society of Sports History Newsletter* 10 Autumn: 34-38.
- Grassby, Richard. 1997. "The Decline of Falconry in Early Modern England." *Past & Present*, 157: 37-63.
- Griffiths Clare. V.J. 2016. "'A Good Walk Spoiled'? Golfers and the Experience of Landscape during the Late Nineteenth Century." In: Bryant C., Burns A., Readman (eds) *Walking Histories, 1800-1914*. London: Palgrave Macmillan, 195-217.
- Guttmann, Allen. 1985. "English Sports Spectators: The Restoration to the Early Nineteenth Century." *Journal of Sport History*, 12(2): 103-125.
- Hardy, Stephen. 1990. "'Adopted by All the Leading Clubs': Sporting Goods and the Shaping of Leisure, 1800-1900." In Richard Butsch (ed.) *For Fun and Profit: The Transformation of Leisure into Consumption*. Philadelphia, PA: Temple University Press.
- Heffernan, Conor. 2017. "Strength Peddlers: Eddie O'Callaghan and the Selling of Irish Strength." *Sport in History* 38(1): 23-45.
- Heller, Michael. 2008. "Sport, Bureaucracies and London Clerks 1880-1939." *The International Journal of the History of Sport*, 25(25): 579-614.
- Hindson, Catherine. 2015. "Theatre at Port Sunlight, 1900-1925." (Lecture, Manchester Metropolitan University, Crewe, February 28).
- Holt, Richard. 2006. "The Amateur Body and the Middle-class Man: Work, Health and Style in Victorian Britain." *Sport in History*, 26(3): 362-3.
- Hoole, Henry. 1888. *The Science and Art of Training; A Handbook for Athletes*. London: Trübner.
- Huggins, Mike. 2018. *Horse Racing and British Society in the Long Eighteenth Century*. Woodbridge, UK: Boydell and Brewer.
- Huggins, Mike and Tolson, J. 2001. "The Railways and Sport in Victorian Britain: A Critical Reassessment." *The Journal of Transport History*, 22(2): 99-115.
- Huberman, Michael. 1995. "Some Early Evidence of Worksharing: Lancashire Before 1850." *Business History*, 37(4): 1-27.



- Hurley, Jon. 2002. *Tom Spring: Bare-Knuckle Champion of All England*, Tempus Publishing Ltd.
- Jackson, Lorna. 1998. "Sport and Patronage: Evidence from Nineteenth Century Argyllshire." *The Sports Historian* 18(2): 95-106.
- Justman, Moshe and Gradstein, M. 1999. "The Industrial Revolution, Political Transition, and the Subsequent Decline in Inequality in 19<sup>th</sup>-Century Britain." *Explorations in Economic History*, 36: 118-119.
- Krzemieniski, Edward. D. 2004. "Fulcrum of Change: Boxing and Society at a Crossroads." *The International Journal of the History of Sport*, 21(2): 173-174.
- Levitt, Sarah. 1986. *Victorians Unbuttoned: Registered Designs for Clothing, their Makers and Wearers, 1839–1900*. London: George Allen & Unwin.
- Light, Rob. 2005. "'Ten Drunks and a Parson?': The Victorian Professional Cricketer Reconsidered." *Sport in History*, 25(1): 65-66.
- Lowerson, John. 1984. "Sport and the Victorian Sunday: The Beginnings of Middle-class Apostasy." *British Journal of Sports History*, 1(2): 202-220.
- Maclaren, Archibald. 1866. *Training in Theory and Practice*, London: Macmillan and Co. 176
- Mallalieu, H. 1989. "Blood on The Lawns." *Country Life*
- McIntosh, Peter. 1987. *Sport in Society*. London: West London Press.
- Metcalfe, Alan. 1995. "The Control of Space and the Development of Sport: A Case Study of Twenty-Two Sports in the Mining Communities of East Northumberland, 1800-1914." *The Sports Historian*, 15(1): 23-33.
- Mewett, Peter. G. 2002. "From Horses to Humans: Species Crossovers in the Origin of Modern Sports Training." *Sport History Review*, 33: 95-120.
- Morais, Dominic. G. 2013. "Branding Iron: Eugen Sandow's 'Modern' Marketing Strategies, 1887–1925." *Journal of Sport History*, 40(2): 193-214.
- Norcliffe, Glen. 2001. *The Ride to Modernity: The Bicycle in Canada, 1869–1900*. Toronto: Toronto University Press.
- Pike, Edgar. R. 1966. *Human Documents of the Industrial Revolution in Britain*. London: George Allen & Unwin Ltd.
- Radford, Peter. 2001. *The Celebrated Captain Barclay: Sport, Money and Fame in Regency Britain*. London: Headline Book Publishing.
- Rendell, Jane. 1998. "West End Rambling: Gender and Architectural Space in London 1800–1830." *Leisure Studies* 17(2): 108-122.
- Ritchie, Andrew. 2005. Review Essay Bicycle: The History, by David Herlihy (New Haven, CT: Yale University Press, 2004). *The International Journal of the History of Sport*, 22(3): 458.
- Ross, Robert. B. 2016. *The Great Baseball Revolt: The Rise and Fall of the 1890 Players League*. Lincoln, NE: University of Nebraska Press.
- Rubinstein, David. 1977. "Cycling in the 1890s." *Victorian Studies*, 21(1): 47–71.
- Shaulis, Dahn. 1999. "Pedestriennes: Newsworthy but Controversial Women in Sports Entertainment." *Journal of Sport History*, 26(1): 29-50.
- Smith, Nicholas. D. 2003. "'Reel Women': Women and Angling in Eighteenth-Century England." *The International Journal of the History of Sport*, 20(1): 28–49.
- Smith, Stuart. 2004. "Clay Shooting: Civilization in the Line of Fire." In Eric Dunning, Dominic Malcolm, and Ivan Waddington, (eds.) *Sport Histories: Figurational Studies of the Development of Modern Sports*, London: Routledge
- Sterngass, Jon. 1998. "Cheating, Gender Roles and the Nineteenth Century Croquet Craze." *Journal of Sport History*, 25(3): 398-418.
- Todd, Jan. 2003. "The Strength Builders: A History of Barbells, Dumbbells and Indian Clubs." *The International Journal of the History of Sport*, 20(1): 70-72.
- Tomlinson, Alan. 2003. "Speculations on the Body and Sporting Spaces: The Cultural Significance of Sport Performance." *American Behavioral Scientist*, 46(11): 1577-1587.

- Turner, Thomas. 2016. "The Production and Consumption of Lawn-Tennis Shoes in Late-Victorian Britain." *Journal of British Studies*, 55: 474–500.
- Vamplew, Wray. 1982. "The Economic of a Sports Industry: Scottish Gate-Money Football, 1890-1914." *The Economic History Review*, 35(4): 549-567.
- Vamplew, Wray. 1988. *Pay Up and Play the Game*. Cambridge: Cambridge University Press.
- Vamplew, Wray. 2018. "Products, Promotion and (Possibly) Profits: Sports Entrepreneurship Revisited." *Journal of Sport History*, 45(2): 183-201.
- Vertinsky, Patricia. 2002. "Embodying Normalcy: Anthropometry and the Long Arm of William H. Sheldon's Somatotyping Project." *Journal of Sport History*, 29(1): 94–133.
- Vogel, Steven. 2002. "A Short History of Muscle-Powered Machines: What Goes Around Comes Around--and Does Useful Work." *Natural History*, 111(2): 84-91.
- Waterhouse, Richard. 2002. "Bare-knuckle Prize Fighting, Masculinity and Nineteenth Century Australian Culture." *Journal of Australian Studies*, 26(73): 101-110.
- Webster, D.P. 2000. "The Flemish Hercules." *Iron Game History* 6(2): 26-27.
- Wee, C. J. W.-L. .1994. "Christian Manliness and National Identity: The Problematic Construction of a Racially 'pure' nation." In Donald E. Hall (ed.) *Muscular Christianity: Embodying the Victorian Age*. Cambridge: Cambridge University Press, 66-90.
- Wigglesworth, Neil. 1992. *The Social History of English Rowing*. London: Frank Cass.
- Wright, Thomas. 1867. *Some Habits and Customs of the Working Classes*. London: Tinsley Brothers.
- Wymer, Norman. 1949. *Sport in England: A History of Two Thousand Years of Games and Pastimes*. London: George G. Harrap & Co. Ltd.