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# Revisiting the idea of degeneration in urban Britain, 1830–1900

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**ABSTRACT:** This article traces the evolution of the idea of degeneration in urban Britain between the early nineteenth and early twentieth centuries. Rejecting approaches that reduce this richly eclectic, though savagely negative, world-view to a random bundle of prejudices underpinning the emergence of the 'science' of eugenics, the article focuses on distinctive environmental, medical and anti-urban determinants. Strong emphasis is also placed on shifting interactions between moral and medico-environmental values and prescriptions which served as legitimisation for the racially inflected view that residual elements of the inner city working class might soon be doomed to physiological and hereditary extinction.

Studies of eugenics and its history and social, cultural and discursive formation continue to appear in intimidatingly large numbers. Following pioneering and innovative work during the 1970s and 1980s, many questions remained unanswered. New themes now emerged within the context of cultures in which the ideology had already been subjected to detailed scholarly scrutiny. In societies in which the tendency had thus far remained virtual *terra incognita* issues old and new moved to centre-stage.<sup>1</sup> Post-1990s research has engaged in particular with thorny transcultural issues, not least since it is now agreed that in the late nineteenth and early twentieth centuries variations between national derivatives of this astonishingly eclectic and flexible ideology expressed themselves in a wide range of institutional and policy-directed forms.<sup>2</sup> However, disagreement continues over similarities and contrasts between

\* This article is dedicated to Gareth Stedman Jones. In the early 1970s his work first suggested to the author that it might be possible to develop a medical and environmental approach to urban history. I am also very grateful to the editors for their incisive and helpful comment on an earlier draft.

<sup>1</sup> It is not feasible to provide anything like a comprehensive guide to a now very large literature, but excellent bibliographies may be found in D. Stone, *Breeding Supermen: Nietzsche, Race and Eugenics in Edwardian and Interwar Britain* (Liverpool, 2002), and M. Hawkins, *Social Darwinism in European and American Thought, 1860–1945: Nature as Model and Nature as Threat* (Cambridge, 1997).

<sup>2</sup> A. Richardson, *Love and Eugenics in the Late Nineteenth Century: Rational Reproduction and the New Woman* (Oxford, 2003), xvi.

the roles played by the state, central bureaucracies, the political orientation of intellectuals and scientists and the degree of autonomy granted to police, security and military groups involved in the Nazi and Stalinist marginalization, persecution and extermination of Jews, gypsies, kulaks, homosexuals, the mentally ill and the intellectually impaired. Hannah Arendt identified a number of these issues half a century ago: they have now begun to be clarified through insights derived from a growing body of literature on the comparative social history of the prison camp, to which Anne Applebaum and Richard Overy have recently made valuable contributions.<sup>3</sup> Meanwhile, in our own times, genocidal catastrophes in Cambodia and Rwanda have raised pressing questions about the extent to which contemporary extra-European experiences conform to or deviate from earlier exterminatory episodes.<sup>4</sup>

It is scarcely necessary yet again to rehearse the point that, despite the fear, vehemence and anger of their incessant outbursts, only a very small minority of late nineteenth- and early twentieth-century degenerationists in Britain advocated the bureaucratically co-ordinated elimination of elements of a sub-human underclass. Nevertheless, and this is a theme to be developed in what follows, very large numbers of urban commentators became convinced that, in time, the city would, as it were, turn on and punish its poorest inhabitants and deprive them of biological existence. In this sense, to move from dominant discourses permanently present in late Victorian and Edwardian Britain, to the fully fledged fantasies of Oswald Spengler in the 1920s, is to be confronted by profound and unsettling cross-cultural continuities. The scientists, medical men and proto-environmentalists whose testimony lies at the heart of this article convinced themselves that the *city itself* possessed a malign and deadly agency. Sedulously declining to become a fully paid up member of the Nazi party, Spengler called up images of the modern metropolis as an unnatural excrescence, which would be cataclysmically destroyed by infertility, social and psychological enervation, 'nigger rhythms' and debilitating cultural and physical distance from the renewing vitality of *volk*, blood and soil.<sup>5</sup> The message was, of course, unequivocally Hitlerian.

What follows is divided into four sections. By way of introduction, there is an outline account of major themes and problems. Second, the article

<sup>3</sup> D. Stone, 'Ontology or bureaucracy? Hannah Arendt's early interpretations of the Holocaust', *European Judaism*, 32, 2 (1990), 11–25; A. Applebaum, *Gulag: A History of the Soviet Camps* (New York, 2003); and R. Overy, *The Dictators: Hitler's German, Stalin's Russia* (London, 2004), 176–217 and 593–634.

<sup>4</sup> Ben Kiernan, *The Pol Pot Regime: Race, Power and Genocide in Cambodia under the Khmer Rouge, 1975–79* (New Haven, 2002), and L. Melwern, *Conspiracy to Murder: The Rwandan Genocide* (London, 2004).

<sup>5</sup> O. Spengler, *The Decline of the West* (London, 1932). It should be remembered that this extraordinarily bizarre book attained cult status during the inter-war period in Britain and only came to be acknowledged as the amateurish, antiquarian and pernicious nonsense that it undoubtedly is in the 1950s.

engages with the making and shaping of degenerationist ideology in urban Britain between the early nineteenth and early twentieth centuries. This is followed by a short section on what is here termed the zenith of the tendency between the 1870s and the outbreak of World War I. The article concludes with provisional comments on ways of approaching differential chronologies and developments in London and urban provincial Britain.

### The nature of the beast

Late nineteenth- and early twentieth-century urban, social and environmental problems, mediated through middle-class and rigidly biological world-views, were invariably viewed through the lens of fantasy and fear. However, the rebarbative tonality of fevered, tragi-sentimental late nineteenth-century social Darwinistic warnings about the imminent collapse of urban civilization should not be allowed to obscure the fact that a massive body of what would now be termed sociological investigation did indeed identify complex and disturbing problems in 'backward' areas of large towns and cities. In economic terms, two decades of modest regional improvement for a proportion of the urban working class between 1850 and 1870 gave way to an era of crisis, rooted in spiralling levels of overcrowding and chronically high rates of infant and early childhood mortality in the poorest districts.<sup>6</sup> Recent social, demographic and spatial research has begun to document these developments in a manner that may eventually substantiate at least some of the conclusions of pessimistic eugenic and social Darwinistic reportage.<sup>7</sup>

In addition, recent research has drawn attention to explicitly degenerationist, as distinct from eugenic or exclusively social Darwinistic, modes of thought.<sup>8</sup> In 1989 Daniel Pick identified a European 'disorder', and interrogated a body of medical, anthropological, criminological and moral thought which had long pre-dated statistically backed eugenic investigation into poverty, biology and disease.<sup>9</sup> Convinced of the

<sup>6</sup> Complex bodies of contesting evidence on economic developments and changing standards of living are clearly set out in K.T. Hoppen, *The Mid-Victorian Generation, 1846–1886* (Oxford, 1998), 72–90.

<sup>7</sup> For orientation in a complex area of research and debate see N. Williams and G. Mooney, 'Infant mortality in an "age of great cities": London and the provincial cities compared, c. 1840–1910', *Continuity and Change*, 9, 2 (1994), 185–212, and S.R.S. Szreter and Graham Mooney, 'Urbanization, mortality and the standard of living debate: new estimates of life expectancy at birth in nineteenth century British towns', *Economic History Review*, 40, 1 (1998), 84–112.

<sup>8</sup> See, for example, W. Greenslade, *Degeneration, Culture and the Novel 1880–1940* (Cambridge, 1994); S. Arata, *Fictions of Loss in the Victorian Fin-de-Siècle* (Cambridge, 1996); D.J. Childs, *Modernism and Eugenics: Woolf, Eliot and Yeats and the Culture of Degeneration* (Cambridge, 2001).

<sup>9</sup> Daniel Pick, *Faces of Degeneration: A European Disorder c. 1848–1918* (Cambridge, 1989).

inevitability of national urban decline, protagonists displayed a fear-laden distrust of the impact of city life on the reproductive potential of the working classes. Degenerationists were also convinced that in an ideal world poverty-stricken members of the population would either voluntarily or semi-compulsorily return to what reformers depicted as warmly supportive rural communities. By the 1880s this set of declinist discourses had established itself as complement, support and legitimation for eugenic forms of analysis. However, as we shall see, each body of thought – the degenerationist and the eugenicist – shaped, interacted with and reinforced the other.

Long after the formal inauguration of the eugenic project, degenerationism retained a clear-cut discursive independence. The older world-view cannot, in other words, be said simply to have prepared the way for, let alone to have in some sense *culminated* in, Galtonian social scientific analysis. Indeed, according to Stephen Arata, by the late nineteenth century degenerationism, by now a seemingly indefinitely flexible ideology, had come to serve the interests of ‘an empowered bourgeoisie’, and constituted an ‘effective means of “othering” large numbers of people by marking them as deviant, criminal, psychotic, defective, simple, hysterical, diseased, primitive, regressive, or just dangerous’. Arata also argues that the world-view ‘helped to name a plethora of disturbances characteristic of modernity in the West’.<sup>10</sup>

This article will suggest that it is time to move both backwards and forwards from the moment at which, according to over-simplistic interpretations, a flickering degenerationist flame was handed on to an energetic alliance of eugenic pioneers. Part of that task, as we have seen, has been undertaken by Daniel Pick, whose comparative study provides an overview of developments in England between the 1830s and the early twentieth century.<sup>11</sup> Other writers, working on the period between 1918 and 1939, have detected the continuing presence of degenerationist-like tendencies in the shaping of social, medical and environmental ideas and policies.<sup>12</sup> Reductively biological representations, inherited from as far back as the early nineteenth century, continued to exert a powerful influence during the 1940s and beyond. Labour’s post-World War II attempts to draw on a rejuvenated, citizen-based communalism to motivate the massive task of national reconstruction frequently resorted

<sup>10</sup> Arata, *Fictions of Loss*, 16–18.

<sup>11</sup> Within the present context, it should be noted that *Faces of Degeneration* is much stronger on the period between 1870 and the outbreak of World War I than on the formative years between 1830 and 1870. This is characteristic of nearly everything that has been written about this subject.

<sup>12</sup> See, in particular, D. Matless, *Landscape and Englishness* (London, 1998); P. Garside, ‘“Unhealthy areas”: town planning, eugenics and the slums, 1890–1945’, *Planning Perspectives*, 3, 1 (1988), 24–46; J. Welshman, ‘Eugenics and public health in Britain, 1900–40’, *Urban History*, 24, 1 (1997), 58–75; and J. Macnicol, ‘In pursuit of the underclass’, *Journal of Social Policy*, 16, 3 (1987), 293–318.

to degeneration-influenced, implicitly anti-urban and rural regenerationist styles of patriotic rhetoric.<sup>13</sup> Even when the influence of this venerable style of thought appeared finally to have faded, echoes of an earlier age could still be heard in Sir Keith Joseph's attempts during the 1960s and 1970s morally to revitalize marginal elements of the working class.<sup>14</sup> Similar values informed Charles Murray's identification of a so-called urban underclass.<sup>15</sup> Addressing the issue from a radically different perspective in 2005, the chairman of the Commission of Racial Equality warned Britons that they were 'sleeping their way to segregation. We are becoming strangers to each other and we are leaving communities to be marooned outside the mainstream.' It was time, he insisted, 'to arrest the trend of separate and competing fiefdoms within [our] city walls'.<sup>16</sup>

Degenerationism as a fully fledged ideological ensemble, emphasizing difference and the commonsensical naturalness of self-replicating urban social segregation, attained its zenith between 1880 and 1914. During this period, also, eugenically informed social statistical investigation had begun to focus on patterns of fertility among urban communities.<sup>17</sup> However, reformist representations of intemperate and irreligious behaviour long assumed to be causally related to the life-chances of the poorest members of working-class districts continued to exert a profound influence over middle-class perceptions of an urban-industrial order in crisis. In this sense, degenerationists believed that the very poor displayed inherited characteristics which predisposed them to potential physical and reproductive collapse. After 1880, negative perceptions of the biological repercussions of cultures of extreme poverty coexisted with and reinforced the much-trumpeted statistical rigour of eugenic innovation. In that sense, degenerationist thought played a major role in shaping new hypotheses and partially determined their results, while at the same time continuing to endure as a set of assumptions about everything believed to be irretrievably and naturally self-evident about social, spatial and moral relations between the classes in the great cities of the late nineteenth and early twentieth centuries.

All this was, of course, intimately linked to theoretical, textual and chronological issues involving Darwin, Darwinism and social Darwinism. Thus in the period between the publication of *Origin of Species* in 1859 and *The Descent of Man* in 1871, Darwin himself became less optimistic about the

<sup>13</sup> See Steven Fielding *et al.*, *England Arise! The Labour Party and Popular Politics in 1940s Britain* (Manchester, 1995), and M. Clapson, *Invincible Green Suburbs, Brave New Towns: Social Change and Urban Dispersal in Post-War England* (Manchester, 1998).

<sup>14</sup> Andrew Denton and Mark Garrett, *Keith Joseph* (Chesham, 2001), 265–71. The fateful, electioneering statement was 'The balance of our human population, our human stock, is threatened' (p. 265). For cultural background to this episode, see Macnicol, 'Underclass'.

<sup>15</sup> Stone, *Breeding Supermen*, 136–7.

<sup>16</sup> 'Ghettoes in English cities "almost equal to Chicago"', *Guardian*, 23 Sep. 2005. Speech by Trevor Phillips.

<sup>17</sup> S. Szreter, *Fertility, Class and Gender in Britain, 1860–1940* (Cambridge, 1996).

inevitability of human and social progress.<sup>18</sup> Resistant to explicitly social forms of degenerationism, he was nevertheless ready to acknowledge the negative impact of urban life on human development and contentment.<sup>19</sup> In 1880 the zoologist and naturalist Edwin Ray Lankester published *Degeneration: A Chapter in Darwinism*. Lankester had learnt much from his father, who had been a metropolitan medical officer of health, and had possessed extensive first-hand knowledge of some of the worst slums in London. Extrapolating from the zoological to the human and social, *Degeneration* contended that the mechanism of natural selection could not be made to ensure or even imply the inevitability of biological, social or 'race' progress. Like certain types of mollusc, human beings might regress to lower and less complex forms of life and behaviour.<sup>20</sup>

In terms of chronology, conceptions of tribalism and biological degeneracy in urban environments had, as we have seen, significantly predated the publication of *Origin of Species*. So, also, had strident anti-urban and arcadian reconstructions of a purportedly supportive, face-to-face rural communalism. One or another form of this agrarian revivalism went hand-in-hand with the widely held belief that only a radical transformation in explicitly *environmental* conditions could save the hungry and ill-housed from progressive mental and biological decline.<sup>21</sup> In turn, these powerfully entrenched ideas coalesced with pessimistic predictions of an insidious reduction in oxygen and sunlight in overcrowded courts and alleys. Central to eighteenth-century medico-environmental discourse, this style of thought would later occupy an important position in mid-century Chadwickian sanitarianism. By the 1850s, then, several clusters of interrelating ideas had already merged to provide a solid ideological underpinning for the degenerationist worldview. However, from the 1860s onwards, evolutionary and environmental modes of thought undoubtedly came to exercise an increasing effect over the range of topics, terms of debate and tonality of articles and editorials in journals like the *Lancet*, the *British Medical Journal* and the *Sanitary Record*. These publications extensively summarized and in general pessimistically interrogated late nineteenth-century health statistics, the progress of epidemics, the rationalization of sanitary organization, hospital scandals and argued for a regularized system of isolation for destitute patients suffering from infectious disease.

The medical men, social statisticians and cultural critics, then, whose testimony lies at the heart of this article, read, contributed to and argued

<sup>18</sup> Pick, *Faces of Degeneration*, 191–2.

<sup>19</sup> A countryman to his fingertips, Darwin retreated to the depths of Kent and, like the older Dickens, came deeply to detest his occasional, enforced visits to the capital. This is a recurrent theme in A. Desmond and J. Moore, *Darwin* (London, 1991).

<sup>20</sup> E. Ray Lankester, *Degeneration: A Chapter in Darwinism* (London, 1880), 59–62.

<sup>21</sup> P.C. Gould, *Early Green Politics: Back to Nature, Back to the Land and Socialism in Britain 1880–1900* (Brighton, 1988).

with one another in a rapidly expanding medico-environmental public sphere between the 1840s and the zenith of the cult of degenerationism in the 1880s.<sup>22</sup> Direct reference to Darwin was only rarely detectable but subtextually, pessimistic and nihilistic structures of thought centring on relationships between poverty, morality, evolutionary change and the survival of the fittest insistently recurred. Darwin may have been absent from this massive outpouring of socio-medical material but degenerationist variants of the Darwinian idea permeated epidemiological and social statistical discourse.

In Britain, the capital, epicentre of professional, scientific and professional interchange, hub of a booming national and international publishing industry and home to hundreds of journals and magazines, became the primary social laboratory in which degenerationist doctrine was shaped and refined between the 1830s and the 1880s. London, the largest city in the world, comprised a massive urban arena in which the inevitability of moral, physical, psychological and hereditary collapse came to be projected on to the deprived inhabitants of backward localities like Whitechapel, Southwark and the Strand. Rapidly expanding centres such as Birmingham, Liverpool, Manchester and Glasgow had long been confronted by similar problems to those vociferously decried in the capital – appalling health and housing conditions, pollution of air and water, grave infrastructural deficiency and antagonistic spatial division of the city between slum and suburb.<sup>23</sup> There are, however, few non-metropolitan studies to set alongside London-focused monographs by Stedman Jones, Pelling, Wohl, Hardy and Hamlin.<sup>24</sup> These authors have interrogated the economic, medico-environmental and epidemiological

<sup>22</sup> B. Luckin, 'The shaping of a public environmental sphere in late nineteenth century London', in S. Sturdy (ed.), *Medicine, Health and the Public Sphere in Britain, 1600–2000* (London, 2002), 224–40.

<sup>23</sup> See, on this absolutely central issue, A. Mayne, *The Imagined Slum: Newspaper Representation in Three Cities* (Leicester, 1993), and A. Mayne and T. Murray (eds.), *The Archaeology of the Urban Landscape: Explorations in Slumland* (Cambridge, 2001). See, also, the interchange between A. Mayne, 'A barefoot childhood. So what? Imagining slums and reading neighbourhoods', *Urban History*, 22, 3 (1995), 380–9, and D. Englander, 'Urban history or urban historicism? A response to Alan Mayne', *ibid.*, 390–1. B.M. Doyle has cogently qualified the Mayne thesis in 'Mapping slums in a historic city: representing working-class communities in Edwardian Norwich', *Planning Perspectives*, 16, 1 (2001), 47–65. These contributions should be read in conjunction with H.J. Dyos and D.A. Reeder, 'Slums and suburbs', in H.J. Dyos and M. Woolf (eds.), *The Victorian City: Images and Realities*, 2 vols. (London, 1973), vol. I, 359–86, and A.S. Wohl, *The Eternal Slum: Housing and Social Policy in Victorian London* (London, 1977). For provincial developments see the introduction and essays in S.M. Gaskell (ed.), *Slums* (Leicester, 1990), and S. Gunn, *The Public Culture of the Victorian Middle-Class: Ritual and Authority and the English Industrial City* (Manchester, 2000), 60–83. On Manchester see in particular the excellent M. Hewitt, *The Emergence of Stability in the Industrial City, Manchester 1832–67* (Aldershot, 1996), 54–64, and H. Platt, *Shock Cities: The Environmental Transformation and Reform of Manchester and Chicago* (Chicago, 2005).

<sup>24</sup> G. Stedman Jones, *Outcast London: A Study in the Relationship between Classes in Victorian Society* (Oxford, 1971); Wohl, *Eternal Slum*; M. Pelling, *Cholera, Fever and English Medicine 1825–1865* (Oxford, 1978); A. Hardy, *The Epidemic Streets: The Rise of Preventive Medicine 1856–1900* (Oxford, 1993); C. Hamlin, *Public Health and Social Justice in the Age of Chadwick*:

developments that prepared the way for the transformation of an earlier nineteenth-century preoccupation with ‘race’ and difference into the *fin de siècle* emergence of mature degenerationist styles of thought. Indeed, 35 years ago, Stedman Jones undertook a partial though pioneering reconstruction of the collective *mentalité* of metropolitan medical officers of health, and textually demonstrated the ways in which they unthinkingly scape-goated poverty-stricken inhabitants as infection-ridden deviants and a threat to social stability and moral order.<sup>25</sup>

Within a non-metropolitan setting, Alan Mayne’s important study of the social construction of the slum briefly engages with the legitimating role played by degenerationist ideology in late nineteenth-century Birmingham. However, Mayne fails to build on Stedman Jones’ and Pick’s insights. Furthermore, he somewhat mechanically restates the now long established though under-documented orthodoxy that, during the period of Chamberlainite slum clearance policies in the early 1880s, debate about relationships between poverty, appallingly sub-standard housing and incipient biological collapse – key themes within the degenerationist armatorium – simply and unproblematically ‘spilled over’ from the capital in the wake of the publication of Andrew Mearns’ *The Bitter Cry of Outcast London*.<sup>26</sup> No doubt in the longer term the historiographical imbalance will be corrected. For the moment, however, research into conditions in the late nineteenth-century British city, and biologically rooted perceptions of an urban underclass, remains over-dominated by debates in the capital. This theme – or anomaly? – will be revisited in the final section.

### **The making and shaping of a metropolitan and urban world-view**

Degenerationist styles of thought in nineteenth-century Britain were heavily influenced by post-Enlightenment identification of the physical environment, education, work routines and what would now be termed leisure, as mechanisms for reshaping the morality and customs of the lower orders. Reformers, and particularly those adopting liberal or radical political stances, conceived of the city as a gigantic testing-ground for democratic, industrial and scientific experimentation. Rapidly expanding centres of population were argued to be capable of developing advanced forms of self-government, which would in time introduce measures to transform levels of salubrity, health and welfare.<sup>27</sup> However, this

*Britain 1800–54* (Cambridge, 1998). To these will soon be added Peter Thorsheim’s study of the perception and quality of the atmosphere in the nineteenth-century capital.

<sup>25</sup> Stedman Jones, *Outcast London*, part 3.

<sup>26</sup> Mayne, *Imagined Slum*, 66.

<sup>27</sup> The view is classically stated in Robert Vaughan, *The Great Age of Cities: Or Modern Civilization Viewed in its Relation to Intelligence, Morals and Religion*, 2nd edn (London, 1843). The best summary overview of ‘optimistic’ and ‘pessimistic’ attitudes towards

progressivist position clashed with a deeply ingrained paternalism, rooted in hostility towards the city.<sup>28</sup> Anti-urbanists deplored unthinking flight from the countryside and presented an idealized vision of a rural social system which allegedly bound master protectively to servant, agricultural worker to tenant farmer and congregation to clergy. Early nineteenth-century liberals and radicals celebrated a new and exciting 'post-feudal' civilization in which it might finally prove possible to escape the prying eye of church and magistracy and do away with what Marx would later call the 'idiocy' of rural life. For their part, paternalists linked urban-industrialism to disease, criminality, alienation and death.

Nevertheless, optimists and pessimists agreed that the new cities, and pre-eminently the capital, had long been characterized by something akin to a quasi-racial occupational and social order. Following the logic of continental and British post-Enlightenment anthropology, and influenced by the stage theory of economic development set out in Adam Smith's *The Wealth of Nations*, progressives and paternalists concurred that the irretrievably poverty-stricken were distinguished by physical, linguistic and cultural traits that set them apart from the rest of the population. Social investigators concerned with the viability of regional and national charity-giving and the effectiveness of the Poor Law had long sought to establish the proportion of the adult population identifiable as socially, economically and, at an extreme, physically dependent. In the late seventeenth century Gregory King estimated that those incapable of securing 'self-sufficiency' comprised about a fifth of the total national population. This figure was periodically revised throughout the eighteenth century.<sup>29</sup>

In the mid-nineteenth century, as liberal and politically progressive a metropolitan observer as Henry Mayhew unselfconsciously referred to 'tribes' and 'races'. He detected countless hidden occupations at the base of the pyramid of labour. Sons naturally followed fathers and grandfathers into such jobs. The latter were invariably located in parts of the capital that remained *terra incognita* both to the middle and to the respectable working classes. Mayhew also documented occupational-specific forms of slang used by scavengers, street-sellers, crossing-sweepers and sweated dress-makers and milliners. Predicting John Bright's coining of the term 'residuum' in the mid-1860s, he claimed that those who laboured in jobs of this kind – urban untouchables? – would be incapable of developing a fully formed moral sense. Paying scant attention to vested authority,

nineteenth- and early twentieth-century urbanization is still A. Lees, *Cities Perceived: Urban Society in English and American Thought, 1820–1940* (Manchester, 1985).

<sup>28</sup> K. Lawes, *Paternalism and Politics: The Revival of Paternalism in Early Nineteenth Century Britain* (London, 2000).

<sup>29</sup> P. Mathias, 'The social structure in the eighteenth century: a calculation by Joseph Massie', in his *The Transformation of England: Essays in the Economic and Social History of England in the Eighteenth Century* (London, 1979), 171–89.

they would fall foul of the law.<sup>30</sup> Forty years on, in his great metropolitan survey, Charles Booth would claim that those falling into grade A of his poverty scale habitually gravitated towards petty crime.<sup>31</sup>

A significant strand of degenerationist ideology between the 1830s and the 1880 must therefore be related to theories of racially tinged urban tribalism. During the 1830s and 1840s, however, the view that the poverty-stricken constituted a race apart combined with a widespread belief that economic and environmental deprivation might, at an extreme, compromise bodily, biological and *hereditary* existence. During the 1840s sanitarians gathered evidence which suggested that thousands of members of the metropolitan population lived in so abject a state of semi-permanent destitution that the continuation of an individual ancestral line might be jeopardized. Thus in 1844 an investigatory commission decried ‘absence of solar energy’, leading in environmentally impoverished areas to deprivation of oxygen, diminution of red corpuscles, lankness, feebleness, debility and premature death.<sup>32</sup>

The most influential of the first generation of English sanitarians, Edwin Chadwick, devoted himself to the development of urban systems – interacting water supply and sewage disposal facilities – designed to return human waste to the agricultural sector. This would increase the productivity of the land, reduce the cost of a daily loaf and ensure political stability through a reduction in family outgoings in a politically and socially unstable urban environment.<sup>33</sup> However, Chadwick, his fellow reformers and their successors also championed a stern individual moral and – though this is an extremely complex issue – religious ethos.<sup>34</sup> This sub-doctrine insisted that wilful flouting of the sacred tenets of hygiene, temperance, frugality and sexual probity during cholera and fever years would condemn back-sliders to an early and, in terms of the productivity of the national labour force, costly grave.<sup>35</sup> Yet the wretched conditions

<sup>30</sup> See G. Weber, ‘Science and society in nineteenth century anthropology’, *History of Science*, 12, 4 (1974), 260–83; Wohl, *Eternal Slum*; G. Himmelfarb, *The Idea of Poverty: England in the Early Industrial Age* (London, 1984), 323–32; and E. Yeo, *The Contest for Social Science: Relations and Representations of Gender and Class* (London, 1996). Intriguing comparative aspects are documented in D. Reid, *Paris Sewers and Sewermen: Realities and Representations* (Cambridge, MA, 1991), and A.F. Laberge, *Mission and Method: The Early Nineteenth Century French Public Health Movement* (Cambridge, 1992).

<sup>31</sup> R. O’Day and D. Englander, *Mr Charles Booth’s Inquiry: Lives and Labour of the People in London Reconsidered* (London, 1993).

<sup>32</sup> British Parliamentary Papers, *First Report of the Commissioners for Inquiring into the State of Large Towns and Populous Districts*, 1844, vol. XVII, 42–3.

<sup>33</sup> On links between Chadwick’s technological, political and social aims see Hamlin, *Public Health and Social Justice*.

<sup>34</sup> The grievously neglected issue of relationships between nineteenth-century sanitarian and environmental thought and the religious impulse will soon be addressed in a major study by Christopher Hamlin.

<sup>35</sup> British Parliamentary Papers, *Metropolitan Sanitary Commission: First Report, 1847–8*, vol. XXXII, 48. See, also, M.W. Flinn (ed.), *Report on the Sanitary Condition of the Labouring Population of Great Britain by Edwin Chadwick* (Edinburgh, 1965), 273–4.

in which the very poorest members of the metropolitan population were forced to live suggested that conformity to any kind of self-improving code would not be possible. Indeed, in one sense, the existence of a moralized sanitarian regimen constituted an admission, before the concept of the 'residuum' had gained full currency, that very large numbers of city-dwellers might fail biologically to survive.

Explicitly moral aspects of first generation sanitarianism proved central to the social construction of mid-nineteenth-century theories of degeneracy. Chadwick failed to substantiate his dictum that 'all smell is disease, and all disease is smell' and miasmatic doctrine remained empirically unverifiable. Nevertheless, very large numbers of urban reformers and medical men between the 1840s and the 1880s relied intensively on this seemingly indefinitely flexible moral and environmental paradigm. Novel variables were readily and painlessly incorporated. In the aftermath of the final metropolitan cholera epidemic of 1866 a pamphleteer noted that no fewer than a dozen different, overlapping disease theories, all closely related to miasmatic doctrine, continued to be championed by public health specialists in the capital. Each gave greater or lesser attention to morality, frugality, temperance – the 'habits of the poor' – germs, poisons, atmospheric, meteorological and electrical factors, filth and the metropolitan gas supply.<sup>36</sup> Eclecticism reigned supreme until the 1880s and 1890s, with the parameters of what was now frequently termed 'vapour' theory becoming ever more elastic. Thus to many progressive public health practitioners, the bacteriological revolution of the 1870s and 1880s constituted little more than yet another element to be incorporated into an ever more eclectic socio-medical world-view. The central aim remained the maintenance of a credibly theorized and, in class terms, iron-clad legitimation of dominant relationships between class, poverty, morality, insalubrity, environmental impurity and the incidence of fatal and non-fatal disease.<sup>37</sup>

Chadwickian and post-Chadwickian disease theory were linked to a related, though discrete, body of meteorological and atmospheric knowledge which would also prove central to the shaping of the degenerationist idea. In the early Victorian era, London and other cities found themselves periodically paralysed by dense episodes of fog. Contemporaries designated these events according to colour, 'white', 'brown', 'gritty black', 'yellow'. 'Country' white had disappeared in London by the 1830s. 'Brown' and 'yellow' predominated in the 1840s and 1850s. From the 1860s onwards the capital found itself regularly enshrouded in 'gritty black'. The great London fogs between the 1870s and the outbreak of World War I immobilized traffic, increased the death-toll from pneumonic

<sup>36</sup> Thomas Orton, *Special Report on the Cholera Epidemic of 1866* (London, 1867).

<sup>37</sup> The best account of public health ideology in action during this period is Hardy, *Epidemic Streets*. But see, also, M. Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge, 2000).

and bronchitic disease among the elderly and killed significantly larger numbers of people within that age-group than the aggregate death-toll for all categories during the cholera epidemics of 1831–32, 1848–49 and 1854–55. Such episodes blackened curtains, hangings and clothes and disrupted work in railways stations, shops and offices, street markets, warehouses, in the docks and on the Thames.<sup>38</sup>

These great London fogs of the final quarter of the nineteenth century involved or coincided with an intensification of metropolitan anti-urbanism. This preoccupation had, as we have seen, been present in the writings of earlier generations of reformers. However, by the 1870s the continuing growth of the urban sector as a whole, dominated by the seemingly illimitable expansion of the capital, triggered an ever more desperate quest for solutions. These invariably took the form of passionate rhetorical commitment to one or another form of rural regeneration. The repopulation of shrunken village communities, claimed to be the victims of the rampant expansion of urban-industrialism, might, it was argued, save the nation, and the empire, from environmental and biological collapse. Adding another strand to an already complex body of socio-medical thought, this astonishingly unrealistic panacea held strong appeal for both conservatives and progressives. By the late nineteenth century arcadian pro-ruralism, rhetorical antidote to middle-class and aristocratic fear of the city, had become all-pervasive.<sup>39</sup>

The attraction of a return to the country becomes clearer when viewed within the context of demographic and spatial change in London – and other cities – between 1850 and 1914.<sup>40</sup> Inner core districts, which had experienced significant levels of growth before mid-century now entered a period of stagnation, followed by absolute decline. Those who could afford to, moved to cheap, semi-suburban accommodation just outside the inner ring, thereby escaping the pollution and epidemiological ravages associated with rampant commercialization of the now rapidly depopulating central districts and the construction, from the late 1850s onwards, of the central railway termini.<sup>41</sup> Lacking a sufficiently solid financial base to fund the improvement of essential infrastructure, these inner areas – the core of the early modern city ‘beyond the walls’ – contained large tracts of appallingly overcrowded housing. Investigators studying the plight of the central districts became convinced that absence of sunlight – what sanitarian reformers during the 1840s had called ‘solar energy’ – shortage of oxygen and abjectly substandard living conditions

<sup>38</sup> B. Luckin, ‘Demographic, social and cultural parameters of environmental crisis: the great London smoke fogs of the late nineteenth and early twentieth centuries’, in C. Bernhardt and G. Massard-Guilbaud (eds.), *The Modern Demon: Pollution in Urban and Industrial Societies* (Clermont-Ferrand, 2002), 219–38.

<sup>39</sup> Richardson, *Love and Eugenics*, 132–55.

<sup>40</sup> The classic account remains Stedman Jones, *Outcast London*. But see also D.R. Green, *From Artisans to Paupers: Economic Change and Poverty in London 1780–1870* (Aldershot, 1995).

<sup>41</sup> J.R. Kellert, *The Impact of the Railways on Victorian Cities* (London, 1969).

would condemn the inhabitants of places like St Giles, Southwark and Holborn to a dismal physical and psychological fate.<sup>42</sup> Moreover, new demographic and epidemiological measures such as life expectation at birth and more accurate indexes of levels of infant and childhood mortality meant that these same areas came to be perceived as being *morally* responsible for holding back what could have been even more impressive city-wide gains in health and welfare. New suburban districts forged ahead: central areas lagged behind. Similar patterns may be detected in the great provincial cities of the late nineteenth century.<sup>43</sup>

By the early 1880s, other important aspects of the demographic and social structural systems, which proved central to the full flowering of degenerationist and social Darwinistic discourse, had been more thoroughly investigated. Increasingly reliable evidence confirmed startling differentials between the fertility of the poor, the moderately well-off and the affluent.<sup>44</sup> These findings suggested that family size and levels of infant mortality were significantly higher in the central districts, the East End and the squalid inner-southern districts. Now, surely, the capital must put its governmental house in order and introduce financial policies which would allow deprived localities such as Shoreditch and Poplar to be partially subsidized by affluent districts like Hampstead and Chelsea.<sup>45</sup> According to these proposals, increased levels of city-wide expenditure in the poorest areas would gradually reduce infrastructural deficiencies and differentials. At the same time, improvements in environmental conditions would engender associated changes in attitudes towards the family and fertility, and bring exceptionally deprived members of the community into closer proximity with moral and behavioural codes embraced by middle- and respectable working-class members of the population.<sup>46</sup> Mayhew's 'lost tribes' would finally move into the mainstream of an enlightened metropolitan and imperial civilization.

### Zenith

Those who opposed reformist agendas tended to argue, among much else, that excess infant deaths in over-sized, poverty-stricken families constituted the natural order of things. Moreover, allegedly backward-looking behaviour among the very poor would be likely to spread, infection-like, throughout the city. Just as intensively as in the 1840s

<sup>42</sup> D. Galton, 'On some preventable causes of impurity in the London air' (London, 1880), the Anniversary Address to the Sanitary Institute, 8 Jul. 1880, and 'Inaugural address', *Transactions of the Sanitary Institute of Great Britain*, 4 (1882–3), 35.

<sup>43</sup> Szreter and Mooney, 'Urbanization, mortality and the standard of living debate'.

<sup>44</sup> Szreter, *Fertility, Class and Gender*.

<sup>45</sup> J. Davis, *Reforming London: The London Government Problem 1855–1900* (Oxford, 1988).

<sup>46</sup> F.M.L. Thompson, *The Rise of Respectable Society: A Social History of Victorian Britain 1830–1900* (London, 1988).

spatial segregation had come to be perceived as central to the survival of the social and occupational elite. Pessimistic images of this kind fed into morbid *fin de siècle* reformist debate, characterized, as it now was, by a mixture of hostility, despair and ghoulish sentimentality. The latter was particularly forcefully applied to supposedly doomed working-class mothers and children.<sup>47</sup> Solutions remained elusive, and continued to amount to little more than a plea that the poorest members of the community, pre-eminently heads of households, must live less immoral and more temperate lives. Meanwhile, social reformers and medical men mounted an ever more insistent barrage of propaganda to persuade governments to take measures to convince the urban workforce that it would be in its own best interests to migrate back to what was now paradoxically admitted to be a regionally deeply depressed agricultural sector.

Analytic merged with imagined representations. Whether expressed in the statistically authenticated language of the medical officer, epidemiological graphs, or fiction, poetry and sensationalist fantasy, certain themes obsessively recurred. At a pessimistic extreme, the city, and not just the urban poor, was claimed to be teetering at the very brink. In tones similar to those which would later be malignly developed by Spengler, commentators claimed that great centres of population must prepare themselves for a horrific and chastening epoch of destruction before entering into the painful process of material, moral and cultural rebirth. The splendours of great wealth and imperial pomp notwithstanding, the middle classes must, according to this eschatological view of things, admit that the capital had failed to regenerate itself from within.

In one sense warnings about over-urbanization, and the potential moral and psychological plight of London and its fragmented and atomized sub-populations, reached back to the late medieval period. In the seventeenth and eighteenth centuries Evelyn, Swift and Gay had predicted that London would either be asphyxiated by its own grimy atmosphere or foment in a sea of excretory and moral filth.<sup>48</sup> In the early 1800s, Blake and Wordsworth repeatedly alluded to the onset of an unendurable sense of metropolitan alienation.<sup>49</sup> By the 1850s, and even more by the 1870s, James Thomson,

<sup>47</sup> These two categories are given prominence in the slum 'physiognomies' described and interpreted in Mayne, *Imagined Slum*, 190–2 and 199–203.

<sup>48</sup> Max Byrd, *London Transform'd: Images of the City in the Eighteenth Century* (New Haven and London, 1978).

<sup>49</sup> See William Blake's 'London', in W.H. Stevenson (ed.), *The Poems of William Blake* (London, 1971), 154 and 213–214. An interpretation of the two versions of this astonishingly compressed poem is provided by D.V. Erdman in *Blake: Prophet against Empire: A Poet's Interpretation of the History of his Own Times*, 3rd edn (Princeton, 1977), 275–9. See, also, 'Book seven: residence in London' of *The Prelude* in J.C. Maxwell (ed.), *William Wordsworth: The Prelude: A Parallel Text* (Harmondsworth, 1971), 250–95. Earlier phases of the court–country, city–countryside juxtaposition have recently been well summarized in F. Kermodé, *Shakespeare's Language* (London, 2000), 59–64 and 77–82.

author of *Doom of a City* (1857) and *City of Dreadful Night* (1873), had retreated into a semi-pathological anti-urbanism. The younger Dickens had delighted in the overwhelming vitality of the capital. But *Bleak House*, *Little Dorrit* and *Our Mutual Friend* depicted a quite different, saturnine urban universe. As early as 1851 Dickens wrote to Bulwer Lytton that 'London is a vile place. Whenever I come back from the country now, and see the great heavy canopy lowering over the treetops, I wonder what on earth I do there except on obligation.'<sup>50</sup> At the same time, late nineteenth-century pro-ruralists attested that the defining characteristic of great centres of population comprised robotic expansionism. Octopus-like, massively overblown cities spilt out into administratively colonized and atmospherically and morally polluted woods, fields and streams. The great majority of town-dwellers had lost contact with the health-giving potential of what continued to be widely depicted as virgin countryside. The gadarene rush to the city had wounded rural society and deprived urban immigrants of an inherited sense of personal ethics. London, in particular, had become an atmospheric, environmental and, above all, a moral sink. This latter theme, reaching back to sanitarian ideology in the 1840s – and to much earlier generations and centuries – remained residually present until the outbreak of World War II.<sup>51</sup>

From the 1870s onwards, increased attention had come to be devoted in every major British city to the etiology of infection among infants and children. As a consequence, conceptions of the 'next generation' moved to the centre of medical, epidemiological and environmental debate. Degenerationist commentators presented would-be documentary but in fact self-consciously tragi-sentimental images of infants and toddlers playing with scraps of rubbish on open tenement landings, kicking rotten vegetables round sun-starved courts and alleys, or lying stricken with fever in grossly overcrowded rented rooms. Such things were, of course, part and parcel of the condition of being desperately poor in the late nineteenth- and early twentieth-century city. However, this discourse rarely conveyed a sense of lived reality. Deploying imagery which played fast and loose with local environments, and tribal dialect, such evocations lacked the specificity of Mayhew's densely detailed mid-century occupational portraiture.<sup>52</sup> Subtle changes in the ways in which the middle classes perceived familial and particularly juvenile suffering may have shaped elitist reportage of the urban culture of poverty and despair.<sup>53</sup>

<sup>50</sup> P. Collins, 'Dickens and London', in Dyos and Wolff (eds.), *The Victorian City*, vol. II, 541–2.

<sup>51</sup> See, for example, Greenslade, *Degeneration, Culture and the Novel*; Clough Williams Ellis, *England and the Octopus* (London, 1928), and *idem* (ed.), *Britain and the Beast* (London, 1937).

<sup>52</sup> Compare the linguistic conventions employed in the stereotypical H.D. Rawnsley, 'Sunlight or smoke?', *Contemporary Review*, 57 (Apr. 1890), 512–24, and F.A.R. (Rollo) Russell, *The Atmosphere in Relation to Human Life and Health* (Washington DC, 1896).

<sup>53</sup> See P. Jalland, *Death in the Victorian Family* (Oxford, 1996).

Finally, and intriguingly, reference needs to be made to global aspects of the late nineteenth-century urban-cultural milieu. In 1866, the year of the final cholera epidemic, which claimed more than 6,000 lives in the East End and inner north-eastern suburbs, the economist W.S. Jevons published his astonishingly influential *Coal Question*. This study hypothesized that Britain's coal supplies might be exhausted within 200 years. The material, technological and social repercussions would be traumatic. Not only would 'advanced material civilization' be destroyed; any society ignoring the iron laws governing relationships between the expansion of urban-industrialism, ever-increasing affluence and finite energy supplies must expect to be involuntarily returned to a state of primitive pre-agrarianism. Might cities and city life, and the extremes of wealth and poverty with which they were associated, constitute little more than a momentary deviation from a more 'natural' and 'primitive' cosmic order?<sup>54</sup>

### Conclusions and comparisons

Environmental and deterministic in character, nineteenth-century degenerationism derived from post-Enlightenment modes of thought predicated on a belief that it might be possible to reform the moral sensibility and social and religious behaviour of the lower orders in an emergent urban culture. Specific social and occupational categories, notably those associated with filthy and sweated tasks, isolated from a rapidly emerging metropolitan and national industrial capitalist market mainstream, were relegated to the status of untouchables. Such groups were assumed to lack intelligence, self-control and the potential for self-improvement idealized by the middle and respectable working classes.

The former, in particular, clung to the necessary fiction that the early and mid-Victorian economy was capable of encouraging frugality and upward social mobility among those who had been born into even the most wretched of economic and environmental circumstances. In reality, of course, as Mayhew understood, urban-industrialism, and the ever-burgeoning service requirements of the great city, depended to an astonishing degree on the labour of hundreds of thousands of hidden and backward workers required to sweep streets, carry, load and cart anything and everything from coal to domestic refuse, scour and unblock sewers, and lug the raw materials and manufactured goods that fuelled metropolitan and national affluence, into and out of the Docks. As Raphael Samuel and Gareth Stedman Jones have classically demonstrated, 'hand' labour continued to play an overwhelmingly important role in an increasingly mechanized society, and particularly in the capital,

<sup>54</sup> W.S. Jevons, *The Coal Question: An Enquiry concerning the Progress of the Nation* (London, 1865). See, also, P. Brantlinger (ed.), *Energy and Entropy: Science and Culture in Victorian Britain* (Bloomington, 1988).

throughout the nineteenth century.<sup>55</sup> Working in regions of the city rarely visited by the social elite or respectable members of the working class, subterranean workers did indeed approximate to a race apart. But in time the long embedded *theory* of tribalism – bodily, mental and cultural difference – grossly ill-served the most vulnerable at the urban core, yet further marginalizing and stigmatizing inhabitants of supposedly culturally backward districts.

By the 1870s, the notion of the savage had given way to a more heavily scientific, racialized and medicalized image of a degenerate urban residuum. The emergence and cultural hegemony of this quasi-anthropological world-view allowed keen-eyed social statisticians and medical officers of health to confirm that under- and unemployed workers in the East End and the near-southern and central areas did indeed look *physically different* from members of the respectable working class. As contemporary anthropometric historians have confirmed, low pay, poor nutrition, over-work, repeated bouts of debilitating non-fatal illness and overcrowding almost certainly played a major role in depressing levels of biological welfare during the shock era of industrialization and urbanization between the 1830s and the 1870s.<sup>56</sup>

However, degenerationist ideology in urban Britain would not have so profoundly shaped middle-class conceptions of the late nineteenth-century crisis of the city in the absence of a moralizing prescriptivism that lay so close to the heart of classic sanitarianism. As we have seen, this body of early and mid-nineteenth-century disciplinary doctrine was itself related to atmospheric and climatic, and particularly oxygen producing and depleting processes. It was linked to, but clearly differentiated from the notion that indeterminate meteorological processes interacted with pullulating mounds of human filth to precipitate epidemics of cholera and fever. Moral-atmospheric doctrine originated in an eighteenth- and early nineteenth-century medico-environmental mainstream which gave high priority to the healthful circulation of country air in city locations, internal and external ventilation and the close monitoring of asthmatic, bronchitic and pneumonic conditions, particularly among the elderly. Affluent, valetudinarian town-dwellers were urged to retreat to the Mediterranean south, the bracing countryside or airy outer suburbs between November and early spring. The poor, who were not able to follow this advice were told to keep warm, eat nourishing food and reduce household expenditure on non-essentials.<sup>57</sup> Thus, as in later decades and centuries, medical

<sup>55</sup> Raphael Samuel, 'The workshop of the world: steam power and hand technology in mid-Victorian Britain', *History Workshop Journal*, 3 (1977), 6–72, and Stedman Jones, *Outcast London*, part 1.

<sup>56</sup> See on this issue, R. Floud *et al.*, *Height, Health and History: Nutritional Status in the United Kingdom* (Cambridge, 2000), 207 (figure 5.5), 275 and 326.

<sup>57</sup> On annual migration by the social elite to the 'south', see John Pemble's exemplary *The Mediterranean Passion: Victorians and Edwardians in the South* (Oxford, 1988). For no doubt wise but, in economic terms, wholly unrealistic hints to the urban poor, see the comments

counsel effectively circumvented the realities of extreme deprivation in a degraded urban environment.

Finally, it is necessary to revisit and interrogate aspects of the metropolitan–provincial divide.<sup>58</sup> Initially, the theory of degenerationism had evolved – or, more accurately, had been socially and intellectually constructed – in London. The precocious demographic growth and spatial expansion of the capital, and, in the eyes of contemporaries, the truly incredible size and blatant visibility of its poorest districts, dictated that such a theory, or something akin to it, would gradually evolve. Moreover, and despite provincial opposition to arrogantly assumed metropolitan political and cultural supremacy, the self-proclaimed imperial metropolis came to epitomize the promise and the threat of the great city – and of all great cities – in the nineteenth and early twentieth centuries. London had also established itself as the dominant site for the linked institutional and propagandistic activities of increasingly powerful medico-scientific, sanitarian, proto-environmental and anthropological elites. Nevertheless, in the earlier and mid-nineteenth century, significant numbers of provincial authors contributed to the seemingly unending and labyrinthine debate on relationships between urbanization, poverty, environment, disease and ‘race’ in the *Lancet*, the *British Medical Journal* and other less well-known and ephemeral publications. Between 1875 and 1914 London – now even more self-consciously committed to its mission as imperial city – retained clear medico-scientific supremacy. But provincial centres and the regions in which they were located now spawned increasingly numerous and influential medical and proto-environmental networks. Medical officers of health prepared the kinds of comprehensive annual reports on epidemiological and environmental developments that had been pioneered by progressive districts in the capital since the early 1860s. These surveys were summarized for a national audience in the *London Times*. In the later nineteenth and early twentieth centuries, also, provincial contributors to the *Lancet*, *British Medical Journal*, the *Sanitary Record* and many other medico-environmental publications continued to increase. By 1900 regional branches of organizations such as the Association of Medical Officers of Health, the Sanitary Institute and the Royal Meteorological Society – to name but three of a very large number of national bodies directly or indirectly concerned with relationships between poverty, disease and environment – had been established. Meetings were

of W. Bent, *Remarks on the State of the Air, Vegetation etc. November 1796* (London, 1794–1801); R. Willan, *Reports on the Diseases in London, particularly during the Years 1796, 1797, 1798 and 1800* (London, 1800), and T. Bateman, *Reports on the Diseases of London and the State of the Weather from 1804 to 1816* (London, 1819).

<sup>58</sup> On more general historiographical aspects of an enduring problem see B. Luckin, ‘The metropolitan and the municipal: the politics of health and environment in London, 1860–1920’, in R. Colls and R. Rodger (eds.), *Cities of Ideas: Urban Society and Urban Governance in Britain 1800–2000* (Aldershot, 2004), 46–66.

reported *in extenso* in scholarly and professional journals, the local and regional press and a wide range of metropolitan newspapers and reviews.

Scrutiny of these and many other sources points to three major though provisional conclusions. First, both in London and urban provincial Britain Chadwickian miasmatic theory and its successor, the generalized 'vapour' theory of disease, dominated the collective consciousness of the public health and urban reform movements between the late 1830s and the early 1880s. Secondly, degenerationist and, later, degenerationist and eugenic, orthodoxies constituted a near-universal scientific and professional *lingua franca* between the 1870s and the outbreak of World War I. Thirdly, anti-urbanism was probably significantly less powerful and influential a presence in the provinces than in London. But this may be to venture too much. Only detailed and place-specific research will enable historians to construct specifically non-metropolitan narratives and interpretations of an enduring yet ever-changing ideological construct.<sup>59</sup>

<sup>59</sup> However, in terms of crucial environmental context, an excellent non-metropolitan start has been made in S. Mosley, *The Chimney of the World: A History of Smoke Pollution in Victorian and Edwardian Manchester* (Cambridge, 2001).