MISSING IN STYLE:
PUBLIC SCHOOL ELITES
AND THE VICTORIAN ECONOMY
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THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
in
THE FACULTY OF GRADUATE STUDIES
Department of Social and Educational Studies

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
November 1984

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ABSTRACT

Great Britain's steady decline as a world power has prompted much study, including quantifiable economic analysis and post-imperial sociology. Historical studies have generally declined to claim cause and effect links between these two areas, but it seemed worthwhile to investigate one possible area of overlap. Victorian Britain's period of greatest imperial and industrial pressure was also marked by extensive reform and expansion of the system of great public schools. The thesis investigates the congruences between these two developments and their joint effects upon the nation's industrial and public sector leadership.

It is contended that public schooling in the Victorian era was distinctive, self-consciously exclusive and inherently hostile to the needs of business and science. As the source of leaders for a closed and patrician society, it was particularly ill-suited to the demands of industrial competition and may have been the major source of Great Britain's subsequent economic decline.
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CHAPTER I

OUTLINE AND INTENTIONS

In the middle, and increasingly toward the end of the nineteenth century, Britain faltered and subsequently declined as a major industrial and commercial power. The full reasons for this failure to maintain her world position are not yet clear but it seems possible to assign some responsibility to an overly sanguine or simply myopic view of the nation's destiny. This found perhaps its fullest expression in the lame or otherwise inappropriate activities and expectations of many late-Victorian business leaders, though other members of the British elite must also share the responsibility for these defects.

This study will examine the schooling received by such of the British elites as attended the upper tier of boys' independent public schools in the period 1850-1900. The pedagogic impact of such schools upon the social, moral and intellectual development of Victorian adolescents was profound, remains partially delineable, and may be linked by inference to many of their later economic activities.
From the middle of the nineteenth century onwards, increasing numbers of children from the British middle and upper classes entered the major public schools of England, here taken as the "Clarendon Seven" of Eton, Harrow, Rugby, Winchester, Westminster, Charterhouse, and Shrewsbury, but also including a number of other prominent institutions such as St. Paul's, Merchant Taylors', Oundle, Uppingham and Stowe. After their public schooling many of these individuals, whether by choice or family pressure, entered the world of commerce as directors of industrial firms or other enterprises. It is reasonable to accord them a role disproportionate to their numbers in the commercial decision-making of late nineteenth century Britain. As a result, it is also appropriate to examine the possible economic effects of the public school attitudes and mannerisms which they brought to their business responsibilities. The economic roles played by public school boys who entered political, military, civil service and academic occupations will likewise merit investigation.

Victorian Britain's economic decline stemmed from an increasing inability to adjust to, or profit from, the series of international trade cycles which characterized the later nineteenth century. In part, reliance on cheap goods and raw materials from colonies and increased overseas investment reduced domestic
development. At the same time, industrial managers appeared incapable of synchronizing Britain's efforts with short-term changes in the world's economy. Traditional export industries such as coal, iron and steel, ship-building and textiles, all particularly vulnerable to external changes, were dominated by tradition-minded, family-oriented firms which increasingly drew their leadership and values from classical public schools. The main causes for Britain's decline may be the link between an increasingly constricted managerial pool and a chronic undercapitalization of industry. Any commercial entity which undervalues profits and also reduces the percentage of profits which are reinvested may, even in the best of times, anticipate a downward spiral such as Britain experienced from 1880 onwards. The Victorian fall was more precipitous since an era demanding industrial flexibility and innovation coincided with the emergence of a commercial leadership which placed highest value on all forms of tradition.

Considerable methodological difficulty faces any attempt to gauge nebulous qualities such as 'entrepreneurial competence', 'business success', or international competitiveness' and further complexity arises if such factors are used to evaluate the success or failure of selected nations or groups. As well, serious problems are involved if a particular social
component, such as education, is examined in relative isolation. In each of these instances, the haphazard survival or relative values of various data, reminiscences, contemporary comments and later judgments make any cause and effect evaluations tenuous and questionable. At the same time, many propositions and claims of this thesis are broad in scope despite the fact that, in some cases, only partial, inconclusive or inferential evidence exists for their defense. However, it seemed finally defensible to accept that the Victorian public school system constituted a rational and powerful mechanism for the maintenance of particular norms and values, and that a comparison of the activities of this schooling with later economic undertakings may uncover significant commonalities. This seems particularly likely in the case of an elite-dominated social system of the late Victorian British variety, where decisions about the provision and structuring of education or the administration of commerce and industry disclosed much regarding the aims and values of the society's governing bodies. As one scholar has pointed out:

When a culture builds the content and regulations of its schools and universities, it institutionalizes and thereby legitimizes a particular myth or vision of itself, and of its hopes for the future. When it declares (or refrains from declaring) what it is that people ought most to know, when it defines (or shirks from defining) basic skills and information, when it establishes (or skirts establishing) the rudiments of
competence without which a person is unable to function in the society, it has simultaneously made a moral and political announcement to the world about what kind of a society it is and what it wants to become. 9

Paradoxically, in the case of Victorian Britain, it appears that the institutions, policies and personnel which were needed to maintain an extended empire were also those which would eventually impoverish it both intellectually and industrially and bring about a steady decline.

It is unlikely that a thread of causation can be drawn from the common rooms and classes of the great public schools to the failure of the British commercial spirit, 10 nor should a single component such as education be accorded undue influence, but it is reasonable to ad- duce particular social and economic patterns and mannerisms which illuminate the motivations and inhibitions of the groups under study. A full prosopographical review is not yet possible but profitable attention can be directed to the probable commercial corollaries of middle class public schooling.

Such a study can take as pertinent the explicit and covert curricula of the public schools, which mirrored but also increasingly contributed to Victorian social and economic values and practices. The received moral wisdom, unexpressed or tacit notions, traditions and new practices of these institutions invite assessment as
regards their life-long powers. The main thrust of such examination entails a review of 'schooling' patterns, particularly the implicit economic biases which can be discerned in curriculum construction and staffing priorities, assessment of school data respecting business leaders and public servants, and review of state and industrial decisions which clarify the commercial predispositions of Britain's public schooled leadership. This is done through a synthesizing review of published primary sources for the whole of the nineteenth century and of secondary sources published subsequently.

This thesis initially examines changes in the scope and purpose of public schooling which followed Thomas Arnold's reforms at Rugby. A case for the existence of an anti-industrial bias in the late Victorian institutions is presented. The career patterns of public schooled leaders in various business sectors are reviewed and the economic competence of such individuals assessed. Similar summaries and judgments are advanced with respect to public sector careerists. The study concludes with an evaluation of the part played by public schools in Britain's economic decline and the extent to which this focus of investigation may provide future clarification.

In keeping with its aim of synthesis, this thesis
has not attempted an exhaustive review of the areas of intellectual, social and economic history into which it was inevitably drawn. Rather it has employed elements of each of these to provide insight into an area which may be the logical nexus of the three, namely educational history and theory. A variety of sources have been utilized in this way. Besides standard histories of the Victorian era, contemporary opinions expressed in The Westminster Review, The Edinburgh Review and The Quarterly Review by such eminent Victorians as Jeremy Bentham, John Stuart Mill and Herbert Spencer have proven useful. Economic histories of the period, besides those already noted, are abundant and thorough as are studies of intellectual development. Reviews of changes in universities, colleges, science and technology, particularly a wide-ranging series of publications by Gordon Roderick and Michael Stephens, are also available, while various sociological studies throw some light onto the organization of Victorian society and its elitist character.

Materials on education may be summarized under a series of headings. Older historical chronologies of English education are numerous, while more modern works, especially those of Bamford and Honey already cited and Rupert Wilkinson's study of public schools and power, are particularly useful in supplying a
general framework for study. Though varying in value and reliability, studies of particular public schools also exist in great numbers, as do memoirs and biographies of masters. A variety of school-days chapters in other works provide background information, though the wide corpus of public school novels constitutes perhaps the best source of material on the notions, prejudices and practices of particular public schools.

Finally, business biographies, histories of firms and studies of various industries have supplied supporting material for the economics-focused sections of the thesis.

Despite this abundance of primary and secondary materials there is, however, no study which fully examines the dichotomy which existed between Victorian social life and nineteenth century industrialization. Martin Wiener's study of what he terms the "containment of the cultural revolution of industrialism" perhaps comes closest. Particularly lacking is a study of the part taken by the leaders of public schools in the socio-industrial accommodation which was an important part, for good or ill, of the late Victorian era. This and other lacunae in the literature, and suggestions for future research, will be discussed in Chapter VI.

In summary, the chief thesis of this study will be that the intense and idiosyncratic form of character-
building engaged in by the Victorian public schools produced a graduate type perhaps appropriate for the management of a stable empire but particularly unsuited to the increasing demands of late nineteenth century commerce, industry and public life. As one observer stated, with regard to a particular region of the country, but philosophically applicable to much of Britain's leadership:

Lancashire was sending out public-schoolman after public-schoolman to keep up British prestige, to refuse to learn Chinese for fear of losing caste, and to wait for trade to come to him.25

The great schools, through an overwhelming emphasis on manner over substance, perpetuated this real or feigned, but economically inapt, imperturbability. The spirit of these institutions is reflected in the advice Lord Home received before batting at Eton: "For God's sake, sir, if you do miss, do it in style!"26


3 J. R. de S. Honey, Tom Brown's Universe: The Development of the English Public School in the Nineteenth Century (New York: The New York Times Book Co., 1977) discusses the widening of the term 'public school' in the nineteenth century. He classifies members of this community in terms of participation in the Headmasters Conference after 1869, achievement of Oxbridge scholarships, and the degree to which schools were prepared to interact with each other. In the final analysis, a
school was only a true public school if recognized as such by other members of the fraternity.


6 P. S. Bagwell and G. E. Mingay, Britain and America, 1850-1939: a study of economic change (London: Routledge and Kegan Paul, 1970), p. 176, indicate that in 1915 the average capitalization per British firm was only 41,000 pounds and industrial productivity had dropped from an annual average rate of growth of 1.2% in 1880 to 0.2% in 1913.

7 Landes, Unbound Prometheus, pp. 526-528, discusses various avenues of approach to such evaluations.


10 M. J. Wiener, English Culture and the decline of the industrial spirit (Cambridge: Cambridge University Press, 1981), p. 154, nevertheless claims that Britain's past century of industrial behaviour "traces back in large measure to the cultural absorption of the middle classes into a quasi-artistocratic elite."

11 Turner, "Sociological Approaches,: p. 147, refers to education's systematic ability to define and mediate careers "in terms of culturally structured and shared symbols."
12 On this point, see J. E. Talbot, "Education in Intellectual and Social History," in F. Gilbert and S. R. Graubard, eds., Historical Studies Today (New York: Norton, 1972), pp. 193-210. The late Victorian period may be a particularly apt moment for such a study since both schools and industry were relatively fully defined entities which were only just becoming aware of the need for some form of mutual accommodation.


24 Wiener, English culture and the decline of the industrial spirit, p. 158.


CHAPTER II
PUBLIC SCHOOLS AND SCHOOLING
IN NINETEENTH CENTURY ENGLAND

Public schools and schooling in England altered dramatically during the course of the nineteenth century. The institutions steadily increased in number, and in numbers of graduates. As well, the place of public schooling in Victorian life grew in importance as the corporate aims and general ethos of the schools narrowed and became clearer. Thomas Arnold's innovations at Rugby had increased repercussions as the century proceeded and as the numbers of his imitators swelled, but it is also apparent that the elite schools did not act in lockstep, alter with complete autonomy, or develop in isolation from their society. Many of the newly established institutions merely responded to middle class demands which the ancient foundations were unable, or perhaps unwilling, to meet. Regarding the older schools, one writer has observed:

With one exception (Charterhouse) there is no real evidence that they were aware of the 'experimental' approach which was such a feature of the age from the late eighteenth century to 1837.

By mid-century these schools were able to ignore
neither Arnold's success nor the rising demand for more education yet, in short order thereafter, the constraining power of the public school tradition, as modelled mainly by the Clarendon Seven, was apparent among most of the new schools. Significantly, as the numbers of elite schools grew, the shape and texture of the schooling they offered were not greatly altered by pressures from the growing, confident industrial classes. Instead, as the 'idea' of public school education was more closely defined, the aims of the system became increasing explicit and preclusive in respect of curriculum, values, clientele, pedagogic theory, and sociopolitical aims. The great schools adapted themselves in such a way that the demands of new clients were subsumed, if not virtually negated, as a force for change. In effect:

(Public schools) emerged or adapted themselves during the century in such a way as to constitute a system, an articulated and coherent set of schools serving a common set of social functions.5

Some have argued6 that the public schools' ethos was purposely arrived at under the guidance of strong headmasters, while others contend that the distinctive nineteenth century conception of the schools was a product of particular economic and social circumstances.7 Whatever the source of their power, it is clear that these institutions were able to place their
stamp both on elite students and the general Victorian society outside their walls.

More to the point, in a period of vast change, and in the midst of a society reeling from the ethical, aesthetic, religious and political effects of these alterations, the public schools stood fast, or were seen to stand fast. Rightly, or more probably wrongly, they were highly valued for precisely this consistency, which was seldom presented in the more pejorative sense of rigidity. Martin Wiener has stated:

There was change - new schools appeared, new subjects were introduced, improvements in physical facilities and innovations in schools procedures were made - but only the minimum necessary to preserve and extend the social dominance of the public school pattern.8

One piece of popular fiction also made this clear:

I forgot, my dear, Shrewsbury's no longer in a hole; it's moved. It's on a hill now, towering above the town and river. Just the very place: new building, old traditions. What could possibly be better?9

If indeed, by the late Victorian period, the public schools were well-suited to the needs of the narrow slice of society which they served, what were those needs? In short, they all revolved around, and paid homage to, one central lode-star, the ideal of the 'English gentleman', in which a sense of superiority was seen as the main, and often the only, requirement for elite wish-fulfillment. In the late industrial
period this gentlemanly aura, which fostered the key element of social 'apartness' through emphasis on arcane knowledge and conspicuous leisure, served approximately the same function as the crusader's red cross after the development of firearms, namely the clear identification of an easy target. Nevertheless, it was this model which the public schools were charged to maintain, further to purify, and to inculcate in their students by means of the increasingly refined administrative, pedagogic and social devices at their command.  

For those parents in no doubt of their social station, the gentlemanly education offered by the public schools merely accentuated what was taken as understood. In effect, "public schools intensified the various manifestations of class and elaborated them in a way with which we are now becoming familiar."

This elaboration took the form of an increasingly rigid hierarchy of rules and activities, authorities and traditions, all aimed at placing each schoolboy at his proper level in the system as early as possible. These also ensured that the virtues of subordination and conformity with social practice were made, often painfully, evident to him.

For parents who still sought a place in the Victorian beau monde, or those who had only recently
achieved a measure of social acceptance, the main requirement was to shed, as swiftly and discreetly as possible, any indicators of their upward struggles. Those at the pinnacle of economic achievement were fortunate that the genius of English society has always been its apparent capaciousness, its ability to turn upward mobility and new-won success into minutely graduated grist for its mill. In such a society, as in the public schools which mirrored it, acceptance not pedigree was the real test. The ability to blend in smoothly was the sine qua non of social arrival. As one old Etonian had it: "What counts, what has always counted in England, is style of life. To live like an aristocrat for a couple of generations is to be one."

For those middle-class parents not yet able to offer their offspring a life of genteel and total leisure, the mid-nineteenth century rise of the professional classes proved particularly fortuitous. To these upwardly mobile families, a public school education represented both a vocational path and a social imprimatur, with most emphasis given the latter. In fact:

Parents looked to the public schools to provide what the professions of the nineteenth century demanded—the education of a 'gentleman'. . . . What entrants to these professions would obtain was the maintenance of a status for which their public school education had given the expectations, and to which it had bestowed or confirmed their right of entry.15

In this way, public schools were at once guardians of
the old traditions and captors of the new classes.  

The sources of the late nineteenth century public school ethos, and of the ultimate failure of the public schools, may be found in both these facts.

The still nascent Victorian ideology, crystallizing in the fires of the industrial debates, combined hope and trepidation. Optimism that all the mysteries of Nature were now accessible was matched with anxiety that too much might be learned. The English elite were, at once, intellectually intrepid and chronically hesitant, as John Stuart Mill acknowledged: "The men of the present day rather incline to an opinion than embrace it; few, except the very penetrating, or the very presumptuous, have full confidence in their own convictions." Such misgivings were perhaps appropriate for an aristocracy which was only just shaking itself into shape, an elite formed from unequal measures of old gentry, southern commercial nouveau riches and northern industrial parvenus. However, public schools, a central institution for the melding of these groups, soon evolved a distinctive pedagogy which glorified only one segment of the triumvirate, the oldest. This, again, may be seen as a source of the schools' short-term power and long-term failure, since their aim, in part, was the civilizing, or perhaps emasculating, of the rising
industrial and commercial classes who could have been the wellspring of renewed energy.\textsuperscript{18}

This activity on the part of the public schools need not be viewed as a covert act of jealousy or aggression; rape often provokes some resistance, but little protest over their fate was voiced by the rising groups. Indeed, as F. M. L. Thompson noted about the landed gentry, success and the "material sinews of power"\textsuperscript{19} often evaporate swiftly as a new class reaches the social heights and exchanges wealth for position. England had, if anything, become too adept at absorbing new money into old. Nevertheless, in the mid and late Victorian eras, it appears that "at the moment of its triumph, the entrepreneurial class turned its energies to reshaping itself in the image of the class it was supplanting."\textsuperscript{20}

On an even broader scale, some investigators have drawn attention to other co-opting tasks of the public schools:

\textellipsis\ two important functions (were) performed by the English public schools: the fusing, in the nineteenth century, of the old nobility and gentry with the rising monied people from the industrial towns into a single 'ruling class'; and the production in particular of a cadre of Empire builders and administrators.\textsuperscript{21}

The view of public schools as domestic bulwarks against Jacobinism and other forms of incipient revolution also
was current. Bertrand Russell thought that "the concept of the gentleman was invented by the aristocrats to keep the middle classes in order," while R. H. Tawney deplored the maintenance of sharp class divisions by the public schools: "Education ought to be the solvent of such divisions. It is difficult to deny that the tendency of those schools is to deepen and perpetuate them." However, a desire for social control was prompted by the rise from the lower classes of increasing numbers of energetic, challenging and successful men who were unhampered by notions of gentlemanly restraint and good form. This elite fear of a French Revolution spirit among Britain's lower orders continued beyond the Victorian era:

The intellectual, quick-brained man who owes his education to a county council is imbued with no sense of the value of discipline, of the ethics of true honour; he has never set the course before himself, or had his being steeped in esprit de corps. He has from his boyhood played for his own hand, and has seen his fellows scrambling, trampling, kicking one another down in their efforts to obtain each his individual goal. He will have learnt neither to rule nor to obey.

It may be an overstatement to conclude that the public schools came to represent an "invisible empire" in England. Yet, it is clear that they evolved into an archetypal social institution by the end of the nineteenth century, if not much earlier. As such, they satisfied the needs of their socially restricted constituency
in a variety of ways: as indoctrinators of proto-members of that group, as mirrors and supporters of social mores and institutions, and as intensifiers of values. The Clarendon Commission summarized the place of these schools in the mid-Victorian world:

It is not easy to estimate the degree in which the English people are indebted to these schools for the qualities in which they pique themselves most... for their capacity to govern others, and control themselves, their aptitude for combining freedom with order, their public spirit, their vigour and manliness of character, their strong but not slavish respect for public opinion, their love for healthy sports and exercises... they have perhaps the largest share in moulding the character of the English gentleman.26

Thus, it is reasonable to state that the system of first-class English public schools incorporated a generally accepted, readily identifiable, and socio-economically potent ethos, as defined by the Concise Oxford Dictionary: "Characteristic spirit and beliefs of community, people, system, literary work or person."27

Victorian society and social thought may have found clearest manifestation in the public schools where notions of fair play, anti-materialism, group loyalty, and gentlemanly conduct reached their most precise definition. In time, too, the public school tail began to wag the Victorian dog as products of the reformed institutions took their preordained places at the top of the social pyramid. One supporter of the system
put clearly its premeditated aim for power, with imagery which would resonate in the future:

He (the public school boy) is taught to perfect himself in the goose step of public school ranks and is passed through the elementary stage of discipline which attends the process of elevation from ranks to command.28

In later life, public school graduates who attained the seats of power and authority often seemed to rely on memories of school behaviour as their main ethical and professional guidelines. "The boys are nourished on the doctrine that they have to play the human game in a mannerly way with a straight bat and shun crookedness"29 was one observer's summary of these. The virtuousness of such a code is apparent; what is questionable is the suitability of a system based on good cricket behaviour for the production of competent and dynamic leaders.

If the public schools had a major failing, it was perhaps that they too completely dominated their field. Without real competition, the activities of these institutions were increasingly refined and rarefied; eventually they served only the desires of the small, newly homogeneous elite which grew up in reaction to nineteenth century industrialism. Increasingly narrowed education and a burgeoning, polymorphic nation would appear to be contradictions in terms which combined to produce results both predictable and damaging.
Clearly:

An institution like the public schools does not simply transmit values; it selects them and reinforces them. Every sophisticated society evolves contradictory beliefs; and an education system cannot help but emphasize some beliefs to the virtual exclusion of others.  

As well, given the increasingly regulated and elite-dominated nature of later Victorian society, the pretentious and self-conscious education philosophy of the public schools had significant national powers of penetration and persuasion. In short:

The values of the directing strata, particularly in a stable, cohesive society like modern Britain, tend to permeate society as a whole and to take on the colour of national values, and of a general mentalité.  

To be clear about the existence, contents and propagation of the public school ethos, particularly as it related to Britain's economic progress, it will be necessary to investigate the organizational changes which occurred in the great schools during the last fifty years of Queen Victoria's reign. It will also be appropriate to assess the degree to which ethos elements were present in individual schools and the extent to which these coincided with prevailing social thought and habit. To judge the economic consequences of this construct, it will be necessary later to estimate, however roughly, the part which public school training played in the adult careers of graduates.
In their study of Winchester, T. J. H. Bishop and Rupert Wilkinson examined a number of elements which contributed to the public school ethos. They particularly noted the importance of curriculum, the conventions of collective living, and 'notions' (school lore and traditions). All of these could pass under the rubric of 'character formation' which, in truth, was the main raison d'être of the schools. However, it becomes apparent that, over time, these institutions did not engage in true character moulding. Rather they encouraged the inculcation of a range of social strictures which take on the aspect of social control at one extreme and, less dramatically, the appearance of what Bishop and Wilkinson called "elite short-hand."

Nevertheless, the frequently professed purpose of the leaders of these schools was the instillation of suitable mannerisms and ways of thinking, rather than the development of individual characteristics and the promotion of creative thought. Dr. Arnold's priorities had been clear: "What we must look for is first, religious and moral principle; secondly, gentlemanly conduct; thirdly, intellectual ability." The success of this indoctrination may be judged partly by the extent Victorian society believed it understood the term 'public school', the degree to which public school graduates believed they could identify other such graduates, and the amount to which conventions of the
public school ethos filtered downward and found clear expression in other areas of nineteenth century British society.\textsuperscript{36}

More than just its acorn, the public school system formed the substantial and supportive root structure of the late Victorian oak. One scholar, with reference to the modern scene, makes the societal role of the schools clear:

The public schools not only socialize and educate a significant proportion of the British elite. They also perform what may be described as a custodial function. They conserve within themselves and protect from corruption the norms and values of elite behaviour which are to be passed on to successive generations.\textsuperscript{37}

The Victorian situation was substantially similar. Even given that the great nineteenth century schools were chronologically and socio-institutionally distinctive, it is possible to review a variety of ethos-creating factors which could be found in each of them. Isolation of these elements is simplified by the rigorous exclusivity and social separation which the schools projected, and which found their origins in the persistent elite fear of the lower classes.\textsuperscript{38} It will be seen that it was precisely this dread of the British masses, who were seen as marginal, deviant and corrosive of traditional values, which led public school education to become, in many instances, not a preparation for life but a form of inoculation against it. L. E. Jones put the value of his
late Victorian education precisely:

It may be, that had I gone straight from Eton into the world to earn my living, I should have been but poorly equipped. But even so, I must have blessed her. For however ill-provided the traveller, he may not be unthankful if, when the way is rough, he can turn his eyes back again to a place of sunshine, where a river runs, and there are great trees, and red bricks, and a high grey chapel lifting strong pinnacles to the sky. 39

To cope with life through Housemanesque nostalgia, face difficulties with calm indifference, and rely on gentlemanly instinct in decision-making were characteristics fostered in such settings. As a result, the public schools may again be charged with ill-serving their graduates, as well as the industrial society which would later depend on these individuals. 40

What, then, were the main elements of the late Victorian public school spirit? In brief, these were the 'gentlemanly ideal' previously discussed and its eventual metamorphosis into the concept of the 'Victorian civil servant.' Also included were the development of an awareness of one's place and bearing in society, of the need for loyalty, and of the value of serenity, reticence, and modesty. Each of these qualities came to be viewed as essential corollaries of the public school man's absolute and effortless superiority. 41

In practical terms, the possession of independent means, a classical education, and ample leisure were the hallmarks of a proper gentleman, with education
occupying the most peripheral position of the three. As the nineteenth century proceeded, however, the pro forma place of scholarship was augmented by the developing belief that a 'good school' was a ticket to success or acceptance which could often offset the absences of other advantages. In time, it appears that "the comradeship of the 'old school tie' ... gradually replaced, over a wide field of work, the 'gentlemanly' status based on ancestry, though never superceding it altogether."\(^{42}\)

Thomas Arnold's desires to increase the social and moral responsibility of English boys were well-known in the mid-nineteenth century and various of his undertakings at Rugby gathered a wide circle of imitators. The Arnoldian view of education encompassed the Greek belief that the proper education of a man was one which raised moral awareness. Arnold also believed that such 'goodness' could be habituated in children. However, there was an undeniable aspect of class consciousness in his views since, like Plato, he thought of education as "general culture which befits a man of free class--a gentleman's son."\(^{43}\)

However, Arnold's opinions on the particular qualities required by a gentleman did not survive unaltered to the end of the century. His views ran sufficiently counter to the needs of late Victorian educators that much of his philosophy was jettisoned and the
mere trappings of his ideas retained. It is fair to say that many new public school foundations utilized Arnold's pedagogic devices, with their strong emphasis on the formative and habituating powers of dress, insignia, organization, traditions, rights, duties and privileges, in the pursuit of what has been termed "synthetic gentility." 44

The clear components of social control, both general and particular forms, embodied in Arnold's organizational scheme also recommended themselves to later users. His intent, in this regard, had been merely to provide the social training which the sons of gentlemen would require in later life. He clearly agreed with Dafoe that "an untaught, unpolished gentleman is one of the most deplorable objects in the world." 45 However, the memory of public school riots, the excesses of the French Revolution, Peterloo and Chartist uprisings, all sharpened the elite's fear of rebellion. Arnold's benign and paternal discipline, thus, came to serve the needs of those who believed that "when you consult the wishes of children you make Jacobins. Only more parental discipline and a right education can prevent revolution." 46

Arnold's original vision of education sought to meet objectives desired by all segments of his society, though with a very clear emphasis on those of the old
elite. He chose to believe that all of these could best be served by youth imbued with a desire to serve the nation in a spirit of moral thoughtfulness. Here he hoped to produce a "synthesis which would resolve all social and religious problems within the confines of the state." It will be seen later that it was precisely the disinclination of Arnoldian-trained public servants to address public needs which resulted in English secondary and post-secondary education trailing behind that of international competitors at the end of the nineteenth century.

Arnold's desire for an incorporation of the middle classes into Britain's elite was superceded in the late Victorian period by a much more parochial view of the aims and duties of a gentleman. In this later incarnation, the ideal of a 'gentleman' changed distinctly. Now a gentleman's involvement in the affairs of the nation was not seen so much as a social privilege or obligation, depending upon his rank in society, but as an elite class *droit de seigneur*. This realignment of thinking was apparent in a variety of forms, each stemming in some way from that underlying elite anxiety--fear of the aims and powers of the lower and middle classes. Understanding this, the purposes of the first-class schools were self-evident to most upper class Victorian parents. Even if some boys from
the lower strata found their way into public schools, it was accepted that they always left gentlemen, and acted the role convincingly much sooner than that. Whether these students, and their higher born classmates, learned enough at school to function as productive individuals in society, as opposed merely to filling a place at supper, was a question not frequently raised. The answer of one graduate as to what he had learned at Eton would have struck most upper class Victorians as admirably succinct and sufficient: "I learnt to know my place and keep it."51

However, the need for educational change had not been lost on other theorists. In the early nineteenth century, Edgewood, Cobbett and the Benthamites had called for a systematic, practical reorganization of English education in order to reconcile the conflicts between industrial change and the historic ideal of social harmony. Jeremy Bentham had pointed out in detail the desirable objectives of education in 1824:

The object of education is twofold: To point out those objects in nature which are most important to be known, and those principles in conduct which are most proper to be observed; to teach what is most useful to know, and what is most conducive to happiness to do: hence, education is intellectual and moral.52

Later, he contended that the utility of public education was "to educe . . . a moral or conventional force, which would be slowly and imperfectly formed by the
single efforts of individuals or classes." It should, as well, inculcate a sense of the work ethic which was often so conspicuously lacking:

Of the whole number of persons trained by the present system of Education, the far greater number as deprived of habits of industry, of bodily or physical application . . . . Hence men of genius have become distinguished as men of idleness; often as dissipated and immoral.54

Bentham had also been roundly contemptuous of another aspect of contemporary education, namely what he saw as its lack of depth and want of practicality:

From the great Public Schools to the merest Charity School this one fault runs through the whole of the general systems of education. Addressed as they are to the purely intellectual, they fail because the purely intellectual is useless, except in reference to its power over the physical; which power it cannot possess except by a course of discipline, uniting both the intellectual, physical and moral faculties in the same concurrent course of development.55

Accordingly, in extremely practical detail, Bentham had laid out the needs and aims of an effective school system, including much scientific and technical training. The requirements of all classes of society were addressed by his schema since he understood that the nation would only grow through careful utilization of all its human capital. But one group in particular needed priority:

The merchant, the manufacturer, the mechanist, the chemist, the artist, those who discover new arts, those who perfect old arts, those who extend science; the men in fact who think for the rest of
the world, are the men of this class . . . . The proper education of this portion of the people is therefore of the greatest possible importance for the well-being of the state. 57

The Utilitarians' emphasis on the needs of the lower classes and the values of industrial and commercial training struck few sympathetic chords among the English upper classes in the middle and later Victorian periods. While other nations proceeded to regularize and expand their school systems, 58 Britain lagged in this regard. Nearly three-quarters of a century after Bentham's exhortations, Michael Sadler would observe that educationally "the Germans make thriftier use of their average material than we succeed in doing." 59

For a variety of reasons, the plainly utilitarian and moral advantages of educating Britain's population to the fullest did not recommend themselves to many Victorian leaders and educators. Much of this hesitancy may be ascribed to a simple disinclination among those ahead in the game to consider a change of rules. The mid-nineteenth century redefinition of the term 'duty', under pressure from the Utilitarians and Philosophical Radicals, and with the aid of Arnold's pedagogy, may have been the English elite's most effective repost to the threat of thorough-going social reorganization.

Bentham, Mill and others had argued that the
need for the greatest good for the greatest number re-
quired state action and the possible removal of many of
the defenses of privilege. According to them, with new
men and new vision, the potential for change was immense:

Men embued with this clear-sighted sense, men pos-
sessing this single-minded honesty, occupying the
various stations of life—what havoc would they
make with certain opinions, customs, habits and
institutions, which prejudice and interest now
combine their efforts to uphold!  

In response, T. H. Green and others encouraged
a mid-century back-to-Kant movement which emphasized
the philosophy of duty. Their stated aim was to as-
certain how "values were to be rescued from facts."  
Under their tutelage, the public schools and ancient
universities increasingly saw themselves as sources of
statesmen for the nation, and little else; in this way,
essentially, they fortified themselves against demands
from without for reform. The rise of the Victorian
variant of noblesse oblige, at Oxford and Rugby ini-
tially, and then throughout the system of greater public
schools and ancient seats of higher learning, again de-
monstrated the skill of the English elite in deflecting
the demands of rising classes. In essence:

Utilitarianism had carried with it an imaginative
conception of politics, a conception of problem-
solving and explanation of opportunities for in-
novation as the very stuff of politics. The persis-
tence of a supposedly aristocratic conception of
leadership carried with it a premium on values of
group loyalty and on the outward display of sobriety,
and with this a conception of problem-solving as the exception and not the rule, indeed a tendency to deny that there were problems at all.62

Nineteenth century education change, which often increased introspection and narrowed general understanding in leaders and graduates of the public schools, may have been the clearest institutionalization of this last trend.

Whether, however, the small number of very great public schools were specifically affected by the Rugbeian movement is difficult to assess.63 If we argue the negative and state that the Victorian masters and boys of such exalted establishments were not about to alter to suit the often prosaic views of Dr. Arnold, we will not be satisfied. We must still wonder why the Clarendon Commissioners, and other later notaries, found so little to differentiate the top-most members of the system from their late-Victorian imitators. In the sense that the clothes make the man, public schools were increasingly much of a piece by the end of the nineteenth century and their products became more and more physically and intellectually indistinguishable.64

One aspect of the Rugbeian philosophy, however, was not fully accepted by the greater schools. Arnold had characteristically praised the quality of 'manliness' when he described daily existence as a contest or battle; steeped in the metaphors of the Romantic era, he viewed
life as an "overt struggle, something to be proud of."

In later Victorian public schooling, the idea of 'struggle' was tolerated only in the area of sports, and with declining enthusiasm even there. Generally, the mark of a true member of the elite was the apparent ease and naturalness with which success dropped at his feet. To lunge in the direction of success was extremely poor form since this raised the doubt that it was not one's by right. Development of the cults of the amateur and the aesthete, with their clear ego-protecting qualities, played a major role in later, public school-augmented problems of the industrial economy.

Over time, then, the Arnoldian ideal of godliness and manliness was replaced by a form of muscular Christianity which, in its turn, was superceded in the public schools by atrophied Christianity and spiritless muscularity. In effect, the gift to the nation from the late Victorian schools was an insubstantial spiritual and-intellectual core wrapped in an oppressive shroud of tradition and good form. Only threats of social upheaval provoked broader reactions in a number of public school conventions, the goals of which may be divided into those which were practical and those which were notional.

For public school students, practical or instrumental skills were those which brought quicker
preferment in the social, academic or professional worlds. Ironically, these were most likely the entirely extra-curricular tricks of language, methods of social interaction, and received opinions which boys acquired out of the classroom. Form instead of substance was the most clearly recognized criterion of success and, in time, the masters also came to appreciate and work towards this ephemeral end. Herbert Spencer deplored this trend:

We are none of us content with quietly unfolding our own individualities to the full in all directions; but have a restless craving to impress our individualities upon others, and in some sense subordinate them. And this is not what determines the character of our education. Not what knowledge is of most real worth . . . but what will bring the most applause, honour, respect -- what will most conduce to social position and influence -- what will be most imposing. As, throughout life, not what we are, but what we shall be thought is the question; so in education, the question is not the intrinsic value of knowledge so much as its extrinsic effects on others.

Notional or normative qualities in the public schools were those ethical and religious values most associated with the idea of English gentility, particularly substantive beliefs such as the value of property and the sanctity of social stability. As we have seen, both the notion of the gentleman and its relative weight in society underwent significant change in the Victorian era. Arnold's definition had focussed on that quality of moral development in man which was not fixed but always evolving. This growth was predicated on what
Matthew Arnold later called "free play of thought." Paradoxically, as the Rugbeian model of school organization was increasing adopted, public school interpretations of its central concept, the proper gentleman, moved into sharp contrast with Arnold's views. Far from dynamic, the vision of a gentleman displayed by late Victorian educators was quite inert. It resembled nothing so much as a traditional English Christmas cake in which an abundance of riches were offered up in a predictable, and often indigestible, form.

The gentlemanly 'cake' of late nineteenth century English education was a combination of elite-defining but largely impractical training and powerful but increasingly attenuated character formation, with a spicy mixture of class fear added for good measure. Larded over with a thick covering of middle class morality and gentry sophistication, this product dried up quickly and lost much of whatever nourishment value it had had. Yet, it continued to be served up to generation after generation of public school boys, to their detriment and that of the nation.

Any assessment of the economic consequences of such education requires, as a first step, an examination of the attitudes towards commerce and industry discoverable in it. This will be the next task of the thesis.
FOOTNOTES


2 J. R. de S. Honey, Tom Brown's Universe (New York: New York Times Book Co., 1977), Chapter 4, describes the increased significance of a public school education in nineteenth century Britain. J. R. Reed, Old School Ties (Syracuse, New York: Syracuse University Press, 1964), show that this position of the schools was increasing reflected in Victorian literature.

3 J. Gathorne-Hardy, The Public School Phenomenon (Harmondsworth, Middlesex: Penguin Books, 1977), pp. 111-112, states "the new foundations... were reacting to a growing market of boys and the Victorian evangelical spirit." It may be that this spirit was really a fusion of imperialism, militarism, religious feeling, and widening class consciousness. Significantly, industrialism played little part.

4 Bamford, Rise of the Public Schools, p. xii.

5 Honey, Tom Brown's Universe, p. xiii.


7 Honey, Tom Brown's Universe, Chapter 1, develops the theme of 'irresistible tides' by which the public schools became the arena of development for the young of Britain's elite.


9 Bamford, Rise of the Public Schools, p. 15.


C. Barnett, *The Collapse of British Power* (London: Eyre Methune, 1972), p. 34, states: "Each school had elaborated a hierarchy of petty ritual privileges . . . it symbolized a hierarchy of submission, obedience and authority; school life was now minutely ordered by codes of rules, manners and customs, of which the prefects were the authoritarian administrators. Though very far from being self-consciously Christian and moral nevertheless this regimentation was strongly ethical, inculcating a way of judging and a code of behaviour."


D. C. Coleman, "Gentlemen and Players," *Economic History Review* XXVI (1973), p. 97, concludes "when the business and technological drive of the English industrial revolutionaries loses some of its momentum . . . it is because too many of the revolutionaries are too busy becoming gentlemen."

opinions of 1832 were reaffirmed by Mill as late as 1854.


20 Wiener, English culture and the decline of the industrial spirit, p. 14. W. D. Rubenstein, "Wealth, Elites and the Class Structure of Modern Britain," Past and Present 76 (August 1977), p. 116, makes the same point when he claims that "for manufacturers and industrialists the road from wealth to status was a one-way street."

21 Lewis and Maude, English Middle Classes, p. 232.


25 Lewis and Maude, English Middle Classes, p. 22.


29Ibid., p. 581.


31Wiener, English culture and the decline of the industrial spirit, p. 5. This institutionalized emphasis of the group over the individual, which Wilkinson, The Prefects, pp. 42-45, refers to as "collectivized emotion," depends for its authority on the continued acceptance of such opaque concepts as dignity, duty, courtesy and style.


33Bishop and Wilkinson, Winchester, p. 17.

34By way of illustration, J. Rae, "Our Obsolete Attitudes: Education and the National Malaise," Encounter XLIX (November 1977), p. 12, states that as late as 1955 tennis was still banned at Harrow as "too individualistic."

35D. C. Somervell, English Thought in the Nineteenth Century (New York: David McKay, 1929), p. 113. This order of priorities remained unchanged, at least in the minds of some, for many years. Lord Selborne, addressing Winchester School in 1910, The Times, July 11, 1910, p. 6, stated "of the three, muscles, brains and character, the greatest is character."

36Ollard, English Education, p. 108, indicates Edward Lyttelton of Eton believed that the schools reflected society rather than influenced it but he recognized the two were closely similar: "Our Public Schools are not the cause of the national character but the symptom of it . . . huge groups of the population who know nothing of those schools betray the same qualities, good and bad."

38 Arnstein, "Myth of the Triumphant Victorian Middle Classes," argues that this fear was particularly unjustified since the lower classes swiftly "self-deradicalized" as the century proceeded.


40 Wilkinson, The Prefects, pp. 90-91, summarizes the contributions of the great schools as follows: "During the late nineteenth century the schools undoubtedly formed a citadel against the materialism and selfishness generated by the new capitalism of the Industrial Revolution. But when they performed this offsetting function, they did so by stressing tradition rather than supporting intellectual criticism and imagination. They chose to make themselves an anchor of stability, a guardian of conservatism, in such a way that they were unable also to serve the cause of intellectual enlightenment. As a result, they produced leaders whose good sense was too often not accompanied by vision, and whose insularity and complacency matched too perfectly the insularity and complacency of their island people."

41 Ibid., Chapter 2, for a discussion of 'qualities.'


43 G. C. Simmons, "Education, the Good Man, the Good Life and the Greek Ideal," Paedagogica Historica 17 (1977), p. 424.


46 Ibid., p. 183.
47 Bamford, *Rise of the Public Schools*, p. 41. E. Alexander, *Matthew Arnold and John Stuart Mill* (London: Routledge and Kegan Paul, 1965), p. 217, believes this was also the intent of Matthew Arnold when he argued that "the only school of genuine moral sentiment is society between equals."

48 Chapter V.


50 Many of the gentry and aristocracy thought they knew clearly the potentially destructive nature of these rising classes. For some Victorian headmasters, rebuttal rather than accommodation was the only answer since, according to Bamford, *Rise of the Public Schools*, p. 49, they believed that:

"Morals are layered in the same way as social classes and (they) equated the two in a rough fashion. Certainly they considered that the middle and lower classes had entirely different standards from the upper, and that these were mutually incompatible."


52 *Westminster Review* I (1824), pp. 43-44.


54 Ibid., p. 302. As Somervell, *English Thought*, p. 113, shows, Thomas Bowdler, when not sanitizing Shakespeare, would have agreed with Bentham since he referred to the public schools as those "nurseries of vice."


57 Ibid., p. 69.


61 Ibid., p. 490.  62 Ibid., p. 494.


64 Lewis and Maude, English Middle Class, p. 241, believe that, in the realm of behaviour, the "English public school turns out a man emotionally repressed, a bundle of inhibitions in a shell of Good Form." Houghton, Victorian Frame of Mind, p. 175, argues that spiritually the public school boy was trained to crave dogma and the security of mental inflexibility:

"The longing to believe under the painful pressure of doubt leads to a saving belief that is not a conviction but a protection against further distress. Henceforth it will be held by the will... and held with a tenacity that can brook no examination of opposing arguments that might reawaken the old anxieties."

65 Bamford, Rise of the Public Schools, p. 41.


67 Gathorne-Hardy, Public School Phenomenon, p. 416, contends that even legitimate success was frowned upon in some quarters: "To a Wykehamist success demands qualities of industry, enthusiasm and ruthlessness contrary to the school tradition—which is summed up in the school motto 'Manners Makyth Man'."

G. Skelton, *The Public Schools* (London: Longman, 1966), discusses the idea of the public schools as a closed values system.


CHAPTER III
ANTI-INDUSTRIALISM IN THE
VICTORIAN PUBLIC SCHOOLS

Through exercise of the variety of devices listed in the previous chapter, English public schools became formidable forgers of character among their elite populations. As has been shown, the fundamental basis of such character was a sense of gentlemanly detachment, clear awareness of social place, and acceptance of the necessity for obedience and group loyalty. An increasingly narrowed view of public service as the proper vocation of a member of the upper classes was also characteristic since public school boys were encouraged to renounce thoughts of commercial or scientific careers. As the Westminster Review had observed in 1828, these were not seen as 'gentlemanly': "Men of science are viewed as a species of professional persons; and those generally, perhaps, who are distinguished for specific sciences, as a kind of traders."¹

Later, the mid-century introduction of competitive entry for public careers further increased the value of a classical or mathematical education since these subjects were given highest ranking by the examiners. The public schools-ancient universities nexus,
a virtually closed system, steadfastly defended the supremacy of the classics and, although Victorian Britain was a great industrial nation, largely repudiated technological and scientific learning. The results were pernicious: "What the leaders gained in classical education the larger society lost in the ability to renew its economic infrastructure."\(^2\) As well, "the divorce of the upper and middle classes from science and ever-more from technology set a norm for those who climbed the social ladder behind them."\(^3\)

Paradoxically, as Britain's need for a wider range of experts grew, and also the opportunity for a greater variety of careers for students, the leaders of the elite education system restricted the breadth of their outlook and the scope of their endeavours. Traditional ideas of 'correct' education and 'proper' occupations were plainly emphasized. The public schools and their products came to see practice and creativity as incompatible; practice became doctrine which, in its turn, was blessed or cursed with the power of precedent while creativity took on the aspect of an active threat to the status quo. As the industrial heart of Victorian Britain swelled and sought to pump faster, this hardening of vital educational arteries had serious repercussions, not the least being an increased fraying of the social fabric.

An examination of the central notions of serenity,
place-keeping and public service inevitably uncovers areas of overlap since inextricable threads of many varieties ran through the skein of public school education. A tendency, for instance, towards doctrinaire orthodoxy could find expression in personal philosophy, group loyalty or professional prejudices. However manifested, such results of nineteenth century schooling were inward, away from concerns of utility and largely inappropriate for the demands of the real-life market, industrial concern, or international arena.

The essence of public school pedagogy is best found in the firm adherence to classical studies in the Victorian institutions. Though the great schools varied in their choice of topics and emphases, Victorians believed that the ancient languages conferred a variety of blessings upon student. Studies of Latin and Greek accustomed students to hard intellectual work, introduced them to felicities of style, great historical figures and events, and had the added benefit of being the source of much Christian scripture. The Clarendon Commission of the 1860s, while faulting the public schools in a number of areas, concluded:

Among the services which they had rendered is undoubtedly to be reckoned the maintenance of classical literature as the staple of English education, a service which far outweighs the error of having clung to these studies exclusively.

The classics were also seen to enhance the cultural traditions of the landed aristocracy, with their
emphasis on patriotism, corporate spirit, and honour, while conceding considerably less value to the rising bourgeoisie's ideas of moral earnestness, energy, and self-mastery.\(^7\) This unequal amalgam of knightly and clerkly elements constituted the nineteenth century English humanistic education, but in combining aristocratic assurance, middle class pride, and evangelical Christianity, virtually no pedagogic room remained for the worldliness of new science and technology. This, perhaps, was an underlying intent since:

It is impossible to escape the conclusion that the Victorians valued classical studies because they looked for, and believed they found, in them a values-system which helped to explain their own situation, and thus acted as a guide in matters of taste, of politics, and of morals.\(^8\)

Science studies, in the view of the controlling elite, did something quite dissimilar and, as a result, were mainly undesirable.

It is apparent that Victorian educators saw pedagogy as an avowedly normative activity, a means of acting upon individual students and groups in order to inculcate values, attitudes and behaviour appropriate for the general community. Peer-patterning, role-modelling, secondary reinforcement, stereotyping and homilies from the classics all played their part in this process.\(^9\) Yet, any attempt to habituate or 'print' proper thought and conduct based on the values of only one segment of a society must be viewed more as indoctrination than education.\(^10\)
In valuing reticence, serenity and detachment in pupils, public schools also expressed an elite value. The Victorian upper classes instinctively sought to emphasize the difference between themselves and the masses of the industrial revolution, which were seen as a brawling, self-centred and profoundly disturbing group. However, much of the nineteenth century's gentry and aristocracy had sprung from the Elizabethan and Georgian *milieux* which were hardly noted for their mildness or false modesty. As a result, the Victorian elite's main social aim was often to cover the tracks of their own upward scramble so that, in retrospect, this rise would appear inevitable, if not mythological. Classical training, even if it meant only the possession of a ready reserve of Greek tags for social occasions, was an important indicator of elite status.

The educational dominance of the classics continued through the reform and mid-Victorian expansion of the public schools system. At best, the reliance on this curriculum indicated an adherence to past forms. One post-Victorian headmaster was reported to put this quite plainly to his Board of Governors:

> He said that modern subjects were 'invading the sanctuary' of the school; that at Winchester they were 'hanging on for dear life, and would do so while had any voice in the matter, to the priceless inheritance of Greek.'

At worst, the modern side was seen, with great condescension, as a "refuge for the second rate" where,
as Thring of Uppingham explained, "the most backward in classical knowledge can take refuge. There they can find something to interest them."¹³

As with the classics, the educational status of science pre-dated the Victorian era and, in 1828, the *Westminster Review* noted:

Science is not considered as being commendable, otherwise than as it may be the ground of trade or profit; it is not viewed as ornamental, or forming a recommendation to its possessor, as indicating abilities, still less talents fit for what is termed business; and, most of all, it is not considered as acting on the mind or the faculties as to be that engine for the occupation or improvement of youth which is supposed to exist in Greek or Latin.¹⁴

Dr. Arnold appeared to agree with this evaluation since he stated that the learning of facts, of which he believed science was solely composed, must always come after the learning of values: "Physical Science alone can never make a man educated: even the formal sciences, valuable as they are . . . cannot instruct the judgement; it is only moral and religious knowledge that can accomplish this."¹⁵ Bishop Temple, Arnold's successor, continued this line of reasoning when he informed the Clarendon Commissioners that the real defect of the sciences as pedagogic tools was that "they have not any tendency to humanize. Such studies do not make a man more human but simply more intelligent."¹⁶

Such attitudes to science must have been apparent to at least one Shrewbury student who quite enjoyed pottering in the school's rudimentary chemistry laboratory.
For his pains, the young Charles Darwin received the scorning sobriquet "Gas" from his headmaster, Dr. Butler. Darwin later concluded:

Nothing could have been worse for my mind than Dr. Butler's school as it was strictly classical, nothing else being taught, except a little history and geography. The school as a means of education to me was simply a blank.17

If, as previously stated, the classics were esteemed because they validated Victorian social norms, the sciences were feared because they did the opposite.18 To an elite group which craved stability, scientific specialization was seen to contribute to the moral, political and religious doubts which buffeted English society. Mathematics was prized for its pedagogic powers but also because it was essentially values-free. On the other hand, besides being tainted by its association with commerce, free-ranging scientific research questioned all the 'sureties' of existence without guaranteeing anything substantial to take their place. It is significant that those empirical studies which eventually received most elite support in the Victorian era were those pseudo-sciences, such as phrenology and Social Darwinism, which mainly explained and helped perpetuate existing social and economic arrangements. In most other respects, scientific study was little encouraged,19 with later economic results, the significance of which can only be indicated with varying degrees of precision. What can be claimed with confidence, however, is that many in the Victorian
elite saw themselves above and apart from the concerns of science while they worked, with much success, to deny it a place in general society as well. Without putting a Nelsonian blind eye to the microscope or engaging in some form of laboratory-Luddism, Britain's leaders and the public school system managed to establish the image of their country as a future non-contender in the fields of scientific and technological progress.

The most prominent exception to this pattern was Frederick Sanderson, headmaster of Oundle, who recognized the need for a more rational, empirical slant to Victorian education. He stated that:

Our young men entering the factories will have to be well-equipped in scientific and technical knowledge and outlook. They must be capable and zealous to take active intellectual interest in the work and must keep their mind open for those professional changes which will benefit the worker.\textsuperscript{20}

Though his scientific undertakings were widely remarked upon by the later Victorians, Sanderson's high educational profile was based more on the apparent oddity of his views than on their general acceptance. As a modern commentator observed:

With the accent on science, on industry, on manual perfection and involvement with surroundings, Sanderson was as far from the nineteenth-century public school of the traditional type as it was possible to be, and indeed his ideals have not yet been accepted.\textsuperscript{21}

Opposition to the sciences was also symptomatic of a characteristic malaise in the public schools. The older foundations had never been noted for any great
sense of drive, and traditions and curricula were seldom affected by the world's progress. Indeed:

Wars were fought: an empire was won in India and another lost in America; the voyages of Captain Cook extended the limits of the world; the French revolution engulfed the states and societies of Europe. But Eton took no cognizance of these transformations.22

As with Eton, many of the old schools remained self-consciously apart from the demands of their age and, even after the first surge of Rugby-style reforms, "the Public Schools tended to grow more and more conventional, stereotyped and complacent. Each school tended to become more and more inbred."23 However, constancy in the face of change came to be seen as one of their great attributes, and notions of calm thinking and correct acting as appropriate lessons for schoolboys. Such values might connote the thinking of a group which saw itself under unfair attack but actually they merely ensured the peace of mind of people undischarged to stir themselves in their own defense.24 Such complacency may be construed as apathy tending towards blind, if not suicidal, indifference.

Public school boys, the targets of this torpidity, have been characterized as singularly inert, incurious and unambitious creatures,25 limited almost from birth by pretentious and inappropriate social and scholarly attitudes. It should come as no real surprise that they found their later economic era a difficult path to tread.
Dr. Corey put the best possible face on the form of their education when he stated:

You go to a great school, not for knowledge so much as for arts and habits; for the habit of attention, for the art of expression . . . for taste, for discrimination, for mental courage and mental sobriety.26

Some aspects of Corey's list might be viewed as desirable attributes for careful businessmen and leaders. However, the public school emphasis on caution and correctness often made graduates into hesitant, other-directed men suited only for secondary echelons of responsibility.27 Unfortunately, they often found themselves vaulted far beyond their competence or desire.

Elite-entropy, dilettantism or mere mental slackness had fertile ground for development in the English schools of the nineteenth century. Thus, a complaint in 1835 that "it is notorious that at several of the public schools, it is reckoned disreputable to study, or to read or 'sap' as the cant phrase is at some"28 found echoes at mid-century:

There are . . . at Eton . . . lads of high rank and large expectation, who understand very early in life that work in any shape is not their vocation, and who give more or less a leaven of indolence to the school.29

Nor did this situation end with the Victorian era, as Cyril Connolly indicated:

It was not smart to work at Eton; to be a 'sap' was a disgrace and to compete for prizes eccentric . . . . We were infected by the fashion from without, behind which lay the English distrust of intellect and prejudice in favour of the amateur.30
Schoolboy interest in work has always, of course, exhibited the full range, from enthusiasm to indifference, but Connolly's comment from the post-Victorian perspective raises another feature of the public school ethos. A continued, national esteem for the non-profession, the generalist, or the 'gentleman-amateur', while an increasingly inappropriate model for a complex, capital-intensive economy, was fully reflected in the elite schools. Early in the nineteenth century leaders had praised that "serenity and repose of character (which) will be recognized as a well-known characteristic of free-minded English gentlemen." Later intensification of these traits, however, resulted in a public school model which was an aggregation of indoctrinated certainty, languorous athleticism, and super-refined aesthetic taste. Intellectual ability, as a form of leadership, was seen as subtle and casuistical, a threatening form of obscurantism. It was seldom accepted in isolation but might be validated by high social standing or a good pair of hands in cricket.

As a result, it is fair to say that the great public schools perpetuated a complacency tending to snobbery, a conservatism breeding mindless conformity, and an incuriosity leading to anti-intellectualism. The lack of critical sense and the general distrust of rational inquiry which characterized many of Britain's
elite during the period of her sharpest economic difficulties, may be traceable to the priorities set in public schools. As Alec Waugh recalled:

It is the business of the school to win their matches and to produce first class footballers and cricketers; it is the business of the house to win their house matches and to produce as many colours as possible. It is the business of every individual member of the school to subscribe to this creed. The value of scholastic achievements is relative. It is a feather in the cap of a double first to be privileged to wear the dark ribbon of the Sixth. But it is not a necessary achievement.\(^{33}\)

One result of the strong grounding in public school group-think was a belief that nothing of value could possibly exist outside the circle of received opinion. This might also have been a result of the standardized pedagogy which often blunted rather than sharpened intellects. As described by one observer:

The method of teaching was stereotyped--great slabs of set-books or grammar to be learned by heart and recited, repetition work, all within a fixed programme. There was little scope for personal initiative and curiosity, private research ... For many it permanently divorced intellectual study from the practical activities of life.\(^{34}\)

Robert Graves also described this form of education when he and a classmate were contemplating, without marked enthusiasm, their move up to Oxford from Charterhouse: "'Do you realize,' Nevill asked me, 'that we have spent fourteen years of our life principally at Latin and Greek, not even competently taught, and that we're now going to start another three years of the same thing?'"\(^{35}\)

As a result of such situations, some observers in the Victorian period clearly understood that:
So little has been done at Public School to stimulate . . . interests, so little attempt has been made to encourage special aptitudes, that boys seem to have fallen into a kind of cynical apathy about intellectual things.36

However, beyond the stultification and sloth which self-serving and indifferent pedagogy provoked in generations of boys (and which we might call educational *laissez-faire*ism at its worst, in the sense of constituting a system which permitted its victims to verify their worst suspicions about education), other aspects of school life were opposed to the exercise of intellect and initiative.

Ideas of proper form, house loyalty, fagging, and self-sacrifice served as strong binding elements for the schools. The needs for a conservation of old traditions rapidly found embodiment in doctrinaire forms of speech and action which, in turn, evolved into particularly rigid and idiosyncratic forms of public school orthodoxy. The schools at the end of the Victorian era did not have 37 Articles for students to sign on admission, but their doctrinaire stance was apparent nevertheless:

The public schools generally produced a race of well-bodied, well-mannered, well-meaning boys, keen on games, devoted to their schools, ignorant of life, contemptuous of all outside the pole of their own caste, uninterested in work, neither desiring nor revering knowledge.37

In effect, the public school community saw itself as a bastion against the excesses of their age, whether industrial or ecclesiastical. They would hold firm to
the rock of accepted practice whether the tide rose or not; the legend of Canute presumably did not figure in their Latin grammars.

Many graduates of such a system were either co-opted or restricted by their education; while some doors were opened, many avenues were barred. The intellectual products of the public schools were well-armed mainly in the manifesting of prejudices acquired or refined during their terms of study. At worst, the sense of balance of public school boys was severely distorted:

Aspiring to full social acceptance, they tended toward intellectual deference. They were less critical of aristocratic ideas and values than of ideas and values emanating from elsewhere in British society.38

Such graduates who entered business, industry, or other professional fields may well have been the ultimate Greek gift from the public schools to the nation. As to the main aim of the public school ethos, an Edwardian assessment put the situation in bleakest, if not blackest, terms:

It is sometimes said in defence of the public schools that they develop character, even if their system of teaching is deficient. It would be truer to say that they attempt to shape their boys' characters in one common mould; and you cannot be said to 'develop' a jelly when you pour it into a tin. . . . The public schools develop characteristics and suppress character . . . if you get behind the mask you find a great emptiness; it is a mask which conceals a despite of learning, an unwillingness to know, a charnel-house of still-born intellect.39

The philosophic thrust of public school education, whether epistemological, curricular or social,
clearly ran counter to the needs of nineteenth-century industrial Britain. The schools came to represent the South in the great North-South split which characterized later Victorian society's industrial ambivalence. However, reposing for the most part in sylvan isolation, these institutions did more than just set a non-industrial tone for their students. They actively endeavoured to counter what their leaders considered the excesses and threats of the industrial situation.

The day-to-day relationships of public school boys were one extremely powerful means of patterning and differentiating students. The anti-business components of these interactions are most accessible through the range of school literature which, due to its contemporary acceptance, can be taken to mirror accurately the life of the institutions. By way of illustration, Scaife, the anti-hero of H. A. Vachell's popular novel *The Hill*, is bluntly categorized as the grandson of a navvy but another character fares much worse since his father is a Liverpool merchant. Public school snobbery, clearly, was aroused more by mercantile associations than by mere lower classness.

In effect, the deliberately restrictive social and pedagogical patterns of the public schools represented a Dickensian recoil from commercialization and the destabilizing changes of industrial growth. Besides encouraging anti-science biases, the institutions reacted to
such trends in a variety of ways. The development of utilitarian courses in the areas of technology, modern languages and business was opposed. A preference was made plain for pure as opposed to applied mathematics. Where specialized courses were established, the very best public school students were channelled in other directions. In short, the value of separating 'true' learning from earning was engrained in students. Finally, the concept of the well-rounded generalist was honoured while that of the 'narrow' specialist was denigrated.

Reviewing this system in 1861, Herbert Spencer commented:

Our school courses leave almost entirely out . . . that which most nearly concerns the business of life. Our industries would cease were it not for the information which men begin to acquire, as best they may, after their education is said to be finished. He concluded:

Here we see most distinctly the vice of our educational system. It neglects the plant for the sake of the flower. In anxiety for elegance, it forgets substance.

A desire for social quietism, both in schools and society generally, matched with the natural complacency of an empire at peace and flush with protected markets thus produced an elite educational system which valued the non-industrialist, the amateur, and the 'good loser.' Public school masters increasingly came to see their role as groomers of good managers, competent civil servants, and 'sound' concensual politicians, and, not
least, as tamers of energetic 'risers' from the lower classes. Such results had particular consequences.

For instance:

The system may starve key non-governmental professions, in industry, for example, or the arts. On the one hand it may divert able men away from these occupations; on the other, it can quite easily develop unsuitable aptitudes in those who do enter them.47

As well, men were raised to positions of power and authority ill-equipped to manage a pluralistic and increasingly technological society. They displayed a leisurely pace of thought, comprehension, and action which frequently served as a detriment to their endeavours. In sectors facing rapid change and needing brisk innovation to remain competitive, leaders were often unable to rise above the public schooling which had trained them to be instinctive conservators. It also appears that, in the most pragmatic area of business judgment, graduates of the great public schools were generally not good profit makers.48

The accepted conception of business and industry which took root in the Victorian public schools was of a corporate undertaking in which all involved did their duty as defined from above. None worked with or for unfair advantage, either intramurally or extramurally. Proper conduct emphasized tolerance, self-control and 'balance.' This was a logical outgrowth of the Arnoldian belief that "deference for a hierarchical
society, the ability and desire to lead, an appreciation of the nice gradations of social forms were all-important goals." A similar sense of British industry existed at a slightly later date, when the graduates of the nineteenth-century public schools were at their peak of power: most important, then, were "corporate spirit which sees the whole as greater than the part; sodality which makes good a comrade's shortcomings instead of using them for self-advantage; tolerance and self-control.".

It is perhaps little wonder, as a result, that many industrial and commercial leaders of humble origin did not see public schooling as a fit preparation for their heirs. Some were sure that this "unsettled them for commercial pursuits," while others intensified the schools' belief that earning and learning should have no link into a conviction that these could have no link.

The qualities of leadership which the schools sought, and many businessmen scorned, were those of a competent Master of Hounds, regimental officer or civil servant in times of normality. It can be argued that these were precisely the attributes which lessened success in times of stress, such as the industries of Britain experienced at the end of the nineteenth century. It will be seen later that the success, for instance, of public schooled military and civil officers during periods of trial may also have been reduced by their educational training. John Ruskin was surely speaking of an earlier
and simpler era when he claimed:

The tact, foresight, decision, and the mental powers required for the successful management of a large mercantile concern, if not such as could be compared with those of a great lawyer, general or divine, would at least match the general conditions of mind required in the subordinate officers of a ship, or of a regiment, or in the curate of a country parish.54

Yet, Ruskin's limited and paternalistic sense of the needs of business and industry reflected the tenor of Victorian thought on the subject, and the concern of public schools to emphasize harmony, moderation, and compromise helped to develop a species of business leader notable for a lack of drive. Such men are needed in certain situations and eras, of course. However, when continued growth was a goal, it is increasingly evident that late Victorian Britain was neither the time nor the place for them.55

The reluctance of public schools to adapt to the needs of their times also had a profound secondary effect. Schools in France, Germany and other jurisdictions had developed industrial and commercial training schemes known for their thoroughness and wide applicability.56 In Britain, in the absence of such programmes at the traditional institutions, this need was served almost exclusively by factory and apprentice-training establishments and, later, by adult night institutes. The early and proud traditions of success through the efforts of untrained, practical men who proceeded by 'rule of thumb'
often prejudiced businessmen against formal education.
This contempt was fanned by the public schools' resolute adherence to three major tenets:

... the natural sinfulness of boys; the existence of a well-defined and naturally superior 'gentlemanly' class whose sons ought to be educated apart from the majority of the nation's youth and to be brought up as its natural leaders, and last but not least, the usefulness of a so-called 'liberal' non-vocational, if not anti-vocational academic training.  

Though the third of these beliefs was the most contentious, the general effect of this disjunction between industry and the elite was a steady move, on the part of both, away from areas of possible rapprochement.  

In later years, the failure of Britain's government and business leaders to hold the same values made life increasingly difficult for both, but the nation as a whole suffered most. At its most conspiratory, the disinclination of the elite to forge links with the rising men of commerce and industry can be considered an attempt at self-preservation by exclusion. If the elite saw itself under attack, the slowness of its schools, through one strategem or another, to admit sons of the industrial classes becomes understandable. This reluctance is well illustrated by the unofficial entrance philosophy of Cheltenham in the mid-nineteenth century:

Had we admitted tradesmen in any instance, we must have done so almost without limit, and in the confined circle of shops in Cheltenham we should have had the sons of gentlemen shaking hands with schoolfellows behind the counter.  

In the wider social context of Victorian England, this sort of patronizing class prejudice was repeated:

Top businessmen did not move in the highest social circles, either in the far reaches of the Empire or at home, and most Victorians would rather have sat down to a bad meal with a stupid aristocrat than to a good meal with an intelligent businessman. 61

Besides reflecting some of the underside of Victorian morality, the public schools were also destructive of the social fabric in another twin-barbed way. They stressed that their education was not for every citizen and, as a result, need not be programmed to suit the needs of general society. At one stroke, many of the most capable business leaders, or their offspring, were effectively denied educational access, while as many others were encouraged to conclude that public schooling was not valuable and its products deficient. 62

Those parents who did succumb to the social lure of the schools, and succeeded in surmounting the entrance barriers, committed their children to a strict regime of social programming. The business traits of thrift, innovation and enthusiasm were often lauded by the masters but generally in such an arch manner that their place in elite society was not legitimized. 63

These were seen as the sorts of qualities a gentleman could expect from his employees and servants but a true leader was not required to display them himself, in the same way that a truly rich man did not need to carry a
purse full of bank notes.

Some clients of the public schools clearly advanced their own social standing through this association. However, the institutions served few other pragmatic ends for the rising classes. It appears that "a public school education remained at the end of the 19th century as at the beginning of most value to those who did not have to make their way in the world." Which is not to say that the effects of the schools were neutral. They were substantive and far-reaching, contributing in large measure to the social uncertainty which marked Britain's long imperial and industrial decline.

By comparison, in discussing the decline of the ancient Athenian state, R. R. Bolgar has pointed out that an increasingly complex society requires a leadership and educational system of similar breadth and intricacy. As an economy matures, social policy decisions become matters of fundamental and lasting significance:

In such a society the maintenance of a high level of efficiency would have required first of all the provision of advanced training for those who wanted it in a number of specialties. The further problem of how the several groups in society could be brought together to form one elite from the individually eminent was of secondary importance. The public good did not depend on its solution.

Nevertheless, faced with a choice between these two tasks, nineteenth century British leaders, in spite of their vaunted classical knowledge, essentially mirrored the actions of their Greek predecessors, since:
... it was this secondary problem that the Athenian educators made the focus of their attention. They remained blind to the fact that the continued existence of their world turned upon the effective exercise of many skills; they overvalued the politician's arts and underestimated the growing consequence of administrative, economic and technical achievement.67

Any judgment of Victorian public schooling may, therefore echo the following estimation of Athenian education:

A city's life was guided not by a single elite, but by a group of elites—military, economic, administrative, political, intellectual. . . educators who concentrated their attention on the political leadership limited the range of their influence within a compass that was too narrow to count.68

While English public schooling was similarly narrow in outlook, it succeeded in 'counting' with serious national consequences. It cannot be argued that the great public schools were 'successful' since they clearly contributed to the weakening of the society which they sought to strengthen. In particular, they advanced a social philosophy which ensured that the various Victorian elites, having little common-ground on which to meet, were unable to establish a viable social and economic alliance. It may be concluded that "a very high degree of educational elitism . . . tends to serve government and society badly in an advanced industrial society marked by rapid technical change."69

In an era requiring social accommodation and economic pragmatism, the elite education system in Britain remained largely immovable. The half-serious comments of one graduate summarize the influence and inertia of the
public schools through the later Victorian era and after:

First, we agreed that there were perhaps even more typical public schools than Charterhouse in existence, but that we preferred not to believe it. Next, that no possible remedy could be found because tradition was so strong that to break it, one would have to dismiss the whole school and staff, and start all over again. However, even this would not be enough, the school buildings being so impregnated with what passed as the public school spirit, but what we felt as fundamental evil, that they would have to be demolished and the school rebuilt elsewhere under a different name.70

Quite different from Robert Graves' dream, it may be seen that the schools remained standing while all the time contributing to the decay of the society outside their walls. This impact was perhaps most potent in the areas of Victorian business leadership and practice, which will be examined next.
FOOTNOTES


4. M. J. Wiener, English culture and the decline of the industrial spirit (Cambridge: Cambridge University Press, 1981), p. ix, states that there existed, by the late nineteenth century, a "cultural cordon sanitaire encircling the forces of economic development—technology, industry and commerce."

5. R. Graves, Goodbye to All That (London: Cassel, 1958), p. 19, indicates that he won a scholarship to Charterhouse mainly because that school did not set a Greek paper for its entrance examination. He explains that, if his languages had been stronger, "I should almost certainly have gone to the very different atmosphere of Winchester."


7. M. L. Clarke, Classical Education in Britain, 1500-1900 (Cambridge: Cambridge University Press, 1959) surveys the role of the classics in English public schools.


M. Debeauvais, "Education and National Development," *Oxford Review of Education* VII (1981), pp. 67-71, indicates that in a case such as late Victorian Britain, the education of an individual or an elite group without reference to the needs or views of the entire community can only be a mechanism for reproducing or reinforcing social patterns. It is, thus, an ideological rather than a pedagogical undertaking.

This variant on the immaculate conception of nobility would come to hold similar attraction for later generations of the industrial elite when they sought to define their own social legitimacy. See Chapter IV.


19 Roderick and Stephens, Scientific and Technical Education, p. 41, indicate that of 3076 graduates of Eton, Harrow, Rugby, Marlborough, Mill Hill and Dulwich College surveyed in the nineteenth century, 39 (1%) pursued science careers and 125 (4%) became engineers. By comparison, 20% of the sample entered the army, 17% entered the church, and 9% became lawyers.


21 Bamford, Rise of the Public Schools, p. 115.


24 J. Rae, "Our Obsolete Attitudes: Education and the National Malaise," Encounter XLIX (November 1977), p. 11, argues that "the British educational system is essentially the product of a society that could afford to regard what happened in schools and universities as having little bearing on the wealth of the country."

25 C. Connolly, Enemies of Promise (New York: Macmillan, 1948), p. 192, describes the "ape-like" virtues without which no one could enjoy a public school: "The art of getting on at school depends on a mixture of enthusiasm with moral cowardice and social sense."

26 Ollard, An English Education, pp. 64-65.

27 Ibid., p. 82, quotes A. C. Benson on the effects of public schooling: "We only make the ordinary boy hate and despise books and knowledge generally; but we make them conscientious—good drudges, I think."


30 Connolly, Enemies of Promise, p. 214.
The English preference for amateurism is often most simply found by a review of schoolboy literature. Henty's soldiers were seldom professionals but, rather, gentlemen-adventurers, Charles Kingsley's heroes were 'plain-thinkers' to the point of being anti-intellectuals, Sherlock Holmes was successful, and popular, because he was an amateur investigator rather than a professional policeman, and Raffles was fascinating because he was a gentleman turned occasional, skilful burglar, the 'amateur-cracksman,' rather than a professional thief. For the schooling and business implications of this literary vogue, see D. C. Coleman, "Gentlemen and Players," Economic History Review, 2nd ser., XXVI (1973), pp. 92-116, and R. Wilkinson, The Prefects (London: Oxford University Press, 1964), Chapter 6.


Graves, Goodbye to All That, pp. 32-33.


Ogilvie, English Public School, p. 189.

Wiener, English culture and the decline of the industrial spirit, p. 37.


Barnett, Collapse of British Power, p. 30, describes this as the "incompatibility between the stained glass and white marble ideals of English education and the iron-foundaries, cotton-mills and gas-works of the English industrial success that paid for it all."
Wiener, English culture and the decline of the industrial spirit, pp. 5-7, discusses what he refers to as the "Janus-face" of Victorian Britain. He believes that the nation accepted, but was ill-at-ease with, the idea of progress and in later years, mainly through education, attempted to counter the ethos of material growth with the ideals of stability, tranquillity, and closeness to the past and nature. These may be summarized as the 'workshop' and 'garden' conceptualizations of nineteenth-century Britain.


Benson, "Our Gentlemen's Schools Again," p. 462, states that, regarding the utilitarian motive of education, "the better kind of schoolmaster is too apt to regard this as not only a negligible thing, but as a thing which must be resolutely fought against."


Ibid., p. 63.


"The wealthy manufacturer . . . sends his son to a classical school to learn Latin and Greek as a preparation for cloth manufacturing, calico printing, engineering or coal mining . . . . He enters his father's factory at 20 or 24 absolutely untrained in the chief requirements of the business he is to direct. Is it fair . . . that he should have been taught nothing of chemistry, or of practical mathematics, steam, electricity, the methods of commerce or even modern languages?"

See Chapter V.


J. W. Gough, The Rise of the Entrepreneur (London: Batsford, 1969), p. 286, contends that, if the successful entrepreneurs were marked out by "their individuality, their inventiveness, their enterprise and determination, and their administrative capacity," much of this was knocked out of public school boys by their education.


Wilkinson, The Prefects, p. 17, describes one aspect of this situation:

"If the schools were ready to take the businessman's fees, they were not ready to take all that he stood for . . . . For where the public schools reverenced tradition, the businessman courted innovation."

L. Jones, A Victorian Boyhood (London: Macmillan, 1956), p. 151, indicates how Eton chose her pupils in 1898:

"These were the good, easy days before the Common Entrance examination, or indeed any entrance examination
at all. You were accepted for Eton in the week, if not on the day, of your birth, when your father sent a telegram to some Master likely to have a House in thirteen years' time. The examination was to decide, not your entrance, but your form."

60 Gathorne-Hardy, Public School Phenomenon, p. 137.


65 Barnett, Collapse of British Power, p. 24, states: "The evolution of the English public school has a crucial bearing on the British plight in 1940 for most of the administrators of the British Empire . . . as well as many British business leaders and MPs, were products of the period of its ripest development between 1870 and 1900." He adds, p. 43, that these men "saw the empire romantically as a great instrument of civilization and enlightenment, a successor to Greece and Rome; and their own role in the empire in idealistic terms of service in its civilizing mission . . . They hardly thought at all of British power in terms of industrial competitiveness, science, technology or strategy."


67 Ibid. 68 Ibid.


70 Graves, Goodbye to All That, p. 32.
CHAPTER IV
VICTORIAN COMMERCE, INDUSTRY
AND ENTREPRENEURSHIP

A mixed economy in the throes of change is a particularly complex object for study. Such is clearly the case when examining the progress of industrialization and social change in Victorian Britain. Many factors, both economic and non-economic, must be considered before a general industrial portrait can be reconstructed from the micro-economic tracings which remain to us and such model-building from statistics is filled with dangers, both in surfeit and shortage of data. As well, assessments often do not:

... admit discussion of the extent to which statistical results are dependent upon a number of identifiable, though unquantifiable factors, operating in such a way as to cancel one another out... a surrogate statistical explanation does not necessarily amount to a satisfying historical explanation.

At the same time, an examination of the non-climactic remains of the civilization, diaries, letters, memoirs, novels, and the like, with the increasingly subjective weightings they call forth, does not constitute a simple route to qualitative judgments. As David Landes stated:
The trouble is that entrepreneurship is a difficult factor to specify and assess. Its characteristics do not lend themselves to quantification... and they are so overlaid by other considerations that it is almost impossible to segregate their influence.\(^2\)

Landes adds:

What is more, entrepreneurship is not homogeneous; the entrepreneurs, that is, the decision-makers of the economy, include not only the traditional owner-operators and the newer class of pure managers, but a growing number of government bureaucrats and technicians.\(^3\)

For the case under study, however, Landes' final amplifications carry less weight. The English industrial situation in the late Victorian period was, in fact, remarkably homogeneous, at least with regard to the uppermost echelons of decision-making. Traditional owners were giving way mainly to the new generations of their own families, limited liability had not yet driven out the clubby concept of small partnerships, and a new stratum of professional managers had not yet emerged, nor would it do so for a considerable period.\(^4\) The numbers of British scientists and technologists were also considerably smaller compared to their American or continental counterparts.\(^5\) As a result, it will be argued that the public schools exercised considerable influence over the British economy since the generally anti-industrial attitudes and beliefs which they fostered in students complemented or intensified traditional prejudices and practices among many of the rising masters of
commerce and industry.

The economic power of other social institutions such as the nineteenth century family, the growing burrough communities, various clubs, and increasing numbers of government agencies, must not be discounted, in the same way that the consequences of public schooling should not be credited with singular or disproportionate significance. Nevertheless, it is apparent that these factors had not yet matched the powerful penetrative influence which the late Victorian public schools exercised over the British elite. Like entrepreneurship, itself an extremely subjective concept based on the evaluation of notions such as 'innovativeness versus conservatism' and 'adventurousness versus caution', education must be assessed mainly through qualitative judgments. While not promising the immediate satisfaction of quantitative measures, these ultimately provide the type of evidence and evaluation needed for a thorough historical explanation.  

When studying British entrepreneurship, two concerns must be faced immediately: comparability and culpability. By use of statistical records it is usually possible to relate Britain's economic fluctuations to the cases of her major competitors, France, Germany and America. Most comparative studies of this type have awarded Britain unfavourable rankings in profitability, recapitalization, productivity and other areas. However,
much further study is required in order to compare fully the economic contributions of Victorian businessmen with those of their international rivals. At the same time, though the debate continues on the extent of Britain’s decline and the part played by businessmen in this, it will be assumed, as one scholar has concluded, that "the detrimental effect of entrepreneurial deficiencies in the performance of the British economy was highly significant."

As mentioned, business and industry received multiple blows from the public schools system. Those graduates who entered business in increasing numbers during the late Victorian period were, almost by definition, not the intellectual elite of their cohorts. Ill-educated as they were, both in relative and business terms, these recruits did possess definite notions and prejudices about business from their school days, many of which were particularly inappropriate for, if not actively hostile towards, the goals of dynamic commerce. As well, these commercial neophytes often entered a company at the higher levels, missing any opportunity to become truly conversant with the operations of the enterprise. Indeed, the rise of such individuals to the top-most rungs of the firm was virtually preordained. The economic counter-productivity of raising up such commercial leaders may best be made evident through examination of those ideas which most affected their successful
functioning and which are attributable, in part at least, to their public schooling. Some stances worthy of consideration are the cult of amateurism, the non-commercial status focus, and the instinctive conservatism which characterized these men.

As has been shown, public school boys were taught by word, deed and precept to eschew practical matters, which were anything which savoured of utility or could be construed as falling within the province of 'trade.' Effortless achievement of non-specialist goals accompanied by an overlay of modesty was held forth as the noblest model. The practical implications of businessmen so formed in their earliest and most receptive years could be far-reaching. Being true to such precepts meant that searching for avenues of new profits, vigorously pursuing innovative techniques and new lines, adding technically qualified staff, and recruiting professionally trained managers were all unthinkable. The idea of advertising for customers was also inconceivable to many public schooled business leaders, who preferred to project an aura of 'take it or leave it' indifference. A few entrepreneurs turned this elite diffidence to financial advantage since, in the later decades of the century:

... extraordinary improvement in consumption standards meant that great gains could accrue to the men who were prepared to study, to meet and to manipulate consumers' taste. ... When the young Lipton returned from a visit to America in the
early seventies he brought back the useful couplet: 'The man who on his trade relies, Must either bust or advertise.'

Those businessmen constrained to give the impression that they were not financially dependent on their commercial activities often suffered precisely the fate described.

For instance, J. M. Napier, heir to a thriving mechanical firm, took the enterprise to the verge of extinction by the end of the nineteenth century because:

His nature, particularly his pride, stood in the way of anything approaching 'hard-selling': if people wanted his goods, they could come to him and he would do an excellent job for them, but not a cheap one. Otherwise, they might do without.

Eventually, the firm was allowed to die back until it provided merely a comfortable living for the owner, and where three hundred men had worked previously only seven were employed by 1895:

Anyone entering the factory found it hard to perceive the workmen so few they were. And the apprentices' shop was a total desert... From a corner a huge spider might dart out to seize its prey: nothing else would move - green mildew lay upon the belting, dust and rust on everything: the air was musty.

Vague confidence and energyless complacency increasingly became the de rigueur personna of the Victorian businessman of the upper stratum. Commercial concerns and family enterprises began to be run along the lines of a public school house. The owner or director took the role of all-knowing, occasionally kindly, but invariably unchallengeable Head. Such a top-down,
paternalistic system was not new in British business; most of the highly successful firms were the creation of one inspired individual. The difference now, with the rise of public schooled directors, was that such leadership was not based on an intimate knowledge of the operations of the firm. Assumption of the 'gentlemanly headmaster' position in a firm, coupled with admiration of amateurism, inhibited the scope of action of many incumbents in return for a solid bolstering of their social positions. In the main, this trade-off was willingly made since it was believed that:

Leaders exert greater influence and control if they can claim status by adhering to generalized norms of interaction between gentlemen and others. They expect deference from subordinates. They claim an autonomy, a security of tenure and an exclusiveness unbreached by outsiders or by the introduction of fluidity.\(^\text{17}\)

However, the economic results were profoundly adverse when the third generations of industrial families "worked at play and played at work."\(^\text{18}\) As David Landes concluded:

The weakness of British enterprise reflected this combination of amateurism and complacency ... the British manufacturer was notorious for his indifference to style, his conservatism in the face of new techniques, his reluctance to abandon the individuality of tradition for the conformity implicit in mass production.\(^\text{19}\)

A further effect of viewing business positions as situations of inverse status was that Victorian firms typically remained relatively small, with the result that they were ripe for nepotism and generally impervious to new blood and new ideas. One seeming
contradiction is that, in an environment overtly hostile to specialization, the majority of companies were undiversified, single-product enterprises. However, it appears that this was more a result of lethargy or timidity than pride; a failure to diversify often stemmed from fears of risk-taking. Even when directing firms with extremely restricted aims and activities, public schooled business leaders still did not see themselves as experts. Rather they hoped to resemble that brand of well-rounded generalist who could run either a button factory, steel mill, embassy or army along general, gentlemanly precepts whose antonyms were crystal clear but whose actual principles were left discreetly vague. The arrival of limited liability in 1855 should have reduced 'riskiness' as an excuse for conservatism but fundamental improvements were slow in taking place. In effect:

The new business group emerging in Britain in the early nineteenth century was the result of a far higher order of social and economic flexibility than was present in the rest of Europe. But businessmen by their own actions had created a new situation by the seventies and eighties. By this time a hereditary element had developed in the industrial sector which, though bringing continuity and experience, had also brought an insensitivity to new challenges.

In their search for status, the new generations also saw business profits and capital as both theirs by right and theirs to do with as they saw fit. Thus, it appears that "between 1830 and 1870 an ability on
the part of businessmen to earn comfortable profits; probably led to an ossification of industrial organization and structure.24 This attitude, while perhaps understandable given Britain's extended history of economic hegemony, was destructive in a variety of ways. Traditional owners were increasingly uninterested in diversification as a means of guaranteeing the future of their enterprises. This would have demanded qualities of risk-taking, organization and entrepreneurial dynamism which they lacked, if not actively disregarded. As well, product innovations were considered unnecessary and indicative of a want of pride or confidence. Let foreign competitors be as efficient, enthusiastic and productive as they liked; the 'British-made' label was considered sufficient of itself, while change from standard products or processes was seen as a subtle slur on past achievements. At the same time, the growing insularity and inbred nature of British business restricted the opportunities of bright, new, but uncapitalized men who might have prompted change. More seriously, it also enabled later generations of the great industrial families to seek surer profits by sticking to old, standby industries or swifter profits by investing abroad.25 Whatever the causes, potential capital for retooling, research and general growth was lost to British industry, which certainly contributed to the late-Victorian economic
decline.

In this regard, a comparison of national net domestic capital formation as a percentage of net domestic product for selected periods indicates Britain's disadvantageous position **vis à vis** her major rivals:

<table>
<thead>
<tr>
<th>Year</th>
<th>Britain</th>
<th>Germany</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1855-74</td>
<td>7.0%</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>1875-94</td>
<td>6.8%</td>
<td>11.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>1895-1914</td>
<td>7.7%</td>
<td>15.0%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

Lack of capital investment in one industrial period frequently results in the simple inability of later eras to engage in this necessary task. In the later-Victorian period, financial strictures in key industries coupled with elite hostility or indifference toward reinvestment to produce enterprises notable for their general inertia and backwardness.

As previously mentioned, there is also evidence that numbers of second and third generation families simply wanted no further part in energetic commercial or industrial enterprise. When such groups radically scaled-down their daily commercial commitments, maintained, or often increased, their returns from holdings, and also restricted the discretionary powers of their firms' supervisors, the results were predictably undesirable. Rathbones of Liverpool was one Victorian
example, where arrival of the public schooled generations resulted in discernable slackening of the firm's drive. A similar lassitude was apparent in the later history of Marshalls, a Leeds flax-spinning company when the early, *laissez-faire* lead which the founders had grabbed with two burly hands slipped through the fingers of the following generations. Regarding the latter:

Once the pioneering days of rapid change and falling costs were over they wanted new rules which would guarantee their perpetuation. But they developed no worthwhile notions as to how to succeed by their own efforts, and at the root of their infirmity was a failure to adjust their outlook to changing conditions.

For this firm, as well as for the nation which depended, in part, upon its continued prosperity, John III and Stephen Marshall, both public schooled and graduates of Cambridge, represented no salvation. In fact, in short order:

Instead of protecting their business interests and evolving a self-repairing structure, Marshall's sons decided in middle-age to coast on their inheritance and dissipated the assets which the founder had built up.

The public school compatriots which such leaders hired or relied upon for advice were also of questionable value, and it can be concluded that the economic progress of Britain was badly served, here and elsewhere, when "the third generation of well-educated, capable, urbane young gentlemen claimed their inheritance. They valued business as a way of life less than their parents." A review of this aspect of social history tends, in fact,
to bear out the contention of one scholar that late Victorian industrialists "were far more likely to assimilate the tastes and attitudes of their new connections than to impose a capitalist or entrepreneurial spirit upon them."\textsuperscript{32}

This wasting away of industrial drive in the search for social status was to have other manifestations. On the one hand, as previously suggested, a business leader might not cut his commercial ties completely, in which case:

\textldots the 'part-time' manufacturer probably had a much worse effect on the rate of investment than the man whose aim was to cease entirely to be a manufacturer, because he retained the ownership of the assets but did not completely devote either his energy or his funds to developing them.\textsuperscript{33}

On the other hand, it may be apparent now that an enterprise often suffered most when a business leader chose, whether for reasons of increased status or future preferment, to send his children to a public school. The results of such choices for one industry have been summarized in this way:

As the steel industry grew, businessmen began to educate their sons to a level and in a style comparable to that of the professional and landed men whose children entered the industry \ldots. Thus in origin the increased importance of these institutions in the training of future steel-makers was not part of a conscious recruitment policy on the part of firms in the industry, but a reflection of the high degree of family control and the attitudes of those families that education for social status was to be preferred to specific education for an industrial career.\textsuperscript{34}

The steel industry is, of course, the classic
case study of industrial decline which is frequently used to exemplify Britain's economic failure. While no simple correlations are possible, it is salutary to compare steel's fall with a corresponding rise in the number of the industry's executives who were educated at public schools. The production of steel in Britain, Germany and America, as percentages of world production can be summarized for selected years as follows:

<table>
<thead>
<tr>
<th>YEARS</th>
<th>BRITAIN</th>
<th>GERMANY</th>
<th>UNITED STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875-79</td>
<td>35.9</td>
<td>16.6</td>
<td>26.0</td>
</tr>
<tr>
<td>1890-94</td>
<td>24.6</td>
<td>21.4</td>
<td>33.7</td>
</tr>
<tr>
<td>1905-09</td>
<td>12.4</td>
<td>22.1</td>
<td>43.5</td>
</tr>
<tr>
<td>1910-13</td>
<td>10.3</td>
<td>22.7</td>
<td>42.3</td>
</tr>
</tbody>
</table>

The percentages of steel industry owners and executives who were educated at public schools, listed according to their years of power, are: 1865--10%, 1875-95--16%, and 1905-25--31%. Other factors enter into the history of the steel industry's international decline, including the fact that in the period 1905-25 less than ten percent of the leaders of Britain's major technological industry had taken scientific training at a university, technical school, military or naval college. Nevertheless, steel's educational and competitive records extend a measure of posthumous validation to the views of one early-Victorian contributor to the Westminster Review:

The influences of the aristocracy have in a great measure tainted the Education of the other classes. The ambition of bringing up their children
as gentlemen and ladies, instead of men and women fit for their several positions in the world, has lead to the teaching of accomplishments to the exclusion of other studies whose aid in life would be more practically useful. The whole thing is misconceived.39

The fall of an international industry such as steel may have a multitude of causes,39 but the decline of the old industrial families of Britain, from lively superiority at the beginning of the nineteenth century to listless accommodation at the end, arose as much from choice as external circumstances.40 However, the role played in this process by the older elites and the public schools was neither inconsiderable, aimless nor neutral:

In other countries, the land-owning aristocracies, by excluding the nouveaux riches of the Industrial Revolution, ensured their own impotence and decline. The British aristocracy, less rigid, embraced the rising entrepreneurs and infected them and their children with its own standard of values: and the quality of industrial management has suffered in consequence.41

The excessive caution and fear of innovation or growth which characterized many British businessmen at the end of the nineteenth century may also find their origins in public school indoctrination of notions of place-keeping and good form. In their maturity, public schooled men of affairs often seemed bound by a doctrinaire and even jingoistic conservatism which may have masked an inbred fear of failure. It was a singular misfortune for the nation that these individuals went quickly to the head of organizations upon whose dynamism Britain
depended for her future success.  

This conservatism may be seen as a cause of the late-Victorian failure to maintain Britain's position of economic dominance. An apparent inability to change in the face of international challenges also played a part. It was perhaps inevitable that the nation's early industrial lead should be followed by a period of reduced returns, for which businessmen should not be unduly faulted. However, it appears that such a reordering of positions had a traumatizing effect upon many economic leaders. To some the years of quick and easy profits had seemed no more than the nation's due, and their loss produced a crippling failure to face new facts. Others, particularly those commercial and industrial leaders from the public schools, were hobbled by an intense awareness of their low social standing as businessmen. They feared the possibility of failure at an already demeaning activity. In both cases much energy, in consequence, was used to reduce or conceal the effects of foreign competition upon domestic industries. Some degree of self-deception must also have existed here, since the notion of thorough reorganization and retooling to tackle the market afresh was not common in British industry. The international insularity of this was not lost on nineteenth century observers since "contemporaries frequently commented on the fluidity and receptiveness of American society, on the infectious spirit of improvement, on the
tremendous enthusiasm for technical advance... vis à vis the British."  

The fact that small firms, even after the introduction of limited liability, remained the typical British model may also explain some of the nation's inability to compete. Owners tended to see their companies as one-man or one-family undertakings or small partnership arrangements between like-minded brethren. These continued, often well after the Victorian period, as underproductive squirearchies in which traditional activities were marked by unchanging practices completed at a pensive pace. To the conservative leaders of such establishments innovation and expansion were tantamount to unseemly greed or an ungentlemanly grab for power; modern practices provoked trepidation rather than enthusiasm in such owners. A contemporary observer remarked on the strikingly different attitude of one major competitor: "In Germany the possibilities and limitations of the machine have been welcomed instead of being regarded as a hindrance."  

It is evident that entrepreneurs in Britain remained wedded to their staple trades and traditional methods, those which had 'done us well in the past,' and were content to limit their activities to known and dependable markets. These preferences continued, if not strengthened, as Britain's competition increased and her overall position deteriorated. As D. H. Aldcraft remarked:
British industrialists took the line of least resistance and were extremely reluctant to accept the challenge of new conditions. It is quite evident that many entrepreneurs adopted a very complacent attitude towards their businesses, particularly on the commercial side where the 'take it or leave it attitude' has persisted even up to this day.47

One economic indicator which signalled the results of this situation was Britain's share of total world trade in manufactures which declined from 37.1% in 1885 to 25.4% in 1913.48

Another key indicator of the drop in Britain's competitiveness was a persistent Victorian disinclination to fund research and development. This may have stemmed, in part, from the previously mentioned preference for small firms in which low capitalization made funds for industrial research scarce, even if this had been wanted.49 However, small size also engendered a smallness of expectation and a general failure to look actively into the future, which again contrasted markedly with the approach of some competitors:

Even when the British entrepreneur was rational . . . his calculations were distorted by the shortness of his time horizon, and his estimates were on the conservative side. The significance of this pecuniary approach is best appreciated when it is contrasted with the technological rationality of the Germans.50

An anti-research bias among industrialists may have had its origin in several aspects of public schooling. Classical studies had been valued because they were thought to be a mental discipline, not an end in themselves but a means to the formation of
character. Underlying this was a sense that the general qualities of mind which they developed never became obsolete while specialized knowledge clearly did, a conclusion clearly not conducive to the support of industrial R. and D. This result would have been understandable to at least one Edinburgh Review writer of the beginning of the century:

A classical scholar of twenty-three or twenty-four years of age, is a man principally conversant with works of imagination . . . . Talents for speculation and original inquiry he has none; nor has he formed the invaluable habit of pushing things up to their first principles, or of collecting dry and unamusing facts as the materials of reasoning. All the solid and masculine parts of his understanding are left wholly without cultivation; he hates the pain of thinking, and suspects every man whose boldness and originality call upon him to defend his opinions and prove his assertions.

Businessmen formed on this model worshipped "the ideal of the gentlemanly amateur, deriving wisdom, morality and a capacity for leadership from knowing a little about everything and a lot about nothing (except possibly classical grammar)," and agreed with the belief that "the specialist should be on tap and not on top." An examination of British versus German research and development in the chemical industry indicates that the latter led in all the general indicators, numbers of patents, numbers of scientific abstracts, and numbers of new products. British industrialists, unable to see the long range benefits of new knowledge, were content to acknowledge the German lead without attempting to counter it. Improvement here remained slow in
coming since:

The underestimation of the benefits of R. and D. widespread in the United Kingdom could have been changed, especially by scientists and industrialists themselves, but it could not be changed overnight for the attitude was deeply rooted in society itself.  

In this and other areas, "circumstances may have engendered an attitude of caution among entrepreneurs all the more difficult to remove because it was ingrained and not based upon explicit reasoning." Such faint-hearted conservatism in British businessmen owed much to Victorian public schooling. In the same way, the public schools must bear much responsibility for the eventual results, as Correlli Barnett made clear:

The characteristics fostered by Victorian education --conservatism, doctrinaire orthodoxy, rigidity, inertia and unbounded complacency--are the classic attributes of an army about to suffer a catastrophic defeat.

Pursuing his military analogy, Barnett concluded:

In a hundred years British industry had . . . changed its character from an army of conquest, mobile, flexible and bold, into a defensive army pegged out in fixed positions, passively trying to defend what it had won in the past.

Besides their apparently direct commercial effects, however, the public schools also exercised significant indirect influence over the non-public-schooled leadership of the Victorian economy. This occurred mainly in two ways. In some instances, the general precepts of the schools tended to increase the traditional, or more accurately, anti-innovative beliefs, of many industrialists. In other cases, the prejudices
and personnel of the schools encouraged a thorough-going anti-intellectualism among British men of affairs.

Regarding the reluctance of traditional British industries to change with the times, it seems reasonable to agree that "no industrial machine can be better than the minds that direct it. If the machine is antiquated and slow-moving, then the directing minds can be frequently shown to have been unreceptive to innovation."\(^{60}\) The prerequisites for timely and effective innovation are a clear awareness that conditions require something different, and the optimism and enthusiasm needed to seek new answers or avenues. Late nineteenth century British industry seemed singularly lacking in both requirements.

Safe behind the protected trade walls of the Empire, British entrepreneurs exhibited a closed mentality which combined a frank unwillingness to know with an arrogant, but also commercially counter-productive, belief that "niggers begin at Calais."\(^{61}\) Such a breed of businessman did not lack confidence but this generally manifested itself as a misplaced assurance that Britons and British ways would continue to suffice. This ethnocentrism was exhibited on a regional scale in 1911 when a businessman from northern England dealt briskly with worries about growing foreign competition:

It's just twaddle. In the first place, we've got the only climate in the world where cotton piece goods in any quantity can ever be produced. In the second, no foreign Johnnies can ever be bred that can spin and weave like Lancashire lads and lasses. In the
third place, there are more spindles in Oldham than in all the rest of the world put together. And last of all, if they had the climate and the men and the spindles - which they can never have - foreigners could never find the brains Lancashire cotton men have for the job.  

Such confidence often metamorphized into listlessness, however, and businessmen were increasingly seen as "willing but lacking in initiative, most of them almost automata without any initiative." As one commentator concluded, likely with reference to the public school sort of effetism which characterized many enterprises, "sportsmanship and good form would not maintain the Empire against commercial rivals; new and more independent leaders were needed but they were not forthcoming."

Finally, it became increasingly clear as the nineteenth century drew to a close that the quickening decline of Britain's older industries was not the major concern. A reluctance to enter newer and more promising areas of opportunity was even more harmful. The restraining power of public school conservatism in a world of increasingly dynamic competition and change was economically counter-productive and "it was by her failure to secure a large share of the newer trades then coming into being rather than by her loosening her hold on some of the old industries that Britain's weaknesses were becoming most obvious . . . ."

Traditional industrial preferences for the 'practical man' also continued to affect industrial performance but with added strength due to various
public school prejudices. Early in the industrial revolution capital had not been a requisite for entry into a firm, since in that age of innovation an actual premium was placed on knowledge. Later, twin results of public schooling for status rather than commercial competence became increasingly apparent. Technically unqualified men often attained positions of power from which they recruited according to their public school preferences, with the result that the reputations of the great schools as producers of adequate leaders continued to decline. Older industrialists, on the other hand, equated inadequate public schooling with most other areas of academic qualification, and a further estrangement of the worlds of learning and active commerce resulted. As early as 1828 the Westminster Review had expressed concern that "these very men are often ignorant, do not desire to be informed, and too often despise the very knowledge by which they exist, under the vulgar and misapplied term Theory." Nevertheless, one scholar has concluded that:

Most English firms before 1914, even those heavily dependent on applied science and technology, relied on ... haphazard methods of management selection and were still inclined to regard university degrees and professional qualifications with suspicion, indifference or contempt.

This attitude represented the survival of an earlier mind-set illustrated by the slighting answer Sir Bernard Samuelson received from one industrialist in the mid-Victorian era. Told that one of his competitors
in the calico trade had just been qualified by a German polytechnic, the businessman replied, "Oh! We can buy our chemistry - if we need any."\textsuperscript{69}

British industrial leadership, therefore, was increasingly hampered by, or in reaction against, public-school-style training. This situation was effectively summarized by J. Wellens:

\ldots from below, the 'hard-way' man has brought with him to industrial management an anti-intellectual tradition which sees conflict between the 'practical' man and the 'academic' while the man conditioned by the old colonial ethic has brought with him an anti-intellectual tradition of another kind; that which sees 'character' as a more desirable commodity than brains.\textsuperscript{70}

As to the culpability of public schools in Britain's industrial decline we may consider the contention that:

Entrepreneurial drives and responses are the prime movers of an industrial machine \ldots if, therefore, entrepreneurial drives were sometimes weak and responses passive where they should have been active, the ultimate source of the weakness is to be sought in the nature of the society and its institutions.\textsuperscript{71}

Whether directly trained or otherwise affected by public schools, Victorian business leaders exhibited qualities which were logically extensions of patterns inculcated by the great schools. Such men felt unfairly put upon, rather than challenged, by competitive forces, resisted alterations wherever possible, and disvalued intellectual work as represented by original research. In effect, "the ingrained traditionalism of the English \ldots impeded integration and growth within industry."\textsuperscript{72} Perhaps the most serious result of this
was that young, would-be Liptons, Courtaulds and Levers of the late Victorian era often found the doors to industry barred and bolted, and the boardrooms of the nation filled with technologically illiterate public school products, men more interested in horses and rose gardens than the state of their factories. These individuals seldom displayed the traditional qualities of a successful business leader, enterprise matched with prudence, energy stiffened with fortitude, judgment formed from wide and deep experience. Instead, with them it was often the case that prudence overshadowed enterprise, fortitude outweighed energy, judgment was drawn from deliberately restricted and narrow experience, and the ability to read character was replaced by an infallible memory for an old school or regimental tie.

The bifurcation of British leadership between practical men and amateurs, with both fostered by elements of the public school ethos, had particular results. Institutions, such as the schools, which might have rationalized the country's economic progress and drawn Britain's main social strands together, neglected the former and frustrated achievement of the latter. In effect, public school leaders demonstrated little awareness of the need for late nineteenth century social and commercial cross-fertilization. Given this Victorian structure and the clearly one-sided agendas of the public schools, it is not surprising that:
In Britain . . . the consequences of social immobility and a too highly developed class consciousness up and down the social scale were not mitigated by widespread acceptance of the need for sound training for future industrial leaders. In Britain, therefore, social stratification could be viewed as a potentially serious obstacle to the development of entrepreneurial and managerial skills.  

It is appropriate, now, to examine similar ramifications of public schooling in other areas of Victorian life, particularly various sectors of the public service. Here, too, the economic nuances appear to have been predominantly negative rather than neutral.
FOOTNOTES


3 Ibid.


6 Of necessity, the sort of explanation achieved will still be incomplete but it will have the virtue of greater comprehension and deeper consideration. It will, in fact, be the type of history described by R. G. Collingwood, *The Idea of History* (London: Oxford University Press, 1966), p. 249: "However fragmentary and faulty ... , the idea which governed its course is clear, rational and universal. It is the idea of the historical imagination as a self-dependent, self-determining, and self-justifying form of thought."


105


11 W. L. Guttsman, The British Political Elite (London: MacGibbon and Kee, 1963), p. 383, refers to this form of old-boy networking or nepotism as a "new cousinhood" in which "connections, ownership and wealth weigh at least as much as ability," if not more. See also, J. H. Goldthorpe, Social Mobility and Class Structure in Modern Britain (Oxford: Clarendon Press, 1980).

12 "Eton College," The Quarterly Review 171 (1890), p. 27, offers the following as an admiring summary of these public schoolboy traits:
"They toil at games, and play with books:
They love the winner of the race,
If only he that prospers looks
On prizes with a simple grace."

13 J. Rae, The Public School Revolution (London: Faber, 1981), p. 12, points out that a real danger in the public school ethos was that "men in influential public positions had had the sort of education that predisposed them to be suspicious of innovation and reluctant to implement technical ideas."


16 Ibid., p. 58.


19 Ibid., p. 564.
20 S. Marriner, Rathbones of Liverpool, 1845-73 (Liverpool: Liverpool University Press, 1961), p. 126, cites the example of one firm where "risks were minimized by keeping out of trades which required constant thought and attention."

21 D. Granick, The European Executive (New York: Doubleday, 1962), pp. 134-135, describes this sort of manager as one who "rejects indignantly the very thought of being an 'expert'."


23 Checkland, Rise of Industrial Society, p. 108.


26 A. E. Levine, Industrial Retardation in Britain (London: Weidenfeld and Nicolson, 1967), p. 128. M. Edelstein, Overseas Investment in the Age of High Imperialism (New York: Columbia University Press, 1982), pp. 310-311, argues, however, that other factors were of greater importance in Britain's comparative slow-down: "These were, on the one hand, the nation's policy of free trade with its corollary of no infant industry protection and, on the other hand, the aspects of U. K. social and political structure that fostered the relative public and private neglect of education and research in science and technology - these factors rather than a predisposition towards foreign investment caused economic stagnation."

27 Marriner, Rathbones of Liverpool, Chapter 6.


29 Ibid., p. 281.
30 J. Vaizey, The History of British Steel (London: Weidenfeld and Nicolson, 1974), p. 10, examines a comparable situation and concludes that when sons succeeded to power in the steel firms they recruited non-specialist school friends and "as a result the firms were technically and managerially less professional than those in America or Germany."

31 Rimmer, Marshalls of Leeds, p. 300. Marriner, Rathbones of Liverpool, p. 120, comes to a strikingly similar conclusion when she states that later generations of her study "regarded business primarily as a means of providing money to pursue their main interests which lay in politics, education, philanthropy and religion."


33 Habakkuk, American and British Technology, p. 178.


35 Aldcroft, Development of British Industry, p. 72.

36 Erickson, British Industrialists, p. 33.

37 Ibid., p. 42.

38 Westminster Review XL (April 1, 1834), p. 304.


"The whole complex of circumstances that produced British pre-eminence before 1873 was fortuitous, and . . . as the United States and Germany caught up and eventually surpassed the United Kingdom . . . the British iron and steel industry assumed a relative position more appropriate to its resource base, to the size of its home market and to the share of the export market which it might justifiably expect to supply."


42 Checkland, *Rise of Industrial Society*, p. 294, indicates that the unshakeable self-satisfaction and assurance of these individuals were both unwarranted and unhelpful results of their schooling as well as indications of their instinctive conservatism:

"The type of the upper-class English gentleman was firmly established - a man robust, conservative, somewhat opaque in intellect, closely bound by a code that took no account of those who were afflicted by internal uncertainties or flights of emotions."

43 Musson, *Growth of British Industry*, p. 158, contends that "in so far as retardation did occur, it was brought about not so much by socio-biological factors, as by factors largely beyond the control of British entrepreneurs."


45 Habakkuk, *American and British Technology*, p. 112. Levine, *Industrial Retardation in Britain*, p. 69, adds it was:

"... a common belief that American industrialists are always more ready to scrap industrial equipment than are their British counterparts. This may be due to capital being more readily obtainable in the United States, but it may also be due to a psychological difference between the adventurous employers of the United States and the more conservative British employers."


48 Ibid., p. 124. By comparison, in the same period Germany's share of this sector increased from 17.2% to 23%.

49 Payne, *British Entrepreneurship*, pp. 54-55, examines the limitations on growth as a result of the scale of the average British commercial unit.


Ibid., p. 305.


Ibid., p. 89.

Levine, *Industrial Retardation in Britain*, p. 57.


Allen, *British Disease*, p. 35.


Allen, *British Disease*, p. 32. Roderick and Stephens, eds., *Where Did We Go Wrong?*, p. 4, point out that, while Britain's world trade share in fifteen selected items increased by 44% between 1895 and 1907, in the same period Germany and America achieved increases of 125% and 500% respectively.
S. Shapiro, *Capital and the Cotton Industry* (New York: Cornell University Press, 1967), p. 177, discusses this development in the cotton and textile industries. Following the parabola of this development, we may extrapolate that the late Victorian requirement of capital for entrance into industry seems to have driven out the need for knowledge at many levels.


Levine, *Industrial Retardation in Britain*, p. 72.
CHAPTER V
PUBLIC SCHOOLING, PUBLIC SERVICE
AND THE VICTORIAN ECONOMY

Public school education had importance for other areas of nineteenth century British life besides commerce and industry. Public school boys increasingly found careers in the Victorian public service\(^1\) where they again demonstrated the inappropriateness of much of their schooling for the needs of the society they sought to lead. In order to clarify this, the thesis will examine briefly the principle characteristics of mid and later Victorian civil servants and military chiefs and, in more detail, the activities of laissez-faire government officials and academic leaders. The prominence of public school graduates in these ranks will constitute one unifying thread. A second will be the contention that the social, scientific and technical decision-making activities of these individuals had marked significance for Britain's economic fortunes in the late nineteenth and early twentieth centuries.

British governments engaged in a wide reform of state affairs in the mid-Victorian period, with competitive examinations for the Indian Civil Service
introduced in 1853, for some military careers in 1858, and for the civil service as a whole in 1870. Though this "Glorious Revolution" may be seen to have opened some doors of power for sons of the middle classes, it is also apparent that the public schools' influence in the affairs of state was further enhanced. Some believe these changes "sounded the death knell of the old class system," but they can also be taken as the continuation, slightly transmuted, of elite pre-eminence or as subtle but orchestrated defences against the forces of egalitarianism. Whatever the case, the increased centralization of power in the hands of public school products had clear socio-economic consequences.

General civil service competence increased significantly in particular areas but, in the main, the great schools, who supplied most public service recruits:

... continued to produce scholars who might have felt at home in the literary salons of Ancient Rome, but were too amateur to be other than disastrous when trusted with control of a government department allocating resources needed in modernizing Britain.

One acute observer remarked on the general lack of awareness of British civil servants:

The higher ranges of the British Civil Service have many virtues. What too frequently they lack is... personal experience of the conditions of life and habits of thought of those for whose requirements in the matter of health, housing, education and economic well-being, they are engaged in providing. That deficiency is serious.
The conception of civil servants as above the fray, maintaining magisterial detachment and restraint, had clear ties to the public school ethos. Like classics-based education, public service came to be viewed mainly as an ornament for an otherwise leisurely life; expertise and commitment were things a leader could expect from his clerks. As a result, perhaps, the public schooled civil servants who faced the accelerating demands of the late Victorian period were often not equipped or disposed to adjust to the new conditions:

Technical improvement and expansion for its own sake were outside the range of mind of men content to live a genteel upper-middle-class life in the suburban mansions where the train tracks ended and the rhododendrons began.

It should be remembered that not all British civil servants fell into this category. Lyon Playfair, Edwin Chadwick, James Kay-Shuttleworth and some few others represented the other side of the coin. However, their relative isolation in the Victorian scene suggests that they were exceptions which proved the rule.

The connection of the public schools with the officer class of the British military also increased steadily during the nineteenth century. By 1890, 46% of Sandhurst entrants were from the top ten public schools, while entrants from all public schools totalled 80%. In later years, prospective military leaders would be drawn more than 90% from public schools. Soon it appeared that an education from one of the greater schools was
virtually the only route to a commission, even, at least for a while, in times of national emergency.\textsuperscript{10}

Many public schools reacted enthusiastically to the system of open competition for military entry which was established after the Crimean debacle. Some schools such as Cheltenham and Clifton developed complete army sides dedicated to satisfying the test requirements of their budding generals. Other schools actively sought the patronage of military families. While Wellington College reserved two hundred free places each year for the sons of officers. Spartan school accommodations, long hours of work, and brisk discipline under the prefectorial system helped prepare hardy young men for future military duties and, in time there grew up:

... a wide measure of agreement that public school products possessed general character attributes and social skills which well fitted them for the roles of colonial 'policemen' and 'heroic' warriors - poise, equanimity, self-assurance, fearlessness, dash, pugnacity, a sense of duty and mental and physical resilience.\textsuperscript{11}

However, this pre-training for the army, while producing a generally dependable type of soldier, could also be said to develop men who were mainly capable of doing as they were told rather than thinking for themselves. These were individuals:

... admirably fitted for maintaining a static political and social system and for building an Empire. Men who were sure of themselves and ready to accept responsibility, but devoid of imagination, sensibility, and the capacity to criticise what they had been taught to accept.\textsuperscript{12}
Unquestioning obedience is, of course, a desirable soldierly trait as long as the tactical situation does not require a touch of sensible skepticism or creative flexibility. The public schools, however, had been "designed to reward conformity, obedience to authority and to crush originality and rebellion." Truly innovative soldiers such as T. E. Lawrence were seldom professionals, while technically competent officers were found mainly in secondary, undervalued military units:

The qualities valued in an officer were the qualities valued by the country gentry: courage, physical toughness, a determination to stand up for one's rights, a touchy sense of humour. The notion that an officer should be a professional soldier, qualified by technical as well as the traditional virtues of a gentleman, was derided and looked down upon, except in the engineers and artillery, two corps which were only rather doubtfully fit for gentlemen to serve in.

In some uncharitable views, "there seems to have been no limit to what you didn't have to know to get into the infantry or the cavalry," and in 1902 Leopold Amery denounced the Army in famous terms, saying:

Regarded as an institution or society the British Army of 1899 was undoubtedly a success. The numbers on its rolls were large, the uniforms of the members through all the ranks of the military hierarchy most distinctive, their traditional ceremonies elaborate and pleasing to the eye, the regulations to which they submitted, infinitely complex. As a fighting machine it was largely a sham.

Amery's verdict may have been prompted by the repeated blunders of the Eton-educated General Lord Methuen or the combination of Redvers Buller (Eton) and Sir Charles Warren (Cheltenham) which essayed the
disaster of Spion Kop, but public schooled generals would continue to supply ammunition for his argument well into the twentieth century. Even after the grotesqueries of Ypres and the Somme, the view of war as a diversion for gentlemen persisted, as displayed by General Lord Horne in 1918:

Perhaps as a nation we failed in imagination, possibly Germany was more quick to initiate new methods or warfare or to adapt her existing methods to meet prevailing conditions. Certainly, we were slow to adopt, indeed our souls abhorred, anything unsportsmanlike.

Ultimately, public school distrust of the hard worker, or 'sap', and of the unorthodox thinker may have been the most harmful contribution to the British officer-caste mentality. The elite of the army "distrusted the 'brilliant' fellow, and were inclined to think him unsafe," and, consequently, the archetype of Colonel Blimp continued to represent much that was truthful about the origins and inclinations of the British military man.

During the nineteenth century recruitment and education of naval officers was not so closely tied to the public schools as in the case of the land forces. Prospective Nelsons generally commenced rigorous midshipman training at an age when their army compatriots were beginning six or seven years at a crammer's or public school. Recommendation remained the chief requirement for selection and Admiral Fisher recalled that when he entered Portsmouth "all the examination I had to
pass was to write out the Lord's Prayer, do a rule-of-three sum and drink a glass of sherry." Naval education by mid-century was hardly more practical or well-suited for a service mandated to tie together a worldwide Empire. In 1857, however, the Army Council acceded to public school suggestions for changes to service education and a spill-over effect occurred in the Royal Navy. While the army deleted Sandhurst courses in fortifications in favour of Euclid, the navy dropped history, physics and geography in order to introduce its cadets to Caesar, Horace and Virgil. In effect, "the Senior Service had regretted its brief educational concession to the age of steam" and began to look more to the gentlemanly components of its training. As in the late Victorian army, this change clearly "emphasizes the role of an officer as a gentleman and cultivated person and de-emphasizes the officer's contribution as a professional expert with highly specialized, technical skills."

Aping of the public school man increased amateurism and conservatism in an already tradition-bound service and is likely related to the inability of late Victorian and Edwardian officers to appreciate the sea warfare significance of advances in science and technology. Admiralty opposition to the use of newly developed Bessemer steel as late as the 1880s was indicative of a continued, bureaucracy-wide antipathy to scientific change
and the Navy's effective control of much of Britain's shipbuilding capacity ramified the effects of this intransigence. Later failure, well into World War One, to develop convoy plans or effective counter-measures to the threat of the Whitehead torpedo, the plans of which the Admiralty had held since 1871, also reflected unfavourably on the qualities of the Navy's leadership:

For the leaders of the world's greatest maritime force to have taken so long to react correctly to the experience of war, casts strong doubt on the quality of their education and training. Admiralty preference for what John Stuart Mill called the "dogmatism of common sense" can be linked to the public school disinclination to move with the times, but the stunted vision of the members of both groups was perhaps the most significant commonality. As a result, of this characteristic:

The Victorian Navy was not half so formidable as it looked, and its disgraceful unreadiness for war was largely due to the clannish self-sufficiency of its officer corps, aloof to the world's prosaics. Such a group, along with the public schooled bureaucrats who supported it, produced a service which neglected the necessary for the trivial. In short, before the advent of Churchill and Fisher, the Royal Navy was "an end in itself, justified by its size, its reputation and its elegance." While they may or may not have used funds efficiently, the British Army and the Royal Navy continued to receive combined support in the order of
a minimum of 2.4% of total government expenditure during the late nineteenth and early twentieth centuries.\textsuperscript{31}

Except in these cases of national defence, however, the characteristic political and bureaucratic response to most of the difficulties of the period was invocation of the theory of laissez-faire. This belief in the efficacy of the free market and the need for "the general abstention of the state from attempts to control the course of industrial development"\textsuperscript{32} produced a general disinclination to 'interfere' in the social problems of the general populace. The advancement of freedom rather than of equality was held to be the chief need of industrial Britain.\textsuperscript{33}

Much fruitful academic discussion has taken place on whether the spirit of non-intervention was all-pervasive in Victorian Britain, or whether mid-nineteenth century governmental initiatives laid the foundations of the modern welfare state.\textsuperscript{34} Without attempting to resolve this debate, it is apparent that a laissez-faire philosophy operated with regard to the provision of scientific and technological education. It is also evident that this attitude among those in the seats of power was further legitimized by various teachings of the great schools.

Public school education in its purest essence sought to form and stimulate the natural qualities of boys rather than impose values or provide professional
training. In time, as the schools attempted to indicate that they were not 'interfering' with the development of their students but were merely 'facilitating' it, this special pleading became an increasingly tangled enterprise. When public school products found themselves engaged in subsequent government initiatives, similar semantical gymnastics were required.

Often these undertakings were merely an expression of elite-class self-interest, such as the support of Mechanics' Institutes where Brougham and others:

... saw the problem as one of harnessing the power and strength of the new industrial classes to their own programmes of reform. This involved the reform of parliament to give more power to the middle classes in the industrial areas, the propagating of ideas of economic and social laissez-faire and utilitarianism, and the encouragement of ideas of self-help and upward mobility, even, for the most industrious and able of the working class.35

In other instances, though Matthew Arnold might bluntly declare that "our notion of the state is that of an alien, intrusive power in the community, not summing up and representing the action of individuals, but thwarting it,"36 other Victorians were less dogmatic. Herbert Spencer, on many occasions, argued for educational change and the widening of state provision in this area. However, he also generally deplored state intervention in the 'natural' affairs of life, of which education was surely one. Such interference, he felt, led to a variety of evils, including unwanted uniformity, stultification of initiative, and the dictation to future ages of their
learning needs. Inevitably:

... the state, regarded as an undoubtedly competent judge of what constitutes good education for the poor, shall undertake also to prescribe good education for the middle classes - shall stamp the children of these, too, after a state pattern, concerning the goodness of which they have no more doubt than the Chinese had when they fixed theirs.\textsuperscript{37}

Spencer faced unblinkingly a major difficulty in social \textit{laissez-faire}, namely the question of how desirable national growth can be ensured in an industrial era without government intervention in education. He concluded that:

The liberty which an individual enjoys is to be measured, not by the nature of the governmental machinery he lives under, whether representative or other, but by the relative paucity of the restraints it imposes on him ... The despot is still a despot whether his motives for arbitrary rule are good or bad.\textsuperscript{38}

Consequently, he favoured a freely individualistic and voluntary system, no matter what the successful industrial examples of France and Germany might show, rather than state "fingerings"\textsuperscript{39} in education which could have upsetting social results.\textsuperscript{40}

Even at the very end of the Victorian era it was acknowledged that:

State Organization and State Control have been for many years the bugbear of Public School-men: for various and different reasons they cherish their liberty, and are convinced that State interference means the destruction of everything that they particularly value.\textsuperscript{41}

Thus, Spencer's popularity with the ruling British elite stemmed most from the elements of social control and validation of existing social arrangements which they
perceived in his writings. The nation's leaders were reluctant to provide further education to Britain's masses for two main reasons: conviction that the country's industrial strength found its source in 'natural' innovation which needed no artificial buttressing by education; and, fear that the existing social structure might not take the strain of widespread educational enlightenment. Spencer largely put these concerns to rest with a synthesis which stated: "If a man has a natural right to make his own blunders, it is no business of government to save men from themselves." 42

Darwin's theory of evolution, with its emphasis on the concept of survival of the fittest, also suited the views of an elite which had been trained in public school to value competitiveness only in so far as it validated current status. 43 Thus, Social Darwinism, as promulgated by Spencer, assured the advocates of laissez-faire that:

The poverty of the incapable, the distresses that come upon the imprudent, the starvation of the idle, and those shoulderings aside of the weakly by the strong . . . are the decrees of a large, far-seeing benevolence. 44

In some instances, however, the need for change was so pressing that even the least enthusiastic interveners were prompted to act. One Winchester graduate, Robert Lowe, was instrumental in initiating far-reaching expansions of popular education through government intervention. He came to see the need here as a question of national self-preservation:
There is no effort we should not make - there is no sacrifice, either of money or prejudice, of feeling, we should not submit to - rather than allow a generation to grow up in ignorance, in whose hands are reposed the destinies of all of us, the destinies of the nation.\textsuperscript{45}

In the main, though, it suited Lowe and his most important subordinate, Ralph Lingen, to act as strict maintainers of governmental parsimony and advocates of community self-help. When asked, as Chancellor of the Exchequer, to supply three hundred pounds to the Scottish Meteorological Society, Lowe's reply was to the point:

\begin{quote}
I am in principle opposed to all grants and it is my intention not to entertain any applications of this nature. We are called upon for economy . . . . I hold it as our duty not to spend public money to do that which the people can do for themselves.\textsuperscript{46}
\end{quote}

Government antipathy to many of the demands of education, and enthusiasm for local initiative, continued through the late Victorian period, as when Gladstone faced down calls for further central government involvement:

\begin{quote}
'It appears to me clear that the day you sanction compulsory rating for the purpose of education you sign the death-warrant of voluntary exertions . . . . Are we prepared to undergo the risk of extinguishing the vast amount of voluntary effort which now exists throughout the country?\textsuperscript{47}
\end{quote}

It is apparent that government provisions for particular areas of education were increased during this era. Still, as in the case of public school accessibility to the lower classes, a case can be made that such initiatives occurred in the service of many other ends.
including an actual reduction of overall expenditure. As well, many statesmen were still on the horns of their most pressing industrial dilemma: whether to neglect education and allow better-trained nations to pass Britain, or to court possible social disruption by educating the Victorian lower classes. The idea of meritocratic government as a viable compromise here was mainly an elite-sponsored illusion. Lowe, who favoured this, was certainly not a democrat and the sense of ambivalence about social laissez-faire which troubled some upper class Victorians was absent in his case:

Lowe heartily disliked the idea of social revolution. Even if his main aim was not to preserve the existing class divisions but to secure meritocratic government, he hoped that the effect would be the same.48

The Victorian attitude to higher education was generally similar. The purpose of university study was:

... to develop and discipline the mental faculties, to impart by exercise a ready and complete power of using them, to form habits of accurate thinking, to store the mind with a general knowledge of human nature in its various relations and to fortify and elevate the character by moral discipline.49

Higher learning was, thus, best restricted to the traditional areas of gentlemanly training and mental development, though such development should never be so crass as to relate to a future getting of income. John Stuart Mill declared that:

The university was not the place for professional education, the purpose of university education being to inculcate a noble and courteous bearing in the conduct of life and to produce 'capable and cultivated human beings'.
Cardinal Newman agreed:

This process of training, by which the intellect, instead of being formed or sacrificed to some particular or accidental purpose, some specific trade or profession or study or science, is disciplined for its own sake, for the perception of its own proper object, and for its own higher culture, is called liberal education.\textsuperscript{51}

Such tightly-focused clarity and restriction of purpose stiffened the reluctance of ancient colleges and universities to address the educational needs of industrialized Britain. Earlier in the nineteenth century some had foreseen the need for more comprehensive programmes:

Looking always to real utility as our guide we should see, with equal pleasure, a studious and inquisitive mind assaying the productions of nature, investigating the qualities of bodies, or mastering the difficulties of the learned languages.\textsuperscript{52}

However, this author concluded that "when an University has been doing useless things for a long time, it appears at first degrading to them to be useful."\textsuperscript{53}

Through the remainder of the century the ancient universities fought a long and, from their perspective, chiefly successful delaying action against such degradation.\textsuperscript{54}

As with the classics, Victorian higher educators continued to esteem mathematics and other traditional subjects for reasons singularly unconnected with their practical applicability. Indeed:

So deeply rooted was the disdain for commerce and industry, for the values which they were supposed to represent, that numerous dons and non-resident M. A.s decided the worth of an academic subject
by its usefulness to commerce and industry. In their view almost no subject which could be turned to the benefit of business deserved university recognition.\textsuperscript{55}

Throughout the nineteenth century, the ancient English universities restricted their participation in professional training for such fields as law and medicine, and commercial studies in academia remained virtually non-existent. The intransigence of the institutions' leadership grew in proportion to the accession to academic power of graduates of the 'reformed' public school system. The underprovision of scientific studies at Oxbridge will be discussed later, but the lack of Victorian engineering training at these centres of higher learning, with its clear economic corollaries, may be sketched briefly.

Despite the achievements of men such as Richard Arkwright, Isambard Brunel, and George Stephenson, the ranks of British engineers remained thin. Well after the nineteenth century only 3\% of public school graduates chose engineering studies and in absolute numbers only 17,000 of Britain's 170,000 professionals called themselves engineers in 1910.\textsuperscript{56} It also appears that the growth in respectability of this profession, and its consequent permeation by public school notions of gentility, led to developments poorly suited to an age of increasing technological rivalry. In short, it is apparent that:
The Gentlemen Engineers served their profession well in the nineteenth century, but they did little to prepare it for the bleak winds of international competition which were blowing strongly by the end of the century. . . . the tendency to accept the lures of gentility and gentrification proved to be a dead end.  

With regard to scientific studies, the Devonshire Commission on Scientific Instruction (1872-75) reported on the state of things at universities, public and endowed secondary schools and training colleges. It concluded that the situation represented cause for concern:

We are compelled . . . to record our opinion that the Present State of Scientific Instruction in our schools is extremely unsatisfactory. The omission from a Liberal Education of a great branch of Intellectual Culture is of itself a matter of serious regret; and considering the increasing importance of Science to the Material Interests of the country, we must but regard its almost total exclusion from the training of the upper and middle classes as little less than a national misfortune.

The vehemence and exceptional quality of the members of this commission, which included Kaye-Shuttleworth, Sir Bernard Samuelson and T. H. Huxley as well as the chairman, William Cavendish, did not guarantee acceptance of their views or political action. On the contrary:

. . . in spite of widespread conviction that the State should endow science, it cannot be said that the politicians measured up to the occasion . . . . Very few of the recommendations of the Devonshire Commission were implemented . . . generally laissez-faire continued in the matter of science.

The Samuelson Commission on Technical Instruction (1882) had more success since, despite failure to establish colleges of higher technical study in 1887, the Local Government Act of 1888 and the Technical Instruction
Act of 1889 enabled local authorities to commence some effective scientific and technical instruction. However, it was not until the "whiskey money" grants became available in 1890 that this system was truly viable.

Such largess, accidental or deliberate, was consistently lacking for civic universities which sought to fulfill the needs for science and technology of their particular localities. The founding of Owen College, Manchester, in 1851, had been followed by the establishment of such institutions as Newcastle College of Physical Science (1871), Yorkshire College of Science, Leeds (1874), University College, Nottingham (1881), and University College, Liverpool (1882). A characteristic similarity in the establishment of these institutions was that each was the result of local, rather than central government, initiative. The University at Liverpool owed its foundation mainly to the efforts of great families such as the Derbys, Rathbones and Muspratts. No assistance had been forthcoming from either the Endowed Schools Commission or the Science and Art Department, and government participation in the venture amounted to no more than 12% during the foundation period, with a further 8% coming from the local authorities, and averaging 11% annually for the balance of the century. This compared quite unfavourably with the level of higher education provision which was maintained by Britain's international competitors.

The paucity of state aid for civic universities
is made clear by the fact that the first grant made in 1889, and intended to cover all the institutions, totalled only 15,000 pounds, while a further 14,000 pounds was shared by the Royal School of Mines and the Royal College of Science alone. It is significant, also, that dispersal of such grants continued to be the duty of ad hoc committees until a standing committee was eventually established in 1906.

In the face of rapid technical change and growing international competition, late-Victorian Britain simply did not have the highly trained technical personnel she needed. Her weak position in this area must be attributed, in part, to the failure of successive governments to encourage the training of such experts. Public schooled politicians, raised to believe in both laissez-faire and the crassness of science, must bear a major portion of the blame. However, the disinclination of the leaders of ancient universities and colleges to promote scientific endeavours also played an important role, as did the public school conventions which bound them.

Public schools in the Victorian period sent their talented graduates increasingly to the ancient universities in preference to almost any other institution or occupation. As a result, an increasing proportion of college teachers and administrators had public school backgrounds by the end of the century. Resultingly, the prejudices of the public schools were
mirrored with growing frequency in the orientation and decisions of the universities (and re-reflect ed when the Oxbridge elite assumed increasing control over components of the public school curricula). The low esteem of science in the ancient universities may be traced, at least in part, to the characteristic public school disdain for this subject. The measure of Oxford and Cambridge's disregard for science is apparent in the distribution of fellowships at these centres in 1870:

<table>
<thead>
<tr>
<th></th>
<th>Classics</th>
<th>Mathematics</th>
<th>History and Law</th>
<th>Natural Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford</td>
<td>145</td>
<td>28</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Cambridge</td>
<td>67</td>
<td>102</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>212</td>
<td>130</td>
<td>27</td>
<td>768</td>
</tr>
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The number of science scholarships made available is also a telling indicator, since "in 1896 . . . only ten out of twenty-one colleges offered scholarships in science, and not more than forty out of five hundred scholarships, were for these subjects."69

Witnesses to the Devonshire Commission had indicated that "the State does not at present . . . acknowledge pure science as an element of national greatness and usefulness and progress."70 At the same time, the power of the universities to set the requirements of secondary education were made clear: "Possessing supreme educational prestige and dispensing enormous educational rewards their power is absolute to determine the grooves in which school work shall run."71 The Commissioners
concluded that, in the realm of science teaching:

Nothing . . . can have much effect on the grammar schools and middle class schools of the country, generally, until the universities, which give the key to education in the country, allocate a fair proportion of their endowments to the reward of scientific studies.  

Despite continued encouragement to upgrade their science endeavours, however, the two ancient universities resisted change, Oxford more so than Cambridge; studies which were instituted were almost exclusively 'pure' science rather than 'applied' science which, like technical education, was viewed as a lower, rather than a different, form of education. Given the power and ingrained prejudices of the university and public school elites, the result of the battle for more and better science in these institutions was a stalemate:

The universities did not reward natural science because it was not taught in the schools and the schools did not teach it because it was not rewarded in the universities.

The vital area of original research also suffered from government reluctance to offer, and academic disinclination to press for, adequate funding. Central authority support for the entire nation in the period 1849-1914 was essentially confined to an annual grant of one thousand pounds to the Royal Society.

At Cambridge, the most scientifically enlightened of the ancient foundations, the Natural Science Tripos had been introduced in 1848 but the effect of this change was restricted. "The NST both altered the organization
of science at Cambridge, and defined new, self-exemplifying characteristics among a substantial section of the student population" but, by 1910, the proportion of undergraduates reading this Tripos was still only 18%. As well, a split gradually arose, along the old lines of utility versus gentility, between scientists engaged in theoretical studies and those who did practical work. This is perhaps best illustrated by the strained relationship between the generally jovial but eminently practical Ernest Rutherford and the theoretical physicists of the university, whom he referred to as "those fellows." Dearth of funds continued to hamper the advance of science in Britain. By way of example, the situation at the University of Liverpool in 1911 was straitened to the point where "after the unavoidable expenses of cleaning, gas light and water, there remains to defray the cost of material and chemicals for research an annual sum of 120 pounds." At the Cavendish Laboratory, Britain's premier facility, the year 1888/89 required a total expenditure of only 1091 pounds, 9 shillings and 5 pence, while expenses for 1913/14 reached the sum of 3092 pounds, 10 shillings and 5 pence.

In summing up the situation at Oxford in 1903, Professor John Perry accused that institution "not only of neglecting science . . . but for neglecting research even in those subjects it professed to teach, and this had created a dangerously unscientific, anti-intellectual and
anti-research atmosphere."\(^{80}\) Despite some scientific initiatives, it appears that a public-school-style attitude against the commercialization of knowledge prevailed in the ancient universities of Britain to the extent that:

> The ethos of later-Victorian Oxbridge, a fusion of aristocratic and practical values, stood self-consciously in opposition to the spirit of Victorian business and industry. It exulted a dual ideal of cultivation and service against philistine profit seeking.\(^{81}\)

Science, seen mainly as an ally of trade, was accordingly misprized by the university elites.

Finally, the failure of the public schools to produce elite scientists may be taken to reflect the educational purposes and priorities of the British elite, among which the teaching of science figured no more highly than did specific training for industry, commerce and the professions. In 1870 "there was hardly any secondary education outside the private sector which was dominated by the so-called public schools and endowed schools, and in most of these, scientific education was negligible,"\(^{82}\) while well into the twentieth century "it was possible . . . to encounter traces of the 'old-fashioned' view that the sciences were not a respectable occupation for anyone who regarded himself as a gentleman."\(^{83}\) In the final analysis, the exceedingly small number of first-rank scientists who could claim a public school education must weigh against the record of the elite schools.\(^ {84}\)

Coutts Trotter, who helped initiate the golden era of Trinity College, Cambridge, was a graduate of
Harrow, and F. W. Aston, recipient of the 1922 Nobel Prize for Chemistry, had attended Malvern. Sir Henry Tizard, O. M., and E. D. Adrian, who won the Nobel Prize for Medicine in 1932, were both from Westminster, while Frederick Soddy, who worked with Rutherford on the mysteries of the atom, was a graduate of Eastbourne College. Given these exceptions, the roll-call of great scientists in the late nineteenth and early twentieth centuries is noticeably lacking in public school representatives.

It is of significance, perhaps, that in the two instances of a British father and son both winning the Nobel Prize (J. J. Thomson, Physics 1906 and G. P. Thomson, Physics 1937; W. H. Bragg and W. L. Bragg, Physics 1915), neither the father nor the son had had public school training. It is possible to infer that the fathers, wishing their offspring to succeed in science, knew where not to have their sons schooled.

The quality of science training available in the Victorian public schools is partially indicated by the success, or lack of it, attained by their products in Cambridge's Natural Science Tripos. Between 1851 and 1881 only one-quarter of the successful candidates in the written and practical examination for Part One of the Tripos were from the 23 'greater' public schools, while between 1881 and 1904 more than one-third who failed were from these institutions. From this evidence it is possible to conclude that:
The high rate of failure among public school boys suggest either that the schools selected academically weaker boys for science, or that school science teaching gave a poor preparation. In all probability both explanations are valid.\(^89\)

In 1853, Lyon Playfair had given the Victorians early warning that reliance on 'muddling through' rather than systematic approaches to industry was ill-advised, as was the continued separation of 'practical' and 'scientific' men. He also indicated a belief that:

While England has never lacked leaders in science, they have too few followers to risk a rapid march. We might create an army to support our generals in science as Germany has done ... if education in this country could only mould itself to the needs of a scientific age.\(^90\)

However, following the Victorian era Britain's difficulties were still acute, according to many observers. After the Paris Exhibition of 1900, Sir Joseph Swan concluded:

We see one of the evil consequences of our educational deficiencies in the much less rapid progress that we, as a nation, have made, more especially in those branches of industry which are the outcome of the scientific discoveries of recent times.\(^91\)

while Lord Haldane, during the blackest days of 1916, stated:

We suffer in this country from want of experts ... only 1500 trained chemists in this country altogether, and the reason ... that we had not the means of encouragement to produce the business kind that was wanted. Our public schools do not aim at preparing an aptitude in the boy's mind for the study of chemistry ... Nor are our universities equipped to produce these men in large numbers.\(^92\)

Despite this awareness of the country's deficiencies,
the British preference for the 'hard-way' man continued in some quarters well into the new century. Shipbuilding magnate J. W. Richardson stated in 1911 that:

Much has been said in recent years about technical education. The expression has been much abused, for technical education can surely only mean the teaching of an art. In our own arts I can conceive of no better school than the workshop.93

And even in the toils of a grim world conflict, the demands for greater utility in education prompted a measured and classically calm response in a letter to The Times of May 4, 1916:

Under the shock and stress of war, the aims and methods of education have to be considered anew . . . (but) it is of the utmost importance that our higher education should not become materialistic through too narrow a regard for practical efficiency. Technical knowledge is essential to our industrial prosperity and national safety; but education should be nothing less than a preparation for the whole of life.94

The above clearly indicates elements of mental constriction, detachment and unassailable assurance which betray the public school backgrounds of many of its signatories: Lord Esher (Eton), Lord Curzon (Eton), H. A. L. Fisher (Winchester), Gilbert Murray (Merchant Taylors'), G. O. Trevelyan (Harrow), F. H. Jackson (Harrow), Walter Leaf (Harrow), and F. G. Kenyon (Winchester). Such attitudes and men, products of the nation's great schools, were ill-matched with the demands for change which increasingly governed British industrial progress. Indeed, like other public servants previously
discussed, these individuals were frequently incapable of identifying, let alone meeting, challenges in business, industry or international trade.

It remains for this thesis to summarize the part that such men, and the institutions which bred them, played in Britain's economic difficulties, and to suggest avenues for future research which will establish this culpability more fully.
FOOTNOTES


4. J. Winter, *Robert Lowe* (Toronto: University of Toronto, 1976), p. 268, contends that the reform government of 1868-1874 "managed to throw the machinery of most of the administration into a new gear." Ironically, while wishing to reduce the role of government in national life, Gladstone and Lowe's development of an increasingly meritocratic bureaucracy tended to weaken their arguments against government growth.


9. C. B. Otley, "Public Schools and the Army," *New Society* (November 17, 1966), p. 756. Otley lists the top ten schools as: Charterhouse, Cheltenham, Clifton, Eton, Haileybury, Harrow, Marlborough, Rugby, Wellington and Winchester. His statistics on the increasing number of army elite (lieutenant generals, generals and field marshals) with public school educations indicate the growing influence of these schools: 1870 - 36%; 1897 - 59%; 1913 - 88%.

"'School?' inquired the adjutant. I told him and his face fell. He took up a printed list and searched through it. 'I'm sorry,' he said, 'but I'm afraid it isn't a public school . . . our instructions are that all applicants for commissions must be selected from the recognized public schools and yours is not among them.'"


15. G. Best, "Militarism and the Victorian Public School," in B. Simon and I. Bradley, eds., The Victorian Public School (Dublin: Gill and Macmillan, 1975), p. 131. General Lord Ismay, Memoirs (London: Heinemann, 1960), p. 6, recalls: "My father was particularly upset at the idea of my joining the Indian Cavalry, and never tired of telling the story about the cavalry officer who was so stupid even his brother officers noticed it."


17. A member of the ambulance corps who cleared the hill of corpses, Mahatma Gandhi, may have used the memory of British failure as a source of future optimism.

18. The list of public school generals includes: Douglas Haig (Clifton), unimaginative and costly prosecutor of the 1916-18 campaigns; Charles Townshend (Cranleigh), author of the defeat at Kut; Ian Hamilton (Wellington), accused by James Morris, Farewell the Trumpets (London: Harcourt Brace Jovanovich, 1978), p. 195, of lacking a vital ingredient of generalship at Gallipoli, fury; and, Arthur Percival (Rugby) who presided over the loss of Singapore in 1942. In contrast, William Slim and Lord Alanbrooke, arguably the two best British generals of the Second World War, were atypically non-public-school officers.

20 Bond, Victorian Army and the Staff College, p. 322.

21 R. Lewis and A. Maude, The English Middle Classes (London: Penguin Books, 1953), p. 233, quote Aldous Huxley's belief that the Amritsar massacre of 1919 was "a genuine hall-marked product of the prefectorial system and compulsory cricket."


23 Ibid., p. 264.


35 C. M. Turner, "Sociological Approaches to the History of Education," British Journal of Educational Studies XVII (February 1969), p. 161. Turner adds: "The Institutes taught that the workings of the economy were beyond the control of man as were most of the social consequences, that the ordering of ranks in society was God-ordained, and within a limited possibility of mobility through hard work, man must accept his station and the duties and obligations that went with it."


38 Bowle, Politics and Opinion, p. 231.


40 The heightened, rather than reduced, social exclusivity of public schools after the mid-Victorian reforms is an example of ironic or paradoxical results of state intervention. It may not be too much to infer that this increase in class differentiation was the underlying intent of the civil servants and politicians who prompted changes. See Bamford, Rise of the Public Schools, pp. 24-25, for the example of Cheltenham. R. Wilkinson, The Prefects: British Leadership and the Public School Tradition (London: Oxford University Press, 1964), p. 23, concludes that "public school headmasters tended to resist lower-class admission as a threat to the schools' traditional character."


42 Bowle, Politics and Opinion, p. 229.


44 Bowle, Politics and Opinion, p. 230. Carol Dyhouse, "Social Darwinist Ideas and the Development of Women's Education in England, 1880-1920," History of Education V (1976), indicates that Social Darwinist philosophy was also co-opted in the late nineteenth century to strengthen traditional conservative views on the proper roles of women in society.

45 Winter, Robert Lowe, p. 160. However, Lowe's belief that his personal survival at Winchester was a signal that he could succeed in life may be taken as an indication of his incipient Social Darwinism. See also, Sylvester, Robert Lowe and Education, Chapter 1.


48 Sylvester, Robert Lowe and Education, p. 36.


52 Edinburgh Review XV (1809), pp. 51-52.

53 Ibid., p. 51.


55 Ibid., pp. 256-257.


D. H. Aldcroft, "The Entrepreneur and the British Economy, 1870-1914," Economic History Review, 2nd ser., 17 (1964), p. 119, indicates that while Germany was graduating 3,000 engineers per annum by 1910, the comparable British figure was 530, of whom few had the research background of their German counterparts.


59 Cardwell, Organization of Science in England, p. 97.
M. Gowing, "Science, Technology and Education: England in 1870," Oxford Review of Education IV (1978), p. 9, notes that the Samuelson commissioners added the perhaps politic caveat that state aid in science should be temporary, existing only until local people took up their proper responsibilities. Laissez-faire continued still, since "in 1870 government expenditure was a much lower percentage of gross national product than in 1850; and in 1890 it was lower still." Peacock and Wiseman, Growth of Public Expenditure in the United Kingdom, pp. 37-42, indicate the following percentages of British G.N.P. attributable to government expenditure:

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1841</td>
<td>11</td>
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<tr>
<td>1850</td>
<td>12</td>
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<tr>
<td>1860</td>
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<td>1890</td>
<td>8.9</td>
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<tr>
<td>1900</td>
<td>14.4</td>
</tr>
<tr>
<td>1910</td>
<td>12.8</td>
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</tbody>
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The 1900 increase reflects a rise in military spending from 2.9% in 1895 to 6.9% in 1900, while expenditure on social services remained at 2.6% for both years. (p. 190.)

Gowing, "Science, Technology and Education," p. 11, indicates that the forward-looking Prince Consort had predicted in 1859 that only the long purse of the state could answer the need for scientific education but "this purse did not open for another thirty years, and then only because the Government was caught between the claims of publicans and teetotallers." See, M. Argles, South Kensington to Robbins (London: Longmans, 1964), Chapter 3, for a discussion of whiskey money distribution.


P. Gosden and A. J. Taylor, eds., Studies in the History of a University, 1874-1974 (Leeds: E. J. Arnold and Son, 1975), p. 90, indicate that central government assistance to the University of Liverpool subsequently increased to 18% in 1904/05, 24% in 1908/09, and 39% in 1913/14. However, Roderick and Stephens, Scientific and Technical Education, p. 47, point out that: "In all, during the period 1889-1914, exchequer grants to the university amounted to some 170,000 pounds - not much greater than the annual grant to some individual German universities."

G. Roderick and M. D. Stephens, Education and Industry in the Nineteenth Century (London: Longman, 1978), p. III, by way of comparison, point out: "German universities during the nineteenth century were noted not only for the excellence of their scholarship but also for the lavish sums spent on them. The most generous of the states was Prussia which as early as 1805 spent 15,249 pounds on universities--a sum exceeding the first grant to English universities in 1889."

66 Roderick and Stephens, "Scientific Studies," p. 43, indicate that Britain had 3,000 science students in 1910 compared with Germany's 25,000.

67 H. Jenkins and D. Caradog Jones, "Social Class of Cambridge University Alumni of the Eighteenth and Nineteenth Centuries," British Journal of Sociology I (1950), pp. 105-115, indicate that, between 1850 and 1899, more than half of Cambridge undergraduates came from the top 23 public schools, with a further 30% coming from other public schools. Paradoxically, while an education from a great public school made undergraduate success less likely than if a student had come from a lesser school, it correlated more highly with success in later life, including the achievement of high academic positions.

68 Roderick and Stephens, _Scientific and Technical Education_, p. 29.


72 Roderick and Stephens, _Scientific and Technical Education_, p. 29.

73 F. W. Farrar, "Public School Education," Fortnightly Review III (March 1868), pp. 239-240, shows this view of science clearly:

"And no sooner have I uttered the word 'useful' than I imagine the hideous noise which will environ me, and amid the hubbub I faintly distinguish the words, vulgar, utilitarian, mechanical . . . . One would really think it was a crime to aim at the material happiness of the human race."


Sanderson, Universities and British Industry, p. 37.

Wiener, English culture, p. 72.


Honey, Tom Brown's Universe, p. 137.


It is not even entirely clear that the scientific success of these individuals was a result of, or a reaction to, their public school science training. The latter possibility seems likely given that the schools continued to undervalue science well after the Victorian era ended.
Each of the following made his scientific contributions without benefit of a public school start in life: R. Ross (Nobel Prize for Medicine, 1904), E. Rutherford (Chemistry, 1908), C. G. Barkla (Physics, 1917), C. T. R. Wilson (Physics, 1927), A. Harden (Chemistry, 1929), C. S. Sherrington (Medicine, 1932), P. Dirac (Physics, 1933), J. Chadwick (Physics, 1935), H. H. Dale (Medicine, 1936), W. N. Haworth (Chemistry, 1937), and P. M. S. Blackett (Physics, 1948).

Macleod and Moseley, "The 'Naturals'," p. 180, claim that "in introducing the NST, a new set of elites was produced, which, in the fullness of time, began to reproduce itself." If this is correct, it is also apparent that graduates of the public schools were mainly uninvolved in this development.

Ibid., p. 194. The 'greater' schools were: Charterhouse, Cheltenham, Clifton, Eton, Fettes, Haileybury, Harrow, Loretto, Malvern, Marlborough, Merchant Taylors', Oundle, Radley, Repton, Rossall, Rugby, St. Paul's, Sedburgh, Sherborne, Shrewsbury, Uppingham, Westminster and Winchester.


The Times, 4 May 1916, p. 6.
George Bernard Shaw was clear, in 1923, about what needed to be done with the public schools: "Eton, Harrow, Winchester ... and their cheaper and more pernicious imitators should be razed to the ground and their foundations sown with salt." Even taking into account the author's typical directness and desire to shock, this seems an extreme fate for old institutions. However, in 1905, Shaw had established clear justifications, at least in his mind, for such a judgment, namely the rescue of the state from graduates of the great schools:

Exactly in proportion as Parliament consists of thoroughly schooled men, do we find it given to shuffling and prevarication and convinced that the world can only be held together by flogging, punishing, coercing and retaliating. And the exponents of this philosophy are personally docile, abject to superior rank and royalty, horribly afraid to say, do or think anything unless they see everybody else setting them the example.

The wider results of this situation were also apparent:

...they are everywhere beaten in character and energy by the men who, through the poverty, carelessness, or enlightenment of their parents, have more or less escaped education. Great communities are built by men who sign with a mark: they are wrecked by men who write Latin verses.
Shaw's iconoclasm, while instinctive and far-reaching, was stimulated here not so much by the schools' failures as by the pre-eminence of their main organizing principle, respect for tradition. To Shaw, of course, this translated as respect for society as it existed which, for a Fabian, was as a red flag to a bull. The status quoism of the schools, however, eventually resulted in a social system distinguished mainly by complacent historicism. This characteristic was expressed, in turn, by static industrialism and repressive imperialism:

In an epoch that required in men the itch to develop, create and exploit, school had fostered . . . a habit of routine administration - caution, 'responsibility' rather than the taking of risk . . . where continued British success and survival depended on innovation and open-mindedness, school admired conservativism and conformism - loyalty to what existed.4

Pedagogy in the public schools was increasingly process rather than content centred, with the aim of developing the characters of identifiable members of the social elite pre-eminent. As Lord Plumer remarked, "We are often told they taught us nothing at Eton. It may be so but I think they taught it very well."5 In this system, Greek and Latin studies served mainly to identify worthy individuals, develop their minds, and, perhaps most importantly, differentiate them from the general population.6 The power of these lessons extended much further, however, as students applied the teachings of classical authors to later business and
public service careers. The early Victorian elite took to heart Plato's remark *Propter vitam vivendi per-dere causas,*\(^7\) and Aristotle's belief that "to be always seeking after the useful does not become free and exalted souls."\(^8\) The amateur and the generalist were valued over the professional and the specialist, while general disdain for men of commercial drive, disrespect for innovation and research, and instinctive superiority further characterized the society. This Victorian "satisfaction of certainty"\(^9\) eventually amounted to a pervasive and lethargic relativism in the face of dynamic late-nineteenth century international competition.

It is also apparent that "the educational reform of public schools upon an aggressively and almost exclusively humanistic pattern . . . militated against the state's involvement in either science or industry."\(^{10}\)

As Lawrence Stone has noted:

> If self-conscious amateurism was a disquieting feature of English education in the 1830s, it was the related attitude of contempt for science and engineering later in the century which was in the long run to have serious consequences.\(^{11}\)

In evaluating the results to which Stone refers, two main areas should be considered, international competition and domestic social cohesion.

Britain's failure to maintain her trade position relative to major rivals had some readily apparent sources. Bentham had seen in 1824 that:
It is no less true than lamentable, that hitherto the education proper for civil and active life has been neglected; that nothing has been done to enable those who are actually to conduct the affairs of the world, to carry them on in a manner worthy of the age and country in which they live, by communicating to them the knowledge and spirit of their age and century.12

The continued Victorian reluctance to match the educational aims and efforts of France, Germany and other competitors resulted in a British leadership singularly ill-equipped and ill-disposed to bridge the gulf between Britain's two sectors, variously characterized as the garden and workshop, amateur and practical, or traditional and transformational views of society. R. H. Tawney was specific as to the incompleteness of these public school promoted stances for a modern world:

There are times . . . when the even-handed justice of an authoritarian government provides an adequate answer to most situations . . . . There are others, again, when a habit of benevolent superiority is a ruinous liability and when leadership involves an ability to sympathize with popular movements, and a sufficient interest in the economic and technical conditions of social progress to be qualified to play an active part in promoting it. A nation which intends to hold its own in the world must take account of such changing requirements and play to the score.13

Instead of heeding such advice, however, Britain's premiere schools contributed to the increased compartmentalization of their society; boys from rising families who attended the schools were estranged from their roots while retaining their industrial birthrights. As Lord Frederick Cavenish remarked in 1874:
Many of the manufacturers had felt that it was dangerous to send their sons away to the old universities because they had known instances in which, when the young came back, they had rather looked down upon the occupations of their fathers. The public schools were even more adept at causing such dissatisfaction and, in true Buddenbrook fashion, their typical schoolboy-industrialist came to view his inheritance as a distinctly dubious curate's egg. In other segments of industry, self-recruitment and restricted social and professional mobility produced managerial exclusivity. The growth of a public school presence in these boardrooms, as in the firms of the old families, had the economically serious effect of implanting a class of disaffected or underqualified leaders.

Finally, the expansion of the public school system had the effect of disguising the lack of true power-sharing and class movement in Victorian society. Such misrepresentation had particularly retrograde effects since it encouraged neglect of needed revisions in schooling and general society while it masked the true situation; the final result was increased social confusion and discord.

This review of the conservatism of the public schools and its probable social and economic consequences naturally prompts questions of definition and verification for concepts such as 'power' and 'effect'. Debate also arises over the degree, if any, in which educational learning may be transferable to later-life
situations, particularly *vis à vis* the influence of other social institutions such as the church, the family and the peer group. Difficulties also multiply when the study attempts to meld the views of theoretical economists, contemporary observers and orthodox historians into a defensible narrative. Nevertheless, a review of various findings and possible linkages produces acceptable explanations in several areas.

Firstly, it is apparent that a paradigm of the Victorian public school existed, with patterns and goals which were understood and valued by the British elite and others of their society. Secondly, leaders of the later-Victorian private and public sectors displayed characteristics attributable, at least in part, to public school models. However, in comparing these two statements and gauging how far public schools succeeded in teaching norms for economic life:

We must face squarely such issues as the selection of political leaders, the control of the leadership, the widening scope for talent, the turnover of elites, the development of ability and the fostering of national understanding through the population.\(^\text{18}\)

It is possible, in this regard, to judge the extent to which Victorian Britain was a closed rather than an open society, an elitist society, and a society where *laissez-faire* principles resulted in the underprovision of educational services, but it is difficult to establish social causes and commercial effects without first separating out a number of discrete economic factors. Levels of
industrial unionization, capital and labour ratios and wage rates may all be determined and given relative weightings, although the degree to which these are social rather than economic manifestations is arguable.  

Finally, although levels of pedagogical provision may also be established, the correlation between educational budgets and national economic success remains open to conjecture.  

In other areas of investigation:  

We should be concerned with what role-playing takes place in schools, whence the roles are derived, what models are posed by significant others, what reference groups the school produced, what is the evaluative audience, and from what sources the pupil forms his concept of self.  

Partial answers to the above questions are possible since the character-developing activities of the public schools were so overt and well defined and because their acceptable role models had so narrow a scope. We can assess with some accuracy the extent particular generations displayed public-school-style behaviour and supported the perpetuation of certain values in the institutions and in their own offspring. It is true that post facto sociological investigation often supplies conclusions of a nebulous nature as, for instance, the notion that public schools fostered adult life-styles based on the 'significant other' concept. Information of this sort often clouds rather than clears the issue. However, we can evaluate with some concreteness the sorts of social issues which Victorians perceived as 'problems'
and the way in which education was intended to deal with these. In this last regard, our opinion of their public school education system may be sharpened by considering that:

The traditional business of education with the process of cultural transmission is performed in quite new terms under the new conditions of technological society. No longer is it a question of handing on an unchanging or only slowly changing body of knowledge and belief. On the contrary, education in modern societies has more to do with changing knowledge than with conserving it.

In the final analysis, of course, we are left with the related questions of whether businessmen were governed by public school notions and whether the activities of these individuals had significant economic impact. While wishing to tighten the causal link between education and economics, it is likely that no categorical answers will be found for the economy as a whole. However, a methodical investigation of the ideas, actors and situations involved will solve problems of language, expectation and potential, and such shading-in of the Victorian micro-background may yield a silhouette of the desired socio-economic connection.

A considerable lacuna exists in economic history, both with respect to the education received by many business leaders and to the achievements of particular firms and industries. Much literature exists on famous entrepreneurs while relatively little information has been gathered on individuals who were unsuccessful. Examination of data for the 'something-
wrong' Victorian industries such as coal, textiles, chemicals, shipbuilding, and boots and shoes, would provide clues to the commonalities of business failure. On the other hand, study of an industry such as light electrical engineering, which was accorded a reputation for efficient performance in the Victorian era, could supply complementary information. In any case, economy-wide generalizations will be of little value unless they are grounded in a specifiable area of congruence such as educational attainment. Research possibilities in this field are, thus, substantial.

Still further research could profitably examine the curricula of studies and later business records of particular public school graduates. School data could include hours of study per subject, texts and other equipment available, training of masters, prizes awarded and career patterns of contemporaries. Business success could be assessed in terms of share dividend records, profit-splitting in terms of partnerships, growth of market-share percentages, and the expansion of firms and personal estates, or their obverse, business failures, take-overs and personal bankruptcies. Correlations may also be pursued between differing levels of post-secondary business, science or technical training and later business achievement.

Prosopographical reviews of business leaders, while serving to "bind together constitutional and
institutional history on the one hand and personal biography on the other,\textsuperscript{30} will supply further valuable material if they avoid an elite focus and a presentist perspective. The acceptance of state honours by businessmen, for example, may be more a sign of slackening drive and accommodation than business success and should be assessed in this light.\textsuperscript{31} Containment through co-option is often the tactic of a system in which "concensus is not so much the product of compromise as of elite ascendancy and its acceptance."\textsuperscript{32} As a result, alternative areas of Victorian business history should be targetted. Again, many promising avenues are available to the researcher.\textsuperscript{33}

Finally, if we accept the proposition that "an effective business enterprise is one in which growth and change are intended and planned for,"\textsuperscript{34} we may follow up David Landes' contention that important and verifiable links exist between formal educational training and industrial progress.\textsuperscript{35} Such a study would involve an in-depth analysis of 'counterfactual' data in which the profitability of alternative economic choices available to Victorian businessmen is assessed. The conclusions reached could, again, be correlated with the educational histories of the individual decision-makers.\textsuperscript{36}

Such further research should increasingly substantiate the contention that the high degree of inimicability to industry displayed by the various public
schools had a direct bearing on Britain's economic decline.

In summary, this thesis has contended that public schooling constituted the main, but economically inappropriate, training or influence for Britain's late-nineteenth century leadership. Arnold Lunn, romanticizing about Harrow, indicated the clearly elitist and frequently anti-intellectual biases of this education:

In the old days if a man was a gentleman he didn't need further qualification, did he? There was something attractive in the indolent resignation to the theory that Public Schools existed to turn out gentlemen, not scholars.\(^{37}\)

Faced with a small-scale shift in focus from games to more practical studies, Lunn's hero also displayed the anti-commercialism which was typical of the old schools:

> It's rather melancholy, this craving for commercial knowledge. However, it isn't as if it displanted a yearning for less sordid culture. In my day a boy didn't bother to acquire an education, cultured or commercial, if he was in the running for his flannels.\(^ {38}\)

With or without the distinction of football flannels, men who went from such schools to commercial careers often viewed business as a side-line in their lives. In buoyant eras they saw occasions to milk their firms rather than opportunities to build them up. In times of economic change they saw cycles rather than trends operating. Such dispositions had profound economic consequences since these public schooled individuals, though small in relative numbers, unenthusiastic
and marginally qualified, frequently held key posts in the industrial and commercial sectors which were still mainly controlled by family firms. This was one source of Victorian industry's later uncompetitiveness. Other reasons for economic decline were the general lack of business awareness among Britain's non-commercial elite and a corresponding lack of influence for the 'hard-way' men and technical experts of the economy.

It may be asked whether the public schools, highly successful at preparing boys for positions of imperial leadership, should be faulted for neglecting the range of training needed for effective industrial management. Or perhaps, as Ian Weinberg phrased it:

The question is fundamentally whether or not an elite largely recruited from the public schools or acknowledging the importance of the norms and values of the system can ensure the transition of the country from an imperial to a viable economic role.

John Stuart Mill may have supplied an answer to some of these concerns when he suggested that "the adoption of all the principal ability of the country into the governing body is fatal, sooner or later, to the mental activity and progressiveness of the body itself." Such a process is particularly retrograde when accompanied by the self-satisfied assurance and self-righteous impermeability to new thought and fresh blood which marked the public schools. The responsibility of these institutions for the nation's decline must also
rest, in part, on their predominance in the supreme governing councils of Parliament and the Cabinet. As indicated previously, individuality was not a trait generally encouraged by Victorian institutions, with the result that:

... the political complexion of the government of the day made little difference. These were men of similar backgrounds steeped in the same traditions and deeply influence by the ethos of the public schools and Oxbridge.

In a slightly wider context, it is also apparent that:

What we now call the 'establishment': political leaders, the Civil Service and those who sat on the boards of the chief industrial companies ... were, of course, the victims of anachronistic institutions - the English class system and the educational arrangements associated with it.

This situation did not alter appreciably during the Victorian period, and it may be concluded that such was the intent of the decision-makers involved.

One stellar member of this establishment, William Cavendish, Seventh Duke of Devonshire, was a true Victorian polymath: an accomplished scholar (second wrangler and First Smith's Prizeman at Cambridge in 1829), an innovative entrepreneur and successful industrialist who earned, rather than succeeded to, great wealth and was popularly known, after the mid-century, as the second Iron Duke, a generous philanthropist (founder of Cavendish College and the great Cavendish Laboratory at Cambridge), and a widely respected leader, whether as first president of the Iron and Steel Institute, Royal Commissioner, or Chancellor of Cambridge
University. An exemplar for his era, Cavendish was eulogized by The Times as a "liberal patron of the arts, and a supporter of every good measure for the amelioration of the people and the advancement of the claims of education and scientific research." He seemingly incorporated all the facets of the age, including at least one which may appear incongruous but is, in fact, highly representative. Despite a spectacular career, in later life Cavendish viewed his educational attainments and commercial success as fundamental liabilities which, as he said, "made him unfit to exercise the political influence that his position and wealth brought to him."

No less distinguished than Cavendish, but decidedly less hesitant and self-effacing, Bertrand Russell saw clearly that, while "education ought to foster the wish for truth, not the conviction that some particular creed is the truth," in reality Victorian public schools were indentured in the ideological service of a restricted class and world view, both rendent of languid superiority in an age of dynamic challenge. As he recognized:

Education is, as a rule, the strongest force on the side of what exists and against fundamental change; threatened institutions, while they are still powerful, possess themselves of the educational machine and instill a respect for their own superiority into the malleable minds of the young.

and, for this reason, he concluded that "the aristocratic tradition embedded in British higher education
is its bane."  

A society or a school system able to inhibit a man with the ability of Cavendish, or exasperate one with Russell's vision, may be termed powerful without, ultimately, being judge 'good'. Nor can these be considered 'effective' or 'successful' if, in the pursuit of restricted agendas, they retard rather than advance the fortunes of the state. Schooling which forces its students into a predictable mould does not, as Russell would have argued, engage in 'true' education since this ultimately teaches how it can be undone. Not just continuities, but ways of disobedience, rejection of modes and models, and awareness of the outdatedness of ideas must play their part in the empowerment, as opposed to the containment, of students. No doubt:

In order to survive an institution must fulfil two conditions: it must be significantly stable to sustain the ideal which gave it birth and sufficiently responsive to remain relevant to the society which supports it.  

However, as in the case of Victorian Britain, the leadership of a nation, along with the institutions which support and the ideals which activate it, may endure well after all are inappropriate for the age. They then merely preside over, or increasingly precipitate, the decline of the general society.

Russell observed that:

The battle of Waterloo may have been won on the playing fields of Eton, but the British Empire is being lost there. The modern world needs a different type, with more imaginative sympathy, more intellectual suppleness, less belief in bulldog courage and more belief in technical knowledge.
To their disgrace but, more importantly, to Britain's detriment, the great public schools of the realm were not the source of this new man.
FOOTNOTES


2 Ibid., p. 342.  3 Ibid.

4 C. Barnett, The Collapse of British Power (London: Eyre Methuen, 1972), p. 37.  M. J. Wiener, English culture and the decline of the industrial spirit (Cambridge: Cambridge University Press, 1981), p. 17, indicates that a commercial result of this ethos was "a desire to maintain stability and order far outweighed the desire to maximize individual or national wealth."


6 A. Huxley, Limbo (New York: George H. Doran, 1920), p. 7, makes sport of classical pretension with the description of one master: "Copthorne-Slazenger regarded himself as the perfect example of mens sana in corpore sano, the soul of an English gentleman in the body of a Greek god. Unfortunately his legs were rather too short and his lower lip was underhung like a salmon's."

7 R. Livingstone, Plato and Modern Education (Cambridge: Cambridge University Press, 1944), p. 32, translates as "For the sake of livelihood to lose what makes life worth living."


9 Honey, Tom Brown's Universe, p. 131.


17. J. H. Goldthorpe, Social Mobility and Class Structure in Modern Britain (Oxford: Clarendon Press, 1980), indicates that in times of economic pressure we may expect even less social openness, at a time when more is most desirable.


20. E. G. West, "Educational Slowdown and public intervention in nineteenth century England: a study in the economics of bureaucracy," Explorations in Economic History XII (1975), pp. 61-87, concludes that the late-Victorian economic decline may correlate with the significant reduction in educational expenditure which followed the consolidation of education in 1870.

C. H. Cooley, Human Nature and the Social Order (New York: Schocker Brooks, 1964), discusses the theory that behaviour is determined mainly by an individual's perception of his effect on others. This may prove a powerful concept for the study of Victorian public schools given the high degree of other-directedness apparent in their students.

Turner, "Sociological Approaches," p. 148, adds that problem-definition is a useful indicator of social values since:

"The defining of a social problem is affected by the degree to which it is believed that it is amenable to any kind of solution. What apparently cannot be changed, is not viewed as a social problem but an unfortunate condition."

J. Ryder and H. Silver, Modern English Society: History and Structure, 1850-1970 (London: Methuen, 1970), p. 3. It is apparent that late-Victorian educators often interpreted the preservative functions of public schooling as a custodial mandate which involved little or no requirement for adaptation. In comparison, P. Lundgreen, "Education for the Science-based Industrial State? The case for nineteenth-century Germany," History of Education XIII (1984), pp. 59-67, discusses the degree to which Germany, also ruled by a conservative elite, utilized new circumstances to foster a modernization from above.

Any attempt to ascribe intention and influence to historical individuals inevitably raises debate concerning their free will and power to affect contemporary events, as well as the degree to which preferences may be inculcated. A study which aspires to substantiation should assume that man is rational and forms or changes attitudes in response to argument and the presentation of information, both of which may be later reconstructed. According to Felix Graubert, "Intellectual History: Its Aims and Methods," in F. Gilbert and S. Graubard, eds., Historical Studies Today (New York: Norton, 1972), p. 155, we should assume that:

"Whatever one thinks of the forces that underlie the historical process, they are filtered through the human mind and this determines the tempo and the manner in which they work. It is human consciousness which connects the long-range factors and forces and the individual event."

D. N. McCloskey and L. G. Sandberg, "From Damnation to Redemption: Judgments on the Late Victorian Entrepreneur," Explorations in Economic History 9 (1971), p. 96, deride qualitative argument by isolation which, in their opinion, becomes "a matter of faith rather than fact."


Numbers of patent applications may serve as a guide to the innovativeness of particular firms and industries. In the same way, investigation of a representative sample of graduates from selected schools may indicate whether, for instance, Eton's resolute anti-materialism or the scientific outlook of Sanders's Oundle had later, quantifiable results.


R. A. Pumphrey, "The Introduction of Industrialists into the British Peerage: A Study in Adaptation of a Social Institution," American Historical Review LXV (October 1959), pp. 1-16, indicates that Victorian men of commerce were honoured more for other qualities than their business acumen.


38 Ibid., p. 309.

39 J. Rae, *The Public School Revolution* (London: Faber, 1981), p. 282, offers a modern summary of this syndrome: "The public school system is the greatest single source of the present British malaise which . . . takes the form, Centaur-like of amateurism at the top and lack of opportunity below."

40 Nettl, "Concensus or Elite Domination," p. 23, believes that:
"... in the social relationship between the institutions of government on the one hand and business on the other, the lack of social identity of the latter has been fostered, exploited and pre-empted by government . . . and this has led to something like schizophrenia in the world of business."


44 Roderick and Stephens, eds., *Where Did We Go Wrong?*, p. 227.

H. G. Judge, "The English Public School: History and Society," History of Education Quarterly 22 (Winter 1982), p. 513, indicates that the modern situation of the schools is remarkably similar: "There is, for good or ill, nothing quite like the English Public School. Nor is there any easy way to disentangle from the fabric of English social history since (at the earliest) 1800 the reasons for its vigorous survival, its adaptive powers, its dominance of the English establishment, its prominence in literature and polemic."

The Times, 22 December 1892, pp. 3-4.


Ibid., p. 98.

B. Russell, Education and the Good Life (New York: Boni and Liveright, 1926), p. 55. Russell's instinctively iconoclastic approach to social issues and well-known ideological stances need not impede acceptance of his views. In the same way, the fact that Russell never attended a public school and sought alternative education for his children, does not reduce his importance as a commentator but, rather, lends his opinions the power of critical distance.


Russell, Education and the Good Life, p. 55.
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