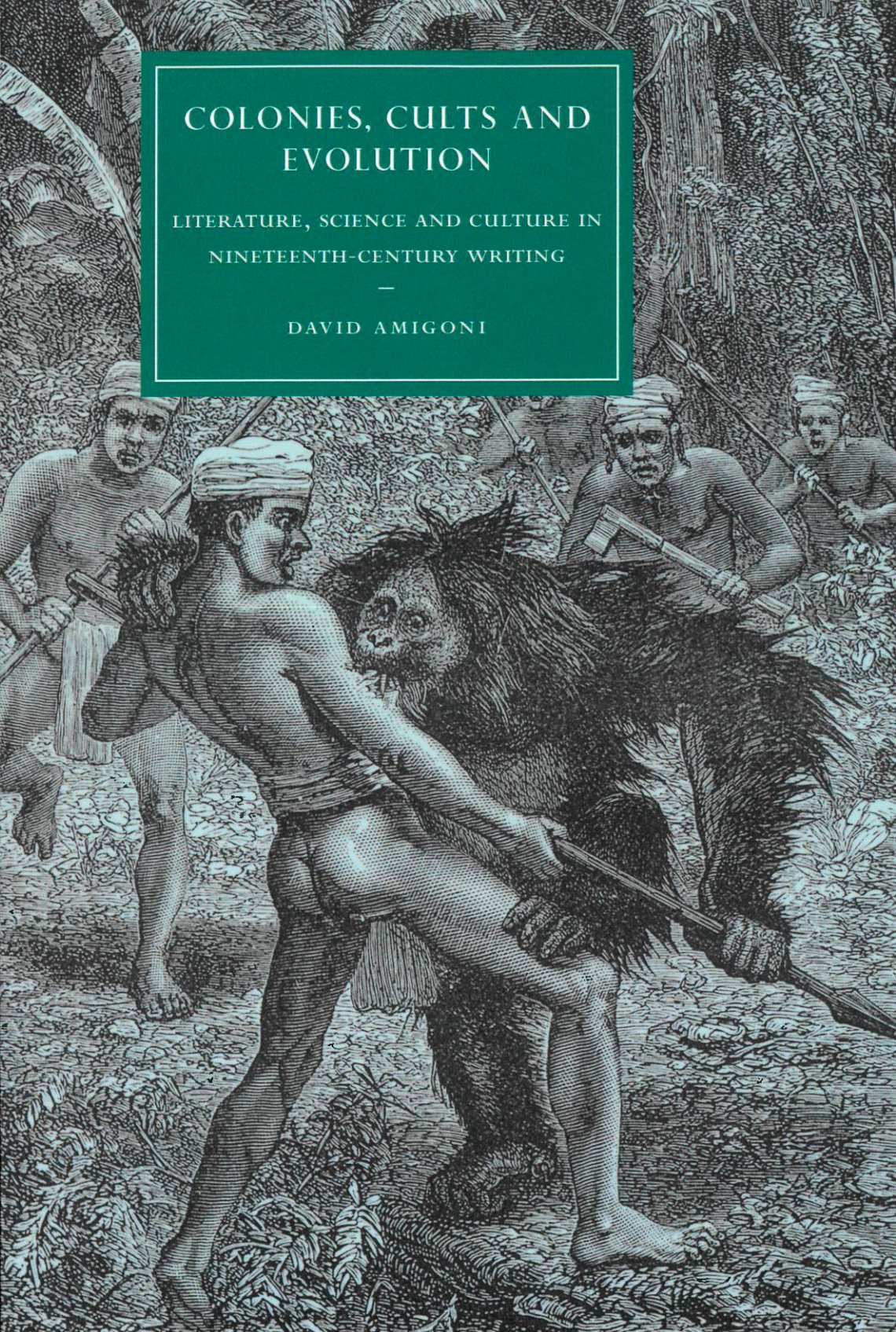
COLONIES, CULTS AND EVOLUTION

LITERATURE, SCIENCE AND CULTURE IN NINETEENTH-CENTURY WRITING

DAVID AMIGONI



COLONIES, CULTS AND EVOLUTION

The concept of culture, now such an important term within both the arts and the sciences, is a legacy of the nineteenth century. By closely analysing writings by evolutionary scientists such as Charles Darwin, Alfred Russel Wallace and Herbert Spencer, alongside those of literary figures including Wordsworth, Coleridge, Arnold, Butler and Gosse, David Amigoni shows how the modern concept of 'culture' developed out of the interdisciplinary interactions between literature, philosophy, anthropology, colonialism, and, in particular, Darwin's theories of evolution. He goes on to explore the relationship between literature and evolutionary science by arguing that culture was seen less as a singular idea or concept, and more as a field of debate and conflict. This timely and highly original book includes much new material on the history of evolutionary thought and its cultural impact, and will be of interest to scholars of intellectual and scientific history as well as of literature.

DAVID AMIGONI is Professor of Victorian Literature at Keele University.

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COLONIES, CULTS AND EVOLUTION

Literature, Science and Culture in Nineteenth-Century Writing

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For Barbara, Fiona and Tom

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Some parts of this work have been published previously: a limited amount of material from chapter 4 appears in my contribution in Louise Henson *et al.* (eds.) *Culture and Science in the Nineteenth-Century Media* (Ashgate, 2004); some paragraphs from chapter 5 appear in my contribution to Jim Paradis (ed.), *Samuel Butler: Victorian Against the Grain* (Toronto, 2007); and some material from chapter 6 appears in my contribution to Roger Luckhurst and Josephine McDonagh (eds.), *Transactions and Encounters: Science and Culture in the Nineteenth Century* (Manchester, 2002). Thanks to all for their permission to reproduce.

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Introduction: literature, science and the hothouse of culture

1. 'LIFE, LIFE, LIFE': A READING AND WRITING RELATION

In *Culture and Anarchy* (1869), Matthew Arnold offered his gospel proclaiming sweetness and light. 'Culture' would speak through '*all* the voices of human experience . . . of art, science, poetry, philosophy, history, as well as of religion'.[1] The many-sided receptor of culture would then look and listen: 'Consider these people, then, their way of life, their habits, their manners, the very tones of their voice' (97). Arnold had listened, and his response was to satirise. One vocal tone to receive this treatment belonged to the poet Robert Buchanan, who had celebrated God's 'move to multiplicity' and 'divine philoprogenitiveness'.[2] Arnold cites Buchanan's language praising God's 'love of distribution and expansion into living forms' at length:

> Every animal added seems a new ecstasy to the Maker; every life added, a new embodiment of his love. He would *swarm* the earth with beings. There are never enough. Life, life, life, — faces gleaming, hearts beating, must fill every cranny. Not a corner is suffered to remain empty. The whole earth breeds and God glories. (215)

Arnold's discourse on 'culture' here cites and confronts a discourse on 'life' and its divinely sanctioned reproductive urges. Buchanan's language celebrating divinely created and cherished swarms of living things is derived in part from Christian traditions of agape, and in part from the popular science of phrenology. 'Philoprogenitiveness' was one of George Combe's 'affective propensities', a mental faculty common to man and 'the lower animals'; situated at the back of the head, this faculty cultivated an 'affection for young and tender beings'.[3] Buchanan's language, in its concern with 'distribution' and 'expansion', also drew on another nineteenth-century fascination: the power of biological science to explain the diversity of teeming life forms, and their patterns of distribution into every available 'cranny'. *Culture and Anarchy* was published in the same year as Alfred Russel Wallace's great

travel narrative about the distribution of exotic life forms in the Malay Archipelago, one of the world's foremost regions for posing questions about life's distribution, diversity and sheer inventiveness. Arnold's extensive citation of Buchanan's linguistic celebration of 'life' is strategic, for Buchanan's language becomes the object of Arnold's satire:

> how inspiriting is here the whole strain of thought! and these beautiful words, too, I carry about with me in the East of London, and often read them there. They are quite in agreement with the popular language one is accustomed to hear about children and large families, which describes children as *sent*. And a line of poetry which Mr. Robert Buchanan throws in presently after the poetical prose I have quoted:–
>
> 'Tis the old story of the fig-leaf time–
>
> this fine line, too, naturally connects itself, when one is in the East of London, with the idea of God's desire to *swarm* the earth with beings; because the swarming of the earth with beings does indeed, in the East of London, so seem to revive *the old story of the fig-leaf time*, such a number of the people one meets there having hardly a rag to cover them; and the more the swarming goes on, the more it promises to revive the old story. (*Culture and Anarchy*, 214–15)

Buchanan's language is countered by Arnold's satire upon the swarming population of the East End of London, a satire haunted by Thomas Malthus' principle of population. Ten years prior to the publication of *Culture and Anarchy*, Malthus was cited as an important theoretical building block in Charles Darwin's theory of transmutation or evolution by natural selection.[4] Malthus became one of Darwin's ways of explaining life's distribution, expansion – and, crucially, its contractions or extinctions. Alfred Russel Wallace's *Malay Archipelago* also offered a Malthusian account of nature; Wallace dedicated his text to Darwin and the extension of the principle of natural selection. If Arnold's culture was a 'criticism of life' then biological finitude, or death, was visible, more or less explicitly, from its critical horizon. Arnold plays with Buchanan's line about 'the old story of the fig-leaf time' to re-locate the Fall in a degenerating area of London, a colony in the East where the savage populations are bereft of culture's garments. In satirising the felicitousness of Buchanan's language and allusiveness, Arnold makes the worth of Buchanan's 'poetical-prose' and popular language a vital issue, devaluing it as cultural capital for the reader's consumption. As Jon Klancher has remarked, cultural capital is

> not a stock of particular ideological positions, nor even a particular content . . . It is, rather, a framework of reading, a habitual energy, a mode of reception and comprehension. That mode must be inscribed in language as well as in social relations, in prose style as well as in publishing institutions.[5]

In describing cultural capital as a 'habitual energy', Klancher gives Pierre Bourdieu's concept a foothold in the sciences of life, and the intellectual field in which they were articulated in the nineteenth century. To be sure, cultural capital is inscribed in social relations, registers, styles and discourses, and the modes of publication that disseminate its materials. It accumulates and disseminates in the practice of reading, that new horizon of research in the history of nineteenth-century science.[6] But in being read, it is also re-invented and re-invested in new forms of expression that perhaps break up and interrogate habitual, familiar conventions. Such new forms emerge as literary responses that are located in either 'higher' or 'lower' niches of that field. In other words, the responses are located in that meticulously zoned yet reproductively promiscuous 'hothouse', as Thomas Henry Huxley would describe it, of sprouting intellectual and affective forms: the field of symbolic power that we have come to know as 'culture'.[7]

It can be defamiliarising to note Arnold's influential account of culture for its inclusion of a Malthusian anxiety about population and swarming life.[8] This book offers a new reading of 'culture' and its linguistic derivatives as immensely complex forms of mediation. It argues that 'culture' is less a concept in itself than the product of competing accounts of the different dimensions of material reality. By examining the multiple faces of 'culture' in nineteenth-century writing, especially the writing of evolutionary theory, the book argues that some of the most active interpretive devices in the cultural discourse of the present – defamiliarisation, hybridity, mimicry, cybernetics – carry a genealogy that can be linked back to 'culture' as the nineteenth-century field of symbolic power that hosted complex encounters between literary and scientific discourse, and was in turn shaped by those encounters.[9]

To illustrate this further, let me balance the example from Arnold, writing when biological evolution was emerging as an authoritative descriptive and critical discourse, with an earlier nineteenth-century example from Charles Darwin, writing when 'transmutation' was significantly different, and intellectually risky. In 1837–8, Darwin was reading the *Edinburgh New Philosophical Journal* as part of an eclectic reading programme ranging from natural history, to the philosophy of the sensorium, to the poetry of William Wordsworth. Darwin's reading embraced the speculative possibilities of the intellectual field, and it was, according to Sydney Smith, 'about the last time when such an activity was within the capacity of a single man'.[10]

Recently returned from the exploratory voyage of H.M.S. *Beagle* (1831–6), Darwin was busy making his name as a geologist and natural

historian through elite scientific societies in London, and writing up his travel narrative of the voyage. Having been exposed to geological evidence of the depth and scale of the earth's history, Darwin was also occupied in making notes towards answering speculative questions concerning the origins and distribution of its various organic productions: did living organisms evolve or transmute from one species into another, and if this did occur, by what means did it happen in natural history? Darwin noted points towards a potential public answer secretly, in private notebooks, for the question conveyed dangerously materialist philosophical implications for orthodox religion and its account of life – especially human life – as a divinely ordained vital energy. In reading and making notes from this periodical in pursuit of a transmutational theory, Darwin did not always transcribe from the most obvious sources carried by the journal.[11]

Instead, he made a note from another essay published in the same number of the journal, entitled 'An Account of Mr Crawfurd's Mission to Ava'; the editors of the journal had published it in the expectation that it 'will be read with interest by the general reader and also by the natural historian'.[12] For although Darwin was selectively focused on the question of transmutation, the materials that he read and noted in the desire to answer it were wide ranging, and the possible openings that Darwin noted were varied, and to our eyes surprising. In reading Crawfurd's travel narrative about a diplomatic mission to Burma, Darwin transcribed Crawfurd's anecdote of an albino Burman that he encountered: this man had been given by his people to a Portuguese priest because he was strange, a monstrosity, and they were ashamed of him and considered him 'little better than a European' (368). Darwin wondered what effect the banishment of monstrosities might have on the propagation of a race: if, in colonising a new territory, they were split into isolated groups, would their peculiar variations be maintained and spread by the new populations that they created?[13]

Crawfurd's text contained observations with the potential to contribute to a theory of evolution, but also ethnographic observations that would contribute to the formation of what is now recognised as a conception of culture. Crawfurd trained as a military surgeon, and went on to become a scholarly Orientalist and a diplomat. He was thus one of the great, though now largely forgotten, generalists produced by the drives of nineteenth-century colonialism. His ethnographic and natural history of the Malay Archipelago would be read with approval by Samuel Taylor Coleridge, and his experience of Asia would lead him to mentor Alfred Russel Wallace. His knowledge of ethnology and race led to his election as President of the Ethnological Society in 1861. And yet, as I shall show, his reading of

Darwin's published work would, in the 1860s, trouble his view of the means by which races populated and colonised the earth.

But in the 1820s, Crawfurd had been sent by Lord Ameherst, the Governor-General of India, as envoy to the Burmese court at Ava. In 1826, the *Calcutta Gazette* first published his account of the mission, but it was the *Edinburgh New Philosophical Journal* which gave it a broader circulation. The journal's inscribed 'general reader' would have been professional and highly educated, with particular interests in natural science and philosophy. Crawfurd's narrative offered such a reader insights into a territory recently colonised by the British: its population, resources, the language, manners, customs, tastes and religious practices of its native inhabitants. In simultaneously appealing to the interests of the 'natural historian', the narrative draws attention to Crawfurd's comment on his mission's collection of eighteen thousand botanical specimens, some of which were to be lodged in the Botanical Gardens of Calcutta, for they were 'rare and curious . . . combining, in a great degree, the characters of the *Floras* of continental India and the Malayan countries' (367). In addition, Crawfurd comments on the geological formation of the territory, in particular the vestiges, or fossil evidence, of life forms that had passed from the territory; indeed, in some cases, from the face of the earth itself. Darwin was Crawfurd's ideal reader.

For the region that Darwin read about was 'abounding every where with fossil remains of one of the last great changes the world has undergone' (360). Crawfurd saw that the earth's surface had been subject to processes of evolutionary change and transformation. This was evinced by the 'petrified' remains of life forms which were either extinct (mammoths), or which, as in the case of the 'abundance of sea shells', could no longer occupy the area because of radical environmental change (369). Natural history and archaeological ethnography were linked by their interest in commemorative monuments, and one of the last details that Crawfurd mentions relates to the discovery of vestiges of an earlier braminical civilisation, its places of worship, and the epitaphic inscriptions to the dead recorded on stones which resemble the monuments 'placed at the head of graves in an English church-yard' (369–70). Burma may have been the embodiment of the Orient in all its difference and otherness – Crawfurd could not help thinking of an 'Arabian Nights Entertainment' as he viewed a festival (361) – yet, uncannily, its survivals from the past conveyed impressions of England. Crawfurd thus found that observations derived from encounters with the colonised 'primitive' could cast an estranging perspective on the familiarities of home.

As Crawfurd tries to calculate the population of the area surrounding the capital, Ava, he reports that he sees little 'evidence of culture or occupation' (360). He uses 'culture' to signify pastoral activity, past and present. This is entirely consistent with usage at the time.[14] Yet his use of 'culture' in relation to a synonym – 'culture or occupation' – throws our attention towards the word 'occupation'. In its localised context, 'occupation' means little more than simply the process of inhabiting and tilling the soil. But as it stands, the term cannot be dissociated from the context of Crawfurd's entire narrative, which records an episode in the history of Britain's colonial occupation of Asia. Crawfurd represents colonial 'culture' in a narrative form, revealed in his recording the passing of 'the spot at which the Burmese contemplated making their last effort, had the British army not been arrested in its progress by the treaty of Yandabu' (360).

The experience of colonial activity was all-pervasive, and yet immensely varied and highly mediated, in the nineteenth century, as David Cannadine's work has demonstrated.[15] Crawfurd's mission needs to be seen in the context of a very specific moment of Britain's imperial history: having lost its North American colonies in the late eighteenth century, its attention and activity became focused on consolidation in India and its surrounding territories, which also meant engaging in post-Napoleonic rivalries with other European colonial powers.[16] This very reading of British colonial history became available in the late nineteenth century when the historian J. R. Seeley published *The Expansion of England* (1883) at a time of increased, if politically controversial, imperial consciousness. While Seeley claimed that the revolution in print and the production of mass reading materials would consolidate his vision of 'Greater Britain' overseas, such productive capacity also generated political and ideological contestation.[17] Colonial governance was a different question for a 'squarson' whig liberal such as Charles Darwin, a liberal meritocrat such as T. H. Huxley (in the 1860s at least), and a socialist such as Alfred Russel Wallace.[18] Indeed, political positions would be further complicated by the deeper implications of Darwinian evolutionary discourse, as my reading of Huxley's 'Evolution and Ethics' (later in this chapter) will demonstrate. For evolutionary thought identified a proliferating range of agencies at work in the world which complicated understandings of colonialism and political affiliation themselves.[19]

Colonial ideologies were conveyed imaginatively and powerfully in relationships founded on writing and reading: when Charles Darwin published the second edition of his *Journal of Researches* (his account of the *Beagle* voyage, an expedition substantially concerned with exploiting new

advantages in the context of shifting colonial relations[20]) in 1845 with the house of John Murray, he did so in the publisher's series entitled 'Colonial and Home Library', a series which imagined serving 'the highly intelligent and educated population of our Colonies' with English literature, and domestic readers with reading about the history of travel and the occupation of far away lands.[21] 'Occupiers' assumed many identities: they included the white settler colonists who emigrated to what would become the dominions (Canada, Australia, and New Zealand) and Darwin would write sympathetically of these agrarian cultivators in his *Journal of Researches*; indeed, this identity would also be the basis of his initial warm response to Samuel Butler, a former sheep farmer in New Zealand. But occupiers could also wield martial power: Crawfurd's narrative presents the reader with images of trading ships and gun-boats arrayed in the harbour created by 'the new settlement of Amherst . . . a curious spectacle . . . a harbour which was not known to exist ten months ago' (364). Crawfurd represents the signs of British colonial 'culture', carved into the landscape as unmistakably as the vestiges of past, natural creations.

Crawfurd's colonial mission also furnished his readers with ethnographic insights. Arriving at the court of Ava, Crawfurd's mission was 'detained for nearly three hours, to afford us the magnificence of the Burmese court, but, above all, to afford the court an opportunity of displaying it' (361). The performance of Burmese hierarchies through deferential antics is contrasted with the reserve of the British: before King Hpagyidoa 'the courtiers humbly prostrated themselves. The English gentlemen made a bow . . . touching the forehead with the right hand' (362). In Crawfurd's account, this display honours a peculiarly Burmese cult of regal authority. Later in Crawfurd's narrative, having departed Ava, the mission encounters a group of 'insurgent' ethnic Talains who had just risen against the Burmese: 'Our visitors saluted us in the manner of English sepoys, standing up. This, they said, was the positive order of his Talain majesty, who declared he would permit no one henceforth to crouch in his presence, or any other chief' (363). The insurgents are ordered to imitate the posture of sepoys, native Indian soldiers trained under English discipline. Crawfurd's ethnography thus includes the practice of imitation as a category observation and an engine of diffusion.

Towards the end of his narrative, Crawfurd becomes a philologer, recording some of the details of 'the language and literature of the Burmans' that had been collected in the course of the mission: enshrined in portable, diffusable form, they record the modes of symbolic signification that had

been performed in ceremonial gatherings. Burman books were donated by the King, including 'some histories of Guatama . . . highly esteemed by the Burmans', as well as 'vocabularies . . . of some of the numerous dialects spoken' (369). In the 1970s Clifford Geertz urged ethnographers to see their practice as the interpretation of webs of symbolic signification, which Geertz held to encode the fundamental meanings comprising what had come, by his time, to be known as a 'culture'. Some sense of this literary critical practice – 'sorting out the structures of significations' to use Geertz's words – underpins Crawfurd's interpretation of Burmese 'fit objects of worship' and their symbolic encodings.[22] Applying this to Crawfurd's text, one can begin to 'sort out structures of signification' that seem to blur distinctions between human and animal economies, precisely as monstrous animal and human 'specimens' enter different circuits of social exchange. Such conceptual blurrings resonated for Charles Darwin.

Crawfurd mentions a 'white elephant' of the court at Ava as a 'royal curiosity' that was shown to men of the mission. Towards the end of his narrative he returns to this specimen, remarking that 'there is but one Albino elephant':

> this, a male of about twenty five years of age, was repeatedly seen and examined by the gentlemen of the mission; and his Majesty has made a present to the Governor-General of a drawing of the animal in its state of caparison, which is no bad specimen of Burman art.
>
> As connected with this department, may be mentioned the existence at Ava of a man covered from head to foot in hair, whose history is not less remarkable than that of the celebrated porcupine man, who excited so much curiosity in England, and other parts of Europe, near a century ago . . . At Ava he married a pretty Burmese woman, by whom he has two daughters; the eldest resembles her mother, the youngest is covered with hair like her father, only that it is white or fair, whereas his is now white or black, having, however, been fair when a child, like that of the infant . . . Albinos occur, now and then, among the Burmese, as among other races of men. We saw two examples; one of these, a young man of twenty, was born of Burmese parents. They were ashamed of him, considering him little better than a European, they made him over to the Portuguese clergyman. The reverend father, in due course, made him a Christian. (368)

A representation of the twenty-five-year-old albino elephant is given to the Governor; the hairy man enters networks of marital and sexual exchange, propagating his peculiarities through heredity; the twenty-year old albino man becomes a 'gift' to a priest, and the priest 'makes' or cultivates the man into a Christian. Of course, this is the moment of Crawfurd's narrative that so fascinates Darwin that he transcribes a version of it into his notebook

account of HAIRY man (**because ancestors hairy**) with one hairy child, and of *albino* DISEASE being banished, and given to Portuguese priest.– In first settling a country.– people very apt to be split up into many isolated races! Are there any instances of peculiar people banished by the rest? –

∴ most monstrous form has tendency to propagate as well as diseases.[23]

Darwin moves from speculations on monstrosity to colonisation as a source of the reproduction of peculiarities, perhaps indeed of speciation itself. But it is perhaps Crawfurd's blurring of the human/animal distinction ('as connected with this department') that initiates a response from Darwin; it prompts an evolutionary, or transformist, speculation, but one that is bound up in complex ways with notions of cultivation, colonisation, religion and practices of signification.

In focusing on this obscure but revealingly rich moment in Charles Darwin's notebooks, I am suggesting that it is misplaced to assume that evolutionary speculation led inexorably to Darwin's 'Malthusian moment' in October 1838, the most obvious source of the 'discovery' of natural selection that distinguished the argument of the *Origin of Species* from earlier, 'vulgar' theories of transformism put forward by Jean-Baptiste Lamarck and Erasmus Darwin.[24] Malthus was crucial to Darwin's theoretical mix; but Darwin's notebooks are remarkably eclectic in their coverage of late eighteenth- and early nineteenth-century arguments about 'the laws' of life and its transformational potential: the first notebook that Darwin opened began with the headnote 'Zoonomia', a reference to his grandfather Erasmus Darwin's work of that title (1794), subtitled *The Laws of Organic Life*. The older Darwin's work stimulated the grandson into notations that reflected on the mysterious relations of sameness and difference between horticultural and natural processes of generation: 'seeds of plants sown in rich soil, many kinds are produced, though individuals produced by buds are constant'.[25] On a related theme, and just prior to his notation from Crawfurd's account of the 'monstrosities', Darwin reproduced verbatim an observation from Frédéric Cuvier's 1828 essay on domesticated animals, indicating that there must be some mysterious relation between the cultivation of domesticated creatures, and the modification of 'races' in nature into 'durable form[s]', and 'accidental habits into instincts'.[26] Erasmus Darwin and Lamarck also speculated on the parallel logics of variation under, on the one hand, 'culture' and, on the other, nature. The possibility that nature was always already 'cultured' (in being shaped, modified, supplemented) became a powerful yet troubling source of analogy for Charles Darwin.

The *Origin*, far from beginning with Malthus, begins with a chapter on 'Variation under Domestication', or variation produced by culture that imitates, though by no means perfectly, what happens in nature. Little wonder that when the writer Samuel Butler went on to contest natural selection, and to 'unroll' the theory of evolution in directions that sought to remind readers of sources of evolutionary speculation that preceded the writings of Charles Darwin, Butler's techniques of reading could demonstrate theoretical affinities with predecessors that Charles Darwin was keen not to claim; beyond this, Butler read and inscribed in ways that could break existing thought conventions, and invent new possibilities. Evolutionary theory consisted of a great variety of observational orientations and inscribed accents that played uneasily and ambiguously on shifting fault lines of semantic distinction: the human and the animal, the cultivated and the natural, the colonial and the home, the living and the dead.

As Darwin attempted in the *Origin* to articulate some of the difficulties of constructing evidence of evolutionary change in the face of gaps in the geological record, he reached for an image of a text fragmented by waste and linguistic change that proves difficult to read:

> I look at the natural geological record, as a history of the world imperfectly kept, and written in a changing dialect; of this history we possess the last volume alone, relating only to two or three countries. Of this volume, only here and there a short chapter has been preserved; and of each page, only here and there a few lines. Each word of the slowly-changing language, in which the history is supposed to be written, being more or less different in the interrupted succession of chapters, may represent the apparently abruptly changed forms of life, entombed in our consecutive, but widely separated formations (*Origin* 317)

Evolution's theatre of action during the nineteenth century was as much the intellectual field as the field of nature. Language was of course the medium through which the idea of evolution was conceived and refined: as the embodiment of historical change and transformation, it could also function as a source of analogy to be tapped in cases of epistemological difficulty. Darwin conceived of the problem of evidence for evolution in terms of a 'slowly-changing language'; etymological and philological approaches to language were common to the construction of knowledge in both evolutionary theory and ideas of culture. As Stephen Alter has demonstrated in detail, Darwin borrowed many of his insights into evolution from researches into philology. Philology was still present in influential accounts of 'culture' from late 1950s Britain, but I shall suggest that this is a legacy

of the contact between nineteenth-century discourses of culture, literature and evolutionary science.[27]

2. RE-MAPPING 'CULTURE' THROUGH DISCOURSES OF EVOLUTION: LITERATURE, SCIENCE AND THE PHILOLOGICAL IMAGINATION

In 1958 Raymond Williams observed that the word *culture* amounted to 'a special kind of map'. In the last decades of the eighteenth century, and in the first half of the nineteenth, the meaning of *culture* changed: 'Before this period, it had meant, primarily, the "tending of natural growth", and then, by analogy, a process of human training. But this latter use, which had usually been a culture *of* something, was changed . . . to *culture* as such, a thing in itself.'[28] This marked the beginning of Williams's long interrogation of the idea of culture. He went further in his etymological speculations in *Keywords* (1976), where he argued that culture 'is one of the two or three most complicated words in the English language':

> The [immediate forerunner of culture] is *cultura*, L, from [the root word] *colere*, L *Colere* had a range of meanings: inhabit, cultivate, protect, honour with worship . . . 'inhabit' developed through *colonus*, L to *colony*. 'Honour with worship' developed through *cultus*, L to *cult*.[29]

This was an etymology that returned 'culture' to explicit contact with both colonisation and religion, and it has had an impact on reassessing nineteenth-century thought on colonialism. As Robert J. C. Young has argued, 'colonisation rests at the heart of culture, or culture always involves a form of colonisation, even in relation to its conventional meaning as to the tilling of the soil'.[30] This is borne out, as we have seen, in John Crawfurd's prosaic use of the term in the 1820s, but also in Thomas Carlyle's visionary and influential naturalisation of colonisation and cultivation in 'Chartism' (1840), imagining 'everywhere else' as 'a whole vacant Earth . . . call[ing] to us Come and till me, come and reap me.'[31] And Seeley, in 1883, would highlight another pastorally inspired convention of colonial imagery: 'colonisation . . . is like the swarming of bees', he wrote, which is precisely, as chapter 2 shows, one of the ways in which Wordsworth troped the activity in *The Excursion* (1814).[32]

Terry Eagleton observes that the root *colere* 'ends up via the Latin *cultus* as the religious term "cult"' so that culture 'inherits the imposing mantle of religious authority, but also has uneasy affinities with occupation and

invasion'. Eagleton suggests that on grasping this, it is possible to see how 'cultural truths – whether high art or the traditions of a people – are sometimes sacred ones, to be protected and revered'. It can also explain how 'the idea of culture itself in the modern age came to substitute itself for a fading sense of divinity and transcendence': the very problem to which Samuel Taylor Coleridge's theologically inspired 'clerisy' was to address itself, discriminating between discourses and ways of reading and preserving them.[33] However, the function of Coleridge's 'clerisy' needs to be understood in terms of the way in which its theorist expected it to resist certain developments in the field of early nineteenth-century life science. Taking a broader view of evolutionary thought, any consideration of the place of the 'cult' in 'culture' needs to be aware of a long history of sectarian religious fragmentation, and the way in which the 'cult' came to figure as a category in ethnographic explanations of theology, denoting a particular phase in, and identity formed by, the evolution of thought.[34] Williams's map of culture bypassed both of these contexts; consequently, the nineteenth-century tradition of the culture concept that he constructed was not especially able to exploit and interrogate the connections that his later etymology promised.

A new map of the word 'culture' in the nineteenth century needs a fresh starting point. In 1893 the critic John Addington Symonds published an essay entitled 'Culture: its Meaning and Uses'. Symonds was prompted to enquire into the meaning of the term precisely because 'overuse' had passed 'culture' into 'the jargon of cliques'.[35] Certainly 'culture' had been regularly invoked in polemical debate since Arnold's *Culture and Anarchy*; indeed, as Williams noted in the late 1950s as he started to map a literary tradition of usage in *Culture and Society*, the term was used extensively both before and after Arnold by writers such as Coleridge, Carlyle, Mill, Newman, Ruskin, Morris, Pater and T. S. Eliot. Symond's text is generally overlooked in the established maps, of which Williams's is perhaps the most powerful. And yet, like Williams, Symonds looked to etymology to grasp the concept of culture, and judged that 'by the etymology of the word, culture is not a natural gift. It implies tillage of the soil, artificial improvement of qualities supplied by nature' (196), so that 'culture is self-tillage, the ploughing and the harrowing of self by use of what ages have transmitted to us from the work of gifted minds' (200).

Symonds is also an important alternative starting point because his account of culture accorded scientific knowledge an important role in what was transmitted to till and harrow the self. For Symonds the 'ends of culture' could be advanced by 'Humanism and Science' (203), for

both poetry and metaphysics contributed to the formation of the evolutionary hypothesis. Without habits of strict investigation, on the other hand, we should not possess the great historical works of the nineteenth century, its discoveries in comparative philology, its ethnological theories and inquiries into primitive conditions of society . . . Humanists and scientists have been engaged together for nearly five centuries in weaving a magic robe, warp and woof combined into one fabric, which gradually through their accumulated industry, approximates to something like an organic tissue. The hope of the future is that any exact investigation of one part will imply an adequate acquaintance with the whole. (204, 206–7)

Symonds's text on culture is an illustration of how important discourses of evolutionary science had become to the discourse of culture by the late nineteenth century. His sense of 'organic wholeness' – a characteristic traced by Williams in his 'culture and society' tradition – is given a distinctive intellectual hue by the presence of evolutionary discourses. For Symonds, literature, poetry and metaphysics have contributed to the formation of the evolutionary hypothesis itself: but the evolutionary sciences of ethnology and philology also constitute major interpretive contributions to 'culture' as a great woven textual garment, an enchanted robe of some five hundred years' standing.

The anthropologist J. G. Frazer, who started to publish *The Golden Bough* during the 1890s, also represented the history of human culture by turning to the metaphor of weaving, likening it 'to a web woven of three different threads – the black thread of magic, the red thread of religion, and the white thread of science'. Frazer goes on:

> Could we then survey the web of thought from the beginning, we should probably perceive it to be at first a chequer of black and white, a patchwork of true and false notions, hardly tinged as yet by the red thread of religion. But carry your eye farther along the fabric and you will remark that, while the black and white chequer still runs through it, there rests on the middle portion of the web, where religion has entered most deeply into its texture, a dark crimson stain, which shades off insensibly into a lighter tint as the white thread of science is woven more and more into the tissue. To a web thus chequered and stained, thus shot with threads of diverse hues, but gradually changing colour the farther it is unrolled, the state of modern thought, with all its divergent aims and conflicting tendencies, may be compared.[36]

Frazer integrates religion into this metaphoric attempt to grasp the history of thought and culture: rather than being positively 'magical' and enchanted in itself, the strands comprising the huge woven web include magic as a weapon in a great war of thought, alongside, but weaving in and out of

(or staining?), science and religion. Culture, for Frazer, is not a garment of common ownership to be proudly worn, but an ensnaring web of conflict extending from the ancients to modernity itself.

Symonds's emphasis on culture's inter-weaving of the humanist and scientific traditions drafts a map of the term that opens up the conflicted vistas of evolutionary discourse. It opens not only a wider range of intellectual traditions, including Frazer's ethnology, but also the principle of culture as contestation. Raymond Williams was alert, of course, to the contests that 'culture' as a conceptual space was carved out to hear and judge. In 'culture' Williams traced an idea concerned initially 'with an area of personal and apparently private experience, which was notably to affect the meaning and practice of art'. This initial meaning developed into 'a separate body of moral and intellectual activities . . . offering a court of human appeal'; witness Arnold's 'hearing' of Buchanan on 'life', and the way in which 'culture' found against it. For Williams, culture emerged finally as a means of asserting 'a whole way of life, not only as a scale of integrity, but as a mode of interpreting all our common experience, and, in this new interpretation, changing it' (*Culture and Society*, 17–18). In generating interpretive practice directed at understanding patterns of 'life', but also, crucially, effecting change, these new interpretive practices were viewed as vital to communal solidarity and resistance in the face of capitalist modernisation, a 'mitigating and rallying alternative' (17). Williams argued that 'we need a common culture . . . because we shall not *survive* without it' (304 [my emphasis]); he concluded by arguing that there 'are ideas, and ways of thinking, with the seeds of life in them, and there are others, perhaps deep in our minds, with the seeds of a general death' (323). Without the interpretive devices of culture, extinction beckons: culture as interpretation is life-sustaining. But this does raise the question of the emergence, variety and reach of those interpretive devices. In a sense, the very confidence of Williams's prose in *Culture and Society* belies the troubled intellectual waters in which arguments about culture and 'life' had circulated since the nineteenth century. Symonds's text enriches and complicates Williams's way of accounting for culture, given that the relation between literature, religion and science was virtually ignored in Williams's account. And it helpfully re-directs us to some of the other writers who were writing on culture in 1950s Britain.

F. R. Cowell's wide ranging *Culture in Private and Public Life*, published just one year later in 1959, also saw culture as a 'key-word to explain all manner of contemporary topics and problems'.[37] As a classicist, Cowell sought to re-instate Arnold's idealist, classicist account of the concept as the authoritative meaning (175). In seeking to grasp the concept, Cowell

also invoked etymology, observing that the earliest use of the term 'culture' signifies an effort to assist the growth and development of natural products, while also being aware that culture was both a 'mystery' and a 'problem' to be solved, for it has 'something of the elusive, attractive quality of the rainbow' (3). Cowell acknowledged Williams's work as a detailed account of nineteenth-century writings on culture, but he also pointed to Williams's failure to address the concept from the perspective of religion, philosophy and science (237); and Cowell acknowledged that Darwin's evolutionary science had 'contributed to swell the stream of cultural tradition' (159). But part of the mysterious problem of culture resides in its workings and new directions of development, given its vast cumulative extent: for the 'stream of cultural tradition' to which Darwin had contributed is, for Cowell, in constant danger of turning into a deluge given the 'flood of knowledge [that] threatens to overwhelm anyone who would voyage upon it' (25). For Cowell, as for Williams, culture has become inseparable from complex problems of symbolic mass production and mass literacy. Indeed, Cowell invokes a version of Coleridge's 'clerisy', calling for the creation of a 'minority capable of being affected to a greater or lesser degree by written and printed material' (21), an agency for cultivating taste and selecting the good amidst the 'flood of knowledge'. Like Williams, Cowell saw culture as a court of appeal. But Cowell's writings on culture register a sense of deep anxiety about culture as a problem of knowledge accumulation and dissemination.

Anxieties were also at play in the so-called 'Two Cultures debate' between C. P. Snow and F. R. Leavis, an encounter between the discourses of science and the humanities with enduring resonance, and contemporaneous with the appearance of Williams's early work on culture. As Snow acknowledged in his later essay, 'The Two Cultures: A Second Look' (1963), he took 'culture' to mean, on the one hand, 'intellectual development, development of the mind'.[38] But he also acknowledged that 'the term "culture" in my title has two meanings'. Snow moves through a number of synonyms that equate ways of knowing the world with the ways in which anthropologists came to use the term 'culture' – 'subjects', 'disciplines', then 'cultures' in the plural, suggesting 'distinct ways of life'. In his original Rede Lecture 'The Two Cultures', Snow specifically identifies the 'anthropological sense' of culture as a way of understanding what it means to inhabit a discipline: 'common attitudes, common standards and patterns of behaviour, common approaches and assumptions' (9). Indeed, Snow goes so far as to suggest that a 'culture' in this sense can inhabit human selves, stripping those subjected to it of agency and spontaneity: 'Without thinking about it', Snow remarked of scientists' social attitudes, 'they respond alike. That is what a

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culture means' (10). Williams identified an 'anthropological' meaning of culture in *Culture and Society* in his reading of T. S. Eliot (229), but Snow appeared to push this meaning in a more ontologically troubling direction: 'subjects' of disciplinary cultures were mere automata or imitators who lacked spontaneity and individual agency. In fact, Snow had stumbled upon an anxiety about imitation that had been present since the late eighteenth century in anthropological and cultural discourse.

F. R. Leavis condemned Snow's dealings with the term 'culture', in particular his contention about the 'unconsciousness' that follows from subjection to a culture. But at the root of Leavis's attack on Snow was a contest to re-define the meaning of 'life' as vital force. Leavis's appeal to 'life' is almost overwhelming: 'nothing matters but life'; 'only in living individuals is life there'[39]; '"Live", of course, is a word of many possible values, as great novelists and poets make us know' (21): 'something of the livingness of the deepest vital instinct; as intelligence, a power – rooted, strong in experience and supremely human – of creative response to the new challenges of time' (27). For Leavis as a literary critic, the language of English literature was the place where minds met and conscious 'life' could be generated and experienced, communally: 'It gives us, too, the nature of the existence of English literature, a living whole that can have its life only in the living present, in the creative response of individuals, who collaboratively renew and perpetuate what they participate in – a cultural community or consciousness' (28); 'life is growth' – such growth should be fostered by the university, and centrally from 'a vital English School' (29).

Leavis's appeal for a university English school charged with 'vital' forces owed much to a romantic nineteenth-century tradition of vitalist life science, anti-materialist and championed by Coleridge, which held 'life' to be a divine, unknowable force that inhered in the living being, in opposition to the inert, material environment.[40] Leavis's defence of 'vital' literary criticism points to the way in which the discussion of culture in late 1950s Britain was linguistically suffused with previous encounters and contests between nineteenth-century scientific and literary discourses, and the complex range of significations that played around the term 'culture'. As V. N. Voloshinov was to argue in another context, 'life' was not so much an inward and innate property of the word and the literature written in its name; instead, it was a deeply active and contested sign, for it is through the 'intersecting of accents that a sign maintains its vitality and dynamism and the capacity for further development'.[41]

The same would apply to 'culture'. Michael Yudkin, in an essay that accompanied Leavis's, observed that 'there is a real danger that the problem

of the "two cultures" may gradually cease to exist. There will be no building of a bridge across the gap, no appearance of modern Leonardos, no migration of scientists to literature. Instead there will be the atrophy of the traditional culture, and its gradual annexation by the scientific – annexation not of territory but of men' (*Two Cultures*, 44–5). Culture is about the tilling of minds under particular regimes of intellectual organisation, but also, in the context of conflicts between theories of life and processes of habitation, about migration and drives to 'annexation'. To return to Williams's extended etymology of the term, the sign of 'culture' reveals its complex political faces, its multiple perspectives on different dimensions of material reality, through its philological origins in *colere*, *colonus* and 'colonisation'.

What follows from this philological understanding of the 'sign' of culture? It provides a way of exploring textual dialogues that have been overlooked by established traditions, in effect expanding the breadth and inclusiveness of Williams's 'culture and society' corpus of texts. It also expands the range of interpretive devices that can be deployed in the interrogation of politics and morals under the banner of 'culture' and its etymological derivatives. As Voloshinov argued, the textual monuments comprising a tradition, and so revered by philological methods, are in practice 'one link in a continuous chain of speech performances. Each work carries on the work of its predecessors, polemicising with them, expecting active, responsive understanding, and anticipating such understanding in return. Each monument in actuality is an integral part of science, literature and political life.'[42]

Such a philological approach to the politics of literature and science provides the ground for a new reading of T. H. Huxley's 'Prolegomena' and 'Evolution and Ethics' as 1890s texts that were responding to and broadening, in an estranging fashion, Matthew Arnold's discourse on culture. An allegory of 'culture' that traverses the concept's philological origins in horticulture, colonisation and religion, Huxley's lecture provides a viewpoint on culture's imbrication with evolutionary discourse at a particularly high and confident point of the latter's elaboration. 'Prolegomena' and 'Evolution and Ethics' follow in the footsteps of Huxley's *Lay Sermons* by inscribing the 'man of science' in the role of authoritative critical commentator.[43] They explore principles and figures of intellectual authority, while finally promoting literature and the intellectual field as a compelling but unstable historical locus of authority. In doing this, Huxley's texts articulate discourses associated with culture that cast the received accounts of the term in an estranging light.

3. HUXLEY'S GARDEN-COLONY: HORTICULTURALISTS, ADMINISTRATORS AND EMOTIONAL CHAMELEONS

It is well known that Thomas Henry Huxley jousted with Arnold through public lectures and essays, speaking up, as it were, for the contribution of 'science' to culture (chapter 4 explores the encounters) – a rehearsal of the 'two cultures' joust for intellectual authority that Leavis and Snow would engage in during the middle of the following century. It is less easy to recognise the contribution that Huxley's 'Evolution and Ethics' (the Romanes Lecture of 1893), and its 'Prolegomena' (1894) made to the discourse of culture. Thus a highly influential essay on evolution is also a late-nineteenth-century map of key semantic strands that went into the formation of the discourse of culture.[44] Known as a major anti-socialist statement on the limits of eugenics in the sphere of ethics, the essay achieves its effects by means of an imagined journey through horticultural and, by extension, late nineteenth-century colonial discourse marked by the conservative Unionist position to which Huxley had drifted.[45] Yet, despite this conservatism, the prose which guides the reader orchestrates an estranging encounter between the discourses of colonialism, cultivation, belief, evolution, mechanisation and, indeed, modern culture itself.[46] Huxley foregrounds the strategy of estrangement. Huxley begins his Romanes Lecture with a reference to 'a delightful child's story, known by the title of "Jack and the Bean-stalk"', and the magical journey up and around a bean-stalk becomes for him an introduction to 'cyclical evolution' and a new platform from which to see the place of culture in cosmic struggle: 'We have climbed our bean-stalk and have reached a wonderland in which the common and the familiar become things new and strange.'[47]

Huxley spoke in his 'Prolegomena' against what Arnold called 'doing as one likes', and made it clear that self-restraint was an end of cultivation: 'every child born into the world will still bring with him the instinct of unlimited self-assertion. He will have to learn the lesson of self-restraint and renunciation.'[48] However, for Huxley, as an expositor of Darwinian evolutionary theory, cultivation was a process subject to reversals and complications. While Arnold focused on the 'bear garden' horrors of Hyde Park rioting, Huxley began the 'Prolegomena' with a glance at the view from his study window, towards land in a state of nature and its scarcely visible, yet profound and discernible, historicity. Huxley contrasts this with a focus upon a plot of land recently reclaimed from nature, set aside and converted into a garden, a site of horticulture. The work of the gardener in selecting some plants and weeding out others that might threaten those selected,

effectively removes the garden from the state of nature; horticulture is 'antithetic' to the 'cosmic process', conditioned as it is by 'the struggle for existence' (13), though removal of the watchful supervision of the gardener would see the return of the cultivated space to a state of nature.

The gardener is one of two 'artificer-authority' figures that Huxley's essay fashions, for, in a moment of footnoted etymological reflection, he guards against a narrowing in the meaning of 'Art': 'The sense of the term "Art" is becoming narrowed; "work of Art" to most people means a picture, a statue . . . by way of compensation, "artist" has included in its wide embrace cooks and ballet girls . . .' (10). Yet, the artificers that were truly interesting to Huxley were versed in the art of governance. This is apparent in the shift of imaginative ground that Huxley's 'Prolegomena' undertakes as it moves from the space of a garden to that of the colony: 'The process of colonisation presents analogies to the formation of a garden which are highly instructive' (16).[49] For in imagining this 'composite unit', peopled by 'a shipload of English colonists sent to form a settlement' and reclaiming it from a state of nature, Huxley also imagines the governor of the unit, 'some administrative authority, as far superior in power and intelligence to men, as men are to their cattle' (17). This is Huxley's version of Matthew Arnold's authoritative state and the cultured 'best selves' that would govern from it, filtered through an analogy derived from Charles Darwin's *Origin of Species*; the administrator as cattle breeder and 'artificial' domestic selector.

Of course, the whole point of Huxley's discourse is to expose the fantasy of social eugenics, which he satirises as a 'pigeon-fanciers' polity' (23), an allusion to the opening chapters from the *Origin*. In another allusion to the myth of the Fall, Huxley contends that any administrative fantasy of an artificially created 'garden of Eden' from which struggle had been eliminated by far-sighted, selective cultivation would be undone by a 'serpent, and a very subtle beast too' (20). This beast was the Malthusian law of population, which Darwin had integrated into his theory of transmutation by natural selection. The artificial elimination of struggle from the garden colony would, paradoxically, lead to its re-introduction as colonists, with time on their hands and desire in their loins, sexually reproduce, thereby intensifying again the competition for the colony's resources. For Huxley, the administrator-cultivator would always be fighting a losing battle in the drive for an ideal colony, for in reality, cultivation is always in danger of being reversed by the natural processes which cultivation mimics, but which are unconscious and randomly directed.

Huxley draws attention to that unsettling implication that Darwin's theory made explicit: that the state of nature is always already governed

by a process leading to selection and amounting to random, unconsciously generated cultivation. Huxley acknowledges this when contemplating the formation and functioning of insect colonies: the beehive, for example, functions on the basis of a strict division of labour and is 'the direct product of an organic necessity, impelling every member of it to a course of action which tends to the good of the whole' (24). The resonant phrase here is 'organic necessity': Huxley dismisses the idea that 'organic necessity' might reside in 'an eternal and immutable principle, innate in each bee'. Instead, it is the intellectually authoritative biologist 'who traces out all the extant stages of gradation between solitary and hive bees, as clearly sees in the latter, simply the perfection of an automatic mechanism, hammered out by the blows of the struggle for existence upon the progeny of the former, during long ages of constant variation' (25). Huxley is alluding to Darwin's observations of bees in his chapter on instinct in the *Origin*, but he is also reworking Darwin's famously industrial 'face of Nature' image from the first edition of the same work, which held nature to be comparable to 'a yielding surface, with ten thousand sharp wedges packed close together and driven inwards by incessant blows, sometimes one wedge being struck, and then another with greater force'.[50] In the 'culture and society' tradition mapped by Williams, 'mechanisms' are presented as characteristically outside of, and other to, the organic wholeness of culture. Williams cites early Carlyle critiquing undue 'faith in mechanism', and Arnold warning against the tendency to 'follow staunchly but mechanically' stock notions and habits (*Culture and Society*, 88, 124). In one sense, this might simply confirm that Huxley, Carlyle and Arnold came to subscribe to opposed mechanistic and romantic traditions, Huxley having shifted from an early attachment to a romanticism inspired by Carlyle, which was marked by a tendency to vitalism in his theory of life.[51]

As ever, the imbrications are more complex. Williams himself glimpsed the complexity, for he included an arresting philological 'Note on "Organic"' in *Culture and Society* (a lengthy endnote to his discussion of Leavis and Thompson's *Culture and Environment*, clearly important but difficult to assimilate to the main argument), urging 'caution' in the use of the word, pointing out that, in the original Greek, 'organic' 'first meant "tool" or "instrument", and . . . was equivalent to our "mechanical"'. This meaning transferred to physical organs, in phrases such as the 'instrument of the eye'; 'organs' became living tissues in general (256–7). This is the language of organic design and function that had been important to the tradition of natural theology exemplified in William Paley's *Natural Theology* (1802). Huxley's discourse on culture is enmeshed into, rather than