

# Adaptation and Remediation: The Role of the Media in the Dissemination of Phrenology

MILA DASKALOVA

Although never unanimously recognised as a respected science, phrenology was a highly influential and far reaching socio-political and intellectual phenomenon that attracted followers from all walks of life and informed discussions about prison reform, psychiatric practice, and the establishment of national education.<sup>1</sup> The fact that *The Constitution of Man in Relation to External Objects*, the work of Edinburgh phrenologist George Combe, became one of the best-selling books of the nineteenth century is indicative of phrenology's popularity. What made phrenology so appealing was its promise of self-knowledge, self-improvement and access to absolute truth.<sup>2</sup> The question of how phrenology managed to reach its audiences in order to make these promises, despite its flawed scientific justification and the open hostility of the intellectual authorities, is also crucial to understanding its omnipresence. Terry Parssinen has suggested that 'phrenology's success as a popular movement was due [...] to its omnipresent lecturers and profuse cheap literature', but without reflecting on how and why they came to be omnipresent and profuse.<sup>3</sup> John van Wyhe has offered a more detailed account of the diffusion of phrenology, arguing that public lecturing and word of mouth were the main means for spreading the science and highlighting the importance of personal contact in both forms of communication.<sup>4</sup> Phrenology's dissemination through print has also been examined: special attention has been paid to *The Constitution of Man*, and James Poskett has recently expanded the project to global contexts and texts, tracing the international circulation of phrenological books and periodicals.<sup>5</sup>

Given the changes in communication that occurred around the time the science rose in popularity, however, the message/medium relationship in the case of phrenology begs further exploration. The fact that the disputes over the science were not conducted through the same medium is especially significant during a period when the cultural meanings of both science and print were in flux.<sup>6</sup> It was in the early nineteenth century that the less strictly defined boundaries of what constituted science started becoming more rigid: a development that was closely linked to the book trade and the constitution of authority through print.<sup>7</sup> The purpose of this article is to situate the spread of phrenology in this context, exploring the cohabitation and interaction of orality and print in phrenologists' popularisation campaign and struggles for cultural authority. Drawing on oral-literate theory to build

on Parssinen's and van Wyhe's work, I will show that the survival and dissemination of phrenology were largely attributable to its proponents' strategic and sometimes experimental use of various oral and print media.

Though lecturing and word of mouth were indeed pivotal for the diffusion of phrenology (as van Wyhe suggests), phrenologists adapted continuously to the changing socioeconomic and cultural conditions. The variety of the media they and their opponents employed is important because each medium has a specific, historically determined cultural significance and shapes the messages it carries.<sup>8</sup> The difference is all the more significant at a time of perceived media shifts such as the later eighteenth and early nineteenth century, which witnessed 'the development of an "antagonistic" model of oral and literate communication, and the related development of "evolutionary" models of media shift (the idea that one media "stage" succeeds and/or displaces another)'.<sup>9</sup> The authority of the spoken word, advocated by classical scholars, religious groups and proponents of the elocution movement from the 1730s onwards, seemed to have been overwhelmed by the proliferation of print.<sup>10</sup> The perceived threat to orality became progressively more palpable in the nineteenth century, with the advent of mass publishing, increasing literacy rates and the growing influence of print on social life.<sup>11</sup>

This linear narrative of media change is of course, reductionist: although print was doubtlessly gaining influence in the early nineteenth century, speech remained an influential vehicle of information.<sup>12</sup> However, the oral and the written have different modes of existence and roles in social interactions. Speech is inherently tied to the present moment and is hence ephemeral, while writing preserves texts through time; speech is a communal activity that brings people together, while written communication is essentially solitary, a 'monologue,' as Vygotsky terms it. Though the distinction between orality and literacy is often blurry and complicated, it is nevertheless present, and it defines the ways in which communication is realised.<sup>13</sup>

The coexistence of speech and print throughout the nineteenth century and the ways in which they influenced each other and moulded the messages they carried are demonstrated clearly in the case of British phrenology. While Poskett has rightly argued that phrenology should be discussed as a global phenomenon, its story is deeply rooted in Britain. In Edinburgh the resistance to the science was especially intense, so phrenologists' ability to adapt and use different media for their purposes was most markedly demonstrated there. For that reason, Edinburgh phrenologists will serve as the focus of this article, though its observations and conclusions can be applied to other contexts.<sup>14</sup> At a time of cultural change in the communication of knowledge and the distribution of authority, the vulnerability of phrenologists' spoken message drove them to seek other ways of circulating their science and establishing it as 'truth'. I will show how the Edinburgh group, led by George Combe, experimented with various forms of print, launching a publishing campaign that culminated with the release of the cheap editions that made Combe's *Constitution of Man* a

bestseller and ensured the omnipresence of phrenology in nineteenth-century culture across the globe. In the history of phrenology, however, print never displaced speech. Phrenologists achieved remarkable results in popularising their science by making use of all the communication channels available to them. Only by waging their war for authority on all fronts could they ensure the survival and dissemination of their science.

#### SPREADING THE WORD OF PHRENOLOGY

Phrenology was conceived in late eighteenth-century Vienna by the German physician Franz Joseph Gall. Convinced that the brain's physical shape indicated one's character and behavioural tendencies, Gall started delivering courses of lectures in 1796 and was soon joined by one of his students, Johann Gaspar Spurzheim.<sup>15</sup> In 1814 Spurzheim parted ways with Gall and moved to London, where he began lecturing in English. Though frequently received with hostility by the intellectual authorities, phrenology started spreading quickly: by the end of the year Spurzheim converted 'a good number of prosolites [*sic*] who speak for me, and engage other persons to attend my lectures'.<sup>16</sup> During the next three years he travelled around Britain, winning the respect of some and the disdain of others.

Perhaps the most important place he visited in that period was Edinburgh, 'the city from which the great anathema had issued against phrenology' and which ultimately 'became the principal seat of it'.<sup>17</sup> It would be the birthplace of the first phrenological society and periodicals, all thanks to George Combe and his circle of supporters. Combe had an unquestionably central role in the establishment and operation of the first institutional organs of phrenology, the Edinburgh Phrenological Society and the *Phrenological Journal*. He invested significant amounts of time, efforts and resources to popularise phrenology: the survival of the unprofitable *Journal*, for example, was largely due to his determination.<sup>18</sup> In that sense, Combe was perhaps Spurzheim's most important convert and his descendant. And like most other converts, Combe's career as a phrenologist began by hearing a lecture.

Public lecturing was a central part of the early phrenologists' campaign for spreading their science, allowing them to conquer audiences in Britain, America and beyond. Van Wyhe has observed that the phrenological lecture was a powerful instrument, which encouraged attendees 'to adopt and use and preach again themselves'.<sup>19</sup> In van Wyhe's account the phrenological lecture was a complex phenomenon, whose influence depended on a multimedia network of complementary activities such as advertising, sending invitations and distributing charts and diagrams.<sup>20</sup> The aim of lecturing was creating new practitioners, while printed publications served the purposes of disseminating knowledge about phrenology. In that sense, the lectures were the predominant medium that ensured the lasting influence of phrenology.<sup>21</sup> While agreeing

with van Wyhe's assessment, I will offer a more theoretical discussion of phrenological lecturing, linking the practice to the oral tradition and tracing its interaction with word of mouth and print. Informed by the observations of Martin Hewitt, Joseph Meisel and Anne-Julia Zwierlein on nineteenth-century public speaking, as well as by media theory more generally, in this part I will show how speech-based media (lectures and word of mouth) achieved their effects and assess their limitations in the context of the growing cultural and social importance of print.<sup>22</sup>

The nineteenth-century public lecture was a primarily oral performance, belonging to the long tradition of rhetoric that extends back to antiquity. It was also related to (if not directly descending from) the eighteenth-century elocution movement, which was represented in Scotland by Hugh Blair and which sought to revive a former discipline of classical rhetoric for the commercial profit of its proponents. In the face of rising literacy and proliferation of print, elocutionists advocated 'the superior expressive power of oral communication'.<sup>23</sup> Blair himself claimed that 'all the great and high efforts of eloquence must be made, by means of spoken, not of written, Language'.<sup>24</sup> This argument was clearly aimed at creating 'a new tool of distinction in an increasingly literate age'.<sup>25</sup> Likewise, in their pursuit of authority, nineteenth-century phrenologists mastered the art of elocution and actively used public lecturing to promote their ideas.

Speech played an important role in the doctrines of phrenology: Gall's discovery of the organ of language behind the eyes was the founding event of the science. To phrenologists language was 'a conduit for the activities of the other faculties'; the size of the organ determined one's verbal memory and ability to express oneself through words.<sup>26</sup> Unsurprisingly, this faculty was one of the definitive characteristics of the leading phrenologists. Gall and Spurzheim were known for their developed organs of language, and had a passion for speaking.<sup>27</sup> As a boy, Gall dreamed of entering the clergy, 'owing to the pleasure it gave him to discourse before others'.<sup>28</sup> Spurzheim was known for lecturing without notes, expressing himself 'in clear and forcible terms, free from embarrassment or affectation', although his English was imperfect.<sup>29</sup> While Gall and Spurzheim's authority was backed up by their medical training, Combe's success as a populariser of phrenology was predominantly due to his eloquence. His brother Andrew wrote: 'George has more of the organ of Language than I [...]. He easily finds words to express his ideas; and, in reasoning *viva voce*, brings to his aid arguments which I should not have been able to find'.<sup>30</sup> In his unpublished autobiography, Combe described his experience of attending elocution classes and earning the praise of his teacher, which 'wakened me to a higher sense of my own capabilities; or rather gave sanction to emotions of ambition for a higher sphere of intellectual life'.<sup>31</sup> Later on he participated in a debating society, became a successful lawyer and defended his brother's medical dissertation about the usefulness of phrenology in front of the Royal Medical Society, speaking 'without preparation [...]' for

two hours in defence of the system'.<sup>32</sup> Phrenology offered Combe and his associates a biological explanation for their place in the world, as well as a mission: its popularisation gave these naturally avid speakers an opportunity to apply their passion for oration.

Speech was well-suited for phrenologists' ends but was also inherently flawed. On the one hand, it creates a sense of community: as Walter Ong puts it, 'the spoken word forms human beings into close-knit groups. When a speaker is addressing an audience, the members of the audience normally become a unity, with themselves and with the speaker'.<sup>33</sup> However, speech is also ephemeral: 'Sound exists only when it is going out of existence'.<sup>34</sup> Speech is a lived experience, tied to the present moment, but as such it is constantly dying. Therefore, the "truths" that public lectures as oral performances sought to convey were also trapped in what Fielding describes as the uncomfortable position 'between the absolute, and the absolutely conditional'.<sup>35</sup>

In the early nineteenth century, the public lecture produced that sense of community, as it brought together people with shared backgrounds and interests. At the centre of the experience was the speaker. The lecturer brought the message to life, not only through his rhetorical skills, but also through his appearance, gestures, and demonstrations.<sup>36</sup> Phrenologists, for instance, carefully planned the dissections and selected the masks, skulls and busts they would present depending on the topic of each lecture.<sup>37</sup> The audience, however, were not passive consumers of science, but participants in the construction of meaning: they could ask questions, voice objections, or even leave the venue.<sup>38</sup> The lecture was therefore a living process driven by a struggle for power, as the speaker's authority could be contested by the attendees. Openly recognising listeners' agency was one of the ways phrenologists won their audiences. Spurzheim allegedly urged his audience: 'Do not [...] believe in any thing because I affirm it, nor, on the other hand, object to it merely because others have done so before. I may err, and others may err, but Nature is always true and constant. See and judge of her yourselves'.<sup>39</sup> Downplaying their own authority, phrenologists presented themselves as mere messengers of truth, inviting potential new converts to participate in the construction of shared knowledge.

While Cantor has argued that phrenologists' 'concentration on rhetoric and polemic became a subterfuge against rigorous scientific investigation', the cultivation of public speaking skills did more than mask the flaws in the empirical substantiation of phrenology.<sup>40</sup> Lecturing paved the way to forming a network of united, like-minded followers. That sense of belonging was reinforced by the fact that phrenological lectures were not isolated events. Like other early-nineteenth-century popular lectures, they were usually clustered together in courses, 'with the same people attending each subsequent lecture'.<sup>41</sup> This approach created the potential for forming connections, if not a close-knit community of devotees. Following Spurzheim's example, in 1822 Combe delivered his first course of lectures in front of the Edinburgh Phrenological

Society. Members of the Society could attend for free, while visitors had to pay a guinea for the full course.<sup>42</sup> His lectures continued almost without interruption until his death, establishing the public lecture as phrenology's fundamental mode of expression.<sup>43</sup> Facilitating networking and mutual support, this genre of oral performance constituted a repetitive motif throughout the history of the science.

Beyond lecturing, phrenologists relied heavily on another speech-based medium – word of mouth.<sup>44</sup> In 1816 Spurzheim noted that the number of attendees of his lectures ‘increased every day, because one told it to the other, so that in the last lecture the room was scarcely large enough’.<sup>45</sup> Unlike lecturing, the purpose of word of mouth was not conversion. Instead, it constituted an intermediate step between ignorance and enlightenment. Rather than being dependent on the seemingly ambivalent authority of an unknown speaker, word of mouth relied on already established relations of affinity and trust: proponents of phrenology could promote it by talking about it in their circles. The informal setting of that type of communication was unlikely to create converts but was enough to spark interest and direct the curious to the more authoritative official sources, such as lectures and publications. The importance of word of mouth is evident from its employment long after phrenologists had secured access to various other channels, including the periodical press. Hoping to improve the sales of the *Phrenological Journal*, in 1829 the proprietors enclosed six copies of an ‘Address to the Subscribers’ in each number, asking readers to pass it on to other potential subscribers.<sup>46</sup> Speech, be it in the form of official lectures or a conversation with friends, was hence the medium that phrenologists always resorted to in times of need, as it allowed them to establish a supportive community that increased phrenology's chances of survival.

It should be noted, however, that the choice of medium was not entirely deliberate. Unable to secure universal acceptance and perceived as threatening due to their claims for authority and alternative vision of science and human nature, phrenologists were denied access to many of the platforms for expressing opinion. When Spurzheim arrived in Britain, for instance, he was a travelling foreigner with limited connections and resources. Although he was initially welcomed by many medical professionals who were curious to hear his revelation of the mystery of the human mind, he was shunned by the Royal Societies as well as institutions such as the University of Oxford and King's College.<sup>47</sup> Later, George Combe would receive the same treatment from the Royal Society of Edinburgh and the University of Edinburgh.<sup>48</sup>

Furthermore, phrenology was mocked by major periodicals, especially the *Edinburgh Review* and *Blackwood's Magazine*.<sup>49</sup> Until 1823 phrenologists had no platform of their own where they could answer these attacks. Spurzheim's arrival in Edinburgh illustrates the obstacles before phrenology in its early years. In June 1815 the *Edinburgh Review* featured a biting criticism of phrenology, authored by the anatomist Dr John Gordon. Spurzheim left Dublin and headed to Edinburgh to confront his opponent, but an open debate never

took place – perhaps because, as with any other piece in the *Edinburgh Review*, Gordon's too had been published anonymously, so it was not immediately clear who the offender was.<sup>50</sup> Moreover, by the time Spurzheim reached Edinburgh, a year had elapsed and the moment for direct confrontation had passed. His decision to travel all the way from Dublin, without knowing who had attacked him, yet knowing that he was late, is therefore perplexing. It suggests that Spurzheim did not have the resources and connections to publish an immediate and equally influential defence. It also shows that he felt the need to rely on the authority of his physical presence and speech to recover phrenology from the damage inflicted by the review: when he could not confront Gordon, Spurzheim commenced a course of lectures. The episode shows that the limited access to authoritative channels required phrenologists to make do with whatever resources were available to them. The most easily accessible medium was speech. This is not to say that phrenologists resorted to it only out of necessity. Easily accessible and reaffirming a sense of shared experience, connection and belonging, it was their preferred and most efficient instrument of persuasion.

Nevertheless, speech was also inherently defective because it was limited by its temporality, making phrenology's message highly unstable. George Combe's conversion perfectly illustrates both the appeal of phrenology's orality and its drawbacks. After the publication of Gordon's essay, Combe sided with the *Edinburgh Review*: he 'laughed at the Quixote [Spurzheim], refused to go to hear him, and the first course of lectures in Edinburgh were concluded without his having even seen the man who was to exercise the most powerful influence on his future life.'<sup>51</sup> It was not until 1816, when he was invited to a private demonstration at the home of one of his colleagues, James Brownlee, that he was persuaded of the truth of phrenology.<sup>52</sup> The episode was later described by Combe himself:

It chanced that on leaving the Court of Session one day, a friend of mine, a barrister said: 'Would you like to see Dr Spurzheim dissect the brain?' [...] I went and saw Dr Spurzheim for the first time. He laid the *Edinburgh Review* on the table. Then he proceeded to display the structure of the brain [...]. and I saw with my own eyes that the reviewer [Dr Gordon] had shown profound ignorance [...]. My faith in the reviewer was shaken; and I attended Dr Spurzheim's second course of lectures.<sup>53</sup>

This often-retold anecdote exposes the role of coincidence when transmitting information through word of mouth. Van Wyhe suggests that James Brownlee himself got to know Spurzheim through another advocate who had happened to travel on the same coach as the phrenologist.<sup>54</sup> Had it not been for these chance meetings, Combe might not have been converted and phrenology might have had an entirely different history.

In that room Combe experienced not only a clash of scientific paradigms, but a clash of media. The private demonstration in the presence of the discrediting issue of the *Edinburgh Review* constituted a confrontation between a lecture and an article, between speech and print. Though Spurzheim's speech was accompanied by a brain dissection, his words were the main instrument of persuasion: Combe was not a trained anatomist, so his understanding of what he saw was limited. Evoking the intimacy of communal sharing of information, Spurzheim's presentation defeated the anonymous, authoritarian verdict he had theatrically placed on the table. The phrenological message hence seemed to be delivered in a much more cooperative and sympathetic manner – a manner that respected the receiver and encouraged them to participate in the production of knowledge. The fact that in that context the author of the article was never allowed a rebuttal (as he was not invited to the demonstration) mattered little: George Combe embraced phrenology and became its most dedicated advocate.

#### THE DEMAND FOR PRINT

In a world undergoing rapid industrialisation, phrenologists had to adapt continuously to socioeconomic changes to ensure that their science spread. Readerships were growing rapidly, as Britain's population had doubled by the mid-century.<sup>55</sup> This steep population growth was accompanied by migration towards larger towns and the growth of the middle class. With greater access to education and better living conditions (especially for that new social stratum), the new social climate resulted in an increased demand for print.<sup>56</sup> The publishing business adapted to these changes, supplying an abundance of reading materials and introducing technological innovations, such as stereotyping and steam printing, to produce more and cheaper print. In that context, phrenological lecturing, although it had the potential to create a sense of community and inclusivity in the process of meaning-making, struggled to assert the authority of its message because it was a form of speech: 'an inherently ephemeral phenomenon'.<sup>57</sup> Bound by strict spatiotemporal parameters, the intense sensory experience of the public lecture had limited effects. It addressed only a limited number of people at a time, depended heavily on their sustained concentration, and, afterwards, on their memory of the event. While some of the lectures were based on material that was already in print, and/or were published in pamphlet form after the event, most of the content of the lectures (especially their phenomenological substance) would be lost.<sup>58</sup> Thus, phrenologists' messages were unstable and extremely susceptible to manipulation, be it purposeful or involuntary.

The problem was clearly perceived by Combe. A letter from 1822 reveals that an attendee of his lectures accused Combe of making a faulty statement. Combe denied the accusations and added:

I am aware that in the present state of phrenology the public is more disposed to speculate on what Dr Gall says, or Dr Spurzheim says, or any other phrenologist says, than on what nature reveals; and this is the greatest obstacle to the progress of the science. Now, it appears to me that the friends of the doctrine would serve it more essentially by breaking down this personal connection betwixt the science and its disciples, and directing the public mind as much as possible to nature.<sup>59</sup>

Combe's concern with the ephemerality of the phrenological message resonates with Ong's statement that speech is 'not simply perishable but essentially evanescent, and it is sensed as evanescent'.<sup>60</sup> The occurrence also shows the close connection between the messenger and the message that lecturing entailed and the malleability of the message it allowed. Phrenology's dependence on its proponents' words prevented it from decisively establishing its credibility. To claim absolute truth, it had to purify itself of the tainting subjectivity of its prophets. The problem was that phrenology was founded on subjective, flexible reasoning: it was precisely what phrenologists *said* that constituted the reality that phrenology sought to explain. Outside their eloquent, yet ever-perishing and malleable speech, there were few external facts on which novices could base their judgments.

Furthermore, in the first half of the nineteenth century, print assumed a central place in the cultural matrix, as it became a major vehicle for exchanging information among multiplying readerships. The growing power of print was clearly observable in the proliferation and diversification of the periodical press and the influence it exercised over society. John North has observed that periodicals were 'more than tenfold as numerous and important as books in every subject'.<sup>61</sup> The new reviews (and most notably the *Edinburgh Review*) emerged as important platforms for expressing opinion and guiding public tastes.<sup>62</sup> They pronounced critical judgements whose validity was reinforced by a sense of 'unanimity or the illusion of it',<sup>63</sup> constructed through the 'impersonal, decorporealising anonymity'<sup>64</sup> and the voice of what a reviewer in the *Quarterly Review* called 'the magical We'.<sup>65</sup> Combe and his supporters themselves felt the power of the press: in their assessment, by 1832 it had 'risen into such high power and estimation, that it has been named a fourth estate in the commonwealth'.<sup>66</sup>

The influence exercised by the press over public opinion was a serious problem for phrenologists, since periodicals (especially the big reviews) tended to be openly hostile towards phrenology.<sup>67</sup> The conflict was especially violent in Edinburgh, where phrenologists had to face two of the print giants – the *Edinburgh Review* and *Blackwood's Magazine*. John Strachan has even suggested that the two publications competed in their ridicule of phrenology to establish their own supremacy.<sup>68</sup> Thus, in June 1817 *Blackwood's*

called the *Edinburgh Review*'s satirical anti-phrenological poem *The Craniad* 'the worst poem we have now in Scotland' and asked the author to 'submit his skull to a general examination, and if it exhibit a single intellectual organ, Spurzheim's theory is overthrown'.<sup>69</sup> Caught in the crossfire between the two literary giants, as well as attacked by numerous smaller publications, phrenology struggled to fight back.<sup>70</sup> Lecturing and word of mouth did not seem to be adequate weapons of defence against publications that had acquired a semi-sacred cultural status: Spurzheim himself recognised the *Edinburgh Review* as 'the literary gospel of Edinburgh',<sup>71</sup> while the *Phrenological Journal* referred to it as 'the Koran of the reading public'.<sup>72</sup> It was nearly impossible for the "I" of the temporarily present human speaker to muffle the voice of the anonymous, 'almighty WE [*sic*] of sovereignty'.<sup>73</sup> While the words of the speaker could be forgotten as soon as the lecture was over and word of mouth would often mar the original message, an article in a periodical could be passed around, received by each subsequent reader in the same words that it was initially released into the world. For instance, the June issue of the *Edinburgh Review* was present at Combe's conversion months after its original publication. Unstable and ever-vanishing, the spoken word of phrenology struggled to compete with the lasting authority of print.

Entering print seemed to offer a viable way to consolidate and stabilise the otherwise mutable phrenological discourse. Phrenological texts had been published from the earliest years of the science, but it was not until 1823 that phrenologists got to answer their enemies' attacks in an organised and systematic manner through *The Phrenological Journal and Miscellany*.<sup>74</sup> Preceded by a brief attempt to publish the more emphatically scientific *Transactions of the Phrenological Society* (only one issue of which was released), the *Journal* included a whole section for reprinting selections from their opponent's publications, in categories such as 'Falsehoods and Malignities' and 'Dull Jokes'.<sup>75</sup> While it never achieved the popularity it hoped for, the periodical became a symbol of the phrenologists' mission. It was kept afloat for twenty-four years at the expense of Combe and his associates, fuelling their martyr-like self-righteousness, as the following reflections of Combe's suggest: 'Many a time have I felt almost despair in my phrenological labours, and particularly in conducting the *Journal*, but the higher faculties ultimately triumphed. The greater the suffering in doing good, the higher is the virtue.'<sup>76</sup> The failure of the *Phrenological Journal*, however, was not catastrophic, as the periodical was part of an array of phrenological publications, circulated with varying success. In addition to lecturing, throughout his life Combe tried out different print genres to get his message across – from lectures published as pamphlets, to the 78-page *Letter from George Combe to Francis Jeffrey*, and the highly experimental People's Edition of Combe's *Constitution of Man*, which was one of the first books in English to be printed on a steam press and was sold out in ten days.<sup>77</sup>

Though phrenologists resorted to print to improve the chances of survival of their ideas, speech remained a trusted instrument for persuasion and promotion. The aforementioned 'Address to the Subscribers to the *Phrenological Journal*' supports this proposition. Published when one of the proprietors quit and the periodical's circulation had dropped to about 240, the plea shows phrenologists' reliance on word of mouth as an emergency measure at times of hardship.<sup>78</sup> The importance of speech to phrenologists is also evident from the recorded minutes of the first Phrenological Society's founding meeting. The document states that the Society's primary object shall be 'to hear papers, and to discuss questions on Subjects connected with Phrenology'.<sup>79</sup> By taking turns reading essays aloud, phrenologists kept converting the written back into the oral, bonding over the experience of exchanging knowledge. In the safe space of these biweekly meetings, members of the Society could speak and be heard, away from the hostility of the press.

PRINT EXPERIMENTS AND *THE CONSTITUTION*  
*OF MAN*

The importance of lecturing is also evident in the publication history of Combe's *Constitution of Man*, which is estimated to have reached about 350,000 readers in Britain and America by the end of the nineteenth century.<sup>80</sup> Originally published in 1828, the book was not received with immediate enthusiasm but its popularity grew after Combe persuaded Robert Chambers to publish a cheap edition in 1835. The correspondence between the two reveals that Combe had been trying to attract Chambers's attention to phrenology since January 1833.<sup>81</sup> However, the publisher remained reluctant until December that year, when, intrigued by Combe's lectures on popular education (disseminated then as a pamphlet), he offered to reprint them in his popular *Chambers's Journal*.<sup>82</sup> Two years later the same steam presses would print the People's Edition of *The Constitution of Man*, which would make it 'one of the most popular books in the English language, a new bible for natural law'.<sup>83</sup> In this section, I will trace Combe's campaign for disseminating phrenology through cheap print, leading to the publication of Chambers's edition of *The Constitution of Man* and further my argument that Combe was highly aware of the power of the medium by showing his deliberate experimentation with print in search of the right platform to popularise his science.

The early 1830s were a time during which Edinburgh phrenologists sought ways to make their message more accessible and to reach new audiences in order to overcome a 'lull in the public interest in phrenology'.<sup>84</sup> In 1831 Combe had to cancel his annual course of lectures due to low attendance.<sup>85</sup> Moreover, the Edinburgh Phrenological Society was struggling financially and was shaken by internal conflicts.<sup>86</sup> Combe's morale, however, did not wither: 'But all this is local and temporary. Beyond Edinburgh the science flourishes, and I have

no fear [...] of triumphing over this prejudice in the course of ten or fifteen years'.<sup>87</sup> Looking forward, he and his associates stayed alert for opportunities to disseminate their ideas. Innovations in printing were of a particular interest, since many of Combe's supporters were major figures involved in the book trade: the bookseller John Anderson, the printer Patrick Neill, and the founders of *The Scotsman*, Charles Maclaren and William Ritchie were all involved in Combe's popularisation campaign.

Such an opportunity seemed to emerge in early 1832, when William Fraser, the general manager of Patrick Neill's printing firm (Neill & Co.), wrote to Combe:

Perhaps you will recollect of some Suggestions [*sic*] of mine published some time ago, with the view of improving our printing presses [...] [A] journeyman millwright in Haddington has produced a machine which promises for efficiency and cheapness to equal if not excel, any hitherto in use.<sup>88</sup>

The prototype of the press, Fraser added, was left at Neill & Co.'s printing office and was to be exhibited the next day to the Society of Arts in Scotland.<sup>89</sup> According to a notice in *The Scotsman*, James Catcleugh (the inventor) had spent all his funding on building the working model and needed about a hundred pounds in order to reproduce it.<sup>90</sup> Combe's response to Fraser seems to have been lost, but the outcome is clear: be it due to lack of interest or resources, the Haddington printing machine sank into obscurity. Fraser's letter, however, suggests that Combe was interested in technological innovations in printing, seeking ways for more efficient communication.

Another opportunity presented itself soon after: external funding allowed Combe to sell *The Constitution of Man* to the large number of attendees of his renewed courses of lectures. In April 1832 Combe was invited to deliver six lectures at the Extra-Mural School in Edinburgh in front of medical students and curious listeners.<sup>91</sup> From May to July, Combe led a course of evening lectures for a wider audience, attracting more than 200 attendees.<sup>92</sup> It was during that lecturing session that William Ramsay Henderson passed away, leaving phrenologists £5000 for the diffusion of phrenology through the publication of Combe's *Constitution* 'in a cheap form, so as to be easily purchased by the more intelligent individuals of the poorer classes, and Mechanics Institutions, &c.'<sup>93</sup> The funding was applied accordingly. Its immediate use was to cut the price of the remaining copies of the first edition of Combe's book, which had not sold out in four years since its first publication in 1828. From 6s the price of 200 copies was brought down to 1s 6d and these were sold to the attendees of the lectures.<sup>94</sup> Three years would pass before the new edition that Henderson wished was brought into the world.

While that project was gestating, however, Combe was not idle. In 1832 William and Robert Chambers's publishing enterprise was gaining momentum. The *Chambers's Edinburgh Journal* was an immediate success, reaching a circulation of 31,000 copies in its first two months.<sup>95</sup> Aiming to educate the working classes, it offered a balanced combination of amusement and instruction for just 1½d.<sup>96</sup> Seeking to meet the demand of the growing reading public, the Chambers brothers were greatly interested in technological innovations. Within the first two years of publication of the *Journal*, they had established a modern factory, equipped with everything needed for the mass-production of print. By the end of 1833 they had acquired a steam-powered press, skilled personnel and the tools for composition and stereotyping. These improvements considerably reduced the production time of the *Journal*, leaving room for other projects.<sup>97</sup>

Chambers's admirable performance on the print market did not go unnoticed by Combe. He was well-aware of Chambers's potential and actively sought to tap it for his own cause. As early as 12 January 1833 Combe sent what appears to be his first letter to Robert Chambers. There he expressed suspicion that his 'essay on The Constitution of Man [...] may not have been unknown to the author of The Moral Class-book [William Sullivan], printed at Boston in 1831' and reviewed in *Chambers's Journal* of that date. Feeling that his own work had been plagiarised, he asked Chambers to read his book and even sent him a copy. The letter finishes on a note of confidence in Chambers's integrity: 'if [*The Constitution of Man*] shall appear to form the groundwork in any degree of the American publication, I doubt not that you will "render unto Caesar the things that are Caesar's"'.<sup>98</sup> Chambers's response arrived later the same day. He thanked Combe for the gift but objected to the accusation.<sup>99</sup> Combe eventually had to admit that 'the same general principles may be found in many works anterior to both [his and Sullivan's]'.<sup>100</sup>

The motivation behind Combe's letter, however, was self-promotion rather than real concern with being robbed of credit for his ideas. The readiness with which he accepted defeat poses the question whether the thought of unintentional similarity had not occurred to him earlier, given that ideas close to his were circulating freely at the time.<sup>101</sup> The doubt that the correspondence was initiated for the purpose of self-promotion is confirmed by Combe's open advertisement of the *Constitution* to Chambers: 'I hope that some future day, it may be discovered that the mode of treating the subject adopted in the "Constitution of Man", is precise, sound, & practical'.<sup>102</sup> A gap in the surviving correspondence prevents us from learning what Chambers had to say about the precision, soundness and practicality of Combe's work.

What is known is that in September 1833 Combe was interested in Chambers's fortnightly *Information for the People*, a new serial publication launched during that year and remarkable in its offering of 'cheap instruction' for those 'who could not afford scholarly compendia such as the *Encyclopaedia Britannica*'.<sup>103</sup> At just 1½d, *Information for the People* was vastly successful: in

the first months of 1834 its circulation was estimated to be at least 16,000 copies per issue.<sup>104</sup> That Combe wished to see phrenology featured in the publication is evident from a letter from Robert Watson, a friend of the Chambers brothers, to William Fraser, where he wrote that: 'After the many conversations I have had on the subject of Phrenology with my friends of 19 Waterloo Place, [...] I must scarcely say that I do feel the Result, expressed in the enclosed letter of Mr Rob. Chambers, is a very unexpected and grievous disappointment. May I request that you will signify accordingly to Mr Combe'.<sup>105</sup> In the letter in question, Robert Chambers stated that he and his brother would not 'admit a phrenological article into the *Information*' because phrenology was 'still so much controverted' that, even if it turned out to be true, expressing support for it so openly would be more injurious than beneficial to the 'cause of scientific knowledge'.<sup>106</sup> Chambers clearly avoided association with phrenology from fear of it damaging not only his and his brother's reputation and business, but their mission as educators. This exchange, however, serves as evidence that Combe used his connections to coax Chambers into disseminating phrenology more widely. That this attempt, as well as the quest for a more efficient printing press and the aims of the Henderson Bequest, were manifestations of a larger phrenological campaign for popularity through cheap print, is confirmed by Watson's reference in his letter to what he calls 'the Plan of Cheap Literature'.<sup>107</sup>

By the end of 1833, however, Chambers yielded: the correspondence between him and Combe from mid-December shows that by that time the publishers were already preparing to promote Combe's writings. Attracted by the popularity of Combe's lectures on popular education, Chambers offered to reprint them in his *Journal*.<sup>108</sup> They were serialised in five parts between 15 February and 3 May 1834. Moreover, Chambers published one of the first reviews of *The Constitution of Man* (an article entitled 'Is ignorance bliss?'), which appeared as the opening piece for 1834.<sup>109</sup> At that point, the publisher obviously saw potential in Combe's works and was willing to promote their dissemination and legitimisation in print through his *Journal*.

Apart from business interests, this change of heart was also motivated by Robert Chambers's conversion to phrenology, as a result of a personal tragedy experienced in the course of 1833 and entirely omitted by scholars. In the same letter in which Chambers proposed to publish the lectures, he wrote: 'The circumstance of my own brother dying from a neglect or ignorance of the organic laws, so much resembling your brother's case, will surprise you: I assure you it enforced your doctrine upon my mind in a very remarkable [degree?].'<sup>110</sup> James Chambers, Robert and William's younger brother, passed away in February 1833.<sup>111</sup> Years earlier, Combe's brother Abram had died of exhaustion, while trying to create an Owenist utopia.<sup>112</sup> Combe and Chambers had already been united by their common background as self-made men. Sons of a brewer and a weaver respectively, they had ventured into the world on their own without the aid of social connections or financial support. The shared experience of losing a brother consolidated their relationship. Both found

explanations for their personal tragedies and consolation in phrenology and they joined forces behind a common cause: to spread the word and enlighten the masses.

It was with the aid of Chambers and his other publisher friends that Combe saw *The Constitution of Man* read by an unprecedented number of people. In the 1830s the publishing market was complicated by a feedback loop between the growth and diversification of readerships and publishers' willingness to experiment with technological innovations and formats.<sup>113</sup> Combe and his publishers tried to navigate the changing market to the best of their abilities, but the somewhat confusing publication history of the *Constitution* shows that their strategies were highly experimental, and occasionally unreasonable. For instance, the publication of the 2000 copies of the Henderson Edition that was ready to be published in March 1835 coincided with the release of 1000 copies of a second, enlarged edition, which featured the same type as the cheap one, but was printed on finer paper and was consequently more expensive: it sold at 6s, in comparison with 2s 6d for the Henderson Edition. Combe had wanted to keep the Henderson Edition out of the market in order to allow the 'fine edition', as he called it, to sell. To his regret that turned out to be impossible: 'Unexpectedly, however, after both impressions were considerably advanced, Mr Henderson's legacy was paid to his Trustees, and publication of the Henderson edition could not be longer delayed'.<sup>114</sup> By May 8, the Henderson Edition had practically sold out, while only fifty copies of the fine edition had been bought. Even more perplexing was that in April Combe, encouraged by John Anderson and William Fraser, though doubting the success of the project, authorised the release of a stereotyped edition, while still having 1000 fine copies to sell.<sup>115</sup> Its retail price was still relatively high, as its production required the same amount of paper.<sup>116</sup>

In the summer of 1835 Combe began working on a solution to this problem of the expense of paper. By June, he and Chambers were already preparing a new edition, employing a highly experimental format, modelled on the double-column format of *Tait's Magazine*.<sup>117</sup> By then the Chambers factory had acquired all the necessary equipment for efficient mass printing. All they needed to do in order to cut the price maximally was fit as much text on each page as it was physically possible. For the purpose, Combe made careful calculations:

According to my counting – a page of the constitution of man [*sic*] contains 320 words in the Henderson Edition, [and] there are 464 pages. – A page of Tait's Magazine large type contains 1024 words – or 512 words in each column. This would require 9 sheets. A page of Tait's [*sic*] quotation type contains 1620 words or 810 in each column. Five sheets of this type would hold the work.

Employing the double-column format and the smaller type mentioned above, the *Constitution* shrank from 382 pages duodecimo to 110 octavo.<sup>118</sup> As a result, the People's Edition managed to condense about twice as much text as the first edition into fewer pages.<sup>119</sup> To reduce the price further, stereotyping was employed once again.<sup>120</sup> Thanks to Chambers's assistance, Combe managed to save 35% on typography and 10% on paper.<sup>121</sup> All these adjustments resulted in an extraordinarily low price for the book – just 1s 6d. The new edition was published on 19 October.<sup>122</sup> Whatever doubts troubled everyone involved in the production of the edition, they soon dissipated: its sales were record-breaking. A second impression followed in a month and then another in January; by 2 May 1836 the total number of copies sold was 14,665.<sup>123</sup> Over the next four years the sales exceeded 50,000 and by the end of the century, Combe's *Constitution of Man* would become one of the nineteenth century's most popular books.<sup>124</sup>

The publication of the cheap editions of *The Constitution of Man* was the peak of Combe's mission to popularise phrenology. Resistance to the science remained strong, however, and even its converts (including Robert Chambers) hesitated to publicly admit their support, or renounced its doctrines.<sup>125</sup> These developments, however, should not undermine the publishing success of the *Constitution*. Whereas the particulars of the 'Plan of Cheap Literature' have not been discovered in writing, its mere mention reveals that Combe and his associates recognised the power of print and sought ways to employ it for the benefit of their science. This sentiment is crystallised on the pages of the *Constitution*, where Combe reflects:

The human race may be regarded as only in the beginning of its existence. The art of printing is an invention comparatively but of yesterday, and no imagination can yet conceive the effects which it is destined to produce. Phrenology was wanting to give it full efficacy [...]. Now that the desideratum is supplied, may we not hope that the march of improvement will proceed in a rapidly accelerating ratio?<sup>126</sup>

Clearly aware of the ways in which print empowered his message, the Edinburgh lawyer found himself at the forefront of printing innovation and achieved a remarkable success. After years of trial and error, he reached an unprecedented number of people, creating one of the major bestsellers of the nineteenth century, on one of the most controversial topics of his time.

## CONCLUSION

Phrenology was condemned to failure by its critics from the beginning of its history, yet it managed to survive remarkably long, thanks to phrenologists' ability to adapt to the rapidly changing sociocultural conditions in the first half of the nineteenth century. That period was defined by a renegotiation of the boundaries of science and, more importantly to this article, a palpable media shift, when print became a more powerful form of communication. Literacy rates in Britain were going up, readerships were multiplying, and the periodical press exercised increasing control over social life. While speech was a defining and ever-present aspect of phrenology that played an important role in its history, phrenologists were eventually forced to enter the battlefield of print in order to give their message authority that would last beyond their ephemeral, mutable words. Phrenologists' struggle to popularise their science by constant remediation is illustrative of the complex interaction between speech and print (and different media in general) and the multifaceted, often paradoxical cultural representations that engulf them.

Though not all of their experimentations with print were successful, phrenologists succeeded in ensuring the survival of their science beyond most expectations, through continuous remediation of their ideas. Mobilising their oratory skills, resources and connections, they experimented with new formats and technological innovations to promote the dissemination and establishment of phrenology as an authoritative field of knowledge. That struggle was not crowned with a decisive victory – to this day phrenology is generally remembered as a discredited pseudoscience. It nevertheless managed to survive remarkably long and have far-reaching impact, showing how the medium can reinforce the message, making it resistant to criticism and increasing its chances of overcoming the guarded borders of cultural authority.

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- <sup>2</sup> Cooter, pp. 74–88; Thomas Gieryn, *Cultural Boundaries of*

*Science: Credibility on the Line* (Chicago, IL: University of Chicago Press, 1999), p. 153.

<sup>3</sup> Parssinen, p. 9.

<sup>4</sup> John van Wyhe, 'The Diffusion of Phrenology Through Public Lecturing', in *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, ed. by Aileen Fyfe and Bernard Lightman (Chicago, IL: University of Chicago Press, 2007), pp. 60–96 (pp. 82–84).

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<sup>6</sup> Jonathan R. Topham, 'Scientific Publishing and the Reading of Science in Nineteenth-Century Britain: A Historiographical Survey and Guide to Sources', *Studies in History and Philosophy of Science*, 31 (2000), 559–612 (p. 561). On the construction of scientific authority, see Andrew Cunningham, 'Getting the game right: Some plain words on the identity and invention of science', *Studies in History and Philosophy of Science* 19 (1988), 365–389; Bernard Lightman, *Victorian Popularizers of Science: Designing Nature for New Audiences* (Chicago, IL: University of Chicago Press, 2007). On phrenology's relation to the concept of science, see Cooter; Gieryn; van Wyhe, *Phrenology*.

<sup>7</sup> Topham, pp. 576, 586; Cooter, pp. 74–81.

<sup>8</sup> Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge, MA: MIT Press, 1994), p. 7.

<sup>9</sup> Paula McDowell, 'Towards a Genealogy of "Print Culture" and "Oral Tradition"', in *This Is Enlightenment*, ed. by Clifford Siskin and William Warner (Chicago, IL: University of Chicago Press, 2010), pp. 229–46 (p. 246).

<sup>10</sup> *Ibid.*, p. 241.

<sup>11</sup> Penny Fielding, *Writing and Orality: Nationality, Culture, and Nineteenth-Century Scottish Fiction* (Oxford: Clarendon Press, 1996), p. 4.

<sup>12</sup> Walter Ong, *The Presence of the Word: Some Prolegomena for Cultural and Religious History* (New Haven: Yale University Press, 1967), p. 69; McDowell, p. 246; Fielding, p. 5; Anne-Julia Zwierlein, 'The Spectacle of Speech: Victorian Popular Lectures and Mass Print Culture', in *The Making of English Popular Culture*, ed. by John Storey (London: Routledge, 2016), pp. 165–183 (p.166).

<sup>13</sup> Lev Vygotsky, *Thought and Language*, ed. by Alex Kozulin (Cambridge, MA: MIT Press, 1982), p. 240. See also Walter Ong, *Orality and Literacy: The Technologizing of the Word* (London: Routledge, 2002), pp. 67, 69, 73; Khosrow Jahandarie, *Spoken and Written Discourse: A Multi-Disciplinary Perspective* (Stamford, CT: Ablex Publishing Corporation, 1999), pp. 134–39, 149.

<sup>14</sup> Similar developments in communication were underway in America and the colonies, and the history of phrenology crosses national borders. Both Spurzheim and Combe toured and lectured in America: Spurzheim in 1832 and Combe between 1838 and 1840. Phrenological societies were established outside Britain, forming international networks of corresponding members (see Poskett).

- <sup>15</sup> van Wyhe, 'The Diffusion of Phrenology', p. 62.
- <sup>16</sup> Johann Spurzheim, quoted in van Wyhe, 'The Diffusion of Phrenology', p. 65.
- <sup>17</sup> Charles Follen, *Funeral Oration: Delivered before the Citizens of Boston Assembled at the Old South Church, Nov. XVII, at the Burial of Gaspar Spurzheim, M.D.* (Boston: March, Capen & Lyon, 1832), p. 10.
- <sup>18</sup> James Secord, *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation* (Chicago, IL: University of Chicago Press, 2000), p. 151.
- <sup>19</sup> van Wyhe, 'The Diffusion of Phrenology', p. 65. Further references to this essay are given in the text.
- <sup>20</sup> *Ibid.*, pp. 67–68.
- <sup>21</sup> *Ibid.*, p. 82.
- <sup>22</sup> See Martin Hewitt, 'Beyond Scientific Spectacle: Image and Word in Nineteenth-Century Public Lecturing', in *Popular Exhibitions, Science and Showmanship, 1840–1910*, ed. by Joe Kember, John Plunkett and Jill A. Sullivan (London: Pickering & Chatto, 2012); Joseph S. Meisel, *Public Speech and the Culture of Public Life in the Age of Gladstone* (New York: Columbia University Press, 2001); Anne-Julia Zwierlein, 'The Spectacle of Speech'.
- <sup>23</sup> McDowell, p. 241.
- <sup>24</sup> Quoted in McDowell, p. 241.
- <sup>25</sup> McDowell, p. 242.
- <sup>26</sup> Marian Niles Walker, 'Phrenology and language', *Verbatim*, 30.4 (2005), 9–12 (p. 10). See also Richard Cull, 'Contributions towards a more exact and positive knowledge of the Organ named Language, and its Function', *Phrenological Journal*, 17 (1844), 145–153.
- <sup>27</sup> George Combe, *A System of Phrenology*, 5th edn, 2 vols (Edinburgh: Maclachlan and Stewart, 1853), II, p. 132, n. 2 and p. 146. See also Cull, p. 148. It is worth noting that Cull, while referring to the fifth edition of Combe's *System*, contradicts it, stating that Gall's organ was of 'only a moderate size'. This shows the inconsistencies and variance of judgement that marred phrenology's claims to empiricism.
- <sup>28</sup> R. R. Noel, 'Reliques and Anecdotes of Dr Gall', *Phrenological Journal*, 17 (1844), 153–57 (p. 154).
- <sup>29</sup> Richard Poole, 'A View of Dr Spurzheim's Lectures, as delivered at Edinburgh, in the Winter of 1816', *Transactions of the Phrenological Society*, 1 (1824), 89–130 (p. 91).
- <sup>30</sup> George Combe, *The Life and Correspondence of Andrew Combe* (Edinburgh: Maclachlan and Stewart, 1850), p. 93.
- <sup>31</sup> Edinburgh, National Library of Scotland (NLS), MS 7434, p. 15.
- <sup>32</sup> Charles Gibbon, *The Life of George Combe, Author of 'The Constitution of Man'*, 2 vols (London: Macmillan and Co, 1878), I, pp. 81, 166.
- <sup>33</sup> Ong, *Orality and Literacy*, p. 72.
- <sup>34</sup> *Ibid.*, p. 31.
- <sup>35</sup> Fielding, *Writing and Orality*, p. 4.
- <sup>36</sup> Martin Hewitt, 'Beyond Scientific Spectacle: Image and Word in Nineteenth-Century Public Lecturing', in *Popular Exhibitions, Science and Showmanship, 1840–1910*, ed. by Joe Kember, John Plunkett and Jill A. Sullivan (London: Pickering & Chatto, 2012), pp. 79–95 (p. 88).

- <sup>37</sup> Phrenological Lectures (List of Skulls [etc] for), Edinburgh, Edinburgh University Special Collections, Records of the Phrenological Society, Gen 608, Box 2 (vii).
- <sup>38</sup> Zwierlein, p. 171.
- <sup>39</sup> Poole, p. 92.
- <sup>40</sup> Geoffrey Cantor, 'The Edinburgh Phrenology Debate: 1803–1828', *Annals of Science*, 32 (1975), 195–218 (p. 217).
- <sup>41</sup> van Wyhe, 'The Diffusion of Phrenology', p. 63. On contemporary popular lecture courses on other topics, see Jo N. Hays, 'The London Lecturing Empire, 1800–50', in *Metropolis and Province: Science in British Culture, 1780–1850*, ed. by Ian Inkster and Jack Morrell (Philadelphia: University of Pennsylvania Press, 1983), pp. 91–119; Hsiang-Fu Huang, 'Commercial and Sublime: Popular Astronomy Lectures in Nineteenth Century Britain' (unpublished doctoral thesis, University College London, 2015).
- <sup>42</sup> Gibbon, I, p. 149.
- <sup>43</sup> Lecture tickets cost 10s 6d per course in the 1830s. See Gibbon, I, pp. 312–13; NLS, MSS 7386, fol. 157.
- <sup>44</sup> van Wyhe, 'The Diffusion of Phrenology', p. 69–70.
- <sup>45</sup> Quoted in van Wyhe, 'The Diffusion of Phrenology', p. 70.
- <sup>46</sup> 'At Edinburgh 14 July 1829', Minutes of a Meeting of the Proprietors of the *Phrenological Journal*, NLS, MSS 7436, fol. 78.
- <sup>47</sup> Cooter, pp. 29–32, 83.
- <sup>48</sup> Gieryn, p. 124.
- <sup>49</sup> John Strachan, "'The mapp'd out skulls of Scotia': Blackwood's and the Scottish Phrenological Controversy', in *Print Culture and the Blackwood Tradition, 1805–1930*, ed. by David Finkelstein (Toronto: University of Toronto Press, 2006), pp. 49–69 (p. 49).
- <sup>50</sup> Kaufman, p. 11.
- <sup>51</sup> Gibbon, I, 94.
- <sup>52</sup> Van Wyhe, 'The Diffusion of Phrenology', p. 70.
- <sup>53</sup> Quoted in Gibbon, I, 94–95.
- <sup>54</sup> 'The Diffusion of Phrenology', p. 70
- <sup>55</sup> Julie Jefferies, 'The UK Population: Past, Present and Future', in *Focus on People and Migration*, ed. by Chappell Roma (London: Palgrave Macmillan, 2005), pp. 1–18 (pp. 3–4).
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- <sup>58</sup> Combe, quoted in Gibbon, I, p. 152; Gibbon, I, p. 289.
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- <sup>63</sup> Shattock, p. 15.
- <sup>64</sup> Demoor, p. 91.
- <sup>65</sup> John Wilson Croker, quoted in Shattock, p. 15.
- <sup>66</sup> Combe, ‘Letter to the Conductors of the Periodical Press, on the Utility of Phrenology as a System of Moral Improvement’, *Phrenological Journal*, 7 (1832), 193–197 (p. 192).
- <sup>67</sup> Cooter, pp. 22–23.
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- <sup>69</sup> ‘The Craniad, or Spurzheim Illustrated; a Poem, in 2 parts [Review]’, *Blackwood’s Edinburgh Magazine*, 1 (1817), p. 288.
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- <sup>73</sup> Spurzheim, p. 3.
- <sup>74</sup> Strachan, p. 52; de Giustino, p. 80.
- <sup>75</sup> ‘Introductory Statement’, p. xiv.
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- <sup>77</sup> Aileen Fyfe, *Steam-Powered Knowledge: William Chambers and the Business of Publishing, 1820–1860* (Chicago, IL: University of Chicago Press, 2012), p. 73; van Wyhe, *Phrenology*, p. 218.
- <sup>78</sup> Gibbon, I, pp. 161, 240.
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- <sup>80</sup> Van Wyhe, *Phrenology*, pp. 217–28.
- <sup>81</sup> NLS, MSS 7385, fol. 443.
- <sup>82</sup> NLS, MSS 7230, fol. 49; ‘Education’, *Chambers’s Edinburgh Journal*, 15 February 1834, pp. 18–20.
- <sup>83</sup> Secord, *Victorian Sensation*, p. 73.
- <sup>84</sup> Gibbon, I, p. 236.
- <sup>85</sup> Gibbon, I, p. 236; Kaufman, p. 96.
- <sup>86</sup> Kaufman, pp. 65–66.
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- <sup>88</sup> NLS, MSS 7228, fols. 92–93.
- <sup>89</sup> *Ibid.*
- <sup>90</sup> ‘Printing Machine’, *The Scotsman*, 21 March 1832, p. 2.
- <sup>91</sup> Kaufman, p. 97.
- <sup>92</sup> Gibbon, I, p. 255.
- <sup>93</sup> Combe, ‘Henderson Bequest’, *The Constitution of Man Considered in Relation to External Objects*, 4th edn (Edinburgh: William and Robert Chambers, 1835), pp. v–vi.
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- <sup>95</sup> ‘Chambers’s Edinburgh Journal’, *Chambers’s Edinburgh Journal*, 28 April 1832, p. 104.
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- <sup>97</sup> Fyfe, pp. 58–60.
- <sup>98</sup> NLS, MSS 7385, fol. 443.
- <sup>99</sup> NLS, MSS 7230, fol. 45.
- <sup>100</sup> NLS, MSS 7385, fol. 452.
- <sup>101</sup> Kaufman, p. 10.
- <sup>102</sup> NLS, MSS 7385, fol. 452.
- <sup>103</sup> Fyfe, p. 69.
- <sup>104</sup> *Ibid.*, pp. 62, 70.
- <sup>105</sup> NLS, MSS 7231, fol. 172.
- <sup>106</sup> NLS, MSS 7230, fol. 47. In 1835, however, the *Information* contained a section on ‘phrenological philosophy’ under the issue theme of moral philosophy. The 1849 edition featured a whole lengthy article on the science, with illustrations. See *Chambers’s Information for the People*, 45 (1835), pp. 357–60 and ‘Phrenology’, *Chambers’s Information for the People*, ed. By William and Robert Chambers, 2 vols (Edinburgh: W. & R. Chambers, 1849), II, pp. 337–52.
- <sup>107</sup> NLS, MSS 7231, fol. 172.
- <sup>108</sup> NLS, MSS 7230, fol. 49.
- <sup>109</sup> John van Wyhe, preface to *Combe’s Constitution of Man, and Nineteenth-century Responses*, ed. by John van Wyhe, 3 vols (Bristol: Thoemmes Continuum, 2004), I, pp. v–xix (p. xiii).
- <sup>110</sup> NLS, MSS 7230, fol. 49.
- <sup>111</sup> William Chambers, *Memoir of Robert Chambers with Autobiographic Reminiscences of William Chambers* (Edinburgh: W. & R. Chambers, 1872), p. 240.
- <sup>112</sup> NLS, MS 7434, p. 12.
- <sup>113</sup> Fyfe, pp. 68–69; Altick, p. 277.
- <sup>114</sup> NLS, MSS 7386, fols. 262–63.
- <sup>115</sup> NLS, MSS 7386, fol. 279.
- <sup>116</sup> Fyfe, p. 70.
- <sup>117</sup> NLS, MSS 7386, fol. 326. Van Wyhe has also suggested that the new edition could have been influenced by the Alexandrian edition, also featuring a double-column layout, published by Pearson in New York in May that year, and sold for \$1.50 (or 1s). See van Wyhe, *Phrenology*, pp. 134, 218. The gap in the preserved correspondence between April 1834 and June 1835 does not allow ascertaining what Combe and Chambers thought of the Alexandrian edition.
- <sup>118</sup> Gibbon, I, pp. 262–63.
- <sup>119</sup> Secord, *Visions of Science*, p. 196.
- <sup>120</sup> Kaufman, p. 181.
- <sup>121</sup> NLS, MSS 7234, fols. 138–39.
- <sup>122</sup> ‘From Messrs William and Robert Chambers, Booksellers, Edinburgh’, *Testimonials on behalf of George Combe, as a candidate for the Chair of Logic in the University of Edinburgh* (Edinburgh: John Anderson, 1836), pp. 70–71 (p. 71).
- <sup>123</sup> *Ibid.*, p. 71.
- <sup>124</sup> Van Wyhe, *Phrenology*, pp. 219–21.
- <sup>125</sup> Secord, *Visions of Science*, pp. 192, 199–200; Cooter, p. 96.
- <sup>126</sup> *The Constitution of Man Considered in Relation to External Objects* (Edinburgh: John Anderson Jun., 1828), pp. 91–92.