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Fashioning Writing Machines: typewriting and handwriting exhibits at US World's Fairs 1893-1915

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SUMMARY Commercial products geared towards educators were a prominent feature of educational exhibits at international expositions in the late nineteenth and early twentieth centuries. This chapter examines typewriting and handwriting exhibits at World's Fairs held in the United States between 1893 and 1915. It focuses on the objects used to promote particular systems of typewriting instruction; typewriters as objects in themselves; as well as the material culture associated with various forms of handwriting instruction. At some fairs these products were promoted in demonstration classrooms, thus adding living exhibits to the pamphlets, wall displays and vitrines produced by the companies involved. This segment of educational products nicely illustrates the ways that commercial interests and state actors worked in tandem to engineer the progressive futures that were imagined and implanted at World's Fairs. The authors are particularly interested in the ways that these educational objects and practices produced and normalized certain kinds of behaviors and dispositions among individuals. The chapter discusses ways that, around the turn of the twentieth century, handwriting and typewriting were not worlds apart. In each there was the notion of producing a 'writing machine' where the human and non-human were fused and writing would become automatic. The examination of typewriting and handwriting exhibits at World's Fairs reveals the significance of schooling in engendering the human automatization of certain tasks and generating the forms of subjectivity that this requires.

As happens with many of modernity's objects, when the typewriter emerged as a commercial product in the late 1870s it was immediately enveloped in momentous pronouncements about its epochal, world-changing importance. Hagiographic treatment of its progenitors quickly ensued and cultural reflections on the machine's significance conjured up a triumphant march of

human progress that drew the past, present and future into relation with ever increasing certainty. It is, thus, entirely unsurprising to find a 1909 history of the typewriter proposing in its title that this device was 'successor to the pen'. [1] Yet, evidence suggests that in the last two decades of the nineteenth century and the first two decades of the twentieth, the typewriter and the pen in fact shared a relatively peaceful co-existence. Nonetheless, we agree with the argument advanced by the German literary scholar and media theorist Friedrich Kittler that the typewriter brought a materiality and mechanization to writing that profoundly reworked the signifying and inscription practices of language. [2] In the period under study here, to some extent handwriting did serve as foil to typewriting, yet handwriting itself also underwent significant transformations. In this chapter we look at handwriting and typewriting exhibits at American World's Fairs over the period 1893-1915 with the objective of illuminating how progressive futures and the modern human beings who were to inhabit them were modeled with and through the devices of writing.

Common across both handwriting and typewriting exhibits was an emphasis on producing writing that was habitual and efficient. At the same time, handwriting and typewriting were also to produce certain kinds of people. At the turn of the twentieth century ambiguity prevailed and the 'typewriter' could refer to the machine or its (increasingly female) operator. We also find handwriting manuals discussing the human body as a machine and the leading American penmanship instructor referring, in 1915, to the child holding the pen as 'that writing-machine'. [3] This chapter examines these congruencies as well as some of the discrepancies in what handwriting and typewriting were intended to accomplish (1) as inscription mechanisms for storing language and (2) as a means through which to nurture certain human habits, attitudes and subjectivities.

Though we make extensive use of documents (both related and not related to the World's Fairs), we make the exhibits themselves one of our primary objects of analysis. Commercial products geared towards educators were a prominent feature of educational exhibits at international expositions in the late nineteenth and early twentieth century. The segment of educational products under examination here nicely illustrates the ways that commercial interests and state actors worked in tandem to engineer the progressive futures that were imagined and implanted at World's Fairs. Penmanship entrepreneur A.N. Palmer, who will be discussed at length below, stands as a quintessential example of the way these networks overlapped: his company produced and branded textbooks, classroom posters, pens, ink, even paper. He also contracted with school districts to provide workshops for teachers, frequented school board meetings, chaired committees of the National Education Association, and was honored with exposition awards for his educational services. As is evidenced by the voluminous scholarship that has been produced particularly in the last two decades, international expositions provide the historian with immense

cultural archives. [4] With attendance at some fairs easily rising into the millions, it is clear that these were also extraordinarily significant cultural events themselves, something the other chapters in this volume demonstrate. Historians have proposed that expositions played a significant role not only in disseminating new industrial and consumer objects, but also in organizing various norms and social schemas relating, for example, to manners, the body, and spectatorship. [5] As many have noted, these events were also very important in establishing (and renegotiating) the representational and cultural positioning of exotic 'others'. [6] Here we look exclusively at a set of World's Fairs that took place in the USA: the 1893 World's Columbian Exposition in Chicago, the 1904 Louisiana Purchase Exposition in St Louis, and the 1915 Panama-Pacific International Exposition in San Francisco as well as several smaller fairs, such as the 1901 Pan-American Exposition in Buffalo. Some companies and some individuals exhibited at many, if not all, of these expositions, which is one of the factors that leads us to approach the handwriting and typewriting exhibits as a coherent domain of social practice, a continuous or contiguous 'conversation'. In this chapter we treat this as an 'internal' conversation specific to these particular American fairs, though we acknowledge that there are international/global dimensions to this that warrant additional exploration. [7]

In the late-nineteenth-century United States, handwriting and typewriting were, on the one hand, specialized subjects that were to appear in privately organized 'commercial schools' and in the curriculum of business-education tracks of public high schools more broadly. Yet, on the other hand, there were also more general ways that handwriting and typewriting were considered significant in relation to primary education. In the case of handwriting it almost goes without saying that - 'business penmanship' regardless - teaching children to write has been one of the principal projects of schooling across centuries. [8] And, while it is only much later in the twentieth century that one can legitimately begin to speak of typewriting instruction (or 'keyboarding') as a widespread issue and concern in American primary schools, as early as the 1890s we do find some educators (and typewriter manufacturers!) discussing the general educational uses of typewriters. [9] As will be discussed below, these were proposals that the machines had non-commercial applications in enhancing English composition and inculcating desirable habits.

To the greatest extent possible, this chapter brings a material culture perspective to the analysis of World's Fair exhibits. We discuss the design of the exhibition spaces; typewriters as objects in themselves; as well as the material culture associated with various forms of handwriting instruction. At some fairs these products were promoted in demonstration classrooms, thus adding living exhibits to the pamphlets, wall displays and vitrines produced by the companies involved. This evidence suggests that in America around the turn of the twentieth century handwriting and typewriting were not worlds apart. In each area we find an interest in producing a 'writing

machine' where the human and non-human were fused. In our conclusion to this chapter we argue that typewriting and handwriting exhibits at World's Fairs shed light on the significance of schooling in engendering the human automatization of certain tasks and generating the forms of subjectivity that this requires.

Handwriting in America – commerce, speed and self

In the United States, prior to the nineteenth-century Common School movement, handwriting was considered a skill for business, not a general school subject. Individuals wanting to learn how to write typically sought out training from specialized writing masters.[10] As the commercial economy expanded, transportation grew more rapid, and American society was changed by the increasing importance of business [11], handwriting became an increasingly sought-after skill. This heightened level of interest led to its inclusion in the curriculum of newly developing Common Schools. Seeing an obvious business opportunity, many writing masters began to publish textbooks of their methods and adapt their lessons for use in schools. Each writing master had different methods and products but there was general consistency in how they proceeded to adapt their lessons to the public school. William Eaton has explained this as the 'recognition of the national interest in trade, commerce, and manufacturing and the need to adopt a style of writing that fit such activities'.[12] What came to be thought of as important indicators of good handwriting were the elements espoused by the growing industries in nineteenth-century America: speed and efficiency. Among the most successful of the writing masters turned book publishers was Benjamin Franklin Foster, who published Foster's *System of Penmanship or the Art of Rapid Writing Illustrated and Explained* in 1833, a system which was liberally borrowed from the English round-hand techniques popularized in England by Joseph Carstairs, another penmanship entrepreneur.[13] Foster's prominence was soon eclipsed by that of Platt Rogers Spencer who, in 1848, published the very successful *Spencerian Key to Practical Penmanship*. [14] We can see evidence of the prevalence of these methods, particularly Spencer's; by the number of school systems that bought manuals and textbooks: Spencer's methods outlived him and according to cultural historian Tamara Thornton, within several decades of Spencer's death in 1864, school administrators in 42 states had adopted the *Spencerian Key*. [15] Through a present-day lens, the Spencerian style of penmanship can seem embellished and highly stylized with its artistic scrolling lines and shading. In its own time, the Spencerian system represented a fundamental reconceptualization of both the product of handwritten work and the process by which penmanship was taught.

In the early nineteenth century, penmanship pupils did not begin with whole letters, but rather with bits of letters – the ovals and inverse curves that were the 'building blocks' of writing. Handwriting was also taught apart from

its execution (whether chalk on slate, quill on paper, or with steel-nibbed pens which were popularized in the middle of the nineteenth century). In some instances call-and-response catechetical pedagogy was used where, in one example, the teacher was to ask, 'the length of q below the baseline is what part of g below the base line?' and the student was to reply 'it is 3/4's as long'. [16] Penmanship pedagogy thus extended beyond the mere production of script to also encompass a body of knowledge that could be tested in the abstract and in its execution.

While Platt Rogers Spencer himself advocated that practical and rapid penmanship could be taught at all levels of schooling, true mastery of the skill was generally only achieved after a student had left the common school and advanced to a private training or business school. Spencer's penmanship was not simply concerned with technical execution but also relied heavily on a system of knowledge about handwritten text. In his version, the building blocks of writing were properly grounded in natural forms. By studying nature, one could find the straight line in sunbeams, the curve in waves and clouds and the oval in the 'leaf, bud or wave-washed pebble'. [17] Nature study was, of course, widely seen to possess moral benefits [18], and one of Spencer's followers could find a receptive audience in 1874 for the claim that 'the study of penmanship refines our tastes, assists in cultivating our judgment, and thereby makes us better men'. [19] Spencerian script, which was ornamental and (in theory) produced moral and spiritual uplift, was also part of a 'practical' system in which uniformity was prized and considerable technical specificity was provided on proper body position and finger placement. In the marketplace of penmanship pedagogy, Spencer (and his descendants) achieved almost complete dominance from 1850 through the 1880s.

By the last decade of the nineteenth century, business education had become a regularized aspect of educational discussions. The National Education Association (NEA) added to its organization a Business Education department dedicated entirely to the purpose of discussing, debating and outlining appropriate courses of study for the subject. In 1895, the department appointed a Committee of Nine, a commission charged to investigate and report on nine points that were of utmost import to the field of business education. Each subcommittee was to appoint an expert within the respective subject who would be responsible for reporting back to the full department the following year. One point included within the Committee of Nine was 'Practical Writing' and the expert assigned to report on the subject was another energetic and entrepreneurial penmanship master, Austin Norman Palmer. [20]

A.N. Palmer, as he was commonly known, had become prominent in educational circles in the 1890s for a system of handwriting he styled 'The Palmer Method of Business Writing'. A less ornate form of writing than preceding styles, the Palmer method outlined a course through which the student could acquire a practical and rapid form of handwriting that ensured

'secure, absolute mechanical accuracy'. [21] It was precisely these elements that Palmer highlighted in his 1896 subcommittee report to the NEA's Business Education department. Palmer's report was titled 'Practical Writing - A Course for Colleges and Public Schools to Answer the Needs of the People' and included a definition of practical writing as 'a style devoid of all superfluous lines; made up of letters that can, to the greatest extent possible, be formed without lifting the pen, or checking the motion'. All of this was in a direct critique of the Spencerian method which required the lifting of the pen so as to shade in certain letters. In addition to explaining the forms of letters and shapes to be taught to students, Palmer identified three elements that he believed should be the mantra of writing instruction: speed, legibility and ease of execution. This holy trinity required training not just the student's mind but entire body. Palmer argued that the achievement of proper muscular movement was the only way to ensure that people's needs were met. No longer would writing start with the contemplation of natural forms; instead it would begin with push-pull exercises, often at a blackboard, where with sweeping motions of the arm children would be drilled to produce correct lines, angles and ovals. The purported benefits of trained muscular movement were not limited to the production of writing: they would also guarantee that the student would have the overall competence to meet the 'exigencies of a busy business or professional life'. [22]

Palmer was not alone in his belief that penmanship was an issue much greater than the production of letters and words. When addressing the NEA in 1900, F.L. Haerberle declared that 'the national characteristics of a people are, in a large measure, reflected in their handwriting'. Directly comparing the American habits to those of Europeans, Haerberle maintained that the American system of writing reflected qualities of energy and industry: 'we lead the world in writing, as we do in commerce, invention, and civilization'. [23] Rapid and efficient penmanship was one way to move toward a modern and prosperous future.

Handwriting Exhibits - product and process

Perhaps nowhere were the ideals of modernity more clearly illuminated than in the exhibit halls of the World's Fairs. These exhibits provided a mechanism to showcase the best of the world's industry, agriculture, culture, entertainment, and education. The official registry of exhibits in Primary, Secondary, and Superior Education at the World's Columbian Exposition of 1893 in Chicago reveals that well over half of the 250 exhibits featured displays of student's work, including penmanship samples. [24] The Catholic Education exhibit, for example, presented numerous displays of student handiwork, drawings and penmanship side by side with originals or reproductions of religious treasures and artifacts held by American churches. Photographs of these exhibits reveal display cases crowded from floor to

ceiling with items evidently meant to show visitors the quality and merit of work produced within the Catholic school system.

While displays of student work were common at the 1893 fair, different curatorial preferences can be seen a decade later at the 1904 exposition in St Louis. Minnie Bronson, superintendent of elementary and secondary education for the St Louis fair, argued that the directors of the Exposition sought to arrange 'side by side, with their exhibition of things, the exhibition of processes'. [25] A good example of this exhibition of processes could be seen in the exhibit by Brown's Business Colleges, a private company with branches across the Midwest. This exhibit, which will be talked about at greater length below, showcased a small-scale working school where pupils were instructed in daily lessons in shorthand, typewriting, business arithmetic, bookkeeping and penmanship. Accounts of this exhibit describe crowds of spectators and teachers gathering to watch the classes in progress and the Colleges were subsequently awarded several fair prizes for the exhibit. [26] This quest to exhibit not just the products of education, but the process of production was also well illustrated through the use of photographs. At the NEA's 1904 annual meeting held in St Louis at the fair, Carl Marshall, a former president of the Business Education division, delivered an address highlighting the location and nature of commercial school exhibits. He drew attention to the extensive use of photographs within the exhibits, contending that 'by this method the work of the classroom may be shown, and a very realistic idea of the actual equipment of the school may be obtained'. In addition to commending the Brown's Business College exhibit, Marshall gave special recognition to the exhibit of penmanship work presented by A.N. Palmer. Calling it 'the only [exhibit] of its class', Marshall praised Palmer's muscular movement writing and the rational method in which it was taught. [27]

The desire to create an exhibition of educational processes carried through to the 1915 Panama-Pacific International Exposition (PPIE). The organizers of the San Francisco fairs complained that, despite the objectives stated above, the 1904 exhibits in St Louis had too much consisted of stale, unrevealing displays of student work. [28] At San Francisco, A.N. Palmer again presented an exhibit of his muscular movement writing style in a Palmer Method School exhibit. The airy, open room, featured in Figure 1, was typical of PPIE (and many Fairs') exhibit halls. This image appeared as part of a Palmer Method advertisement in a guidebook issued to educators who attended the 1915 NEA annual meeting, which was held in Oakland, California during the fair.

That we see the children's writing arms solidly resting on the desk is appropriate to Palmer's method of muscular training. The pennants appearing in the image were typical of Palmer classrooms and commercial school products of the time. By 1915, Palmer had developed a small empire surrounding his system of handwriting, including a popular magazine [29], textbooks, mail order lessons, pens, posters, and lapel pins to be worn by

students as they advanced in penmanship proficiency.[30] This exhibit won Palmer a medal of honor from the PPIE awards committee for a method of business writing.[31] Though successful in 1915 on many levels, the Palmer Method would in fact become more or less a curiosity of history just a decade or so later.



Figure 1. Palmer Method classroom, Panama-Pacific International Exposition 1915. Source: California Teachers' Association. Complimentary Souvenir Book: Fifty-Third Annual Convention, National Education Association and International Congress of Education. San Francisco: Arthur Henry Chamberlain, 1915, p. 176

Typewriting in America: sex, machine, mind and hand

One of the first recorded instances of formal typewriter instruction was an 1881 typewriting course launched by the Central Branch of the New York YWCA.[32] Through this course eight young women were prepared for secretarial work, a profession that in 1870 had been less than 5% female. By 1900 women would compose more than 75% of stenographers and typists and more than 95% in 1930.[33] Christopher Sholes, hailed as one of the inventors of the machine, claimed that it contributed to female emancipation and is quoted on the frontispiece of a 1923 history of the typewriter as saying, 'I feel I have done something for the women who have always had to work so hard. This will enable them more easily to earn a living'.[34] The gendering of typewriter work can also be traced in typewriter exhibits at World's Fairs. We begin, however, with a brief discussion of the history of the apparatus itself.

Typewriter invention claims extend far back into the eighteenth century. By the early nineteenth century automatic typesetting machines

could go roughly as fast a person speaking but typewriters that created an immediate paper record had not yet matched (much less exceeded) the speed that could be achieved by handwriting. Some of the first devices (e.g. the award-winning machine Pierre Foucault displayed at the 1851 Crystal Palace exhibition in London) were intended to aid the blind. And until the development of 'visible' models starting with the 1895 Underwood, several lines had to be typed before the paper worked its way through the machine to reveal the printed text. It was in fact at the 1876 Centennial Exhibition in Philadelphia that Christopher Sholes's machine was unveiled as a commercial and consumer product (and, to its promoters' great disappointment, was upstaged by Alexander Graham Bell's telephone). There is no little irony that the Remington Company, which to that point had been a manufacturer of sewing machines and guns, applied its expertise to manufacture these first typewriters. The first electronic typewriter was displayed at the 1901 Buffalo Pan-American exposition, though electronic machines were not commercially produced until the late 1920s and did not come into widespread use until the 1950s.

In all likelihood, the students in the YWCA's 1881 typewriter instruction course typed with two fingers of each hand (a version of what is now sometimes known as the 'hunt and peck' method). Some sources claim that touch-typing, known originally as the 'all-finger method', was pioneered in 1882 by a Ms Longley in Cincinnati. By 1901 a Remington Company survey found that half the schools in the USA were teaching this method.[35]

Early in their commercial history typewriters were linked with the human body and human mental capacities in significant ways. In popular media around the turn of the century, the term 'typewriter' could refer to the machine itself or its operator, thus generating ample opportunities for bawdy humor, as in the comedian's line about writing a letter 'with his typewriter on his lap'.[36] Typewriters were also linked into the production of particular kinds of educated bodies, as we see in a Remington Typewriter pamphlet from the mid-1890s titled 'The Educational Use of the Typewriter'. This 11-page text addresses the use of the machine in educational settings, arguing that it benefits English composition, that 'the printed form appeals more directly and more forcibly to the mind than does ordinary handwriting', and that it 'cultivate[s] habits of accuracy'. Close attention and careful observation are desirable qualities that 'do not alone affect his work on the machine, but become a part of his general mental equipment'.[37] In like manner, an 1892 article in the *Journal of Education* praised the typewriter as 'tremendously exacting' and linked the device to civilization through a social Darwinism argument:

Uncivilized nations, barbarous ages are content with a rough way of doing things. With the advance of culture and the growth of competition whoever would survive and rise to the top in the struggle for success must avail himself of every possible advantage ... [Now] is a time of close thinking and precise execution. All

educational processes must converge to the point of the production of this essential quality of a highly trained mind. The typewriter is at once a product of this modern mental trait, and an efficient cause or means of its further development.[38]

The article continued to argue that men and women who received daily instruction in the 'practical manipulation' of the machine would produce 'what may be called the typewriting "habit"'. That 'modern' life involved a cultural project of rewiring and reworking the human being (mind and body) is not an ex-post facto analytic insertion. As we see here, at the end of the nineteenth century, the typewriter was seen by some as helping to produce new human subjectivities, new ways of being in and reflecting on the world.

The typewriter, in Friedrich Kittler's argument, also recast the way that the human body was involved in the transmission, reproduction and storage of language. Kittler suggests that we consider the body and its corporeality as a medial apparatus – i.e. one of the technologies or material channels through which language and writing take on meaning. He argues that, *circa* 1800, language could be understood as the inner, natural expression of human beings in part because of the reliance on the maternal voice as the principal pedagogic device. Phonetic alphabetization guaranteed the reliable transcription of sound; writing could be understood as a process of translating nature through the human ear and eye into text. Kittler argues that by 1900 this had been reconfigured such that text was generated by virtue of combinations and intervals. With the QWERTY keyboard that was standardized at an international meeting in Toronto in 1888, words could be created out of random, spatial combinations achieved through the abstract geometries of touch typing. This form of writing 'does not obey any voice'.[39] Writing could become mechanized, detached from human interiority and construed as an arbitrary semiotic system. Kittler proposes that, rather than speed, it was spatially designed, discrete signs produced through touch that were the real innovations of the typewriter. Yet, this transformation should not be exclusively linked to the machine itself – for, in the shift from the Spencerian contemplation of natural forms to Palmerian push-pull exercises, we have seen similar transformations also occurring in the sphere of handwriting.

Typewriting Exhibits at the World's Fairs

World's Fairs provided the platform for the public launching of many typewriting advances. In the fairs examined in this chapter, typewriters appeared both in manufacturers' exhibits and in 'live' demonstration classrooms. As in the case of handwriting, we see over the period 1893-1915 a trend towards displaying process and not simply exhibiting the product. However, with the typewriter, the trajectory is not as definitive and takes some surprising turns.

Visitors to the 1876 Centennial Exhibition in Philadelphia could purchase samples of typewritten text for 25 cents – an investment in modernity that was evidently more attractive than the typewriter itself, given the machine's initial desultory sales. At expositions typewriters were typically displayed in Manufacturers and Industry buildings as one among the many such goods. The official history of the 1893 Chicago Fair features an image of the typewriter exhibit alongside an image of a rubber exhibit. 'Of typewriters, stationery, and miscellaneous articles, from ideal fountain pens to ideal corsets and gloves, the display is infinite', the text reads.[40] While this photograph from 1893 shows five typewriters in use in an office-like setting [41], the Underwood exhibit at the 1901 Buffalo exposition situated the majority of its machines on pedestals.[42] The Underwood exhibit in 1904 in St. Louis similarly placed typewriters on large display cases.[43] The typewriter's transit from curiosity to modern icon was most dramatically achieved at the 1915 PPIE exposition in San Francisco where the Underwood company exhibited a 21 feet wide and 15 feet high functioning typewriter.

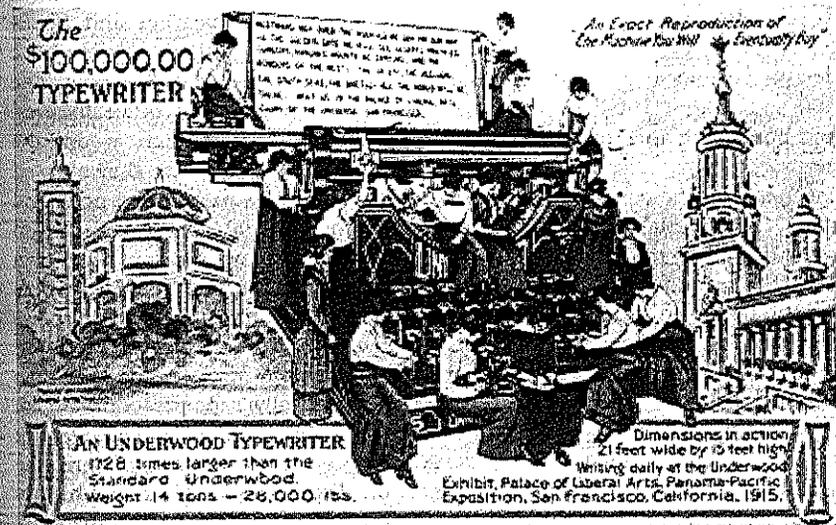


Figure 2. Fourteen Ton Underwood Typewriter, 1915.
Source: Author's (NWS) personal collection.

Figure 2 shows a popular postcard of this machine. While it includes some text attesting to the technological marvel on display – 'an exact reproduction of the machine you will eventually buy' – as well as some images of PPIE fair buildings, the most striking element is the central image showing over a dozen female typists in and on the enormous machine. Even as the scale of the human form in relation to the actual size of the machine is more or less accurate, the image is suggestive of a human-machine crossing. Nearly all of

the attentive female figures are connected to the machine through their hands and most of them appear to be caressing and fondling it. The actual machine itself was one of the signature exhibits of the San Francisco Fair.[44] It typed out news headlines on giant pieces of paper, analogous to a colossal teletype news wire. (The 'Westward Ho! Over the Rockies we Go! To the Golden Gate' text that we see to have been typed on the postcard is very characteristic of PPIE promotional material.) This particular postcard provides an example of the disembodied authorial voice that is written into existence through human touch quite along the lines that Kittler argued were characteristic of the *circa*-1900 discourse network. In this instance, despite the fact that touch is a collective undertaking more intimate than mechanical, we still have a compelling image of human habituation to the typewriter as machine and to the manner of inscribing, storing and transmitting language that it compelled.

Over and above this postcard representation, visitors to the PPIE could see living, breathing human bodies in touch with typewriters. Business college exhibits had appeared at a number of earlier fairs and were a much discussed, award-winning feature in the Palace of Education and Social Economy in 1915. As noted above, Brown's Business College provided live demonstrations at the 1904 Louisiana Purchase Exposition in St Louis. The 600 square-foot 1904 school room was styled with 'elegant office fixtures' and bore semblance to a turn-of-the-century bank, with counters around the perimeter of the display case topped by a vertical metal grate that allowed spectators in the corridor to peer inside. The exhibit won a Grand prize and three Gold medals, and the official history of the 1904 fair takes care to remind readers that this was a private initiative that cost George W. Brown \$20,000 to mount. In this text and in the exhibit hall itself, Brown's contributions to business education appeared in the midst of displays proffered by American cities and states as well as those contributed by non-profit charity organizations. The education exhibits at St Louis – as was generally true at other fairs – did not taxonomically separate commercial, civic and philanthropic work; rather, all are thrown together in the collective project of modeling advanced futures. Speed and efficiency were the predictable hallmarks of business education displays and the official history of the exposition noted that Brown's demonstrations of 'the "piano method" of typewriting and speed in writing shorthand never failed to draw an interested crowd of visitors'.[45]

Crowds were also drawn to the business education demonstration school that was mounted in a 3000 square-foot room in San Francisco's Palace of Education and Social Economy. The 1915 'Standard Commercial School' was not the offshoot of an existing business college but the collective effort of a number of companies involved in business education.[46] Forty young men and women from northern California were selected through competitive examination. Over six months, they took a daily course of studies that included lessons in shorthand and typewriting provided by the Gregg

Publishing Company; a business writing course in the Palmer Method; and courses in bookkeeping, business English, commercial arithmetic, public speaking and commercial law. Their expansive classroom was surrounded by glass partitions and overlooked by an observation balcony from which visitors could, for example, see, as the Fair's official history put it, 'how rapidly typing can be mastered under competent instruction'.[47] This business college 'under glass' was intended to provide a credible demonstration not of what a 'few sensational masters of shorthand and typewriting could do, but to point to the possibility for giving boys and girls a thorough business training'.[48] The students all wore white sweater uniforms and extant sources suggest that they cut an image of industry, efficiency, and discipline – paragons of a cool, collected modernity.

The Standard Commercial School was the second of A.N. Palmer's live demonstrations at the PPIE. At his own demonstration room (described above) visitors were invited to stop by for free lessons; daily at 3.15 he or one of his assistants held a class for the Commercial School students. Live classrooms at World's Fairs were, of course, not restricted to business education: model kindergartens had been a regular feature of numerous international expositions, and San Francisco famously hosted a Montessori demonstration classroom directed by Maria Montessori herself.[49] In addition, American fairs commonly featured live demonstrations of educational methods used with 'defectives'. Fairs could also include demonstrations of 'colonial schooling', such as the extensive Philippine ethnographic exhibit at St Louis where one of the Philippine ethnic groups identified by Americans as 'most advanced' received daily lessons.[50] In keeping with the previously discussed exhibitionary/curatorial trend toward demonstrating processes over products, typewriter exhibits rendered the production of properly educated human-typewriters more and more explicit. The ways that exposition spectators were positioned in relation to typewriting is significant as well. In the 1915 San Francisco Standard Commercial School exhibit spectators were invited to adopt a surveilling, overhead view and observe the production of writing being regularized and embedded in a cadre of professionals.

Fashioning Writing Machines by Type and by Hand

Well rounded sticks or meat skewers may be used to good advantage in the early stages to teach pupils how to hold and carry the writing instrument. These are recommended instead of pencils or pen holders because they do not suggest to the pupil's minds the act of writing. (A.N. Palmer, 1915)[51]

Tamara Thornton concludes that penmanship entrepreneurs like A.N. Palmer attempted to compete with machines by turning their students into machines.[52] Above, we discussed some of the differences between

Spencerian and Palmerian script and their respective techniques of production. In his 1896 address to the NEA, Palmer had outlined a style of penmanship best suited to the student entering the busy professional world. Nearly 20 years later, in 1915, during the World's Fair in San Francisco, Palmer again addressed the NEA on the subject of penmanship, though, curiously, this particular address included no discussion of letter forms or styles of script and little mention of the actual finished product. Palmer focused entirely on a different kind of form: the process of teaching and the development of movements most conducive to rapid, efficient penmanship. He encouraged teachers to instruct their students at a very young age to think of their right arm as their 'writing machine' and he argued that the only way to harness the power of this machine was through diligent and deliberate training.[53] The proper posture, the correct arm position, and the right state of mind had to be achieved before penmanship could be appropriately produced by the writing machine. Indeed, as we see in the block quote that begins this section, it could even be most effective if writing was routinized in such a way that it 'did not suggest to the pupil's mind the act of writing'.

By the mid-1920s manuscript writing (print writing) was on the ascendancy in the USA, and some have argued that this represented something of a return to the use of writing for communication purposes.[54] On one level there seems to be considerable validity to the argument that Palmer's handwriting 'machines' were ultimately doomed to defeat by the cold steel levers and keys of that 'discursive machine-gun' [55], the typewriter. As Richard Christen & Thomas Greene put it, Palmer's approach carried the seeds of its own undoing by implying that penmanship 'could be replaced by more suitable communication devices'. [56] Indeed, with rare exceptions, such as Lloyd Reynolds' efforts to implement italic handwriting in Oregon, over the twentieth century, handwriting in US schools became a second-order concern, the vehicle of other purposes. However, if seen from this angle, even though muscular training and the use of well-rounded sticks fell out of favor, one might say that Palmer's Methods have not entirely been eclipsed. Even if handwriting structured by the speed and efficiency that 'modern business' requires no longer appears, handwriting has become, one could argue, automatic in its own right. No longer the 'manning' of a pen, it has become simply writing – the inscribing and storage of language radicalized to eliminate any natural relation between words and things.

It is quite notable that one does not find handwriting and typewriting exhibits in 'competition' with one another at American World's Fairs in the late nineteenth and early twentieth century. These exhibits jointly modeled futures where the barbarians' rough ways of doing things would be trained out of human beings through precise execution and mechanical accuracy. Language was processed through a human body that was not the empiricists' organic mass of sensory receptors translating from the natural world to the world of abstract concepts; it was a human body that was learning to sever these connections and join together more discrete elements than had ever

been imagined before ('permutations of permutations').[57] Kirtler provocatively suggests that 'children circa 1900 learned to read without understanding and to write without thinking'. [58] In this chapter we hope to have shed some light on the specific ways that this begins to become plausible and possible.

Notes

- [1] George Carl Mares, *The History of the Typewriter, Successor to the Pen: being an illustrated account of the origin, rise and development of the writing machine* (London: G. Pitman, 1909).
- [2] Friedrich A. Kirtler, *Discourse Networks 1800/1900* (Stanford: Stanford University Press, 1990), 192-210; Friedrich A. Kirtler, *Gramophone, Film, Typewriter, Writing Science* (Stanford: Stanford University Press, 1999), 183-263.
- [3] A.N. Palmer, Penmanship, *Journal and Proceedings and Addresses of the National Education Association* 53 (1915), 889. See similar language in C.P. Zaner, *The Arm Movement Method of Rapid Writing* (Columbus: Zaner & Bloser Co., 1904).
- [4] The scholarly literature on World's Fairs is too large to discuss in any real detail here in this chapter. For an excellent and regularly updated online bibliography see: <http://www.csufresno.edu/library/subjectresources/specialcollections/worldfairs/ExpoBibliography3ed.pdf>
- [5] On spectatorship see, Noah W. Sobe, Attention and Spectatorship: educational exhibits at the Panama-Pacific International Exposition, San Francisco 1915, in *Innovation and Education at Universal Exhibitions, 1851-2010*, ed. Volker Barth (Paris: International Bureau of Expositions, 2007); Noah W. Sobe, Challenging the Gaze: the subject of attention and a 1915 Montessori demonstration classroom, *Educational Theory*, 54(3) (2004), 281-297.
- [6] See, for example, Timothy Mitchell, *Colonising Egypt* (Berkeley: University of California Press, 1991).
- [7] The global dissemination of handwriting styles and techniques, for example, 'vertical writing' reform in the 1890s, warrants additional research attention; similarly, the business education schools that American typewriter manufacturers established around the globe could furnish material for rich and revealing historical study. On vertical writing see, Sjaak Braster (2007) 'The End of Italics: the introduction of vertical writing and the use of school exercise books in the Netherlands (1880-1980). Unpublished Paper, Utrecht University; On the Remington system of commercial schools see, John Wright Vrooman & Herkimer County Historical Society, *The Story of the Typewriter, 1873-1923, published in commemoration of the fiftieth anniversary of the invention of the writing machine* (Herkimer, NY: A.H. Kellogg Co., 1923), 96-97.
- [8] For recent historical studies that look at learning to write in relation to learning to read see, Raffaella Cribiore, *Gymnastics of the Mind: Greek*

- education in *Hellenistic and Roman Egypt* (Princeton: Princeton University Press, 2001); E. Jennifer Monaghan, *Learning to Read and Write in Colonial America* (Amherst: University of Massachusetts Press, 2005).
- [9] Despite the early expressions of interest and evidence of use discussed here, it appears that in the United States it was only in the 1930s and 1940s that typewriting instruction began to become widespread in American elementary schools; see, Ann Cothran & George E. Mason, The Typewriter: time-tested tool for teaching reading and writing, *Elementary School Journal*, 78(3), (1978). For influential early studies see, Cecilia E. Unzicker, *An Experimental Study of the Effect of the Use of the Typewriter on Beginning Reading*, vol. 610, *Contributions to Education* (New York: Teachers College Bureau of Publications, 1934); Benjamin D. Wood & Frank N. Freeman, *An Experimental Study of the Educational Influences of the Typewriter in the Elementary School Classroom* (New York: Macmillan Co., 1932).
- [10] E. Jennifer Monaghan, Readers Writing: curriculum of the writing schools of eighteenth-century Boston, *Visible Language* 21 (1987); Tamara Plakins Thornton, *Handwriting in America: a cultural history* (New Haven: Yale University Press, 1996), 40-41.
- [11] See the discussion of this in relation to mathematics education in, Patricia Cline Cohen, *A Calculating People: the spread of numeracy in early America* (New York: Routledge, 1999).
- [12] William Eaton, American School Penmanship: from craft to process, *American Journal of Education*, 93(2) (1985), 258.
- [13] Rosemary Sassoon, *Handwriting of the Twentieth Century* (London: Routledge, 1999), 183.
- [14] Eaton, 'American School Penmanship', 257; Thornton, *Handwriting in America*, 49.
- [15] Thornton, *Handwriting in America*, 48.
- [16] J.L. Buritt, *How to Teach Penmanship in Public Schools*, 2nd edn. (Syracuse: C.W. Bardeen, 1886), 41, quoted in *ibid.*, 47.
- [17] H.C. Spencer, *Spencerian Key to Practical Penmanship* (New York: Ivison, Phinney, Blakeman, 1869), 39-40, quoted in *ibid.*, 49.
- [18] See, for example, Kimberley Tolley, *The Science Education of American Girls: a historical perspective*. *Studies in the History of Education* (New York: RoutledgeFalmer, 2003), 127-148.
- [19] Fielding Schoefeld, Penmanship - the queen of the arts, *Penman's Gazette*, I (May 1876), 1, quoted in Thornton, *Handwriting in America*, 49.
- [20] National Education Association, *Addresses & Proceedings of the National Education Association*, vol. 34 (Chicago: University of Chicago Press, 1895), 863.
- [21] A.N. Palmer, *The Palmer Method of Business Writing: Business & High School Edition* (New York: The A.N. Palmer Company, 1917), 2.
- [22] A.N. Palmer, Practical Writing - a course for colleges and public schools to answer the needs of the people, in *Addresses & Proceedings of the National Education Association* (Chicago: University of Chicago Press, 1896), 832.
- [23] F.L. Haeberle, Essentials of Modern Business Penmanship, in *Addresses & Proceedings of the National Education Association* (Chicago: University of Chicago Press, 1900), 581.
- [24] Moses P. Handy, *Official Catalogue, World's Columbian Exposition* (Chicago: W.B. Conkey Company, 1893).
- [25] Minnie Bronson, The Resources of the United States, As Illustrated by the Louisiana Purchase Exposition, in *Addresses & Proceedings of the National Education Association* (Chicago: University of Chicago Press, 1904), 719.
- [26] Got Grand Prize at Fair: business college went after big award and got it and more, *The Daily Review*, 4 October 1904.
- [27] Carl C. Marshall, The Work of the Private Commercial Schools, as Illustrated in the Exhibits at the St. Louis Exposition, in *Addresses & Proceedings of the National Education Association* (Chicago: University of Chicago Press, 1904), 715. A similar observation was offered by the Superintendent of Iowa State educational exhibits, Charles M. Sessions, who observed that 'there was no question but that Mr. Palmer was entitled to a grand prize, and that he would have received one but for the fact that his work was so unique that the jury could get no line for comparison'. Freeman R. Conway, *Report of the Iowa Commission to the Louisiana Purchase Exposition, St. Louis, 1904* (Des Moines: Register & Leader Co., 1906), 130.
- [28] See the discussion of this in, Sobe, 'Attention and Spectatorship: educational exhibits at the Panama-Pacific International Exposition, San Francisco 1915, 104 and *passim*.
- [29] Initially titled the *Western Penman*, this became the *American Penman* in 1906.
- [30] Eaton, 'American School Penmanship', 264.
- [31] The official PPIE archives provide extensive documentation of the jockeying, protests and negotiations that surrounded the awarding of medals. The Standard Commercial School (discussed later in this chapter) at which Palmer Method lessons were taught was awarded a Medal of Honor in July 1915. A proposal was also put forward that A.N. Palmer receive special recognition as collaborating on the Standard Commercial School project and for his company's own exhibit. Palmer was similarly awarded a Medal of Honor. Subsequent to this the manager of the Standard Commercial School exhibit protested that this exhibit's award had been made before the course of studies had been concluded. And subsequent to this, the Standard Commercial School award was increased to the 'Grand Prize' level, an award 'intended to convey the idea of perfection'. See MSS-C-A 190 Box 109, Folders 49-50, PPIE Subseries 6.5, The Bancroft Library, Berkeley, CA.
- [32] Bruce Bliven, *The Wonderful Writing Machine* (New York: Random House, 1954), 71-72.
- [33] Margery W. Davies, *Woman's Place is at the Typewriter: office work and office workers, 1870-1930*. *Class and Culture* (Philadelphia: Temple University Press, 1982), 10. For further discussion of the feminization of clerical work see, Ellen Lupton & Cooper-Hewitt Museum, *Mechanical Brides: women and machines from home to office* (New York: Cooper-Hewitt National Museum of Design, Smithsonian Institution: Princeton Architectural Press, 1993); Meta Zimneck, 'The Mysteries of the Typewriter': technology and gender in the

- British Civil Service, 1870-1914, in *Women Workers and Technological Change in Europe in the Nineteenth and Twentieth Centuries*, ed. Gertjan de Groot & Marlou Schrover (London: Taylor & Francis, 1995). For discussion of typewriters in the context of changing patterns of business management see, JoAnne Yates, *Control through Communication: the rise of system American management* (Baltimore: Johns Hopkins University Press, 1989).
- [34] Vrooman & Herkimer County Historical Society, *The Story of the Typewriter*, frontspiece.
- [35] *Ibid.*, 111-113.
- [36] Bliven, *The Wonderful Writing Machine*, 72-73.
- [37] Remington Typewriter Company, *The Educational Use of the Typewriter* (New York: Wyckoff, Seamans & Benedict, c.1895), 4, 8.
- [38] Frank Palmer, Present Educational Aspects of Typwriting, *Education*, 12, June (1892), 623.
- [39] Kirtler, *Discourse Networks 1800/1900*, 196.
- [40] Hubert Howe Bancroft, *The Book of the Fair* (Chicago: The Bancroft Company, 1893), 172-173.
- [41] The 1893 Chicago image shows three female typists and two male, a sample that is pretty demographically accurate for the time.
- [42] Thomas E. Leary, Elizabeth C. Sholes & Buffalo and Erie County Historical Society, *Buffalo's Pan-American Exposition, Images of America* (Charleston: Arcadia, 1998), 66.
- [43] Connecticut Commission, *Connecticut at the World's Fair: Report of the Commissioners from Connecticut to the Louisiana Purchase Exposition held at St. Louis, 1904* (Hartford: Press of The Case, Lockwood & Brainard Company, 1906), 134.
- [44] The 14 ton machine was later displayed on the boardwalk in Atlantic City for many years, then revamped and shown at the 1939 New York World's Fair. Shortly after this it was melted down as part of the World War II war effort.
- [45] Mark Bennett, *History of the Louisiana Purchase Exposition* (St Louis: Universal Exposition Publishing Company, 1905), 552.
- [46] The full list of participating companies included: 'The Gregg Publishing Company, A.N. Palmer Company, The South-Western Publishing Company, Remington Typewriter Company, C.F. Weber Company, Yawman & Erbe Mfg. Company, Linatime Mfg. Company, H.S. Crocker Company, G. & C. Merriman Company, The Herman Safe Company, The Standard Electric Time Company, G.W. Todd & Company, The Paltridge Metal Equipment Company'. Source: David Lever, letter to PPIE Superior Jury, June 16, 1915, MSS-C-A 190 Box 109, Folders 50, PPIE Subseries 6.5, The Bancroft Library, Berkeley, CA.
- [47] Frank Morton Todd, *The Story of the Exposition*, 5 vols, vol. V (New York: G.P. Putnam's Sons, 1921), 69.
- [48] James A. Buchanan & Gail Stuart, *History of the Panama-Pacific International Exposition* (San Francisco: Pan-Pacific Press Association, 1915), 362.
- [49] See the discussion of the Montessori demonstration in, Sobe, 'Challenging the Gaze'.
- [50] Robert W. Rydell, *All the World's a Fair: visions of empire at American international expositions, 1876-1916* (Chicago: University of Chicago Press, 1984), 176.
- [51] Palmer, 'Penmanship', 888.
- [52] Thornton, *Handwriting in America*, 178.
- [53] Palmer, 'Penmanship', 888.
- [54] Thornton, *Handwriting in America*, 170-174; Unzicker, *An Experimental Study*, 19.
- [55] Kirtler, *Gramophone, Film, Typewriter*, 191.
- [56] Richard S. Cristen & Thomas G. Greene, 'The Medium is the Message': Lloyd Reynolds and The Origins of Italic Handwriting in Oregon Schools, *American Educational History Journal*, 28 (2001), 45.
- [57] Kirtler, *Discourse Networks 1800/1900*, 211.
- [58] *Ibid.*, 216.