

The Body and the Archive

On the one side we
approach more
closely to what is
good and beautiful;
on the other, vice and
suffering are shut up
within narrower
limits; and we have to
dread less the
monstrosities,
physical and moral,
which have the
power to throw
perturbation into
the social framework.

Adolphe Quetelet,
1842

The sheer range and volume of photographic practice offers ample evidence of the paradoxical status of photography within bourgeois culture. The simultaneous threat and promise of the new medium was recognized at a very early date, even before the daguerreotype process had proliferated. For example, following the French government announcement of the daguerreotype in August 1839, a song circulated in London which began with the following verse:

O Mister Daguerre! Sure you're not aware
Of half the impressions you're making,
By the sun's potent rays you'll set Thames in a blaze,
While the National Gallery's breaking.

Initially, photography threatens to overwhelm the citadels of high culture. The somewhat mocking humor of this verse is more pronounced if we consider that the National Gallery had only moved to its new, classical building on Trafalgar Square in 1838, the collection having grown rapidly since the gallery's founding in 1824. I stress this point because this song does not pit photography against a static traditional culture, but rather plays on the possibility of a technological outpacing of *already* expanding cultural institutions. In this context, photography is not the harbinger of modernity, for the world is already modernizing. Rather, photography is modernity run riot. But danger resides not only in the numerical proliferation of images. This is also a premature fantasy of the triumph of a *mass* culture, a fantasy that reverberates with political foreboding, especially in the context of the militant democratic challenge posed by Chartism in 1839. Photography promises an enchanted mastery of nature, but photography also threatens conflagration and anarchy, an incendiary leveling of the existing cultural order.

By the third verse of this song, however, a new *social* order is predicted:

The new Police Act will *take down* each fact
That occurs in its wide jurisdiction
And each beggar and thief in the boldest relief
Will be *giving a color* to fiction.¹

Again, the last line of the verse yields a surplus wit, playing on the figurative ambiguity of “giving a color,” which could suggest both the elaboration and unmasking of an untruth, playing further on the obvious monochromatic limitations of the new medium and on the approximate homophony of *color* and *collar*. But this velvet wit plays about an iron cage which was then in the process of being constructed. Although no “Police Act” had yet embraced photography, the 1820s and 1830s had engendered a spate of governmental inquiries and legislation designed to professionalize and standardize police and penal procedures in Britain, the most important of which were the Gaols Act of 1823 and the Metropolitan Police Acts of 1829 and 1839. (The prime instigator of these modernization efforts, the Conservative leader Sir Robert Peel, happened to be a major collector of seventeenth-century Dutch paintings and a trustee of the National Gallery.) Directly to the point of the song, however, was a provision in the 1839 act for taking into custody vagrants, the homeless, and other offenders “whose name and residence [could] not be ascertained.”²

Although photographic documentation of prisoners was not at all common until the 1860s, the potential for a new juridical photographic realism was widely recognized in the 1840s, in the general context of these systematic efforts to regulate the growing urban presence of the “dangerous classes,” of a chronically unemployed subproletariat. The anonymous lyricist voiced sentiments that were also heard in the higher chambers of the new culture of photography.

Consider that incunabulum in the history of photography, Henry Fox Talbot’s *The Pencil of Nature*. Talbot, the English gentleman-amateur scientist who paralleled Daguerre’s metallic invention with his own paper process, produced a lavish book that was not only the first to be illustrated with photographic prints, but also a compendium of wide-ranging and prescient meditations on the promise of photography. These meditations took the form of brief commentaries on each of the book’s calotype prints. Talbot’s aesthetic ambition was clear: for one austere image of a broom leaning beside an (allegorically) open door, he claimed the “authority of the Dutch school of art, for taking as subjects of representation scenes of daily and familiar occurrence.”³ But an entirely different order of naturalism emerges in his notes on another quite beautiful calotype depicting several shelves bearing “articles of china.” Here Talbot speculates that “should a thief afterwards purloin the treasures—if the mute testimony of the picture were to be produced against him in court—it would certainly be evidence of a novel kind.”⁴ Talbot lays claim to a new legalistic truth, the truth of an indexical rather than textual inventory. Although this frontal arrangement of objects had its precedents in scientific and technical illustration, a claim is being made here that would not have been made for a drawing or a descriptive list. Only the photograph could begin to claim the legal status of a *visual* document of ownership. Although the calotype was too insensitive to light to record any but the most willing and patient sitters, its evidentiary promise could be explored in this property-conscious variant of the still life.

Both Talbot and the author of the comic homage to Daguerre recognized a new *instrumental* potential in photography: a silence that silences. The protean oral “texts” of the criminal and pauper yield to a “mute testimony” that “takes down” (that diminishes in

William Henry Fox Talbot,
Articles of China, plate 3 from
The Pencil of Nature, 1844



credibility, that transcribes) and unmasks the disguises, the alibis, the excuses and multiple biographies of those who find or place themselves on the wrong side of the law. This battle between the presumed denotative univocality of the legal image and the multiplicity and presumed duplicity of the criminal voice is played out during the remainder of the nineteenth century. In the course of this battle a new object is defined—the criminal body—and, as a result, a more extensive “social body” is invented.

We are confronting, then, a double system: a system of representation capable of functioning both *honorifically* and *repressively*. This double operation is most evident in the workings of photographic portraiture. On the one hand, the photographic portrait extends, accelerates, popularizes, and degrades a traditional function. This function, which can be said to have taken its early modern form in the seventeenth century, is that of providing for the ceremonial presentation of the bourgeois *self*. Photography subverted the privileges inherent in portraiture, but without any more extensive leveling of social relationships, these privileges could be reconstructed on a new basis. That is, photography could be assigned a proper role within a new hierarchy of taste. Honorific conventions were thus able to proliferate downward.⁵ At the same time, photographic portraiture began to perform a role no painted portrait could have performed in the same thorough and rigorous fashion. This role derived, not from any honorific portrait tradition, but from the imperatives of medical and anatomical illustration. Thus photography came to establish and delimit the terrain of the *other*, to define both the *generalized look*—the typology—and the *contingent instance* of deviance and social pathology.

Michel Foucault has argued, quite crucially, that it is a mistake to describe the new regulatory sciences directed at the body in the early nineteenth century as exercises in a wholly negative, repressive power. Rather, social power operates by virtue of a positive therapeutic or reformatory channeling of the body.⁶ Still, we need to understand those modes of instrumental realism that do in fact operate according to a very explicit deterrent or repressive logic. These modes constitute the lower limit or “zero degree” of socially instrumental realism. Criminal identification photographs are a case in point, since they are designed quite literally to facilitate the *arrest* of their referent.⁷ I will argue in the second part of this essay that the semantic refinement and rationalization of precisely this sort of realism was central to the process of defining and regulating the criminal.

But first, what general connections can be charted between the honorific and repressive poles of portrait practice? To the extent that bourgeois order depends upon the systematic defense of social relations based on private property, to the extent that the legal basis of the self lies in the model of property rights, in what has been termed “possessive individualism,” every proper portrait has its lurking, objectifying inverse in the files of the police. In other words, a covert Hobbesian logic links the terrain of the “National Gallery” with that of the “Police Act.”⁸

In the mid-nineteenth century, the terms of this linkage between the sphere of culture and that of social regulation were specifically utilitarian.⁹ Many of the early promoters of photography struck up a Benthamite chorus, stressing the medium’s promise for a social calculus of pleasure and discipline. Here was a machine for providing small doses of happiness on a mass scale, for contributing to Jeremy Bentham’s famous goal: “the greatest happiness of the greatest number.”¹⁰ Thus the photographic portrait in particular was welcomed as a socially ameliorative as well as a socially repressive instrument. Jane Welsh Carlyle voiced characteristic hopes in 1859, when she described inexpensive portrait photography as a social palliative:

Blessed be the inventor of photography. I set him even above the inventor of chloroform! It has given more positive pleasure to poor suffering humanity than anything that has been “cast up” in my time . . . —this art, by which even the poor can possess themselves of tolerable likenesses of their absent dear ones.¹¹

In the United States, similar but more extensive utilitarian claims were made by the portrait photographer Marcus Aurelis Root, who was able to articulate the connection between pleasure and discipline, to argue explicitly for a moral economy of the image. Like Carlyle, he stressed the salutary effects of photography on working-class family life. Not only was photography to serve as a means of cultural enlightenment for the working classes, but family photographs sustained sentimental ties in a nation of migrants. This “primal household affection” served a socially cohesive function, Root argued—articulating a nineteenth-century familialism that would survive and become an essential ideological feature of American mass culture. Furthermore, widely distributed portraits of the great would subject everyday experience to a regular parade of moral exemplars. Root’s concern for respectability and order led him to applaud the adoption of photography by the police, arguing that convicted offenders would “not find it easy to resume their criminal careers, while their faces and general aspects are familiar to so many, especially to the keen-sighted detective police.”¹² The “so many” is significant here, since it implicitly enlists a wider citizenry in the vigilant work of detection. Thus Root’s utilitarianism comes full circle. Beginning with cheaply affordable aesthetic pleasures and moral lessons, he ends up with the photographic extension of that exemplary utilitarian social machine, the Panopticon.¹³

Notwithstanding the standard liberal accounts of the history of photography, the new medium did not simply inherit and “democratize” the honorific functions of bourgeois portraiture. Nor did police photography simply function repressively, although it is foolish to argue that the immediate function of police photographs was somehow more ideological or positively instrumental than negatively instrumental. But in a more general, dispersed fashion, in serving to introduce the panoptic principle into daily life, photography welded the honorific and repressive functions together. Every portrait implicitly took its place within a social and moral hierarchy. The *private* moment of sentimental individuation, the look at the frozen gaze-of-the-loved one, was shadowed by two other more *public* looks: a look up, at one’s “betters,” and a look down, at one’s “inferiors.” Especially in the United States, photography could sustain an imaginary mobility on this vertical scale, thus provoking both ambition and fear, and interpellating, in classic terms, a characteristically “petit-bourgeois” subject.

We can speak then of a generalized, inclusive *archive*, a *shadow archive* that encompasses an entire social terrain while positioning individuals within that terrain.¹⁴ This archive contains subordinate, territorialized archives: archives whose semantic interdependence is normally obscured by the “coherence” and “mutual exclusivity” of the social groups registered within each. The general, all-inclusive archive necessarily contains both the traces of the visible bodies of heroes, leaders, moral exemplars, celebrities, and those of the poor, the diseased, the insane, the criminal, the nonwhite, the female, and all other embodiments of the unworthy. The clearest indication of the essential unity of this archive of images of the body lies in the fact that by the mid-nineteenth century a single hermeneutic paradigm had gained widespread prestige. This paradigm had two tightly entwined branches, physiognomy and phrenology. Both shared the belief that the surface of the body, and especially the face and head, bore the outward signs of inner character.

Accordingly, in reviving and to some extent systematizing physiognomy in the late 1770s, Johann Caspar Lavater argued that the “original language of Nature, written on the face of Man” could be deciphered by a rigorous physiognomic *science*.¹⁵ Physiognomy analytically isolated the profile of the head and the various anatomic features of the head and face, assigning a characterological significance to each element: forehead, eyes, ears, nose, chin, etc. Individual character was judged through the loose concatenation of these readings. In both its analytic and synthetic stages, this interpretive process required that distinctive individual feature be read in conformity to type. Phrenology, which emerged in the first decade of the nineteenth century in the researches of the Viennese physician Franz Josef Gall, sought to discern correspondences between the topography of the skull and what were thought to be specific localized mental faculties seated within the brain. This was a crude forerunner of more modern neurological attempts to map out localized cerebral functions.

In general, physiognomy, and more specifically phrenology, linked an everyday nonspecialist empiricism with increasingly authoritative attempts to medicalize the study of the mind. The ambitious effort to construct a materialist science of the self led to the dissection of brains, including those of prominent phrenologists, and to the accumulation of vast collections of skulls. Eventually this effort would lead to a volumetrics of the skull, termed craniometry. But presumably any observant reader of one of the numerous handbooks and manuals of phrenology could master the interpretive codes. The humble origins of phrenological research were described by Gall in these terms:

I assembled a large number of persons at my house, drawn from the lowest classes and engaged in various occupations, such as fiacre driver, street porter and so on. I gained their confidence and induced them to speak frankly by giving them money and having wine and beer distributed to them. When I saw that they were favorably disposed, I urged them to tell me everything they knew about one another, both their good and bad qualities, and I carefully examined their heads. This was the origin of the craniological chart that was seized upon so avidly by the public; even artists took it over and distributed a large number among the public in the form of masks of all kinds.¹⁶

The broad appeal and influence of these practices on literary and artistic realism, and on the general culture of the mid-nineteenth-century city is well known.¹⁷ And we understand the culture of the photographic portrait only dimly if we fail to recognize the enormous prestige and popularity of a general physiognomic paradigm in the 1840s and 1850s. Especially in the United States, the proliferation of photography and that of phrenology were quite coincident.



Since physiognomy and phrenology were comparative, taxonomic disciplines, they sought to encompass an entire range of human diversity. In this respect, these disciplines were instrumental in constructing the very archive they claimed to interpret. Virtually every manual deployed an array of individual cases and types along a loose set of “moral, intellectual, and animal” continua.¹⁸ Thus zones of genius, virtue, and strength were charted only in relation to zones of idiocy, vice, and weakness. The boundaries between these zones were vaguely demarcated; thus it was possible to speak, for example, of “moral idiocy.” Generally, in this pre-evolutionary system of difference, the lower zones shaded off into varieties of animality and pathology.

In the almost exclusive emphasis on the head and face we can discover the idealist secret lurking at the heart of these putatively materialistic sciences. These were discourses of the head *for* the head. Whatever the tendency of physiognomic or phrenologic thought—whether fatalistic or therapeutic in relation to the inexorable logic of the body’s signs, whether uncompromisingly materialist in tone or vaguely spiritualist in relation to certain zones of the organic, whether republican or elitist in pedagogical stance—these disciplines would serve to legitimate on organic grounds the dominion of intellectual over manual labor. Thus physiognomy and phrenology contributed to the ideological hegemony of a capitalism that increasingly relied upon a hierarchical division of labor, a capitalism that applauded its own progress as the outcome of individual cleverness and cunning.

In claiming to provide a means for distinguishing the stigmata of vice from the shining marks of virtue, physiognomy and phrenology offered an essential hermeneutic service to a world of fleeting and often anonymous market transactions. Here was a method for quickly assessing the character of strangers in the dangerous and congested spaces of the nineteenth-century city. Here was a gauge of the intentions and capabilities of the other. In the United States in the 1840s, newspaper advertisements for jobs frequently requested that applicants submit a phrenological analysis.¹⁹ Thus phrenology delivered the moral and intellectual “facts” that are today delivered in more “refined” and abstract form by psychometricians and polygraph experts.

Perhaps it is no surprise, then, that photography and phrenology should have met formally in 1846 in a book on “criminal jurisprudence.” Here was an opportunity to lend a new organic facticity to the already established medical and psychiatric genre of the case study.²⁰ A phrenologically inclined American penal reformer and matron of the

From Eliza Farnham,
 "Appendix" to Marmaduke
 Sampson, *Rationale of Crime*,
 1846

<p>174 RATIONALE OF CRIME.</p>  <p>B. F.</p> <p>B. F. is one of the inmates of the Long Island Farms. He is partially idiotic, and the very imperfect development of the superior portion of the brain, with the small size of the whole, clearly indicates the character of his mental capacities. It affords a striking contrast to the last drawing, R. A., and is in harmony with the actual difference between the minds of the two individuals. B. F. is vicious, cruel, and apparently incapable of any elevated or humane sentiments.</p>	<p>APPENDIX. 175</p> <p>HEADS OF PERSONS POSSESSING SUPERIOR INTELLECT.</p> <p>The following drawings are introduced for the purpose of showing the striking contrast between the cerebral developments of such persons as we have been describing and those who are endowed with superior powers of intellect and sentiment.</p>  <p>The two male heads are taken from the busts of gentlemen distinguished for ability, though differing widely in character.</p>
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women's prison at Sing Sing, Eliza Farnham, commissioned Mathew Brady to make a series of portraits of inmates at two New York prisons. Engravings based on these photographs were appended to Farnham's new edition, entitled *Rationale of Crime*, of a previously unillustrated English work by Marmaduke Sampson. Sampson regarded criminal behavior as a form of "moral insanity." Both he and Farnham subscribed to a variant of phrenology that argued for the possibility of therapeutic modification or enhancement of organically predetermined characteristics. Presumably, good organs could be made to triumph over bad. Farnham's contribution is distinctive for its unabashed nonspecialist appeal. She sought to speak to "the popular mind of Republican America," in presenting an argument for the abolition of the death penalty and the establishment of a therapeutic system of treatment.²¹ Her contribution to the book consisted of a polemical introduction, extensive notes, and several appendices, including the illustrated case studies. Farnham was assisted in her selection of case-study subjects by the prominent New York publisher-entrepreneur of phrenology, Lorenzo Fowler, who clearly lent further authority to the sample.

Ten adult prisoners are pictured, evenly divided between men and women. Three are identified as Negro, one as Irish, one as German; one woman is identified as a "Jewess of German birth," another as a "half-breed Indian and negro." The remaining three inmates are presumably Anglo-Saxon, but are not identified as such. A series of eight pictures of child inmates is not annotated in racial or ethnic terms, although one child is presumably black. Although Farnham professed a variant of phrenology that was not overtly racist—

unlike other pre-Darwinian head analysts who sought conclusive proof of the “separate creation” of the non-Caucasian races—this differential marking of race and ethnicity according to age is significant in other ways. After all, Farnham’s work appeared in an American context—characterized by slavery and the beginnings of massive famine-induced immigration of Irish peasants—that was profoundly stratified along these lines. By marking children less in racial and ethnic terms, Farnham avoided stigmatizing them. Thus children in general were presented as more malleable figures than adults. Children were also presented as less weighted down by criminal biographies or by the habitual exercise of their worst faculties. Despite the fact that some of these boys were explicitly described as incorrigibles, children provided Farnham with a general figure of moral renewal. Because their potential for “respectability” was greater than that of the adult offenders, they were presented as miniature versions of their potential adult-male-respectable-Anglo-Saxon-proletarian selves. Farnham, Fowler, and Brady can be seen as significant inventors of that privileged figure of social reform discourse: the figure of the child rescued by a paternalistic medicosocial science.²²

Farnham’s concerns touch on two of the central issues of nineteenth-century penal discourse: the practical drawing of distinctions between incorrigible and pliant criminals, and the disciplined conversion of the reformable into “useful” proletarians (or at least into useful informers). Thus even though she credited several inmates with “well developed” intellects, and despite the fact that her detractors accused her of Fourierism, her reformist vision had a definite ceiling. This limit was defined quite explicitly by the conclusion of her study. There she underscored the baseness shared by all her criminal subjects by illustrating three “heads of persons possessing superior intellect” (two of which, both male, were treated as classical busts). Her readers were asked to note the “striking contrast.”²³

I emphasize this point because it is emblematic of the manner in which the criminal archive came into existence. That is, it was only on the basis of mutual comparison, on the basis of the tentative construction of a larger, “universal” archive, that zones of deviance and respectability could be clearly demarcated. In this instance of the first sustained application of photography to the task of phrenological analysis, it seems clear that the comparative description of the criminal body came first. The book ends with a self-congratulatory mirror held up to the middle-class reader. It is striking that the pictorial labor behind Farnham’s criminal sample was that of Brady, who devoted virtually his entire antebellum career to the construction of a massive honorific archive of photographs of “illustrious,” celebrated, and would-be celebrated American figures.²⁴

Thus far I have described a number of early attempts, by turns comic, speculative, and practical, to bring the camera to bear upon the body of the criminal. I have also argued, following the general line of investigation charted in the later works of Foucault, that the position assigned the criminal body was a relative one, that the invention of the modern criminal cannot be dissociated from the construction of a law-abiding body—a body that was either bourgeois or subject to the dominion of the bourgeoisie. The law-abiding body recognized its threatening other in the criminal body, recognized its own acquisitive and aggressive impulses unchecked, and sought to reassure itself in two contradictory ways. The first was the invention of an exceptional criminal who was indistinguishable from the bourgeois, save for a conspicuous lack of moral inhibition: herein lay the figure of

the criminal genius.²⁵ The second was the invention of a criminal who was organically distinct from the bourgeois: a *biotype*. The science of criminology emerged from this latter operation.

A physiognomic code of visual interpretation of the body's signs—specifically the signs of the head—and a technique of mechanized visual representation intersected in the 1840s. This unified system of representation and interpretation promised a vast taxonomic ordering of images of the body. This was an archival promise. Its realization would seem to be grounded primarily in the technical refinement of strictly optical means. This turns out not to be the case.

I am especially concerned that exaggerated claims not be made for the powers of optical realism, whether in a celebratory or critical vein. One danger lies in constructing an overly monolithic or unitary model of nineteenth-century realist discourse. Within the rather limited and usually ignored field of instrumental scientific and technical realism, we discover a house divided. Nowhere was this division more pronounced than in the pursuit of the criminal body. If we examine the manner in which photography was made useful by the late-nineteenth-century police, we find plentiful evidence of a crisis of faith in optical empiricism. In short, we need to describe the emergence of a truth-apparatus that cannot be adequately reduced to the optical model provided by the camera. The camera is integrated into a larger ensemble: a bureaucratic-clerical-statistical system of "intelligence." This system can be described as a sophisticated form of the archive. The central artifact of this system is not the camera but the filing cabinet.



From Alphonse Bertillon,
Service d'identification,
Exposition universelle de
Chicago, 1893 (Album
collection, National Gallery
of Canada, Ottawa)

The institution of the photographic archive received its most thorough early articulation in precise conjunction with an increasingly professionalized and technological mode of police work and an emerging social science of criminology. This occurred in the 1880s and 1890s. Why was the model of the archive of such import for these linked disciplines?

In structural terms, the archive is both an abstract paradigmatic entity and a concrete institution. In both senses, the archive is a vast substitution set, providing for a relation of general equivalence between images. This image of the archive as an encyclopedic repository of exchangeable images was articulated most profoundly in the late 1850s by the American physician and essayist Oliver Wendell Holmes when he compared photographs to paper currency.²⁶ The capacity of the archive to reduce all possible sights to a single code of equivalence was grounded in the metrical accuracy of the camera. Here was a medium from which exact mathematical data could be extracted, or as the physicist François Arago put it in 1839, a medium “in which objects preserve mathematically their forms.”²⁷ For nineteenth-century positivists, photography doubly fulfilled the Enlightenment dream of a universal language: the universal mimetic language of the camera yielded up a higher, more cerebral truth, a truth that could be uttered in the universal abstract language of mathematics. For this reason, photography could be accommodated to a Galilean vision of the world as a book “written in the language of mathematics.” Photography promised more than a wealth of detail; it promised to reduce nature to its geometrical essence. Presumably then, the archive could provide a standard physiognomic gauge of the criminal, could assign each criminal body a relative and quantitative position within a larger ensemble.

This archival promise was frustrated, however, both by the messy contingency of the photograph and by the sheer quantity of images. The photographic archives’ components are not conventional lexical units, but rather are subject to the circumstantial character of all that is photographable. Thus it is absurd to imagine a dictionary of photographs, unless one is willing to disregard the specificity of individual images in favor of some model of typicality, such as that underlying the iconography of Vesalian anatomy or of most of the plates accompanying the *Encyclopédie* of Diderot and d’Alembert. Clearly, one way of “taming” photography is by means of this transformation of the circumstantial and idiosyncratic into the typical and emblematic. This is usually achieved by stylistic or interpretive fiat, or by a sampling of the archive’s offerings for a “representative” instance. Another way is to invent a machine, or rather a clerical apparatus, a filing system, which allows the operator/researcher/editor to retrieve the individual instance from the huge quantity of images contained within the archive. Here the photograph is not regarded as necessarily typical or emblematic of anything, but only as a particular image which has been isolated for purposes of inspection. These two semantic paths are so fundamental to the culture of photographic realism that their very existence is usually ignored.

The difference between these two models of photographic meaning are played out in two different approaches to the photographic representation of the criminal body: the “realist” approach, and by realism here I mean that venerable (medieval) philosophical realism that insists upon the truth of general propositions, on the reality of species and types, and the equally venerable “nominalist” approach, which denies the reality of generic categories as anything other than mental constructs. The first approach can be seen as overtly theoretical and “scientific” in its aims, if more covertly theoretical. Thus the

would-be scientists of crime sought a knowledge and mastery of an elusive "criminal type." And the "technicians" of crime sought knowledge and mastery of individual criminals. Herein lies a terminological distinction, and a division of labor, between "criminology" and "criminalistics." Criminology hunted "the" criminal body. Criminalistics hunted "this" or "that" criminal body.

Contrary to the commonplace understanding of the "mug shot" as the very exemplar of a powerful, artless, and wholly denotative visual empiricism, these early instrumental uses of photographic realism were systematized on the basis of an acute recognition of the *inadequacies* and limitations of ordinary visual empiricism. Thus two systems of description of the criminal body were deployed in the 1880s; both sought to ground photographic evidence in more abstract *statistical* methods. This merger of optics and statistics was fundamental to a broader integration of the discourses of visual representation and those of the social sciences in the nineteenth century. Despite a common theoretical source, the intersection of photography and statistics led to strikingly different results in the work of two different men: Alphonse Bertillon and Francis Galton.

The Paris police official Alphonse Bertillon invented the first effective modern system of *criminal identification*. His was a bipartite system, positioning a "microscopic" individual record within a "macroscopic" aggregate. First, he combined photographic portraiture, anthropometric description, and highly standardized and abbreviated written notes on a single *fiche*, or card. Second, he organized these cards within a comprehensive, statistically based filing system.

The English statistician and founder of eugenics Francis Galton invented a method of composite portraiture. Galton operated on the periphery of criminology. Nonetheless, his interest in heredity and racial "betterment" led him to join in the search for a biologically determined "criminal type." Through one of his several applications of composite portraiture, Galton attempted to construct a *purely optical* apparition of the criminal type. This photographic impression of an abstract, statistically defined, and empirically nonexistent criminal face was both the most bizarre and the most sophisticated of many concurrent attempts to marshal photographic evidence in the search for the essence of crime.

The projects of Bertillon and Galton constitute two methodological poles of the positivist attempts to define and regulate social deviance. Bertillon sought to individuate. His aims were practical and operational, a response to the demands of urban police work and the politics of fragmented class struggle during the Third Republic. Galton sought to visualize the generic evidence of hereditarian laws. His aims were theoretical, the result of eclectic but ultimately single-minded curiosities of one of the last Victorian gentleman-amateur scientists. Nonetheless, Bertillon's work had its own theoretical context and implications, just as Galton's grimly playful research realized its practical implications in the ideological and political program of the international eugenics movement. Both men were committed to technologies of demographic regulation. Bertillon's system of criminal identification was integral to the efforts to quarantine permanently a class of habitual or professional criminals. Galton sought to intervene in human reproduction by means of public policy, encouraging the propagation of the "fit" and discouraging or preventing outright that of the "unfit."

The idealist proclivities, territorialism, and status consciousness of intellectual history have prevented us from recognizing Bertillon and Galton's shared ground. While Galton has been considered a proper, if somewhat eccentric, object of the history of science, Bertillon remains an ignored mechanic and clerk, commemorated mostly by anecdotal historians of the police.



In order to explore this terrain shared by a police clerk and gentleman statistician, I need to introduce a third figure. Both Bertillon's and Galton's projects were grounded in the emergence and codification of *social statistics* in the 1830s and 1840s. Both relied upon the central conceptual category of social statistics: the notion of the "average man" (*l'homme moyen*). This concept was invented (I will argue shortly that it was actually reinvented) by the Belgian astronomer and statistician Adolphe Quetelet. Although less well remembered than Auguste Comte, Quetelet is the most significant other early architect of sociology. Certainly he laid the foundations of the quantitative paradigm in the social sciences. By seeking statistical regularities in rates of birth, death, and crime, Quetelet hoped to realize the Enlightenment philosopher Condorcet's proposal for a "social mathematics," a mathematically exact science that would discover the fundamental laws of social phenomena. Quetelet helped to establish some of the first actuarial tables used in Belgium and to found in 1853 an international society for the promotion of statistical methods. As the philosopher of science Ian Hacking has suggested, the rise of social statistics in the mid-nineteenth century was crucial to the replacement of strictly mechanistic theories of causality by a more probabilistic paradigm. Quetelet was a determinist, but he invented a determinism based on iron laws of chance. This emergent paradigm would lead eventually to indeterminism.²⁸

Who, or what, was the average man? A less flippant query would be, *how* was the average man? Quetelet introduced this composite character in his 1835 treatise *Sur l'homme*. He argued that large aggregates of social data revealed a regularity of occurrence that could only be taken as evidence of determinate social laws. This regularity had political and moral as well as epistemological implications:

The greater the number of individuals observed, the more do individual peculiarities, whether physical or moral, become effaced, and leave in a prominent point of view the general facts, by virtue of which society exists and is preserved.²⁹

Quetelet sought to move from the mathematicization of individual bodies to that of society in general. In *Sur l'homme* he charted various quantitative biographies of the productive and reproductive powers of the average man and woman. For example, he calculated the fluctuation of fecundity with respect to female age. Using data from dynamometer studies, he charted the average muscular power of men and women of different ages. At the level of the social aggregate, life history read as a graphic curve. (Here was prefiguration, in extreme form, of Zola's naturalism: a subliterate, quantitative narrative of the generalized social organism.)

Just as Quetelet's early statistical contributions to the life insurance industry can be seen as crucial to the regularization of that organized form of gambling known as finance capital, so also his charting of the waxing and waning of human energies can be seen as an attempt to conceptualize that Hercules of industrial capitalism, termed by Marx the "average worker," the abstract embodiment of labor power in the aggregate.³⁰ And outside the sphere of waged work, Quetelet invented but did not name the figure of the average mother, crucial to the new demographic sciences which sought nervously to chart the relative numeric strengths of class against class and nation against nation.

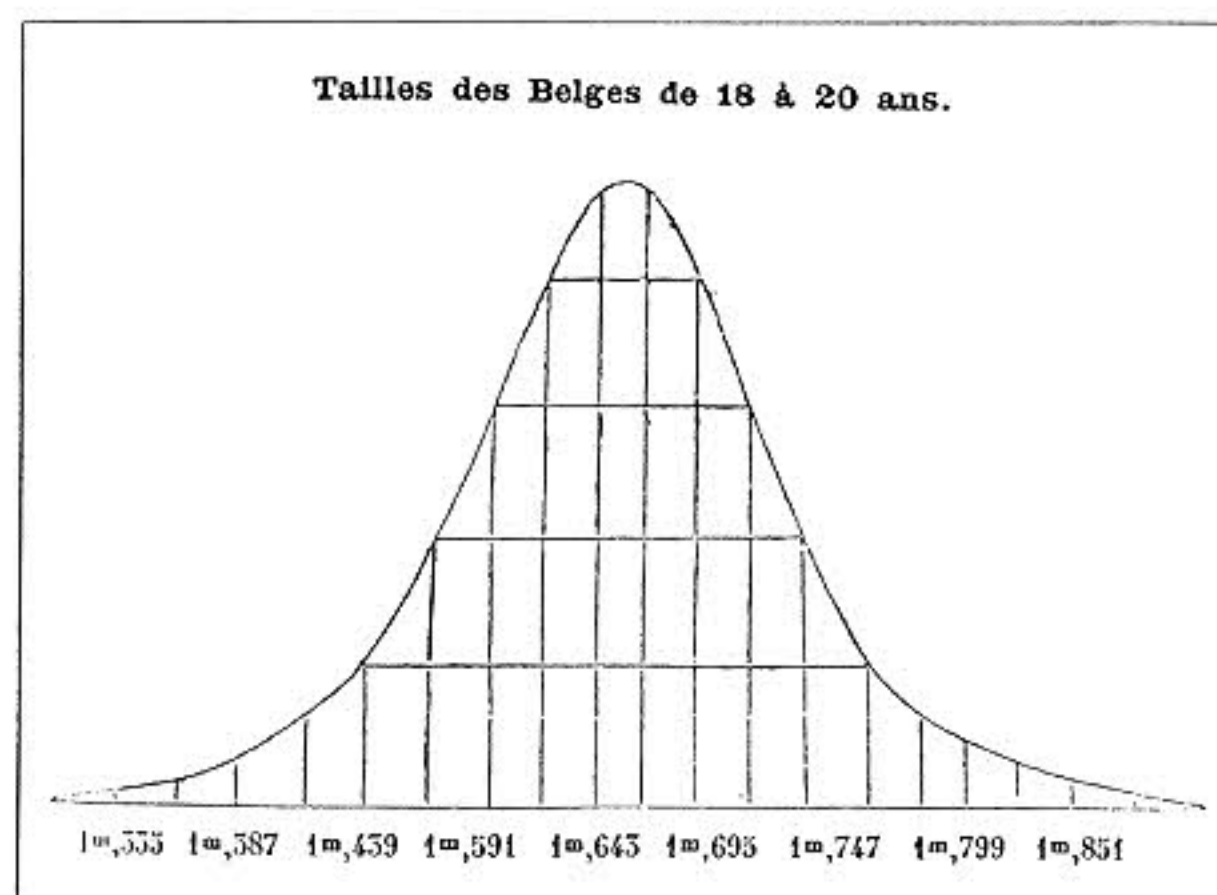
For Quetelet the most emphatic demonstration of the regularity of social phenomena was given by crime statistics. "Moral statistics" provided the linchpin for his construction of a "social physics" that would demolish the prestige of moral paradigms grounded in free will. The criminal was no more than an agent of determining social forces. Furthermore, crime statistics provided the synecdochic basis for a broader description of the

social field. As Louis Chevalier has argued, Quetelet inaugurated a “quantitative description which took criminal statistics as the starting point for a description of urban living as a whole.”³¹ Chevalier has argued further that criminal statistics contributed thus to a pervasive bourgeois conception of the essentially *pathological* character of metropolitan life, especially in the Paris of the July Monarchy. Quetelet’s terminological contribution to this medicalization of the social field is evident in his reference to the statistical study of crime as a form of “moral anatomy.”

Quetelet refined his notion of the “average man” with conceptual tools borrowed from astronomy and probability theory. He observed that large aggregates of social data— notably anthropometric data—fell into a pattern corresponding to the bell-shaped curve derived by Gauss in 1809 in an attempt to determine accurate astronomical measurements from the distribution of random errors around a central mean. Quetelet came to regard this symmetrical binomial curve as the mathematical expression of fundamental social law. While he admitted that the average man was a statistical fiction, this fiction lived within the abstract configuration of the binomial distribution. In an extraordinary metaphoric conflation of individual difference with mathematical error, Quetelet defined the central portion of the curve, that large number of measurements clustered around the mean, as a zone of normality. Divergent measurements tended toward darker regions of monstrosity and biosocial pathology.³²

Thus conceived, the “average man” constituted an ideal, not only of social health, but of social stability and of beauty. In interesting metaphors, revealing both the astronomical sources and aesthetico-political ambitions inherent in Quetelet’s “social physics,” he defined the social norm as a “center of gravity,” and the average man as “the type of all which is beautiful—of all which is good.”³³ Crime constituted a “perturbing force,” acting to throw the delicate balance of this implicitly republican social mechanism into disarray. Although Quetelet was constructing a quantitative model of civil society and only indirectly describing the contours of an ideal commonwealth, his model of a gravitational social order bears striking similarity to Hobbes’s *Leviathan*.³⁴

Like Hobbes, Quetelet began with atomized individual bodies and returned to the image of the body in describing the social aggregate. Quetelet worked, however, in a climate of physiognomic and phrenologic enthusiasm, and indeed early social statistics can be regarded as a variant of physiognomy writ large. For example, Quetelet accepted, despite his republicanism, the late-eighteenth-century notion of the *cranial angle*, which, as George Mosse has argued, emerges from the appropriation by preevolutionary Enlighten-



From Adolphe Quetelet,
*Physique sociale, ou Essai sur le
développement des facultés de
l'homme*, 1869

ment anthropology of the classicist idealism of Wincklemann.³⁵ Based in part on the art-historical evidence of noble Grecian foreheads, this racist geometrical fiction defined a descending hierarchy of head types, with presumably upright Caucasian brows approaching this lost ideal more closely than did the presumably apelike brows of Africans. For his part, Quetelet was less interested in a broadly racist physical anthropology than in detecting within European society patterns of bodily evidence of deviation from “normality.” It is understandable that he would be drawn to those variants of physiognomic thought which sought to systematize the body’s signs in terms of a quantifying geometrical schema. From Quetelet on, biosocial statisticians became increasingly absorbed with *anthropometrical* researches, focusing on both the skeletal proportions of the body and the volume and configuration of the head.³⁶ The inherited idealist fascination with the upright forehead can be detected even in Quetelet’s model of an ideal society: he argued that social progress would lead to a diminished number of defective and inferior cases, thus increasing the zone of normality. If we consider what this utopian projection meant in terms of the binomial curve, we have to imagine an increasingly peaked, erect configuration: a classical ideal to a fault.

Certainly physiognomy provided a discursive terrain upon which art and the emerging biosocial sciences met during the middle of the nineteenth century. Quetelet’s explicitly stated enthusiasm for the model of artistic practice is understandable in this context, but the matter is more complicated. Despite the abstract character of his procedures, Quetelet possessed the aesthetic ambition to compare his project to Dürer’s studies of human bodily proportion. The statistician argued that his “aim had been, not only to go once more through the task of Albert [*sic*] Dürer, but to execute it also on an extended scale.”³⁷ Thus visual empiricism retained its prestige in the face of a new object—society—that could in no way be effectively or comprehensively visualized.³⁸

By the end of the nineteenth century, this essentially *organismic* model of a *visible* social field was in crisis. The terms of Quetelet’s honorific linkage of an emergent statistics to a venerable optical paradigm were explicitly reversed. The French sociologist Gabriel Tarde argued in 1883 that “a statistical bureau might be compared to an eye or ear,” claiming further that “each of our senses gives us, in its own way and from its special point of view, the statistics of the external world. Their characteristic sensations are in a certain way their special graphical tables. Every sensation . . . is only a number.”³⁹ Here the transition is made from the prestige of the visual and the organic to the prestige of institutionalized, bureaucratic abstraction.

Tarde was a central figure, not only in the demise of organismic models of society, but also in the development of a French school of criminological thought during the 1880s. Tarde was a magistrate during his early career, and by 1894 became the head of the Bureau of Statistics within the Department of Justice in Paris, which made him the abstract overseer of the quantitative ebbs and flows of a regulated criminality. His background in legal theory and practice led him to attempt a criticism and modification of Quetelet’s extreme determinism, which had absolved the criminal of all responsibility. After all, classical legal theory was not about to abandon its ideological capacity to uphold the state’s right to punish criminals for their deeds. In 1890 Tarde advanced a notion of “criminal responsibility” based upon the continuity of individual identity within a shared social milieu, a milieu of “social similiarity.” Tarde’s psychological model of individuality assumed an essential internal narrative coherence of the self: “Identity is the permanence of the person, it is the personality looked at from the point of view of its duration.”⁴⁰

Tarde's rather nominalist approach to the philosophy of crime and punishment paralleled a more practical formulation by Alphonse Bertillon, director of the Identification Bureau of the Paris Prefecture of Police. In 1893 Bertillon offered the following introduction to his system, then in use for ten years, known variously as "Bertillonage" and the "signaletic notice":

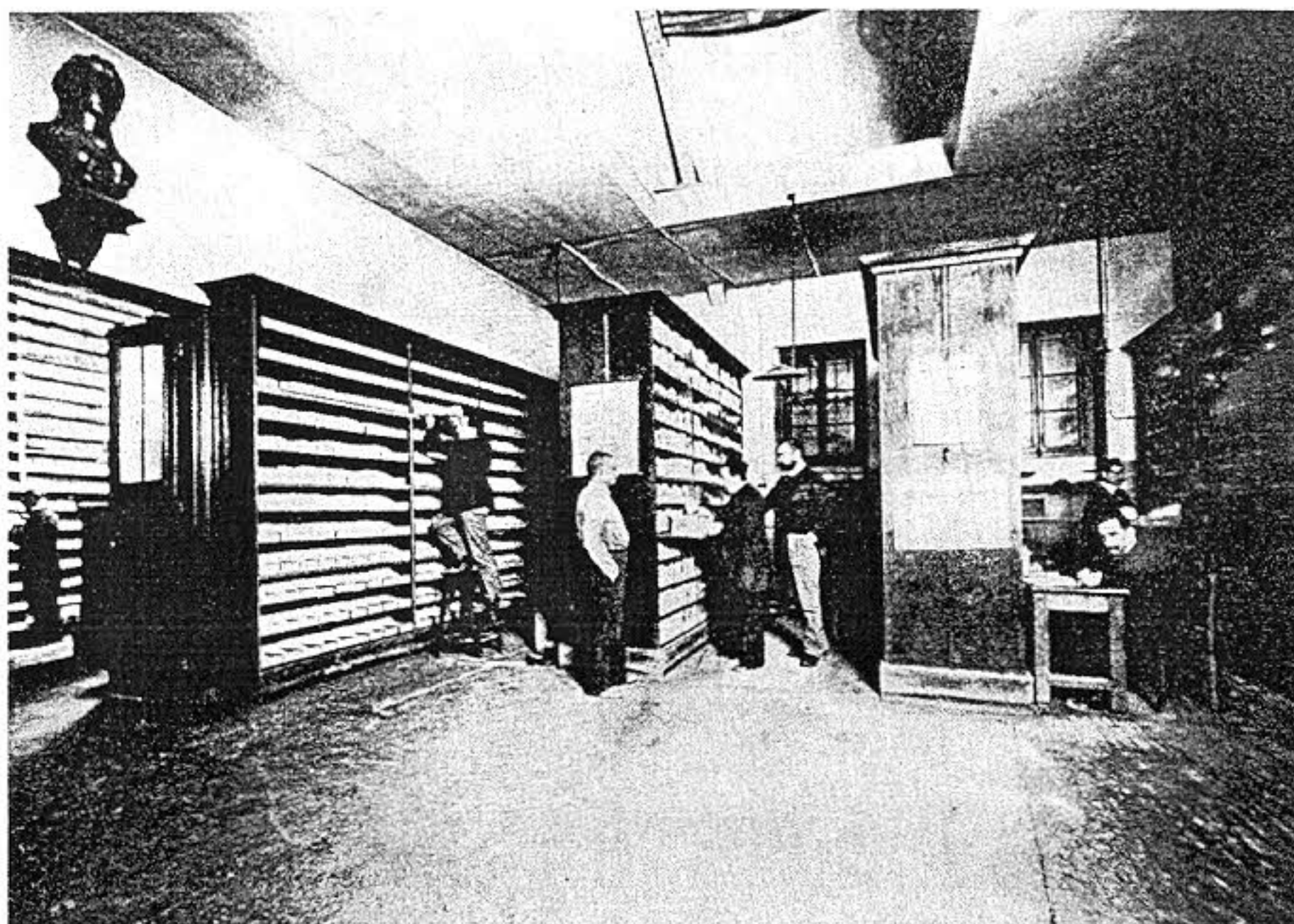
In prison practice the signaletic notice accompanies every reception and every delivery of a human individuality; this register guards the trace of the real, actual presence of the person sought by the administrative or judicial document. . . . [The] task is always the same: to preserve a sufficient record of a personality to be able to *identify* the present description with one which may be presented at some future time. From this point of view signalment is the best instrument for the *proof of recidivation*, which necessarily implies the *proof of identity*.⁴¹

In effect, then, Bertillon's police archive functioned as a complex biographical machine that produced presumably simple and unambiguous results. He sought to identify repeat offenders, that is, criminals who were liable to be considered "habitual" or "professional" in their deviant behavior. The concern with recidivism was of profound social importance in the 1880s. Bertillon, however, professed no theory of a criminal type, nor of the psychic continuities or discontinuities that might differentiate "responsible" criminals from "irresponsible" criminals. He was sensitive to the status hierarchy between his Identification Bureau and the more "theoretical" mission of the Bureau of Statistics. (Bertillon was the son of a prominent anthropometrician, Louis Adolphe Bertillon, and seems to have labored mightily to vindicate himself after an inauspicious start as a mere police clerk.) He was more a social engineer, an inventive clerk-technician, than a criminologist. He sought to ground police work in scientific principles, while recognizing that most police operatives were unfamiliar with consistent and rigorous empirical procedures. Part of his ambition was to accelerate the work of processing criminals and to employ effectively the labors of unskilled clerks. He resembles in many respects his American contemporary, Frederick Winslow Taylor, the inventor of scientific management, the first system of modern factory discipline. Bertillon can be seen, like Taylor, as a prophet of rationalization. Here is Bertillon describing the rapidity of his process: "Four pairs of police officers suffice, at Paris, for the measurement, every morning between nine o'clock and noon, of from 100 to 150 men who were arrested the day before."⁴² Ultimately, this was not fast enough, and therein lay a principal reason for the demise, some thirty years later, of the Bertillon system.

How did the Bertillon system work? The problems with prior attempts at criminal identification were many. The early promise of photography had faded in the face of a massive and chaotic archive of images. The problem of *classification* was paramount:

The collection of criminal portraits has already attained a size so considerable that it has become physically impossible to discover among them the likeness of an individual who has assumed a false name. It goes for nothing that in the past ten years the Paris police have collected more than 100,000 photographs. Does the reader believe it practicable to compare successively each of these with each one of the 100 individuals who are arrested daily in Paris? When this was attempted in the case of a criminal particularly easy to identify, the search demanded more than a week of application, not to speak of the errors and oversights which a task so fatiguing to the eye could not fail to occasion. There was a need for a method of elimination analogous to that in use in botany and zoology; that is to say, one based on the characteristic elements of individuality.⁴³

Despite the last part of this remark, Bertillon sought not to relate individual to species, but to extract the individual from the species. Thus he invented a classifying scheme that



Classification cabinets, Paris Prefecture of Police. From Alphonse Bertillon, *Service d'identification*, Exposition universelle de Chicago, 1893.

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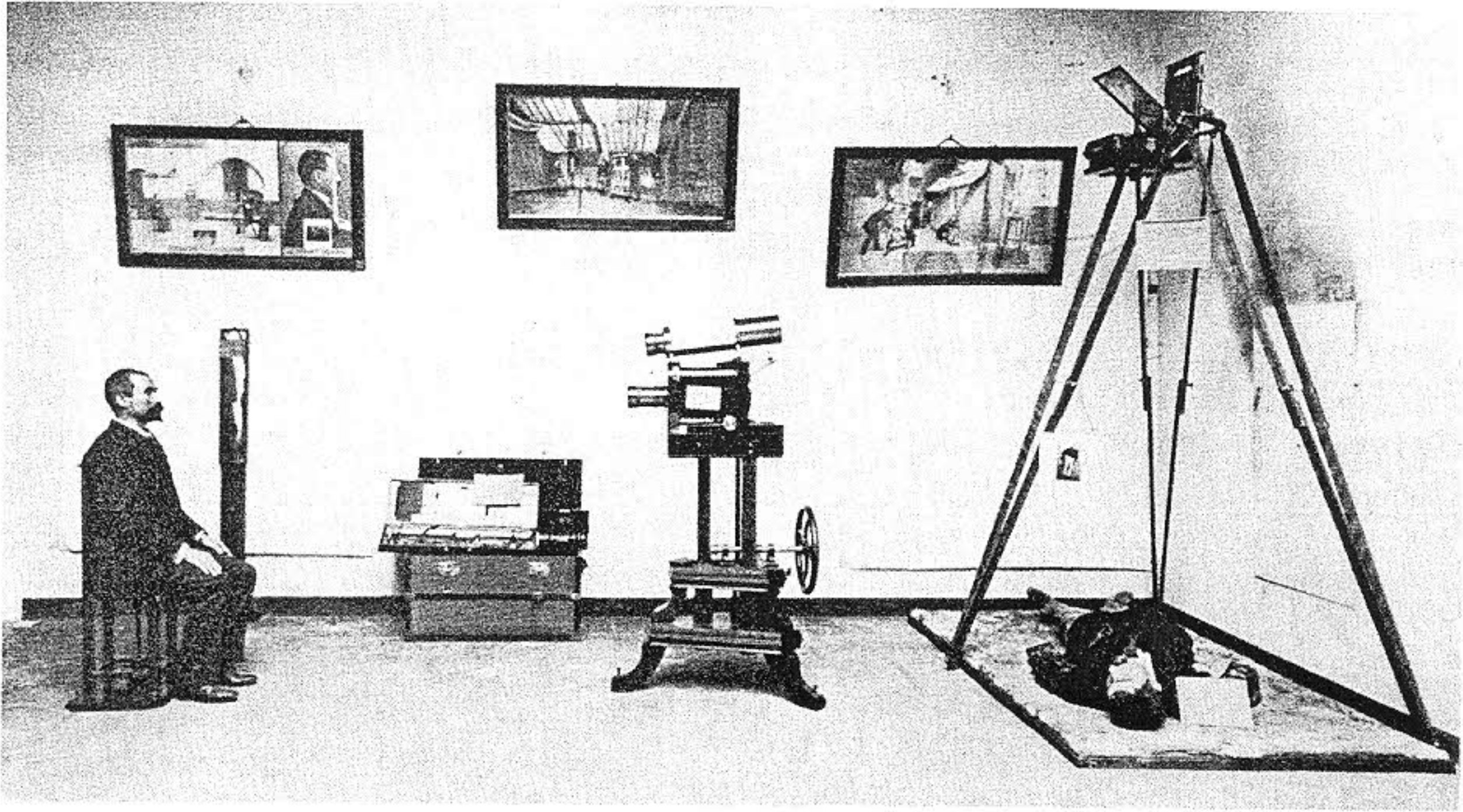
was based less upon a taxonomic categorization of types than upon an ordering of individual cases within a segmented aggregate. He had failed miserably in an earlier attempt to classify police photographs according to the genre of offense, for obvious reasons.⁴⁴ Criminals may have constituted a “professional type,” as Tarde argued, but they did not necessarily observe a narrow specialization in their work.

Bertillon sought to break the professional criminal’s mastery of disguises, false identities, multiple biographies, and alibis. He did this by yoking anthropometrics, the optical precision of the camera, a refined physiognomic vocabulary, and statistics.

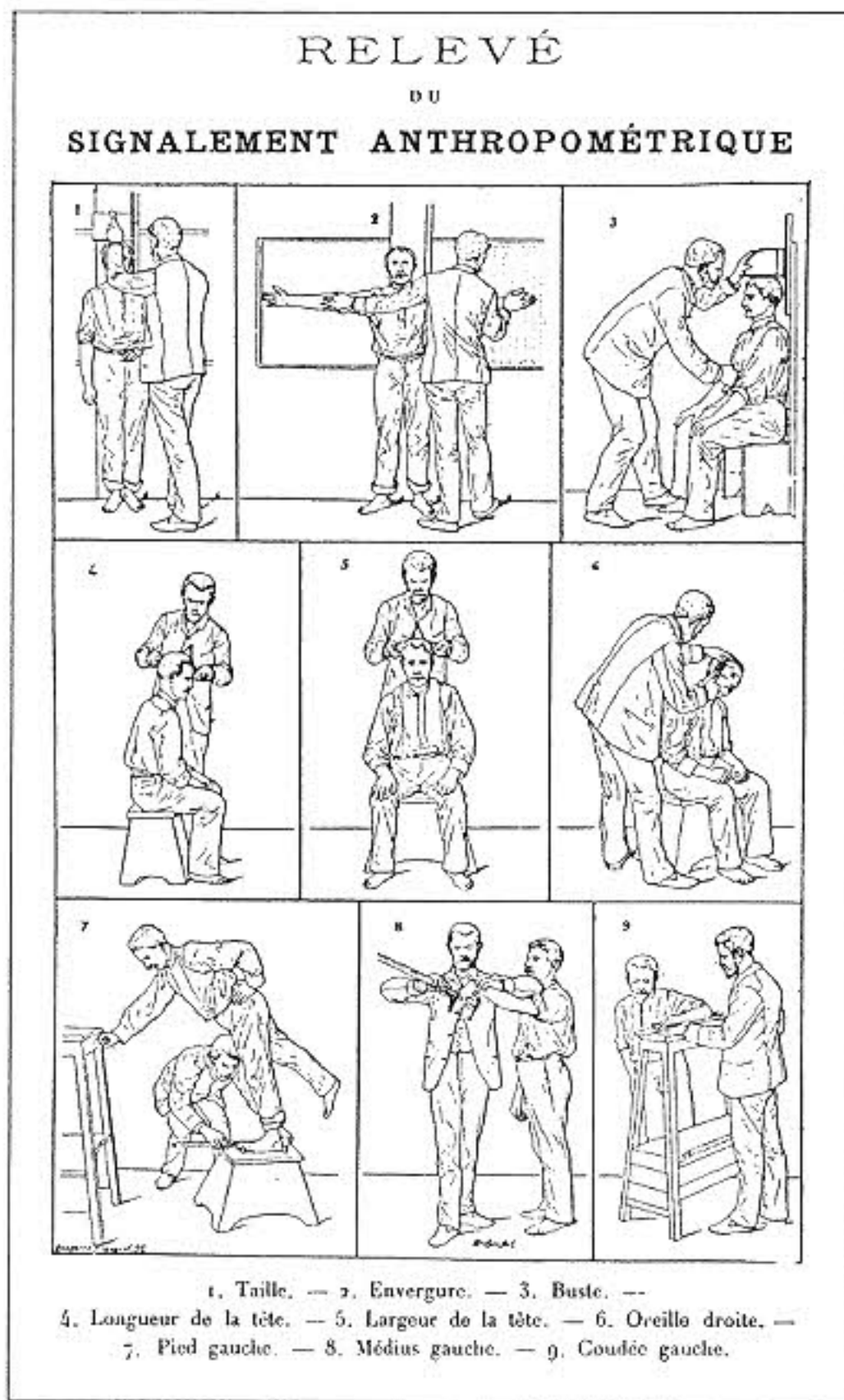
First Bertillon calculated, without a very sophisticated grasp of the calculus of probabilities, that the chance that two individuals might share the same series of eleven bodily measurements ran on the order of one in four million.⁴⁵ He regarded these eleven measurements as constant in any adult body. His signaletic notice linked this “anthropometrical signalment,” recorded as a numerical series, with a shorthand verbal description of distinguishing marks and a pair of photographic portraits, both frontal and profile views.

Bertillon’s second problem was the organization of individual cards in a comprehensive system from which records could be retrieved in short order. To this end, Bertillon enlisted the prodigious rationalizing energies of Quetelet’s “average man.” By organizing his measurements into successive subdivisions, each based on a tripartite separation of below-average, average, and above-average figures, Bertillon was able to file 100,000 records into a grid of file drawers, with the smallest subset within any one drawer consisting of approximately a dozen identification cards. Having thus separately processed 100,000 male and 20,000 female prisoners over the decade between 1883 and 1893, Bertillon felt confident in boasting that his system was “infallible.” He had in the process “infallibly” identified 4,564 recidivists.⁴⁶

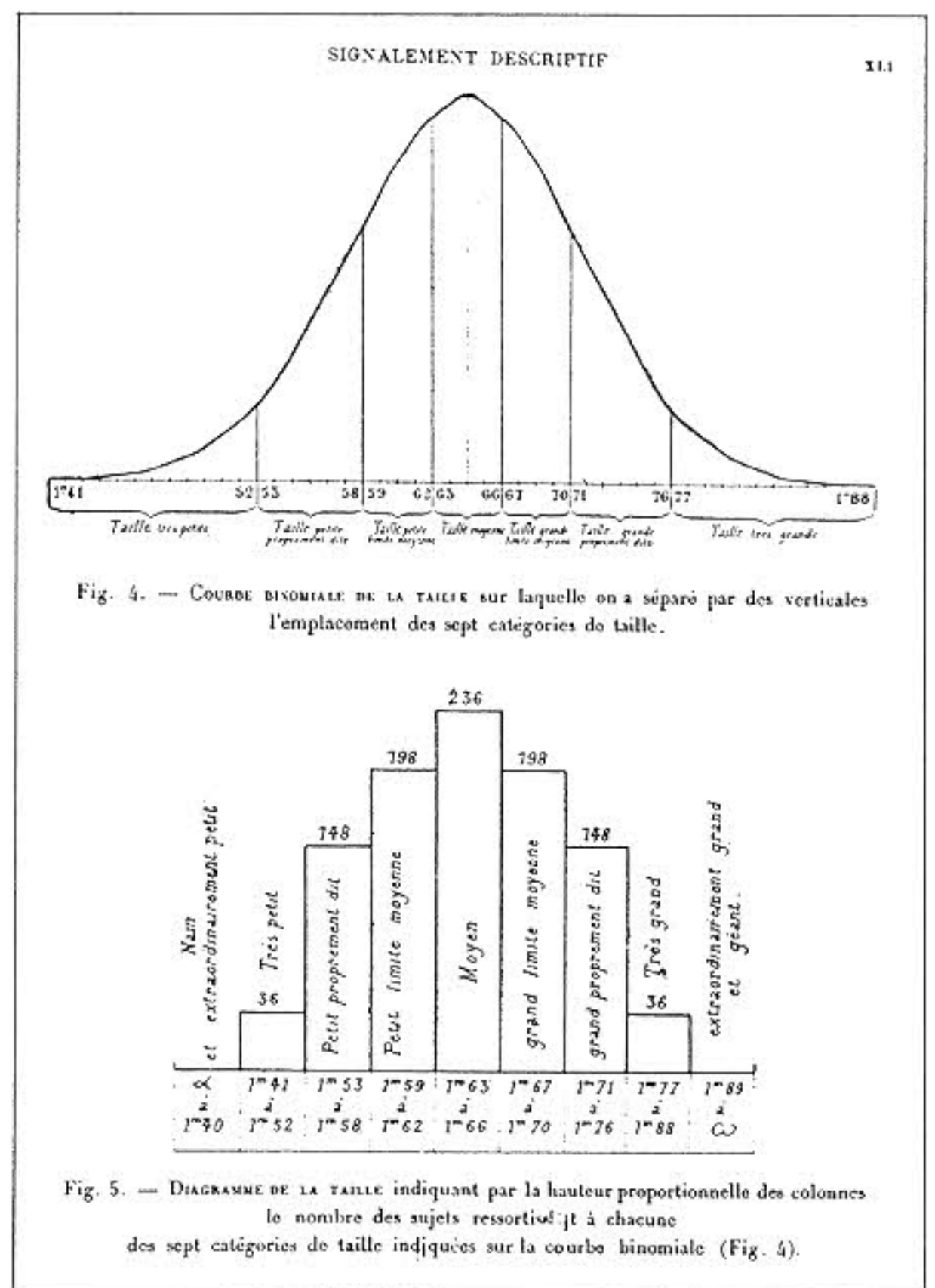
Bertillon can be said to have realized the binomial curve as office furniture. He is one of the first users of photographic documents to comprehend fully the fundamental problem of the archive, the problem of volume: Given his recourse to statistical method, what semantic value did he find in photographs? He clearly saw the photograph as the final conclusive sign in the process of identification. Ultimately, it was the photographed face



Display of apparatus, Chicago
Exposition, 1893



Frontispiece from Alphonse
Bertillon, *Identification
anthropométrique*, 1893



Figures from Alphonse
Bertillon, *Identification
anthropométrique*, 1893

pulled from the file that had to match the rephotographed face of the suspect, even if this final “photographic” proof was dependent upon a series of more abstract steps.

Bertillon was critical of the inconsistent photography practiced by earlier police technicians and jobbers. He argued at length for an aesthetically neutral standard of representation:

In commercial and artistic portraits, questions of fashion and taste are all important. Judicial photography, liberated from these considerations, allows us to look at the problem from a more simple point of view: which pose is theoretically the best for such and such a case?⁴⁷

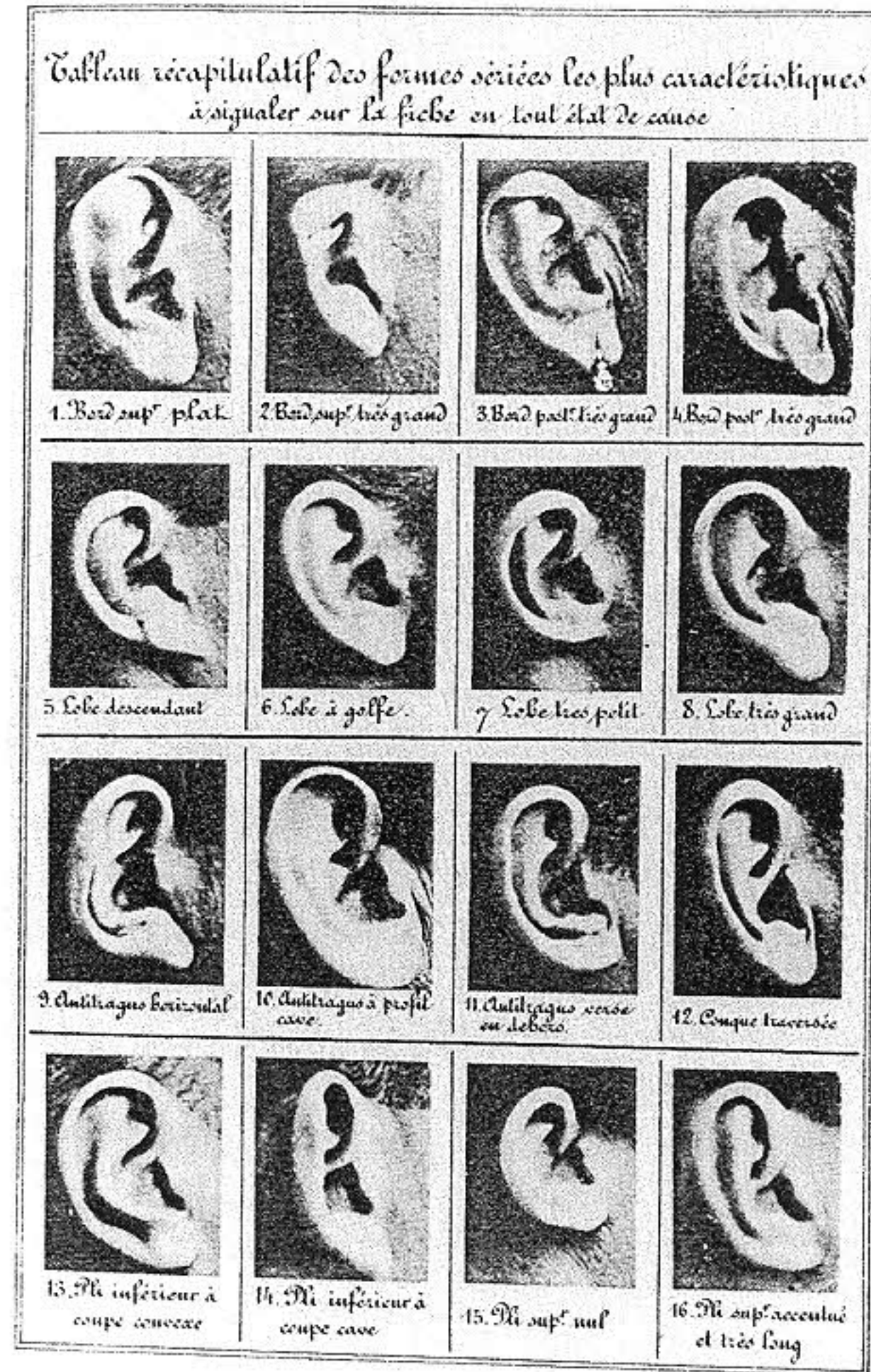
Bertillon insisted on a standard focal length, even and consistent lighting, and a fixed distance between the camera and the unwilling sitter. The profile view served to cancel the contingency of expression; the contour of the head remained consistent with time. The frontal view provided a face that was more likely to be recognizable within the other, less systematized departments of police work. These latter photographs served better in the search for suspects who had not yet been arrested, whose faces were to be recognized by detectives on the street.

Just as Bertillon sought to classify the photograph by means of the Vitruvian register of the anthropometrical signalment and the binomial curve, so also he sought to translate the signs offered by the photograph itself into another, verbal register. Thus he was engaged in a two-sided, internal and external, taming of the contingency of the photograph. His invention of the *portrait-parlé*—the “speaking likeness” or verbal portrait—was an attempt to overcome the inadequacies of a purely visual empiricism. He organized voluminous taxonomic grids of the features of the male human head, using sectional photographs. He devoted particular attention to the morphology of the ear, repeating a physiognomic fascination with that organ that extended back to Lavater.⁴⁸ But on the basis of this comparative anatomy, Bertillon sought to reinvent physiognomy in precise nonmetaphysical, ethnographic terms. Through the construction of a strictly denotative signaletic vocabulary, this project aimed for the precise and unambiguous translation of appearance into words.

For Bertillon, the criminal body expressed nothing. No characterological secrets were hidden beneath the surface of this body. Rather, the surface and the skeleton were indices of a more strictly material sort. The anthropometrical signalment was the register of the morphological constancy of the adult skeleton, thus the key to biographical identity. Likewise, scars and other deformations of the flesh were clues, not to any innate propensity for crime, but to the body’s physical history: its trades, occupations, calamities.

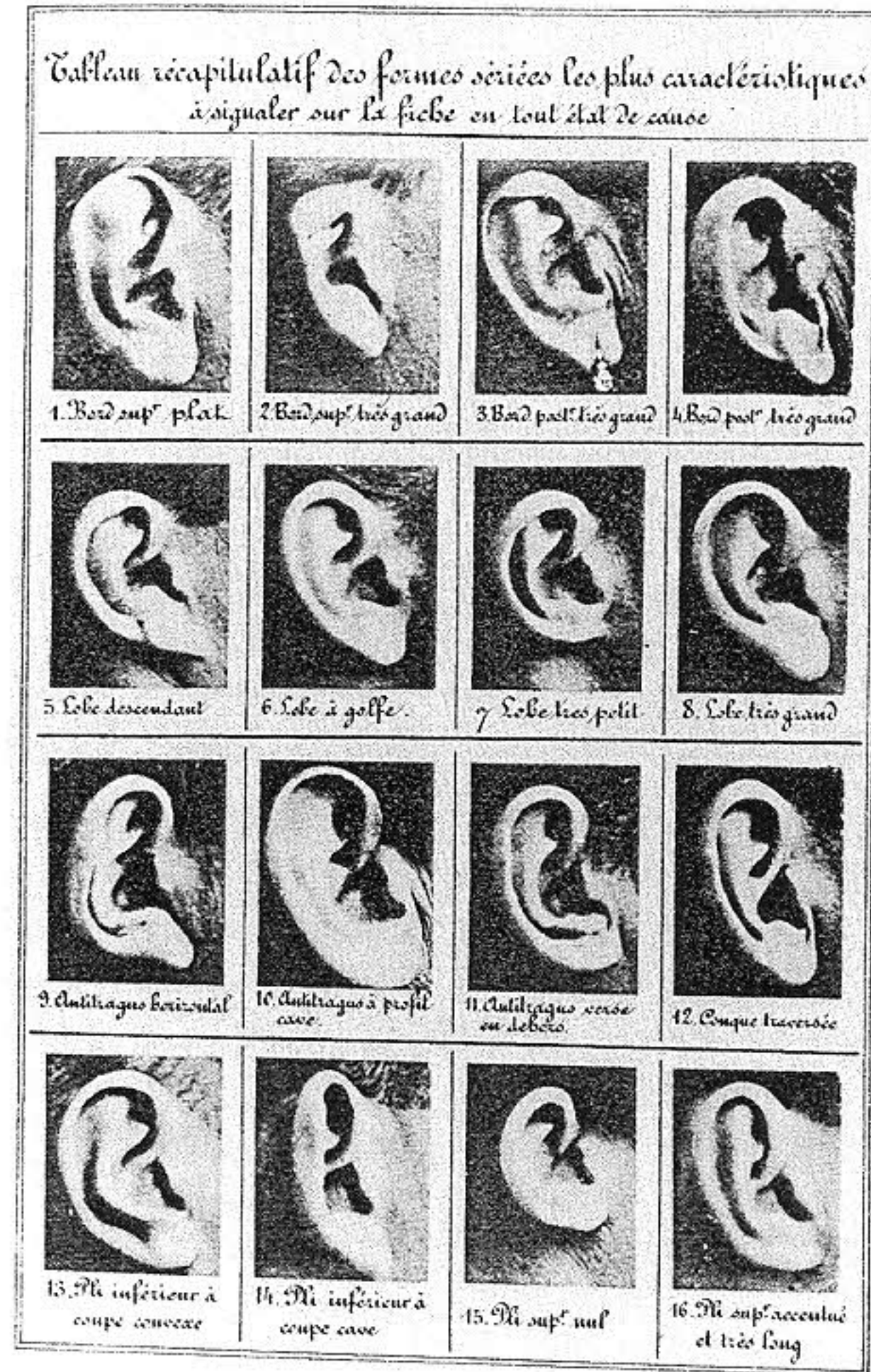
For Bertillon, the mastery of the criminal body necessitated a massive campaign of *inscription*, a transformation of the body’s signs into a *text*, a text that pared verbal description down to a denotative shorthand, which was then linked to a numerical series. Thus Bertillon arrested the criminal body, determined its identity as a body that had *already* been defined as criminal, by means that subordinated the image—which remained necessary but insufficient—to verbal text and numerical series. This was not merely a self-contained archival project. We can understand another, more global, imperative if we remember that one problem for the late-nineteenth-century police was the telegraphic transmission of information regarding suspects. The police were competing with opponents who availed themselves of the devices of modernity as well, including the railroad.

Why was the issue of recidivism so important in France during the 1880s? Robert Nye has argued recently that the issue emerged on the political agenda of Gambettist Republicans during the Third Republic, leading to the passage of the Relegation Law of 1885,



which established a Draconian policy of colonial transport for repeat offenders. The bill worked out a variable quota of misdemeanors and felonies, including vagabondage, that could lead to permanent exile in Guyana or New Caledonia. The French agricultural crisis had led to a renewed massive urban influx of displaced peasants during the 1880s. The recidivism debate focused on the social danger posed by the vagrant, while also seeing the milieu of the chronically unemployed urban poor as a source of increased criminality. Not least in provoking the fears of the defenders of order was the evidence of renewed working-class militancy in the strike wave of 1881, after a decade of peace purchased by the slaughter of the Communards. At its most extreme, the debate on recidivism combined the vagabond, the anarchist, and the recidivist into a single composite figure of social menace.⁴⁹

Bertillon himself promoted his system within the context of this debate. Having only succeeded in identifying his first recidivist in February of 1883, he quickly argued that his binomial classification system would be essential to the application of any law of relegation. He described a Parisian working-class milieu that was undergoing what might facetiously be called a “crisis of identity.” During the Commune, all city records prior to 1859 had been burned; any Parisian over twenty-two years old was at liberty to invent and reinvent an entirely bogus nativity. Furthermore, Bertillon claimed that there was an



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