

I doubt whether we would be much the gainers by a comparison. In making this statement it must be distinctly understood that I am only comparing their lives with their own ideals, and not judging them by the ethical standards of other races. It is true they were treacherous, often murdered strangers, and were head-hunters; that their ideas of sexual morality differed from ours, but these "crimes" were not prohibited by public conscience, and there was therefore no wrong in their committing them.

Our higher civilization has swept over these poor people like a flood, and denuded them of more than their barbarous customs; the old morality has largely gone too.<sup>1</sup>

#### FRENCH POLICE PHOTOGRAPHY.

M. ALPHONSE BERTILLON, who has so completely demonstrated the futility of the photograph as a means of judicial identification on any extended scale (see my description of M. Bertillon's system of police anthropometry in the *Fortnightly Review* for March last), when a mere mass of photographs is accumulated with no scientific scheme to aid them, has himself, nevertheless, done more than anyone else to develop and demonstrate the proper subordinate use of the photograph as an agent of the law. M. Bertillon's studies on the subject are not only most valuable to the members of the public administration, but are intensely interesting and instructive to the general reader, and the general scientific student especially, as will be readily acknowledged on a perusal of the young French official's latest publication.<sup>2</sup> He has not only offered me the privilege of making such extracts as I please from this work, but has kindly furnished me with some of the diagrams in the text. This new volume has already attracted considerable attention in France, and will doubtless be received with as much interest in England as have M. Bertillon's previous studies in the domain of anthropology, so that an account of the work in the columns of *NATURE* seems most opportune.

M. Bertillon begins by describing the sharp distinction between ordinary photography and judicial photography. Artistic and commercial photographs are subordinate to considerations of taste and fashion—not by any means for the purpose of recognizing the subjects of the photographs when met with in after time. The judicial photograph, on the other hand, takes no heed of artistic pose, but must conform to rules which enable the skilled eye to recognize the subject under the most unfavourable circumstances. It relates to various classes of subjects, some known and to be recognized hereafter, such as dangerous criminals; and some unknown and to be, if possible, identified by distant witnesses at the present time, such as suspected persons under arrest, corpses at the Morgue, the wandering insane, lost children, subjects of paralytic shocks, and innumerable human mysteries constantly falling into the hands of the police. The police are thus obliged to be constantly circulating photographs of their own manufacture, and it is of the utmost importance that such photographs should be taken upon the most scientific lines for accomplishing the object in view. Above all, in collecting vast numbers of judicial photographs for future reference—the photographic archives, "cantly" known in English as the "Rogues' Gallery" (though by no means confined to rogues in the eyes of the law)—it is important that the portraits should be taken

with uniformity, the questions of full face or profile, full length or bust, &c., being decided beforehand, a fixed scale being adopted. Otherwise two photographs will be often of little use for purposes of comparison.

There is but one object to be attained, and that is easily analyzed—to produce the most perfect likeness, or rather to produce the likeness easiest to recognize, the one most easily identified with the original. The problem in this shape depends on a new factor: Under what circumstances and aspects did those who will be called upon to give an opinion on our photograph know our subject? and leads to this further question: What is the object sought by the judicial inquiry?

If it is a question of taking a sort of print of the individual which, together with his description and judicial record, will enable him to be identified after the lapse of many years, then above all things it is necessary to have recourse to the most lasting features of the human body, and to consult the natural sciences, more especially anthropology. If, on the other hand, it is a question of identification with the past—that is, that our photograph is destined to be compared with others that have been preserved in jails or police offices—the solution is very simple, and consists, above all other considerations, in reproducing the pose, the light, the size, and scale of reduction used in the archives to which our portrait is to be sent.

In regard to the important subject of light M. Bertillon speaks as follows:—"Absolute similarity is unfortunately unattainable. The aspect of the studio, the hour of sitting, the state, more or less cloudy, of the sky, will always betray themselves by the difference in the direction, and the greater or less intensity, of the shadows. We ought first of all to reject, as too complicated, all artistic or fantastic lights. For the full face the light should come principally from the left, a little in front. The pose chair and the apparatus being fixed to the floor at an unchangeable distance, we have for the profile but the direct front or back light to choose from. The light from behind gives more accentuation to the full face, and a more artistic tone. But the interior folds of the ear are necessarily in the shade, and the silhouette does not stand out so clearly as with a front light. The necessity of our profiles being taken with a front light, together with the early hour at which they are taken (so as not to interfere with the magistrates, whose work commences at 12), forces us to take the right profile to the exclusion of the left. In fact, the photograph studios generally facing north, and the sun being south-east between 10 and 11 o'clock, the left profile can only be lighted by a counter light to the camera. In a judicial studio, therefore, thus lighted from the north, the apparatus would be placed on the east side and the pose chair on the west, the work being done in the morning. By a curious coincidence, and no doubt from analogous causes, the greater number of ethnographic photographs of profile, especially those which compose the superb collection of Prince Roland Bonaparte, are taken from the right side."

The author next discusses the scale to be employed, advocating the necessity of including the shoulders, to show on occasion the crook-backed carpenter, or stiff Briton or Prussian (presumably contrasted with the supple Frenchman), preferring a reduction of 1 in 7 and a distance of 2.56 metres, various technical details being given for the benefit of the artist.

In his second chapter, M. Bertillon takes up the question of the use of the judicial photograph after it is obtained—firstly, as regards identification of two photographs; secondly, identification of a photograph with a person in custody; thirdly, with a person at liberty; lastly (the operation most familiar to the public), identification with a recollection in some one's mind. Of course, it is for this latter object that police portraits are strewn broadcast for the eve of the community at large.

<sup>1</sup> Further information as to customs and legends of the Torres Straits Islanders will be found in the *Journal of the Anthropological Institute*, vol. xix. 1890, and in *Folk-lore*, vol. i. 1890.

<sup>2</sup> "La Photographie Judiciaire, avec un appendice sur la classification et l'identification anthropométriques." Par Alphonse Bertillon, Chef du Service d'Identification de la Préfecture de Police. (Paris: Gauthier-Villars et fils, 1890.)



But the chief exercise of this function in the ranks of the police themselves is the search among their store of portraits for a person of whom they receive a description, the crucial points in this description being set out, and specially the dangers to be avoided. Thus certain colours of hair and complexion make photographs almost unrecognizable, and peculiarities of gesture and movement are so characteristic of some persons as to make mere immobile portraits little suggestive even to familiar acquaintances. As regards comparison between two photographs, the author calls attention to the points which should prevent two apparently dissimilar commercial photographs from being pronounced different subjects; and, on the other hand, the striking family likenesses which should make one careful in declaring two similar portraits the same person. M. Bertillon gives the clue to the physiological data which should govern judgment on these occasions. He illustrates a clever contrivance (but lately borrowed from their French brethren by the English police) by which a newly-taken portrait of a person in custody and an old portrait are compared on equal terms by a covering up of all but the unchangeable portions of the face—hair, beard, and moustaches being obliterated. M. Bertillon makes his most daring speculations, however, in relation to identification of a person at large from a photograph in hand. He says, even as the word "chime" is not conveyed to the brain without a sensation not only of sight of the bells but the sound as well of its ring, so identification should come from certain clue characters of personal appearance, suggesting the absolute identity. It is of no use to sit down and study in detail a photograph which probably tallies in few points with the same person as he is likely to be encountered abroad; but the unchangeable individual data must be seized upon by the trained mind versed in the language of anthropology, so that an encounter with the desired object will never fail to tell the secret. Thus, in the frequent necessity of stopping persons on embarkation at a sea-port, the profile is, of course, the thing to be kept before the inspecting eye; but even this must be understood in relation to the disguise of bearing, expression, &c., all of which must be considered—not the mere photograph taken under far different circumstances. M. Bertillon concludes this interesting section as follows:—"The officer charged with so difficult a mission as the search for, and arrest of, a criminal by the aid of a photograph, should be able to repeat and write from memory the description of the face of the man he is in search of. It is the best means of proving to his chiefs that he has at heart the task confided to him. The reader will see later the special terminology which a knowledge of the subject necessitates. More than one of our readers will be surprised to see that police science borrows some of its methods from natural history and mathematics. We think that this descriptive study of the human frame will interest the portrait photographer as much as it will the judicial inquirer. Are not both scrutinizers of the human physiognomy, though truly from a different point of view?"

The author's third chapter is devoted to other applications of photography to judicial purposes. Here he refers to the notorious pocket cameras, which he puts aside as rarely of much use for police purposes, it being at a critical moment more of an object to capture a malefactor than to photograph him. Still, he admits an occasional value for this kind of photography, and gives a startling example of the scene of a most dramatic murder in the suburbs of Paris at the instant of its discovery, before anything of the surroundings had been disturbed. This, M. Bertillon contends, would naturally be most valuable in the hands of the prosecution. Numerous other uses of photography are mentioned, such as cases of mine accidents, traces in the snow before it melts, and other matters of future judicial investigation. Many objects

connected with crime may become the subject of photography, such as weapons and portions of dress; and photochromography comes in opportunely to spread abroad not only the form but the colour of the articles considered important in tracing a criminal, so that evidence as to such articles may be forthcoming.

In his appendix, M. Bertillon gives an interesting summary analysis of the human figure, based on the studies of Quételet; but as this is only indirectly connected with the subject in hand, I will only refer to the two features on the importance of which in judicial investigation the author lays the greatest emphasis—namely, the nose and the ear. That important and delicate subject over which so much concern is evinced in the social circle and the domain of literature—the human nose—M. Bertillon considers equally worthy of prominence in anatomical study and police practice. He offers a scheme whereby noses may be studied with profit to the judicial mind, discarding the considerations which chiefly appeal to the ordinary eye in comparisons—colour, size, and general shape—and confining the classification to the line profile pure and simple, apart from all other elements. M. Bertillon makes fifteen classes, into which all noses, even the most eccentric probosces, may be sorted: firstly, three grand divisions—the *elevated*, the *horizontal*, and the *drooping*, according to the nature of the base-line; each of these to be again divided by the bridge line into *concave*, *straight*, *convex* (or curved), and, lastly, *undulating* (wavy, broken, or irregular in outline). The detective or judicial functionary, when called upon to say whether a face under his surveillance corresponds with a photograph in question, will find great help in a thorough nasal analysis, for two noses are never exactly alike.

Yet more important is the ear, which, M. Bertillon insists, should always be shown in the portrait. His remarks on this feature are so valuable that I will conclude my summary of his unique little volume by an abstract from this portion, illustrated by the accompanying diagrams, the use of which has been so kindly allowed me by the author:—

"We will close our examination of the profile by studying the ear, which, thanks to the projections and depressions with which it abounds, is the most important factor in the problem of identification. It is all but impossible to find two ears identically similar in all their parts, and the variations in the conformation which this organ presents appear to remain without modification from birth until death. We believe that the registration at birth of certain peculiarities in the ear would render any substitution of persons, even when adults, impossible. From birth unchangeable in its form, uninfluenced by surroundings or education, this organ remains throughout life like the untangible legacy of heredity and interuterine life. Nevertheless, on account of its immobility itself, which prevents its taking any part in the play of features, no part of the face less attracts the attention of the profane. Our eye is as little accustomed to notice it as our tongue is to describe it. In fact, the denominations of the principal parts of which it is composed have been but very summarily described in most of the anatomical treatises.

"It will be sufficient for us to confine ourselves to the prominences which border the depressions, to give a good idea of the latter, and it will enable us to shorten our description by one-half. The prominences are five in number.

"(1) The border of the ear, or helix, a semicircular projection commencing at A (Fig. 1) in the middle of the ear, above the auditory passage, reaching to the periphery, and bordering two-thirds of the upper ear.

"(2) Where it ceases, the lobe commences soft and rounded, terminating at the base the circumference of the ear.

"(3) Then the tragus—small, flat, triangular, cartilaginous prominence—placed outside in front of the auditory



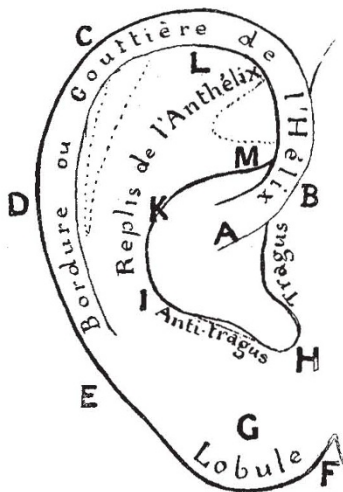
passage. Its shape presents but few individual variations.

"(4) Opposite, separated by the auditory passage, is the antitragus, less prominent than the tragus, but of far greater descriptive value.

"(5) Finally, above it the fold of the anthelix, which, after rising about 1 centimetre, bifurcates in two branches, the upper and the horizontal, the latter rejoining the helix above its original starting-point.

"The above order of enumeration enables us to draw the different contours of the ear without raising our pencil, starting from point A, and finishing at point M; this course of the pencil is shown on Fig. 1 by the alphabetical order of the capital letters, which separate each of the subdivisions, of which we are about to describe the most characteristic morphologic variations.

"The border may be divided into four parts—the starting-point, A B; the anti-superior part, B C; the posterior, C D; and the final, D E. Each of these parts may vary independently—that is to say, may be small, medium, or large. It also happens pretty frequently that the beginning and ending portions (A B or D E) are altogether missing; at other times the portion C D is more fully developed than the superior or upper part, or less so. The irregularities of contour that result therefrom are very characteristic. Lastly, the final part, D E, may



[FIG. 1.

be very much developed and continue round the lobe to the cheek.

"The lobe should be considered—

"(a) The outline of its free edge, E F, which may terminate in a descending point, and attached to the cheek, or squared, or in rounded ellipsoid.

"(b) "Its degree of adherence to the cheek, F H, which we called 'fused,' or it may be joined by a membranous fold, which only becomes visible when the ear is stretched from the cheek. Finally, it may be entirely separated from the cheek.

"(c) Of the shape of the anti-exterior surface, G, which may be traversed by the prolongation of the helix, level or mammilated.

"(d) Of its dimensions in height, which may be small, medium, or large.

"The antitragus presents a general line of direction, the inclination of which may vary from horizontal (the head being in its normal position) to obliquity of 45°. In relation to this line, represented in the drawing by the dotted line H I, the antitragus can profile in line with

an upper concavity, or rectilinearly, or slightly sinuous, or projecting. Finally, the antitragus (especially its free extremity) may be inverted outwards or straight. Putting aside all questions of shape, the antitragus may vary also with reference to its indefinite dimensions.

"The parts I K and K L of the fold of the anthelix may each separately be small, medium, or large. When the anthelix, and specially the upper branch, K L, is little accentuated, the ear stands out from the head, and takes a shape which resembles the ear of the mammifer. The horizontal portion, K M, of the anthelix has a bearing sometimes truly horizontal, sometimes oblique, sometimes intermediate.



FIG. 2.—Ear showing all the characteristics at a minimum.

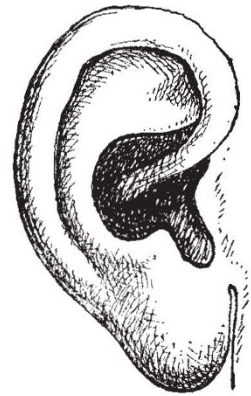


FIG. 3.—Ear showing all the characteristics at a maximum.

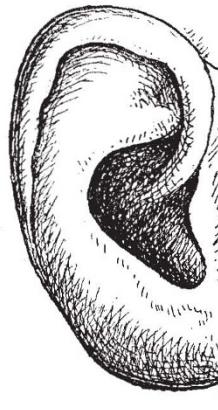


FIG. 4.

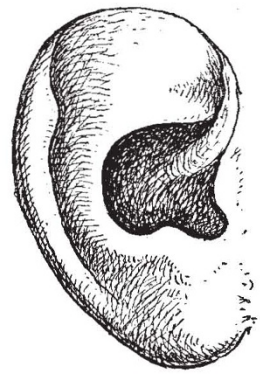


FIG. 5.

FIGS. 4 and 5.—Ears showing the corresponding peculiarities alternately at a minimum and at a maximum.

"The whole ear, including the lobe, may equally deflect from the head; hence the shape called "peduncular" by some authors. In other cases the deflection is most noticeable in the posterior part, or upper, or even in the lower part of the ear. We must also notice the presence of a prominence in a certain number of ears, between the points C and D. This protuberance is called 'the tubercle of Darwin,' after the celebrated English naturalist, who saw in it a survival of the pointed ear of certain monkeys (Fig. 5)."

It is to be hoped that M. Bertillon's work will be seen in English, for I have given but a fragment of the choice, fresh matter in the little volume.

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