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HYBRIDITY IN THE GENUS HOMO.

BROCA.



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THE  
PROCEEDINGS  
OF THE  
ROYAL SOCIETY  
OF LONDON  
IN THE  
MONTH OF  
JANUARY  
1861

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PROCEEDINGS  
OF THE  
ROYAL SOCIETY  
OF LONDON



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Tracts 1730

ON THE

# PHENOMENA OF HYBRIDITY

IN THE

GENUS HOMO.

BY

DR. PAUL BROCA,

SECRÉTAIRE GÉNÉRAL À LA SOCIÉTÉ D'ANTHROPOLOGIE DE PARIS, HONORARY FELLOW OF THE  
ANTHROPOLOGICAL SOCIETY OF LONDON.



EDITED,

With the Permission of the Author,

BY

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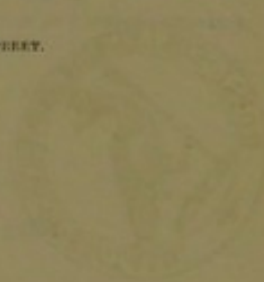


THE HISTORY OF THE

CHURCH OF

ST. JOHN

T. RICHARDS, 37, GREAT QUEEN STREET.



TO

RICHARD OWEN, Esq.,

F.R.S., M.D., D.C.L., LL.D., F.L.S., F.G.S., F.Z.S.

FOREIGN ASSOCIATE OF THE ANTHROPOLOGICAL SOCIETY OF PARIS, AND HONORARY  
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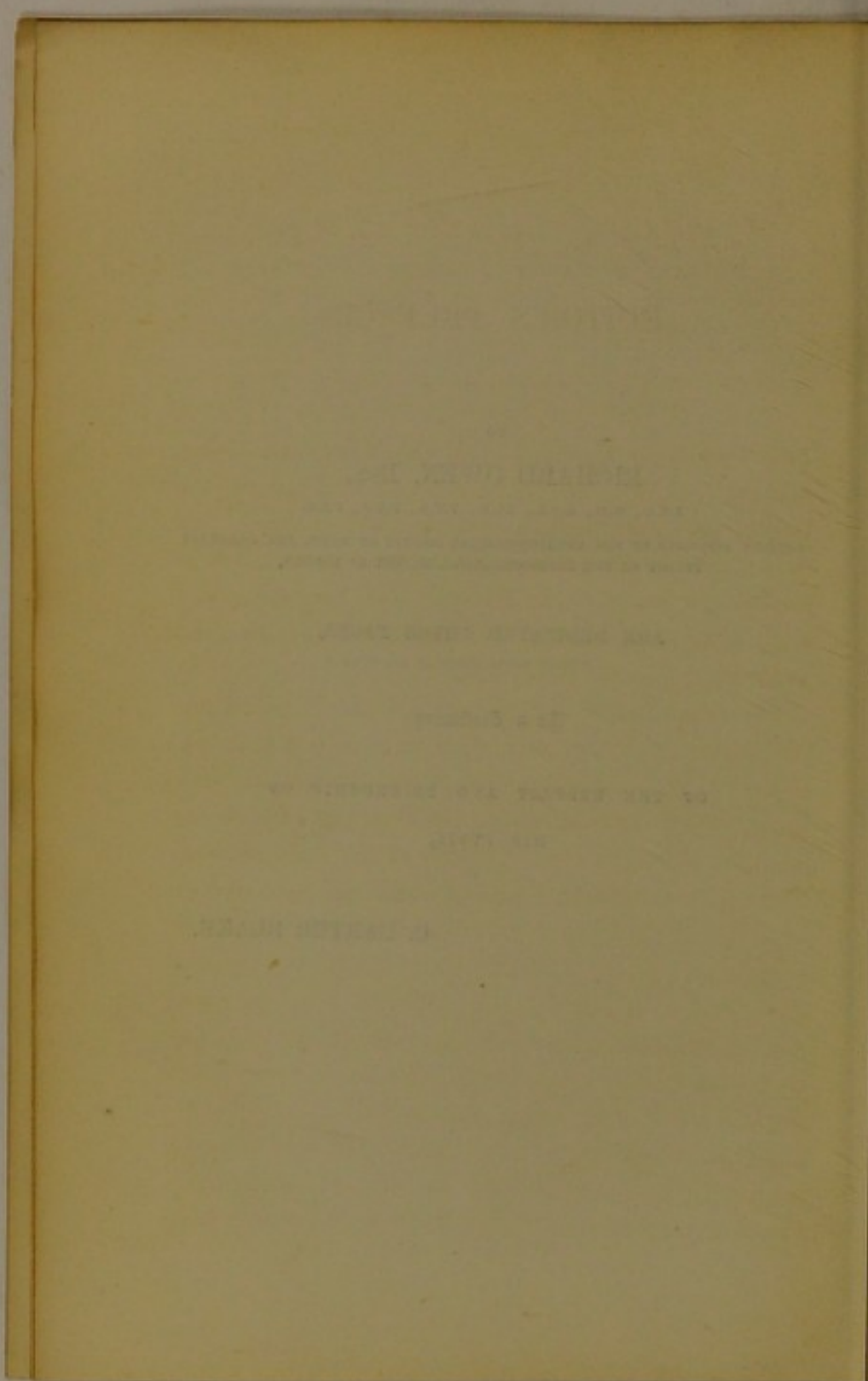
ARE DEDICATED THESE PAGES,

*As a Testimony*

OF THE RESPECT AND FRIENDSHIP OF

HIS PUPIL,

C. CARTER BLAKE.



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## EDITOR'S PREFACE.

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THE Publishing Committee of the ANTHROPOLOGICAL SOCIETY have done me the honour to confide to me the task of editing Dr. Broca's valuable little volume. This duty I have now fulfilled, and hope that the members of the Society and the general public will experience the same pleasure in reading the translation, as I received when first I perused the original.

The causes which led the committee to suggest the publication of the present translation are lucidly expressed by the motto which Dr. Broca placed on his title-page. The public mind is so little acquainted with the real facts relating to the hybridity of the Races of Man, that its investigation, "*non ex vulgi opinione, sed ex sano judicio*," is necessary to the efficient progress of our science. Such an appeal, however, necessitates that the whole subject should be again reviewed, and to attain this object the perusal of a work on similar principles to that of Dr. Broca becomes the primary requisite for future researches. It may be said, that no work which so completely investigates the whole subject of Human Hybridity has ever been published, and the Council having confirmed the recommendation of the Publishing Committee,

I have endeavoured to perform my allotted task with as much prospect of success as could be anticipated amidst the pressure of numerous and laborious avocations unconnected with the Society.

The necessity for the publication of this work in England may be conceived, when we reflect on the laxly defined ideas which form an integral part of the intellectual heritage of even educated Englishmen, with regard to the problems of anthropology. We have been so often told, that all races of men have been demonstrably proved to be fertile *inter se*, that many have conceived that the laws regulating this presumed fertility are ascertained and fixed, beyond the reach of disproof, or even of doubt. The Author and Editor of the following pages are, however, of a different opinion; and are content to wait for the accumulation of future facts.

To obviate any misconstruction which may be placed on my meaning on this topic, I shall quote the words of the great Dutch philosopher:—

"I invite not the vulgar, therefore, nor those whose minds, like theirs, are full of prejudices, to the perusal of this book. I would much rather that they should entirely neglect it, than that they should misconstrue its purpose and contents after the fashion usual with them."

I should have felt more gratification if the task of interpreting the thoughts of the great French master of our science had fallen into worthier hands than my own. The habitual methods of thought of Dr. PAUL BROCA are so exact, his style so terse, his knowledge of the literature of Anthropology so vast, and his power



of application and concentration of ideas so powerful, that a just preference might have selected another Editor. It has scarcely been necessary for me to add a single foot-note to the lucid exposition of the Secretary of our parent Society.

It is my pleasurable duty to thank my friend Dr. James Hunt, the President of our Society, for the kindness by which he placed in my hands the editorship of this volume, and for many most valuable suggestions regarding it. To my colleague Mr. J. Frederick Collingwood, for whose friendly assistance in the performance of the secretarial duties I am indebted for the leisure which has enabled me to edit this work, my thanks are also due.

To the Council and to the Society I now commit this little tract, an earnest of the more important works which will be hereafter published during the year 1864, in the hope that it may ultimately advance the best interests of the science all sincere anthropologists must desire to aid.

C. C. B.

4, ST. MARTIN'S PLACE,  
March, 1864.



## GLOSSARIAL NOTE.

The significations of the following words, habitually used by Dr. Broca, are appended :—

**AGENESIC.** Mongrels of the first generation, entirely unfertile, either between each other, or with the two parent species, and consequently being unable to produce either direct descendants or mongrels of the second generation.

**DYSGENESIC.** Mongrels of the first generation, nearly altogether sterile.

*a.* Unfertile with each other, therefore with no direct descendants.

*b.* They sometimes, but rarely and with difficulty, breed with one or the other parent species. The mongrels of the second generation, produced by this interbreeding, are infertile.

**PARAGENESIC.** Mongrels of the first generation having a partial fecundity.

*a.* They are hardly fertile or infertile *inter se*, and when they produce direct descendants, these have merely a decreasing fertility, tending to necessary extinction at the end of some generations.

*b.* They breed easily with one at least of the two parent species. The mongrels of the second generation, issued from this second breeding, are themselves and their descendants fertile *inter se*, and with the mongrels of the first generation, with the nearest allied pure species, and with the intermediate mongrels arising from these various crossings.

**EUGENESIC.** Mongrels of the first generation entirely fertile.

*a.* They are fertile *inter se*, and their direct descendants are equally so.

*b.* They breed easily and indiscriminately with the two parent species; the mongrels of the second generation, in their turn are, themselves and their descendants, indefinitely fertile, both *inter se* or with the mongrels of all kinds which result from the mixture of the two parent species.

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ON  
THE PHENOMENA OF HYBRIDITY IN THE HUMAN  
SPECIES.

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SECTION I.

GENERAL OBSERVATIONS ON CROSSING IN HUMAN RACES.

THAT very ingenious writer, M. A. de Gobineau,<sup>1</sup> whose efforts have been directed towards bringing the light of modern ethnology to bear upon the political and social history of nations, but who, in this very difficult and almost entirely new inquiry, has more than once indulged in paradoxical generalisations, has thought proper to affirm, in his *Essay on the Inequality of Human Races* (1855), that the crossing of races constantly produces disastrous effects, and that, sooner or later, a physical and moral degeneration is the inevitable result thereof. It is, therefore, chiefly to this cause that he attributes the decline of the Roman Republic and the downfall of liberty, which was soon followed by the decline of civilisation. I am very far from sharing his opinion, and, were this the proper place, I might show that the social corruption and the intellectual degradation which prepared the ruin of the Roman power was due to quite different causes. M. Gobineau's proposition appears to me by far too general; and I am still more opposed to the opinion of those who advance that every mixed race separated from the

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<sup>1</sup> Gobineau, *Inégalité des Races Humaines*, 8vo, Paris, 1855; [also translated into English, *On the Inequality of Human Races*, and edited by Henry Hotze, 8vo. EDITOR.]

parent stocks is incapable of perpetuation.<sup>1</sup> It has even been asserted that the United States of America, where the Anglo-Saxon race is still predominant, but which is overrun by immigrants of various other races, is, by that very circumstance, threatened with decay, inasmuch as this continuous immigration may have the effect of producing a hybrid race containing the germ of future sterility. Do we not know that, on the faith of this prognostication, a certain party has proposed the restriction of foreign immigration, and even in England there have been serious men who have predicted, from ethnological causes, the overthrow of the United States, just as Ezekiel predicted the ruin of Alexandria.

When we see the prosperity and the power of the new continent grow with such unexampled rapidity, we can certainly put no faith in such a prediction. Still there must have been a certain number of fundamental facts, which led even monogenists to deny the viability of *all* crossed races. They must have sought in vain among the nations of the earth for a race manifestly hybrid, with well-defined characters, intermediate between two known races, perpetuating itself without the concurrence of the parent races.

"When the facts quoted above," says M. Georges Pouchet, "are not sufficient to prove that a mongrel breed cannot be engendered, can we anywhere find one? Do we find a people conserving a medium type between two other types? We see them nowhere just as little as we see a race of mules. The fact is, that such a race, such a type can only have an ephemeral subjective existence."<sup>2</sup>

The question, where do we find hybrid races subsisting by themselves, has been asked before M. Pouchet. Dr. Prichard,

<sup>1</sup> "The sole action of the laws of Hybridity," says Nott, "might exterminate the whole human species if all the various types of human beings actually existing on the earth were completely to amalgamate." *Types of Mankind*, p. 407, eighth edit., Philadelphia, 1857. Dr. Robert Knox is not less explicit. "I do not believe that any Mulatto race can be maintained beyond the third or fourth generation by *Mulattos merely*; they must intermarry with the pure races or perish." Robert Knox, *The Races of Men*, London, 1850.

<sup>2</sup> Georges Pouchet, *De la Pluralité des Races Humaines*, p. 140, Paris, 1858. [A translation of this work will shortly be published by the Anthropological Society of London, edited by T. Bendyshe, Esq., M.A., F.A.S.L. Editor.]



in replying to it, could only find three instances:—1. The Griquas, the progeny of the Hottentots and the Dutch. 2. The Cafusos of the forests of Varama (Brazil), a race described by Spix and Martius, and, according to them, the offspring of indigenous Americans and African Negroes. 3. The mop-headed Papuans inhabiting the island of Waigiu and the surrounding islands and the northern part of New Guinea, and who, according to MM. Quoy and Gaimard, are a hybrid race, the issue of a union of Malays and the Papuans proper.<sup>1</sup>

These three examples have been objected to, and are indeed liable to objections.<sup>2</sup> We know next to nothing about the Cafusos, and no one can positively assert that they have remained unmixed with the indigenous race; but we know for certain that the Griquas have risen since the commencement of this century around a Protestant mission, by the fusion of some Dutch-Hottentot *bastaard* families with a large number of the Hottentot race, the Bosjesmen, and the Kaffir race. This example then proves, by no means, that a mixed race can perpetuate itself separately.<sup>3</sup>

<sup>1</sup> Prichard, *Natural History of Man*.

<sup>2</sup> Davis and Thurnam, *Crania Britannica*, p. 7, No. 4, London, 1856.

<sup>3</sup> See the voyages of Truter and Somerville (1801), Lichtenstein (1805), Campbell (1813), John Philips (1825), Thompson (1824), etc., in the Collection of Voyages by Walkenaer, t. xv-xxi, Paris, 1842. In 1801 Truter and Somerville found near the Orange or Gariep river, in the district where now Griqua town stands, a horde of *Bastaards* and *Bosjesmen*, commanded by a *Bastaard* of the name of Kok (t. xvii, p. 364). On their return they found a considerable village, composed of Kaffirs, Hottentots, and mongrel breeds of several varieties, under the command of a chief named Kok (p. 393). In the same year Kitchener, the missionary, assembled the horde in a village. There came pure Hottentots and Namaquas (t. xviii, p. 126). In 1802 Anderson, the missionary, in organising the growing nation, gave authority to the *Bastaards* (p. 127). The village of Laawater or Klaarwater, which has since become Griqua-town, consisted in 1805, when Lichtenstein visited it, of about thirty families, one-half of which belonged to the *Bastaard* race, the rest were Namaquas or Hottentots. The village enlarged rapidly "by the arrival of refugees, and by marriages with the women of the Bosjesmen and the Koramas, who lived in the vicinity" (t. xix, p. 355). They practised polygamy. "They constituted a horde of nomadic naked savages, living by pillage and the chase; their bodies were besmeared with red paint, the hair covered with grease, living in ignorance, without any trace of civilisation" (p. 356). After the lapse of five years the missionaries commenced civilising them by giving them the taste for agricultural pursuits. The name, however, of *Bastaards*, which indicated their European origin, was no longer suitable to this nation, in which the African blood was greatly predominating. They took, therefore, the name of *Griquas*. Campbell asserts that they chose that name, as it was that of the principal family (t. xviii, p. 395). This explanation appears to me very doubtful. Ten Rhyne, who explored Southern



With regard to the mop-headed Papuans, they live in a region the ethnography of which is scarcely known. MM. Quoy and Gaimard are of opinion that they are the issue of a mixture between the Malays and indigenous Negroes (*sic*); but they

Africa in 1673, twenty years after the first disembarkation of Europeans, already mentions the existence of a Hottentot people who went by the name of *Gregoriquas* (t. xv, p. 122). Thirty years after (1705) Kolbe designates the same people *Gauriquas* (t. xv, p. 253). There existed at that time another people, called *Chirigiquas*. In 1775 Thunberg still speaks of *Gauriquas* (t. xvi, p. 201), and of *Chirigiquas*. All these names have evidently the same root, and the singularity of Hottentot enunciation induced probably the various travellers to adopt a different orthography. It is thus presumable that the Hottentots of Klaarwater, in calling themselves *Griquas*, merely adopted the old name *Gauriquas*. There exists to this day the people *Koragwas*, signifying "people who wear shoes" (Burchell, t. xx, p. 60). They live in the neighbourhood of Klaarwater. Be this as it may, the new people of the *Griquas* gave to Klaarwater, influenced by the English missionaries, the name of *Griqua-town*. This town, called by Malte-Brun *Kriqua*, grew rapidly by the adjunction of the *Koranas*. In 1813 there were not less than 1,341 *Koranas* in a population of 2,607 inhabitants (t. xviii, p. 393). In 1814 the governor of the Cape tried to force the *Griquas* to furnish men for the indigenous army. The proposal was very badly received, and the nation was nearly in a state of dissolution. A portion of the inhabitants of *Griqua-town* escaped to the surrounding mountains, and formed bands of robbers, who, under the name of *Bergmaars*, devastated the country, and, associating with bands of *Koranas*, pillaged and massacred the *Betchouanas* and the *Boesjesmen*, and carried off their women and children. In 1825, owing to the intervention of John Philips, the *Bergmaars* were reduced to order, and returned to *Griqua-town*. They had now crossed with the *Koranas*, the *Betchouanas*, and *Boesjesmen* (t. xviii, p. 357). Some time previously a grave dissension had broken out among the settled *Griquas*. The governor of the Cape had sent an agent, John Melvil, with an important charge to a certain *Waterboer*, a *Boesjesman* by origin. The supremacy had hitherto belonged to the family *Kok*, who, proud of the drops of European blood in their veins, would not recognise the authority of *Waterboer*, and emigrated accordingly. *Waterboer* was, however, not dismissed; and in 1825 John Philips found the *Griquas* divided in three kraals, under the chiefs *Kok*, *Berend*, and *Waterboer* (t. xix, p. 370). If Dr. Prichard had taken the trouble to consult these documents he would have recognised that the *Griquas* had, by so many consecutive crossings, become almost a pure African race. Modern geographers range therefore the *Griquas* among the Hottentots, calling them Hottentot-*Griquas*. It is also noteworthy that Prichard, in citing the *Griquas* as an example of a mixed race, has given no description of them. In order that the example should be of any value, it is requisite that the *Griquas* should present an intermediate type between the Europeans and the natives. Neither Dr. Prichard nor any travellers say so. There is another consideration. The origin of the *Griqua* nation dates from the beginning of the nineteenth century. Dr. Prichard last speaks of them in 1843. Two generations had not yet elapsed. There is another point. In 1800 the tribe of *Kok* was a horde but little numerous; in 1824 it was a people of five thousand souls, including seven hundred armed warriors (Thompson, *loc. cit.*, t. xxi, p. 22). It is clear that this people were not descended from the primitive tribe, but had increased by numerous adjunctions. Father Petean himself, if he were still alive, would be obliged to admit this. I have been very minute as to the *Griquas*, but I flatter myself that this is sufficient to discard from science the assertion of Prichard, which all modern monogenists have received with so much favour.



only advanced this opinion as an hypothesis: "They appeared to us to hold a medium place between those people (Malays) and the Negroes in regard to character, physiognomy, and the nature of their hair."<sup>1</sup> This is all those authors say; but Mr. Lesson instead of quoting this as a mere hypothesis, says, "These people have been perfectly described by MM. Quoy and Gaimard, who were the first to *demonstrate* that they constitute a hybrid race, and are, *unquestionably*, the issue of Papuans (properly so called) and Malays located in those parts, and which form the mass of the population." Mr. de Rienzi, on the other hand, has described two varieties of Papuan hybrids: one variety the issue of a crossing between the Papuans and the Malays,—the Papou-Malays; the second variety, the issue of an intermixture between the Papuans and the Alforian-Endamenes—the Pou-Endamenes.<sup>2</sup> There is already a complication here. Now comes Mr. Maury, who maintains that the race issued from the Papuans and Malays is the Alforian race.<sup>3</sup> What are we to conclude from these contradictions? M. Quoy and Gaimard had a certain impression, M. Rienzi entertained a somewhat different impression, to which the authorities cited by Mr. Maury are altogether opposed. All is then, as yet, an hypothesis, and the question is as yet doubtful. In this uncertainty it might well be asked whether the Malays, the Alfourous, the mop-headed Papuans, and the Papuans properly so called might not be as many pure races. It is not merely in the region of the mop-headed Papuans that the other three races are to be met with. The Malays, an invading people *par excellence*, have, like the English, established themselves on all the coasts accessible to their vessels, and if the mop-headed race occupies only a very confined district, and is perfectly unknown elsewhere where the same elements are present, we are permitted to conclude that it is not the result of an intermixture. Moreover, Dr. Latham, the most zealous of Dr. Prichard's pupils, informs us that Mr. Earle has seen

<sup>1</sup> Quoy et Gaimard, *Observat. sur la constitution physique des Papous*, reproduit dans Lesson. *Complément des Œuvres de Buffon*, t. iii., Paris, 1829.

<sup>2</sup> Domeny de Rienzi, *l'Océanie*, t. iii, p. 303. Paris, 1837.

<sup>3</sup> Maury, *La terre et l'homme*, p. 365. Paris, 1847.



and described "the real and undoubted hybrids" of the Papuans and Malays, and that these are altogether different from the mop-headed Papuans.<sup>1</sup>

It will be perceived that the example of the Papuans is a worse selection than that of the Griquas, since it is very probable that these mop-headed men, the type of which was so perfectly described by Dampier two centuries ago, having been since preserved without alteration, are a pure race. Granting even that it is demonstrated that they belong to a hybrid race, they can scarcely be cited as a mixed race persisting by themselves, since, so far from living secluded from the two races from which they are said to be the issue, they live with them in the same localities. MM. Quoy and Gaimard, in their description of these pretended mongrels, add that there were Negroes among them (by which name they designate the Papuans proper) which formed a part of the tribe which visited us daily. There were even among them two individuals of a higher complexion, which, rightly or wrongly, were considered to be descended from Europeans or Chinese. It was thus a very mixed people. Mr. Lesson, speaking of the population of the small island of Waigiu,<sup>2</sup> says that two races are found there, the Malays and the Alfours, besides the hybrid races of the Papuans: "These are men without vigour or moral energy, subjected to the authority of the Malay rajahs, and frequently reduced to slavery by the surrounding islanders."<sup>3</sup> But it is well known what is the consequence of slavery, especially under an equatorial climate, and among a people given to incontinency. It is, then, simply impossible that the mop-headed race of the Isle of Waigiu should remain free from intermixture with the

<sup>1</sup> Latham, *The Natural History of the Varieties of Man*, p. 213. London, 1850. Dr. Latham designates the Malays by the somewhat fantastic name of Protonesian. There are a great number of neologisms of this kind in his work.

<sup>2</sup> Some geographers say that Waigiu is a large island; but they give no dimensions. It is, however, scarcely as large as the Island of Majorca. It is of an irregular form, long and narrow; it is about 80 leagues in circumference (Dumont d'Urville in Rienzi, *l'Océanie*). It is only 25 leagues long and 10 leagues broad, says Henricy (*Histoire de l'Océanie*. Paris, 1845.) The Island of Majorca is only 22 leagues in length by 16 leagues in breadth. Three races united in such a small territory, cannot long remain strangers to each other.

<sup>3</sup> Lesson, *loc. cit.* t. ii. p. 19.



Alfourous and the Malays, and if this race be really hybrid, it is not easy to see how Prichard and his adherents are authorised to assert that they persist by themselves.

The three examples adduced by Prichard having thus proved without any absolute value, a diametrically opposite doctrine has been advanced. It has been said that since this author was obliged to go so far for such indifferent examples, it amounts to a proof that he could not find any others,<sup>1</sup> and the conclusion was arrived at that a mixed race neither has nor could have a permanent existence.

This novel assertion is perfectly erroneous, and if it found adherents, it is simply because the question has been badly put; because the word *race* has not received a precise signification, and consequently, a very confused acceptation has been given to the term.

Among the various characters which distinguish the numerous varieties of the *genus homo*, some are more or less important, and more or less evident. To distinguish two races, a single character, however slight, is sufficient, provided it be hereditary and sufficiently fixed. If, for instance, two peoples differed merely from each other by the colour of the hair and the beard, though they may resemble each other in every other respect, by the simple fact that the one has black, whilst the other has fair hair, it may be asserted that they are not of the same race. This is the popular and the true meaning of the term *race*, which, however, does not necessarily implicate the idea either of identity or diversity of origin. Thus all ethnologists and historians, all the monogenists, and polygenistic authors say that the Irish proper are not of the same race as the English. The Germans, the Celts, the Basques, the Slaves, the Jews, Arabs, Kabyles, etc., etc., are considered more or less separate races, more or less easy to be characterised, and more or less distinguished by their manners, tongues, history and origin. There are thus a large number of human races; but if, instead of considering all the characters, we confine ourselves to take into consideration but a few of the more

<sup>1</sup> Davis, *Crania Britannica*. Introduction, p. 8, note.



important, or if, after having by an analytical process, first studied the various races separately, we now subject them to a synthetic process, we soon recognise that there exists among them numerous affinities, which enable us to dispose them in a certain number of natural groups.

The ensemble of the characters common to each group, constitute the type of that group. Thus, all the races we have just enumerated, and many others, have the skin white, regular features, soft hair, oval face, vertical jaws, and elliptical cranium, etc. These points of resemblance give them in some sort a family likeness, by which they are recognised at once, and which has caused them to be designated by the collective name of Caucasian races. The hyperborean races, and those of Eastern Asia, constitute the family of Mongolian races; the group of Ethiopian races equally comprises a large number of black races with woolly hair, and a prognathous head. The American and the Malayo-Polynesian races form the two last groups.

It must not be believed that all human races can with equal facility be ranged in either of these divisions; nor must we believe that the characteristic traits of one group are equally marked in all the dependent races; nor even that they are found combined in any of these races; nor, finally, that in the centre of each group we find a typical race in which all the characters have their maximum of development. This might be the case if all known races had descended from five primitive stocks, as admitted by several polygenists, or if, as many monogenists think, humanity, *one* in the beginning, had soon afterwards been divided into five principal trunks, from which issued, as so many accessory branches, the numerous subdivisions which constitute the secondary races. But there is no race which can pretend to personify within itself the type to which it belongs. This type is fictitious; the description is an ideal one, like the forms of the Apollo de Belvedere. Human types, like all other types, are merely abstractions, and in proportion as we attach more importance to this or that character, we obtain a more or less considerable number of types. Thus, Blumenbach had five, Cuvier only three, and Bérard describes

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fifteen types. This is also proved by the fact, that whilst many races attach themselves directly and evidently to a fixed type, there are others belonging to two very dissimilar types. Thus the Abyssinians are Caucasian in form and Ethiopian by colour. The description of the principal types is thus merely a methodical process, fit to facilitate, by the formation of a certain number of groups, the comparison of human races, and to simplify the partial description of each. This division has, moreover, the advantage of establishing for the greater part of the races, their degree of relative affinity or divergence. It even accords to a certain point with their primitive repartition upon the surface of the globe, which has permitted, without doing any violence to the facts, to distinguish the types by denominations borrowed from geography.<sup>1</sup>

There is in the human mind a tendency to personify abstractions. These ideal types have usurped a place in the domain of facts, so that a real existence has been given to them. The monogenists had, strictly speaking, a right to do so without any violence to their principles; but the polygenists, who have followed their example, have sinned against logic. The former attribute all varieties of the human species to the numerous modifications of five *principal* races, issued themselves from one common stock, and the same influences which, according to them, have in the origin produced fundamental races, have afterwards by an analogous process produced the *secondary* races. All this is sufficiently clear; and such stood the question when

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<sup>1</sup> These geographical denominations are certainly not irreproachable; they have even the inconvenience of giving rise to the false idea, that all races of the same type originated in the same region; that all the Whites came from the Caucasus, all the Mongolians from Mongolia, the Blacks from Nigritia, even the Van-Diemen islanders. I have, however, thought proper to retain these denominations, as they are generally in use, and have no zoological signification. Such is not the case with the denominations adopted by certain authors derived from the colour of the skin. Thus the Caucasians were termed the *white*, the Mongolians the *yellow*, the Ethiopian the *black*, the Malayo-Polynesian the *brown*, and finally, the American the *red* race. It has been shown that the American type alone includes red, brown, black, white and yellow races. There are brown races in the American, and even in the Caucasian type. All the black races do not belong to the Ethiopian type; and finally, the Malayo-Polynesian type comprises races of colours as various as those belonging to the American type. A classification founded on differences of colour would lead to numerous and serious errors.



the polygenists appeared in the arena. Their first efforts were directed to attack the doctrine in its essential foundations, and to demonstrate that by no natural causation could Whites be transformed into Negroes, or Negroes into Mongolians; they therefore proclaimed the multiplicity of human origin and the plurality of species. Be it that they have shrunk from the idea of causing too great a revolution in science, or that they thought that it would conduce sooner to the triumph of their doctrine, they retained as far as possible the number of species, and confined themselves to assume a primitive stock for each of the five races described by the Unitarians. I do not assert that all polygenists followed this course, as some proceeded in a more independent manner. Bory de Saint-Vincent, Desmoulins, P. Bérard, Morton, had the courage to break entirely with the past, and to remodel the classical divisions. They found, however, but few imitators; and many polygenists are to this day content to assign a distinct origin to each of the five principal trunks, which constitute for the monogenists the five fundamental races, but which are to us only natural groups formed by the union of races or species of the same type. They continue also very often to use the term *race* to designate the *ensemble* of all individuals of each group, adopting thus by a sort of transaction the language of those whose system they reject; and thus they speak of the white or Caucasian race, the yellow or Mongolian race, the black or Ethiopian race, etc., as if all these individuals of a Caucasian type resembled each other to constitute one race; as if, for instance, the brown Celts and the fair-haired Germans had descended from the same primitive stock. This contradiction has given a handle to the monogenists; for if climate and mode of life may cause a German to become a Celt, there is no reason why, under certain influences, a Celt might not become a Berber, a Berber a Foulah, a Foulah a Negro, and a Negro an Australian.

I easily comprehend how careful we ought to be to employ in Anthropology the term *species*. It can scarcely be used with certainty until science has clearly circumscribed the limits of each species of men. This moment is not come yet, and may, perhaps, never arrive, for, in the midst of constant changes

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produced by crossing, migrations, and conquests, and with the certainty that several races, or a great number of them, have disappeared within historical time,<sup>1</sup> it seems impossible to appreciate the degree of purity of certain races, to discover their origin, to know whether they are autochthonic or exotic, whether they belonged originally to this or that Fauna, and re-establish the Ethnology of our planet as it was in the beginning. To fix the number of primitive species of men, or even the number of actual species, is an insoluble problem to us, and probably to our successors. The attempts of Desmoulins et Bory de Saint Vincent have only produced imperfect sketches, which have led to contradictory classifications, where the number of arbitrary divisions is nearly equal to more natural divisions.

The term species has, in classical language, an absolute sense, implying both the idea of a special conformation and special origin, and if some races—the Australians, for instance—unite these conditions in a sufficient degree, to constitute a clearly marked species, many other pure or mixed races escape, in this respect, a rigorous appreciation. It is for these reasons that many polygenists, after having proclaimed the multiplicity of the origins of humanity, and having recognised the impossibility of determining the number and the characters of the primitive stocks, have justly avoided methodically to divide the human genus into species. Many among them, however, who thought that they were, nevertheless, bound to establish divi-

<sup>1</sup> It is undoubted that several American races have been destroyed within 300 years; others having been reduced to a few families, will soon disappear. The Charruas were exterminated in 1831 by the Spaniards of South America: root and branch, as Dr. Latham says. In 1835, four years later, the English of Van Diemen's Land, after a horrible massacre, transported 210 Tasmanians, men, women, and children, to a small island (Flinders), in Bass' Straits. In 1842, after seven years of exile, the number of these unfortunates amounted to 54! This was all that remained of a race which, 40 years previously, occupied the whole of Van Diemen's Land, as large as Ireland, and we may soon learn that none of them are in existence. The Malays have entirely destroyed the black races who preceded them in certain isles of the great Indian Archipelago. The Guanches now only exist in a mummified state. The black and prognathous race which occupied the isles of Japan before the arrival of the Mongolians, have left no other traces behind than their crania imbedded in the soil; and it is easy to foresee that within one or two centuries all the black races will have disappeared from these parts, and have been succeeded by Malaysians and Europeans.



sions, have committed the error to accept the basis of the classification of the monogenists, and, like them, to establish five chief human families, and, like them, to admit that the individuals of each family are issued from a common trunk, with this difference, that, whilst the monogenists assume that the five primary trunks have proceeded from the same stock, and have the same roots, the pentagenists (if we may use this term) assume five distinct and independent stocks. Logically speaking, it would have been requisite to term the five fundamental races of the monogenists *species*, but it is easy to perceive that, for many reasons, the term *species* cannot be employed here in an absolute sense. The pentagenists have felt this, and, for want of a better term, use the word *race*, which has thus been diverted from its real acceptation.

The word *race* has thus, in the language of authors, two very different significations; one is particular and exact, the other general and misleading. Taken in the first sense, it designates individuals sufficiently resembling each other, that we may, without prejudging their origin, and without deciding whether they are the issues of one or several primitive couples, admit, if necessary, as theoretically possible, that they have descended from common parents. Such are, for instance, among the white races, the Arabs, the Basques, the Celts, the Kimris, the Germans, the Berbers, etc.; and among the black races, the Ethiopian Negroes, the Caffres, the Tasmanians, Australians, Papuans, etc.

In the second, that is to say, in a general sense, the term *race* designates the *ensemble* of all such individuals who have a certain number of characters in common, and who, though differing in other characters, and divided, perhaps, in an indefinite number of natural groups or races, have to each other a greater morphological affinity than they have with the rest of mankind.

Every confusion in words exposes us to errors in the interpretation of facts, and this rather long digression in relation to the origin of a denomination, borrowed by certain polygenists from the language of monogenists, enables us to understand the denial of the existence of mixed races, and why Prichard could



only oppose to this idea the doubtful and fictitious examples of the Cafusos, the Griquas, and the mop-headed Papuans.

If, indeed, it were true that there are only five races of men on the globe, and if it were capable of demonstration that either of them, in mixing with another, produced eugenesic Mulattos capable of constituting a mixed race enduring by itself, without the ulterior concurrence of the parent races, the embarrassment would not yet be at an end. After having succeeded to establish such a demonstration for two of the chief races, it would by no means necessarily result that the intercrossings of the nine other combinations are eugenesic like the first. We should then be obliged to prove (what is evidently impracticable), by ten successive examples, that the ten possible intercrossings between the five fundamental races are all equally and completely prolific. The difficulty is such, that Dr. Prichard, after much research, could only find the three instances already cited and refuted. These facts having proved inconclusive, and other facts which we shall mention presently having induced the theory that *certain* intermixtures are imperfectly prolific, the pentagenists were led to the opinion that the possibility of a definitive intermixture of races is by no means established, and that, on the contrary, this possibility may be denied.

The pentagenists occupied themselves at first chiefly with the intermixture of the five chief races; but even from this point of view, and taking the term race in a general sense, their negation, though, it must be admitted, far from being justifiable, is still founded upon a more solid basis, and less removed from the truth than the opposed affirmation. Hence it was considered valuable *ad interim*. But the principle of non-intermixture of races being once promulgated, the confusion of terms soon became apparent. The negation which was at first applied merely to the artificial groups formed by the re-union of races of the same type was applied to natural races, and thus arose that frightful proposition, that *no mixed races can subsist in humanity*.

It is noteworthy how this excessive and exclusive theory differs from the first, which it has displaced. There is such a gap between the starting point and the conclusion, that it could



never have been cleared had not the ambiguous term *race* concealed the distance. The fact is established that affinities of organisation may exercise some influence on the results of crossing. In studying the phenomena of hybridity in quadrupeds and birds, we have already stated that homœogenesis, without being *always* proportionate to the degree of the proximity of species, decreases *ordinarily* in comparison with more removed animals, and that probability induces us to expect similar phenomena in the intermixture of human beings. But what have been the bases of the monogenists and of the pentagenists in forming the five ethnological groups, which constitute the five fundamental races? Why have all Caucasian races been united by them in one family, and called by them *the white* or the Caucasian race? It has been already stated because the races with a skin more or less white possess between themselves a greater affinity than with any of the other races. In other terms, the zoological distance is less between Celts, Germans, Kimris, etc., compared with that existing between them and the Negroes, Caffres, Lapps, Australians, Malays, etc.

Supposing now that it has been demonstrated—which it has not—that the races of any group can *never* engender a durable and permanent line by an intermixture with any of the others, can we infer from this that the races of the same group are equally incapable of producing by their intermixture mongrels indefinitely prolific? Just as little as the sterility of the union between the dog and the fox would enable us to infer the sterility between the wolf and the dog; these conclusions would be as little physiological as the former. Such as deny the fecundity of the reciprocal crossbreeds of the five chief primary races might err in some points, and be right as to others. But those who extend this by far too general negation in applying it to the intermixture of secondary races of the same group commit a more serious error. They have reasoned like the monogenists, who knowing from experience that *certain* human races may become mixed without limitation, have affirmed that *all* the races, without exception, are in a similar condition. There obtains thus a strange contradiction in these two schools; the one maintains resolutely that all races may intermix, and



that their offspring and their descendants will be as prolific as if they were of a pure race, whilst the second as firmly sustains that no mixed race can have any other but an ephemeral existence.

Between these opposite assertions we may well ask where lies the truth? Facts must answer the question. We shall endeavour to examine a few. Some of the facts are in favour of the monogenists, others support the opinion of their adversaries, from which we shall be enabled to infer that in the *genus homo*, as in the genera of their mammalia, there are different degrees of homœogenesis, according to the races or species; that the cross-breeds of certain races are perfectly eugenesic; that others occupy a less elevated position in the series of hybridity; and finally, that there are human races the homœogenesis of which is still so obscure, that the results even of the first intermixture are still doubtful.

## SECTION II.

## OF EUGENESIC HYBRIDITY IN MANKIND.

If the opinion I wish to combat were not supported by authors of acknowledged talent, it might, perhaps, be superfluous to demonstrate that there exists in the human species *eugenesic hybrids*. Most of the readers of these pages must reconcile themselves to this qualification, for assuredly men of a pure race are very rare in the country they inhabit. Nothing is, in fact, more clear than that many modern nations, to commence with the French, have been formed by the intermixture of two or more races. My excellent teacher, Gerdy,<sup>1</sup> has devoted a long chapter, in his *Physiology*, to this subject, and has, after great research, arrived at the conclusion that all, or nearly all, actual races have been crossed more than once, and that the primitive types of mankind, altered and modified by so many crossings, are no longer represented upon the earth. There is here much exaggeration: for there are races who, by a peculiar geographical situation, and the prejudices of caste or religion, have remained in a state of purity; and on the other hand, as M. P. Bérard<sup>2</sup> remarks, it is not sufficient for the production of a mongrel race, that two groups of different races should become allied and fused. If in either of the groups there exists too great a numerical inequality, the mongrels resume, after the lapse of a few generations, nearly all the traits of the more numerous race, and are fused in it. It is for this reason that, despite of numerous crossings, many races have preserved all their characters from remote antiquity. I have already had occasion to observe that the *Fellahs* of present Egypt are exactly like the figures represented upon the Pharaonic epoch.<sup>3</sup> No country has, however, been so frequently conquered as Egypt, which from Cambyzes to Mehemet-Ali, for more than twenty-three centuries has been governed and oppressed by

<sup>1</sup> Gerdy, *Physiologie Médicale*, t. i, p. 290. Paris, 1832.

<sup>2</sup> Bérard, *Cours de Physiologie*, t. i, p. 465. Paris, 1845.

<sup>3</sup> *Journal de Physiologie*, t. i, p. 120. 1858.



peoples of foreign races, Persians, Greeks, Romans, Arabs, Turks, and Mamelukes. The Macedonian colonies, founded by Alexander and his successors, soon lost their ethnological character.<sup>3</sup> Southern Italy has not preserved the impress of the Norman race. It would be vain to search in Asia Minor for the descendants of the Gauls with fair hair,<sup>4</sup> who once established themselves in Galatia; and though the Visigoths possessed Spain for more than two centuries, and have never been expelled from it, and we may without exaggeration compute the number of the conquerors at several hundred thousand, and though their blood, mitigated by intermixture, runs to this day in the veins of an immense number of Spaniards, the latter have preserved no trace of their Germanic origin.

But when the intermixture of races is effected in nearly equal proportions, or if it be the result, not of one invasion, but of a constant and abundant immigration, the case is altogether different, and the fusion of the ethnological elements gives rise to a hybrid population, in which the number of individuals of a pure race is constantly diminishing, so that at the termination of a few centuries the representatives of the two primitive types become the exceptions. In a long Memoir "On the Ethnology of France," which I lately read before the Anthropological Society of Paris, I have shown to what extent intermixture may modify the physiognomy of a people. Examining in the first place the records of history on hand, the origin of the populations of our departments, and appreciating as much as possible the proportion of the elements which we find in combination; determining, also, for each region the principal and the accessory stocks, I have been enabled to find in the present French nation, in the midst of the innumerable variations of stature, complexion, hair, eyes, cephalic shapes, etc., which may everywhere be expected in mixed races; I have been able to detect, I repeat, the characters of these different

<sup>3</sup> Macedones qui Alexandriam in Ægypto, qui Seleuciam ac Babyloniam, quique alias sparsas per orbem colonias habent in Syros, Parthos, Ægyptos degenerarunt. *Tit. L.*, lib. xxxviii., § 217.

<sup>4</sup> All the Gauls were not light haired; but those who, three centuries before our era, invaded Greece and Asia Minor, were fair haired, according to all testimony; they consequently belonged to the Kimri race.



racés, and to recognise the more or less marked and dominant impress of the Celts, Kimris, Romans, and Germans. I was even enabled, on the statistics of recruiting, to give to my inquiries, in regard to stature, a rigorous precision. I cannot in this place enter into any details: I am obliged to refer the reader to the Memoir, which is published by the Anthropological Society. In point of fact, it was merely because eminent men have for some years doubted the existence of eugenesic hybridity in mankind, that it became necessary to demonstrate so evident a proposition, that the population of France in at least nineteen-twentieths of our territory, presents in unequal degrees the characters of mixed races.

This single example might suffice; but I have no doubt that by examining in a similar manner the historical origin and the actual condition of the peoples of Northern Italy, Southern Germany, Great Britain—not to speak of the United States, where the fusion of blood is probably inexplicable—it might be demonstrated with equal certainty, that these different races have given birth, by their intermixture, to ethnological modifications still recognisable. In all these countries is the instability of anthropological characters in contrast with the fixity which is the mark of pure races; and we might say, without fear of error, that the greater part of Western Europe is inhabited by mixed races.

Moreover, the authors who have denied the existence of mixed races, have not denied that there are in Europe and elsewhere, numerous vivacious populations, formed by the intermixture of two or several distinct races. They merely asserted that mongrel breeds, whatever their origin, were necessarily inferior in reference to fecundity to individuals of pure blood, and that their direct descendants would become extinct after a few generations, unless they contracted new alliances with the mother races, or at least with one of them. If we object to this, that the mixed populations possess everywhere, as those of France and Great Britain, a vitality and fecundity which leaves nothing to be desired, they reply that this proves nothing; that the cross breeds are prolific in a collateral line, as is observed in cases of paragenesic hybridity, and they add that two cases may present themselves:



1. If among the two primitive races these obtain a very large numerical inequality, the predominant race soon absorbs the other. After two or three generations, the less numerous race counts scarcely one representative, and the cross-breeds are fused in the more numerous race. The latter thus returns to a state of original purity. The mixed race has only a transitory duration, and leaves no trace of its existence.

2. If, on the contrary, the two races, though numerically unequal, are in sufficient proportion that neither can absorb the other, both persist indefinitely beside each other upon the same soil. The hybrid race which they engender, seems also to persist indefinitely; but only in appearance, for they constantly intermarry with the pure races, while the latter marry between themselves. The mixed race gains thus, in every generation, a contingent equal to what it loses, those which represent it at present are not the descendants of those who represented the mixed race five or six generations back. It is not maintained by itself: existing only under the condition of being sustained by the races from which it is issued, and if there arrived a time when it is completely isolated from these two races, and reduced to its own forces, it would necessarily become extinct after a few generations.

I might urge some objection against the first point, for it does not seem to me to be demonstrated, that in a mixture of very unequal proportions, the less numerous race exercises *no influence* upon the other race. I acknowledge, however, that this influence, if it exists, is sufficiently slight to be set aside.

The second point is much more serious, for if accepted without restriction, we must admit that eugenesic hybridity does not exist in mankind, and that all cross-breeds, whatever their origin, whether they are issued from nearly approaching or distant races, not merely the descendants of whites and negroes, but also of Celts and Kimris, are incapable of engendering a durable posterity. For my part, I believe that such is actually the case with certain mongrel-breeds; I believe that in the genus *Homo*, there are very unequal degrees of eugenesic hybridity; but after having recognised that eugenesic hybridity does exist between dog and wolf, hare and rabbit,



goat and sheep, camel and dromedary, I am permitted to say that it also exists between certain races of men.

Among the facts quoted to prove the sterility of human cross-breeds, some are of great value: and we shall examine them in the sequel; others have been wrongly interpreted, while some are far from being exact. I have already pointed out a cause of error which was not taken into account, and which occurs frequently: it is the change of climate which alone is capable of sterilising a race transplanted into the midst of another race. Before attributing a defect of fecundity to the mixed descendants of an immigrant race, we must see whether in the same country the individuals of this race are more prolific in their direct alliances. It is known, for instance, that the Mamelukes, originating from the region of the Caucasus, have never taken root in Egypt, where, nevertheless, from 1250, the epoch of their advent, until 1811, the period of their extermination, their caste has always formed a notable part of the population. They could only maintain themselves by reinforcements which they annually received from the native country, and though not half a century has elapsed since the great massacre of Cairo, there remains no trace of them on the borders of the Nile. Such being the fact, it was concluded therefrom, that the descendants of the Mamelukes and the Egyptians were hybrids of little or no fecundity. Gliddon has thus interpreted it, and Pouchet has accepted that interpretation.<sup>1</sup> This, however, is not the real cause of the sterility of the Mamelukes in Egypt, and Volney, who, towards the end of the last century, has carefully observed and studied this race, offers the following remarks on them: "Seeing that they have existed in Egypt for centuries, one would be apt to believe that they have reproduced themselves by the ordinary process of breeding; but if their first settlement is a curious fact, their perpetuation is not less so. For five centuries there have been Mamelukes in Egypt, yet not one of them has left a subsisting line: there exists not one family of the second generation, all

<sup>1</sup> Gliddon, *The Monogenists and the Polygenists*. Philadelphia, 1857. George Pouchet, *De la Pluralité des races humaines*, p. 136. Paris, 1858.



their children perish in the first or second generation. *The Ottomans are nearly in the same condition*, and it is observed that they only preserve themselves from the same fate by marrying indigenous females—what the *Mamelukes have always disdained*. (The wives of the Mamelukes were, like their slaves, imported from Georgia, Mongrelia, etc.) Let it now be explained why well formed men, married to healthy women, cannot naturalise on the borders of the Nile a blood formed at the foot of the Caucasus! We are at the same time reminded that European plants equally refuse to perpetuate their species in that locality.<sup>1</sup> Despite the precision of this passage, many Mamelukes no doubt took wives and numerous concubines from the indigenous population. It is difficult to believe that it could have been otherwise, and Gliddon had a right to say, that if the offspring of the two races had been prolific, there would inevitably have been produced in Egypt a mixed race. But the fact revealed by Volney, which is perfectly authentic, still maintains its force, namely, that the Mamelukes, by the simple fact of change of country, had lost the power of engendering *with the women of their own race*, a prolific posterity; hence, nothing proves that the sterility of their offspring depended on the influence of hybridity, but rather on the influence of climate.

It is not our purpose successively to review all particular intermixtures produced in human races, or to determine the degree of the fecundity of the hybrids resulting from it.

To demonstrate that eugenesic hybridity really exists, one instance is sufficient, provided it be conclusive; and to find this example we need not travel beyond our country. The population of France, as we have amply established elsewhere, is descended from several very distinct races, and presents everywhere the character of mixed races. The pure representatives of the primitive races form a very small minority; nevertheless, this hybrid nation, so far from decaying, in accordance with the theory of Mr. Gobineau; far from presenting a decreasing fecundity, according to some other authors, grows

<sup>1</sup> Volney, *Voyage en Syrie et en Egypte*, t. i, p. 98. Paris, 1757.



every day in intelligence, prosperity, and numbers. Ever since the revolution has broken the last obstacle which opposed themselves to the mixture of races, and despite of the gigantic wars which during twenty-five years mowed down the *élite* of its male population, France has seen the number of its inhabitants increase by more than one-third; this is not a symptom of decay. Dr. Knox, in his curious essay on the Races of Men (London, 1850), has thought proper to utter, in relation to the French, some hard truths: and also some calumnies, which we shall put to the account of his patriotism. Mr. Knox has accorded to the French nation an increasing physical prosperity, and as this side of the question is the only one which occupies us here, we might dispense with any other testimony. That learned author thought what he said about the French applied exclusively to the Celtic race; he supposed that upon our soil there were nought but pure Celts, and that the other ethnological elements have not in any degree modified the character of the old Gallic race. I have refuted this assertion at some length in my *Mémoire sur l'Ethnologie de la France*, and Dr. Knox,<sup>1</sup> in praising in his own manner the Celtic race, has not perceived that unconsciously, and contrary to his own system, he wrote the apology of a strongly mixed race. But the partisans of this system will doubtless say that, on the whole, the mixed Kimro-Celtic race, which now inhabits France, does not subsist by itself; that the two parent races, the Celts and the Kimris, one of which predominates in the north-east, the other in the north-west, the south and the centre, persist, almost pure, in their respective regions, and that the mixed race only maintains itself by recruiting themselves incessantly in these vivacious *foci*. My reply to this is, that the individuals perfectly representing the Celtic or Kimri type are infinitely rarer than the rest, even in the departments where history or observation demonstrates that the influence of one of these races is altogether preponderant. They are especially rare in the districts of the intermediary zone, which I have termed Kimro-Celtic, and where the two chief races have origi-

<sup>1</sup> Knox, *The Races of Man*. 8vo, London, 1850.



nally become intermixed in nearly equal proportions. Finally, in these latter departments, where the intermixture has been strongest, the population is neither less handsome, nor less robust or prolific than in the others. As regards the vigour of the constitution, I have consulted in the registers for recruiting the special list of exemptions on account of infirmities, that is, for other physical causes than stature. I have found that, other circumstances being equal, there are as many infirm in 1000 conscripts in the purest departments, as in the mixed districts. I cannot here dwell any longer upon this proposition, of which I have given a rigorous demonstration in my *Mémoire sur l'Ethnologie de la France*.

There remains now the question of fecundity. The causes which determine the increase or the decay of a population are so multifarious, and for the most part so foreign to ethnological influences, that we cannot without committing grave errors, estimate the degree of fecundity of different races, in comparing for each of them, the number of births and deaths. It appears, nevertheless, very probable that all the races are not equally prolific, and the mind easily perceives that there must be between them notable differences. It is, therefore, unnecessary that in order a mixture should be eugenesic the fecundity of the cross-breed should be *absolutely equal* to that of individuals of pure blood. Had it been demonstrated by strict numbers, that a mixed race, by the simple fact of intermixture breeds less rapidly than the two parent races, and were it demonstrated that it presents a greater number of cases of sporadic sterility, it would by no means result from it that this mixed race is incapable of maintaining itself and increasing by itself. The intermixture would cease to be eugenesic if the fact of sterility became sufficiently general to render the births diminishing with every new generation, so that at length the gaps caused by death could no longer be filled and the race would prove inevitably destined, sooner or later, to become extinct. Thus, even if it were demonstrated that the offspring of an intermixture between Celts and Kimris are somewhat less prolific than the ancestors of the pure races, and that the mixed populations increased less rapidly than the others; the Kimro-

Celtic hybridity would not on that account cease to be eugenesic, provided the *relative* sterility did not descend beneath the degree when the sterility becomes *absolute*, that is to say, when the fecundity becomes insufficient. But the departments in which history and ethnology prove that the intermixture has been pushed to the extreme point, the population far from having diminished, has increased since the revolution, namely, since the establishment of new territorial divisions, as rapidly as in the rest of France, and it appears to me as certain that the intermixture of Kimris and Celts either between themselves, or with the Romans and Germans, constitute examples of eugenesic hybridity.

We must, however, take care not to imitate the paradoxical reasoning of our adversaries, and because some crossings of *certain* races are eugenesic, to conclude, *a priori*, that *all* the other intermixtures are equally so. The study of hybridity in birds and quadrupeds has taught us that we can never know with certainty, before making the experiment, what will be the result of crossing. Neither must we forget that the ethnological facts which have served us as examples apply to the intermixture of races distinct, no doubt, but nearly related in many respects. The mixture of races more distant from each other, is it equally prolific, and are the descendants eugenesic? This is the question we now intend to examine.

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## SECTION III.

EXAMPLES TENDING TO PROVE THAT THE INTERMIXTURE  
OF CERTAIN RACES OF MEN ARE NOT EUGENESIC.

IN the first part of this essay we have endeavoured to establish that certain human cross-breeds possess an unlimited fecundity, both in their direct alliances and with either of the parent races, whence we have inferred that eugenesic hybridity really exists in mankind.

We intend now to investigate the results of certain intermixtures more disparate, and review a number of facts tending to the conclusion that all human cross-breeds are not eugenesic.

Let us observe at the outset, how far the phenomena of eugenesic or non-eugenesic hybridity may affect the solution of the great question pending between the Monogenists and the Polygenists.

What in animals in general, characterises the eugenesic hybridity, is the unlimited fecundity of mongrels of the first degree between themselves. It is by no means necessary that the parent species should be as prolific in their crossings as in their direct unions, nor that the mongrels should be as productive as their parents, as large, as strong, and as long-lived, etc. Supposing, for instance, that the she-wolf conceives with more difficulty with the mastiff than with her proper mate; supposing even that this crossing is only efficacious by way of exception; that it succeeds only once out of ten, instead of succeeding constantly as it occurs in animals of the same species; it would be sufficient, if in this tenth case the mongrels are very prolific to pronounce the crossing eugenesic. Supposing also, that the hybrid wolf-dogs of the first degree produced only litters of about two or three, that is to say, only half the number usually produced by she-wolves and bitches, the result would be that this intermediate race would breed less rapidly by half than the pure species; but, provided the productiveness of the mongrels does not descend below the degree necessary for the preserva-

tion of the species, and provided it can repair the loss at every generation, the crossing would still be eugenesic, nor would it cease being so, even if the breed were only half as strong as their parents, and only half as long-lived.

When, therefore, a physiologist wishes to demonstrate the existence of that degree of hybridity which we have termed eugenesic, he selects two perfectly recognised distinct species of animals, crosses them, studies their breeds, and if he finds that they are indefinitely prolific, it is sufficient for him to affirm the existence of eugenesic hybridity—that is to say, that the physiological definition of the *species* is unacceptable. But when a zoologist, in studying two races of animals, the specific determination of which is still contested, endeavours to establish that these two races are merely varieties of the same species, and when in order to weaken the differential anatomical characters pointed out by his adversaries, he invokes the physiological analogy exhibited by intermixture, we have a right to expect more than a partial demonstration. We must first prove that the intermixture of the two races constitutes a case of eugenesic hybridity; for if the cross-breed are not between themselves indefinitely prolific, it is certain that the two races are not of the same species. This first point being established, would not yet lead to any conclusion, since animals of different species may engender eugenesic breeds. He must, therefore, completely analyse all the phenomena of reproduction and prove that they are exactly the same in the parent races and in the hybrid race. It is not merely the sexual analogy but the sexual identity which must be rendered evident; for from his point of view, it is not sufficient that the two races in question should be homogenesic in some degree, they must be entirely homogeneous, and the least genital difference becomes an argument against the proposition he sustains. If the cross-breed, though very prolific, are less so than their parents, or less productive in their crossings than their direct alliances; or, finally, if the investigation of these crossings exhibits any functional inequality, it might become very probable that the two races do not belong to the same species. Such would also be the case if the cross-breed were less strong and vivacious



than the individuals of the pure race, or if one of the crossing is more productive than the inverse crossing, as is observed in certain cases of hybridity, which approach more or less of *unilateral hybridity*. The existence of one of these phenomena might prove that the two races are not homogeneous, and might lead us to think that they are not of the same species.

The monogenists, who have based the demonstration of the unity of the human species upon the physiological character of the prolificacy of the cross-breeds, have not taken into account these elements. They have confined themselves to the assertions that all human races can produce cross-breeds, and that all these breeds are prolific. Now, admitting for a moment that these assertions are exact, the conclusion they have drawn from them is still contestable, until they can demonstrate that the study of these cross-breeds reveals no genital inequality between the parent races.

But what becomes of their argumentation, if it be proved that all intermixtures are not eugenistic, that is to say, that certain mongrels are not between themselves indefinitely prolific; that other cross-breeds become sterile in the first generation; and, finally, that certain races are so little homogeneous, that the birth of cross-breeds of the first degree is more or less exceptional? If one of these propositions can be effectually established, the monogenists would have little cause to congratulate themselves for having appealed to physiology. They would, on the contrary, have furnished their adversaries with deadly weapons, and their doctrine would be demolished on the battle field they have themselves chosen.

The facts I intend to exhibit tend to prove that it was a great error to consider all intermixtures of men as eugenesic. Obligated as I am to refer to testimonies which, perhaps, do not always exhibit a desirable precision, some doubts may hover over my conclusion; this much, however, will result from this sketch, that the examination of the laws of hybridity is far from being favourable to the doctrine of monogenists.

We shall study the cross-breeds both in relation to their fecundity and their physical and moral validity; for, from our point of view, it is sufficient to prove that certain cross-breeds



are inferior to the parent races, as regards longevity, vigour, health, and intelligence, to render it very probable that the two races are not of the same species.

When a monogenist is called upon to demonstrate that all human intermixtures are eugenesic, the first example which he ordinarily cites is that of the Mulattoes in America, the issue of the union of European colonists and African negresses. This example, which has for a long time been considered as decisive, might not be without a reply; for there exist races differing much more from us than the races of the western coast of Africa; but the question here is, whether it be quite true that all American Mulattoes are eugenesic.

We meet, first, with this fact, namely, the union of the Negro with a white woman is frequently sterile, whilst that of a white man with a negress is perfectly fecund. This might tend to establish between these two races a species of hybridity analogous to that existing between goats and sheep, which we have termed *unilateral hybridity*. Professor Serres, fully alive to the gravity of this fact has given the following explanation: "One of the characters of the Ethiopian race<sup>1</sup> consists in the length of the penis compared with that of the Caucasian race. This dimension coincides with the length of the uterine canal in the Ethiopian female, and both have their cause in the form of the pelvis in the Negro race. There results from this physical disposition, that the union of the Caucasian man with an Ethiopian woman is easy and without any inconvenience for the latter. The case is different in the union of the Ethiopian with a Caucasian woman, who suffers in the act, the neck of the uterus is pressed against the sacrum, so that the act of reproduction is not merely painful, but frequently non-productive."

This explanation, though based upon an anatomical character perfectly correct, is yet far from being satisfactory; but we have quoted it here to show that one of the two most eminent monogenists of our epoch has admitted as a perfectly authentic

<sup>1</sup> Serres, *Rapport sur les resultats scientifiques du voyage de l'Astrolabe et de la Zélé* (Comptes Rendus, t. xiii, p. 648). [The size of the penis is not a constant character in the "Ethiopian" male. Instances, however, exist of its enormous development in the West African Negro.—EDITOR.]

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<sup>1</sup> Thénard, *W.  
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fact, that the union of Caucasian women with Negroes is very frequently non-productive.

Mr. Theodore Waitz, author of a scientific treatise on Anthropology (the first volume is entirely devoted to the study of general doctrines), has carefully examined the question of the intermixture of races, and endeavoured to reconcile the results of these crossings with the system of monogenists. He was, nevertheless, obliged to admit, from the numerous documents collected, that in many cases the cross-breeds are feebly constituted. Thus, in Senegal the offspring of the Foulahs and the Negroes are handsome and more intelligent than the latter, but there are amongst them many stammerers, blind, hunchbacks, and idiots. The children of Arabs and the women of Darfour are debilitated and little vivacious, and the author adds *that the children of a European woman and a Negro are rarely vigorous.*<sup>1</sup>

It seems thus to result from these various investigations, that the union between the Negro and a white woman is little productive, and that their offspring is neither vigorous nor vivacious. Nevertheless, we admit this conclusion with some reserve, because the avowed unions of Negroes with white women are comparatively rare, and consequently the authors who have spoken of them could only have their inferences upon a few facts. The inverse intermixture between the white man and the negress is, on the contrary, very frequent, and as prolific in the first generation as in the direct alliances between individuals of the same race.

It is equally known that Mulattoes and Mulatresses are very prolific in their recrossings with the parent races. The great number of individuals of every shade, designated by the name Quadroon, Quinterons, Tercerons, Griffes, Marabouts, Cabres, etc., and by the collective name of *mixed blood*, proves it. The hybridity of Whites and Negroes is thus, at least, equal to

<sup>1</sup> Theodor Waitz (of Marburg), *Anthropologie der Naturvölker*, p. 203. Leipzig, 1859. [Translated into English for the Anthropological Society of London, and edited by J. Frederick Collingwood, Esq., F.G.S., F.R.S.L.: 8vo, London, 1863.—EDITOR.] Mollien, *Voyage dans l'intérieur de l'Afrique*. Rafnel, *Voyage dans l'Afrique occidentale*, 1846, p. 51. Mohammed-el-Tounay, *Voyage au Darfour*, p. 277, trad. Jomard. Paris, 1845.



what we described in animals by the name of *paragenetic hybridity*. The question now arises, whether it be eugenesic, that is to say, whether Mulattoes and Mulatresses of the first degree are indefinitely prolific between themselves.

It would be imprudent to restrict ourselves to superficial observations, though positive observations are with difficulty collected. Mulattoes of the first degree are not a well defined and circumscribed caste, like the whites and negroes of pure blood. Mulatresses prefer to unite themselves with the white or with mestizoes whiter than themselves. Mulattoes are thus frequently obliged to intermix with either pure negresses, or with mulatresses issued from a recrossing with the Negro race. There are, nevertheless, a goodly number of unions between the mestizos of the first degree; but the individuals issued from these unions have no longer the same chances of intermarrying as those of the first generation. The number of individuals of the first degree must, therefore, rapidly decrease from generation to generation, and the result is, that even if these cross-breeds were indefinitely prolific between themselves, we could only, by way of exception, find mulattoes issued in a direct line to the third or fourth generation, from the direct and exclusive union of mestizoes of the first degree.

To give to the question at issue a rigorous solution, it is necessary to study during several generations a population exclusively composed of mulattoes of the *first degree*. This experience can never be obtained. We find, indeed, at Hayti, a population nearly composed of coloured individuals. But these coloured men are mestizos of every shade, and if this hybrid nation were to subsist in perfect prosperity during several generations, the unlimited prolificness of mestizos of the first degree between themselves would not thereby be demonstrated.

We are, then, in default of a physiological experimentation analogous to what the monogenists require, in attempting to prove that the crossing of two species of animals is or is not eugenesic, reduced to the impressions, or rather appreciation of observers. Most of these appreciations can only be approximatives wanting a fixed basis. It is absolutely unknown

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what is the relative proportion of mulattoes of the first degree who intermarry between themselves, and such who intermix with other mestizos, or with individuals of a pure race; nor can we know what, in a given population, should be the normal proportion of these mulattos if they were perfectly prolific *between themselves*. It then becomes very difficult to say whether the number of mulattoes issued in a direct line from mestizos of the first degree is equal to the normal proportion, or inferior to it; so that, if they are but little inferior to their parents in regard to fecundity, the fact might pass unobserved. The relative sterility of these breeds would only become evident when it approaches absolute sterility. Between this degree of prolificness and perfect fecundity there are many intermediate degrees, difficult to recognise, and still more difficult to prove.

The first French observer who has denied the prolificness of mulattoes is M. Jacquenot, author of the zoological part of the *Voyage to the South Pole and Oceania*. We shall reproduce here some passages from that work. After having spoken of the cross-breeds of animals, M. Jacquenot continues in the following terms:<sup>1</sup>

"It is the same in the human genus. There the species are very approximating, and, according to the principles just laid down, 'that the more species are approximating the greater the chance of fecundity,' the mestizos issuing from the intermixture enjoy a certain degree of prolificness which, however, as in animals, is not absolute. Like the latter, they return to the mother's species in allying themselves with them; and, independently of their relative fecundity, new individuals are constantly produced by the union of the parent races.

"On observing in our colonies that a population of mulattos is constantly produced and renewed, their fecundity was not doubted; yet it is very limited. On the one hand the mulattos disappear every moment in one or the other of the parent races, and if their unions were constantly between themselves, they would not be long before becoming extinct. . . .

<sup>1</sup> *Voyage au Pôle sud et dans l'Océanie sur l'Astrolabe et la Zélée, sous le commandement de Dumont-d'Urville, pendant les années 1837-1840: Zoologie* par M. Jacquenot, commandant de la Zélée, t. ii, pp. 91-93. Paris, 1846.

"In a colony, that is to say in an island, or a part of a continent of limited extent peopled by Negroes and white men for some centuries, the greater part of the population should be composed of mulattoes. . . .

"But it is not so, and whatever be the number of mulattoes in the colonies, the predominance of the Negro and Caucasian species is not less certain. . . . There is, besides, a fact known to persons inhabiting the colonies, that the white women and the negroes are very prolific, which is not the case with the mulattresses.

"We believe to be the first who has pointed out the sterility in human cross-breeds. We have not been able to collect precise and positive observations based on figures; but we think that the figures will be soon forthcoming now that the attention of observers is drawn to the subject."

The avowal which terminates this passage, much diminishes its importance. M. Jacquinet, not having sojourned long in the various countries he visited, was only able to collect superficial observations in regard to a question which requires long and minute researches. But Mr. Nott, one of the most eminent anthropologists of America, was in a better condition to study this subject.

Living in a country where the Caucasian and Ethiopian races are much mixed, and enabled by his profession as a physician to make his observations on a great number of individuals, he arrived at conclusions similar to those of M. Jacquinet. His first essay on hybridity appeared in 1842. It was but a short paper, which attracted but little notice, and which we have not been able to consult, no copy of it being in the Paris library. M. Jacquinet, whose work appeared in 1846, had certainly no knowledge of this essay, his observations having been made in 1836-40, before M. Nott had published his own. We are not, however, engaged here to discuss the question of priority, we state merely the fact that two distinguished observers studying the same subject, unknown to each other, arrived at the same conclusions relating to the sterility of Mulattoes.



In his essay of 1842, Dr. Nott maintained the following propositions, which we extract from a subsequent publication.<sup>1</sup>

1. That *Mulattoes* are the shortest lived of any class of the human race.

2. That *Mulattoes* are intermediate in intelligence between the blacks and the whites.

3. That they are less capable of undergoing fatigue and hardships than either the blacks or whites.

4. That the *Mulatto-women* are peculiarly delicate, and subject to a variety of chronic diseases. That they are bad breeders, bad nurses, liable to abortions, and that their children generally die young.

5. That when *Mulattoes* intermarry, they are less prolific than when crossed on the parent stock.

6. That when a *Negro* man married a white woman, the offspring partook more largely of the *Negro* type than when the reverse connection had effect.

7. That *Mulattoes*, like *Negroes*, although unacclimated, enjoy extraordinary exemption from yellow-fever when brought to Charleston, Savannah, Mobile, or New Orleans.

The propositions, 1, 3, 4, and 5, are the only ones connected with our subject. They confirm, and even enhance, in certain respects, M. Jacquinot's assertions, yet are they contested, and Dr. Nott himself has found it necessary to restrict their application. He had made his observations in South Carolina where he found the *Mulattoes* little prolific and short-lived. Having changed his residence, he obtained different results. At Mobile, New Orleans, Pensacola, towns on the Gulf of Mexico, he found among the *Mulattoes* many instances of manifest longevity and prolificacy, not merely in their crossed but in their direct alliances. What was the cause of this difference? Dr. Nott inquired whether the difference in the results might not depend upon the difference in the ethnological elements in the crossing. All the Europeans who have colonised America did not belong to the same race. The Caucasians, as is well known, are naturally divided in two groups:—

<sup>1</sup> J. C. Nott, *Hybridity of Animals viewed in connexion with the natural history of mankind: Types of Mankind*. Nott and Gliddon. Philadelphia, 1854.



the light-haired race, with grey or blue eyes, a white skin; and the brown races, with a deeper complexion and brown or black hair. The first occupy Northern Europe; the second, Southern Europe. There is thus a little less disparity, and a little more affinity between the Europeans of the South and the Negroes, than between the latter and the Northern Europeans, so that when we hear that intermixture succeeds better in the first than in the second case, it should not surprise us. But South Carolina, where the Mulattoes get on so indifferently, has been colonised by the Anglo-Saxons; whilst the shores of the Gulf of Mexico, where the Mulattoes are more prospering, have been colonised by the French (Louisiana) and by the Spaniards (Florida). Such is the explanation offered by Dr. Nott. Still in maintaining his conclusions on the issues of Negro women, and men of the Germanic race, he thinks that they are not applicable to the Mulattoes whose parents belong to a Caucasian race more or less dark in complexion. Analogous differences are often observed in animals in such crossings when they are placed in connections with species more or less approximate. Before, however, accepting Dr. Nott's explanation, it may be as well to examine whether the fact may not be differently explained.

South Carolina, comprised between  $32^{\circ}$  and  $35^{\circ}$  N. lat., is situated beyond the zone where the African Negroes live: New Orleans, Mobile, and Pensacola are situated nearer the tropics, between the  $30^{\circ}$  and  $31^{\circ}$ , and we find in Africa, in Northern Sahara, south of Algiers, some tribes of Negroes who have lived in that latitude from time immemorial. Though the climate does not altogether depend on latitude, it may be readily believed that the Negroes become sooner acclimated upon the shores of the Gulf of Mexico than in the more northern regions. But it is known that men transplanted into climates differing much from that in which their race thrives may, by this simple fact, greatly lose their fecundity. It is not always so, but considering that it does happen, we have a right to ask whether the difference pointed out by Dr. Nott between the Mulattoes of South Carolina, and those of the region of the Gulf may not be owing to this cause.

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This interpretation is, however, in opposition to two orders of facts. On the one hand, the Negroes and Negresses of South Carolina are perfectly prolific between themselves.<sup>1</sup> The climate of that country has not weakened their generative powers, and there is no reason why, by their alliances with a white race acclimated in that part, there should be produced an offspring less acclimated than their parents. The diminished vitality and fecundity can, therefore, not be attributed to the influence of the media in which they are brought up.

On the other hand, a result similar to that mentioned by Nott, as regards South Carolina, seems to have been obtained in Jamaica under the 18°, corresponding nearly to the latitude of Senegal and Timbuctoo. This island is situated south of Cuba, Hayti, and Porto Rico, where Negroes and Mulattoes thrive, but these islands have been colonised by the French and the Spaniards, whilst Jamaica is an *English* colony.<sup>2</sup>

<sup>1</sup> Within ten years from 1840 to 1850, the number of slaves in South Carolina has increased by 56,786. In 1840, there were 327,334 slaves; in 1850, 384,720. This is an increase of more than 17 per cent. The slaves of all shades are comprised in this account, but the pure Negroes form the great majority, and it is probable that to them exclusively is owing the large increase in the number of slaves. The number of cross-breeds cannot be ascertained by the statistics given. It would, besides, be impossible to distinguish in the reports given the Mestizos born from the union of Mulattoes and Mulatresses, and those from whites and blacks. Statistics thus throw no light upon the question, whether the Mulatto race maintains itself. But there is a peculiar class of men of colour which is the object of attention of certain governments, who maintain with satisfaction that this class notably diminishes. It is the class of free men of colour, enjoying certain civic rights very inconvenient for the slave states. There was a time when the enfranchisement of coloured men had no obstacles to contend with, and the number of free men of colour increased rapidly. Many white owners gave freedom to their natural children. But when restrictive laws were introduced, the number of free coloured men began diminishing. They no longer ally themselves with the Whites, who despise them, nor with the slaves, and are thus reduced to intermarry between themselves. The census of Charleston gave, in 1830, the number of free coloured men and their descendants as amounting to 2,107; in 1848 it was reduced to 1,492, a diminution of 605 in 2,107, more than 29 per cent. The *Charleston Mercury* published these figures to show that the class of freed slaves need not excite any apprehension in South Carolina, and that the Governor carried his zeal too far in proposing to expel that class. Such an enormous decrease depends, no doubt to a great extent, on the small number of births. There is another circumstance which might have contributed to reduce the caste; which is, that any freed individual, or his descendant, once leaving the state, is not permitted to return; this, however, forms but a minor cause of the decay. (See *Charleston Medical Journal*, May 1851, vol. vi, p. 381).

<sup>2</sup> The first Europeans established at Jamaica were Spaniards or Portuguese; but the island was, 1655, conquered by the English, when all the old colonists



The Mulattoes of Jamaica have thus the same ethnologic origin as those of Carolina; and the following remarks from the *History of Jamaica*, by Long, entirely confirm Nott's opinion.<sup>1</sup>

"The Mulattoes of Jamaica," says Long, "are generally well proportioned, and the Mulatto women have fine features, and seem to have more of the White than of the Negro in their blood. Some of them have married women of their own colour, but these marriages are generally sterile. They seem in this respect to resemble certain mules, being less capable of producing between themselves than with the Whites or Blacks. Some instances may possibly have occurred, where, upon the intermarriage of two Mulattoes, the woman has borne children, which children have grown to maturity; but I never heard of such an instance.

"Those Mulattoes of Jamaica, of which I speak, have married young, have received some education, and are distinguished by their chaste and regular conduct. The observations made regarding them have a great degree of certainty. They do not breed, though there is nothing to indicate that they would not be prolific by intermarrying either with the Blacks or Whites.

"In searching for facts contrary to this opinion, it is requisite to discard the suspicion that the Mulatress has had intercourse with any other man than her Mulatto husband, and there would still remain the question, whether the son of a Mulatto, married to the daughter of two other Mulattoes, is capable of producing and forming a durable race."

Such a grave fact could not be allowed to pass unchallenged. Professor Waitz, much embarrassed by it, could only oppose to it a passage extracted from a work published in 1845 by

retired, carrying away the greater portion of their wealth. Cromwell hastened to re-people the island, by transporting to it a number of political convicts. In 1659, four years after the conquest, there were already 4,500 Europeans and 1,400 Negroes on the island. In 1670, the white population amounted to 7,500, slaves 8,000. It will, then, be observed, that the population of Jamaica descends exclusively from English colonists and Negro slaves. With regard to the Caribs, they have been entirely exterminated by the Spaniards a century before the arrival of the English.

<sup>1</sup> Long (Edward), *History of Jamaica*, vol. ii, p. 235, London, 1774, cited in the *Charleston Medical Journal*, vol. vi. 1851.



Lewis, *On the Negroes in the West Indies*. "Lewis," says Waitz (*Anthropologie der Naturvölker*), "expressly denies the sterility of the Mulattoes of Jamaica in their marriages between themselves, and observes, that they are as prolific as the Blacks and Whites, but that they are for the most part flabby and weak, and their children have little vitality."

Long said he knew of no instance where the children of Mulattoes arrived at maturity. To refute this assertion, known instances should have been cited. But Lewis neglects doing so.<sup>1</sup> He says, on the contrary, that the children, from similar marriages, possess little vitality. Though this expression does not necessarily imply the impossibility of arriving at adult age, it tends at least to the conclusion that the children have little chance to reach it; and when we consider that the preceding passage was intended to refute Long's assertions, it is surprising how little satisfies Professor Waitz. At any rate, it proves that he could find no other positive document in opposition to the fact mentioned by Long.

This is, perhaps, no reason for accepting without reserve the opinions of Dr. Nott. Before giving a definite judgment, we must wait for further numerous, authentic, and scientific observations. Nevertheless, it must be remarked, that the indefinite fecundity of Mulattoes had been admitted as an axiom, which it was thought there was no necessity of disproving. It was sufficient to say there are many Mulattoes, without investigating whether they maintain themselves, or by

<sup>1</sup> The relation of Lewis is, in certain respects, more suggestive than that of Long. The latter says that the Mulattoes of the first degree are well constituted; while Lewis pretends that they are mostly *weak and flabby*, whence it results that the physical inferiority becomes manifest at the *very first crossing*. We believe this to be incorrect. The author endeavours to explain the defect of vitality in the children of Mulattoes, and has recourse to a theory which, if well founded, would, instead of weakening, only strengthen the fact. On the other hand, we believe that the assertion of Long, despite of the corrective which accompanies it, is too general. If it were true that the union of Mulattoes is always unproductive in Jamaica, the fact would have been too evident not to have been long known, for *absolute sterility* is easily ascertained. Relative sterility, however, may long escape notice, considering that there is always in the pure races a certain number of cases of sporadic sterility. It is probable that further investigations will establish for Jamaica conclusions analogous to those adopted by Mr. Nott for South Carolina; namely, that the Mulattoes of this *English* island are less prolific between themselves than with the whites or blacks, and that their direct descendants are generally less vivacious and prolific than the men of the pure races.



continuous intermixture with the parent stocks. The first who wished to inquire more closely has, by his observations, been led to results opposed to general opinion. To these observations, presenting apparently the guarantee of authenticity, positive observation should be opposed; and it is requisite that the latter should be specially collected in countries where the *Germanic* race has intermarried with the Negro race of Western Africa. The investigations which might be made in the French, Spanish, or Portuguese colonies would have no direct application.

The authors, moreover, we have cited, are far from being the only ones who have denied the fecundity of the Mulattoes in the West Indies. Van Amringe and Hamilton Smith assert, that without a reunion with the parent stocks the Mulattoes would soon become extinct. Day says that Mulattoes are rarely prolific between themselves; and Waitz, somewhat shaken by these testimonies, adds in a note, "The sterility of Mulattoes, when it is complete, may be compared with that fact recognised by Wirgman in plants, that the hybrids of intermediate types between the two parent stocks are sterile, whilst those resembling one or the other species are prolific."<sup>1</sup> From these facts and testimonies there seems to result—1. That the Mulattoes of the Germanic and Ethiopian races possess little prolificacy: 2. That they are inferior in this respect to the Mulattoes born by the intercourse of Negro women and men belonging to the more or less dark complexioned Caucasian races.

Mulattoes of the latter kind exist in large numbers in the greater part of the Antilles, South America, Central America, Mexico, Mauritius, Bourbon, and Senegal. All these countries have been colonised by the French, Spaniards, or Portuguese. The Mulattoes born there are fecund in their intermixture with the parent stock, as the Mulattoes of Germanic origin; they are also prolific between themselves, at least in the first

<sup>1</sup> Waitz, *loc. cit.*, p. 205. Van Amringe, *Investigation of the Theories of the Natural History of Man*. Hamilton Smith, *Natural History of the Human Species*, 1848. Day, *Five Years Residence in the West Indies*, vol. i, p. 294. 1852.



generation. Are they equally prolific in their direct alliances as in their mixed ones? Are their children arriving at maturity as the others? And finally, when these children intermarry, are they and their descendants prolific? These questions are yet unanswered. They can only be solved after a long series of observations collected by men of science; not by travellers who view the populations superficially, but by close observers, and principally by physicians resident in these localities. In the mean while, here is another passage from the work of Prof. Waitz, quoted by him from Seemann.<sup>1</sup> "The Mulattoes of the Negroes and Whites at Panamá are prolific between themselves, but their children are brought up with difficulty; whilst the families of the pure races produce less children, which however arrive at maturity." The Europeans of Panamá are of Spanish origin. The prolificness of the Mulattoes of the first degree is clearly indicated in this passage, but doubts may be entertained as to the fecundity of their descendants. The intermixtures of Negroes and Europeans are not the only ones the results of which exhibit defects to the observers. "The Mulattoes," says M. Boudin,<sup>2</sup> "are very often inferior to the two parent stocks, both in vitality, intelligence, or morality. Thus the Mulattoes of Pondicherry, known by the name of Topas, exhibit a mortality not only more considerable than that of the Indians, but greater than the Europeans, though the latter are considerably shorter lived in India than in Europe. Positive documents on this point have been published in the *Revue Coloniale*. So much as to the vitality.

"In Java, the Mulattoes of the Dutch and Malays are so little intelligent that they could never be employed as functionaries. All Dutch historians are agreed upon this point. This much for their intelligence.

"The Mulattoes of Negroes and Indians, known by the name of *Zambos* in Peru and Nicaragua, form the worst class

<sup>1</sup> Seemann, *Reise um die Welt*, bd. 1, p. 314, 1853. Waitz, *Anthropologie*, p. 207.

<sup>2</sup> *Bulletins de la Société d'Anthropologie*: procès-verbal de la séance du 1<sup>er</sup> Mars, 1860, vol. i, p. 206.

of citizens. They compose four-fifths of the prison population. This fact, already mentioned by Tschudi,<sup>1</sup> has recently been confirmed by Squier. So much as regards morality.

"There are, however, certain physical qualities which may be acquired by the intermixture of races. Such are pathological immunities. The Mulattoes of the West Indies are, like the Negroes, exempt from the yellow fever."

The fecundity of Mulattoes is not touched in this passage, not having been the subject of discussion. The question merely was whether the prevalent opinion, that intermixture of improved races physically, intellectually, and morally, was in accordance with well observed facts. Hence, M. Boudin confined his observations to the limited intelligence exhibited by the Mulattoes issued from the union of the Dutch of Java with the Malay women. But in his *Treatise on Medical Geography*,<sup>2</sup> he expresses, with regard to the Mulattoes, an opinion that they are not productive beyond the third generation. This fact, announced by Dr. Yvan, which is confirmed by other testimonies, has not been contested. Waitz borrows from Graf Görtz some particulars which are not without interest.

"The Lipplappen," he says (this is the name of the Mulattoes of Java), "do not breed beyond the third generation. Flabby and weakly, they become developed up to the fifteenth year, when the development is arrested. At the third generation, girls only are born, which are sterile.<sup>3</sup> This phase of sterility is very curious, and deserves well the attention of physiologists."

<sup>1</sup> Dr. Tschudi adds, "considered as men, the Zambos are far inferior to the pure races." *Travels in Peru*, London, 1847. G. Pouchet, *De la Pluralité des Races Humaines*, p. 137. Paris, 1848.

<sup>2</sup> Boudin, *Géographie Médicale*, Introduction, p. 39. Paris, 1857.

<sup>3</sup> Graf Görtz, *Reise*, bd. iii, p. 288. Waitz, *Anthropologie*, bd. i, p. 297. I find in the voyage of Havorinus a passage which may, perhaps, explain the singular fact pointed out by Graf Görtz. Having given the number of the European population of Batavia, Havorinus adds, "Among the Europeans figure also such as are born from European parents, among whom females form the great majority" (Havorinus, *Voyage par le Cap de Bonne-Espérance et Samarang, et traduit du Hollandais*, chap. viii, t. ii, p. 283. Paris). It seems thus that the influence of climate produces some modification in the generative powers of Europeans, rendering them less apt to procreate males even with the women of their own race. This modification may be transmitted to their descendants by intermixtures. The fact of Havorinus should, however, be verified.



It is, however, necessary to inquire whether the sterility of the Lippappen depends upon intermixture or upon other causes. The climate of the islands of the Sunda straits is very injurious to Europeans. The Dutch do not perpetuate their race at Batavia; and even without intermarrying with the natives they become sometimes sterile at the second generation.<sup>1</sup> The sterility of the natives may, then, be attributed to the climate. These results, moreover prove, from a verbal communication of Dr. Yvan to M. de Quatrefages, that in other Dutch colonies of the Great Indian Archipelago, the Mulattoes are prolific.<sup>2</sup> It is thus not demonstrated that the sterility of the Lippappen is the result of their hybridity.

M. de Quatrefages, in order to explain the difference of results produced by the intermixture of the Dutch and the Malays at Java, and other Dutch colonies, supposes that this difference is due to the influence of mediums. This is possible; but there are other influences which must be taken into account, namely, the numerical proportion of either of the two races who intermarry. Where the Europeans are few in number, the Mulattoes of the first degree are also very few; those who intermarry between themselves are still less numerous, and the rest ally themselves with the parent stock, chiefly with the indigenous race, which is preponderating. Where, on the contrary, the European population is considerable, the Mulattoes of the first degree are sufficiently numerous to constitute a sort of intermediate caste, which, without altogether escaping a recrossing, contract nearly all their alliances with their equals.<sup>3</sup> In the first case, most individuals of mixed blood

<sup>1</sup> Steen Bille, *Bericht über die Reise der Galathea*, bd. i, p. 376, 1852: Waitz, *loc. cit.*

<sup>2</sup> A. de Quatrefages, *Du Croisement des races humaines*; *Revue des Deux-Mondes*, t. viii, p. 162, *en note*, 1857.

<sup>3</sup> In America, the intermixture between Whites, Negroes, and Mulattoes passes differently. The Mulattoes are slaves like the Negroes. A large number of Mulattoes become the concubines of the White; and the Mulattoes are mostly obliged to confine themselves to Negro women. There are, then, relatively few unions between Mulattoes of the same blood. The abolition of slavery neither could, nor will for a long time, sensibly modify this state of things. The prejudice against colour will not soon become effaced; and many Mulatto women prefer to be the mistresses of Whites to being the wives of Mulattoes. In the East Indies, the prejudice of colour does not exist. The Whites are merely considered as an aristocratic class;



approximate more to the indigenous race than to the foreign; that is to say, that the Mulattoes of the second, third degree, etc., are much more numerous than the Mulattoes of the first degree. But in proportion as a recrossing is effected, the influence of hybridity diminishes, and becomes effaced. In the second case, on the contrary, the greater part of the Mulattoes are of the first degree,<sup>1</sup> and, much more than the rest, subject to the influence of hybridity; and if it be true that hybridity causes a diminution of fecundity, it is easily understood that the prolificness must vary according to the relative proportion of the two races. Now, Batavia is the great centre of the population of the India Archipelago; there the Europeans are most numerous; it is chiefly there that the Lipplappen form a distinct class, and it is precisely there that their defective prolificness is found. I do not pretend to say that this interpretation is perfectly correct; I merely advance it as an hypothesis to be verified. Here, however, we have a fact which may enhance its value. I borrow it from the work of Prof. Waitz. It is known that a large number of Chinese are found in the eastern and western isles of the Indian Archipelago. They are relatively less numerous in Java and Sumatra, where their commerce cannot sustain the competition with the Dutch. "The descendants of the Chinese and the Malay women in the eastern islands of the Indian Archipelago," says Waitz, "soon become extinct; whilst at Java, *where the pure Chinese are few in number*. The Malay-Chinese Mulattoes amount to 200,000.<sup>2</sup>

If the defective fecundity of the Lipplappen of Java is due to the deleterious influence of climate, it is very difficult to attribute the great prolificness of the Malay-Chinese to the benignity of the same climate. Moreover, the more eastern

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the Malays are free as well as the Mulattoes, they have always been so. The Mulattoes are proud of having in their veins European blood, as, in our own country, certain citizens are proud of their aristocratic alliances. They form thus, in the centres of the population, a sort of intermediate caste between the Whites and the natives.

<sup>1</sup> It is necessary to mention, that the expression of the first degree designates here not merely the individuals issued from the first intermixture, but also the descendants of unions which they form between themselves.

<sup>2</sup> Waitz, *loc. cit.* p. 207.



islands, where the latter Mulattoes do not thrive, are more unhealthy than Java. There seems, therefore to result, from the facts quoted by Waitz, that the Malay-Chinese thrive where the Chinese are few in number, and that they decay where the Chinese are numerous; that is to say, that the fecundity of the hybrid population augments in proportion as the conditions favourable to a return crossing with the Malay race are present. This amounts to the same thing, namely, that the Mulattoes of the second, third, and fourth degree are more prolific than those of the first, which certainly corresponds with the laws of hybridity among animals. These facts, however, require to be verified and completed before they can serve as a basis to arrive at a definite conclusion.<sup>1</sup>

These examples of the Mulattoes of Malasia, which we accept with reserve, tend to demonstrate that the results of intermixture do not exclusively depend on the degree of proximity of race; for there is certainly a less zoological distance between the Chinese and the Malays, and between the Malays and the Dutch, than between the African Negroes and the South Europeans. Yet the Mulattoes of the French, Portuguese, and Spanish colonies seem gifted with a much greater prolificacy than the Dutch or Chinese Mulattoes of Malasia. It is besides known that in Mexico and South America the union of the indigenous population between the Portuguese or the Spaniards has, in many localities, produced Mulattoes, the race of which seems to perpetuate itself.<sup>2</sup>

<sup>1</sup> Mr. Gutzlaff, the Chinese missionary, has been struck with the little fecundity of the Mulattoes of Camboja, the offspring of the native race and the immigrant Chinese. Camboja is situated south-west of Siam, south of Anam, between 10° and 14°. "It is remarkable," he observes, "that the marriages of native females with the Chinese are productive at the first generation, but become gradually sterile, and completely so at the fifth generation. I have seen many such cases; but I cannot explain such a degeneration between nations so similar in physical conformation, and their mode of life. If it were not so, the Chinese race ought to become predominant, and absorb the native race in a few centuries. Such has not been the case, and the innumerable immigrants which China pours in appear scarce among the population. (Gutzlaff, *Geography of the Cochin-Chinese Empire*, *Journal of the Royal Geographical Society of London*, vol. xix, p. 108, London, 1849.)

<sup>2</sup> It is unknown what is the degree of intermixture in the hybrid populations of Mexico and South America; the observations relative to these crossings are extremely difficult to collect, for the variation of Mulattoes of different degrees is not so apparent as in the Mulattoes, Quadroons, etc., of Negroes and Europeans. With regard to colour, hair, shape of the cranium,



In investigating hybridity in animals, we have found that homœogenesis is not always exactly proportional to the degree of proximity of species; we would especially point out that the *chabeins*, or hybrids of the goat and the sheep, are superior to the mules of the ass and the mare, though there is a greater difference between goats and sheep than between the horse and the ass.<sup>1</sup> It is not less true that in general, though with some exceptions, the results of intermixture are more defective in proportion as the species are more distant from each other. This leads us to study human hybridity in such regions where the most elevated races have come into contact with the most inferior races. What are the two races forming the extremes of the human species? Several English authors express the conviction that the Anglo-Saxon, or rather the Germanic race, to which they belong, is the first race of humanity. M. Alex. Harvey is even pleased to believe that Providence has created it to rule all the rest.<sup>2</sup> Patriotism is a virtue which is entitled to our esteem. We shall, therefore, not attempt diminishing the satisfaction of our allies across the straits, and we shall, at any rate, acknowledge that the race which has produced a Leibnitz and a Newton is inferior to none.

the European races, especially those of the south, differ infinitely less from the American races than from the Ethiopian and the intermediate characters; even Mulattoes of the first degree are much less marked in the first than in the second case. Thus the famous Paulistas of the province of Saint-Paul, Brazil, issued from the union of Portuguese and Indians, constitute a vigorous class, brave, and even heroic, though ferocious and turbulent. According to certain authors, the European blood predominates in them; others, on the contrary, maintain that they are pure Indians. These contradictions prove the difficulty of estimating the degree of the intermixture between the Mulattoes sprung from Europeans and Indians. The question whether *Mulattoes of the first degree* are indefinitely prolific *between themselves*,—whether they are habitually, or only exceptionally so, cannot be solved by travellers. Resident observers, and especially physicians, may ultimately furnish precise facts.

<sup>1</sup> The *Chabeins* are eugenesic hybrids, while mules, properly so called, are dysgenesic hybrids.

<sup>2</sup> *Monthly Journal of Medical Science, Edinburgh*, vol. xi, p. 301, 1850. [The most flagrant instance of this is to be found amongst the mixed blooded descendants of the Anglo-Saxon, German, Dutch, French, and Irish nations in the Federal States of America, whose "manifest destiny," according to their own hope, is the "annexation" of the civilised world. The Puritans of New England founded their claims to the colony on the following propositions:—1. That the earth is the Lord's and the fulness thereof. 2. That God has given the earth to be inhabited by his saints. 3. That we are the saints. The aborigines of the country were accordingly extirpated, to carry out practically these sentiments.—EDITOR.]

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At the extremity of the world, and nearly at the antipodes of Great Britain, the English have been for more than half a century in contact with the Melanesian races, and specially with the Australians and Tasmanians. The relative degree of inferiority between these latter races, which differ sensibly in their physical character, may be open to discussion.<sup>1</sup> It is, however, generally admitted that they are inferior at least to all other races who have come in permanent contact with Europeans. The Hottentot race, which has long been considered to occupy the lowest degree, is evidently superior to them. The Hottentots, though refractory to education, have, at least, shown some degree of improvability, while the Australians seem absolutely incorrigible savages. The English have made the most persevering attempts to instruct them, but without any success. As they could not succeed with the adult population, they tried it with children of a tender age, and educated them with European children in orphan asylums; they have there learned to mumble some prayers, even to read and write; but, with approaching puberty, the young pupils succumbed to their savage instincts, and escaped into the woods to live again with their parents whom they had never known. At one time young Australians were transported to England, and confided to the Moravian brothers, who neglected no cares to improve them. "They have returned as brutish as they were before," says M. Garnat; "a proprietor of a farm in the interior assured me, that he could never succeed to employ them in the most simple agricultural labour."<sup>2</sup>

What is known of the Tasmanians scarcely permits us to consider them superior to the Australians. It must, however, be admitted that these unfortunate islanders of Van Diemen's Land have not been so much attended to as the Australians. The English, so humane and patient as regards the latter, have committed upon the Tasmanian race, and that in the

<sup>1</sup> We must remember that the Australians have stiff and glossy hair, while the hair of the Tasmanians is woolly.

<sup>2</sup> *Dict. Pittor. d'Hist. Natur.*, art. *Homme*, t. iv, p. 11, Paris, 1836. See also vol. iii, *Océanie*, by Rienzi; the history of two Australians, Benilong and Daniel, who after living for some years free, and pampered among Europeans, threw away their clothing, and went to live in the woods.



nineteenth century, execrable atrocities a hundred times less excusable than the hitherto unrivalled crimes of which the Spaniards were guilty in the fifteenth century in the Antilles.

These atrocities have terminated in a regular extermination,<sup>1</sup> caused, say the optimists, by the absolute unsociability of the Tasmanians.<sup>2</sup> This is not, in our opinion, a mitigatory circumstance, but from all these facts there results evidently, that, of all human beings, the Tasmanians are, or rather were, with the Australians, nearest to the brutal condition.

The investigation of the results obtained from the intermixture of Anglo-Saxons with these inferior races, may give us an idea what the crossing between the two most disparate branches of the human family may produce.

M. Omalius d'Halloy, President of the Belgian Senate, a venerable scholar, as well known for his geological as for his anthropological works, thus concludes the seventh chapter of his *Treatise on the Races of Man*: "It is remarkable that, though a considerable number of Europeans now inhabit the same countries as the Andamanes, no mention is made of the existence of hybrids resulting from their union."<sup>3</sup> Under the

<sup>1</sup> In 1835, the English of Van Diemen's Land undertook to get rid altogether of the natives. A regular *battue* was organised in the whole island, and in a short time all Tasmanians, without distinction of age or sex, were exterminated, with the exception of two hundred and ten individuals, who were transported to the little isle, Flinders (or, Fourneaux), in Bass's Straits. This was all the remnant of a race which, before the arrival of the English, had occupied a territory nearly as large as Ireland. This dreadful massacre produced a profound horror in the English Parliament, but it was not thought of to send these unfortunates back again to their native soil. Measures were, however, taken to treat them humanely in the isle of Flinders, and to provide them abundantly with victuals; they were also instructed in religion. The island is about thirteen leagues in length by seven in breadth; the refugees had thus no want of space. Nevertheless, of these two hundred and ten individuals, most of them adults, perished rapidly, and Count Strzelecki, who visited them in 1842, found only fifty-four. Within seven years and a few months, only fourteen children were born. (Strzelecki, *Physical Description of New South Wales and Van Diemen's Land*, pp. 353-357, London, 1845.)

<sup>2</sup> A few months before the extermination of the Tasmanians, an inhabitant of Hobart Town wrote a letter to Rienzi, copied by him in *Océanie*, p. 558. The author foresaw that a conflict was inevitable. He observes, "Several of the children have been sent to the schools of Hobart Town. When once arrived at the age of puberty, an irresistible instinct compels them to return to their solitudes." We know of no other particulars regarding the attempts made by the English to civilise the natives. This fact, similar to those of Australia, comes from a source which cannot be suspected, since the writer of the letter, as well as M. Rienzi, are well disposed towards the natives.

<sup>3</sup> D'Omalius d'Halloy, *Des Races Humaines ou Elements d'Ethnographie*, p. 108, Paris, 1859.



name of Andamenes, d'Halloy comprises the Australians, Tasmanians, and all the blacks with woolly hair of Melanesia and Malasia.

It may, then, be inferred from this passage, either that the Europeans established in these countries have no connection with the native black women, which appears inadmissible, as we shall presently show, or that the intermixture between the two races is perfectly sterile. This latter assertion is, however, not altogether correct. True it is that the greater part of travellers make no mention whatever of hybrids of Melanesia; it is equally true that they are very rare, but still there exist some. Thus Quoy and Gaymard have seen *one* hybrid of an European and a Tasmanian woman.<sup>1</sup> Mr. Gliddon, who unfortunately does not cite the source from which he has drawn his information, announces that until the year 1835, when the Tasmanians were exterminated, there were only known, in the whole of Tasmania, two adult Mulattoes.<sup>2</sup> This indicates either that few were born, or that they died at an early age, for the colony, founded in 1803 by a population at first almost *exclusively masculine*, had, in a few years, considerably increased by the arrival of convicts and free settlers, nearly all males. Mr. Jacquinot, after having announced that there were no hybrids in Australia, adds, "In Hobart Town, and in all Tasmania, there are no hybrids either."<sup>3</sup> No other author has, to our knowledge, mentioned Tasmanian hybrids.

The intermixture of the English with the native women of Australia has not been more productive. "There are scarcely," says Jacquinot, "any Mulattoes of Australians and English mentioned." This absence of Mulattoes between two peoples living in contact on the same soil, proves incontestably the difference of species. It may also be noticed that if such cross-breeds really existed, they would be easily recognised.<sup>4</sup> Mr. Lesson, who lived about two months in Sydney and its environs, and who made several excursions among the natives,

<sup>1</sup> Quoy et Gaimard, *Voy. de l'Astrolabe en 1826-29*, t. i, p. 46, Paris, 1830.

<sup>2</sup> Gliddon, *The Monogenists and the Polygenists*, 443.

<sup>3</sup> *Voyage au Pole et dans l'Océanie*, t. ii, p. 109, Paris, 1846.

<sup>4</sup> *Loc. cit.*, p. 109.

mentions only one cross-breed, the offspring of a white man and the wife of a chief named Bongari.<sup>1</sup> Cunningham, a great defender of the Australian race—which, by the way, has finished by killing, and it is even said eating him—has written two volumes on New South Wales, in which neither directly nor indirectly is there mention made of more than one single Mulatto, and it happens that this single Mulatto is precisely the same of whom Mr. Lesson speaks.<sup>2</sup> No statistical writer, nor any historian, enumerates cross-breeds among the Australian population. No where, nevertheless, are the classes of society more numerous and more distinct. The officials, the colonists born in Europe, the colonists born in Australia, the convicts, the emancipated, the descendants of convicts, etc.; form as many classes envious of and despising each other, they dispute their respective privileges, and give each other more or less picturesque nick names. There are *sterlings*, *currencies*,<sup>3</sup> the legitimate, the illegitimate,<sup>4</sup> the pure Merinos, the convicts, the titled, the untitled, the canaries, the government men, the bush-rangers, the emancipists,<sup>5</sup> and some other classes of immigrants or convicts. In this rich vocabulary there is not a single word to designate the Mulattoes. Yet in all countries where races of different colours mix, the language of the locality contains always distinct denominations for Mulattoes of various shades. Nothing of the kind exists in Australia. There is even a class of white men, the *legitimates*, which have also the name of *cross-breeds*.<sup>6</sup> This word everywhere else would designate Mulattoes, in Australia it means European convicts, it being thought impossible that the rare issue of an intermixture be-

<sup>1</sup> Cunningham, *Two Years in New South Wales*, 3rd edit., v. ii, p. 17, Lond., 1828.

<sup>2</sup> Lesson, *Voyage autour du Monde sur la Corvette la Coquille*, executed by order of the French Government, t. ii, p. 278, Paris, 1830. The description of New Holland and its inhabitants fully occupying nearly eighty pages.

<sup>3</sup> It would be superfluous to indicate the origin of these various nicknames. We may however mention, that *sterlings* are the free settlers born in Europe, and the *currencies* such as are born in the colony. The pound sterling was formerly of more value than the pound currency. F. Cunningham, p. 46.

<sup>4</sup> These names have here a special acceptation, and designate by no means natural or legitimate children.

<sup>5</sup> The *canaries* are recently arrived convicts, the *government men* established convicts, the *emancipists* liberated convicts, the *bushrangers* fugitive convicts.

<sup>6</sup> *Loc. cit.*, p. 108.



tween the two races should ever become a part of the population.

It is, however, not merely in New South Wales that we are struck with the paucity of cross-breeds between Europeans and Australians; Mr. McGillivray mentions a similar fact as regards the port of Essingen, an English colony of Northern Australia.<sup>1</sup>

We may, therefore, accept as an authenticated fact, that the cross-breeds between Europeans and native women are very rare in Australia, as they were in Tasmania when the Tasmanian race existed.

This fact is so much in opposition to the general opinion on the intermixture of human races, that before attributing it to physiological causes, we must inquire whether it is not owing to some other causes.

We might be tempted, for instance, to suppose, that there was no intermixture, and that the ugliness and dirty habits of the native women bridled the sexual desire of the Europeans. This has been advanced, not by travellers who have precisely asserted the contrary, but by honest and sensible reasoners, whose refined taste revolted at the aspect of the portraits and busts of the Australian women. It would be a serious fact that a whole race should have such an irresistible repugnance to another, for nature has only inspired with such a feeling of repulsion beings of different species, and man is certainly of all animals the least exclusive. Is there in our seaports a prostitute sufficiently ugly and old to frighten the sailor? Is it not known that the Hottentots, whose ugliness is proverbial, have intermixed with the Europeans of South Africa? We must then set aside such a supposition, which is not founded upon a correct knowledge of human nature. There are, moreover, some documents, which induce us to believe that the Europeans of Australia and Van Diemen's Land have intermixed with the native women.

According to Malte-Brun the population of the colony of

<sup>1</sup> McGillivray, *Narration of the Voyage of H.M.S. Rattlesnake*, vol. i, p. 151, 1852, cited in Waitz, *Anthropologie*, p. 203.





Hence may be explained the small increase of the population during the first periods of the colony and the considerable decrease which corresponds to the period from 1825 to 1830. In 1845, according to Henricq,<sup>1</sup> New South Wales had, since its foundation, already received 90,000 convicts of both sexes, beyond an unknown but considerable number of voluntary emigrants, yet the whole population consisted only of 85,000 individuals. At the same period there were in the free class but three females to five males, and among the convicts one woman to twelve men. In the colony of Hobart Town, in Tasmania, the disproportion was somewhat less, for there were five free females to seven males, and one female convict to twelve men.

It is difficult to believe that the free men deprived of women were all gifted with the virtue of continency. But admitting this for a moment, we cannot entertain the same opinion with regard to the convicts, which are certainly not chosen from the most virtuous classes of Great Britain. It must be noticed that the female convicts are not public women in the colony. The government accords certain advantages to convicts who contract legitimate marriages; this is the first step towards their liberation, and when a vessel arrives with a cargo of females they are readily espoused by the convicts. Nineteenths, therefore, of the latter are entirely deprived of white women. On the other hand they procure *gins* (the name of Australian females) with the greatest facility, and though it may not be known that many of them cohabit with the females, it may be easily divined and affirmed. "The women of the people of Port Jackson," says Lesson, "look out for and excite the white men, and prostitute themselves for a glass of brandy."<sup>2</sup>

After observing that these tribes live chiefly from the produce of the chase, and come to town to exchange their fish for fish-hooks, bread, or rum, Cunningham adds that this trade

<sup>1</sup> Henricq, *Histoire de l'Océanie*, Paris, 1845.

<sup>2</sup> Lesson, *Voyage autour du Monde*, t. ii, p. 291. It was in 1824 that the author lived in New South Wales. Under the name of Port Jackson he comprises all the region of which Sydney is the capital.

gives rise to scenes of debauchery, that the prostitution of native females with the whites had assumed considerable proportions, "considering that the Australians lend their women to the convicts for a slice of bread or a pipe of tobacco."<sup>1</sup> It is useless to cite other testimony after the chief defender of the Australian race has thus expressed himself.

It is thus perfectly certain that numerous alliances have taken place and are taking place between the Europeans and the native women. The inhabitants of the colony, who could not but be aware of it, have had recourse to a singular hypothesis, accepted by Cunningham and recently by Waitz. They have imagined that the Australian husbands, excited by jealousy, killed all the new-born children of mixed blood; and to these hypothetical massacres (of which there is no proof whatever) they attribute the rarity of cross-breeds. In order that this tale should acquire some probability, it is first requisite that all the Australian women should be under the dominion of jealous and ferocious husbands, and that none of the females had the maternal instinct sufficiently developed to save her child from the fury of her husband. Cunningham, in accepting this explanation, forgets that he in the same page relates that the Australians prostitute their *gins* to the first comer for a pipe of tobacco. Such beings would not feel themselves much dishonoured by the birth of the strange child. But here is an instance proving that the Australians are not altogether devoid of humour; showing, at least, that they have no notion of conjugal honour. Bongarri, of whom we have already spoken, and who in 1825 was the most celebrated chief of the Australian hordes of Port Jackson, treated as his son the offspring of the adulterous intercourse of his *gin* with a convict of the place. When he was asked how it came to pass that his son had such a fair complexion, he replied jocularly, "that his wife was very fond of white bread and had partaken too much of it." He invariably returned the same answer to inquirers.<sup>2</sup> If a war-

<sup>1</sup> Cunningham, *loc. cit.*, vol. ii, p. 7.

<sup>2</sup> M. Lesson has received such an answer from Bongarri. Cunningham cites it as a standing joke of the chief, who, he adds, "still keeps on repeating it." Lesson, *loc. cit.*; Cunningham, *loc. cit.*, vol. ii, p. 18.



rior chief covered with honourable scars<sup>1</sup> attaches such small importance to the fidelity of his wife, and jokes about his dishonour, it is scarcely admissible that the men of his tribe should be more susceptible in this respect. Yet this very chief found it, according to Cunningham,<sup>2</sup> quite natural that, according to the Australian custom, the weakest of two new-born twins should be killed.

This custom has been cited to show that the Australian women attach no importance to the lives of their children, and that, consequently, they would offer no resistance to the massacre of the new-born Mulattoes. A race of beings, where the females do not love their young, would scarcely be a human race. The custom of preserving only one twin, and to sacrifice the other on the day of its birth, seems improbable and inexplicable; but taking into consideration the famishing condition of the Australians, the uncertainty and the insufficiency of their alimentation, the absolute want of social organisation, and the material difficulty attending the bringing up of only one child, it may be imagined that the mother, incapable, perhaps, of suckling one baby, resigns herself to sacrificing one child to save the other. There is, therefore, no absolute parallel between the custom in regard to twins and that of the pretended massacre of cross-breeds. If it be still supposed that the natives of the environs of Sydney, perverted by their intercourse with convicts, and exasperated by their violence, have adopted this revolting habit, we should even then only admit that such a degradation is merely local in its application. Certain abominations spread from place to place, and are transmitted from people to people; but a usage so contrary to natural instinct does not arise simultaneously, and under the same form in different parts of a country. The Australians, however, of Sydney, have no means of transmitting their customs either to the natives of Tasmania, or of Port Essington in North Australia. Dr. Waitz supposes that even seven hundred

<sup>1</sup> Lesson, *loc. cit.*, relates that Bongarri had his arm broken, that the fracture was not consolidated, nevertheless, the Australian chief used his arm either for rowing or for handling his weapons.

<sup>2</sup> Cunningham, *loc. cit.*, vol. ii, p. 8.



miles from Sydney the natives sacrifice all young Mulattoes. This supposition is rather hazardous, specially as the traveller whom he quotes merely says that these Mulattoes do not appear to be capable of development.<sup>1</sup>

We conclude from this perhaps too lengthy discussion, that the murder of the Australian Mulattoes is a vulgar tale. Admitting that such crimes occur occasionally, or even that they are frequent, there should even then be many Mulattoes in Australia provided the intermixture be very prolific. We can in the above strange explanation only find a confirmation, and a very strong one too, of the fact we have established, namely, that the cross-breeds are rare in Australia. If this fact had not been perfectly evident, there would not have been any occasion to explain it, and Mr. Cunningham, who has made such strenuous efforts to reinstate the natives, would not have charged them with such a terrible accusation.

We have not exhausted the list of hypotheses advanced, to explain the nearly constant sterility attending the intercourse between Australians and Tasmanians and the English. It has also been said that for the most part the intercourse between the two races was accidental, momentary, and that consequently the native woman has a much greater chance to become pregnant by her savage husband than by her European lovers, and that the rarity of Australian Mulattoes had no other cause. M. de Freycinet seems to have accepted this explanation. "No permanent alliances are formed between the two peoples, though we find here and there some Mulattoes; but these are merely the result of some transitory connections of Europeans with Australian women."<sup>2</sup>

We would first observe that the number of mongrels is in many countries much more considerable, if the intermixture is effected in the same manner as is notably the case in South Africa. There are cross-breeds in several of the Polynesian Islands, where the Europeans have never permanently settled, but only appeared temporarily. There should, therefore, be a

<sup>1</sup> MacGillivray, *loc. cit.*, vol. i, p. 151. Waitz, *loc. cit.*, p. 203.

<sup>2</sup> This passage, extracted from the *Voyage de l'Uranie*, is textually reproduced in the *Zoologie* of M. Jacquinot, t. ii, p. 353.



good number of them in the Australian colonies, even if it were true that the Whites have never formed a permanent alliance with the native females. It can, however, not be doubted, that more or less enduring alliances have taken place between the two races, namely, that many Whites have kept for months and years Australian concubines under their roof.<sup>1</sup> This fact positively results from the controversy raised by Count Strzelecki. This celebrated traveller, who has visited America and Oceania, remarked that the native women, after having once lived with the white race, become sterile with the men of their own race, though they may still be capable of becoming pregnant by white men. He asserts that he has collected hundreds of such cases among the Hurons, Seminoles, Araucaños, Polynesians, and Melanésians. He does not attempt to explain this strange phenomenon, which, he observes, is owing to some mysterious law, and which appears to him to be one of the causes of the rapid decay of indigenous populations in regions occupied by Europeans.<sup>2</sup>

Mr. Alex. Harvey says that Professors Goodsir, Maunsel, and Carmichael have, from various sources, ascertained that Count Strzelecki's assertion is *unquestionable*, and must be considered as the expression of a law of nature.<sup>3</sup>

M. de Strzelecki has not specified that the sterilisation of the native females was the consequence of the procreation of cross-breeds. He merely speaks of sexual relations in general; and it appears to result from the text, that a native woman who has cohabited for some time with a European, becomes sterile in the intercourse with men of her own race, even if she has not produced a child.

It has, however, been assumed that this observer speaks only of such women who have at least once been impregnated

<sup>1</sup> I cannot say whether this is also the case in Van Diemen's Land. The subjoined documents have been collected in Australia since 1835, namely, at a period when there were no longer any Tasmanians in Tasmania. M. de Rienzi who had terminated his voyages before that time, said that the Tasmanian women sometimes quitted their husbands to live with the European fishermen established on the coasts, *L'Océanie*, t. iii, p. 547; this is, however, an isolated fact.

<sup>2</sup> P. E. Strzelecki, *Physical Description of New South Wales and Van Diemen's Land*, p. 346, London, 1845.

<sup>3</sup> *Monthly Journal of Med. Science*, Edinburgh, 1850, vol. xi, p. 304.



by a European, and it is in this form that the question has been examined by physiologists. The question has been asked, how the gestation of a Mulatto's foetus could modify the constitution of the mother to render her barren with the men of her own race; and Mr. Alex. Harvey,<sup>1</sup> in developing a theory of Mr. McGillivray, has supposed that the embryo, whilst in utero, subjected the mother, by some sort of inoculation, to organic or dynamic modifications, the elements of which had been transmitted to the embryo by the father, and the mother would then retain the impress permanently. In support of this hypothesis, the author reminds us that certain diseases, such as old and non-contagious syphilis, may be communicated to the mother by the mediation of the foetus. He further observes that in horses, oxen, sheep, and dogs, a female, impregnated for the first time by a male, may for a long time preserve a certain disposition to produce with another male young resembling the first, a phenomenon well-known to breeders. He finally remarks that a mare, having given birth to a mule, conceives subsequently with greater difficulty from horses than from asses, and he connects these instances with those of the native women who once impregnated by a white man, become by it barren in their connexion with men of their own race without, however, losing the capacity of becoming again pregnant by white men.

I cannot accept this adventurous theory which Dr. Carpenter was nearly ready to adopt, but which he has discarded in a postscript, owing to fresh information which he received while his article went to press.<sup>2</sup> The influence of the first male upon the succeeding progeny has been many times rendered evident by the crossing of animals of the same race, and even of different species.<sup>3</sup> The existence of such a phenomenon

<sup>1</sup> Alexander Harvey (of Aberdeen) on the *Fetus in Utero*, as inoculating the maternal with the peculiarities of the paternal organism, and on the influence thereby exercised by the males on the constitution and the reproductive power of the female. In the *Monthly Journal of Med. Science of Edinburgh*, vol. ix, p. 1130; vol. xi, p. 299; and vol. xi, p. 387 (1849-1850).

<sup>2</sup> Carpenter, art. "Varieties of Mankind," in Todd's *Cyclopædia of Anatomy and Physiology*, vol. iv, p. 1341 and 1365.

<sup>3</sup> A mare of Lord Morton, covered by a zebra, produced at first a zebra mule; covered subsequently by an Arab horse she produced successively three zebra foals like the first mule.



in the human species is, at any rate, still doubtful, and the connexion of facts of this kind, with Strzelecki's assertion, is yet more questionable. We must also observe that Strzelecki, in pointing out the barrenness of savage women who have cohabited with the Whites, does not merely speak of such who have produced Mulattoes, but applies equally to those women who had not given birth to any children; and if Mr. Harvey had taken the exact meaning of the text, he might, perhaps, not have advanced his theory.

The observations of M. de Strzelecki, though made in various regions, have been published in a work on Australia. It was thought that he spoke especially of the native women of New South Wales, and it was more from that country that more information was expected on that subject. Mr. Heywood Thomson, a surgeon of the English navy, took up the question, and sent to the *Edinburgh Monthly Journal* an article tending to refute Strzelecki's assertion. This article effectively shows that Strzelecki's opinion was far too general. The author states, that he had known a colonist of the Macquarie river, who communicated to him the following fact:—One of his convict servants had a child born him by an Australian woman, who subsequently returned to her own tribe, had then a second child by a native man. Mr. Thomson states, that other instances of the kind had occurred in the colony; and he strikes a fatal blow at Mr. Harvey's theory by adding, that the Australian women who have for a certain time cohabited with the Whites, are not more prolific with them than with the natives. But though Mr. Thomson has endeavoured to prove that the cohabitation with Europeans does not necessarily render Australian women barren with men of their own race, he acknowledges that such a result is very common. He admits it as a fact which cannot be contested,<sup>1</sup> and considers it so certain that he tries to explain it, by attributing it to the following causes:—

1. The European who has cohabited with an Australian

<sup>1</sup> Thomas R. Heywood Thomson, on the "Reported Incompetency of the Aboriginal Females of New Holland to Procreate with Native Males after having Children by a European or White," in *Monthly Journal of Medical Science*, Edinburgh, Oct. 1851, vol. xii, p. 354.



woman, sends her away after the lapse of a few years, when she is often not young enough to produce children, as Australian women rarely conceive after the thirtieth year. 2. The cohabitation with a European modifies the constitution of the savage woman, who smokes, and is frequently intoxicated during that time. 3. Having not lost the habits of savage life, she returns to her tribe, where she now has some difficulty to support fatigues and irregularities, which diminishes her fecundity. 4. Finally, when she becomes a mother, and the fatigues of maternity are added to her other troubles, she tries to escape them by infanticide. It is to the united effect of these causes that the author attributes the rarity of children born of Australian native women who have returned to their tribes.

It is very significant when an author, despite of himself, confirms by his theories, facts which he had undertaken to disprove. I will not allude again to the story of infanticide, a hundred times more improbable here, than in cases where the child had been begotten by a European. Though it follows, from Mr. Thomson's article, that Strzelecki's assertion was too general, it results at the same time that the assertion was well founded. But this is not the place to search for the explanation of a phenomenon which, despite the efforts of Mr. Harvey, does not touch hybridity. If I have dwelt on the fact, it is because the polemics raised by Strzelecki's observations have incontestably established that the *cohabitation* of Whites and native Australian women is very common in Australia; and we do not comprehend under this name the sexual intercourse which is accidental and transitory, such as occurs when the women come to market, but the cohabitation under the same roof, and prolonged during several months, and even years. The scarcity of Australian Mulattoes can thus be attributed neither to the rarity nor to the transitory nature of sexual intercourse; neither can we admit, until we are better informed, that the relative sterility of such crossings is the consequence of some homœogenetic defect between the two races.

In studying the cases preceding those just mentioned, we



have put the question whether Mulattoes of the first degree were, between themselves, indefinitely prolific, to answer which we had to analyse a certain number of facts. In the present case the facts fail us, and the question can only be examined theoretically. No traveller or author has spoken of the alliance of Australian Mulattoes between themselves, nor of their recrossing on the parent stock. No writer has informed us whether these Mulattoes are robustious, intelligent, vivacious, or, on the contrary, weak, stupid, and shortlived. One thing appears to me certain, that the number of young Mulattoes who die at an early age, or who are not viable, must be relatively considerable, and this may perhaps have given rise to the accusation of infanticide, which I have already refuted. This defective progeny is also observed in the crossings of certain species of animals but little homœogenetic; and if it be true, as everything tends to establish, that the union of the Whites and the Australian women is but little prolific, we may suppose that Mulattoes sprung from such disparate unions, must enter the category of inferior cross-breeds. Are they very prolific between themselves? This seems not very probable, though we have no experimental knowledge of it. It is even doubtful whether they are very prolific with the Whites, for no one has mentioned the existence of Quadroon Mulattoes, which might be as easily recognised as the Quadroons of the Antilles. However small the number of hybrid women of the first degree may be, these women ought to have produced with the Whites, if they had been very prolific, a progeny which ought to have become numerous in the population of a colony founded above seventy years; for there can be no doubt that there, as everywhere, the woman of colour selects by preference the alliance of men of a superior race.

I am far from advancing these suppositions as demonstrated truths. I have studied and analysed all documents within my reach; but I cannot be responsible for facts not ascertained by myself, and which are too much in opposition to generally received opinions to be admitted without strict investigation. I, therefore, earnestly draw the attention of travellers, and especially of physicians resident in Australia to this subject, the

importance of which I have endeavoured to point out. Until we obtain further particulars we can only reason upon the known facts; but these, it must be admitted, are so numerous and so authentic as to constitute if not a rigorous definitive demonstration, at least a strong presumption in favour of the doctrines of polygenists.

From the whole of our researches on the hybridity of the human race we obtain the following results:—

1. That certain intermixtures are perfectly eugenesic.
2. That other intermixtures are in their results notably inferior to those of eugenesic hybridity.
3. That Mulattoes of the first degree, issued from the union of the Germanic (Anglo-Saxon) race with the African Negroes, appear inferior in fecundity and longevity to individuals of the pure races.
4. That it is at least doubtful, whether these Mulattoes, in their alliances between themselves, are capable of indefinitely perpetuating their race, and that they are less prolific in their direct alliances than in their re-crossing with the parent stocks, as is observed in paragenesic hybridity.
5. That alliances between the Germanic race (Anglo-Saxon) with the Melanesian races (Australians and Tasmanians) are but little prolific.
6. That the Mulattoes sprung from such intercourse are too rare to have enabled us to obtain exact particulars as to their viability and fecundity.
7. That several degrees of hybridity, which have been observed in the cross-breeds of animals of different species, seem also to occur in the various crossings of men of different races.
8. That the lowest degree of human hybridity in which the homœogenesis is so feeble as to render the fecundity of the first crossing uncertain, is exhibited in the most disparate crossings between one of the most elevated and the two lowest races of humanity.



## SECTION IV.

## RECAPITULATION AND CONCLUSION.

THE numerous and controverted questions which we had to discuss, have more than once interrupted the chain of our thesis. It may, therefore, be useful to present here a *résumé* of the various parts of our argumentation.

Zoologists have, in *each* of the natural groups which constitute the genera, recognised *several* types which they denominate species.<sup>1</sup>

The human group evidently constitutes one genus; if it consisted only of one species, it would form a single exception in creation. It is, therefore, but natural to presume, that this genus is, like all the others, composed of different species.

In the greater number of genera, the various species differ much less from each other than certain human races. A naturalist, who, without touching the question of origin, purely and simply applies to the human genus the general principles of zootaxis, would be inclined to divide this genus into different species.

This mode of viewing the subject can only be abandoned, if it were by observation demonstrated that all the difference between human races had been the result of modifications caused in the organisation of man by the influence of media.

The monogenists have at first made great efforts to furnish such a demonstration, but without success. Observation has, on the contrary, shown, that though the organisation of man may, in the course of time, and under the influence of external conditions, undergo some modification, yet that these modifications are relatively very slight, and have no relation to the typical differences of human races. Man, transplanted into a

<sup>1</sup> Some genera in existing faunas, containing only one species, are in anterior faunas represented by a number of species now extinct, and evidently differing from the one species actually existing. [Compare the two species of existing elephants with the twelve species of *Elephas* and thirteen of *Mastodon* which existed in tertiary times.—EDITOR.]

new climate, and subjected to a new mode of life, conserves and transmits to posterity all the essential characters of his race, and his descendants do not acquire the character of the indigenous race or races. *Cælum, non corpus mutant qui trans mare currunt.*

The monogenists have objected that the period of distant colonies is too recent; that the observations tending to establish the permanence of human types date scarcely from three or four centuries, and that this lapse of time is insufficient to produce a transformation of races, and that such a transformation has been produced gradually during the long series of centuries elapsed, according to some from the creation of man, and according to others since the Deluge.

But the study of the Egyptian paintings has shown, that on the one hand the principal types of the human genus existed then, 2,500 years at least before Jesus Christ, as they exist at this day.

Again, the Jewish race, scattered for more than eighteen centuries in the most different climates, is everywhere the same now as it was in Egypt at the time of the Pharaohs.

The period of *positive* observations dates thus, from more than forty centuries and not from three or four.<sup>1</sup>

Having no longer any hope to prove by direct demonstrations that the distinctive characters of human races are transformations of one primitive type, the monogenists sought for indirect proofs. They believed to have found them in this fact, or rather assertion, that there is always a certain relation between the characters of human races and the media in which

<sup>1</sup> There exist at present in northern Africa, down to the Sahara, a fair-haired race of men, who have been held to be the descendants of the Vandals. It is certain that no white race has been established in these parts since the time of Genseric, that is to say, some fourteen centuries. If so, there would result from it that a sojourn of fourteen centuries upon the African soil was not sufficient to darken the hair of the white race. But Dumoulin, taking the text of Procopius for his guide, had already demonstrated that the light-haired race of northern Africa had nothing in common with the Vandals; and I have recently found a passage in the *Periple de la Méditerranée de Syclax*, a work anterior to Alexander the Great, in which mention is made of a tribe of *light-haired* Lybians, who occupied the littoral of the Minor Syrtis, not far from Mount Aures, where to this day one of the principal tribes of light-haired Kabyles resides. (See *Bulletins de la Soc. d'Anthropologie, séance du 16 Février, 1860.*)



they exist. On close examination this assertion is found to be without any foundation. On studying one by one the principal ethnological characters and their distribution on the surface of the globe, it has been shown that there is no relation between these different characters and the climatic and hygienic conditions.

The monogenists then resorted to an argumentation still more indirect. They advanced that in the whole *genus homo* there existed a fund of common ideas, creeds, knowledge, and language, attesting the common origin of all human beings. It might be objected that this argument is without any value whatever; considering that indirect communications between peoples of different origin might have passed to each other words, usages, and ideas. But a profound study of the question has shown that there are certain peoples who have absolutely no notion of God or soul, whose languages have no relation whatever to any, who are altogether anti-social, and who differ from the Caucasians more by the intellectual and moral capacities than by their physical characters.

There was even no necessity to insist upon the difficulty, or rather geographical impossibility of the dispersion of so many races proceeding from a common origin, nor to remark that before the remote and the almost recent migrations of Europeans, each natural group of human races occupied upon our planet a region characterised by a special fauna; that no American animal was found either in Australia nor in the ancient continent, and where men of a new type were discovered, there were only found animals belonging to species, even to genera, and sometimes to zoological orders, without analogues in other regions of the globe.

And whilst it was thus simple to suppose that there were several *faci* of the creation of man, as well as of other beings; and whilst this doctrine, so conformable to all the data furnished by natural science, removed all geographical objections, explaining thus all the analogies and differences of human types, and the re-partition of each group; whilst, in one word, it exactly accounted for all the known facts, the opposite doctrine moved in a circle of contradictory suppositions super-

imposed by hypotheses ; theories founded upon a small number of facts upset by other unexpected facts ; imaginary influences refuted by observation ; anti-historical legends dispelled by historical monuments ; lame explanations destroyed by physiology ; obscure sophisms refuted by logic ; and all this to demonstrate, not exactly that all races descend from the same pair, but that, strictly speaking, such is not altogether impossible.

Whence have the monogenists derived the requisite perseverance and courage to impose upon their reason such continuous restraint, and to resist the testimonies of observation, science, and history ?

On analysing their system, we find at every moment two fundamental axioms which serve them as articles of faith, and the evidence of which appears to them sufficient to surmount all other objections.

These two axioms have served as the premises of an apparently irresistible syllogism.

1. All animals, capable of producing an eugenesic progeny, are of the same species.

2. All human crossings are eugenesic.

Therefore, all men are of the same species.

The monogenists, convinced of the reality of the premises of this syllogism, thought their doctrine to stand on a solid foundation, and defended it with that confidence inspired by conviction.

Assailed by pressing objections, constantly obliged to yield, incapable of advancing a step without an immediate retreat, they felt their forces revive by resorting to their syllogism, like Antæus when he touched the earth. As long as the refuge remained they continued the struggle, though not with advantage, at least with the ardour of faith ; for though faith no longer moves mountains, it still leaves the hope of moving them.

But these two fundamental propositions, admitted as axioms, do they express the truth ? Can this triumphant syllogism, of which they are the premises, stand ? Is it true that only animals of the same species can produce a prolific progeny ? Is



it true that all human crossings are eugenesic? To upset the syllogism of the monogenists, and to deprive their system of any scientific base, it might be sufficient that the first of the above questions should be answered in the negative. The system would then become what it was before it came in contact with science, namely, a belief more or less respectable, founded upon a sentiment or a dogma. But if the second question were also negatived, and it could be demonstrated that all human crossings are not eugenesic, then not merely the syllogism, but the whole doctrine of the monogenists would crumble to pieces. The doctrine would then not merely be extra-scientific, but anti-scientific; it being positive that two groups of animals, so different as to be incapable of fusion by generation, do not belong to the same species. This is an incontestable and uncontested truth.

We were thus led to examine successively the two fundamental propositions serving as a base to the unitarian doctrine, for which purpose a series of researches were requisite.

We have, in the first place, investigated the results of certain crossings between animals of incontestably different species, such as dogs and wolves, goats and sheep, camels and dromedaries, hares and rabbits, etc.; and we have demonstrated *that these crossings produce eugenesic mongrels, that is to say, perfectly and indefinitely prolific between themselves.*

It is thus not true that all animals capable of producing an eugenesic progeny are of the same species; and even if all human intermixtures were eugenesic, as is generally believed, we could not infer from this the unity of the human species. The monogenists are thus deprived of their principal basis and their sole scientific argument.

It was, however, necessary to inquire, whether this popular axiom, that all human crossings are eugenesic, was a demonstrated truth or a lightly accepted hypothesis, without any verification or control? Such has been the object of our second series of investigations.

We recognised at the outset that the monogenists, considering their axiom as self-evident, have made no efforts to establish its correctness, so that, strictly speaking, we might have



discarded it. When, contrary to the opinion of several modern authors, we wished to establish that there were really eugenesic intermixtures in the human genus, we found in science assertions without proofs, and we believe that our investigations concerning the mixed populations of France have, in this respect, the merit of novelty. We may be mistaken as to the value of our demonstration; but we venture to assert, that this demonstration is the first that has been attempted.

After having rendered, if not quite certain, at least extremely probable, that *certain* human crossings are eugenesic, we have inquired whether *all* human crossings are in the same condition.

From the documents collected it results, that *certain* human crossings yield results notably inferior to such as constitute in animals eugenesic hybridity. The whole of the known facts permit us to consider as very probable, that *certain* human races taken two by two are less homœogenetic; as, for instance, the species of the dog and the wolf. If we are to make any reservation, and leave some doubts upon this conclusion, it is that we cannot admit, without numerous verifications, a fact which definitively demonstrates the plurality of human species; a fact, by the presence of which, all other discussion is rendered superfluous; a fact, finally, of which the political and social consequences would be immense.

We cannot too much insist upon drawing the attention of observers upon this subject. But whatever be the result of ulterior researches on human hybridity, it remains well attested that animals of different species may produce an eugenesic progeny, and that consequently we cannot, from the fecundity of human intermixtures, however disparate the races may be, draw a physiological argument in favour of the unity of species, even if the fecundity were as certain as it is doubtful.

The great problem we have investigated in this essay is one of those which have caused great agitation, and most difficult to approach with a mind unbiassed by any extra-scientific preconception. This was almost inevitable; but science must keep aloof from anything not within its province. There is no faith, however respectable, no interest, however legitimate, which



must not accommodate itself to the progress of human knowledge and bend before truth, if that truth be demonstrated. Hence it is always hazardous to mix up theological arguments with discussions of this kind, and to stigmatise in the name of religion any scientific opinion, since, if that opinion, sooner or later gains ground, religion has been uselessly compromised. The unskilful intervention of theologians in astronomical questions (rotation of the earth), in physiology (pre-existence of germs), in medicine (possessions), etc., has formed more infidels than the writings of philosophers. Why should men be placed in the dilemma of choosing between science and faith? And when so many striking examples have placed theologians under the necessity to acknowledge that revelation is not applicable to science, why do they obstinately continue to place the Bible before the wheels of progress?<sup>1</sup>

Sincere Christians have understood that the moment is come to prepare the conciliation of the doctrine of the polygenists with the sacred writings. They are disposed to admit that the Mosaic narration does not apply to the whole human race, but merely to the *Adamites*, from which sprung God's people; that there may have been other human beings with whom the sacred writer had no concern; that it is nowhere said that the sons of Adam contracted incestuous alliances with their own sisters; that Cain, banished after the murder of his brother, had a mark set upon him that no one might kill him; that, besides the sons of God, there was a race of the sons of man; that the origin of the sons of men is not specified; that nothing authorises us to consider these as the progeny of Adam; that these two races differed in their physical characters, since, by their union, a cross-breed was produced designated by the name of giants, "to indicate the physical and moral energy of mixed races." And that, finally, all these antediluvian races might have survived the deluge in the persons of the three daughters-in-law of Noah.<sup>2</sup>

<sup>1</sup> [Compare on this subject Professor R. Owen on *The Power of God as manifested in his Animal Creation*, 12mo, London, 1863, in which the relations of science to theology are excellently stated.—EDITH.]

<sup>2</sup> J. Pye Smith, *Relations between the Holy Scriptures and Geology*, third edition, pp. 398-400. This passage is textually reproduced by Morton in a



We have collated here the observations of various authors, one of whom, the Rev. John Bachmann, remarks with evident satisfaction that, if contrary to the prevailing opinion, the multiplicity of human species should eventually be demonstrated, which he considers very improbable, the authority of the Bible would still remain unshaken, and that "the highest interest of mankind would not suffer by it." We have here a preparatory conciliation as a sort of prevision of ulterior scientific developments. Very recently a fervent Catholic, a physician, who in his various voyages has attentively studied the races of mankind, Mr. Sagot, has advanced an hypothesis which we consider as quite new, and which would enable us, better than by the preceding suppositions, to accommodate the biblical narration with anthropological science. After having demonstrated that the physical, intellectual, and moral characters establish between the races of men profound differences, which are indelible, and that all influences to which they have been attributed are absurd and imaginary, inasmuch as natural causes would never have produced such a deviation from the primitive form, Mr. Sagot supposes that the division in perfectly distinct races, and their methodical dispersion and repartition upon the surface of the earth, was a miraculous intervention of Providence. He is of opinion that this great fact was accomplished at the period of the confusion of tongues, that is, after the audacious enterprise of the Tower of Babel, and that God, in dispersing the families, endowed each with a peculiar organisation and aptitudes accommodated to the various climates assigned to them.<sup>1</sup> Whether the differences of human races and their geographical distribution was the consequence of distinct creations, or miraculous transformations equivalent to new creations, comes to the same thing as regards the doctrine of polygenists. Their object is not to

letter to the Rev. John Bachmann, on Hybridity, Charleston, 1850, in 8-15. Carpenter, art. "Varieties of Mankind," in Todd's *Cyclopædia of Anatomy and Physiology*, vol. iv, p. 1317, London, 1852. Eusèbe de Salles, *Histoire générale des Races Humaines*, p. 328, Paris, 1849.

<sup>1</sup> P. Sagot, *Opinion générale sur l'Origine et la Nature des Races Humaines; Conciliation des Diversités indélébiles avec l'Unité Historique du Genre Humain*, Paris, 1860.



enter into any theological discussions; they have been driven to it, and they will no doubt be delighted to hear that their doctrine may become developed without offending anybody.

The intervention of political and social considerations has not been less injurious to Anthropology than the religious element. When generous philanthropists claimed, with indefatigable constancy, the liberty of the blacks, the partisans of the old system, threatened in their dearest interests, were enchanted to hear that Negroes were scarcely human beings, but rather domestic animals, more intelligent and productive than the rest. At that time the scientific question became a question of sentiment, and whoever wished for the abolition of slavery, thought himself bound to admit that Negroes were Caucasians blackened and frizzled by the sun. Now that France and England, the two most civilised nations, have definitively emancipated their slaves, science may claim its rights without caring for the sophisms of slaveholders.

Many honest men think that the moment to speak freely is not yet come, as the emancipation struggle is far from being at an end in the United States of America, and that we should avoid furnishing the slaveholders with arguments. But is it true that the polygenist doctrine, which is scarcely a century old,<sup>1</sup> is any degree responsible for an order of things which has existed from time immemorial, and which has developed and perpetuated itself during a long series of centuries, under the shade of the doctrine of monogenists, which remained so long uncontested? And can we believe that the slave-owners are much embarrassed to find arguments in the Bible? The Rev. John Bachmann, a fervent monogenist of South Carolina, has acquired in the Southern States much popularity by demonstrating, with great unction, that slavery is a divine institution.<sup>2</sup> It is not from the writings of polygenists, but from the Bible,

<sup>1</sup> [Germs of the polygenist doctrine are, however, as old as Empedocles. See Julius Schvartz, *Geological Theories of the Greeks*, 4to, London, 1862, for the most philosophical account of these early attempts.—EDITH.]

<sup>2</sup> We may be permitted to reproduce here some passages from a dissertation of this pious slave owner; we extract them from the *Charleston Medical Journal and Review*, Sept. 1854, vol. ix, pp. 657-659: "All races of men including the Negroes, are of the same species and origin. The Negro is a striking variety, and at present permanent, as the numerous varieties of



that the representatives of the Slave States have drawn their arguments; and Mr. Bachmann tells us that the Abolitionists of Congress have been struck dumb by such an irrefragable authority! It must, therefore, not be believed that there is any connexion between the scientific and the political question. The difference of origin by no means implicates the subordination of races. It, on the contrary, implicates the idea that each race of men has originated in a determined region, as it were, as the crown of the fauna of that region; and if it were permitted to guess at the intention of nature, we might be led to suppose that she has assigned a distinct inheritance to each race, because, despite of all that has been said of the cosmopolitism of man, the inviolability of the domain of certain races is determined by their climate.

Let this mode of viewing the question be compared with that of the monogenists, and let it be asked which of the two modes is more apt to please the defenders of slavery. If all men are descendants of one couple,—if the inequality of races has been the result of a curse more or less merited,—or again, if the one have degraded themselves, and have allowed the torch of their primitive intelligence to become extinct, whilst the other have carefully guarded the precious gift of the Creator,—in other words, if there be cursed and blessed races,—races which have obeyed the voice of nature and races which have disobeyed it,—then the Rev. John Bachmann is right to say that slavery is a Divine right; that it is a providential punishment; and that it is just, to a certain point, that

domestic animals. The Negro will remain what he is, unless his form is altered by intermixture, the simple idea of which is revolting; his intelligence is greatly inferior to that of the Caucasians, and he is consequently, from all we know of him, incapable of governing himself. He has been placed under our protection (a very pretty word). The vindication of slavery is contained in the scriptures. The Bible teaches the rights and duties of masters, in order that the slaves should be treated with justice and goodness, and it enjoins obedience to slaves. . . . The Bible furnishes us with the best weapons of which we can avail ourselves. It shows us that the ancient Israelites possessed slaves. It determines the duties of masters and slaves; and Saint Paul writes an epistle to Philemon to request him to take back a runaway slave. Our representatives in Congress have drawn their arguments from Holy Writ, and their adversaries have not ventured to tell them that the historical part of the Bible (and all that concerns slavery is historical) is false and uninspired; and, adds the Rev. John Bachmann, "we can effectually defend our institutions from the word of God."



those races who have degraded themselves should be placed under the *protection* of others,—to borrow an ingenious euphemism from the language of the defenders of slavery.<sup>1</sup> But if the Ethiopian is king of Soudan by the same right as the Caucasian is king of Europe, what right has he to impose laws upon the former, unless by the right of might? In the first case, slavery presents itself with a certain appearance of legitimacy which might render it excusable in the eyes of certain theorists; in the second case, it is a fact of pure violence, protested against by all who derive no benefit from it.

From another point of view, it might be said that the polygenist doctrine assigns to the inferior races of humanity a more honourable place than in the opposite doctrine. To be inferior to another man either in intelligence, vigour, or beauty, is not a humiliating condition. On the contrary, one might be ashamed to have undergone a physical or moral degradation, to have descended the scale of beings, and to have lost rank in creation.

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[<sup>1</sup> See, for many valuable hints on this subject, *Savage Africa*, by W. Winwood Reade, 8vo, London, 1864.—EDITOR.]





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